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NGOs and illicit drug policy change
in the Russian Federation:
2010-2013

Andrey Zheluk

University of Sydney
2014

This thesis is submitted in fulfilment of the requirements of the
degree of Doctor of Philosophy
“Хотели как лучше, а получилось как всегда.”

Виктор Черномырдин.
Председатель правительства РФ.
6 августа 1993 г.

“We'd hoped for the best, but things turned out just as they always do.”

Victor Chernomyrdin
Prime Minister of the Russian Federation
Preface
i. Abstract

In the decade to 2010, international initiatives directed at changing Russian illicit drug policy gained considerable momentum. However from 2010 official Russian government ambivalence evolved into open hostility directed against foreign ideas and against donor funded NGOs. By 2013, large scale donor-funded programs directed at reducing the social and individual harms associated with illicit drug use became effectively unimplementable in Russia. This thesis frames contemporary Russian illicit drug policy as an intractable policy problem.

This thesis covers the period 2010-2013. The period 2010-2013 was marked by rapid political change in Russia. This period spanned the relatively liberal period of President Medvedev’s term. During 2010-12, Russian civil society was increasingly active, and government protests frequent. The period of this thesis also spans the first year of President Putin’s third term. During 2013, the Russian government progressively increased controls over civil society and independent media. However, in early 2014 Russia commenced an active media campaign against the United States, EU and NATO, and started military operations in Ukraine.

This thesis originated from my work over many years, firstly as a journalist, and then as a consultant on international HIV donor programs across the former USSR. The thesis describes the recent period of the growing imperviousness of Russian decision making to conventional western norms.

The main objective of this thesis is to establish if any non-government initiatives directed at illicit drug policy change were politically feasible in Russia between 2010 and 2013. In order to address this overarching objective, I sought to answer the following research questions:

1. What framed the possibilities and limits of political feasibility of drug policy initiatives that relied on international funding sources?

2. What political and other structures framed the feasibility of domestically funded non-government drug policy initiatives?

3. Contemporary Russia has presented unique barriers to the application of conventional methods of researching illicit drug policy. What novel data sources and methods might frame these limits?

This thesis examines Russian drug policy from a pragmatic perspective. It examines both internationally and domestically funded civil society actors to identify what worked to influence Russian drug policy in the recent past. This thesis consists of a series of exploratory case studies that offer a rich "bottom up" description of the contemporary Russian context. It proposes mechanisms that may allow sustainable collaboration between donors, researchers, and Russian civil society organisations in this new, largely unknown policy space.

These case studies examine the general pathways by which changes to contemporary Russian illicit drug policy may be facilitated from outside of Russia. In these case studies, I do not seek to make causal claims. Rather, the findings from this thesis may be considered as a starting point for generating and testing new hypotheses about the implementation of politically feasible donor funded policy change initiatives in Russia today.
In this thesis, I sought to identify patterns of politically feasible interventions in an environment where conventional analyses had failed. The analytic approach in this thesis involves the identification of consistent patterns of activity through case studies. The identified patterns of activity may then serve as the targets for further analysis by international donors and research organisations to determine if a causal relationship exist in each case. It is the systematic aggregation of patterns of “what works” within a specific context that may in turn reframe the otherwise apparently intractable problem of Russian illicit drug policy.

The thesis describes novel data sources and methods. These methods will allow international researchers to continue gathering data despite increasing constraints on field research in contemporary Russia. Finally, from the vantage point of 2014, this thesis proposed a rationale for maintaining international engagement with Russian civil society actors in an increasingly complex and uncertain political context.

A postscript chapter was added to this thesis in June 2015. This postscript accounts for the rapid deterioration of relations between Russia and high income liberal democracies following the Russian military interventions into Ukraine in early 2014. Security tensions characterised the relationship between Russia, the EU and United States during 2014-15. However, it is inevitable that these security tensions will diminish over time. As a consequence, I believe the original premise behind this research, and my conclusions remain sound. Cautious international engagement with Russian organisations through public health research initiatives may lead to a reduction in the social and individual harms associated with illicit drug injecting, and facilitate the continuing evolution of Russian illicit drug policy over time.
ii. Published papers arising from this thesis

Chapter 6. Zheluk A, Gillespie JA, Quinn C
Searching for Truth: Internet Search Patterns as a Method of Investigating Online Responses to a Russian Illicit Drug Policy Debate
J Med Internet Res 2012;14(6):e165
DOI: 10.2196/jmir.2270
PMID: 23238600

Chapter 8. Zheluk A, Quinn C, Hercz D, Gillespie JA
Internet Search Patterns of Human Immunodeficiency Virus and the Digital Divide in the Russian Federation: Infoveillance Study
DOI: 10.2196/jmir.2936
PMID: 24220250

Chapter 9. Zheluk A, Quinn C, Meylakhs P
Internet Search and Krokodil in the Russian Federation: An Infoveillance Study
J Med Internet Res 2014;16(9):e212
DOI: 10.2196/jmir.3203
PMID: 25236385

Journal of Medical Research (JMR) Thompson Reuters impact factor 2013 = 4.7 (5 year IF: 5.7)
iii. Non-peer reviewed publications arising from this thesis

Three published papers are incorporated into this thesis. The following publications are not formally part of this thesis. They are publications in which I played the leading or significant contributing role while enrolled as a doctoral candidate. These publications demonstrate my engagement with illicit drug policy in Russia and other formerly Soviet countries.

**Journalism**


Reports


- Overview of the DDRP Model
- Using a Unique Identifier Code in HIV prevention and care services for drug users in Central Asia
- Youth Power Centres
- Youth Positive Development
- Sister to Sister
- Break the Cycle
- Drug Free Social Spaces
- Drug Demand Reduction Education and Referral of Migrants
- Treatment Readiness for Drug Users
- Drug Free Treatment and Rehabilitation for Drug Users
Selected conferences


iv. Acknowledgements

I would like to first thank and acknowledge my supervisor, Associate Professor, James A. Gillespie, and my associate supervisor, Professor Graeme Gill. Their expertise, insight and patience made this project possible.

I would also like to express my thanks to those who assisted with this thesis. Casey Quinn for his statistical expertise, co-authorship on the published papers. Daniel Hercz and Peter Meylakhs for their input and advice. Svetlana Chernova for her assistance in transcribing interviews and coding texts, and to Claire Havey for editing assistance. Special thanks to Galina Chernova, Olga Pogrebnyaya, as well as Nina, Ivan and Vadim Okhrimenko for many evenings around kitchen tables explaining how the post-Soviet system really works. Thanks too must go to people who have passed away, but whose insights inspired this project. These include Raisa Nikolayevna and Natasha Okhrimenko in Moscow, Ivan Pogrebniy in Ukraine and Anton Zheluk in Australia.

I must also mention Dave Burrows and Lou McCallum from AIDS Projects Management Group, Anya Sarang from the Andrey Rylkov Foundation, and Sergey Oleynik and Nadezhda Feodoseeva from the Anti-AIDS Foundation in Penza Russia for their expertise and the doors they opened.

My thanks also go to Shauna Downs and Oliver Herbert, who provided greatly appreciated collegial encouragement, collaboration and advice.

My partner Claire and family have also been a significant source of support, and I am grateful for their encouragement. I would also like to thank our daughter Katya for her patience.

I greatly appreciate their efforts, and the generosity of the people who shared their time and expertise with me through interviews and questionnaires.
Finally, I wish to acknowledge the practical support from the Menzies Centre for Health Policy at the University of Sydney – particularly from Emma Dupal and Diana Freeman. Their assistance was much appreciated.
v. Note on the author’s contribution

Proposal development: Under the supervision of Professor Simon Chapman and Associate Professor James A Gillespie the candidate developed the project proposal and made all methodological decisions.

Literature review: The candidate was responsible for all reviews of the literature. Additional guidance was provided by Professor Graeme Gill (Chapter 6) and Associate Professor Peter Meylakhs (Chapter 7).

Data collection: The candidate designed and managed all data collection. For Chapter 5, Russian NGOs assisted with the recruitment of respondents. For Chapters 6, 7, 8 and 9, the candidate designed and managed all data collection. In addition, the candidate accessed government policy documents in-country and downloaded data.

Data analysis: The candidate conducted the critical reviews of the literature (Chapter 1, 2 and 3); the analysis of data and policy documents (Chapter 4); the policy analysis (Chapter 4); the analysis of interview data (Chapter 5); and the analysis of online data (Chapter 6, 7, 8 and 9). Assistance with statistical analysis for Chapter 8 was provided by Dr. Casey Quinn and Mr. Daniel Hercz.

Writing manuscripts for publication of findings: The candidate was primary author on all publications, and was responsible for the majority of the design and writing work for these papers. Detailed information on co-author contributions to the published and submitted publications appears on the second pages of Chapters 6, 7, 8 and 9.
The protocol for this study was approved by the University of Sydney Human Research Ethics Committee (Approval No.10128). The ethics application refers to Chapter 5 only. No approvals were required for conducting the remaining research.
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<th>Description</th>
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<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>CCM</td>
<td>Codeine-containing medication</td>
</tr>
<tr>
<td>Policy change</td>
<td>The changing relationship between ideas, rules of the game and political and economic interests that facilitate or retard action by government and non-government actors (1)</td>
</tr>
<tr>
<td>CND</td>
<td>United Nations Commission on Narcotic Drugs</td>
</tr>
<tr>
<td>Context</td>
<td>The social, political and/or organisational setting in which an intervention was evaluated, or in which it is to be implemented (2)</td>
</tr>
<tr>
<td>CWD</td>
<td>Russian NGO City Without Drugs</td>
</tr>
<tr>
<td>DARE</td>
<td>US Drug Abuse Resistance Education program</td>
</tr>
<tr>
<td>EBM</td>
<td>Evidence based medicine</td>
</tr>
<tr>
<td>ECAD</td>
<td>NGO network European Cities Against Drugs</td>
</tr>
<tr>
<td>EECAAC</td>
<td>Bi-annual Eastern European and Central Asian AIDS conference</td>
</tr>
<tr>
<td>ECHR</td>
<td>European Court of Human Rights</td>
</tr>
<tr>
<td>EHRN</td>
<td>European harm Reduction Network</td>
</tr>
<tr>
<td>ESVERO</td>
<td>Russian donor-funded NGO network &quot;non-commercial partnership for the support of social and public health prevention programs&quot;. Previously – Russian Harm Reduction Network</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>Evidence</td>
<td>The interpretation of empirical data derived from formal research or systematic investigations, using any type of science or social science methods (2)</td>
</tr>
<tr>
<td>Exploratory studies</td>
<td>Exploratory research design (3) seek to identify initial patterns within data and describing a model for understanding that data.</td>
</tr>
<tr>
<td>FAC</td>
<td>Russian Federal AIDS Centre</td>
</tr>
<tr>
<td>FOM</td>
<td>Public Opinion Foundation</td>
</tr>
<tr>
<td>FSKN</td>
<td>Federal Drug Control Agency of the Russian Federation</td>
</tr>
<tr>
<td>GAK</td>
<td>State anti-narcotics Committee of the Russian Federation</td>
</tr>
<tr>
<td>GIFS</td>
<td>Google Insights For Search. A deprecated Google search for evaluating aggregate Internet search patterns. GIGS has been integrated with Google Trends Explore function</td>
</tr>
<tr>
<td>Global Fund</td>
<td>Global Fund to fight AIDS Tuberculosis and Malaria</td>
</tr>
<tr>
<td>Google Trends</td>
<td>Google Trends is a publicly accessible tool based on Google Search. Google Trends displays the frequency of search for a specified search term relative to the total search volume across various regions of the world across time. Search frequency is aggregated by country, region and language.</td>
</tr>
<tr>
<td>HAART</td>
<td>Highly Active Anti-Retroviral Therapy to manage HIV</td>
</tr>
<tr>
<td>HBV</td>
<td>Hepatitis B virus</td>
</tr>
<tr>
<td>HCV</td>
<td>Hepatitis C virus</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>HRI</td>
<td>Harm Reduction International. Previously the International Harm Reduction Association (IHRA)</td>
</tr>
<tr>
<td>IDU</td>
<td>Injecting drug use/user</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
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<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>Illicit drugs</td>
<td>Illicit drugs is used to describe drugs which are under international control (and which may or may not have licit medical purposes) but which are produced, trafficked and/or consumed illicitly (4)</td>
</tr>
<tr>
<td>Internationally accepted scientific and human rights principles</td>
<td>In this thesis I assume the “Technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users (2012 revision) (4) represents internationally accepted scientific and human rights principles. The UNAIDS Advocacy guide: HIV/AIDS prevention among injecting users represents the international consensus on conducting advocacy to achieve change consistent with these scientific and human rights principles (6).</td>
</tr>
<tr>
<td>International organisation</td>
<td>In this thesis, international organisation refers to non commercial donor organisations, NGOs and UN affiliated bodies with its headquarters located outside of Russia.</td>
</tr>
<tr>
<td>Intervention</td>
<td>“A set of actions with a coherent objective to bring about change or produce identifiable outcomes. These actions may include policy, regulatory initiatives, single strategy projects or multi-component programmes. Public health interventions are intended to promote or protect health or prevent ill health in communities or populations” (2).</td>
</tr>
<tr>
<td>IDPC</td>
<td>International Drug Policy Consortium</td>
</tr>
<tr>
<td>INCB</td>
<td>International Narcotics Control Board</td>
</tr>
<tr>
<td>Influence</td>
<td>Influence refers to “...changes to service systems, community norms, partnerships, public will, policies, regulations, service practices, business practices and issue visibility” (7).</td>
</tr>
<tr>
<td>LTP</td>
<td>Therapeutic Labour Prophylactoria. Soviet-era custodial work camps for drug and alcohol rehabilitation</td>
</tr>
<tr>
<td>LMIC</td>
<td>Low and middle income countries</td>
</tr>
<tr>
<td>Mechanisms</td>
<td>The social mechanisms that may account for policy change including: 1) the system of formal and informal rules operating with a specific context; 2) the account of the large scale and local processes that constitute an intervention; and 3) how the outcomes emerge from the choices and capacity of actors to implement and intervention (8).</td>
</tr>
<tr>
<td>NATO</td>
<td>North Atlantic Treaty Organization</td>
</tr>
<tr>
<td>Network</td>
<td>A network consists of a finite set of actors and their relationships. These relationships are the defining feature of a network. When analysing a network, actors and their actions are viewed as interdependent rather than independent, autonomous units.</td>
</tr>
<tr>
<td>NCPI</td>
<td>UNAIDS National Composite Policy Index</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-government organisation</td>
</tr>
<tr>
<td>Oblast</td>
<td>Provincial administrative unit in the USSR, and in the post-Soviet Russian Federation</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization for Economic Cooperation and Development</td>
</tr>
<tr>
<td>OST</td>
<td>Opioid substitution therapy</td>
</tr>
<tr>
<td>PCA</td>
<td>Principal components analysis</td>
</tr>
<tr>
<td>PSI</td>
<td>Population Services International</td>
</tr>
<tr>
<td>PLHIV</td>
<td>People living with HIV</td>
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<tr>
<td>PLWHA</td>
<td>People living with HIV/AIDS</td>
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<tr>
<td>PWID</td>
<td>People who inject drugs</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>Regularities</td>
<td>The patterns or associations that result from the interaction of context and mechanisms (8)</td>
</tr>
<tr>
<td>ROC</td>
<td>Russian Orthodox Church</td>
</tr>
<tr>
<td>RHRN</td>
<td>NGO Russian Harm Reduction Network (later ESVERO)</td>
</tr>
<tr>
<td>RuNet</td>
<td>The Russian language Internet</td>
</tr>
<tr>
<td>SORM</td>
<td>Russian federal government internet and telecommunications monitoring service</td>
</tr>
<tr>
<td>STI</td>
<td>Sexually transmitted infection</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>TFM</td>
<td>Transitional Funding Mechanism</td>
</tr>
<tr>
<td>UNAIDS</td>
<td>Joint United Nations Programme on HIV/AIDS</td>
</tr>
<tr>
<td>UNODC</td>
<td>United Nations Office on Drugs and Crime</td>
</tr>
<tr>
<td>USSR</td>
<td>Union of Soviet Socialist Republics. Also known as the Soviet Union</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>Values</td>
<td>Values are: “1) concepts and beliefs; 2) pertain to desirable end states or behaviours 3) transcend specific situations; 4) guide selection or evaluation of behaviour and events; and 5) are ordered by relative importance” (9).</td>
</tr>
<tr>
<td>WDR</td>
<td>UNODC Annual World Drug Report</td>
</tr>
<tr>
<td>WFAD</td>
<td>World Federation Against Drugs</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>Yandex</td>
<td>A Russian NASDAQ-listed search provider analogous to Google. Yandex is more popular than Google in the Russian Federation.</td>
</tr>
<tr>
<td>Yandex Wordstat</td>
<td>Online marketing tools provided by Yandex to analyse aggregated spatial and temporal patterns of search term popularity. Yandex Wordstat is a direct commercial competitor to Google Trends.</td>
</tr>
</tbody>
</table>
ix. References Preface

CHAPTER 1:

Introduction
Chapter 1: Introduction

1.0 Chapter overview

This chapter provides an overview of the research project, defines key terms, and briefly reviews relevant research. This chapter also sets out the thesis structure, outlines the objectives, and explains the significance of this research.

1.1 Injecting drug use is a contemporary Russian health & social problem

Injecting drug use is an important global public health issue. Illicit drug use has been identified as one of the most serious health and social problems in the Russian Federation (1–3). In Russia, drug injecting is the primary route for transmission of human immunodeficiency virus (HIV) and Hepatitis C (HCV) (4,5). It is also associated with overdose (6,7) and other harms (8). In 2008 there were an estimated 9,358 overdoses in Russia (9). In 2011 there were an estimated 1.3 million people living with HCV (10). By the end of 2013 there were an estimated 3.27 million people who inject drugs (PWID) (11), 798,866 people living with HIV/AIDS (PLWHA), and an estimated 77,896 new incidents of HIV across Russia (5). This represented a 10% increase in new instances of HIV over the previous year, including an increase in transmission of HIV through injecting drug use (2013 – 57% 2012 – 56.3%, 2011 – 55.8%). However, these quantified injecting related harms were only estimates, resulting from the well-documented complexity of conducting research among PWID.

The incidence rate of HIV peaked in the year 2001 in Russia (12). For the next decade, international researchers and domestic advocates presented arguments as to why illicit drug policies based on internationally accepted scientific and human rights principles should be implemented in the
Russian Federation. These initiatives initially met with moderate success. Between 1998 and 2007, international donors expanded financing for local non-government organisations (NGOs) to advocate for drug policy change and to deliver health services to PWID.

However from 2007, domestic political support for donor funded initiatives progressively diminished. From 2010 to 2013, the Russian government actively opposed donor funded NGOs conducting advocacy and service delivery of programs intended to reduce the social and individual harms associated with illicit drug injecting. As the term of internationally funded programs progressively expired during this time, the scope and scale of interventions dramatically decreased.

There has been little research to determine if any donor funded initiatives directed at changing illicit drug policy are feasible in contemporary Russia. This thesis examines the reasons for decreased donor funding and decreased local acceptance of these initiatives. It also examines what, if any, policy space is likely to open for these initiatives. It is a pragmatic investigation of what has worked in the recent past, and of what may work in the future, as the Russian political landscape evolves.

1.2 Conventional analysis of health policy

Conventional approaches to health policy analysis involve the systematic evaluation of health decision making by government and non-government organisations, using both quantitative and qualitative analyses (13–15). This approach is based on internationally accepted principles of evidence evaluation. Conventional policy analysis is best suited to structured problems, in which the relationships between decision makers, alternatives and outcomes are either reasonably certain or quantifiable (13). In this thesis, I have approached Russian illicit drug injecting policies, from the
disciplinary perspective of public health, and argued against the use of conventional approaches in this domain. I have assumed that the scope of health policy extends beyond government intent, actions and inaction (16), to encompass the aggregated activities of professional, government and non-government actors (15,17,18).

1.2.1 Paradigms associated with conventional policy analysis

Policy debates are shaped by a broad range of intellectual frameworks. Kuhn developed the concept of paradigms as the conceptualisation of problems, and exclusion of non-problems (19). Paradigms are been variously defined as the "basic belief system or world view that guides (an) investigator" (20), and "a loose collection of logically related assumptions, concepts, or propositions that orient thinking and research" (21). Paradigms serve as conceptual frameworks in policy analysis. They serve to frame problems, including the selection of research designs and methods (22,23). Investigators may select particular analytic frameworks based on their values, research interests and methodological orientation (24). By defining a problem using a specific conceptual framework, researchers effectively define the nature of the problem and potential solutions. Kuhn described the mechanisms by which institutional supports enforce and reinforce the framing of a dominant paradigm within specific disciplines (19). Thus, an investigator's selection of a particular paradigm indicates a commitment to a particular world view that is broadly accepted by the members of a scholarly community within a discipline. Within policy literature, these scholarly communities have been described as epistemological communities (25), or knowledge regimes (26).
Howlett and Ramesh suggest that positivism and post-positivism are the two paradigms most commonly applied in conventional public policy analyses (27). The positivist paradigm is based on the belief that phenomena can be reduced to their constituent parts, quantified, and causal relationships deduced (23). Positivist health policy analysis thus includes Evidence Based Medicine (EBM), cost effectiveness analysis, and epidemiological analyses (28). Positivist analysis is generally associated with quantitative methods. Howlett and Ramesh suggest post-positivism is the second research paradigm widely deployed in public policy analysis. Post-positivism requires consideration of factors other than study design, and may incorporate both qualitative and quantitative methods (29,30). Within a post-positivist paradigm, social and political context, community values as well as commercial factors all require consideration as forms of evidence (31).

Proponents of evidence based public health have incorporated post-positivist principles into the analysis of health interventions and policy. See for example (29,31,32). However, this analysis typically retains an orientation towards evidence based medicine, hierarchies of evidence, and top-down implementation (33). Researchers in public health policy in particular, have critiqued the limitations of these evidence oriented approaches for failing to adequately account for context and the complexity of real world decision making (28,34).

1.2.2 Conventional health policy analysis and international aid

Conventional health policy analysis concords with the rational information and governance requirements of international organisations. International agencies such as UNAIDS, and funders such as the World Bank, and the Global Fund to Fight AIDS, Tuberculosis and Malaria have developed a broad consensus on the incorporation of scientific and human rights principles into funded initiatives (35–37). In this thesis I assume the UNAIDS Technical Guide for Countries to Set
Targets for Universal Access to HIV Prevention, Treatment and Care for Injecting Drug Users (2012 revision) represent internationally accepted scientific and human rights principles (38). While the title of these guidelines refers to HIV, they also provide broad guidance on minimising the social and individual harms associated with illicit drug injecting. Further, the UNAIDS Advocacy guide: HIV/AIDS Prevention Among Injecting Users (39), represents the international consensus on conducting advocacy to achieve change consistent with these scientific and human rights principles.

International organisations share commitments to harmonised international aid governance applicable across national contexts (40). Within these harmonised governance structures, international organisations seek to evaluate the effectiveness of programs according to standardised numerical reporting. Qualitative research is regarded as of inferior quality in demonstrating the effectiveness of donor programs (41). The monitoring and evaluation of program implementation is primarily directed at gathering quantitative data of sufficient quality to inform rational policy making. Thus, conventional policy analysis assists the dominant actors in international health aid financing to plan and implement a stable and predictable international system of decision making and resource allocation.
1.3 An impasse in scholarly analysis of Russian drug policy?

International researchers have documented a consistent pattern of problems associated with Russian illicit drug policy. From the late 1990’s, common problems documented in international literature include restricted access to health care for PWID (42,43); human rights violations (44,45); unscientific medical interventions (46,47); and insufficient civil society involvement in decision making (48). To address these problems, donor agencies, international researchers and NGO advocates repeatedly called on the Russian government to align federal illicit drug policies with internationally accepted scientific and human rights principles. See for example (49–53).

However these internationally developed solutions do not completely address the complexity of Russian institutional arrangements and cultural sensitivities. After 2010, Russian government policy responses to illicit drug use increasingly diverged from the international scientific consensus. The Russian government effectively reversed its earlier political commitment to international collaboration. In 2013 a Global Fund spokesperson provided a succinct assessment of the changed relationship between Russia and international donors: “we ran into a closed door” (54).

By 2013 internationally developed solutions for drug policy change in Russia appeared exhausted. Nevertheless, international and domestic advocates and researchers reiterated the decade-old themes that had failed to influence the trajectory of Russian drug policy. There thus emerged an impasse within both scholarly analysis and donor interventions directed at influencing Russian drug policy. Several Russian-specific contextual factors and policy mechanisms contributed to this impasse.
1.3.1 Scope of changes in recent Russian illicit drug policy

International research has not reflected the scope of changes in the Russian illicit drug policy domain. Between 2006 and 2010, the Russian government moved away from commitments to international collaboration (55–57). After 2010, as international grants expired (58) and government opposition increased (57), the scale of harm reduction programs across Russia progressively decreased. By 2013, internationally funded advocacy for illicit drug policy change in Russia had effectively ceased. Although internationally funded NGOs continued to operate across Russia during this time, the scope of their activity was much diminished, and their sustainability was increasingly uncertain.

While diminishing the role and funding of outside agencies, the Russian government increased its commitment towards domestic drug policy reform. The Russian Federal government (36) and public opinion surveys (2) suggested that illicit drug use was among the most urgent public health and social problems. From 2010 the Russian government provided political support and additional financing to support domestic drug policy reform (60,61). Russian domestic drug policy thus began to incorporate diverse influences. These influences included Swedish and Israeli influences (61), the European Court for Human Rights (62), domestic complaints procedures (42,43), and domestic drug policy activism (65). These influences co-existed with residual Soviet features (66,67). The scope of this reorientation has been described in Russian news and NGO analyses. See for example (68,69). However, the broader implications of this multi-sectoral shift on Russian illicit drug policy has not been systematically analysed in international literature.
1.3.2 Limited access to policy-related field research data

Donor and international researchers’ access to information describing the dynamics of Russian illicit drug policy dramatically decreased between 2010 and 2013. Russian public policy processes have generally been regarded as an opaque amalgam of formal and informal processes. As a consequence, international researchers have consistently reported difficulties in describing Russian decision making in both business and politics (70–72). After 2010 international researchers reported an intensification of government efforts to restrict access to key informants (51–53). International researchers reported increased police harassment of researchers and informants, and increased bureaucratic barriers to policy related fieldwork in Russia.

Access to Russian illicit drug use data also diminished between 2010 and 2013. From the late 1990s, internationally funded NGOs had served as conduits for investigators to Russia, allowing them to observe local policy processes and to directly access PWID as research subjects (76,77). However, between 2007 and 2011, the number of harm reduction projects operating in Russia decreased from 70 to 20 (78). These NGOs had collected data on injecting drug use and high risk HIV transmission, and passed this data to the Russian government. The decrease in international harm reduction projects diminished the capacity of the Russian government to report on these indicators. In 2012, the official Russian national reporting to the Joint United Nations Programme on HIV/AIDS (UNAIDS) contained no data on injecting drug use and high risk HIV transmission, whereas previously this data had been sourced from donor-funded NGOs (79).
1.3.3 Russian domestic values and political interests

Anti-Western Russian domestic values and political interests increasingly shaped the evolution of Russian illicit drug policy from 2010 onwards. Russian scientific, health and drug policy decision makers increasingly interpreted international evidence based drug policy principles as primarily representations of Western values and political arrangements (80–85). Both scientific and human rights recommendations were rejected as fundamentally incompatible with prevailing local cultural traditions and values. The Russian rejection of international recommendations was not a dispute over minor points of evidence. Rather, it increasingly represented a dispute between competing constellations of beliefs and methods of analysis. I argue that Russian decision makers effectively rejected international paradigms of knowledge.

Previous analyses of Russian drug policy by international researchers have not given sufficient weight to the political influence of local domestic law enforcement and academic stakeholders. Existing models of Russian illicit drug treatment and rehabilitation have generated considerable formal and informal income for addiction medicine specialists (46,66). Given those established economic interests, it was unlikely that Russian professionals or organisations would cede commercial and political control to competing interests represented by international and domestic proponents of evidence based medicine (86). Thus by 2010, through legal, bureaucratic and informal means, domestic interest groups effectively dislodged international initiatives designed to modify Russian illicit drug policy and service delivery for PWID.
1.3.4 Persistence of Soviet – era anti-scientific practices and contemporary pseudo-science

Anti-scientific and pseudo-scientific features from the Soviet era have persisted in contemporary Russian drug policy. A generally accepted scholarly definition of scientific practice refers to Popper’s test of falsifiability to demarcate non-science from science (87). A more recent definition of science from the UK Science Council expands on Popper’s definition: "science is the pursuit of knowledge and understanding of the natural and social world following a systematic methodology based on evidence" (88). This broader definition expands the scope of practices labelled as scientific to the investigation of social phenomena. As such it is more applicable to the study of public health and illicit drug policy problems. It is this broader definition of science that I have used in this thesis.

Russian illicit drug policy incorporates anti-scientific and pseudo-scientific dimensions. Anti-science is a position that rejects science and the scientific method (89). Soviet science may be considered anti-scientific (90). A uniquely Soviet approach to science emerged in the USSR from the 1930s onwards. Soviet science was superficially consistent with Kuhn's description of a paradigm. Soviet practices appeared to be a coherent cross-disciplinary tradition of scientific research based on shared understanding (19). However, several distinctive features demarcated Soviet science from the mainstream international understanding of scientific endeavour.
1.3.4.1 Soviet science was politicised and hierarchical

Soviet science was politicised and hierarchical. The USSR was a revolutionary state. Soviet leaders sought to extend this revolutionary ideology to science, and to create a new intellectual world based on Marxist-Leninist approaches to social and natural reality (91). For example, in 1948 Soviet science was defined as serving popular needs, planned rather than haphazard, and directed by the Communist Party and its leader Joseph Stalin (92). In practice, this meant truth was derived from Marxist-Leninist texts, interpreted according to its pragmatic benefit as judged by political authorities (93).

1.3.4.2 Soviet scientific successes and failures

Soviet science produced notable successes as well as failures. Researchers of Soviet scientific endeavour have suggested ideological rigour was unevenly applied across scholarly disciplines (94). For example, in the physical sciences ideological constraints were less rigid, and produced successes. Soviet scientists were awarded four Nobel prizes in physics and chemistry based on work conducted during the Stalin era (95). Conversely, the Lysenko case is most frequently cited as an example of the failure of Soviet science (92,93,96). Lysenko was a Ukrainian geneticist who proposed a Marxist alternative to “bourgeois” Mendelian genetics. In 1949, the first general secretary of UNESCO, and evolutionary biologist Julian Huxley drew on the Lysenko case to elucidate the nature of Soviet scientific enquiry. Huxley suggested “the major issue at stake was not the truth or falsity, of Lysenko’s claims, but the overriding of science by ideological and political authority” (91). Even though Lysenko’s influence had largely eroded by the early 1960s, the bureaucratic mechanisms that had elevated him and maintained his authority remained intact.
1.3.4.3 Soviet scientific exceptionalism

Soviet science was regarded as exceptional among decision makers in the USSR. Marxist-Leninist theory suggested that science evolved within each nation as a response to unique historical conditions (97). Thus, pre-revolutionary Russia and the USSR were presumed to provide serendipitous conditions for the evolution of exceptional Soviet scientific achievements across multiple domains.

Following the death of Stalin in 1953, direct political involvement in scientific research decreased. Nevertheless, the distorting influence of Soviet scientific culture has persisted to the present. Vlassov and Danishevskii describe several legacies of the Soviet research paradigm affecting contemporary Russian medical research (74). First, Russian research remains relatively restricted to a small number of nominated institutes. Within this strictly hierarchical and centralised research system, a small number of individuals determine research priorities and adjudicate over scientific disputes. Second, Vlassov and Danishevskii suggest that there are few financial incentives to conduct research. Russian universities have been funded to teach rather than research. Third, research was conducted using out-dated methods and there existed limited education in internationally accepted techniques. Finally, decades of isolation from international research culture mean that there remain widespread language barriers, and limited access to scientific publications across Russia.

The legacy of Soviet scientific exceptionalism survived the collapse of the USSR. Most post-Soviet analyses suggest that the Soviet health care system was underfunded and produced mixed health outcomes (99,100). However, contemporary Russian public opinion continues to regard Soviet medical and public health achievements as world-leading (98). This may be attributed in part to
the collapse of post-Soviet health care, and nostalgia for an earlier relatively more comprehensive health system (101). Popular perceptions of Soviet scientific and medical achievements have created demand for the resuscitation of Soviet health care. Russian media have amplified Soviet era successes since President Putin commenced his third term in 2012. (102,103). In this instance, contemporary Russian public opinion reflects the state-crafted perceptions of Soviet success, instead of the more modest realities of the late Soviet health system.

1.3.4.4 Soviet science and contemporary Russian addiction medicine

Soviet-era science has continued to influence contemporary Russian addiction medicine in the form of accepted practices rather than ideological commitment. Several studies suggest that clinical reasoning in contemporary Russian addiction medicine has been shaped by Soviet psychiatry (104,105). Raikhel describes the particular influence of Pavlovian behavioural theories on the discipline (86). In the Soviet context, Pavlovian theories described not only individual behaviour, Pavlovian behavioural theories also reflected the broader Marxist-Leninist relationship between human biology and the environment, and proposed behaviour modifications solutions consistent with Soviet science.

Pavlovian theories underpin contemporary Russian addiction medicine. The theories of the Stalin-era educationalist Makarenko similarly continue to influence addiction medicine. Makarenko’s theories were widely adopted in Soviet education and in the Stalin-era penal system. These theories focused on creating “a strong, enthusiastic, if necessary a stern collective, and of placing all hopes on the collective alone” (93). Makarenko’s methods were popular in the post-Stalin-era USSR, and were adopted in Swedish therapeutic communities for drug rehabilitation during the 1970s (106).
The persistence of Soviet-era practices and persistent rejection of international ideas suggests that contemporary Russian addiction medicine may be considered a pseudo-science. Pseudo-science involves a sustained effort to promote theories and practices different from those generally regarded as scientifically legitimate at a particular time. For an activity to be demarcated as a pseudo-science, it must not be scientific, even while supporters seek to create the impression that it is scientific (107).

Many contemporary Russian addiction medicine practices may be considered pseudo-scientific. These continuing practices include continued reliance on Soviet era theories; disengagement from the international scientific mainstream; limited research culture; and the political influence of Russian addiction medicine interest groups. See for example (47,66,81,84,108). Of particular relevance to this thesis, Russian addiction medicine specialists also serve as the primary source of scientific advice on illicit drug policy to Russian decision makers. It is the mimicry of scientific practice, or the use of “science as a decoration” (47) that casts contemporary Russian addiction medicine as a pseudo-science.

For example, Shosnikov and colleagues conducted a content analysis of proprietary treatment methods for substance abuse and dependence disorders in Russia to 2011. The authors described the discrepancy between contemporary Russian addiction medicine practice, and the content of Russian scientific journals (66). The authors suggested patent activity provided a more accurate guide to contemporary practice than the content of current scientific literature. The authors reported multiple instances of unscientific clinical interventions directed at the central nervous system of patients. This patent activity, the authors suggested, reflected the actual practice of individual addiction specialists and state funded organisations in contemporary Russia.
In summary, recent scholarly analyses have not captured the scope and complexity of recent changes affecting Russian drug policy. By 2013 international donor initiatives directed at influencing change were largely exhausted. Russian advocates too, were uncertain of how to proceed (109). At the 2014 Melbourne international AIDS Conference, a Russian speaker provided the following assessment: “Perspectives? (We) have no idea. Probably there are no any in nearest future (sic). But we should continue to do what we can” (110).

1.4 Russian drug policy – an intractable problem?

By 2013 donor funded efforts to influence Russian illicit drug policy had effectively failed. Some 15 years of international assistance directed at improving scientific capacity, changing policy, and influencing police and medical practice failed to influence Russian decision makers, to diminish social harms, or to control HIV and other harms among individual PWID.

Despite these failures, the fundamental assumptions about the ultimate trajectory of Russian drug policy remained intact across international literature. International scholarly analyses suggested Russian illicit drug policy was amenable to change in response to advocacy founded on science and human rights (45,48,49,111). As with convergence themes in the democratisation literature on post-Soviet societies in Transition (112–114), health researchers assumed that Russian drug policies would inevitably align with universally accepted scientific and human rights principles.

From the perspective of international scholarship, contemporary Russian drug policy may be considered an intractable policy problem. In their influential 1973 paper, Rittel and Webber used the term “wicked problems” to describe such seemingly intractable policy circumstances. Wicked problems they suggested, “defy efforts to delineate their boundaries, to identify their causes and thus to expose their problematic nature” (115). By contrast, “tame problems” could be tightly
defined, and a solution fairly readily identified and implemented. Rittel and Webber originally developed the concept of wicked problems from their experience of the US urban planning and social policy domains, but suggested that almost all social problems could similarly be characterised. Since the 1970s, the concept has been widely applied across social policy domains. In the health domain, health equity (116), mental health (117), homelessness (118), obesity (119), and early childhood safety (120) policy problems have all been characterised as wicked.

1.4.1 Pragmatism and intractable policy problems

Pragmatism originated as a philosophical movement in the United States during the late 19th Century. Seminal pragmatist philosophers include William James, John Dewey, and Charles Pierce (121). Pragmatism has attracted contemporary scholarly interest in a number of fields including philosophy (120); social theory (121); law (122); medical ethics (108); and education (126). Within international public administration, pragmatism is a generally accepted paradigm for researching and analysing seemingly intractable social policy problems (110,111,112). Pragmatism is also one of the main principles underpinning the harm reduction approach to illicit drug policy (130,131).

Pragmatist philosophy emphasises practical judgement in a specific context. Dewey argued that practical judgement should involve "a combination of analytical, moral, and emotive modes of thought not conducted as abstract principles, but articulated in the flow of life" (132). Goldenberg described three dimensions of philosophical pragmatism as applied to health research (33). First, the meaning of concepts is to be sought in their practical bearings. Thus, pragmatism seeks to unite theory and practice. Second, the function of thought is to guide action. Pragmatic research is directed towards practical outcomes. Third, that truth may be tested by the practical consequences of belief. That is, determining what works takes precedence over doctrines, preconceptions, and hierarchies of evidence. What works may thus be considered true.
1.4.2 Pragmatism and research methods

Pragmatist philosophy does not dictate a specific research method. Pragmatist researchers argue that there is no "best" method, but rather that each method is good at achieving particular ends (106)(119). Nonetheless, pragmatism is most frequently associated with mixed methods research. Pragmatist philosophy has inspired an extensive literature directed at improving research by combining qualitative and quantitative methods. See (133–135). Other investigators have suggested pragmatist methods shift scholarly attention towards optimising implementation (136,137), imply a “bottom up” approach based on individual cases (138), and offer scope to incorporate both intended as well as emergent research outcomes (139).

In addition to philosophical and methodological dimensions, pragmatism has also been associated with social transformation. Early American pragmatist philosophers such as Dewey were committed to a program of radical democratic social reform (140). These classical pragmatists eschewed a purely objective and disengaged spectator view of knowledge (141–143). These researchers sought knowledge to shape the world as active agents. Several researchers have suggested that it is this transformative dimension of pragmatism that has largely been overlooked by contemporary researchers (144–146).

1.4.3 Pragmatism and Russian drug policy

This thesis argues for a pragmatic approach to the analysis of contemporary illicit drug policy in Russia. Between 2010 and 2013 the Russian government closed the door on international collaboration. This thesis is an investigation of “what worked” within Russia, to influence drug policy behind that closed door.
Adopting a pragmatic approach has allowed a re-examination of the context and mechanisms of Russian drug policy implementation. I investigate the implementation of initiatives directed at influencing illicit drug policy from the “bottom up” perspectives of domestically and donor funded Russian NGOs. This thesis documents the themes that Russian NGOs consistently identified as contributors to successful local policy change.

Even when recent Russian policies have appeared superficially concordant with international science based approaches, closer analysis reveals that these initiatives remained strongly embedded within the Russian context and world view. The only way I was able to analyse Russian drug policy without adopting the official Russian world view was through a pragmatic, bottom up view of how contemporary policies have evolved. This approach has revealed a much wider array of voices, sources, and conflicts over direction, than a conventional approach to policy analysis would have allowed.

1.5 Research objective

The main objective of this thesis is to establish if any non-government initiatives directed at illicit drug policy change were politically feasible in Russia between 2010 and 2013. In order to address this overarching objective, I have sought to answer the following research questions:

1. What framed the possibilities and limits of political feasibility of drug policy initiatives that relied on international funding sources?

2. What political and other structures framed the feasibility of domestically funded non-government drug policy initiatives?
3. Contemporary Russia has presented unique barriers to the application of conventional methods of researching illicit drug policy. What novel data sources and methods might reframe these limits?

This thesis consists of six exploratory case studies examining NGO initiatives that have influenced Russian drug policy. I selected an exploratory research design (147) in order to identify initial patterns within the case study data, and describe a model for understanding that data. The purpose of these case studies is to examine the general pathways by which contemporary Russian drug policy changed as the result of NGO initiatives between 2010 and 2013. Pawson suggests initiatives only work in as far as they introduce appropriate ideas and resources in specific social and cultural conditions (148).

The case studies in this thesis examined both domestically and internationally funded NGOs. The ESVERO case study (Chapter 5) examined a program funded by the largest international organisation providing harm reduction during the date range covered by the thesis. Chapters 6 and 7 address the most politically successful domestically funded NGO operating the illicit drug prevention and treatment domain in Russia between 2010 and 2013, City Without Drugs.

This thesis sought to identify appropriate context specific factors and mechanisms associated with those initiatives that have contributed to policy change. This approach differs from Critical Realist approaches (148). Critical Realist scholars maintain ontological links with positivism. By advocating a pragmatist approach, I attempt to break from these rigid ontological categories, and prior assumptions. Pragmatism instead seeks to derive meaning from a richer understanding of context and processes. Further qualitative and quantitative studies based on the themes identified in this thesis can be incorporated into future conventional policy analysis and donor decision making.
1.5.1 Significance of this research

Robust research is needed to create a solid evidence base to demonstrate the effectiveness of initiatives that may influence illicit drug policy in contemporary Russia, and to identify emerging opportunities to reduce the social and individual harms associated with illicit drug injecting. The outcomes of this research can be used to inform the decisions of international research and funding agencies in planning illicit drug policy interventions in the Russian Federation.

This thesis makes the following significant contributions to scholarly literature: In the decade to 2010, international initiatives directed at changing Russian illicit drug policy gained considerable momentum. However, from 2010 official Russian government ambivalence evolved into open hostility directed against foreign ideas, and against donor funded NGOs advocating for drug policy change. By 2013, large scale donor-funded programs directed at reducing the social and individual harms associated with illicit drug use became effectively unimplementable in Russia.

From the vantage point of 2014, this thesis proposes a rationale for maintaining international engagement with Russian civil society actors in an increasingly complex and uncertain political context. This thesis examines what worked in the recent past to influence Russian drug policy. It frames contemporary Russian illicit drug policy as an intractable policy problem amenable to pragmatist analysis. I examine both internationally and domestically funded Russian civil society actors to identify “what worked” to influence Russian drug policy in the recent past. I provide a rich examination of the Russian context, and identify mechanisms that may inform future international scholarly and donor initiatives directed at drug policy change. The thesis describes novel data sources and methods. These methods complement traditional qualitative and quantitative techniques. These methods will allow international researchers to continue gathering data despite the increasing constraints on field research in contemporary Russia.
This thesis consists of a series of exploratory case studies. The purpose of these case studies is to examine general pathways by which changes to contemporary Russian illicit drug policy may be facilitated from outside Russia. In these case studies, I do not seek to make causal claims. Rather, the findings from this thesis, should be considered as the starting point for generating and testing new hypotheses about the implementation of politically feasible donor funded policy change initiatives.

1.6 Thesis structure

This thesis is presented as a series of chapters and research papers that have been published in refereed journals, or which are currently under consideration. When taken together, these chapters and manuscripts address the research aims and objectives, and answer the research questions posed above. Each of the manuscripts was written in the conventional publication style for their target journals and they are presented as such. As each manuscript was written as an independent document, there is some repetition of content. The references for each manuscript are incorporated as part of the manuscripts. References cited in parts of the thesis that are not part of a manuscript are provided at the end of each chapter. Where the manuscripts were written in conjunction with other researchers the relative contributions of each of the manuscripts’ authors are provided before each manuscript is presented.

Chapters 1 and 2 form the introduction. Chapter 1 provides an introduction to the research, reviews the relevant literature, and sets out the research aims and objectives. This chapter describes the specific challenges associated with conducting policy research in Russia. Chapter 2 provides the theoretical and conceptual foundation for the thesis. It is structured as a traditional thesis chapter. In this chapter, I provide definitions of key terms, review relevant research
associated with illicit drug injecting and associated physical mental and social harms. This chapter also examines the theoretical concepts that underpin policy analysis, political commitment and political feasibility. Finally, Chapter 2 sets out the particular difficulties associated with conducting research in contemporary Russia.

In Part 1 of the thesis (Chapters 3, 4 and 5), I establish whether internationally funded drug policy initiatives in contemporary Russia are politically feasible. Chapter 3 is a conventional chapter. It outlines the international context of illicit drug use, international measures of political commitment and the three main approaches to minimising illicit drug use related harms. Chapter 4 is a traditional thesis chapter. It is an analysis Russian drug policy using the policy triangle. Chapter 5 is an unsubmitted manuscript. It is a case study describing advocacy for harm reduction conducted by an internationally financed Russian NGO between 2006 and 2011. In 2014 I decided against submitting this article for publication. I considered publication could potentially result in difficulties for ESVERO associated donor-funded NGOs operating in Russia.

In Part 2, I investigate how domestically funded Russian NGOs overcame constraints to drug policy change, and the feasibility of international organisations adopting locally successful initiatives in Russia. Chapter 6 is a published manuscript. It is a case study of successful advocacy for drug rehabilitation by a domestically funded Russian NGO. This paper demonstrates the application of novel data sources to investigate Russian drug policy. Chapter 7 is a submitted manuscript. It describes the importance of values and ideas in shaping politically feasible illicit drug policy interventions in contemporary Russia.
In Part 3, I describe novel methods for researching illicit drug policy change in Russia. Chapter 8 is a published manuscript. It describes a method of investigating disease epidemiology using online search patterns. This chapter is an extension of the methods first used in Chapter 6, and is intended to validate the use of search methods to study disease prevalence and policy in contemporary Russia. Chapter 9 is a published manuscript. It is an investigation into the prevalence the synthetic injectable drug krokodil. This chapter demonstrates the application of internet search as a method of researching rapidly changing drug use patterns. The final chapter (Chapter 10) provides a synthesis of the research findings, discusses their implications and limitations, and highlights directions for future research.

I have written these papers for international and Russian readers. The intended audiences are researchers, policy makers and practitioners. The papers are designed to build the capacity of these audiences, and to facilitate negotiation of a difficult policy domain in a complex political environment.

1.7 Summary

When I started this thesis, I imagined I would identify opportunities for internationally funded interventions to influence illicit drug policy in contemporary Russia. In 2006, collaboration between the Russian government and international agencies in the HIV and illicit drug policy fields was unprecedentedly positive. While illicit drug policy was imperfect, the Russian government appeared somewhat committed collaborative multilateral initiatives directed at reducing the social and individual harms associated with injecting drug use.
However, during the period covered by this thesis, Russia progressively retreated from many earlier policy commitments. Nevertheless, illicit drug use prevention, treatment and rehabilitation remains a policy domain to which successive Russian presidents have signalled their commitment, and has been the area of recent domestic investment and institutional reform.

As I was finishing this thesis in 2014, Russian military forces had entered Ukraine. As a consequence of these events, Russia grew increasingly isolated. As these Ukrainian issues unfolded, Russian illicit drug use problems remained unresolved. Harm reduction advocates have raised concerns over the adverse health effects associated with the imposition of Russian illicit drug policy in Crimea (149). Moreover, opportunities for collaboration with Russian government drug policy actors rapidly dissipated (150). The head of the Russian Federal Service for Drug Control (FSKN) Victor Ivanov was banned from international travel and collaboration between national drug agencies severed.

During 2014, researchers scrambled to identify appropriate analogies to characterise the increasingly complex relationship between Russia, Europe and the United States. Among common historical analogies, pre-World War Two appeasement (149), and the resumption of the Cold War (150) have commonly featured.

Not all comparisons with the Cold War have been framed negatively. Several researchers suggested that as in the first Cold War, collaboration on health initiatives with Russia may assume broader political significance (153,154). Specifically, health research exchanges may offer a mechanism of maintaining international engagement, in anticipation of a political thaw and broader detente.
It is inevitable that security tensions between Russia and the international community will diminish over time. As a consequence, I believe the original premise behind this research, and my conclusions remain sound. Cautious international engagement with Russian organisations through public health research initiatives may lead to a reduction in the social and individual harms associated with illicit drug injecting, and facilitate the continuing evolution of Russian illicit drug policy.
References Chapter 1


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CHAPTER 2

Theoretical and conceptual foundations
Chapter 2: Theoretical and conceptual foundations

2.0 Chapter overview

This chapter provides the theoretical and conceptual foundation for the thesis. It is structured as a traditional thesis chapter. This chapter will provide definitions of key terms, review relevant research associated with illicit drug injecting and associated physical mental and social harms. This chapter also examines of the theoretical concepts underpinning policy analysis, political commitment and political feasibility. Finally, this chapter sets out the particular difficulties associated with conducting research in contemporary Russia, and establishes my relationship to the subject matter described in this thesis.

2.1 The problem of contemporary injecting drug use

The injection of illicit and prescription drugs is widespread across the globe. However, overall estimates of illicit drug injecting prevalence are generally agreed to be poor (1). Mathers and colleagues conducted a systematic review of global injecting drug use (IDU) prevalence in 2008, based on peer reviewed, United Nations (UN) and grey literature, and expert comment (2). The researchers documented IDU in 151 countries and obtained prevalence estimates for 61 countries. The researchers provided an estimate of 15.9 million (range 11.0–21.2 million) PWID globally aged 15–64 years. The largest populations of PWID were found in China, the USA, and Russia. In addition to Mathers and colleagues’ widely cited study, the United Nations Office on Drugs and Crime (UNODC) World Drug Report (WDR) produces annual estimates of global drug use prevalence based on data submitted by member nations. The 2013 WDR reports a 12% decline in the global prevalence of PWID relative to 2008, and a 46% decline in the estimated number of
PWID living with HIV, from 3 million in 2008 to 1.6 million people (3). The accuracy of these self-reported government statistics has been challenged (4) by the transnational drug policy reform NGO (non-government organisation) Harm Reduction International (HRI). HRI questioned the validity and reporting method used to report 2013 WDR data. HRI’s challenge to the accuracy of official UN estimates also reflected the consistent difficulty researchers face in obtaining valid drug use prevalence data.

Illicit drug use prevalence data is generally regarded as being difficult to obtain and of limited accuracy. Prevalence estimates are lacking even in high income countries (1). Researchers generally divide illicit drug use estimation methods into direct and indirect approaches. Direct methods typically survey household members about patterns of drug use. However this method is expensive, and may not produce truthful responses, particularly in countries where illicit drug use carries severe criminal penalties and stigma (5). Further, household surveys may fail to reach drug using populations such as prisoners and the homeless. By contrast, indirect methods pool estimates from several data sources, to produce a single aggregate measure (6,7). Examples of indirect methods include the multiplier method, which is based on estimates of the proportion of drug users receiving treatment each year (8). Additional methods include include capture-recapture, and back-projection (9), using data sources such as arrest, overdose, and needle exchange data. Overall, indirect methods are preferred for estimating illicit drug use prevalence due to their lower cost, and greater accuracy (10–12).
2.2 Injecting drug use related harms

Illicit drug use is associated with multiple individual and social harms. Drug use related harms have been defined as "(the) adverse physical, psychological, legal or other consequence(s) of drug use...experienced as harmful to a drug user, including social harms resulting from a drug user’s actions" (13). Nutt and colleagues surveyed UK addiction specialists in order to develop a scale of adverse effects from 20 legal and illicit drugs (14). These researchers classified adverse effects into three broad categories, covering physical harms, dependence and social harms. Social harms included the various effects of intoxication, including damage to family and social life, and through the social costs of health care, social care, and crime. In the case of injecting drug use, the transmission of blood borne diseases, such as HIV, was also included among social harms.

A 2012 study by Degenhardt and colleagues estimated the global burden of disease associated with drug use (7). The researchers suggested most of the disease burden attributable to illicit drugs was concentrated among problem or dependent drug users, and in particular people who inject drugs. Further, the researchers reported that drug dependence, HIV, and overdose to be among the most important causes of drug-related disease burden. Importantly, Degenhardt and colleagues concluded that current attempts to determine the global disease burden of illicit drug use burden failed to capture the complete range of harms, and should be considered an underestimate.

2.2.1 Physical and mental harms associated with illicit drug injecting

Injecting drug use is associated with a broad range of individual physical and mental health harms (15–17). Among the two most commonly described harms are blood borne diseases and overdose. Much of the literature associated with injecting drug use related harms concerns the transmission of HIV (18–21) and viral hepatitis (22,23). The prevalence of blood borne diseases among PWID
varies considerably across the globe (24). For example, the estimated HIV prevalence among PWID was 12% in China, 16% in the USA, and 37% in Russia (2). Overdose is also frequently cited as an important consequence of injecting drug use (17,25). The combination of unknown compounds and uncertain dosages when injecting illicit drugs places PWID at considerable risk of both fatal and non-fatal overdose (26). Further, the risk of overdose is increased by the concurrent use of alcohol and other drugs.

2.1.4 Harms vary according to choice of illicit injected drug

The specific illicit drug injected may increase the likelihood of physical and mental health problems. Some injecting related problems have been associated with the use of certain drug types and preparation. For example, the increased injecting frequency associated with drugs such as cocaine increases the likelihood of injecting related harms (27). Injection of pharmaceutical preparations such as methadone syrup and tamazepam gel capsules is associated with abscesses, vascular problems and high rates of amputation (28). Similar problems with peripheral necrosis have been widely associated with the domestically manufactured drug "krokodil" (desomorphine) across the former USSR (29).

In addition to blood borne diseases, commonly reported injuries include dermatological and vascular injuries (30), injecting related infections (31), respiratory infections (32) and tuberculosis (33). PWID are also regarded as susceptible to sexually transmitted infections including HIV, as the result of drug-use related dis-inhibition (34) and the overlap between injecting drug use and commercial sex work (35)(36). Other physical problems associated with drug injecting include constipation (36), pain (37) and poor dental health (38).
Finally, injecting drug use is related to a broad spectrum of mental health problems. Among mental health problems widely reported among PWID are: dependence (35,40); depression and sleep disorders (40,41); anxiety (17); and suicidal ideation and attempts (42,43). Additionally, PWID’s mental health problems can have consequences for living arrangements (44) nutrition, (45), employment and social functioning, (46) and criminal history (17). These problems have particular consequences for females (47), who are more likely to be vulnerable to physical and sexual violence.

The wide range of physical and mental co-morbidities associated with injecting creates a considerable need for healthcare services among PWID (48,49). However, many PWID are reluctant to access traditional health care (50). Reasons for this may include perceived discrimination (48), cost (52), low trust, low self-esteem, depression and social isolation (50,55). In summary, despite the many harms associated with drug injecting, PWID make limited use of primary care services (54). Limited health care use among PWID can exacerbate existing physical and mental health problems, and increase the cost and complexity of primary health care provision.

2.3 What is policy?

There are many definitions of the term policy. Policy has been narrowly described as what governments choose to do or not do (55). Policy implemented by government is generally described as "public policy". Other authors have adopted a broader view of policy. For example, Althaus and colleagues suggest policy is "the process by which governments, institutions or organisations translate their political vision into programs and actions to deliver desired changes in the real world" (56). Other definitions of policy similarly incorporate statements by government
and non-government actors that signal broad directions and priorities as well as specific actions. Smith-Merry and colleagues (60) suggest health policy is "an action plan that steers the direction of social, professional, government and non-government responses to a specific health issue". Similarly, Sabatier and Jenkins' advocacy coalition framework incorporates officials from all levels of government, as well as consultants, scientists, and members of the media. Sabatier and Jenkins regards policies as long term "translations of belief" (57). In this thesis I have used a definition of health policy that incorporates multiple actors, and competing beliefs in response to a specific health issue over an extended period.

2.3.1 Health policy and drug policy

Drug policy is generally regarded as affecting several domains. Drug policy incorporates health and law enforcement domains, and may also incorporate education and social welfare. This relationship is reflected in definitions of drug policy. For example, drug policies are "...designed to affect the supply and or demand for illicit drugs, including education, drug laws, policing and interdiction (13). A broader and more recent definition describes drug policy as "a system of laws, regulatory measures, courses of action and funding priorities concerning illicit psychoactive drugs and promulgated by a governmental entity or its representatives" (58).

In this thesis I have used a broad perspective of drug policy. I have adapted Walt and colleagues definition of policy to the illicit drug domain (59). That is, I have used "drug policy" to mean the system of laws, regulatory measures, courses of action, and funding priorities for the prevention, treatment and care of the injection of illicit drugs. This broader definition incorporates a range of approaches including drug supply reduction, drug demand reduction and harm reduction, and involves health, law enforcement and social welfare providers.
2.3.2 Public policy change

Public policy theory seeks to account for how and why policies change. Most international literature, has described public policy change in high income liberal democracies. John suggests public policy theory is particularly complex (60). Unlike many social science or political science theories, public policy theories must account for multiple forums, and all formal and informal institutions. In addition, decision making varies from sector to sector. John goes on to suggest that this complexity means that there are no clear chains of causation linking decision making to public opinion or bureaucracies. As a consequence, simple representation, such as the widely used stages or ‘policy cycle’ heuristic are not appropriate theoretical models with which to analyse change.

Government power is central to public policy and public policy change. Power has been defined as "the capacity to introduce changes in the face of opposition (61), as well as the potential to "mobilise energy” (62), and to "bring about change" (63). In theoretical accounts of of public policy in high income liberal democracies, change results from complex interactions between formal and informal rules that ultimately determine decisions. Change involves power struggles between interest groups that stand to gain or lose as the result of decisions (64). In these political struggles, interest groups deploy rhetoric, persuasion, and sometimes, scientific evidence.

Several theories are widely regarded as having effectively integrated theoretical insights into the interplay of institutions, interests, ideas and power in high income liberal democracies. For example, Kingdon’s policy streams (65) describes policy as a complex and adaptive process, where policy entrepreneurs take advantage of circumstances to pursue specific solutions. Secondly, the theory of punctuated equilibrium accounts for periods of stability and rapid change (66). A third theoretical approach developed by Sabatier and colleagues is the advocacy coalition framework (57). This framework describes policy change as a domain specific contest involving collaboration
between like-minded groups of actors in competition with opposing groups extending over a period of a decade or more. In summary, contemporary policy analysis is regarded as complex adaptive process, in which multiple actors react and adapt to constant changes. The outcome of this uncertain competitive process is policy. Making sense of these complex interactions is the task of policy analysis.

2.4 Health policy analysis

Merry and colleagues describe two basic approaches to analysing health policy (67). First, technical or rational approaches focus on the evaluation of alternative health interventions using a range of quantitative analytic techniques (68). Examples of technical approaches to decision making including evidence-based medicine, burden of disease analyses, cost-effectiveness analyses, and equity analyses (69,70). Technical analysis is primarily directed at support for health resource allocation decisions.

2.4.1 Political health policy analysis

By contrast, the political approach assumes health policy processes are fundamentally about power. That is, policy decisions result from bargaining and struggle among competing political interests (71, 72). Political health policy analysis thus becomes the study of conflicting interests, ideas and institutions as they bear upon the process of health service decision making decisions and provision (73). As previously noted, this thesis assumes a broad range of participants are involved in decision making. In this thesis I have primarily concentrated on the political approach to policy analysis, including consideration of how Russian illicit drug policies have developed, entered onto political and policy agendas and achieved sufficient political support to be implemented.
Political health policy analysis is an approach to evaluating public policy that aims to explain the interaction between institutions, interests and ideas in the policy process (74). Institutions are formal arrangements such as courts and laws, and informal practices routines (75). Interests refers to the agency political actors have to conduct specific projects as well as the benefits that accrue to actors for taking particular actions (76). Thus, actors may demonstrate support a particular set of ideas, or policy proposals in expectation of financial and non-financial benefits.

Ideas are the third dimension of public health policy analysis. Ideas have been equated with paradigms, explanatory theories (77), ideologies, frames, norms (78), policy proposals and solutions (60). Other researchers suggest the ideas concept offers scope for the incorporation of political and values dimensions in explaining the complexity of transfer of scientific evidence between geographic locations (79). Importantly, ideas are generally regarded as playing a role in policy change (80,81). Several authors have proposed ideas and advocacy are causal factors in public policy change, of equal weight to political institutions and interests (71,82,83). Beland similarly suggests ideas influence policy change in three ways (84). First, ideas determine issues that enter the policy agenda. Second, ideas shape the assumptions that affect the content of reform proposals. Third, ideas can become rhetorical instruments useful in describing the urgency of policy change. Similarly, Weiss describes the use of ideas to define problems as a "weapon of advocacy" (85). Overall, ideational processes affect the ways policy actors perceive their interests and the environment in which they mobilise. In this thesis, I take the view that ideas play an important role in illicit drug policy, but that demonstrating a definitive causal relationship between ideas and health outcomes in a complex political environment is likely impossible.
Health policy analysis involves the appraisal of the strengths and weaknesses of health policy proposals in order to evaluate the competing economic, political and values considerations (67). It also involves analysis of the compromise actions that are routinely conducted so that a specific policy may proceed to implementation. Policy analysis can thus assist in identifying and addressing obstacles to the implementation of health policies (86),(64). In so doing, policy analysis may be incorporated into decision making processes by both advocates and government, so as to establish more realistic expectations of policy change.

Most political policy analysis has focused on policy processes in high income countries. Several authors have reviewed international analyses of health policy in low and middle income countries (LMIC). In 2008 Gilson and Raphaelley conducted a review of policy analysis conducted in low and middle income countries between 1994 and 2007 (87). These authors noted a general absence of conceptual frameworks, limited descriptions of research design, and a focus on descriptive of case studies. The authors suggested increased understanding of the politics, processes and power relationships could strengthen future policy development and implementation. Similarly, Walt and colleagues suggested there was limited guidance exists on conducting health policy analysis in lower income countries (74). The WHO suggest the science to support policy change in LMICs “is surprisingly weak” (88). Health policy research remains unclear in its scope and nature, lacking rigour in the methods it employs and presenting difficulties in generalising conclusions from one country context to another (89). In summary, reviews of health policy analysis suggest this research is generally weakly contextualised, descriptive (90), and thus provides limited insights into policy development and implementation in LMICs.
2.4.1 The policy triangle

A widely used approach to systematically describing the main dimensions of policy in both high and lower income countries is the policy triangle (59). The policy triangle is a framework applicable to the analysis of past policy implementation, and in future planning without directly explaining or predicting outcomes (74,91). Throughout this thesis, I have made use of the policy triangle. Rather than establishing causal relationships, or informing prediction, the policy triangle maps the main constituents and dynamic elements of a specific policy issue, such as politics, processes and power relationships at a specific place and time.

Actors’ power determines their influence on policy processes. Actors may differ in the amount of power that they can exercise in different situations, which will in turn affect final policy outcomes (92,93). Actor’s power may also extend beyond national boundaries. Researchers have demonstrated how coordinated efforts between national and international networks of non-government actors with shared beliefs can amplify the influence on domestic decision makers within a specific country (94). Keck and Sikkink’s analysis of human rights activism during the 1990s is widely regarded as among the most successful examples of the coordination of national and international actors. In summary, actors active in a policy domain may not necessarily be limited to those operating within a single country. For example, well coordinated transnational networks exist in the drugs policy domain. See for example HRI (95), International Drug Policy Consortium (96) and European Cities Against Drugs (ECAD) (97). These international networks coordinate scientific, donor and non-government efforts with the aim of modifying illicit drug policy within individual nations.
Context refers to the short and longer term determinants of health policy such as the political environment, cultural and international factors (91). Policy is also shaped by the wider political context. The perception of an issue as a problem is not isolated from ongoing political considerations and other government policies (65). Seemingly unrelated political events may present emerging opportunities and constraints to actors seeking to influence health policy. For example, gay rights activism in several high income countries during the 1970s provided the momentum for HIV activism during the 1980s (98). In turn, the success of HIV activism provided political opportunities to argue for drug policy reform in the US, UK and Australia.

The process dimension of the health policy triangle refers to the development and implementation of government policies (91). The process dimension seeks to explain policy through the power relationships that enable or obstruct implementation of health policy. The original authors of the policy triangle regarded power as the main determinant in health policy processes (59). The policy triangle may thus be considered as an abstracted framework to understand the operation of power in a particular place and time. As a consequence, persuasion, values and ideas are regarded as important in overcoming policy constraints.

The content dimension of the policy triangle refers to the substantive technical issues that comprise health policy. The content dimension of health policy is associated with technical, or rational approaches to decision making. Examples of technical approaches to decision making including evidence-based medicine, burden of disease analyses, cost-effectiveness analyses, and equity analyses (69,70). Technical analyses are an important dimension of decision making. From the perspective of political policy analysis, they form only one dimension of the final policy decision.
In summary, the policy triangle is primarily a political approach to public policy analysis. It describes the complex interplay of factors shaping the adoption of obstruction of policy change (59). The policy triangle approach distinguishes between the technical arguments for adoption of particular initiatives, and the processes and power relationships that block or facilitate implementation of health policy. Rather than scientific or economic evidence, analyses of power and process provides greater explanatory power for final health policy outcomes in complex high and lower income countries.

2.5 Political commitment, political feasibility analysis, and health policy change

Political commitment by government is widely recognised as shaping national responses to health problems. Examples of political commitment include government statements of support, institutional changes and financial expenditure (99). Researchers suggest measurable biological changes results as the outcome of sustained political commitment to disease control (100–102). Since 2009, United Nations organisations have converged towards a common position balancing and illicit drug policy control and health policy recommendations. This convergence is reflected in two documents: 1) the 2009 Political Declaration and Plan of Action on International Cooperation towards an Integrated and Balanced Strategy to Counter the World Drug Problem (Political Declaration on Drugs) (103); and 2) the 2011 Political Declaration on HIV and AIDS (104) documents. The Political Declarations seek non-binding commitment from UN signatory nations to adhere to drug control provisions, and to ensure appropriate drug use prevention treatment and care are provided with reference to internationally accepted scientific and human rights principles within the constraints of national laws.
Several factors may modify government’s capacity to demonstrate political commitment. Pressure from international agencies and NGOs is regarded as influencing national governments’ political commitments to tuberculosis (74), malaria (106), and HIV (107,108). More recently achieving political commitment for non-communicable diseases (109) and hepatitis C (110). Conversely, researchers have identified several barriers to national government’s making political commitments to health problems. Among barriers documented by researchers include a lack of financial resources (111); the scale of available international assistance (109,110); governance capacity (98,111); the level of civil society involvement (112); and the scale of the health problem and national experience with previous similar disease outbreaks (99). In summary, measures of political commitment reflect both the will of governments as well as their capacity to effectively implement solutions to health problems. Political commitment may thus be a formal agreement or acceptance of the need for action by government, without the government necessarily being able to gather sufficient resources or support to deploy a solution.

2.5.1 Political feasibility

Political feasibility analysis refers to a prospective view of policy change. In its crudest form, political feasibility reflects the power of the state, and the ability of that state to determine what happens within a particular territory in the future. More specifically, political feasibility is a form of policy analysis directed at understanding the influence of constraints and the exercise of power and persuasion in overcoming future obstacles to policy change (67). Feasibility refers to the “practical convenient and possible” (116). For a policy to be enacted and implemented, it must first be politically acceptable (117). "Political feasibility" is a measure of whether a policy proposal will be accepted, or not opposed by a sufficient number of decision makers so that a proposal is likely to be adopted (118). Thus political feasibility will incorporate a broad range of political
considerations beyond resolving a health problem. The particular value of analysis of political feasibility lies in its pragmatic dimension. Feasibility analysis may be considered as a method for bridging the gap between the desirable and the possible, and should potentially lead to policies that can be implemented.

Political feasibility analysis is frequently used to evaluate support for policy alternatives. As with technical dimensions of policy analysis (for example cost effectiveness), political feasibility analysis serves as a criterion in choosing between policy alternatives (117,118). Political considerations thus becomes an additional criterion in the selection of a preferred policy alternatives. However, to be useful to policy and decision makers, political feasibility analysis needs to assess the relative likelihood that a policy proposal could be both adopted, and implemented, in a manner that mitigates an existing policy problem (118). In summary, a politically feasible policy alternative is one that has the greatest probability of receiving sufficient support from decision makers within specific political constraints. However, politically feasible policies should be distinguished from those that are administratively feasible. Politically feasible policies may be acceptable to stakeholders, but remain impossible to implement due to lack of resources or other constraints. In this thesis I use political feasibility analysis to identify novel research interventions and establish more realistic expectations of policy change in contemporary Russia.

Political feasibility should not be confused with pragmatism. In popular usage, pragmatism is equated with expediency. In addition to this popular usage, there are scholarly arguments offered against philosophical pragmatism that may obfuscate the relationship between pragmatism and political feasibility. For example several authors have suggested that philosophical pragmatism is characterised by a lack of principles, lack of ideology, and should be considered a conservative philosophy supportive of maintenance of the political status quo (119,120).
These views of pragmatism are not universally shared. Classical pragmatist philosophy has been linked by scholars to an explicitly political social justice agenda (121,122). Denzin suggested that pragmatist research requires explicit focus on the moral and political and consequences of analysis (123). In this process, the researcher serves as an active agent rather than impassive observer.

2.5.2 Political constraints

Political constraints refer to features of a context that can affect policy outcomes, but are not under the control of actors (71). Majone describes three forms of political constraint. These are: 1) actor’s political support and their skills in deploying available resources; 2) how the benefits and costs of a policy are distributed according to formal and informal rules of the game; and 3) the compatibility of a policy with existing values in that policy domain and in the broader polity. In order for a policy to be politically feasible, it must satisfy all constraints relevant to that specific situation and problem. Thus, politically feasible policy outcomes result from complex interactions between formal and informal rules that govern how decisions are made, and the interest groups that stand to gain or lose as the result of a policy decision.

2.5.3 Frameworks for evaluating political feasibility

A politically feasible policy alternative is one that has the greatest probability of receiving sufficient support, or the least resistance from all stakeholders. Researchers have proposed several frameworks for evaluating the political feasibility of public policies in high income countries. For example, Meltsner and colleagues suggest a framework for analysing actors, motivations, beliefs, resources and the forums available for policy contestation and decision making (117). Webber and colleagues propose a different approach (118), suggesting that political feasibility evaluations should be performed at each stage of the policy process in order to secure implementation.
Researchers have proposed several frameworks for evaluating the political feasibility of public health interventions in low and middle income countries. Reich and colleagues developed a method for analysing the probable consequences of health policy reform efforts in low and middle income countries (124). The researchers proposed a method for defining policy content, political actors, political opportunities and obstacles, and designing appropriate political strategies in response. Second, Buse and colleagues developed a framework to evaluate the political prospects of scaling up potentially controversial HIV interventions in Pakistan (125). In this instance, the investigators examined the values and acceptability of interventions, and the available resources in determining the potential of local implementation. Third, Lunze and Migliorini assessed the feasibility of tobacco control interventions in Russia (126). These researchers used the policy triangle to evaluate tobacco control policies in contemporary Russia. They then prioritised potential policies (e.g. increased taxes, smoking bans, advertising restrictions) based on estimates of the number of smokers affected, anticipated political resistance from various government, commercial and non-government stakeholders, scientific evidence, cost effectiveness and costs associated with program implementation at scale. In summary, researchers have proposed a various approaches to systematically analysing the political feasibility of health policies. Depending on the scope of specific project, researchers have taken a broader view of feasibility, to examine institutions and resources available for implementation, or a narrower view focused on the political feasibility of specific health interventions.
2.5.4 Political feasibility and health policy initiatives

Frameworks for assessing political feasibility of health policies have primarily addressed specific health interventions. Policy interventions are specific actions implemented in order to achieve policy objectives (56). In order to achieve these objectives, planners and implementers of interventions make use of policy instruments such as laws and regulations, spending and taxing, service and program delivery, and advocacy. For example, Buse and colleagues investigated the feasibility of science based interventions including needle exchange, condom distribution for HIV prevention in Pakistan (125). In this study, the authors analysed the success and failures of implementing a range of harm reduction initiatives in a variety of complex local contexts.

In this thesis, I propose several case study specific frameworks for assessing the political feasibility of policy initiatives directed at reducing the harms associated with illicit drug injecting in Russia. These frameworks have been adapted to the specific circumstances associated with each case, and are based on several pre-existing health policy analysis frameworks (See for example (125,126). This thesis is thus an examination of health policy initiatives that may be implementable in contemporary Russia based on research conducted in 2010-13.

2.6 International policy research and Russia

Researching health policy outside of high income liberal democracies introduces additional complexity. Gilson and colleagues reviewed policy analysis in low and middle income countries (87). The researchers found literature on policy analysis was limited, fragmented and dominated by authors from high income liberal democracies. Beyond high income liberal democracies, decision-making processes are regarded as opaque, and obtaining relevant documents and papers can be problematic (74). Participant observation and access to research subjects can be difficult.
Analysis of Russian policy presents several context specific challenges. There are physical barriers to accessing individuals and networks involved in Russian policy processes. Russia is the largest country on the globe, and extends across 9 time zones. Russian geographer Zubarevich proposed the "four Russias thesis" (127,128). According to Zubarevich, Russia number 1 consists of large wealthy, educated post-industrial cities that contain 46% of Russia's population. This includes cities such as Moscow and St Petersburg. The second Russia consists of industrial, less educated towns with less than half a million residents. Soviet values remain strong in the second Russia, where 25% of Russia's population lives. The third Russia consists of the 34% of the population living in depopulated small towns and villages where people live semi-subsistence existence. The remaining 6% of Russia's population areas affected by poverty and ethnic conflict, including the North Caucuses and parts of Siberia. Russia's social diversity and geographic scale creates logistical problems associated with time and expense for researchers.

Researching Russian political and business decision making present additional challenges (129) (130,131). Ledeneva describes a public policy environment founded on incomplete legislation, broad bureaucratic discretion and a reliance on personal networks (132). Other authors suggest that decision making is characterised by a reliance on verbal orders (133), political involvement in judicial decision making (134), and disregard for the rule of law (135). Overall, Russian decision making has been characterised as resilient system of "centralised informal governance" (131). Researching decision making in Russian policy thus involves a complex process of evaluating resources, values, beliefs and power of diverse actors based on difficult to access information. Several international scholars have described reduced access to fieldwork in Russia and other former Soviet republics after 2010 (136–138). This has manifested as difficulties in securing visas,
decreased willingness to participate in research and harassment of potential informants by law enforcement officials.

Not all authors have reported difficulties in collaborations between international and Russian researchers. During 2013, a scientific collaborator involved with Chapter 9 of this thesis reported no difficulties with conducting collaborative internationally funded field research (139). Further collaboration between Russian government agencies and donor funded NGOs implementing programs that concord with Russian drug policy continued beyond 2013 (140). Russian government agencies have continued to participate in international conferences (141), and to collaborate with international illicit drug control agencies (142,143). In summary, despite increasing barriers, between 2010 and 2013 Russian illicit drug policy continued to evolve in collaboration with international governments and multilateral agencies.

2.6.1 Researching Russia – positionality

The relationship of the investigator to a topic has been described as important determinant of producing meaningful policy analysis in low and middle income countries by researchers resident in high income countries (144,145). The positionality of investigators can influence the data collected, the interpretation of that data, and ultimately, the quality of research. When conducting qualitative health policy research, the perceptions of an investigator are shaped by their institutional affiliation, prior involvement with research informants, and may affect access to decision makers as well as research outcomes (74).
Merriam and colleagues suggests that investigators may be insiders or outsiders (146). Insiders are participants in a policy process or based within a particular country. Insider positioning potentially offers access advantages and an understanding of complex cultural dynamics. However, insiders may influence research outcomes based on their preconceptions. By contrast outsiders are generally foreign researchers, possibly of different ethnic, age, professional and linguistic background. Outsider research offers the potential benefit of perceived non-alignment with local groups, and more truthful responses in qualitative research data collection. Ideally research teams should include insiders and outsiders, but logistically this can be complex (147).

Walt and colleagues describe several mechanisms by which researcher positionality may influence access to data and research outcomes (74). First, consulting style research conducted to short time frames within predetermined frameworks may produce superficial results. Second, researchers from high income countries can shape what is to be researched, the methods used, and the interventions that follow research. In this instance, outsider researchers’ economic power can potentially influence outcomes. Third, there are potential difficulties associated with insider researchers. Insider researchers may be interested actors, which may limit the generation of new policy knowledge. Insiders may, according to Walt and colleagues, be concerned with developing policy relevant conclusions rather than new theoretical or methodological understanding.

This thesis is the product of my hybrid position as both an insider and outsider. I started this thesis as an Australian born international consultant with near-native Russian and Ukrainian language skills who had experienced first-hand both life in the USSR and during post-Soviet Transition. On several occasions between the late 1980s and the 2012 worked as an accredited journalist, and lived with relatives for extended periods in Russia, Ukraine and Estonia. Between 2005-2008 I worked for an international consulting firm as an advisor to donor funded NGOs operating harm
reduction programs in Belarus, Central Asia, Russia and Ukraine. This positioning gave me access to informants, documents, and opportunities to freely discuss issues with individuals not directly involved with this policy domain. It also shaped my interest in research questions and designs conducive to capturing informal grass roots sentiments and behaviours in complex environments not generally accessible to international researchers.

In this thesis I assume the position of a Western researcher seeking to improve the implementation of policies designed to reduce the social and individual harms associated with illicit drug injecting with reference to internationally accepted scientific and human rights principles. I propose pragmatism serves as an appropriate paradigm directed at achieving that goal.

2.6.2 Pragmatism and feasibility.

In this thesis pragmatism provides the lens for examining politically feasible interventions directed at illicit drug policy change in Russia. I have used pragmatism to direct the focus of my research at “bottom up” implementation by NGOs. Thus, politically feasible initiatives are those that may be formally or informally negotiated between stakeholders, and plausibly serve to reduce the social and individual harms associated with illicit drug injecting. That plausibility is based on valid research methods consistent with internationally accepted scientific and human rights principles.
2.7 Summary

This chapter provides the theoretical and conceptual foundation for the thesis. The treatment of illicit drug use is profoundly political in all countries. Policy solutions for individuals engaged in stigmatised and illegal behaviour involves complex conflicts over moral, ideological, professional and other power relationships. My analysis therefore extends beyond ideal evidence-based solutions, and beyond measuring Russian realities against international gold standards. Instead, I examine how political power in Russia is exercised locally, how professional judgements are framed, and how these struggles shape contemporary Russian illicit drug policy.
References Chapter 2


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CHAPTER 3

Illicit drug policy through the lenses of international political declarations and national political commitments.
Chapter 3: Illicit drug policy through the lenses of international political declarations and national political commitments.

3.1 Introduction

This chapter examines the influence of internationally accepted approaches to reducing illicit drug injecting harms through policy change. It is structured as a traditional thesis chapter. This chapter provides an overview of the international governance of drug policy, international monitoring of individual country’s political commitment to illicit drug policies based on scientific and human rights principles, and the main policy approaches to reducing the harms associated with illicit drug injecting.

In this chapter I argue that by deferring to local laws and values, the Declarations of Political Commitment by UN agencies offer limited potential to influence the evolution of contemporary Russian illicit drug policy. I also suggest the progressive reduction of donor funding restricted the scope and scale of NGO influence on drug policy between 2010 and 2013.

3.1.1 International drug control conventions

A series of UN conventions frame illicit drug policies for signatory nations across the globe. These international agreements seek to control the international movement of illicit drugs. See Figure 3.1. These agreements aim to regulate the legal use of a range of substances, and to limit the production, trafficking and consumption of illicit drugs. Underpinning the UN drug control treaty system is the assumption that the best way to reduce the individual and social harms caused by illicit drug use is to reduce the supply of illicit drugs through legal controls and prohibitions (1).
Taken together, the conventions form a body of international law that signatories applied by individual member states within the territories under their jurisdiction.

The international drug treaty system is governed by three actors. The first of these is the Commission on Narcotic Drugs (CND) (2). The CND consists of 53 member states, and is assisted by the World Health Organisation (WHO), and the International Narcotics Control Board (INCB). The CND is primarily responsible for policy making. The second actor is the INCB. The INCB is an independent body responsible for the implementation of international drug control treaties. The INCB monitors primarily compliance with the relevant conventions (3). The third actor is the United Nations Office on Drugs and Crime (UNODC). The UNODC provides technical support to the CND and INCB (4). Together, these three organisations plan, administer and implement international drug control treaties implemented by individual nations.

3.1.2 National political commitments to control illicit drug and HIV

Political commitment by government is widely recognised as shaping national responses to health problems. Political commitment may be defined as the decision of government leaders to use their personal power and influence to ensure that health programs receive the visibility, leadership, resources, and ongoing political support required to ensure effective action so as to minimise the impact of health problems (5). Political commitment may be expressed as government statements of support, institutional changes and financial expenditure to a particular course of action (6). In the case of public health problems, sustained political commitment may produce measurable biological changes at a population level (7). For example, sustained political commitment was regarded as essential to the control of tuberculosis (8), HIV (9) (10) and dengue fever (11).
Since 2009, United Nations organisations have converged towards a common position that balances illicit drug use control and health considerations. This convergence is reflected in two documents: 1) the 2009 Political Declaration and Plan of Action on International Cooperation towards an Integrated and Balanced Strategy to Counter the World Drug Problem (Political Declaration on Drugs) (12); and 2) the 2011 Political Declaration on HIV and AIDS (13). Together the Political Declarations seek non-binding commitment from UN signatory nations to adhere to drug control provisions, and to ensure appropriate drug use prevention treatment and care are provided with reference to internationally accepted scientific and human rights principles. The Political Declarations reflect shared goals directed at controlling injecting drug use and HIV transmission.

The Declarations are particularly salient in nations with high rates of HIV transmission through injecting drug use, including Russia. However, the two Declarations have allowed Russia to signal its intent to collaborate in international forums, while simultaneously avoiding the implementation of these principles. Thus, since the mid 2000s, both domestic and international drug policy reform advocates have consistently criticised the Russian federal government for its lack of political commitment to implement internationally accepted scientific and human rights principles within Russia (14–16).

3.1.3 Political declarations on illicit drugs

The 2009 Political Declaration on Drugs encourages national governments to make political commitments to more effectively manage illicit drug use prevention and treatment, and to balance drug control priorities with health and human rights concerns based on scientific evidence (12). Included in this Political Declaration are references to harm reduction and to interventions as
outlined in the UNAIDS Technical Guide for Countries to Set Targets for Universal Access to HIV Prevention, Treatment and Care for Injecting Drug Users (17).

Political commitment by government is widely recognised as shaping national responses to health problems. Political commitment consists of government statements of support, institutional changes and financial expenditure (6). Researchers suggest measurable biological changes can result from sustained political commitment to disease control (7,9,10). The Political Declaration on Drugs framed illicit drug use drug problems as directed both at reducing crime and reducing health and social harms associated with illicit drug use. For this purpose, the UNODC collaborated with the World Health Organization (WHO) to scale up health programs and UNAIDS to reduce the risk of HIV transmission globally. However, while the Political Declaration on drugs encourages countries to strengthen the scientific and human rights dimensions of their national drug control strategies, it provides no reporting structure, and constrains national commitments within local values, interests and institutions.

3.1.4 Political declarations on HIV

The Political Declaration on HIV and AIDS similarly encourages UN nations to take action and report the results of national initiatives directed at the prevention and treatment of HIV associated with injecting drug use. The First Declaration of Commitment on HIV/AIDS took place in 2001 (18). The 2001 Declaration committed UN member states to take action on HIV prevention, treatment and care of PLHIV. This original Declaration also referred to the importance of sterile injecting equipment in reducing the spread of HIV.
At the UN High Level Meeting on AIDS in June 2011, states adopted a new declaration with revised targets for measuring progress in the global response: The Political Declaration on HIV and AIDS: Intensifying Our Efforts to Eliminate HIV and AIDS (19). The 2011 Declaration was an international agreement intended to guide the global response to HIV until 2020. The Declaration proposed a greater emphasis on science and human rights, increased coverage for HIV prevention treatment and care, and a goal of halving HIV transmission among PWID by 2015.

The Political Declaration on HIV and AIDS contains mechanisms for the regular monitoring of states’ political commitment to HIV prevention. The UNAIDS Guidelines for Construction of Core indicators for monitoring the 2011 Political Declaration on HIV/AIDS provide guidance to individual states to report their progress in bi-annual country reports (20). The UNAIDS Guidelines build on several earlier indicator frameworks designed to evaluate national performance in managing the response to HIV (10,21,22).

It is however, the UNAIDS National Composite Policy Index (NCPI) that is the most comprehensive standardised questionnaire used to assess the policy, strategy, legal and programme implementation environment for contemporary national HIV responses (20). The NCPI is routinely collected with biannual UNAIDS country reporting. The NCPI relies on governments conducting desk reviews of policy documents and interviews with government and non-government stakeholders to produce a detailed national response across several domains See Figure 3.2. The NCPI is intended to monitor progress on national targets and to provide data for reporting that contributes to the global targets set in the Declaration of Commitment on HIV/AIDS. Country reporting on the NCPI is robust. The NCPI section of UNAIDS country reports had the highest rates of completion in the 2008, 2010, and 2012 reporting rounds (23).
In summary, UN governance arrangements leave implementation of Political Declarations to individual governments. Despite international commitments in support of a balanced drug control policies and global reporting, the final formulation of national illicit drug and HIV policies remains the preserve of national governments. Individual governments must thus balance domestic drug control, human rights health and political considerations against the potential harms of illicit drug use in communities and among individuals.

### 3.2 Policy approaches to reducing illicit drug injecting related harms

There are three broad approaches to drug policy described in the United Nations Political Declarations and international drug conventions. The first of these is drug demand reduction. Drug demand reduction refers to national policies aimed at reducing consumer demand for psychoactive substances controlled through the international drug conventions. Demand reduction aims to reduce consumer demand for controlled substances (18,24). Drug demand reduction policies are often implemented concurrently with drug supply reduction policies. The second approach, drug supply reduction, refers to activities designed to stop the production, manufacture and distribution of illicit drugs and their precursors by police, customs and military agencies (24). The final approach, harm reduction, refers to policies that focus on reducing the harm resulting from the use of drugs to individuals and communities without necessarily requiring abstinence from drug use (24). In practice, drug demand reduction, supply reduction, and harm reduction programs are frequently complementary (25,26). Harm reduction programs function to reduce health problems associated with illicit drug use, whereas drug supply and demand reduction serve to control access to illicit drugs.
3.2.1 Drug supply reduction policies

Drug supply reduction refers to activities designed to stop the production, manufacture and distribution of illicit drugs. This includes all operations to reduce production, manufacture and distribution of illicit drugs and their precursors by police, customs and military agencies (24). Drug supply reduction policies aim to reduce exposure to drugs among current and potential consumers. However, Strang and colleagues described a fundamental problem with all supply reduction policies (27). They suggested that supply reduction policies constitute attempts to intervene in established markets, and that drug markets respond flexibly to attempts at restricting supply, through increased prices and substitute products. The researchers concluded that drug supply restrictions at national and international levels can result in higher drug prices. These higher prices may in turn reduce drug initiation and use. However, these changes in consumption patterns are only temporary, and drug use patterns consequently resume in response to drug market adaptations.

The scientific evidence for national level supply reduction interventions is mixed. Drug supply controls have been effective in reducing access to tobacco (28) and alcohol (29). Similarly successful effects have been demonstrated in restricting the recreational use of prescription drugs such as benzodiazepine (30,31) and the reduction in illicit metamphetamine production (32). There is more limited evidence for the local effectiveness of law enforcement. Local policing can disrupt local drug markets, and reduce supply of drugs (33,34). Further, local policing can have some limited effect on socially harmful and visible dealing, gang related violence and corruption. In summary, the evidence for drug supply interventions is limited.
3.2.2 Drug demand reduction policies

The prevailing international consensus among drug convention signatories is directed at encouraging national adoption of policies aimed at reducing the demand for illicit drugs in member states. In 2001, the UN General Assembly adopted the Declaration on the Guiding Principles of Drug Demand Reduction (35). The Declaration linked drug demand reduction activities with drug trafficking control efforts. Similarly, the 2011 INCB report stated "(The INCB is opposed to) a culture of acceptance of illicit drug use (and) a growing normalisation of certain forms of drug misuse within the wider society (leading) to the undermining of social cohesion. Government agencies should ensure that high-quality drug treatment and rehabilitation services are easily accessible... Treatment should be based on enabling individuals to become drug-free rather than on simply seeking to reduce some of the harm associated with continued levels of drug misuse...” (36). In addition to limiting the physical supply of drugs, international treaties thus also seek to influence prevailing societal attitudes towards drug use, and promote abstinence as the mechanism for reducing drug related harms.

National policies aimed at reducing the demand for illegal drugs are implemented through criminal penalties, as well as health, education and social welfare programs. Programs aimed at reducing illicit drug use have been variously labelled as drug prohibition (37,38), zero tolerance to drugs (36, 37), primary prevention of illicit drug use (40) and drug demand reduction (41).

Preventative drug demand interventions seek to delay initiation of drug use and prevent young people from becoming regular and dependent drug users. Common to all drug use reduction programs is the focus on behavioural interventions directed at reducing drug use. Drug demand reduction programs seek to reinforce law enforcement measures aimed at reducing drug supply, and minimising the demand for drugs by influencing social and individual factors potentially...
facilitating use (25). Researchers have identified several factors influencing for illicit drug use. These include male gender, economic disadvantage, poor educational performance, sensation seeking, childhood conduct disorders and peer influence (42).

Drug demand reduction programs have been widely implemented internationally. Programs have been implemented across Thailand (43) Russia (44,45) and through USAID development programs in the former USSR (46,47). Within the United States, the school based drug and alcohol use Drug Abuse Resistance Education (DARE) program was widely implemented during the 1980s and 1990s. Overall, the US Dare program was found to be ineffective (27). A meta-analysis of eight DARE program evaluations concluded the program produced only limited short term effects among the target population (48). The authors of a five year post-intervention evaluation (49) reported similar results.

Other psychosocial drug demand interventions have been found to be effective. Interventions that promote social skills development for young people have been found to be more effective than those focusing on drug use. For example, the Good Behaviour Game was a school based behaviour management program delivered in the US and Europe (50). The Good Behaviour Game was found to reduce future problems with emotion, behaviour, drugs and alcohol in males. Researchers reported reduced violence and mental health problems among participants 10-15 years after the intervention, when the participants had reached 20-21 years of age.

Several studies have suggested that screening and brief clinical interventions can reduce illicit drug use (51). Brief interventions involving primary care physicians reduced benzodiazepene use in the UK (52) and cocaine in the US (53,54). Brief interventions were similarly effective in reducing drug
use among US university students (55). By contrast, screening and brief interventions with high school students aimed at preventing later drug use produced mixed results (56,57).

There is evidence for the role of law enforcement in reducing the demand for illicit drugs. Immediate overnight sentences have resulted in marked reductions in illicit drug use (58,59). Further, law enforcement pressure for drug users to enter and maintain treatment through drug courts (60–62) has been found effective in reducing the demand for and use of illicit drugs.

Drug demand reduction represents a mechanism of implementing drug use prevention, treatment and care within social and political constraints. Researchers recommend that drug demand reduction programs complement drug supply interventions (25). Donor funded drug demand reduction programs have included scientific behaviour change interventions such as HIV testing, motivational interviewing, peer to peer outreach work, and low threshold access to primary care services to individuals who would otherwise experience difficulty in accessing conventional health services (43,61). Moreover, drug demand reduction programs have adopted novel methods to accommodate regulatory constraints. For example, a USAID funded program in Central Asia incorporated the use of the opiate antagonist naloxone as an overdose prevention measure as an element of street based outreach to PWID (64).

In summary, drug demand reduction programs are generally regarded as less effective than harm reduction in preventing the biological harms associated with injecting drug use. However, drug demand reduction programs incorporating scientifically validated methods have found political favour in countries where harm reduction has not.
3.2.3 The special case of Sweden and illicit drug policy

Sweden represents a special case of a liberal high income country that has pursued strong drug demand and supply reduction policies. Swedish illicit drug policies are based on abstention, with the overall goal of a drug free society. Police measures to reduce drug supply have been favoured (65). In 2006, the UNODC claimed that Sweden’s restrictive drug policy had been highly effective in preventing drug use and related harms (66). However, other researchers challenged UNODC’s methods and conclusions (67,68). Rather than successful control of illicit drug use, researchers report high levels of police violence directed at drug users, unwillingness of drug users to seek treatment and higher than European average rates of overdose.

Several international scientific and civil society organisations supporting drug demand reduction originated in Sweden. These networks include the World Federation Against Drugs (69), Europe Against Drugs (70) and European Cities Against Drugs (ECAD). ECAD advocates against drug legalisation, and “offensive preventative measures” against illicit drug use (71). Several Stockholm city mayors formed the ECAD network in 2003. By 2013, ECAD had 200 members cities across Europe, including 50 in Russia. Further, ECAD’s conferences are attended by UN agencies (72) and researchers from mainstream scientific institutions such as Harvard Medical School (73).

Internationally, these networks attract political, scientific and civil society support for their stance against drug use. In summary, there are several Swedish – originated international scientific and civil society networks advocating for stronger abstinence-based global drug conventions.
3.3 Harm reduction policy

Harm reduction has been described as "the policies, programmes and practices that aim primarily to reduce the adverse health, social and economic consequences of the use of legal and illegal psychoactive drugs without necessarily reducing drug consumption...(to benefit) people who use drugs, their families and the community" (74). The harm reduction approach to drug policy is based on a strong commitment to public health and human rights (75). Harm reduction interventions aim to engage individuals and communities to pragmatically address the problems associated with drug use, and with injecting drug use in particular.

The first harm reduction programs started as unscientific, grass-roots drug-user activist driven interventions. Drug users and NGOs first started needle exchanges in Western Europe during the 1980s (76–78). It was the emergence of HIV in the 1980s that provided the impetus for the transformation of harm reduction initiatives into public health interventions. While the majority of early HIV transmission in high income countries involved sexual contact, injecting drug use was also recognised as a potential route of transmission (79). The arguments that had succeeded in securing access to prevention and care for people who had acquired HIV through sexual contact were extended to illicit drug injecting (80).

By the late 1980s, the greater involvement of physicians progressively transformed harm reduction programs into scientific public health interventions. Scientific publication and political advocacy gradually lead to the expansion of needle exchange and opioid substitution programs internationally. (81). During the 1990s, through increasingly coordinated international advocacy and a growing body of scientific evidence (82), harm reduction became increasingly accepted by
many national governments as an effective approach to reducing the social and individual harms associated with illicit drug injecting.

3.3.1 Harm reduction and human rights

Human rights are regarded as the first principle of harm reduction. Within public health literature, the relationship between harm reduction and human rights refers primarily to ensuring access to appropriate prevention treatment and care services by PWID (80,83,84). The relationship of human rights theory to harm reduction reflects the experience of PLHIV in high income countries during the 1980s (85,86). Discrimination initially drove PLHIV away from prevention and care programs and increased HIV incidence. Concern among PLHIV over the adverse health impact of diminished access to health care led to successful legal arguments based on human rights obligations in high income countries (87).

Human rights protections are regarded as essential precondition to avoiding injection related harms among PWID. Stimson suggests the rights implicit in harm reduction include the right to life, security, access to health care, and protection from the community and the state (81). Within scholarly literature, human rights arguments are reflected in advocacy for “enabling environments”, or multi-sectoral approach to illicit drug policy change. An enabling environment approach requires coordination between law enforcement, medical and social welfare agencies, supported by appropriate legislation to minimise harms associated with illicit drug use (88,89). More recently, this approach has been described as an enabling legal environment (90). The human rights dimension of illicit drug use is incorporated in UNAIDS reporting. National progress on developing enabling environments is monitored through bi-annual UNAIDS NCPI country reports (20,23).
The concept of an enabling environment can be contrasted with that of a risk environment. In the illicit drug policy field, a "risk environment" refers to the interplay between individual decision making, and the social context that influence injecting behaviour (91,92). Poverty, policing practices, social norms influence are all examples of risk environments likely to influence individuals' behaviour (93,94). It is the interplay between these elements, such as in a prison environment, or in commercial sex work activity in which injecting related harms are more likely to occur.

The potential for social factors such as stigma to multiply harms associated with illicit drug use has lead to a domain specific body of human rights literature. Hunt suggests there are two approaches to drug use within the human rights dimension of harm reduction (75). The first of these is the "weak rights" approach. The weak rights approach prioritises public health and minimisation of drug related harms, while presuming that all individuals are entitled to access effective health care. Hunt argues that as drug dependence is regarded as a disease state, harm reduction may reasonably be construed as an intervention directed at preventing drug dependence.

By contrast, a strong rights approach prioritises the right to use drugs over public health concerns (75). Hunt suggests the strong rights approach implies support for policies that may potentially increase drug related harms. The strong rights argument reveals tensions between individual rights to take drugs and the public health imperative to reduce the social and individual harms associated with illicit drug use. Researchers have suggested scholarly approaches to resolving this tension. For example, Irwin and Fry suggest further research based on pragmatic bioethics may provide guidance (95). Conversely, Keane suggests harm reduction should be regarded as an assemblage of pragmatic practices and practical goals rather than a single unified and theoretically
coherent framework (96). Viewed as such an assemblage, harm reduction theoretical literature reveals incompletely resolved tensions between illicit drug use, human rights and public health.

3.3.2 Harm reduction and public health

The second principle underpinning harm reduction is a scientific approach to public health. Scientific literature describing harm reduction policies and interventions frequently refers to prevention of HIV transmission among PWID (97–99). International agencies and donors have developed a consensus on the scale and scope of services needed to contain the spread of HIV among PWID. However, there was initially no scientific consensus on the interventions that comprised harm reduction. Researchers proposed differing packages of harm reduction interventions. For example, Zheluk and Burrows proposed a spectrum of services made up of 16 interventions, including prevention of drug use, prison populations, treatment readiness, primary health care, police assistance, and support for PLHIV (46). In their definition of the scope of harm reduction, Ball and colleagues included appropriate models of service delivery, facilitation of supportive legal social environment, and the strengthening of strategic information systems to better guide responses (82).

In 2009 UNAIDS defined the Comprehensive Package of health interventions that constitute harm reduction (100). It is the 2009 UNAIDS package that has gained wide acceptance as the scope of activities required to prevent HIV and related harms among PWID. See Figure 3.2. The UNAIDS report authors suggest the greatest impact will be achieved if the nine interventions are implemented as a package in both community and prison settings. The authors also highlight the importance of a supportive legal and policy frameworks, or advocacy, in order to implement the comprehensive package of harm reduction interventions. Of these, the World Bank identified four interventions as having the most potential to improve health outcomes for PLHIV in low and
middle incomes. These interventions were: 1) needle and syringe programs; 2) opioid substitution therapy; 3) counselling and testing; and 4) Highly Active Anti-Retroviral Therapy (HAART) (101).

3.3.3 Harm reduction and illicit drug use

Harm reduction is often regarded as a controversial public health intervention. This controversy is primarily associated with a perceived permissive orientation within harm reduction policies towards illicit drug use. See for example (102–104). Harm reduction advocates originally proposed a neutral stance to drug use in the interests of attracting PWID to services and reducing drug related harms (105,106). As harm reduction policies and programs spread internationally, scholars identified several distinct approaches to the relationship between public health and illicit drug use. For example, Tammi described three dimensions to this relationship (107). First, Tammi described a public health dimension, in which harm reduction proponents are primarily committed to reducing drug related harms. Second is a concern among advocates for drug user identities and drug use liberalisation. Third is the relationship between public health and harm reduction, as it involves globally oriented transnational advocacy. From local activism, harm reduction had by 2010 developed into a transnational public health advocacy movement.

3.3.4 Coverage

Harm reduction interventions introduced at sufficient scale may be effective in attenuating HIV epidemics among PWID. However, the effectiveness of harm reduction interventions relies on adequate coverage (108,109). Coverage is the extent to which a public health intervention reaches its target population (110). International organisations and researchers recommend reaching at least 60% of PWID in a given geographical location with a specific harm reduction intervention in order to achieve a biological effect, and to alter the course of a local HIV epidemic (111,112). The
scale of sterile needle and syringe distribution is a frequently used measure of intervention coverage. Increases in the scale of coverage of a specific harm reduction intervention (82) may refer to greater coverage of PWID over a specific geography and date range, services delivered at increased intensity, and expanding the target population to include other at-risk groups (113,114), such as prisoners and sex workers. Across the globe, sufficient coverage has been achieved where government’s have demonstrated sufficient political commitment to harm reduction to achieve biological changes at population level (115). In summary, in order to achieve sufficient coverage, an appropriately supportive policy environment is required.

3.3.5 Advocacy for adequate coverage by harm reduction interventions

Advocacy is central to harm reduction interventions. Advocacy is an organised effort to persuade decision makers to adopt an effective approach to reducing harms among PWID. Advocacy for harm reduction is directed at starting, maintaining or increasing activities to a scale sufficient to prevent harms associated with illicit drug injecting among populations of PWID. (111). In a study of high coverage sites in six countries, Burrows found advocacy was one of the most important activities in achieving high coverage (115). Degenhardt and colleagues suggest advocacy is needed to convince decision makers to change physical and social environments at sufficient scale to remove the risk behaviours associated with injecting drug use (116). Some authors have suggested even modest levels of coverage have reduced HIV transmission among PWID (117). For example, Heimer suggests that strong engagement with communities of PWID in risk reduction and behaviour change may amplify the effects of low coverage as measured by distribution of sterile needles and syringes.
3.3.6 Is high coverage possible in complex and resource-constrained countries?

Some authors suggest that high level coverage by harm reduction programs is achievable in low and middle income countries (115). However, most studies suggest the actual coverage achieved by interventions directed at reduced harms among PWID is consistently low worldwide. Across the globe annually, harm reduction interventions cover approximately 5% of drug injections, 8% of PWID, and 4% by HAART (112,116).

Coverage by harm reduction interventions in Russia is reported to be consistently low (118,119). A 2004 study of 23 projects reported a greater than 5% coverage in one project only (120). A 2008 study of 20 Global Fund projects reported mean coverage of 12.5% (121). A model project in Kazan reported 20% coverage (122), and a UNAIDS designated best practice site in Pskov reported 90% coverage in 2006 (115). In summary, coverage reported by harm reduction projects across Russia was insufficient to achieve population level biological effects.

Outside of high income countries the absence of data on drug injecting prevalence is a considerable barrier to estimating coverage (103,116,117,118). Determining the size of drug injecting populations is regarded as complex, particularly because PWID routinely avoid contact with traditional health services (110). Further, the measurement of the scale of interventions is inconsistent across countries and international agencies, and the quality of data describing the epidemic and the response varies substantially (126,127). Consequently, estimation of population coverage outside of high income countries is uncertain. This uncertainty leads to difficulty in estimating both funding requirements, intervention effectiveness, and in stimulating political commitment for harm reduction policies.
3.3.7 The scientific evidence for harm reduction and high coverage

Several authors suggest that the overall evidence for the effectiveness of harm reduction as a public health intervention is weaker than is generally described in scientific literature. While evidence shows that multi-intervention prevention programs are effective in reducing HIV among PWID, the contribution of individual elements remains inconclusive (97). The lack of evidence for effectiveness of needle and syringe programs alone to influence prevent biological outcomes reflects the limitations of studies (128). For most interventions evidence is only available from ecological, cross-sectional, case-control, and cohort studies (127). Additionally, much of the research supporting harm reduction interventions relies on self-reported behaviours rather than biological measures of incidence. However, researchers suggest the mechanism of action to prevent HIV and other drug use related harms is biologically plausible and is therefore recommended. In addition, further research into the effectiveness of interventions should accompany delivery and scale-up of harm reduction programs (116,124). In summary, the scientific evidence for harm reduction as a policy approach to reducing HIV and injecting related harms outside of high income countries is not overwhelming.

3.4 Has international advocacy for harm reduction succeeded?

Advocates attribute the global spread of harm reduction to increasing political commitment to scientific public health measures. By the mid-2000s, syringe distribution programs operated in over 65 countries, and substitution treatment in 58 countries (129). By 2007, harm reduction was described in UN policy guidelines (81), and supported by the World Bank (101), Global Fund (130,131), as well as bilateral donors and private foundations. At the 2009 conference of the International Harm Reduction Association (IHRA), the Executive Director of the Global Fund
Michel Kazatchkine asserted that harm reduction had “grown in acceptance, popularity, scientific knowledge, and advocacy methods…. the scientific debate has been won, and only ideological or moralistic criticisms remain” (130).

Despite broad scientific acceptance, harm reduction advocates suggest there remains widespread international opposition to harm reduction. Between 1998 and 2009, the CND agreed on six resolutions concerning drug use and HIV, and which consequently involved the issue of harm reduction (132). During that period, national delegates from countries supportive of harm reduction policies (for example the European Union and Australia) attempted to introduce several references to harm reduction and needle exchange into CND resolutions. However, on each occasion these efforts were opposed by Japan, Russia and Sweden and the US. In 2009, the CND conducted a 10 year review of the UN Drug Control system (133). In 2009 as previously, harm reduction advocates were unable to exert sufficient influence on national governments in order to change existing UN conventions.

Harm reduction advocates similarly criticised the 2011 Political Declaration on HIV and AIDS (19). Advocates were particularly critical of elements of the final declaration including "much more needs to be done to effectively combat the world drug problem", and "enabling legal, social and policy frameworks (must be) based on the epidemiological and national context". According to advocates, the framing of the Political Declaration as ultimately a matter of national concern effectively amounted to rejection of human rights and science by UN bodies at the global level (134,135). Further, advocates suggest the 2011 Political Declaration reiterated earlier international commitments to existing punitive approaches to drug demand and supply reduction. In summary, international harm reduction advocacy has been more successful at the national than the international level.
3.4.1 Can scientific arguments convince decision makers?

Harm reduction proponents have consistently presented scientific arguments in support of international drug policy change. Global networks such as the HRI, Human Rights Watch International Drug Policy Consortium have adopted a vocal advocacy stance through releasing regular scientific reports (136), commentary on news events (137) and regular annual conferences IRHA. Researchers and physicians have consistently contributed to scientific advocacy for harm reduction. For example, in 2009 the Australian physician Alex Wodak stated "global drug policy should not be held hostage because some are in denial any more than is the case with HIV control, evolution or global warming (138). Scientific evidence must trump ideology".

The structure of international agreements suggests that illicit drug policy is unlikely to change in response to arguments based on science. The 2009 UN Political Declaration on Drugs (12), and 2011 on HIV/AIDS (19) sought to ensure that appropriate drug use prevention treatment and care were provided with reference to internationally accepted scientific and human rights principles, within each signatory country, in accordance with its national laws. Determining the most appropriate balance between science, human rights and law enforcement remained at the discretion of individual national governments.

The primacy of science as the most compelling argument for drug policy change is not universally shared among harm reduction advocates. Many researchers acknowledge that the successful implementation of harm reduction initiatives requires considerable sensitivity to the potential of deleterious social effects associated with illicit drug use, such as crime and business disruption (27,139,140). In practice, successful implementations of harm reduction initiatives have demonstrated a pragmatic sensitivity to local constraints. Successful advocates for harm reduction have negotiated local interventions with local residents, business and government agencies.
Politically feasible harm reduction programs have secured political commitment through successfully accommodating local values and local political concerns.

3.4.2 Funding constraints on harm reduction in Russia

The 2008 financial crisis resulted in decreased global resources available to fund harm reduction. The Global Fund has been the largest funder of harm reduction globally (131). As a result of decreased funding, in late 2011 the Global Fund severely curtailed funding for HIV programs, including harm reduction (141). In order to minimise disruption to existing programs, the Global Fund created a Transitional Funding Mechanism (TFM) (142). Two Global Fund-financed Russian NGOs, OHI and ESVERO received funding through the TFM (143). However, funding through the TFM was considerably reduced, and resources for advocacy and community systems strengthening effectively ceased in Russia under the terms of this arrangement.

From early 2014, harm reduction programs in eastern Europe and Russian Federation faced additional challenges. At that time, the Global Fund launched the New Funding Model (144). This model shifted funding prioritisation from high and middle income countries to low income countries. International advocacy organisations noted that the highest rates of disease transmission through illicit drug injecting were in high and middle income countries of the former USSR, including Russia (145). Advocates have challenged Global Fund criteria for financing harm reduction initiatives based on country income (140), and suggested the New Funding Model presented a fundamental challenge to the sustainability of harm reduction in the region. Advocates described changes to Global Fund criteria as a “global funding crisis for harm reduction” (147).
3.4.3 International advocacy against harm reduction by the Russian Federation

Several drug policy advocates have described an organised international campaign being conducted by the Russian Federation to counter advocacy for harm reduction. First, international advocates reported the Russian government’s inappropriate use of financial influence on the UNODC to prevent the adoption of internationally accepted scientific and human rights policies (148). Similarly, a 2014 report from the Global Drug Policy Observatory suggests that the Russian government has adopted an explicit international agenda directed at blocking international initiatives directed at harm reduction and drug decriminalisation at the 2016 UNGASS summit (149). Russian government engagement with civil society anti-drug networks such as ECAD (150) also appears consistent with Russia’s domestic and international stance opposing policies other than drug demand and supply reduction.

3.5 Summary

In this chapter I have argued that the Declarations of Political Commitment offer limited potential to influence illicit drug policy within any individual country. The Declarations on Drugs and HIV/AIDS explicitly defer to local values and legal constraints in determining how the international commitments may be applied within national boundaries. As a consequence, national political considerations take precedence over science in determining the scope of initiatives that may be directed at reducing illicit drug injecting related harms. Harm reduction in the Russian Federation experienced considerable reversals between 2010 and 2013. Diminishing donor commitments, and international anti-drug advocacy by the Russian government campaign restricted the scope and scale of international influence on domestic drug policy between 2010 and 2013.
3.6 Figures

<table>
<thead>
<tr>
<th>Convention name</th>
<th>Description</th>
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<tbody>
<tr>
<td>Single Convention on Narcotic Drugs 1961 (151)</td>
<td>This Convention aims to combat drug abuse by coordinated international action. There are two forms of intervention and control that work together. First, it seeks to limit the possession, use, trade in, distribution, import, export, manufacture and production of drugs exclusively to medical and scientific purposes. Second, it combats drug trafficking through international cooperation to deter and discourage drug traffickers.</td>
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<tr>
<td>Convention on Psychotropic Substances 1971 (152)</td>
<td>The Convention establishes an international control system for psychotropic substances. It responded to the diversification and expansion of the spectrum of drugs of abuse and introduced controls over a number of synthetic drugs according to their abuse potential on the one hand and their therapeutic value on the other.</td>
</tr>
<tr>
<td>Convention against the Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988 (153)</td>
<td>This Convention provides comprehensive measures against drug trafficking, including provisions against money laundering and the diversion of precursor chemicals. It provides for international cooperation through, for example, extradition of drug traffickers, controlled deliveries and transfer of proceedings.</td>
</tr>
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Figure 3.1 UN Conventions governing international illicit drug policy

| Part A to be administered to government officials                               |
|--------------------------------------------------------------------------------|                                                                                                                                                                                                 |
| I. Strategic plan                                                              |                                                                                                                                                                                                 |
| II. Political support and leadership                                          |                                                                                                                                                                                                 |
| III. Human rights                                                              |                                                                                                                                                                                                 |
| IV. Prevention                                                                 |                                                                                                                                                                                                 |
| V. Treatment, care and support                                                 |                                                                                                                                                                                                 |
| VI. Monitoring and evaluation                                                  |                                                                                                                                                                                                 |

Part B to be administered to representatives from civil society organizations, bilateral agencies, and UN organizations

| I. Civil society involvement                                                  |                                                                                                                                                                                                 |
| II. Political support and leadership                                          |                                                                                                                                                                                                 |
| III. Human rights                                                              |                                                                                                                                                                                                 |
| IV. Prevention                                                                 |                                                                                                                                                                                                 |
| V. Treatment, care and support                                                 |                                                                                                                                                                                                 |

Figure 3.2 National Commitments and Policy Instrument domains (20)
1. Needle and syringe programmes
2. Opioid substitution therapy and other drug dependence treatment
3. HIV testing and counselling
4. Anti-retroviral therapy
5. Prevention and treatment of sexually transmitted infections
6. Condom distribution programmes for people who inject drugs and their sexual partners
7. Targeted information, education and communication for people who inject drugs and their sexual partners
8. Vaccination, diagnosis and treatment of viral hepatitis

Figure 3.3 WHO comprehensive package of harm reduction interventions to prevent HIV among PWID (17)
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CHAPTER 4

Analysis of Russian illicit drug policy 2010 - 13
Chapter 4: Analysis of Russian illicit drug policy 2010 – 13

4.0 Chapter overview

This chapter provides an overview of contemporary Russian illicit drug policy. It is structured as a traditional thesis chapter. In this chapter, I analyse recent Russian illicit drug policy using the policy triangle. I identify themes present in recent Russian drug policy, and develop simple criteria to evaluate the political feasibility of these themes. These themes aim to provide the basis for further research. This chapter should be considered as an exploratory case study. It is directed towards identifying novel patterns within Russian illicit drug policy literature data, and describing a model for understanding that data. It is intended to stimulate further research rather than describing models of collaboration.

4.1 Overview of Russian illicit drug policy

By 2013 the Russian federal government had failed to control injecting drug use and the associated epidemic of HIV. There was a general international scientific consensus that illicit drug policies had contributed to the high prevalence of HIV, HCV, overdose and related health and social harms among PWID in contemporary Russia.

Assessments of Russian illicit drug policies have generally focused on several themes. Common themes include punitive illicit drug demand and supply control measures (1,2); human rights violations (3,4); anti-scientific and pseudo-scientific interventions for drug use prevention treatment and care (5–7); and insufficient civil society involvement (8). The deficits of Russian illicit drug policy are well documented in international literature.
However there is considerably less research into the political obstacles and opportunities that may allow some donor funded interventions based on international scientific and human rights principles to proceed. This research aims to identify themes that can form the basis of future internationally funded politically feasible interventions directed at reducing the social and individual harms associated with illicit drug injecting in contemporary Russia.

4.1.1 Epidemiology of injecting drug use in Russia

Estimates of the number of PWID in Russia have varied. In 2004 the World Health Organization (WHO) estimated there were 1.5 to 3.5 million PWID in Russia (9). However, estimates of the number of injecting drug users in the Russian Federation are generally regarded as inaccurate (10,11). Since the early 2000s, researchers have sought to improve population estimates of PWID in Russia (12,13).

The World Drug Report (WDR) provides annual estimates of illicit drug use globally based on self-reported national government data (14). The 2013 WDR provided an estimate of 3.27 million PWID in Russia during 2012. The 2013 WDR suggested that HIV prevalence among people who inject drugs in Russia has decreased by almost half, and that there had been a decrease of over 350 000 people who inject drugs living with HIV over the preceding three years. This estimate was disputed by Harm Reduction International (HRI), an international advocacy network (15). HRI disputed the validity of self-reported government data, and described the WDR as “misleading”. Moreover, in 2014 a Russian Federal AIDS Centre (FAC) report stated there had been no decrease in the incidence of HIV transmitted through drug injection in the preceding year (16). This FAC report cast further doubt on the validity of WDR data. The 2013 WDR debate reflects the ongoing uncertainty around the scale and trajectory of injecting drug use in the Russian Federation.
4.1.2 Defining political commitment

Political commitment by government is widely recognised as shaping national responses to health problems. Political commitment may be defined as the decision of government leaders to use their power, influence, and personal involvement to ensure that health programs receive the visibility, leadership, resources, and ongoing political support required to ensure effective action to limit the spread of and mitigate the impacts of health problems (17). Political commitment may be expressed as government statements of support, institutional changes and financial expenditure to a particular course of action (18). In the case of public health problems, sustained political commitment may produce measurable biological changes (19). For example, sustained political commitment was regarded as essential to national programs directed at the control of communicable diseases such as tuberculosis (20), HIV (21,22) and dengue fever (23).

4.1.3 Political commitment and Russian illicit drug policy

Between 2010 and 2013, the configuration of actors and institutions influencing Russian illicit drug policy changed. From 2010 onwards, the Russian government established new institutions and provided additional financing in an effort to reduce the individual and social harms associated with illicit drug use (24,25). However, these policy changes were based not on internationally accepted scientific and human rights principles, but on an amalgam of non-mainstream international, Soviet and post-Soviet initiatives. The scope of these policy changes has been described in analyses conducted by the internationally-linked Russian NGO Andrey Rylkov Foundation. See for example (7,28).
Over the period 2010 to 2013 Russian drug domestic illicit drug policy was regarded as relatively static in international literature. During this time international scientific literature did not report the intensity of Russian federal government engagement with domestic illicit drug policy. To date, the broader implications of the multi-sectoral shifts shaping Russian illicit drug policy have not been systematically analysed in international literature. Robust research is now needed to evaluate emerging initiatives that may influence the further evolution of illicit drug policy, and to identify opportunities to reduce the social and individual harms associated with illicit drug injecting.

4.1.4 Political feasibility and Russian illicit drug policy

"Political feasibility" is a measure of whether a policy proposal will be accepted, or not opposed by a sufficient number of the decision makers (27). Researchers have proposed several frameworks for evaluating the political feasibility of public health interventions. Examples of feasibility analysis include the political prospects of scaling up potentially controversial HIV interventions in Pakistan (28), and tobacco control policies in contemporary Russia (29). This analysis examines the Russian government’s political commitment to changing domestic illicit drug policies from the perspective of political feasibility. This analysis seeks to stimulate further research directed at reducing the social and individual harms associated with illicit drug injecting in contemporary Russia.
4.2 Method

I analysed Russian drug policy in three stages to identify recent interventions and develop criteria to measure their political feasibility. First, I used the health policy triangle to synthesise data from diverse sources. The policy triangle has been widely used to systematically describe the main dimensions of policy in both high and lower income countries (30). The policy triangle is a framework applicable to the political analysis of past policy implementation, and in future planning without directly explaining or predicting outcomes (31,32). The data sources on which this analysis is based include peer reviewed literature, important policy documents, news reports, and reports from international and Russian government and non-government organisations. Data sources were selected on a purposive, non-random basis. This approach to data sources was based on that adopted by Lunze and colleagues in their use of the policy triangle to study Russian tobacco control policies (29). Thus my selection of data sources approach was based on my prior knowledge of this policy domain, the objective of addressing each dimension of the policy triangle, and the exploratory nature of this research. Second, I identify a series of common drug policy themes associated with each dimension of the policy triangle. These themes were identified by the frequency of occurrence in selected literature. Only recurrent themes were incorporated into the final analysis. I use this to develop a simple typology for evaluating national-level Russian government support or resistance to potential international collaboration on illicit drug initiatives.
4.3 Results

The results of this study appear as a series of themes associated with each dimension of the policy triangle. These dimensions are: a) context; b) content; c) actors; and d) process. The results appear in narrative format in four sections, and as a summary table. See Figure 4.1. The themes identified in this study appear in Figure 4.2. Figure 4.2 contains a summary of themes present in contemporary Russian illicit drug policy and potential for international collaboration with Russian government agencies on illicit drug initiatives 2010 – 13. The first column, titled “policy triangle dimension” lists the themes identified in the narrative section of the chapter. The second column titled “consistency” is a subjective measure of the consistency with which these themes appear in Russian and international scientific and grey literature. For example, a small volume of consistent data is rated “+” where a moderate volume of consistent data is rated at “++”. The only data record is that which concords with each specific theme, and the overall aim of identifying interventions that may be considered politically feasible in the Russian Federation. The third column is a subjective measure of the potential for collaboration at the time the thesis was submitted in late 2014.

4.3.1 Context dimension of the health policy triangle

Context refers to the short and longer term determinants of health policy such as the political environment, cultural and international factors (32). This section provides an historical context to Russian illicit drug policy. I have divided recent Russian history into four periods. These are: the Soviet period (pre-1991); the Transition period (1991-2000); the Post-Transition period (2000 to 2010); and the contemporary period (2010-2013). This exposition of Russian history also traces the trajectory of contemporary Russian drug policy.
4.3.1.1 Historical context – the Soviet period (1917-1991)

During the first half of the 20th century, people living in the USSR were repeatedly exposed to profound demographic, social, political, economic and change. These included starvation, state terror, military conflicts, mass literacy, and industrialisation. However the period following Stalin's death in 1953 to the mid-1980s was relatively benign for most Soviet citizens. Contemporary public opinion of the post-Stalin Soviet era in Russia is positive (33). Among many Russians, the memories of the USSR remains favourable (34,35), including among individuals born after the Soviet collapse in 1991 (36).

From the late 1980s, reports of Soviet drug use were generally limited to particular geographic regions and social groups. At this time, illicit drug use was more prevalent in Central Asia, in youth subcultures, and among veterans returning from Afghanistan (37). Government restrictions on Soviet media slowly eased from 1986. Gorbachev-era Soviet media increasingly reported on social problems, including illicit drug use. Overall, information about the scale of existing drug use was limited before the end of the USSR in 1991.

4.3.1.2 Historical context – Transition (1991-2000)

The period following the end of the USSR in 1991 is generally termed Transition. During Transition, international donors assisted the Russian government to move from an authoritarian planned economy towards liberal democracy and market economics (38,39). Western financial and technical assistance aimed to transform the former USSR in a manner analogous to the Marshall Plan in Europe following World War Two (40). However, these reforms led to rapid declines in economic productivity, and mass impoverishment (41). Moreover, the institutions needed to enforce law and order, and to carry out Transition had collapsed (42).
During the 1990s the Transition process amplified the inadequacies in the late-Soviet health system. Communicable disease epidemics re-emerged (43), while mortality associated with non-communicable diseases accelerated. Vascular disease and violent deaths among young and middle aged adults contributed to marked increases in mortality (44,45). One estimate concluded an additional 2.5 to 3 million adults died prematurely in middle age between 1992-2001 in Russia alone (46). See Figure 4.1. In 1999, the United Nations Development Program warned of an emerging “human crisis of monumental proportions” across the former USSR associated with Transition (47).

Illicit drug injecting too increased during Transition. Researchers have suggested that Transition contributed both to generally poor physical and mental health (48,49) as well as injecting drug use among people living in the former USSR (50). Rhodes and colleagues describe the characteristics of post-Soviet “risk environments”, characterised by ease of access to drugs, high unemployment and collapsed public health systems (51). The researchers drew explicit causal links between the social circumstances of Transition, and the high prevalence of injecting behaviour in specific geographic locations across the USSR. In summary large scale illicit drug emerged during Transition, where little had existed before.

4.3.1.3 Post-Transition period (2000-2010)

In 2000, the first post-Soviet President Boris Yeltsin resigned. Vladimir Putin subsequently assumed executive authority over the Russian Federation. Aided by income from energy exports, the Russian economy grew rapidly (52). Russian GDP per capita increased from $USD 1 775 in 2000 to $14 037 in 2013 (53). Some commentators suggested that improved Russian economic fortunes during this time were accompanied by decreased mortality (54,55). However, the validity of the 2010 Russian census results that demonstrated this decreased mortality have been
questioned. Journalists invoked 19th century Russian author Gogol’s novel Dead Souls to describe alleged irregularities directed at demonstrating the demographic dividend delivered during the decade following the Yeltsin presidency (55,56). In the novel Dead Souls, Gogol’s central character deliberately falsifies demographic data for commercial gain.

Between 2000 and 2013 President Putin consistently enjoyed approval ratings between 63 and 85% (57). However, Russian relationships with the United States and international donors were adversely affected by the Coloured Revolutions in Ukraine, Georgia and Kyrgyzstan (58) and by military conflict with Georgia (59). Following these events, the Russian government progressively increased controls on internationally funded non-government organisations (57). In place of international funding, the Russian government expanded domestic grant programs to NGOs across multiple health and social policy domains (60,61).

During this period, the Global Fund to fight AIDS, Tuberculosis and Malaria (Global Fund) became the largest funder of harm reduction in Russia, with services delivered through local NGOs (62). However, Russian officials began to express increasing opposition to both the financing and content of international interventions. For example, Russian addiction specialists suggested that: methadone and harm reduction were malign Western influences that had contributed to Russia’s demographic crisis and epidemic of drug use (62); that internationally funded NGOs operating in HIV prevention promoted paedophilia (62); and that harm reduction had not prevented HIV among PWID in the US (64). The Russian government thus demonstrated progressively less tolerance towards advocacy for both internationally funded NGOs, and drug policy change based on internationally accepted scientific and human rights principles.
4.3.1.4 Contemporary Russia (2010-2013)

The period from 2010 to 2013 represented another turning point in recent Russian history. The year 2010 marked the beginning of a cycle of domestic protest activities directed against the Russian federal government. Public protests occurred in response to perceived government failures which included: managing nation-wide forest fires during 2010; the Khimki forest clearance; bureaucratic corruption; and electoral fraud. Political commentators suggested that widespread internet access amplified public dissatisfaction and facilitated public protests during this period.

Several drug policy issues were extensively debated in Russian national media between 2010-13. These included hearings over failures in Russian drug policy in the Russian Public Chamber; the release of an illicit drug strategy to 2020; the jailing of anti-drug crusader Egor Bychkov; concern over the use of internet for drug related information; a new inter-agency program and funding for Russian NGOs to provide drug rehabilitation; restrictions on information about OST and safe drug use; court mandated drug treatment; voluntary drug testing for high school and university students; and the emergence of new synthetic drugs such as krokodil and bath salts. As Russian drug policy changed, international financing diminished. The number of donor-funded harm reduction projects in Russia decreased from 70 in 2007 to 20 in 2011.

Between 2010 and 2013 Russian domestic drug policies were actively debated in Russian national media. However, the overall trajectory of illicit drug policy was shaped by the experience of Transition, growing social conservatism, diminished international collaboration, and international political events.
4.3.2 Process dimension of the health policy triangle

The "process" dimension of the health policy triangle refers to the development and implementation of government policies (32). Russian public policy processes are generally regarded as opaque and difficult to research (81,82). Literature on Russian health and illicit drug policy change processes is limited. I have therefore based my analysis on the broader international literature describing the characteristics of Russian decision making, and on the analysis of power. This “broader international literature” refers to literature outside of the health and illicit drug policy domains.

Power is regarded as the main determinant in health policy decisions (30). Power has been defined as “the capacity to introduce changes in the face of opposition” (83), as well as the potential to “mobilise energy...and bring about change” (85). I examine the operation of power through the general characteristics of Russian policy processes, civil society and health advocacy, and donor funded NGO advocacy.

4.3.2.1 Characteristics of Russian policy processes – ponyatie and the law

The defining characteristic of decision making in contemporary Russia is the power vertical (vertikal vlasti). The power vertical is a mechanism for the hierarchical transmission of central decisions downwards to regional and economic leaders across Russia (85). The power vertical emerged progressively from 2000 (86). From 2000, President Putin progressively centralised federal power by harmonising regional laws with Russian federal law, and by suspending the direct election of regional governors.
Several authors suggest the operation of Russian decision making may be more dispersed and complex than descriptions of the power vertical alone suggest. Ledeneva describes a public policy environment founded on incomplete legislation, broad bureaucratic discretion and a reliance on personal networks (87). Other authors suggest decision making is characterised by a reliance on verbal orders (88), political involvement in judicial decision making (89), and disregard for the rule of law (90). Overall, Russian decision making has been characterised as resilient system of "centralised informal governance" (82). Ledeneva suggests contemporary Russian decision making structures are "unpredictable and seemingly unmanageable (but also) glue society together, distribute resources, mobilise cadres (and) contribute to both stability and change". In summary, researchers suggest resilient informal elements co-exist with the power vertical within Russian decision making.

Ledeneva refers to the contemporary Russian decision making system as “sistema” (82). In addition, the term "ponyatie" commonly appears in Russian media and scholarly publications to describe "how things really get done" (91). The term "ponyatie" emerged from prison jargon into widespread Russian business and political use in the post-Soviet period. The relationship between law and ponyatie reflects scholarly distinctions between formal and informal rules of the game (92). Informal ponyatie rules parallel and intersect with formal policies and the law (93). Thus, the exercise of power in Russia requires command of a mutually reinforcing formal hierarchies and informal networks (82). The interaction of formal and informal rules and networks is not in itself unusual. Degrees of informality and power networks are recognised as a common feature of public policy (94–96). However, it is the intensity of these characteristics and the opacity of decision making processes that differentiates the Russian case (97).
4.3.2.2 Civil society, donor funded NGOs and drug policy advocacy in Russia

Civil society has been described as the sphere of social activity distinct from family, market and the state (98). A widely cited scholarly definition describes civil society as a “…set of diverse non-governmental institutions… to counterbalance the state … and prevent it from dominating the rest of society” (99). International researchers and agencies suggest civil society organisations serve as important advocates for science based policies aimed at reducing harms associated with HIV and injecting drug use (8). For example, UNAIDS suggests that civil society can advance collective interests, represent key populations, test innovations, ensure accountability and engage in direct service provision (100). Other authors suggest that civil society advocates need to maintain constant pressure on decision makers to ensure harm reduction interventions be implemented at sufficient scale in order to achieve a measurable biological effect (101). In summary, support for sustained advocacy by civil society organisations to achieve policy change based on accepted scientific and human rights principles has been a common feature of donor funded HIV and drug policy interventions across the globe.

The relationship between civil society organisations and the Russian state evolved between the 1990s and 2010. During Transition, scholars suggested that the emerging Russian civil society organisations could ensure the protection of individual rights and interests (102), and could also consolidate democratic change (103). To facilitate the growth of a post-Soviet civil society, international donors generously funded Russian NGOs across many policy domains, to deliver services and to reshape relationships between Russian citizens and the state (104). During the early 2000s, harm reduction advocates too, sought to influence the direction of Russian drug policy. In 2003, the first Russian NGO Forum suggested advocacy for drug policy change could be effective in Russia, and drew on international experience (105,106).
By 2006, Russian harm reduction advocates had considerable cause for optimism. From 2006, civil society delegates used the bi-annual Eastern European and Central Asian AIDS (EECAAC) conferences in Moscow as an international forum to exert pressure on the Russian government for drug policy reform (107). Russian NGOs participated in transnational harm reduction advocacy networks (108), and the Global Fund provided increasing financial support (109).

By 2013, the Russian federal government’s commitment to donor funded interventions based on internationally accepted scientific and human rights principles had eroded. Several factors contributed to this erosion. First, as Russia per capita income increased after 2006, the Global Fund progressively withdrew international funds (110). Second, the Russian government’s tolerance of advocacy measures for the OST, needle exchange and safe drug use information progressively decreased (111–114). Third, government pressure on internationally funded organisations increased. From 2006, donor funded NGOs became the target of increasingly stringent administrative controls. These included: NGO registration processes in 2006 (115); the repeal of concessional taxation arrangements in 2008 (116); and “foreign agents” registration in 2012 (117). Russian legislation thus adversely influenced donor funded organisations engaged in advocacy for harm reduction in Russia.

Some researchers have suggested that the Russian government may not be entirely responsible for the failure of donor funded NGOs in Russia. Several alternative explanations have been proposed. First, poor public opinion impeded donor funded NGO advocacy in Russia. See for example (118). A 2013 national opinion poll revealed mixed responses to donor funded NGOs operating in Russia (119). In response to a poll question about forced closure of foreign funded NGOs conducting political activity, 49% of respondents approved, 22% disapproved, and 25% were uncertain. Second, the actions of some donor funded NGOs in Russia may have diminished public support.
NGO manipulation of donor funding sources for personal gain in the former USSR is well documented (120,121). Narozhna notes popular use of the pejorative "grant eaters" to describe NGOs professing support for “the fads of civil society, human rights and environmental improvement” (122). Third, donor underfunding may have impeded NGO success. Spicer and colleagues found advocacy conducted by donor funded organisations was "tokenistic", and in part reflected donors’ expectation that local grant recipients should focus on service provision (123). Other researchers using similar methods into Global Fund financed NGOs concluded that donors routinely allocated insufficient funding for NGOs to conduct effective advocacy (124).

In summary, the relationship between Russian policy processes and international sponsored NGOs advocating for change is complex. The progressive erosion of the relationship between NGOs operating in the illicit drug policy domain and the Russian government was affected by the broad response to internationally financed civil society, as well as by a specific reaction against harm reduction. Consequently, by 2013 the mechanisms by which internationally funded NGOs could influence Russian drug policy were unclear (125).

4.3.3 Content dimension of the health policy triangle

The content dimension of the policy triangle refers to the substantive technical issues that comprise health policy. I identify five themes describing the technical failings of Russian illicit drug policy in international literature. These are: (1) funding of drug treatment and rehabilitation; (2) the poor opinion of drug dependency treatment among PWID; (3) the isolation of Russian medical education and practice; (4) the variable government stance towards harm reduction; and (5) government attitudes to donor funded harm reduction.
4.3.3.1 Funding of drug treatment and rehabilitation

Post-Soviet Russian government drug treatment and rehabilitation services were inadequately funded. Both injecting drug use and HIV prevalence increased steadily from 2000 onwards (126). However, at the same time, the Russian government progressively reduced funding for state drug treatment and rehabilitation facilities. Between 2000 and 2005, the number of inpatient facilities decreased from 203 to 192, and the number of outpatient facilities decreased from 2,000 to 1,975 (127). In 2004, the FSKN received funding to develop drug rehabilitation services. However this program was not implemented (128). In 2011, there were 160 state funded facilities and 400 non-government organisations providing rehabilitation services for drug dependent individuals across Russia (129). In 2013, the Russian National Centre for Addiction Medicine reported that the existing trend for reduced workforce capacity and reduced access to drug treatment and rehabilitation continued between 2011 and 2012 (130). In summary, as demand for drug treatment services grew, the Russian government withdrew resources.

In 2011 the Russian government announced broad changes to Russian illicit drug policy treatment and rehabilitation (25). The new policy proposed substantially increased funding, as well as measures to improve coordination between health, drug law enforcement and employment agencies. For the first time, certified NGOs would become eligible for government grants to provide drug rehabilitation services. NGO certification requirements specified administrative and clinical service standards including confidentiality, case management and occupational therapy to assist with resocialisation. Draft documents also suggested that grant recipients would be contractually bound to reject harm reduction, needle exchange, outreach work, as well as advocacy for methadone and "narcoliberal policy change" (76). In 2013, the FKSN requested an additional
$USD 5.4 billion to expand drug rehabilitation services (131). This proposed funding would be directed towards additional towards approximately 500 commercial drug clinics and NGOs.

The announcement of additional Russian federal funds for drug rehabilitation was greeted with scepticism by some Russian drug policy reform advocates (26). Advocates suggested the number of drug users in Russia was unknown, and questioned the federal government's non-transparent resource allocations based on addressing a problem of uncertain scale. Advocates also noted the privacy concerns associated with maintaining a national database of all drug users. Other critics suggested funds provided to the FSKN would likely be diverted (131). While additional funding was directed towards expanding services, the outcomes of these allocations on the social and individual harms associated with illicit drug injecting were not evident at the time of writing.

4.3.3.2 Poor opinion of drug dependency treatment among PWID

Russian drug dependency treatment and rehabilitation are poorly regarded by PWID. A 2003 study found widespread dissatisfaction with the quality of government services (1). In order to obtain illicit drug or alcohol treatment in a government clinic, individuals were required to register as drug dependent. Potential consequences of registration included regular outpatient monitoring visits, provision of information to employers, and loss of driver’s license for a period of five years. Russian Federal medical privacy laws also allowed the personal details of individuals being treated for drug dependency to be shared with police. Thus, seeking treatment for drug dependency could result in police harassment or arrest. Similar results were reported in a study of Russian government treatment services in two regional cities (3). In this study, PWID reported a profound lack of trust in government drug treatment services. Respondents reported lack of staff commitment and the presence of widespread corruption. Many informants claimed they could easily avoid registration as a drug user by bribing medical staff or police.
4.3.3.3 Isolation of Russian medical education and practice

The legacy of Soviet science has been suggested as a factor contributing to the generally poor health outcomes associated with Russian medicine (132,133). Other authors suggest that deficiencies in Russian medical education may be a contributing factor (134). These deficiencies include lack of exposure to evidence based medicine, epidemiology or biostatistics, and a system where hierarchical relationships and expert opinion prevail over science (135). The lack of incentives for scientific publication (136), insufficient English language skills, and reliance on pharmaceutical company information (137) have further contributed to the characterisation of Russian medicine in international literature.

International researchers have been particularly critical of Russian addiction medicine. Addiction medicine, known as "narcology" across the former Soviet Union, has been criticised for promoting ineffective pseudo-scientific treatments for drug dependence (5–7). Russian addiction medicine has been described as “shamanism decorated with science” (138). In summary, More than two decades after the dissolution of the USSR, the effects of cultural and scientific isolation continue to influence the practice of contemporary Russian addiction medicine.
4.3.3.4 Russian addiction medicine and the case of opioid substitution therapy

Attempts at introducing opioid substitution therapy (OST) illustrate the influence of addiction specialists on Russian drug policy. OST is widely accepted as effective in reducing injecting drug use related harms among PWID (139). In 2005, WHO added two OST medications, methadone and buprenorphine to the 14th Model List of Essential Medicines (140). From 2007, international organisations together with Russian NGOs commenced an advocacy campaign to reverse Russian government bans on OST, as one element of broad effort aimed at reforming illicit drug policy (141,142). However, this advocacy campaign was strongly opposed by prominent Russian addiction specialists. For example, senior Russian addiction specialists have suggested that NGOs advocacy for OST was a reflection of inadequate scientific capacity among international NGOs (143) and represented a clash of permissive liberal values with Russian family values (144). While the Russian government successfully muted NGOs within Russia (145), transnational harm reduction networks maintained pressure for the introduction of OST (146) via international advocacy.

4.3.3.5 Variable government stance towards harm reduction

The Russian government has demonstrated an inconstant and ambiguous stance towards harm reduction. For example, in 1999 Russian federal ministries recommended harm reduction as an effective method to reduce HIV transmission (147,148). In 2006, the Russian Federal government directly funded 10 pilot harm reduction programs across Russia (149). Further, between 2006 and 2010, the Russian government reimbursed the full operating cost of all Global Fund programs through supplementary contributions (150). During that period the Russian government thus indirectly financed all Global Fund harm reduction programs.
From 2009 onwards the Russian government became more strident in its opposition to harm reduction. In 2009 the government reversed an earlier commitment to maintain funding for Global Fund financed programs beyond their expiry (151). At a national conference in 2010, Russian Health Minister suggested harm reduction programs funded by the Global Fund had increased HIV prevalence by 3 to 4 times in those regions in which they operated (113). In that same presentation, the Minister defined harm reduction only as distribution of sterile syringes. Further, the Minister noted that distribution of sterile needles and syringes stimulated social tolerance to individuals affected by drug dependency, and as a consequence, breached the Russian criminal code.

The legal status of harm reduction programs has remained ambiguous in Russia. In particular, Article 230 of the Russian Criminal Code has created uncertainty for harm reduction projects within Russia (152). Article 230 describes criminal sanctions for encouraging individuals to use illicit drugs. When originally drafted, Article 230 made no exception for counselling or advice to users to reduce risk of HIV acquisition and transmission (3). NGOs operating harm reduction programs feared prosecution under this statute (153). However, the federal government modified Article 230 in 2003. This modification to Article 230 gave formal recognition to the distribution of drug injecting equipment for the purposes of HIV prevention (154). Despite the apparent legality of most harm reduction interventions, senior public officials publicly opposed the inclusion of these interventions into Russia policy. See for example (113). In summary, Russian illicit drug policy has not remained static. The Russian government stance shifted from initial acceptance, to rejection of harm reduction from 2010 onwards.
4.3.3.6 Negative attitudes to donor funded harm reduction programs

Russian medical (63,64,144,155) and law enforcement agencies (156) have publicly opposed harm reduction. Several international authors have similarly reported negative reactions to harm reduction among Russian medical agencies. Several researchers report characterisations of harm reduction as unsuited to Russian conditions (157,158). A 2005 study of 120 physicians attitudes to donor–funded health HIV and tuberculosis interventions in north-western Russia and the former Soviet Baltic states revealed mixed attitudes (159). Honneland and colleagues found that most respondents agreed on basic medical principles, and welcomed international financial assistance. However, several respondents also expressed concerns about harm reduction and donor funded interventions, seeing them as vehicles for democratisation and market reforms. Further, respondents reported that the strengths of Soviet medicine was insufficiently acknowledged by international partners, leading to frequent unreported clashes of culture. In summary, the technical failures of Russian illicit drug prevention, treatment and care systems are well documented in international literature. While these failures are well documented, detailed analyses of how these failures may be addressed are generally absent from scientific literature.

4.3.4. Actor dimension of the health policy triangle

The actor dimension of the policy triangle refers to individual or group with a substantive interest in an issue. Specifically, actors are those individuals or organisations with some role in making or implementing salient decisions (32). Actors involved in Russian illicit drug policy include government agencies, the European Court for Human Rights, international advocacy networks, as well as domestically and internationally funded NGOs.
4.3.4.1 Russian Government agencies

a. Federal Drug Control Service of the Russian Federation (FSKN)

The FSKN formulates drug trafficking policy, including control of money laundering and other financial aspects of the drug trade. The FSKN was established in 2003 (160). The FSKN collaborates with the UN office on Drugs and Crime and the US and European drug control agencies (161). Collaboration between the FSKN and international agencies between 2003 and 2013 increased. This collaboration lead to increased Russian influence on HIV and drug policy in Central Asia (162,163), the concurrent restrictions on mephedrone in the European Union (EU) and Russia (160,161). International collaboration also led to allegations of inappropriate Russian influence over international agencies. A 2012 report in US media (166). suggested the Russian government had attempted to use financial influence dilute international support for harm reduction at the UNODC.

The FSKN was been the lead agency for domestic drug policy initiatives from 2009. The FSKN rather than the Ministry of Health assumed responsibility for drug related health issues. For example the FSKN lead the campaign to ban sale of over the counter codeine containing medication from 2010-2012 (167), as well as drug treatment and rehabilitation policy reforms announced in 2011 (73). The FSKN was a consistent advocate for drug demand and supply approaches to reducing harms associated with illicit drug use.
b. State Anti-Narcotics Committee

The third main actor in Russian illicit drug policy is the State Anti-narcotics Committee (GAK). The GAK coordinates federal, regional and municipal agencies in order to prevent the trafficking of illicit drugs and their precursors (168). GAK is a 33 member committee, chaired by Viktor Ivanov, Director of the FSKN. It includes 10 Ministers, representatives of security agencies and the presidential administration.

c. Ministry of Health

The Russian Federal Ministry of Health is the central health policy formulating body for the Russian Federation (170). The Ministry develop and implements federal health policy and legislation, medical education, epidemiological monitoring, and drug licensing. The Russian federal health care system is government financed and health care professionals are government employees (171). Addiction medicine exists as a specialist independent service with the Russian health system. Similar specialist and parallel systems exist for HIV, sexual health and tuberculosis and other communicable and non-communicable diseases. However, the local referral policies between specialist services may do not easily accommodate PWID with multiple concurrent health problems.

d. Police

Russian police services are not directly involved in drug policy formulation, but implement and interpret Russian law. Widespread human rights abuses, corruption, and lawlessness among Russian police is well documented (172,173). Documented police actions against PWID include extortion, torture and rape (2,174). Russian police elicit limited public trust (175). In 2010, the Russian federal government introduced broad reforms to the police service, aimed at reducing
police corruption and professionalising operations (176). However some researchers question the capacity of Russian police services to reform (177) and the effects of police reform remain uncertain.

Researchers have consistently found corruption is generally considered to be acceptable among Russian police. See (178,179,172,180,181). A survey of trainee and junior police graduates found that significant numbers of informants perceived corruption to be justifiable or morally acceptable under particular circumstances (182). Acceptable behaviours included “planting drugs on a known active criminal”, and “extorting money from prostitutes and drug dealers”.

Street-level policing has been identified as a particular obstacle to safe illicit drug injecting practices. In the United States, researchers have suggested that police initiatives consistently created a reluctance among PWID to carry injecting equipment, to access sources of clean syringes, and non-sterile syringe sharing at the point of drug sale (183). This fear of the police forced these IDUS to focus on rapid injecting rather than taking precautions to reduce risk. Similarly, Russia street police practices have been identified as a factor contributing to unsafe injecting behaviour among PWID (2). Police extortion of money and sex,(154,3), arrest quotas, and beatings of “potential criminals” (51). have been consistently described in studies of the effect of street policing on behaviours among PWID.

4.3.4.2 European Court for Human Rights

In 1996 Russia joined the Council of Europe and the European Court of Human Rights (ECHR) (184). By joining the ECHR, Russia agreed to adopt an international set of legal standards and norms. Russian legislation prioritises ECHR decisions above legislation passed by its own Federal Assembly. Thus, the ECHR has routinely pressured the Russian government toward legal reforms
through Russian law. As a consequence, several fundamental European standards have been imported into Russian law, and Russian legal processes have been opened to greater international scrutiny (185). The influence of ECHR is generally regarded as positive and welcomed by Russian judiciary (186). In contemporary Russia, the ECHR has provided a formal legal channel for NGO advocacy.

4.3.4.3 International advocacy networks

a. International harm reduction advocacy networks

Transnational harm reduction networks collaborate with Russian NGOs to influence policy. Keck and Sikkink first described the potential of transnational advocacy networks to influence human rights and environmental issues (187). The researchers first described the theoretical foundation by which domestic advocates could amplify their influence through international networks to challenge and shame offending governments in international media, and pressure high income liberal democracies to exert diplomatic influence. International networks active in Russian drug policy between 2010-13 included the Ford Foundation; Open Society Foundation; Eurasian Harm Reduction Network; International Council of AIDS Service Organisations; AIDS Action Europe; Harm Reduction International (179); International Treatment Preparedness Coalition; International Harm Reduction Development Program; Human Rights Watch; and the International Drug Policy Consortium (189).
b. International drug prohibition networks

Russian officials and scholars participate in international non-governmental drug prohibition networks. The European Cities against Drugs (ECAD) network advocates against drug legalisation, and conducts “offensive preventative measures” against illicit drug use (190). By 2013, 200 cities from across Europe, including 50 from Russia were members. ECAD conferences have been attended both by senior Russian officials (191) and reputable members of the international scientific community. See for example the presentation by a Harvard Medical School academic in 2012 (179). The World Federation Against Drugs (WFAD) (193) is another drug non-government drug prohibition network. In 2012, FSKN Director Ivanov spoke at the WFAD international meeting (194). In summary, ECAD and WFAD represent an alternative international scientific community and civil society challenge to harm reduction. Further, Russian decision makers have actively engaged with these international civil society actors.

4.3.4.4 NGOs funded by international donors

By 2005, the Global Fund was the largest funder and strongest advocate for harm reduction across the globe (62). The Global Fund actively opposed prohibitionist drug policies globally, and funded advocacy for harm reduction in Russia. Between 2003 and 2013, the Global Fund approved USD $381 549 766 for the Russian Federation ($275 144 765 for HIV and $106 405 001 for tuberculosis) (195). A second category of donor funded organisations operate drug use programs strictly within Russian government guidelines. These organisations have collaborated with government agencies to provide a continuum of care aimed at preventing drug use related harms. For example, in 2010, The US international development organisation Population Services International (PSI) launched a five year program (196). Before 2010, the United States Agency for International Development (USAID), together with Russian Ministry of Education and regional governments, funded
programs targeting youth drug use prevention (197). Funded activities were peer to peer outreach programs for young people through vocational schools, youth clubs, NGO activities, and summer camps. However, the expulsion of USAID from Russia in 2012 (198) created uncertainty around the future of all internationally funded interventions.

4.3.4.5 Russian civil society

Several international researchers suggest that generally accepted analyses of post-Soviet Russian civil society following 1991 have been inaccurate (199–203). These researchers suggest that international media and scholarship under report, or caricature public debates over socially contentious issues in Russia. Ljubownikow describes the evolution of a Russian-style civil society with continuities from the Soviet era (204). Similarly, Finnish researcher Kulmala suggests that much of the criticism of post-Soviet Russian civil society has been based on scholarly biases towards Anglo-American liberal models (205). Kulmala conducted ethnographic research with NGOs in north-western Russia. Rather than analysing Russian NGOs through a liberal lens, he suggests that a “Nordic model” of state-civil society relations may offer more appropriate framework for analysing Russian civil society. Close collaborative relationships between government and NGOs as exist in Scandinavian countries may, he suggests, also more accurately reflect the emerging trajectory of the evolution of Russian civil society. In summary, the analysis of Russian civil society may require consideration of models other than those dominant in Anglo-American scholarly literature.
a. The Russian Public Chamber

The Russian Federal Public Chamber was formed in 2006. By 2009 Public Chambers had been established in four of the seven Federal Districts, 65 oblasts (provincial administrative units), and in several large cities (206). By 2013, 49 government agencies included advisory councils modelled on the Public Chamber (207). The Public Chamber is not a decision making body, but issues recommendations to government Ministers and agencies. Several ministries incorporated consultative bodies modelled on the Public Chamber. The Public Chamber "facilitates coordination between the socially significant interests of citizens of Russia, NGOs, and national and local authorities... to resolve the most important problems of economic and social development... to defend the rights and freedoms of citizens of Russia... (and) develop civil society" (198).

International researchers have given cautiously positive evaluations of the Public Chamber. Evans suggests the Public Chamber has at times served as a venue for intense criticism of government agencies by Russia civil society actors (199). Richter confirms the Public Chamber has served as a “lightning rod for social issues”, being one of few venues available to advocates (60,206). However, Richter also notes the absence of decision making power and accountability in the Public Chamber, decreasing its potential to represent civil society. Other researchers have reported similar reservations. For example Henderson has suggested that the governments and agencies appoint carefully selected NGOs to serve as politically acceptable representatives of civil society on Public Chambers (209), rather than serving as genuine advocates for public concerns.
b. Complaints bodies

Complaints mechanisms have been described by several authors as a “significant type of political participation in Russia” (210). Individuals have a range of formal mechanisms to submit complaints. These complaints include direct appeals to decision makers, regional and local service delivery agencies. Primarily, these complaints avenues are used to lodge complaints about social and economic rights, and the use of coercive force by government agencies. Other authors have ascribed the relative success of complaints mechanisms to the characteristics of Russian institutional arrangements. Lussier suggests that personal communications are generally regarded as more effective than protests or voting in achieving individually favourable decisions (211). Despite the relative success of complaints mechanisms in contemporary Russia, they have not been described in international drug policy literature.

c. Russian Orthodox Church

The Russian Orthodox Church (ROC) is a provider of non-government drug and alcohol rehabilitation services (212,213). The ROC enjoys widespread public and government support (214,215). From the early 2000s the ROC assumed a social leadership role in HIV and drug policy and as a direct provider of rehabilitation services (216). The ROC regarded post-Soviet HIV and drug use as symptoms of a broader social malaise. In the late 1990s, the ROC successfully campaigned to close both schools based sexual health programs and Medicins Sans Frontier HIV prevention campaigns (217). In 2004, the ROC successfully collaborated with the FSKN to reverse the liberalised drug possession laws introduced the previous year (218). In 2008, church leaders signalled their formal opposition to the Universal Declaration of Human Rights and to donor funded NGOs on the grounds of incompatibility with Russian values (219).
Bishops called for resistance to the socially corrupting "emerging system of liberal values...of lies, untruth and insults to religious and national values" disseminated by donor funded NGOs.

d. Domestically funded Russian commercial and civil society organisations

Domestically funded Russian NGOs engaged in service delivery have enjoyed considerable political, business, and public support. By 2012, there were over 400 000 NGOs registered in Russia (220). President Putin confirmed his support for NGOs, stating they had become state partners in social service delivery and in the development of local self-government (221). Business supported Russian NGOs through philanthropy. Russian philanthropic funds were directed towards supporting state approved projects and state-run institutions such as orphanages and hospitals. In 2004, 70% of Russian NGO income came from local corporations, while 10.7% came from overseas sources (222). Russian public opinion surveys too, suggest the existence of strong support for domestically funded NGOs engaged in charitable and welfare work (208, 209). In contrast to donor funded NGOs engaged in advocacy, domestically funded Russian NGOs engaged in social service provision have enjoyed high levels of political and public support.

Since the early 1990s, a wide range of commercial and non-government drug prevention, treatment and rehabilitation programs have operated in Russia independent of international funding. First, many local governments operated abstinence oriented youth programs (157). These programs were modelled on Soviet era youth organisations, and supported by regional and municipal administrations. Second, commercial clinics have provided medically supervised and anonymous drug treatment and rehabilitation. In contrast to government services, clients at commercial clinics were not registered as drug dependent, nor were they subjected to driving and employment restrictions or harassment. Among the most prominent Russian commercial provider is the
Marshak Clinic (215), which claims a 70% success rate in treating drug dependency (226). Third, are the non-government independent organisations providing long term non-medical rehabilitation such as Transfiguration of Russia (227) and City Without Drugs (CWD). CWD claimed an 85% success rate for their controversial approach to drug rehabilitation (219). Further, CWD were widely credited in the Russian media with influencing Russian federal drug rehabilitation policy (74,228–230).

4.4 Discussion

My research suggests that an analysis of Russian illicit drug policy can identify potentially politically feasible initiatives. "Political feasibility" is a measure of whether a policy proposal will be accepted, or not opposed, by a sufficient number of the decision makers (27). In this chapter political feasibility refers to consistent themes that appear in international and Russian literature. That is, politically feasible interventions directed at policy change that may be acceptable both to international and Russian decision makers. My findings are summarised in Figure 4.2.

Between 2010 and 2013, Russian illicit drug policy was influenced by an increasingly diverse range of actors than have not generally been reflected in international literature. During this time international research primarily focused on Russian government decision making. See for example Beardsley and Latypov (231). I believe these analyses reflect a narrow view of Russian policy mechanisms. By contrast, in this analysis I adopted a broader view of Russian drug policy. That is, of health policy as a reflection of government, as well as social, professional, and non-government activities, interests and statements (232). Based on this broader view, my analysis suggests international scholars should routinely examine a broader range of actors when analysing Russian illicit drug policy.
The behaviour of Russian actors varies across tiers of government. For example, at the federal tier, illicit drug policies appear formal and rigid. However, as a popular aphorism attributed to 19th Century writer Mikhail Saltykov-Schedrin suggests, "the harshness of Russian laws is tempered by non-compliance" (В России строгость законов умеряется их неисполнением). Russian government agencies routinely adapt central policy directives practices to local conditions. Local modification of central policies is consistent with scholarly descriptions of “street level bureaucracy” (233,234). The ubiquity and intensity of informal practices in Russian local decision making therefore merits special consideration. It is these informal practices that may provide opportunities for negotiating and implementing local responses directed at reducing the social and individual harms associated with illicit drug injecting.

I identified several potential opportunities for international collaboration. These opportunities were based on documented activities by specific organisations. These organisations include the European Court for Human Rights, Russian public chamber, Russian complaints bodies, ROC, as well as youth drug abstinence programs operated by local governments. Each of these organisations has demonstrated the potential to collaborate with international donors on activities that are broadly consistent with international scientific and human rights principles within prevailing constraints.

The interventions regarded as politically feasible by Russian decision makers require further analysis. First, themes acceptable to Russian decision makers should be incorporated as hypotheses and variables for testing in future qualitative and quantitative research. Second, interventions acceptable to Russian decision makers may not be politically feasible to international scholars and donors. For example, interventions directed at opposing universal human rights principles may not be considered politically feasible. Third, case studies identifying additional
themes among both donor and domestically funded Russian NGOs describing recent instances of successful drug policy change initiatives should also be explored. Such individual small-scale case studies may produce concrete and contextually relevant theory.

George and Bennett describe several reasons for using of case studies in social science research (235). These authors suggest 1) case studies allow complex concepts to be analysed across contexts. The authors suggest case studies may identify variables that may be amenable to subsequent statistical analysis; 2) case studies may identify new variables and hypotheses, and 3) case studies offer the opportunity to examine complex causal mechanisms and identify additional contextual variables that may not be incorporated into statistical testing. In summary, based on additional research, international donors and scholars can make decisions about supporting specific interventions directed at influencing Russian drug policy.

4.5 Summary

This analysis examined the Russian government's political commitment to domestic illicit drug policies change from the perspective of political feasibility. This analysis seeks to stimulate further research directed at reducing the social and individual harms associated with illicit drug injecting in contemporary Russia.

There is little prospect of embedding harm reduction principles into Russian law. However, there may be scope for donors to identify limited scale collaborative policy and service delivery initiatives with Russian organisations, in a manner consistent with international scientific and human rights principles. This chapter provided an overview of contemporary Russian illicit drug policy. I analysed recent Russian illicit drug policy using the policy triangle. I identified themes
present in recent Russian drug policy, and developed simple criteria to evaluate the political feasibility of these themes. These themes may serve as the foundation for further research.
4.6 Figures

Figure 4.1 Association between the annual change in age-adjusted mortality from selected causes of death (males aged 0–64) and gross domestic product per capita (1995 international dollars, purchasing power parity): Russian Federation Source: World Bank World Development Indicators and WHO (46).
<table>
<thead>
<tr>
<th>Policy triangle dimension</th>
<th>Consistency</th>
<th>Potential collaboration</th>
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<tr>
<td>CONTEXT</td>
<td></td>
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<tr>
<td>Poor quality data on PWID</td>
<td>+++</td>
<td>Positive</td>
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<tr>
<td>View of USSR</td>
<td>+++</td>
<td>Negative</td>
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<tr>
<td>View of Transition</td>
<td>+++</td>
<td>Negative</td>
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<tr>
<td>View of contemporary political events</td>
<td>+++</td>
<td>Negative</td>
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<tr>
<td>New and emerging drugs</td>
<td>++</td>
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<tr>
<td>PROCESS</td>
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<tr>
<td>Ponyatie and the law</td>
<td>+</td>
<td>Negative</td>
</tr>
<tr>
<td>Donor funded NGOs &amp; drug policy advocacy</td>
<td>+++</td>
<td>Negative</td>
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<tr>
<td>CONTENT</td>
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<tr>
<td>Government drug rehabilitation</td>
<td>+++</td>
<td>Positive</td>
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<tr>
<td>Drug treatment quality</td>
<td>+++</td>
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<tr>
<td>Isolation of medical education</td>
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<td>Russian addiction medicine</td>
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<td>OST</td>
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<td>Government stance towards harm reduction</td>
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<td>Professional attitudes to donor funded harm reduction</td>
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<td>ACTORS</td>
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<td>FSKN</td>
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<td>State Anti-Narcotics Committee</td>
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<td>Insufficient data</td>
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<td>Positive</td>
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<tr>
<td>Police</td>
<td>+++</td>
<td>Positive</td>
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<tr>
<td>European Court for Human Rights</td>
<td>+</td>
<td>Positive</td>
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<tr>
<td>International harm reduction networks</td>
<td>+</td>
<td>Positive</td>
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<td>International Drug demand reduction NGO networks</td>
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<tr>
<td>Donor funded NGOs</td>
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<td>Russian public chamber</td>
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<td>Russian complaints bodies</td>
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<td>Russian Orthodox Church (ROC)</td>
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<tr>
<td>Local youth abstinence programs</td>
<td>+</td>
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<tr>
<td>Commercial drug clinics</td>
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<tr>
<td>Independent rehabilitation providers</td>
<td>+</td>
<td>Positive</td>
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</table>

Figure 4.2 Summary of themes present in contemporary Russian illicit drug policy and potential for international collaboration with Russian government agencies on illicit drug initiatives 2010 – 13. The volume and consistency of data associated with each theme are recorded on this table. For example, a small volume of consistent data is rated “+” where a moderate volume of consistent data is rated at “+++”. 
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CHAPTER 5

A case study of the Russian Harm Reduction Network

(ESVERO): 2010 – 2011

unsubmitted manuscript

5.0 Introduction

Injecting drug use is a serious health and social problem in contemporary Russia. Since the late 1990s international researchers and donors have recommended that Russia adopt policies based on internationally recognised scientific and human rights principles to reduce harms among PWID. In the previous chapter I identified the erosion of international influence and the emergence of new actors in Russian drug policy after 2010. However, even as international influence waned, donor funded NGOs continued to operate. As political circumstances changed, donor funded NGOs evolved with the changing conditions, and sought to maintain engagement and exert influence over government decisions that affected the health of PWID.

5.01 Political feasibility

This chapter examines identifies initiatives that donor funded NGOs considered politically feasible. Political feasibility analysis is a form of policy analysis directed at understanding the influence of constraints and the exercise of power and persuasion in overcoming constraints to policy change (1). Potential constraints include actor’s skills and political support, the costs and benefits of a policy, the operation of formal and informal rules, and the compatibility of a policy with existing values (2).
5.02 The Global Fund in Russia

The Global Fund to fight AIDS Tuberculosis and Malaria (Global Fund) was the largest funder of harm reduction in Russia (3). Between 2003 and 2012, the Global Fund approved USD $381 560 785 for the Russian Federation (4). Global Fund financing to Russia flowed through three non-government primary recipient organisations, each of which focused on a different dimension of HIV and tuberculosis advocacy and service provision. This study focuses on one of those organisations, the Russian Harm Reduction Network (RHRN).

In 2006 RHRN submitted a Round 5 grant application to the Global Fund titled “Scaling up access to HIV prevention and treatment by strengthening HIV services for injecting drug users in the Russian Federation” (5). RHRN’s application was successful. In late 2006, the RHRN received its first Global Fund financing, in the form of a five-year grant. RHRN was funded to provide harm reduction services and advocacy across Russia through a regional network of NGOs (6).

By 2010-11, RHRN faced three threats to its ongoing survival. First, Global Fund regulations threatened RHRN’s ongoing sustainability (7). From late 2006, Russia was classified as an upper middle income country, limiting access to further grants. Second, new Russian government illicit drug policy placed increasing pressure on organisations conducting harm reduction activities from 2010 onwards. For example, the Action Plan For Implementing the State Anti-drug Strategy to 2020 called for "...policy proposals to restrict the activities of organisations directed at disseminating information about alternative methods of drug dependence treatment (opioid substitution therapy, harm reduction programs and others)” (8). As a result of this government pressure, the RHRN changed its name to ESVERO in
2010. Following this renaming, ESVERO described itself as a "non-commercial partnership for the support of social and public health prevention programs". For the remainder of this article, I will refer to ESVERO rather than RHRN. Third, all donor funded Russian NGOs faced increasing administrative pressure since 2008 (9). In 2008, the Russian government changed taxation laws for Russian NGOs receiving donor financing. In late 2010, President Medvedev relaxed these laws, in response to civil society pressure (10). However, in 2012, the Russian federal parliament passed additional legislation governing the activities of donor funded NGOs (11,12). These "foreign agent" NGO laws were widely reported in international media (13). In summary, the interviews that make up this case study took place in the context of ESVERO's likely imminent closure.

5.2 Study design

This case study aims to identify politically feasible interventions by Global Fund financed NGOs engaged in harm reduction in Russia in 2010-11. Case studies are "empirical inquiries that investigate a contemporary phenomenon within its real life context, especially when the boundaries between the phenomenon and the context are not clearly evident." (14). I adopt an exploratory embedded single–case design for this research. I define influence as "...changes to service systems, community norms, partnerships, public will, policies, regulations, service practices, business practices and issue visibility" (15). Harm reduction consists of pragmatic and scientific public health interventions that incorporate concern for PWID and their human rights (16). These rights include the right to life, security, access to health care, and protection from the community and the state.
In 2010-11, ESVERO was under considerable financial and political pressure. In this fluid political and funding environment I determined that formulating a clear hypothesis was not possible. I therefore selected an exploratory research design (17). Exploratory research is generally regarded as preliminary research. Exploratory research may also be used to address "what, why and how" research questions (18), and to generate theory (19). This exploratory research was directed towards identifying novel patterns within case study data, and describing a model for understanding that data.

This research was conducted between March 2010 and March 2011 through 34 in-depth key informant interviews. This study documents regularities in successful influence on Russian decision makers by donor funded NGOs. What constituted success was not defined for respondents. All the respondents interviewed were all engaged in harm reduction service delivery and advocacy between 2010-11.

I initially focused on five main themes in the interviews. These were: (1) current context of Russian illicit drug policy; (2) examples of drug policy influence; (3) enabling factors and barriers to harm reduction; (4) opportunities for increasing the scale of harm reduction in Russia; and (5) respondent's personal views on Russian drug policy. These areas of inquiry were deliberately kept broad to enable the respondents to share their experience of Russian illicit drug policy dynamics. Each respondent was interviewed between two and four times. The questions evolved iteratively over the term of the research phase, in response to new information obtained through interviews.
5.2.1 Recruitment and setting

I selected the key informants for this study through convenience sampling. All respondents were current and former senior employees and consultants to organisations financed through the Global Fund’s 5th Round to ESVERO. ESVERO was a single network composed of 33 NGOs and a peak organisation in Moscow. The units of data collection were respondents from individual NGOs including the Moscow organisation. This focused data collection on the ESVERO network in its entirety, rather on the actions of individual NGOs. I conducted the majority of interviews in Russian, and the remainder in English. The semi-structured interviews were of 1 to 1.5 hour duration and audio-recorded via Skype. In addition, respondents supplied me with publicly available Russian language documents they considered to be important. I became aware of the existence of these documents during the formal interviews conducted with respondents. These additional documents included the Russian Criminal Code (16); Hearing of the Public Chamber of the Russian Federation: Prevention of HIV in Russia: Problems and Prospects (17); the Federal Public Chamber Working Group on HIV/AIDS and Other Priority Communicable Diseases (18); Comments and proposals in response to recommendations from the Russian Public Chamber hearing on HIV prevention in Russia – problems and future development” (23) the State Anti-drug Strategy to 2020 (6,19); the Guidelines for Organising a Regional System of Social Rehabilitation of Drug and Alcohol Dependent Individuals (20); and the State Inter-agency Programme – Complex Rehabilitation and Re-socialisation of the Users of Narcotic and Psychotropic Drugs (26).
5.2.2 Data analysis

I analysed the data in four stages. First, a native-Russian speaking research assistant in Ukraine transcribed all interviews from the audio recordings in Russian. Second, I organised all Russian language interview data under major themes using hand coding. These themes reflect both the focus areas identified in the study design and those that emerged from the data. Third, I organised the themes under within the policy triangle framework (27). The policy triangle provides a flexible schema for organising policy related themes. Finally, I organised the themes into a simple typology. While some investigators have used more complex typologies for evaluating political feasibility. See for example (28,29). However I categorised the themes identified through this research into three criteria. These were: 1) the frequency of responses describing the theme; 2) the political feasibility of the theme for Russian decision makers; and 3) political feasibility for international donors. I considered there was insufficient theoretical and empirical data describing conditions within Russia during the date range of the interviews to propose a more complex typology.

5.2.3 Ethical considerations

The protocol for this study was approved by the University of Sydney Human Research Ethics Committee (Approval No.10128). At the commencement of the study, the Director of ESVERO, the primary recipient of Global Fund 5th Round financing in Russia disseminated a Research Participant Statement inviting senior staff in sub-recipient projects to participate in this project. Individuals responded to the research team via email. All participants were briefed on the study after which they signed an informed consent form. All the information in this case study is presented anonymously. The timing of the interviews was such that
there was no disruption in service delivery at any organisation. The respondents each received $US50 for each interview to reimburse them for their time and inconvenience.

I selected the RHRN case for the following reasons: 1) The geographic scope of RHRN initiatives; The RHRN was the only international donor funded organisation that implemented harm reduction programs at national scale in the Russian Federation in the 1998-2013 period; 2) RHRN's explicit focus on initiatives directed at reducing illicit drug use related harms and changing national illicit drug policy; and 3) my ease of access to senior actors across the network. Between 2006 and 2008 I worked on a commercial basis as a consultant with RHRN. I therefore had pre-existing relationships with several of the informants. This pre-existing relationship provided me with access to the board of directors and senior staff of the network, and facilitated the recruitment of informants. This relationship was documented in the study protocol approved by the University of Sydney Human Research Ethics Committee.

The tension between my earlier consulting work and research activities was addressed through the human ethics research approval process. In producing this paper, I anonymised informants job roles, geographic locations and personal characteristics. This anonymisation process was consistent with the requirements specified in the human research ethics agreement. This anonymisation was necessary to 1) for ESVERO to maintain positive relationships between members of the network; 2) for ESVERO to maintain positive relationships with international donor organisations; 3) for the researcher to maintain a positive relationship with my previous employer; and 4) to account potential future punitive actions against donor funded NGOs by the Russian government.
Chapter 5 is an unsubmitted manuscript. It is a case study describing advocacy for harm reduction conducted by an internationally financed Russian NGO between 2006 and 2011. In 2014 I decided against submitting this article for publication. I considered publication could potentially result in difficulties for ESVERO associated donor-funded NGOs operating in Russia.

5.3 Results

5.3.1. Context

Context refers to the short and longer term determinants of health policy such as the political environment, cultural and international factors (27). This section provides a summary of respondents’ understanding of the context of donor funded harm reduction in contemporary Russia. All respondents expressed concern for the future of ESVERO and of harm reduction in Russia. All respondents described their disappointment over the imminent expiration of international funding, and the lack of future prospects for many programs that had operated since the late 1990s. I identify three main themes in the interview data. These are: 1) the legal uncertainty surrounding harm reduction programs; 2) legislative changes in the illicit drug policy domain; and 3) NGO agency and adaptation to change.
5.3.1.1 Legal uncertainty associated with Statute 230 of the Russian Criminal Code

The majority of respondents referred to the uncertain legal status of harm reduction in Russia. This was primarily in reference to Statute 230 of the Russian Criminal Code (30). Statute 230 restricts the dissemination of information promoting illicit drug use. A 2003 amendment to Statute 230 allows for dissemination of HIV prevention information, conditional on agreement with implementing agencies of the Ministry of Health and the Federal Drug Control Service (FSKN). Several respondents suggested Statute 230 presented a theoretical risk to harm reduction programs, as directors could potentially be charged with promoting illicit drug use by conducting their routine activities.

Formal permission to conduct harm reduction activities was not usually sought by harm reduction programs operating in Russian regions. Rather, harm reduction programs generally operated on the basis of informal understandings with law enforcement, health agencies and local governments. Some respondents suggested these informal understandings reflected a mutual recognition that donor funded harm reduction projects provided services valued by local decision makers. One respondent described the consequences of seeking formal approval for harm reduction activities.

*One project sought formal approval. And then they waited for 4 years. So then FSKN said they’d not received any instructions or guidelines, and so they couldn’t formally approve their work. And so, after the FSKN gave them formal advice that their project wasn’t approved, this was effectively a ban on their activities. And as a consequence, the FSKN could theoretically could send the harm reduction staff to jail. So, for years, they quietly worked and didn’t ask for permission. But then they asked for*
permission, and the FSKN gave them a formal response. Until they asked officially, both sides pretended not to see each other. But, now they can’t pretend any longer [M4]

5.3.1.2 Federal legislative changes directed against harm reduction

Several respondents referred to recent changes in Russian legislation. Released in 2010, the State Anti-narcotic Strategy to 2020 outlined the trajectory of Russian drug policy for the coming decade (24). All respondents described the Strategy as a reaffirmation of the Russian government’s commitment to prohibitionist drug policy. Further, all respondents described the Strategy in negative terms.

(The legislation) contains nothing new, and maintains the focus on repressive measures against drug use...the repressive dimension of drug policy works against our efforts. Stricter drug laws, increased police raids, and the imprisonment of ordinary drug users. All of these measures complicate our work and drive PWID further underground, and make them inaccessible to any kind of contact with our outreach services [A2]

One respondent described the public consultations preceding the implementation of the State Anti-drug Strategy.

In 2009, the FSKN put out a discussion paper for consultation at the federal level. In that document, they wanted to ban harm reduction outright. However, there was a backlash from many NGOs and international organisations. And, in the final version, the text referring to the ban was removed. So the FSKN removed the ban that hadn’t existed previously. On the other hand, there was no integration of harm reduction into local administrative or health systems either. And I suspect it’s likely this will never happen. [M2]
5.3.1.3 Russian NGO agency and adaptation to change

The NGOs that constituted the ESVERO network adapted to increasingly restrictive federal NGO and illicit drug policy changes. Several respondents explicitly avoided using the term harm reduction or advocacy to describe their activities.

...Instead we use the term “accessible services for at-risk populations”.[P3]

What’s the point of aggravating good relations with health and law enforcement agencies and disrupting the collaboration we’ve developed? [R2]

However, by 2011, some respondents felt harm reduction in Russia could be drawing to a close.

Harm reduction as a concept is being squeezed out. In any case it’s only got shallow roots.

Abstinence and moral virtue are the preferred mechanisms of managing drug related problems [M1].

5.3.2. ACTORS

Actors refers to individual or group with a substantive interest in an issue. Specifically, actors are those individuals or actors with some role in making or implementing decisions (22).

5.3.2.1 Federal agencies

All respondents described two government agencies as the most important actors in Russian drug policy. All respondents suggested that these agencies were strongly opposed to harm reduction, and that Russian drug policy was constrained by a repressive and prohibitionist policy orientation. The Ministry of Health was mentioned as an important actor by all
respondents. Specific services controlled by the Ministry of Health, including AIDS Centres, sexual health and tuberculosis services were mentioned by most respondents as important in implementing policy. The FSKN was mentioned by all respondents. Respondents were generally negative about the role of the FSKN in illicit drug policy formulation and implementation.

So, in 2009, the FSKN initiated a national campaign to convince decision makers that harm reduction does nothing, causes harm, and effectively works towards drug legalisation. I find it really quite to difficult to understand when law enforcement specialists start passing judgement on treatment problems, and rehabilitation problems, and on the functioning of civil society and so on.

But some pragmatism and good sense on the part of the FSKN also wouldn’t go astray.

Of course there are many problems, but if the FSKN exists, it should at least function effectively.

[A3].
5.3.2.2 Domestically funded Russian NGOs

Domestically funded NGOs and international agencies were relatively less frequently referred to than government agencies. The majority of respondents mentioned the domestically funded NGO City Without Drugs without prompting. The Russian Orthodox church was also mentioned by several respondents as an important actor shaping illicit drug policy. The Russian Orthodox Church's engagement with illicit drug issues was mentioned in broadly positive terms. Several respondents referred to the operations of international agencies in Russia. The Global Fund was most frequently mentioned. The majority of respondents referred to the Global Fund's flexibility and responsiveness. One respondent described that organisation as "bureaucratic and unwieldy" [P4].

In summary, all respondents were finely attuned to federal government agencies' policy pronouncements and actions, both nationally and at the local level. As the result of federal government pressure directed at donor funded harm reduction NGOs, such an orientation towards subtle shifts in government agencies' policy position and pronouncements may also have reflected a search for mechanisms by which ESVERO projects might survive beyond 2011.
5.3.3. Content

The content vertex of the policy triangle refers to the technical issues associated with illicit drug policy (27). The content related themes that emerged from interviews included differences in values between NGOs and government organisations, opioid substitution therapy (OST), drug rehabilitation services, low threshold services and appropriate referral pathways.

5.3.3.1 Differences in values between NGOs and government organisations

Most respondents commented on values as a factor differentiating donor funded harm reduction projects from other Russian actors engaged in the illicit drug policy domain. Most respondents gave a negative evaluation of attitudes among senior employees of government agencies.

Officials say things like why should we be spending money on marginal elements of society, when there are masses of other people with serious problems who are more deserving? Such as children and older people, war veterans and pensioners. Or maybe they could use this money to build better roads, instead of spending it on society’s waste [M2].

But this kind of attitude is absolutely unacceptable, from either a legal or a moral perspective. No matter what, that individual is still a part of our society. No government decisions should lead to an individual’s fundamental rights and freedoms being breached [A2].
5.3.3.2 Advocacy for opioid substitution therapy

Opioid substitution therapy (OST) is internationally recognised as an effective intervention for reducing injecting drug use related harms among PWID (31,32). However, OST is banned in Russia. In 2005, WHO (World Health Organisation) added two OST medications, methadone and buprenorphine to the 14th Model List of Essential Medicines (33). From that time, Russian and international organisations conducted coordinated national and international advocacy to reverse the ban on the use of OST in Russia (34,35). All respondents described consistently negative attitudes towards OST by the FSKN and Ministry of Health. One respondent described the limitations of advocacy for OST.

*We recently wrote a letter to (President) Medvedev about OST. He referred that letter to the Ministry of Health And the Ministry said everything is under control, and OST is unnecessary. The Ministry said that every year more people on HAART (highly active anti-retroviral therapy), and every year there are fewer people getting infected with HIV through injecting. And that these successes were the result of implemented policies based on values and spirituality and healthy lifestyles among young people, including alcohol, tobacco and illicit drugs [M3].*

Advocacy for OST in Russia received consistent coverage in international scientific publications and mainstream media. International harm reduction advocacy organisations exerted sustained pressure on the Russian government to change policy. Within Russia, Global Fund financed NGOs involved in local service delivery expressed considerable reservations about introducing OST without additional reform of the Russian drug treatment system.
I used to think that Russia needed to introduce OST straight away. Now I’m convinced that we need good rehab services before OST [Y2].

Another respondent described their experience in Ukraine, where OST was available, but support services for PWID were absent.

The situation in Ukraine isn’t so great – there they just give them OST with no social or psychological support. There’s no point providing this kind of OST in Ukraine, or in Russia [P2].

Further, there was a recognition among most respondents of the need to continue service provision irrespective of the availability of OST.

In Russia, the subject of OST is closed. But in actual fact, OST is generally regarded as part of a package of services comprising harm reduction. Apart from OST there are lots of other interventions that make up harm reduction, which also bring results where our projects operate [A2].

In summary, advocacy for OST was regarded as complex undertaking. OST was seen by the majority of respondents as an intervention that could provide benefits in a reformed drug rehabilitation system. Equally, introducing OST was not regarded as a priority for harm reduction proponents.

5.3.3.3 Central role of government in improving access to drug rehabilitation services

Drug treatment based on scientific principles is regarded as an effective method for reducing the risk of drug related harms including HIV (32,36). However, international researchers suggest that Russian government drug treatment is unscientific and ineffective in managing drug dependency (37,38). Further Russian addiction medicine and rehabilitation are
underfunded (39,40). Government illicit drug rehabilitation services received progressively reduced funds from 2000 to 2012. All respondents emphasised the lack of rehabilitation services for PWID as perhaps the single most important barrier to reducing injecting related harms in Russia.

The addiction medicine (narcology) system is falling apart. No matter how it might be, its getting worse, turning into an impoverished, under resourced service. Like a poor cousin of medicine. [M3]...All across Russia, the situation is the same...drug treatment services are designed to extract money from drug users. Officially, drug treatment services are free. But when a client signs up, he’s told “we have nothing here - no medications or anything. If you want anything, you can get it if you pay for it.” [P2]

Another respondent described the ineffectiveness of government operated drug rehabilitation services.

And so they go to a rehabilitation centre than has no program, and is something between a scout camp (pionerskiy lager) and prison. It’s a closed facility, where they spend some time, where the staff are constantly changing, and the staff that are there have no specialised training. As you might expect, people aren’t exactly rushing to go there [P4].

To force people into drug treatment without rehabilitation and complex post treatment support, as happens in Russia today, is just a dead end.[U2]
Most respondents suggested that Russia urgently needed a comprehensive and integrated state system of drug use prevention, treatment and rehabilitation. All respondents stated that a shift in government policy was the only mechanism by which such change could be achieved. All respondents suggested that federal government direction was particularly important in the Russian context.

In the absence of adequate government drug and alcohol rehabilitation services, respondents suggested that many unlicensed and unregulated private and religious organisations had filled the demand. Many of these unregulated providers were modelled on Soviet-era LTP (Therapeutic Labour Prophylactoria) work camps (41). Individuals with alcohol, and less commonly drug dependency were referred to LTPs for 1-2 years on the orders of a local magistrate. Individuals referred to LTPs included "those avoiding treatment or continuing to abuse alcohol after treatment, individuals breaching labour discipline, public order or the norms of socialist community life." One respondent stated that proposals to revive Soviet drug and alcohol rehabilitation methods from the Soviet era were unacceptable.

Recently there has been a lot of talk about introducing mandatory drug treatment, or reviving the Soviet LTP system of forced labour camps for drug and alcohol dependent people. However, rather than anything concrete, I hear the message that drug addicts are enemies of society and must be isolated, rather than worrying about their rights [A2]
5.3.3.4 Local access to low threshold primary care services

The WHO Alma-Ata Declaration defined primary health care as incorporating curative treatment given by the first contact provider along with promotional, preventive and rehabilitative services provided by multi-disciplinary teams of health-care professionals working collaboratively (42). Ensuring access to appropriate health services for PWID is generally regarded as a human rights issue (43,44). Many PWID are reluctant to access traditional primary health care (45). Reasons for this reluctance include perceived discrimination (46), cost (44), low trust, low self esteem, depression and social isolation (48,49). In the Russian case, international research points to a consistent pattern of primary care avoidance among PWID. See for example (50,51). As a consequence, Russian PWID are generally regarded as a population hidden from health services and statistical reporting. Provision of primary care services accessible to PWID was regarded as very important by all respondents. This theme was elicited without prompting. Further, most respondents described access to health services as a human rights issue.

Most respondents regarded the provision of accessible primary care services for PWID as a mechanism of demonstrating the overall effectiveness of harm reduction approach to sceptical government decision makers.

We ran a project with the local AIDS Centre among PWID. If the truth be told, when we started, no-one believed us when we told them we would attract 300 PWIDs to the project [L1].
Many regional medical directors can see the pluses of harm reduction programs. In particular, it is the ability of harm reduction programs to attract this difficult to access group, and to identify new cases of HIV early. They can see the benefits, and they can also see our patients have better adherence to anti-retroviral medications [A1].

Several projects described the importance of demonstrating the accessibility of low threshold services for PWID to government decision makers through the use of data.

We send (the local administration) details of our work, to the assistant manager of social welfare services, and often to the governor. This data shows our services really are accessible, that a considerable proportion of the target population really do use our services. [p3]

Despite the local successes in improving access to primary care services, the small scale of ESVERO, and Global Fund projects suggests that many PWID are still at risk of injecting related harm.

A recent United Nations Office of Drug Control and Crime (UNODC) project worked with police and people arrested for drug use over 12 month period in 4 Russian regions. They found that 80% of people arrested for drug offences had no previous contact with any kind of services whatsoever. Not traditional health services, nor harm reduction. The only contact they had with any agency was getting constantly arrested by police. The police let them go, and they’d turn up again when they were rearrested. So the purpose of the UNODC project was to use their time in custody to evaluate their health status, and provide them with some care [A1].
5.3.3.5 Secondary care referral pathways

Secondary health care generally refers to services provided by medical specialists (52,53). All respondents described the importance of harm reduction projects serving as an accessible entry point to secondary specialised services for PWID.

*Our trusted doctor is popular among harm reduction clients. They go willingly to him for tests. And over time we’ve built up a database of our clients, about how many have hepatitis, how many sexually transmitted infections (STIs), HIV and tuberculosis (TB) [p1].*

*Compared with religious organisations, the attitude of drug addiction clinics to harm reduction is much better. The addiction specialists know, that 90% of the people that go to unlicensed centres will start using drugs again. At least with our clients, they aren’t going to get infected with HIV, STIs or hepatitis [u1].*

In addition to referrals into the secondary government health services, several respondents described the difficulties of obtaining appropriate referral for injecting drug users with co-morbidities.

*So you get this situation where PWID with TB come to a government rehabilitation clinic and get told – if you want to treat your TB, go to the TB clinic, but you won’t get any assistance or medication with your drug dependency there. If you want treatment for your drug dependency, go to an addiction clinic. So the person goes to the addiction clinic, who say - we won’t take people with active TB, because we can’t treat it here, and you pose an infection risk for other patients. This is a tougher problem than the question of drug treatment itself [B2].*
Respondents regarded these barriers to referring PWID with co-morbidities as a fundamental flaw of the Russian health system, as well as an administrative mechanism by which individual health facilities screened out PWID from accessing their services.

*Drug addiction services won’t admit people who need surgery, as happens in the case of many krokodil patients. And surgical services have problems with people using illicit drugs while they’re inpatients. So, these PWID just get kicked out for breaking the rules. And there just aren’t any addiction specialists on surgical wards. So as the result of the inflexibility of the health system, our clients suffer [P3].*

In summary, respondents described the lack of rehabilitation services as one of the main problems impeding Russian illicit drug policy. While the absence of OST ranked among the most important advocacy issues for international organisations, OST was regarded as secondary to rehabilitation by most respondents. Most respondents accepted OST was illegal, and therefore could not be deployed in contemporary Russia. Most respondents suggested that donor funded projects were most effective in influencing decision makers where improvements in prevention, treatment and care outcomes for PWID could be demonstrated. All respondents described the success of harm reduction projects in demonstrating their effectiveness as primary care providers and secondary care referrers in populations otherwise inaccessible to government health services.
5.3.4 Process

The process dimension of the policy triangle refers to the development and implementation of government policies and the exercise of power (27). I was unable to identify any theoretical models explaining the processes of illicit drug policy change in the Russian Federation. More generally, Russian public policy making has been characterised by bureaucratic discretion and a reliance on personal networks (28). Other authors suggest that the Russian legal system is one in which verbal orders take precedence over written regulations (56), political involvement in judicial decision making (57), and the rule of law is widely disregarded (58). Ledeneva further suggests that Russian decision making is characterised by a mutually reinforcing dual system of formal hierarchies and informal networks (55). According to Ledeneva, the exercise of power thus requires a command of the dual system rather than formal and visible arrangements alone.

I identify nine themes associated with the policy process. These are: (1) Russian exceptionalism; (2) scientific evidence does not influence decision making; (3) an expedient view of human rights in individual advocacy; (4) government disinformation; (5) advocacy through local service collaboration; (6) the Public Chamber and European Court for Human rights; (7) individual advocacy through courts and complaints mechanisms; (8) failures in donor funded harm reduction advocacy; and (9) mixed responses to the Bychkov Episode.
5.3.4.1. Russian exceptionalism

All respondents described decision making associated with illicit drug policy as a highly centralised hierarchical process. Most respondents expressed frustration at engaging with, accessing, and comprehending Russian decision making processes. All respondents suggested advocacy for policy change targeted at central decision makers within government ministries was impossible. Decision makers were regarded as inaccessible and unreceptive. When asked to describe a theoretical view of policy processes, most respondents provided a description similar to the stages heuristic (59). However most respondents also described Russian illicit drug policy in exceptionalist terms.

"None of the theories work here. We’ve tried everything. But in the end, it’s like throwing spaghetti against a wall and seeing what will stick” [S2].

Some respondents disagreed with the exceptionalist view of Russian decision making. These respondents suggested that informality, interest group politics and irrational behaviour characterised decision making in all political systems.
5.3.4.2. Scientific evidence does not influence decision making

Most respondents suggested scientific evidence and data used to advocate for harm reduction was regarded as irrelevant by decision makers.

“There is no evidence that you can bring to Russian government that will convince them to do this or that. [S4]

Nevertheless, ESVERO routinely provided federal and regional agencies with the results of evaluations and monitoring results.

How do they use this data? Most likely not at all. Unfortunately even from a scientific perspective, the surveys we produce aren’t really all that interesting. But they are a first step. They are really just a baseline [M1].

5.3.4.3. Expedient view of human rights

All respondents described an expedient approach to the deployment of human rights arguments. All respondents suggested that NGOs conducting individual advocacy to improve individual access to health services was effective. Most Russian respondents deployed human rights arguments primarily as a mechanism of improving access to health services for individual clients. This was consistent with a position in public health harm reduction literature, which suggests that human rights may be considered primarily an instrument for securing equitable access to health services for PWID (60).
We do use human rights elements in our work. And this can help. For example, some of our sex worker clients had only enough money for a single syringe from a pharmacy. The pharmacy didn’t want to sell them a single syringe, but told them to buy a pack of 10. We intervened on their behalf using human rights arguments [P4].

Respondents in regional cities were particularly aware of the need to maintain collaborations with decision makers in government agencies took precedence over theoretical and system-wide advocacy for human rights.

What are we supposed to do – chain ourselves to the door of the Ministry of Health? But all live in the same town, and we all need to work together. So we have to find some way to achieve our aims. It’s easy to ruin relationships, and difficult to restore them. In the past, our relationships were affected by strident human rights initiatives [P3].

Several respondents characterised advocacy based on human rights argument as a combative and ineffective approach to influencing decision makers.

In the first years we relied on human rights arguments and employed several lawyers. Now, we work collaboratively with government [k2].

We used to work with a human rights organisation locally. They make a lot of noise. Every Friday they find a reason to demonstrate against something. You can image how tired the local government is of their activities, and what kind of negative reactions they elicit [P2].
In summary, human rights advocacy, other than advocacy directed at improving individual access to health services was generally viewed as an ineffective, and counter-productive strategy for influencing illicit drug policy.

5.3.4.4. Government disinformation

Most respondents reported a consistent pattern of negative and misleading information about harm reduction from senior FSKN and Ministry of Health officials. Several respondents referred to an incident involving the Federal Health Minister. At a national conference in 2010, Federal Health Minister Golikova presented data suggesting the rate of HIV infection had increased by over 300% in subregions where Global Fund harm reduction projects had been conducted (61). In the course of the same presentation, Minister Golikova stated that the distribution of sterile needles to PWID "stimulates social tolerance towards individuals with drug dependency, and is a breach of the criminal code of the Russian Federation."

The Minister's statement was widely reported in Russian media. Respondents suggested that all the Minister's claims were untrue.

Respondents described further incidents of misinformation from senior health figures. The head addiction medicine specialist Evgeniy Brun has said publicly that harm reduction is banned, when this is not the case. Similarly, Mazus the medical director of the Moscow AIDS Center said harm reduction was based on "dubious science”. However he never explained what exactly about this science was dubious [U3].
Another respondent suggested that the dissemination of disinformation by government decision makers was an exercise of power. The respondent referred to the response of senior health official when challenged about the opposition to the use of condoms for HIV prevention.

*When asked for scientific evidence he replied “Why do we need the scientific basis? We have the money and we do what we want with this money” [S2].*

### 5.3.4.5. Advocacy through local service collaboration

Most respondents suggested local collaboration with government agencies to deliver services was the most effective method of influencing policy. Whereas central decision makers in the FSKN and Ministry of health were inaccessible and unreceptive, this was not the case in Russian regions. All respondents described examples of service delivery collaboration between regional harm reduction projects, regional administrations, and regional health and law enforcement agencies.

*It’s one of the paradoxes of our situation, that relationships at a regional level between government services and harm reduction programs are much more tolerant and positive than at the federal level.*

*This is very unfortunate, and points to the fragile connections between regional and federal government decision makers* [U1].

Respondents consistently reported the importance of demonstrating results over time to local health and FSKN agencies as the foundation for collaboration.

*We just have to prove to local decision makers that we are having a real effect on the HIV epidemic* [p1].
They are interested in reduced infection rates, reduced HIV incidence among IDU in specific regions, the progress of people over a one and two year period in our programs, the social and medical characteristics of clients after they’ve been involved with our program, how we influence anti-retroviral (drug) adherence, and how we influence individuals referrals to drug treatment and rehabilitation [A2].

Several respondents described the incentives that motivated government agencies’ collaboration. Respondents suggested government agencies were primarily motivated to collaborate with local harm reduction projects by self-interest.

Our work is facilitated by working using joint indicators We both refer to the same policy guidance documents issued by the federal ministry of health. This has made it much easier to discuss why certain monitoring and evaluation activities are taking place. And of course, by working together we help them to reach their targets [M3].

A few years ago they wouldn’t even talk to us... but now senior addiction specialists understand that if they don’t adopt emerging standards, then they won’t achieve any results and simply won’t be able to hold onto their jobs [P4].
5.3.4.6. Russian Public Chamber and European Court for Human rights

Several respondents referred to the Russian Public Chamber and European Court of Human Rights (ECHR) as effective channels for formal advocacy. ESVERO was engaged in advocacy for harm reduction through the Public Chamber. The Public Chamber is a government initiative to facilitate coordination between NGOs and government bodies in order to resolve important social and economic problems (62,63). The Public Chamber makes recommendations only to government and has no direct decision making authority.

One respondent suggested the ECHR was an effective mechanism for influencing Russian decision making. Russia joined the Council of Europe and the ECHR in 1996 (64). As a consequence, number of fundamental European standards have been imported into Russian law, and Russian legal processes were opened to greater international transparency (65). The influence of ECHR is generally regarded as positive and welcomed by the Russian judiciary (66).

5.3.4.7. Advocacy through courts and complaints mechanisms

International scholarly literature is generally critical of the Russian legal system (57,58).

However, several researchers reported that formal complaints and courts to be an effective method of resolving disputes and gaining access to government services. Complaints mechanisms have been described by several authors as a significant type of Russian political participation (67). Individuals have a range of formal mechanisms for submitting complaints, including direct appeals to decision makers, regional and local service delivery agencies (68). These mechanisms are primarily used to lodge complaints concerning social
and economic rights, and the use of coercive force by government agencies. Other authors have suggested personal communications are regarded as more effective than protests or voting.

Most respondents suggested that formal health system complaints mechanisms were an effective mechanism for resolving individual health problems with health system access. All respondents suggested that their organisations had successfully used these mechanisms to assist individual clients to gain access to government health services.

*If a person had been refused a particular service, then they just need to ask for an official paper describing why they have been refused a service, and immediately they’ll get the service they want.*

*It’s ridiculous that people have to fight for their health. But in Russia it is a reality. If you don’t know that these simple weapons exist, then you will lose the fight [S4].*

*There was one case where one of our lawyers made a formal complaint against a specific doctor who had failed to keep someone’s HIV status private. Such an individual shouldn’t be working in this field. Today, that person is no longer working in that clinic [K2].*

Complaints mechanisms had also been used in instances of mandatory testing for illicit drugs.

*There was a case in Kazan where the process of testing the students started and one guy said that “I will not test for drugs, I will not give my urine to be tested for drugs. And as a result he was not allowed to sit his exams. And so he went to the court, and sued the university. After that he was allowed to pass his exams, and nobody was interested in his urine any more [S4].*
Conversely, complaints about law enforcement officials were regarded as ineffective, and potentially injurious to health.

*It’s crazy to complain formally about the police. I know of one instance where someone complained.*

*He had to move cities, and his family became really concerned for his physical safety [S1].*

Further, advocacy to law enforcement bodies on behalf of individuals clients was described within the broader context of a compromised police and court system.

*It’s kind of a big family – the investigator, the prosecutor, the judge. And if you want, for example, to bribe your investigator – you have to bribe the whole chain involved into the system [S2].*

*As long as our court system remains ineffective, then we’re unlikely to see any meaningful changes either in policy making or it’s implementation [A2].*

5.3.4.8. Failures in donor funded harm reduction advocacy

Russian government actions and Global Fund financing criteria represented the main challenges to ESVERO’s capacity to conduct service delivery and advocacy operations. However, several respondents suggested that the structure and operations of the donor funded ESVERO project may have contributed to the negligible impact of the program on illicit drug policy.

First, ESVERO’s initial harm reduction activism was regarded as counter-productive by several respondents.
Someone in ESVERO a long time ago made a poor decision to adopt an aggressive advocacy stance [P2]...the government started to associate harm reduction with OST. This had a very negative influence on our work [A2].

Second, several respondents suggested that donor funded NGOs lacked the skills or professional background to conduct effective negotiations with the Ministry of Health. Respondents stated that the Ministry wanted to deal only with medically qualified and appropriately experienced individuals. Respondents speculated that the selection of inappropriate representatives by ESVERO to advocate for drug policy change to the Ministry of Health in the mid-2000s may have adversely influenced relationships with the Ministry of Health.

Add to this the attitudes of some NGOs... these NGO leaders just had no idea of how their own behaviour may have alienated Russian bureaucrats [P1].

I think there wasn’t adequate epidemiological expertise at the time harm reduction programs were first being set up in Russia”. [P4]...No attempt made to work towards demonstrating tangible outcomes to government officials in the early stages of the program [A3].

Third, several respondents were critical of the inappropriate indicators used to evaluate program performance.

We could measure how many needles we gave out...but not what the actual coverage might be..but then we ran into another problem – we don’t have enough money to cover all projects with needles. So, in fact, discovered our limitations. We now know what we can’t do [M3].
Some projects were just primitive in my opinion. I was surprised by one advocacy project that was funded. This application proposed that NGO staff play paintball with local junior FSKN staff [P3].

Fourth, most respondents referred to the small scale and inadequate financing of harm reduction projects.

Unfortunately harm reduction projects are spread too thinly across Russia. And what can you expect from 33 projects, and around 800 people working in harm reduction across Russia? Of course this program couldn’t prevent HIV. We don’t have the resources or financing to influence HIV across Russia [U2].

5.3.4.9. Mixed responses to the NGO City Without Drugs

In September 2010 a court case concerning the rehabilitation of illicit drug users emerged as a national media issue in Russia. The case involved Egor Bychkov, the president of NGO City Without Drugs (CWD) (69). The court case triggered a national media debate about the failures of the Russian government to manage the treatment and rehabilitation of drug users specifically, and of Russian illicit drug policy more generally. The domestically funded NGO CWD operated unregulated residential drug treatment and rehabilitation facilities. CWD allegedly engaged in assaults and forced detention of residential clients against their will (70). The majority of respondents had a strongly negative view of CWD’s activities. These negative views were primarily associated with CWD’s alleged human rights abuses. Further, the broad public support for Bychkov appeared to challenge their faith in their work in harm reduction and illicit drug policy.
I was shocked that the public reaction was one of total support for Bychkov. There was a huge media and political campaign to support “City Without Drugs”. The most prominent human rights, advocates, the head of Moscow Helsinki Group, and Lev Levenson supported Bychkov. As did “Echo of Moscovo” which is considered the liberal radio station. This process had a strong influence on my own perception. I just didn’t expect that this country is that crazy, really. I knew Russia was crazy, and the people don’t consider drug users as human beings, but I didn’t realise how total this is [S2].

I was very saddened by everything that went on around Egor Bychkov. It brought out in me a whole range of negative emotions. It’s clear that CWD’s activities falls outside of the frame of common sense, outside of any kind of evidence based practice. And as it turns out, it falls outside of the law too.” [A3].…. This has nothing to do with medical treatment. Rather I think these are some kind of fascist methods” [P3].

One respondent described the influence of CWD in shaping perceptions of appropriate government policy response to provision of drug rehabilitation services.

There’s now developed an idea among drug users, that rehabilitation centres are all about cruelty and handcuffing people to beds. And so drug users now think I want to refer them to somewhere like City Without Drugs. Drug users have seen these centres on TV, and it’s going to be hard to shift their ideas [K2].
However, one respondent described CWD less negatively.

We’ve done some work in Sverdlovsk subregion where they operate, so we have a pretty good idea of what they do. I’d say that there’s a lot of information around about CWD circulating, and not all of it is true. Yes, the CWD approach is not the best one for dealing with drug use. But I’ve been exposed to the other side of the coin, too. For example, I’ve seen many positive comments left by people that have been through CWD rehabilitation our website, about how CWD helped them to stop using drugs. Some people might regard CWD’s approach as cruel, but others go through the whole course of rehabilitation and it helps them [B3].

5.4 Discussion

This case study aimed to identify examples of successful and politically feasible initiatives as defined by Global Fund financed NGOs engaged in harm reduction in Russia. I identified several themes that merit further investigation. See Figures 5.1 – 5.3. These themes were based on respondents’ views of initiatives that had influenced Russian decision makers. I did not seek to identify causal relationships between the initiatives identified by respondents and influence on decision makers. Establishing causal relationships is complicated by the paucity of research into Russian health policy change processes, and the dual informal character of Russian decision making. Rather, the research describes variables that may merit further investigation in order to identify causal relationships and to develop a theory of change.
First, I found donor funded Russian NGOs were adapting to government pressures, and shifting from advocacy to service delivery. Several authors have suggested advocacy for HIV and drug policy reform in Russia has been underfunded and largely ineffective (71,72). Ljubownikow and Crotty describe the pragmatic acceptance of changes by almost all Russian NGOs in the interests of survival, and the evolution of a collaborative Russian model of civil society (73). ESVERO pursued a strategy of collaborating with government agencies to improve the health of PWID where projects operated. Through the sharing of data and referral pathways, ESVERO projects embedded themselves within local health systems. Such an approach may be interpreted as a response to pressures from the Russian government and international funding constraints. This evolution in ESVERO’s operations may also have been directed at securing ESVEROs survival and capacity to provide services beyond 2011.

Second, potential collaborations with the Russian government in drug rehabilitation warrant further investigation. Twelve months after these interviews were completed, the Russian government announced widespread changes and substantial funding increases to government drug rehabilitation services. These changes were influenced by Swedish and Israeli drug rehabilitation policies (26). Further, these changes also suggest Russian policy makers may be amenable to scientific collaboration with drug researchers from these nations.
Third, I identified local collaboration, and access to low threshold primary care services and secondary referrals as a particular strength of Global Fund projects. Respondents suggested that regional law enforcement and health officials had acknowledged and valued this attribute of Global Fund financed ESVERO projects. All respondents described the network’s strong orientation towards reducing the individual harms associated with illicit drug injecting, and on demonstrating these achievements to government agencies in the locations where ESVERO projects operated. Collaboration with government agencies was thus both a survival strategy for ESVERO projects, as well as a mechanism for influencing local health and law enforcement agencies.

Fourth, I identified the Public Chamber, European Court for Human Rights, and individual advocacy through courts and complaints mechanisms as potential mechanisms of policy influence. International researchers have suggested that donors facilitate access to Russian institutions such as complaints mechanisms together with the ECHR (66). Judicious provision of support for individuals involved in acceptable initiatives has been suggested as a mechanism for supporting the development of civil society in contemporary Russia.

Finally, several respondents described the structure and operations of Global Fund programs as a contributing factor that had limited ESVERO’s advocacy influence. Specific themes included harm reduction activism and the lack of medical expertise among ESVERO staff in the early stages of Global Fund financing. Second, respondents described the selection of inappropriate indicators and inadequate financing as further barriers. Global Fund indicators were initially not harmonised with Russian government indicators, and delayed collaboration with government agencies. Further research into the relationship
between Russian activists, PWID and professionalised NGOs in contemporary Russia may be warranted.

5.5 Further research

Future research should be directed at developing typologies of political feasible interventions based on case studies. Researchers have proposed several case specific typologies for evaluating the political feasibility of public health interventions in low and middle income countries. For example, Buse and colleagues developed a case-specific typology to evaluate the political prospects of scaling up potentially controversial HIV prevention interventions in Pakistan (25). Lunze and Migliorini assessed the feasibility of tobacco control policy interventions in contemporary Russia using the policy triangle (29). They then developed a case-specific typology to prioritise potential policies (eg increased taxes), based on estimates of the number of smokers affected, anticipated political resistance from stakeholders, scientific evidence and costs associated with program implementation at scale. The development of a similar typology for illicit drug policy may increase the value of politically feasibility case studies to international research and donor organisations.

The themes identified in this case study may be regarded as a starting point for the development of new hypotheses about illicit drug policy change in contemporary Russia. The themes identified in this exploratory study may serve as variables in further studies directed at establishing causal relationships. These further studies may in turn shape future international donor programs.
5.6 Limitations

This research had several limitations. First, I investigated a single harm reduction network financed by international donors. ESVERO served as a point of access into the Russian drug policy domain, as I had previously worked with several of the respondents in Russia. However, this exclusive focus on ESVERO also limited the range of views on Russian illicit drug policy. Second, I was limited to a small absolute number of informants. The potential pool of informants was initially approximately 50 individuals. In total 11 respondents proceeded with interviews. Each respondent was interviewed between 2 and 4 times. This provided the opportunity to identify and explore themes emerging from the interview data. Third, by 2011, ESVERO had become a marginal actor in Russian drug policy. ESVERO had shifted towards service delivery away from advocacy for illicit drug policy change. Ideally, this research would have included government actors. However, access to government decision makers for recorded interviews was unlikely. Finally, my data gathering for this paper coincided with the likely closure of all organisations affiliated with the ESVERO network. All the interviews were framed by ESVERO’s uncertain future. All respondents faced considerable professional and personal challenges.

5.7 Conclusion

This study identified examples of Global Fund financed NGOs influence on decision makers in Russia in 2010-11. ESVERO’s increasing alignment with Russian government illicit drug policy allowed the network to continue service delivery to PWID. In 2011, the Global Fund extended funding to the ESVERO network until at least 2014 (7,74). My findings suggest an
emerging recognition among international donor organisations that Russian civil society is evolving. International models of drug policy analysis too, may need to evolve in response. This does not suggest that advocacy for changes to Russian illicit drug policy to counter evident human rights abuses and unscientific practices should cease. Rather, case studies focused on identification of politically feasible initiatives may offer more immediate opportunities for international donors to reduce the social and individual harms associated with illicit drug injecting in contemporary Russia.
5.8 Figures chapter 5

<table>
<thead>
<tr>
<th>One</th>
<th>Few &lt;30%</th>
<th>Several 31-50%</th>
<th>Majority 51-79%</th>
<th>Most 80-99%</th>
<th>All 100%</th>
</tr>
</thead>
</table>

Figure 5.1 – Classification scheme for respondent responses

<table>
<thead>
<tr>
<th>1. Consistency of responses</th>
<th>How consistent were respondent responses?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Feasible Russian government</td>
<td>Is this theme politically feasible from Russian government perspective at all or any tier?</td>
</tr>
<tr>
<td>3. Feasible international donors</td>
<td>Is this theme politically feasible from the perspective of international donors?</td>
</tr>
</tbody>
</table>

Figure 5.2 Typology of criteria used to evaluate policy initiatives in ESVERO case
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Context</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal uncertainty associated with Statute 230</td>
<td>51-79%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Federal drug policy changes directed against harm reduction</td>
<td>31-50%</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>NGO agency and adaptation to changes</td>
<td>31-50%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Actors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSKN</td>
<td>100%</td>
<td>Yes</td>
<td>NA</td>
</tr>
<tr>
<td>Ministry of Health</td>
<td>100%</td>
<td>Yes</td>
<td>NA</td>
</tr>
<tr>
<td>Domestically funded Russian NGOs</td>
<td>80-99%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Content</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences in values between NGOs and government organisations</td>
<td>80-99%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Opioid substitution therapy advocacy (OST)</td>
<td>100%</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Central role of government in improving access to drug rehabilitation</td>
<td>100%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Local access to low threshold primary care service</td>
<td>80-99%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Local secondary care referral pathways</td>
<td>100%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Process</strong></td>
<td></td>
<td></td>
<td></td>
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<td>Russian exceptionalism in policy processes</td>
<td>100%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Scientific evidence does not influence decisions</td>
<td>80-99%</td>
<td>Yes</td>
<td>Equivocal</td>
</tr>
<tr>
<td>Expedient view of human rights</td>
<td>100%</td>
<td>Yes</td>
<td>Equivocal</td>
</tr>
<tr>
<td>Government disinformation</td>
<td>80-99%</td>
<td>Yes</td>
<td>Equivocal</td>
</tr>
<tr>
<td>Advocacy through local service collaboration</td>
<td>80-99%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Public Chamber &amp; European Court for Human rights</td>
<td>31-50%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Individual advocacy through courts &amp; complaints</td>
<td>31-50%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Failures in donor funded harm reduction advocacy</td>
<td></td>
<td></td>
<td></td>
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<td>- harm reduction activism</td>
<td>31-50%</td>
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<td>Yes</td>
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<tr>
<td>- NGO medical expertise</td>
<td>31-50%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>- Selection of appropriate NGO indicators</td>
<td>31-50%</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>- Adequate NGO financing</td>
<td>80-99%</td>
<td>Equivocal</td>
<td>Yes</td>
</tr>
<tr>
<td>Responses to NGO City Without Drugs</td>
<td>51-79%</td>
<td>Equivocal</td>
<td>Equivocal</td>
</tr>
</tbody>
</table>

Figure 5.3 Typology of criteria used to evaluate policy initiatives in ESVERO case
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impact and cost implications of primary healthcare outlets that target injecting drug users: A 

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CHAPTER 6

Searching for Truth:

Internet Search Patterns as a Method of Investigating Online Responses to a Russian Illicit Drug Policy Debate

Published paper

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Contributions: Zheluk conceived of and planned the study. Zheluk collected and analysed all results and prepared the first draft of the manuscript. Gillespie and Quinn provided advice and input to prepare the draft manuscript for journal submission. Zheluk, Gillespie and Quinn made contributions to the final draft of the manuscript for publication.

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Signature
Date 7/10/14

James A. Gillespie
Signature
Date 27/10/14

Casey Quinn
Signature
Date 7 Oct 2014
Chapter 6: Searching for Truth: Internet Search Patterns as a Method of Investigating Online Responses to a Russian Illicit Drug Policy Debate

6.0 Introduction

This is a methodological study investigating the online responses to a national debate regarding an important health and social problem in Russia. Russia has the largest Internet market in Europe, exceeding Germany in the number of users. However, Russia is unusual in that the main search provider is not Google, but Yandex. By exploring the relationship between Yandex and Google, this study contributes to the methodological literature on analysis of search patterns for public health policy.

6.1 Theory

Studies of Internet search patterns provide a low cost, rapidly accessible data source across a range of disciplines. Underpinning these studies is the principle that each Internet search is a behavioral measure of an issue’s importance to an individual (1). If individuals are concerned or interested in an issue, they are more likely to search for information related to that issue. The relative importance of an issue can thus be inferred from the volume of search queries for a specific term or terms representing that issue.
6.1.1 Infodemiology and infoveillance

The first studies of Internet search patterns were related to medicine. These initial studies examined the quality of online information (2), searches for cancer related information (3), and influenza surveillance use diverse data sources including Google advertisements (4), and Yahoo search trends (5). However it was the release of Google Insights For Search (GiFS) (6) and the publication of 3 influential articles in 2009 that provided an impetus to this emerging field. The 3 influential articles are Ginsberg’s study of influenza surveillance using Google data in Nature (7), Brownstein’s review of online surveillance in the New England Journal of Medicine (8), and Eysenbach’s consolidation of infodemiology as a distinct field of medical inquiry (9). Eysenbach describes infodemiology as “the science of distribution and determinants of information...specifically (on) the Internet, or in a population, with the ultimate aim to inform public health and public policy... (including) data on what people browse, buy, and read”. Where infodemiology methods are used for epidemiological surveillance, Eysenbach refers to this as infoveillance. Since 2009, Google data has been the main data source for infodemiology studies, across a wide range of health problems including dengue (10), depression (11), abortion (12), tobacco control (13), and the global Google Flu Trends site (14).

6.1.2 Analysis of search patterns in political communications

Infodemiology methods have also been applied to the study of political communications and policy processes (1,2-20). These studies are generally founded on agenda setting theory, and use Internet search patterns as a data source to complement opinion polling or traditional media (ie, television and print) coverage. Agenda setting theory suggests that issues prominently covered in traditional media are subsequently ranked as important (or salient) in public opinion polls (21,22). The transfer of issue salience from reporting in the media to influence public opinion is an
important concept in agenda setting theory (23). Agenda setting theory appears in health advocacy studies (24), but has not yet been incorporated into studies of Internet search patterns for health policy processes.

6.1.3 Agenda setting online

Since the early 2000s, studies of issue salience have increasingly focused on the interplay between traditional, online media, and the public agenda. A study of online bulletin board discussions found that media reports were rapidly reflected in online discussions (25). Rather than several weeks, themes emerged in online discussions within days of traditional media reports. More recent studies have used GIFS to measure and analyse search patterns in responses to prominent media issues. Granka suggests that issue importance can be inferred from overall changes in search query volume, and that search volumes rise and fall rapidly with public interest (1). Similarly, Scharkow suggests search patterns are the behavioral effects of salience, and provide valid and reliable measures of the public agenda (18).

6.1.4 Is issue salience applicable outside high income liberal democracies?

Most studies of issue salience using search have been conducted in the United States and Organization for Economic Cooperation and Development (OECD) countries. However, there is some uncertainty as to whether the transfer of salience from traditional or online media to public opinion is universally applicable in low and middle income countries with different institutional arrangements. For example McCombs suggested that agenda setting effects require a reasonably free political system and media (28). Other authors too, have noted the lack of research into how media shape public opinion in less-than-democratic nations. For example, Moy and colleagues point to "a glaring absence of (research about)... how citizens in these states respond to specific
televised messages or their attitudes regarding certain political and social issues” (29). This means it is difficult to infer public opinion from findings of issue salience in online media outside of high income liberal democracies.

6.2 The state of Russian traditional and online media

The Russian Federation is a middle income country with institutional arrangements that sharply contrast to those in the US or European Union (EU). Contemporary Russia has been described as a managed democracy (30) and an authoritarian state (31). Several studies have pointed to a complex relationship between Russian traditional media, online media, and public opinion. A study of Russian’s reactions to news broadcasts in 2005 reported marked differences between Russian and US viewer reactions to television news (32). Russians were found to adopt a range of cognitive strategies, routinely reinterpreting the frames presented in television news stories using complex reasoning outcomes. These strategies were, the authors suggested, consistent with Soviet-era television viewing. Others have noted unique patterns of online media use. In 2009, Russians were the most engaged social media users globally (33). Further, Russians engaged in unusually heterogeneous debates ranging across the political spectrum, as distinct from the partisan “echo chambers” that characterize online debate in the US (34). These studies caution against a simple transposition of agenda setting and issue salience theories to traditional and online media. This suggests more complex process than that suggested by agenda setting and issue salience theories.

6.2.1 Importance of Online Search in the Russian Federation

In 2011, Russia overtook Germany as the European country with the highest number of unique visitors online (35). Russian Internet users grew from 43% of the population in 2010 (36) to 55% in 2012 (37). In May 2011, Google provided 84% of Internet search queries globally (38). The structure
of the Russian-language Internet market is unique. Yandex provided 60% of Russian Internet searches in 2010-2011, compared with Google’s 25% (39). Further, Yandex offers the Wordstat (YaW) search pattern analysis tool as a direct competitor to GIFS (Table 1).

<table>
<thead>
<tr>
<th></th>
<th>GIFS</th>
<th>YaW</th>
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<tbody>
<tr>
<td>Daily data availability</td>
<td>2004-present for specified range</td>
<td>No</td>
</tr>
<tr>
<td>Weekly data availability</td>
<td>2004-present by default</td>
<td>12 months</td>
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<tr>
<td>Monthly data availability</td>
<td>2004-present for specified range</td>
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</tr>
<tr>
<td>Time lag to availability</td>
<td>24 hours</td>
<td>8 weeks</td>
</tr>
<tr>
<td>Data display</td>
<td>Relative to 100% in selected date range (eg, 73% on 4 June over June - July 2011 range)</td>
<td>Absolute raw figure (eg, 213515)</td>
</tr>
<tr>
<td>Normalized and scaled</td>
<td>Yes; algorithm non-transparent</td>
<td>No; raw absolute values</td>
</tr>
<tr>
<td>Threshold value</td>
<td>Yes; algorithm non-transparent</td>
<td>No; raw values</td>
</tr>
<tr>
<td>Issue comparison</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Geographic specificity</td>
<td>Limited</td>
<td>Detailed sub-regional data</td>
</tr>
<tr>
<td>Comparison concurrent terms</td>
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<td>No</td>
</tr>
<tr>
<td>Non-English search terms</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 6.1 Comparison of GIFS and YaW.

6.2.2 Russian Online Media

In response to political and media constraints, Russian political debate increasingly moved online during the 2000s, using platforms such as LiveJournal (40), and more recently, Twitter (41). RuNet has been described as a catalyst for social activism (42) political mobilization (43), as well as a channel for an alternative news agenda (44). As Internet use grew, corruption and abuses of government power emerged as important themes online. (See for example the anticorruption blog Rospil.net (45)). By 2012, the proliferation of Russian social commentary blogs prompted a Harvard study to described Russian online media as a “transparency watchdog” (41).

RuNet’s rapid growth led Russian media commentators to speculate that the Internet had eclipsed television’s traditional agenda setting function in importance (47,48). However, other observers have cautioned against overstating the importance of Russian online media, or its distance from mainstream practices. Less optimistic observers have described pro-government blogging...
campaigns (49), cyber attacks (50), monitoring dissent (51), and sophisticated security filtering through SORM 2 (52). National surveys too, suggest a more modest role for online media in shaping public opinion. A 2012 survey found 63% of Russians mostly or completely believe traditional media, while 43% mostly believe online sources (53). In summary, as elsewhere, online media provide Russians with an information source complementing traditional media.

6.3 Method

This is a methodological study that makes use of the unique characteristics of the Russian Internet search market. Firstly, we aimed to validate Yandex search patterns against those provided by Google. Secondly, we tested this method's adequacy for investigating online interest in a 2010 national debate over Russian illicit drug policy. In order to achieve these two aims we sought answers to the following questions:

1) What is the relationship between Google and Yandex search results?

2) What do search intensities and patterns reveal about the relative importance of an event?

3) How timely and geographically precise are GIFS and YaW results?

4) How do the search patterns during a national debate relate to salient drug issues?

6.3.1 Methodological Considerations

Researchers have devoted considerable effort to establishing the validity of search pattern studies. Validity is the extent to which a test measures what it claims to measure (54). The initial studies using GIFS established a correlation between search patterns and epidemiological surveillance data for influenza (7). Other studies focusing on issue salience, established a correlation between
search patterns, traditional media (1), and opinion polling (17). Studies with large data sets have commonly employed ARIMA tests (58) vector auto regression and visual comparison (59), and multivariate regression (17). Studies with smaller sample sizes have generally conducted bivariate analysis with little or no data preparation (18,62).

Several common warnings concerning validity recur in studies of search patterns. The unrepresentative demographic sampling of GIFS populations is the most frequently cited concern. The Internet user population is generally regarded as younger and wealthier than the overall population, although this cannot be elicited from search data directly (59). Scharkow et al expand on this concern, questioning whether survey populations from traditional surveys and search pattern studies are comparable (18).

The second concern relates to the disambiguation of search terms. Individual search terms may return ambiguous search results. Care with selection of search terms, and an appropriate range of search terms is necessary to capture the breadth of potential search terms for a concept (65).

Third, several problems are associated with the limited transparency of Google's treatment of data. Google does not reveal the threshold search volume used to determine whether data is reported on a search term in GIFS (66). This can produce unexpected zero values in time series. Further, Google provides results as relative rather than absolute data (That is, GIFS results are provided as a percentage relative to 100% during the user-defined date range–eg, 30% during June 2010). In addition, GIFS data is normalized and scaled, making comparisons between countries, regions and time spans difficult. Despite these limitations, there is a general consensus in the scholarly literature cited above that GIFS is a valid, low cost and flexible field research method. By analyzing
online response to a Russian illicit drug policy episode, we hope to develop further develop the methods of search pattern analysis.

6.3.2 The Bychkov episode

Illicit drug use is a serious social and policy problem in Russia. Russian public opinion surveys have consistently rated illicit drug use among the most serious of domestic social problems (67,68). However, Russian policy responses to this problem are generally regarded as punitive, unsupported by scientific evidence, and ineffective (69). The punitive aspect of Russian drug policies is exemplified in 2010 by a law prohibiting dissemination of drug related health information (70). In this complex environment, Russian reformers have compared attempts at influencing drug policy to "throwing spaghetti against a wall, and seeing what will stick” (71).

We selected the public debate surrounding the court case against socially conservative drug policy reformer Egor Bychkov as our case study. Bychkov was the president of an NGO operating a non-medical drug rehabilitation center in the provincial Urals city of Nizhny Tagil, 1900 kilometers east of Moscow. In October 2010, a local court convicted Bychkov of holding several rehabilitation clients hostage. His subsequent imprisonment sparked widespread coverage in the Russian national media. Although Bychkov was outspoken in expressing reactionary social attitudes (72) and his belief in harsh, unscientific treatment methods, he won support from socially liberal as well as conservative commentators for bringing the fight against corrupt local courts and police into the open (73). In November 2010, following national media support, and presidential intervention, Bychkov was released on parole (74). In June 2011, all criminal charges against Bychkov were finally annulled (75). In 2011, having achieved national prominence, Bychkov collaborated with leading liberal bloggers and opposition politicians in Moscow (76). In summary, the Bychkov episode was one of several concurrent episodes of opposition to Russian government
policies. In each case, traditional media sparked and spread popular outrage, leaving patterns of online search.

6.3.3 Questions

6.3.3.1 What is the Relationship between Google and Yandex Search Results?

We took the approach that this was an initial investigation with a small data set, and following earlier studies, did not cleanse data (62). This approach had the added advantage of allowing us to quantify threshold and relative data problems in GIFS. Our data collection and analysis involved the following steps.

First, we used the terms "Bychkov" and "Egor Bychkov" to represent the Bychkov episode. We used additional terms unrelated to the Bychkov episode to provide additional context for the Bychkov episode, and to test for the validity of correlation between GIFS and YaW. We identified the main Russian domestic news events of 2010 from end-of-year compilations on government and non-government media organizations (Table 2). Further detail about this process appears below.

Second, we extracted search data series for terms representing the Bychkov episode and concurrent events from GIFS and YaW. Studies demonstrating online responses to media events typically use weekly or daily GIFS data (eg, (16)). Weekly GIFS data and monthly YaW data were available. Daily GIFS data was unavailable, and most weekly GIFS data series recorded zero values for one or more weeks during this date range. We managed this by combining the weekly GIFS ratios, including zero values, to produce a GIFS value for each month.

This produced one time series of monthly GIF values, and another of YaW monthly values. We used monthly data in the date range between March 2010 and March 2012, as these were the maximum data points available in YaW. While this produced fewer data points than some
previous studies, these were sufficient to conduct a correlation analysis. We were aware monthly data was not sufficiently frequent to establish relationships between salient media issues and online search patterns.

Third, in the absence of daily or weekly data, we corroborated events during the peak period of interest in the Bychkov episode with other available measures. We created a graph plotting GIFS daily searches against relevant media reports identified in Bychkov’s blog (Figure 6.1). We anticipated that the one month time range between data points would make it difficult to distinguish changes in the relationship between individual news events and increased search. We therefore turned to a weekly GIFS series to provide visual corroboration of the relationship between traditional media and search patterns over the period of maximum public and media attention to the Bychkov episode.

Fourth, we conducted bivariate analysis of GIFS and YaW data. We plotted peak monthly GIFS and YaW monthly search values to produce two time series for each search term (Table 3). Given the diversity of approaches in previous studies and limitations in available data, we chose to restrict our statistical analysis to Spearman Rank Correlations only, with the aim of establishing convergent validity between GIFS and YaW results. In the case of the GIFS time series, the zero GIFS values were artifices of censoring. This meant that variations in the GIFS searches were restricted, and therefore the correlation was biased downwards. The true correlations were likely to be stronger than the estimated statistic.
Consistent with our study aim to minimize treatment of data, we did not adjust for seasonality. Moreover, we did not assess stationarity or autocorrelation in the data, or conduct formal time-series analyses, partly because this was consistent with the study aims, and also in response to the threshold issues in the GIFS data, which would bias any attempts to stationarize the data or measure autocorrelation.

Figure 6.1 Google Insights for Search (GIFS) and milestone events in the Bychkov episode.
[a] 25 September 2010 Radio Echo Moscow national broadcast about Bychkov episode 1 (11)
[b] 30 September 2010 Egor Bychkov Youtube public message posted (90)
[c] 2 October 2010 Radio Echo Moscow national broadcast about Bychkov episode 2 (91)
[d] 12 October 2010 Nizhny Tagil Court sentences Bychkov to 3.5 year prison term (92)
[e] 12 October 2010 President Medvedev publicly promises to resolve Bychkov issue (93)
[f] 13 October 2010 National current affairs program dedicated to Bychkov episode (94)
[g] 23 October 2010 Russian MPs debate Bychkov case on national TV (95)
[h] 30 October 2010 National current affairs program dedicated to Bychkov episode (96)
[i] 1 November 2010 National current affairs program dedicated to Bychkov episode (97)
[j] 3 November 2010 Bychkov released from prison (98).

2. What do Search Patterns Reveal about the Relative Importance of an Event?

The Bychkov episode was one of a series of important domestic Russian political events in the second half of 2010. Other concurrent events included the mismanagement of nation-wide forest fires, the Khimki forest clearance protests (79), and the "blue buckets" protests against the abuse of road privileges by economic elites (80). We identified seven protest-oriented Russian domestic events concurrent with the Bychkov episode from end-of-year compilations on government and non-government media organizations (Table 2). We selected a single term to represent each event
from the terms contained in the end-of-year compilations. We used these additional search terms
to provide additional context for the Bychkov episode in a complex political and media
environment, and as an additional source of data with which to test the correlation between GIFS
and YaW.

We then conducted limited corroboration of search patterns against opinion polls. We incorporated
data from the openly accessible FOMnibus weekly national opinion poll (81) for each concurrent
event. Please refer to Table 3. From FOMnibus, we used single peak values only, as an indicative
measure of peak public awareness.

<table>
<thead>
<tr>
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<th>RIAN b</th>
<th>Russia Today c</th>
<th>Gazeta.ru d</th>
</tr>
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<td>Non-government source (partially ranked)</td>
<td>Government source (ranked)</td>
<td>Government source (unranked)</td>
<td>Non-government source (unranked)</td>
</tr>
<tr>
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<td>Forest fires</td>
<td>Moscow metro bomb</td>
<td>Forest fires</td>
</tr>
<tr>
<td>2018 soccer world cup</td>
<td>Civil society actions including Khimki forest, Egor Bychkov, blogger Kashin assault, Manezhnaya riots</td>
<td>START treaty</td>
<td>Luzhkov fired</td>
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<td>Winter Olympics Sochi</td>
<td>Moscow metro bomb</td>
<td>Polish President killed in Smolensk plane crash</td>
<td>Khodorkovsky trial</td>
</tr>
<tr>
<td>Manezhnaya race riots</td>
<td>START treaty</td>
<td>65 years of Soviet Victory WW2</td>
<td>Manezhnaya race riots</td>
</tr>
<tr>
<td>Luzhkov fired</td>
<td>Administrative reforms</td>
<td>Forest fires</td>
<td>US spy scandal</td>
</tr>
<tr>
<td></td>
<td>2018 soccer world cup</td>
<td>Luzhkov fired</td>
<td>Wikileaks</td>
</tr>
<tr>
<td></td>
<td>Wikileaks</td>
<td>Khodorkovsky trial</td>
<td>START agreement</td>
</tr>
<tr>
<td></td>
<td>US spy scandal</td>
<td>2018 soccer world cup</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Police reforms</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6.2 Main events in 2010 from national Russian sources. a wciom.com 2010: Persons and events of the year 2010 (82) b RIAN Main events of the year: fires, drought, terrorism in the metro and START 2010 (82) c rt.com Russia’s ups and downs in 2010: the final cut 2010 (83) dgazeta.ru Between fire and ice - main political events of the year 2010 (84)
6.3.3.1 How Timely and Geographically Precise are GIFS and YaW Results?

In order for search pattern data to complement existing data sources, it should offer advantages in cost, timeliness or access to data. It was the availability of valid search data in advance of traditional surveillance that initially generated interest in this field. There are several differences related to the timing and geographic precision of data released by Google and Yandex. A comparative overview of the properties of public data released by these two search providers is outlined in Table 1. In Table 3, we compared the GIFS and YaW search term results for the Bychkov episode and concurrent events for Moscow, and separately for the remainder of Russia. Importantly, neither Google nor Yandex release all their data. For example, YaW can determine the physical location of individual users to their postcode, through Internet Service Provider (ISP) hardware locations (85). However, YaW only reveals public location data aggregated to the sub-provincial level, after two months. Google enforces similar restrictions on data availability. Commercial considerations by both search providers selling online advertising, rather than data availability, limit the release of precise and timely geographic location data.

6.3.3.2 How do the Search Patterns during a national debate relate to salient drug issues?

Illicit drug use and treatment are important Russian social and policy problems. We examined search patterns in order to establish the relationship between online responses to the Bychkov episode and illicit drug issues. Firstly, we identified the two main themes associated with the Bychkov episode. These were corruption (police and judicial), and drug issues. In order to identify these high level themes, we hand coded all 420 primary posts published on Bychkov’s personal blog (86) in the date range March 2010 to March 2012. In order to identify these themes, two Russian-speaking researchers coded the primary and secondary themes in the body of each blog post, but excluded comments from readers. This resulted in 28.6% of blog posts coded as drugs
(including addiction, illicit drugs, drug treatment, alcohol and tobacco), 18.3% as corruption (all sources including police and judicial) and 53.1% covering 17 other codes (including the Bychkov court case, Russian politics, the Orthodox Church, nationalism, pollution, sport, disability and philanthropic services). We assessed intercoder reliability on a random third of the total primary posts across the three themes (Kappa = 0.78). Consistent with the aims of this study, we then focused on the drug theme only.

Second, from Bychkov’s blog we identified the main drug themes in media reports about the Bychkov episode. We identified 57 separate national media reports referring to the Bychkov episode on Bychkov’s blog within the study date range. These media reports were coded, and aggregated to two main themes, drugs and/or corruption. From the reports covering drugs, we then identified three main drug sub-themes. These were "addiction" (narkomania), "illicit drugs" (narkotiki), and "drug treatment" (lechenie narkomanii), which resulted in 29.2% coded for drugs (including sale and purchase), 30.1% for addiction (including use and dependence), and 39.8% for drug treatment (including medical and non-medical rehabilitation). We then assessed intercoder reliability on a random one-third sample of the total coded articles (Kappa = 0.75). All events referred to in Bychkov’s blog posts were corroborated using the websites of government news agency RIA-Novosti and non-government news sources.

Third, we established the relationship between search patterns for drug themes and the Bychkov episode. We did this by defining search terms, date ranges and minimizing confounding between search providers. We used the three drug themes (addiction, illicit drugs, and drug treatment) as search terms representing salient drug issues. We then investigated the relationship between these terms and the Bychkov episode, through Spearman Rank Correlations. To increase sensitivity and minimize ambiguity, we restricted search to “Egor Bychkov” to represent the Bychkov episode.
Further, we restricted the date range to June 2011- June 2011. This date range search coincided with the period of Bychkov’s maximum national media exposure. Finally, we conducted separate correlations within GIFS and within YaW, to prevent confounding between search providers.

6.4 Results

We were able to gather data to achieve the two aims of this study. We gathered data with which to validate Yandex search patterns against those provided by Google. Secondly, we gathered data to test the adequacy search pattern analysis for investigating online interest in a 2010 national debate over Russian illicit drug policy. Our results are discussed in more detail below.

6.4.1 What is the Relationship between Google and Yandex Search Results?

Google and Yandex search results were positively correlated overall. We found a consistent pattern of strong to moderate positive correlations between the two search indices for the same term, both for the Bychkov episode and concurrent political events (Table 4). However, the relationship was weaker than anticipated. For example, “illicit drugs” has a weak negative relationship ($r=-0.15$). This was likely the result of GIFS returning zero values over several weeks during the specified data range. For example, GIFS searches for the term “Bychkov” displayed zero values in April, June and August 2010. During this period, YaW consistently recorded 54,000-68,000 searches per month. This is an example of the GIFS “threshold value” problem identified in earlier studies (75,18). Within any selected date range, GIFS scales search results relative to a 100% value within that range. This scaling produces different results depending on the date range selected. This effect on GIFS data is only evident when compared with YaW data. For example, GIFS search for the term “illicit drug addiction” returned 100% in October 2010 (date range March 2010-March 2012), and 100% in November 2011 (date range November-December 2011). YaW values for these peaks
GIFS dates were 132,000 and 167,102, respectively (Table 4). In summary, we were able to quantify patterns of missing data identified in earlier studies based on the use of GIFS data.

Visual examination of weekly results (Figure 6.1) suggests weekly peaks in GIFS indices corresponded to major milestones during the Bychkov episode. This provided further non-statistical corroboration, and face validity to the relationship between media reports and GIFS searches during the Bychkov episode.

<table>
<thead>
<tr>
<th>Search item</th>
<th>Russian</th>
<th>Correlation (rs)</th>
<th>P</th>
<th>Percentage of searches originating in Moscow according to YaW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bychkov episode</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egor Bychkov</td>
<td>Егор Бычков</td>
<td>.88</td>
<td>&lt; .001</td>
<td>32</td>
</tr>
<tr>
<td>Bychkov (surname)</td>
<td>Бычков</td>
<td>.78</td>
<td>&lt; .001</td>
<td>26</td>
</tr>
<tr>
<td>Illicit drug addiction</td>
<td>Наркомания</td>
<td>.72</td>
<td>&lt; .001</td>
<td>21</td>
</tr>
<tr>
<td>Illicit drugs</td>
<td>Наркотики</td>
<td>-0.1</td>
<td>.64</td>
<td>23</td>
</tr>
<tr>
<td>Drug addiction treatment</td>
<td>лечение наркомании</td>
<td>.53</td>
<td>.008</td>
<td>38</td>
</tr>
<tr>
<td>Concurrent events 2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fires</td>
<td>Пожары</td>
<td>.88</td>
<td>&lt; .001</td>
<td>25</td>
</tr>
<tr>
<td>Forest fires</td>
<td>лесные пожары</td>
<td>.62</td>
<td>&lt; .001</td>
<td>20</td>
</tr>
<tr>
<td>Khimki forest protests</td>
<td>Химкинский Лес</td>
<td>.92</td>
<td>&lt; .001</td>
<td>65</td>
</tr>
<tr>
<td>Yury Luzhkov (Moscow mayor Luzhkov forced resignation)</td>
<td>Юрий Лужков</td>
<td>.82</td>
<td>&lt; .001</td>
<td>50</td>
</tr>
<tr>
<td>Central Moscow football and race riots, and death</td>
<td>Манежная</td>
<td>.76</td>
<td>&lt; .001</td>
<td>51</td>
</tr>
<tr>
<td>Jailed oligarch Khodorkovsky court proceedings</td>
<td>Ходорковский</td>
<td>.8</td>
<td>&lt; .001</td>
<td>43</td>
</tr>
<tr>
<td>Blue buckets car protests</td>
<td>синие ведерки</td>
<td>.86</td>
<td>&lt; .001</td>
<td>64</td>
</tr>
</tbody>
</table>

Table 6.3 Correlation between GIFS and YaW of monthly frequency of search terms from March 2010 to March 2012
6.4.2 What do Search Patterns Reveal about the Relative Importance of an Event?

We found search volumes for the Bychkov episode were comparable to other prominent domestic political events during 2010 (Tables 4 and 5). GIFS values provide indicative comparisons of the relative importance of an event. However, YaW provides detailed raw numbers, allowing direct comparison of search patterns for an event across regions and across time. These tables provide comparative measures of the search volumes for the Bychkov episode and other concurrent events.

<table>
<thead>
<tr>
<th>Search term</th>
<th>Peak weekly national opinion poll - FOM - % of respondents</th>
<th>Peak week GIFS (100%) (week ending)</th>
<th>Peak month YaW (absolute counts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egor Bychkov (99)</td>
<td>6-7 Nov 2011 &lt;3% (bundled with criminal events and court cases)</td>
<td>16 Oct 2010</td>
<td>Oct 2010 (48,084)</td>
</tr>
<tr>
<td>Bychkov (99)</td>
<td>6-7 Nov 2011 &lt;3% (bundled with criminal events and court cases)</td>
<td>16 Oct 2010</td>
<td>Oct 2010 (146,689)</td>
</tr>
<tr>
<td>Illicit drug addiction</td>
<td>Topic not measured in FOM</td>
<td>22 May 2010 and 4 Dec 2010</td>
<td>Nov 2010 (170,485)</td>
</tr>
<tr>
<td>Illicit drugs</td>
<td>Topic not measured in FOM</td>
<td>22 May 2010</td>
<td>Nov 2010 (490,026)</td>
</tr>
<tr>
<td>Drug treatment</td>
<td>Topic not measured in FOM</td>
<td>Weekly data unavailable 100% in Oct 10</td>
<td>Nov 10 (9512)</td>
</tr>
</tbody>
</table>

Table 6.4 Peak interest in the Bychkov episode based on Public Opinion Foundation (FOM) GIFS and YaW during 2010.
<table>
<thead>
<tr>
<th>Search term</th>
<th>Peak weekly national opinion poll - FOM - % of respondents &quot;Which events reported in the media over the last week attracted your attention?&quot;</th>
<th>Peak week GIFS (100%) (week ending)</th>
<th>Peak month YaW (absolute counts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fires (100)</td>
<td>6-7 August 2010 67% (Anomalous heat, drought, loss of the harvest, forest fires, natural catastrophes)</td>
<td>2 August 2010 22,122,660</td>
<td></td>
</tr>
<tr>
<td>Forest fires (100)</td>
<td>6-7 August 67% as above</td>
<td>7 Aug 2010 215,397</td>
<td></td>
</tr>
<tr>
<td>Maneznaya race riots (101)</td>
<td>18-19 December 2010 30%</td>
<td>18 Dec 2010 December 2010 (408,283)</td>
<td></td>
</tr>
<tr>
<td>Khodorkovsky (102)</td>
<td>15-16 January 2011 1%</td>
<td>1 Nov 2011 December 2010 (199,262)</td>
<td></td>
</tr>
<tr>
<td>Yury Luzhkov (103)</td>
<td>25-26 September 2010 2%</td>
<td>Unavailable September 2010 (151,743)</td>
<td></td>
</tr>
<tr>
<td>Khimki forest protests (104)</td>
<td>4-5 Sept 2010 &lt;2% (bundled with other domestic events)</td>
<td>2 Oct 2010 October 2010 (53,403)</td>
<td></td>
</tr>
<tr>
<td>Khimki forest protests (105)</td>
<td>18-19 Sept 2010 &lt;2% (bundled with other domestic events)</td>
<td>As above As above</td>
<td></td>
</tr>
<tr>
<td>Blue buckets</td>
<td>Nil 0%</td>
<td>24 April 2010 September 2010 (39,140)</td>
<td></td>
</tr>
</tbody>
</table>

Table 6.5 Peak interest in Russian domestic events concurrent with the Bychkov episode based on Public Opinion Foundation (FOM) GIFS and YaW during 2010

6.4.3 How Timely and Geographically Precise are GIFS and YaW Results?

Google potentially provides timely search results, whereas Yandex provides more accurate geographic localization. However, both GIFS and YaW place restrictions on the data made available to the public. These restrictions are outlined in Table 1. Whereas GIFS potentially provides detailed, near real time daily data, we found gaps in actual data availability. For example, only weekly data was available for the search terms "Bychkov" and "Egor Bychkov". We described these gaps above in relation to GIFS threshold, scaling and normalization policies. GIFS does not provide detailed subnational geographic location data in Russia. However, YaW provides disaggregated search data to the level of individual Russian provincial cities. This
differentiation is important, as several of the most important domestic political events during 2010 were associated with events around the Russian capital Moscow. For example, the widely-reported Khimki forest and blue buckets protests, revealed an average of 65% and 64% of searches originating in Moscow (Table 3). This result suggests the protests were relatively more important to Moscow residents, even while Russian and international commentators ascribed national significance to these events (106,107). By contrast, only 26% of searches for the term "Egor Bychkov" came from Moscow, and the remainder from other parts of Russia. The Bychkov episode also generated greater absolute search volumes. These two results suggest the Bychkov episode was more important across Russia than the metropolitan protests.

6.4.4 How do the Search Patterns during a National Debate Relate to Salient Drug Issues?

We found moderate to strong positive correlations between search terms representing the Bychkov episode and terms representing salient drug issues in Russian media. In YaW, we found a moderate positive correlation of the term “Egor Bychkov” with the terms "illicit drugs" ($r_s = .77$), "drug addiction" ($r_s = .74$), and a strong correlation with “illicit drug treatment” ($r_s = .90$). These correlations suggest searches for “Egor Bychkov” were positively correlated to salient Russian drug issues (Table 6). GIFS produced weaker or absent correlations. We attribute this to missing data as described earlier.

<table>
<thead>
<tr>
<th>GIFS correlations</th>
<th>Date range</th>
<th>rs</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egor Bychkov &amp; Illicit Drugs</td>
<td>June 2010-June 2011</td>
<td>-.29</td>
<td>.17</td>
</tr>
<tr>
<td>Egor Bychkov &amp; drug addiction</td>
<td>June 2010-June 2011</td>
<td>.68</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yaw correlations</th>
<th></th>
<th>rs</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egor Bychkov &amp; Illicit Drugs</td>
<td>June 2010-June 2011</td>
<td>.76</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Egor Bychkov &amp; drug addiction</td>
<td>June 2010-June 2011</td>
<td>.74</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Egor Bychkov &amp; illicit drug treatment</td>
<td>June 2010-June 2011</td>
<td>.90</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

Table 7.6 Relationship between Bychkov episode and substantive drug policy issues
6.5 Discussion

This study contributes to the methodological literature on the analysis of search patterns for public health policy. Firstly, we aimed to validate Yandex search patterns against those provided by Google. GIFS results have been validated against relevant offline measures across a range of scholarly domains, and across a range of countries. We were able to establish strong to moderate correlations for most search terms between GIFS and YaW. This suggests the use of YaW is a valid measure of online behavior in Russia.

We tested this method's adequacy for investigating online interest in a 2010 national debate over Russian illicit drug policy. Our use of available monthly data was insufficient to establish a statistical relationship between media reporting and search patterns for the Bychkov episode. However, we corroborated the relationship between media reporting and the Bychkov episode through the use of GIFS data within a restricted date range, opinion polling data, and media coverage. We were able to establish face validity. This suggests that media reporting influenced online behavior during the Bychkov episode. These findings are discussed in more detail below.

6.5.1 Google and Yandex Search Results are Positively Correlated.

Previous studies have established the validity of GIFS data through relevant offline measures. This is the first study to validate GIFS results through YaW. We believe this approach has several advantages in the Russian-language context. By exploring the relationship between Google and Yandex search patterns in response to a drug policy debate, we were able to quantify several previously identified limitations of GIFS. We demonstrated shifting GIFS threshold values, and the extent of GIFS scaling and normalization of data through reference to YaW search results.
The presence of zero values in GIFS results merits additional discussion. The zeroes are artifices of censoring and that this means that variation in GIFS has been restricted, and therefore the correlation is biased downwards. The true correlation is likely to be stronger than the estimated statistic. The logic for the expected downward bias is that GIFS and YaW appear not to be substitutes, based upon the positive data observed.

Although time series in nature, the data were not adjusted for seasonality or non-stationarity, and autocorrelation was not assessed. This might have biased the results towards stronger, but spurious, correlation. However, this cannot currently be assessed due to the effect of the threshold used in reporting the GIFs data. If GIFS and YaW were substitutes this would bias the results in favor of a stronger negative correlation, which was not observed; if GIFS and YaW were complements (or if seasonality was strong), this would bias the results in favor of a stronger positive correlation. These issues will need to be explored in further analyses using larger and more transparent data.

At the same time, this result highlights some of the current limitations of publicly available search tools as a data source. Search pattern studies have emerged as an opportunistic response to the availability of GIFS and YaW marketing tools. The data Google and Yandex make available through these tools is only a small portion of that collected. Most of the limitations on data availability described in this paper are in fact constraints on data release imposed by the search providers themselves. Further, search providers routinely make changes to their services. For example, in September 2012, Google merged GIFS into the Trends online analysis service, incorporating GIFS capabilities into the latter (108).
6.5.2. The Bychkov Episode was a Relatively Important Domestic Political Event.

Several studies have deployed GIFS to determine the importance of political episodes, as a low cost and rapid alternative to opinion polling (1,17). We analyzed domestic events unrelated to the Bychkov episode to provide additional context for the Bychkov episode. We found search volumes for the Bychkov episode were broadly comparable to other concurrent domestic news events. For example, the controversy surrounding the jailed oligarch Mikhail Khodorkovsky was both reported in the domestic media, and produced high search volumes, suggesting this was an important issue. Conversely, the Khimki Forest and Blue Buckets protests produced low search volumes. While all three of these issues attracted international media coverage, our results suggest the last two of these were not important to Russians nationally. We did not set out to examine constraints on traditional media on Internet search. Future search pattern studies in Russia should account for the influence of mainstream media constraints on issue salience and Internet search.

6.5.3. Google Potentially Provides Timely Search Results, whereas Yandex Provides More Precise Geographic Results.

Previous studies have described GIFS potential to complement existing public health data sources by providing timely, geographically precise (10,18), and otherwise inaccessible data (62). Our results suggest timely GIFS data may not always be available in Russia. If GIFS data is missing, researchers will need to wait two months before YaW results are made available. While GIFS may not provide timely data useful for analyzing unfolding events, YaW is certain to provide delayed and detailed data. Geography is especially important in the Russian context. It is a large country, with many provincial cities, and considerable demographic variation. By comparing YaW raw data across specific regions, analysts may discern changes in search patterns for specific search terms.
across regions and across time. Based on our findings, we believe that YaW offers a potentially valuable tool to Russian drug policy researchers and advocates.

6.5.4. The Bychkov Episode was Positively Correlated with Salient Drug Issues.

Illicit drug use has long been among one of the most important social problems troubling Russians (67). We demonstrated a positive correlation between searches for Egor Bychkov and drug terms appearing in media reports associated with the Bychkov episode. This relationship merits further analysis. First, based on these results we are not able to distinguish between personal or sociotropic motivations for search (115). That is, we were unable to determine whether the concurrent increase in searches for the terms "drug use", "addiction", and "drug treatment" were motivated by individual’s health problems, or an interest in drug policy issues. This is consistent with Reis and Brownstein’s observations concerning searches for US abortion information (12). Second, unlike opinion polls, search patterns do not provide valency information. That is, search patterns offer no insight as to whether individuals support or oppose a specific issue. Further search terms to differentiate personal and sociotropic motivations, and to gauge valence should be considered in future search studies.

6.6 Conclusion

In conclusion, the Bychkov episode provides an opportunity to advance the science of search patterns. This paper investigated the relationship between Google and Yandex, and contributed to the broader methods literature by highlighting both the potential and limitations of these two search providers. We believe that YaW is a potentially valuable and underused data source for researchers working on Russian-related illicit drug policy and other public health problems. The Russian Federation, with its large, geographically dispersed, and politically engaged online
population presents unique opportunities for studying the evolving influence of the Internet on politics and policy, using low cost methods resilient against potential increases in censorship. As online use grows further, primary sources of available online data will also grow. Adapting and refining research methods to best take advantage of these constantly evolving primary data sources is likely to present researchers in health policy and political communications with ongoing challenges.

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References Chapter 6


CHAPTER 7

Exploring the influence

of the Russian NGO “City Without Drugs”:

a case study

Submitted publication
Author contribution statement

Zheluk, Andrey. "Exploring the influence of the Russian NGO “City Without Drugs”: a case study (Submitted for publication October 2014). Contributions: Zheluk conceived of and planned the study. Zheluk collected and analysed all results and prepared the first draft of the manuscript that is currently under review.

Andrey Zheluk

Signature

Date: 18 October 2014
Chapter 7: Exploring the influence of the Russian NGO "City Without Drugs": a case study

7.0 Introduction

By 2013 large scale international efforts directed at securing political commitment from the Russian government to change ineffective illicit drug policies were effectively exhausted. Over the preceding 15 years, internationally funded initiatives had failed to halt the steady increase of social and individual harms affecting Russian PWID (people who inject drugs). As a consequence, robust policy research is now needed to identify opportunities that may improve the health of PWID in contemporary Russia, and into the future.

This paper is an exploratory case study examining the influence of the domestically funded Russian non-government organisation (NGO) City Without Drugs (CWD). CWD has a national reputation within Russia for claimed successes in reducing the social and individual harms associated with illicit drug use in a large provincial Russian city. Further, CWD were widely regarded across Russia as being able to influence illicit drug policy, at a time when international advocates were not. In conducting this investigation I aimed to identify themes that could be incorporated into the planning of future international research and donor-funded interventions directed at influencing illicit drug policy in Russia.

7.1 Epidemiology of illicit drug use in Russia

Illicit drug use is recognised as one of the most serious health and social problems in Russia [(1–3)]. Drug injecting is the primary route of transmission of HIV and HCV in Russia [(4,5)]. By the
end of 2013 there were an estimated 3.27 million PWID, 798 866 PLWHA, and an estimated 77 896 new incidents of HIV across Russia [(5)]. This represented a 10% increase in HIV incidence over the previous year, including an increase in transmission of HIV through injecting drug use (2013-57% 2012 – 56.3%, 2011 – 55.8%). Illicit drug use is associated with a range of additional social and individual harms [(6)], including overdose. In 2008 there were an estimated 9 358 documented overdoses in Russia [(7)], with increasing deaths each year [(8)].

7.2. Characteristics of Russian drug policy 2010-13

Between 2000 and 2006 the Russian government exhibited a reserved commitment to international collaboration on domestic drug initiatives directed at managing HIV transmission, including transmission among PWID. The Russian government increased domestic funding, and senior officials made public statements in support of greater alignment with international initiatives [(9,10)]. However, between 2006 and 2013, the Russian government progressively reversed these commitments. The scale of harm reduction programs further decreased as international grants progressively expired [(11)], the global financial crisis [(12)] and Russian ineligibility for further Global Fund grants. The number of donor-funded harm reduction projects in Russia decreased from 70 in 2007, to 20 in 2011 [(13)].

The Russian federal government increasingly opposed both harm reduction [(14)] and internationally funded NGOs [(15,16)]. By 2013, internationally funded advocacy for harm reduction in Russia was effectively exhausted. Although internationally funded NGOs continued to operate across Russia, the scale and scope of services was much diminished and their future survival was uncertain.
7.3 Common themes in international analyses of Russian drug policy

Recent international scholarly analyses of Russian illicit drug policy have generally reflected several common themes. These include punitive illicit drug demand and supply control measures [17,18]; inadequate prevention, treatment and care services [19,20]; human rights violations [21,22]; pseudo-scientific interventions for drug use prevention treatment and care [23,24]; and insufficient civil society involvement [25]. These analyses share a common focus in that they document the distance between Russian illicit drug policy, and internationally accepted scientific and human rights principles.

7.4 Is there an impasse in analysis of Russian illicit drug policy?

From the late 1990s onwards, international researchers and advocates repeatedly called on the Russian government to reconfigure illicit drug policies to align with internationally accepted scientific and human rights norms. The Russian government largely ignored this advice. After 2006, the Russian government’s increasingly strident anti-Western sentiment replaced indifference. Senior government scientific advisers increasingly interpreted international scientific recommendations as representative of Western values, and thus inappropriate for Russia [26–28]. Recommendations to address human rights violations were similarly rejected for incompatibility with local values [(29,30)]. As Russian and international policy positions increasingly diverged, scholarly articles reiterated the decade-old themes that had failed to influence the trajectory of Russian policy. By 2013 there emerged an impasse in international analyses of Russian drug policy. Several factors contributed to this impasse.
7.4.1 Post soviet Transition and deficit analysis

International understanding of Russian drug policy was framed by the post-Soviet Transition. After 1991, much international scholarship reflected the intent of the US and Western allies to transform formerly Soviet republics into Western-style liberal democracies [(31)]. Donor initiatives remained broadly consistent with the goal of democratic change through post-Soviet civil society organisations [(32,33)]. Moreover, proponents of Transition assumed the Soviet system was profoundly politically and economically flawed [(34)].

International analyses from the 1990s onwards did not generally account for the complexity of the post-Soviet Russian social and political context. Post-Soviet societies were assumed to have inherited a fundamentally flawed legacy (34). Fundamental assumptions about the character of post-Soviet societies contributed to generally negative evaluations of Russian health systems and of Russian illicit drug policy. This generally negative framing of Soviet-era institutions by international scholars and donor programs has been characterised as “deficit analysis”, Deficit analyses are generally regarded as important in public health for clearly defining complex technical problems prior to the implementation of an intervention [(35)]. However, such analyses can potentially overlook the positive dimensions within a specific context that could potentially facilitate the desired outcomes of an intervention [(36,37)].

During the 1990s, Burrawoy and colleagues suggested that international scholars routinely analysed diverse post-Soviet social and economic systems in terms of what they lacked, rather than offering explanations of what had enabled them to continue to function [(38)]. Similarly, Collier and colleagues examined post-Soviet welfare reform in Georgia [(39)]. These researchers concluded analyses were primarily technocratic, and focused on identifying support or resistance to reform initiatives framed within then prevailing international theoretical approaches. Collier
and colleagues suggested such analytic approaches obscured the diversity of post-Soviet responses to social welfare provision, and overlooked the potential of local solutions. Thus, in addition to identifying many technical difficulties, international analyses have framed Russian illicit drug policy as a problem created by the failure of local institutions, and amenable to external technical resolution.

7.4.2 Local ideas, interests & institutions as barriers to policy change

While international researchers have critiqued donor funded interventions in post-Soviet nations, it is equally the case that the Soviet legacy continues to influence health systems across the former USSR. Moreover, in the Russian case, since 2006, these post-Soviet problems have been exacerbated by increasing wariness of international influence.

The legacy of Soviet science provides one example of how ideas interests and institutions have constrained the scope of decision making in Russian illicit drug policy. Decision making in contemporary Russian addiction medicine has been influenced by Soviet pseudo-scientific practices. Hansson suggests pseudo-scientific activities are those intended to create an impression of scientific endeavour, while not adhering to prevailing internationally accepted conventions at a particular time (40). The Stalin – era Lysenko agricultural genetics episode provides arguably the most widely documented example of the operation of pseudo-science during the Soviet period [(41)].

Stalin-era scientific norms continued to influence Soviet and then Russian scientific and medical practices long after Stalin's death [(42,43)]. For example, Raikhel described the strong influence of Pavlovian behavioural theories on contemporary Russian addiction medicine, long after these theories had been widely discredited in addiction medicine internationally [(44)]. Other authors
have suggested that clinical reasoning in contemporary Russian addiction medicine has been shaped by Soviet psychiatry [(45–47)].

Post-Soviet addiction medicine specialists have maintained Soviet era practices [(48,49)]. Russian addiction medicine specialists continued their research in scientific institutes, produced guidelines and shaped national illicit drug policies. However, these activities have largely been increasingly conducted in isolation from the international scientific mainstream opinion, and removed from economic competition with internationally accepted models of prevention, treatment and care [(23,50)]. In summary, the Russian addiction medicine profession may be considered to be an interest group that has had few material incentives to advocate for adoption of international scientific ideas concerning the social and biological harms associated with illicit drug use.

### 7.4.3 Access to field research

International researchers have consistently described post-Soviet Russian decision making as a difficult to research blend of formal and informal processes [(51–53)]. After 2010, access to key informants diminished further. Researchers conducting policy related field work in Russia have reported increased difficulties including police harassment of international researchers and informants and increased difficulty in obtaining visas [(54–56)]. The study of Russian decision making processes in health, as in other domains has thus diminished.

### 7.4.4 Recent Russian drug policy changes not reflected in international literature

The scope of recent changes to Russian drug policy has not yet been reflected in international scientific literature. From 2010, the Russian government committed to broad domestic drug policy reform [(57,58)]. Russian drug policy after 2010 incorporated the influence of: Swedish and Israeli approaches to drug rehabilitation [(58)]; the European Court for Human Rights [(59)]; domestic
complaints procedures \cite{(60,61)}; and domestically-funded drug policy activism \cite{(62)} alongside residual Soviet features \cite{(63)}. Russian NGOs have conducted analyses of recent changes in drug policy \cite{(24,64)}. However these analyses have been narrowly directed at advocacy for the adoption of internationally accepted scientific and human rights principles into Russian drug policies. The broader implications of multi-sectoral changes to Russian illicit drug policy for health outcomes have not been widely acknowledged or analysed in international literature.

Neither has international literature yet incorporated analysis of the intense domestic media debates surrounding the drug policy changes in Russia between 2010 and 2013. These changes include: hearings over the failure of illicit drug policy in the federal Public Chamber \cite{(65)}; the release of an illicit drug strategy to 2020 \cite{(66)}; the jailing of anti-drug activist Egor Bychkov \cite{(67)}; concern over the use of Internet for drug related information \cite{(68)}; a new inter-agency program and funding for Russian NGOs to provide drug rehabilitation \cite{(58)}; restrictions on information about opioid substitution therapy and safe drug use \cite{(69)}; court mandated drug treatment \cite{(70)}; voluntary drug testing for high school and university students \cite{(71)}; and the emergence of new synthetic drugs such as krokodil and bath salts \cite{(72)}.

In summary, most recent international scholarly analyses have maintained that Russian illicit drug policy is amenable to change in response to rational arguments founded on science and human rights. However, scholarly analyses and donor funded programs founded on these principles have achieved only limited influence on drug policy and population health outcomes for PWID over the decade leading up to 2012. Complex contextual factors have contributed to an impasse in both analyses and in donor funded initiatives directed at influencing Russian illicit drug policy.
7.2 Method

This exploratory case study examines the influence of the domestically funded Russian NGO City Without Drugs on Russian drug policy. I examined CWD's interactions with media during a national drug policy debate during 2012. This drug policy debate was triggered by the death of Tatiana Kazantseva, a resident at a CWD residential drug rehabilitation facility. By examining CWD I aimed to answer the following four research questions:

RQ1: Did the Kazantseva episode catalyse a drug policy debate?

RQ2. How was CWD framed in Russian traditional news media?

RQ3: How did CWD frame their activities in social media?

RQ4. Were CWD's health intervention effectiveness claims credible?

This case study is an examination of the context and mechanisms by which CWD influenced Russian illicit drug policy. Influence refers to "...changes to service systems, community norms, partnerships, public will, policies, regulations, service practices, business practices and issue visibility" [(73)]. I selected an exploratory research design [(74)] in order to identify initial patterns of influence within this case study data, and to describe an approach for interpreting that data.

Health policy analysis involves the appraisal of competing economic, political and values considerations in determining which health initiatives government decision makers will support [(75)]. In this paper I adopted a broader view of illicit drug policy. I assumed that drug policy refers to the decisions and activities of broad range of government and non-government actors, including media, researchers and celebrities.
7.2.1 City Without Drugs – an exploratory case study

CWD operated several therapeutic communities for drug and alcohol dependent people in Sverdlovsk oblast (province), some 1500km east of Moscow. Long led by the charismatic Yevgeny Roizman, CWD was an atypical provincial NGO. Roizman’s personal popularity afforded CWD influence across Russia. Roizman was a prominent blogger, children’s author, visual artist, entrepreneur and opposition-oriented social activist. CWD was first funded by a local crime syndicate in 1999 to reduce a regional epidemic of illicit drug use ([76]). Between 2003 and 2007, Roizman rose to national prominence as a maverick federal politician ([77]). In 2011, he served as the running mate of oligarch Mikhail Prokhorov in his brief election bid for the Russian presidency ([78]). In 2013, Roizman was elected mayor of Yekaterinburg ([79]), Russia’s fourth largest city and capital of Sverdlovsk oblast. A 2014 biography described Roizman as a regional Robin Hood ([80]). Popular perceptions of Roizman’s effectiveness as a drug warrior have provided CWD with a platform for mainstream political activity.

CWD is regarded as successful civil society actor within Russia and internationally. CWD is widely credited in the Russian media with influencing domestic drug rehabilitation policy ([62,63,81–83]). CWD were described as the first example of a civil society actor successfully advocating for the health of ordinary Russians ([67]), having exerted a strong influence on federal bureaucrats ([63]), and set the drug policy agenda ([84]). Popular opinion towards CWD were reflected in the statement of Russian celebrity, and former psychiatrist, who suggested “CWD [have brought] extremely important benefits to society. CWD activists deserve our respect for their empirical approach, which has demonstrated to the state, the effectiveness of mandatory treatment of drug addicts” ([85]).
CWD’s activities routinely attracted positive media coverage. The popular liberal media organisation Echo Moscow consistently applauded Roizman’s stance against government corruption [(82,83)], and apparent successes in controlling drug dealing and dependence [(84)]. CWD’s fame extended internationally. During 2011 the New York Times described CWD favourably [(86)], and the European Journal for Public Health described them as “...the only example of self-organisation of the Russian society for health and well-being” [(67)]. Other international organisations too, praised CWD’s commitment to participatory democracy [(87)]. Through adroit use of media, CWD crafted a reputation for social entrepreneurship, and a record of successfully controlling drug use and dependence in a large Russian city.

However CWD’s drug rehabilitation methods have also been controversial. These methods have allegedly included: beatings; handcuffing; forced detention [(88–90)] police arrest, and intimidation of critics (91). In addition to operating rehabilitation centres, CWD has engaged in vigilante-style actions directed at drug dealers in collaboration with local police [(92,93)]. Roizman consistently defended CWD’s methods by vilifying illicit drug users, describing PWID as “stinking scumbags” [94], “loser scum”[(95)] and “animals” [96]. He further claimed that “addiction is not an illness” [(90)] and “not a single addict wishes to be treated” [(97)].

7.2.2 The Kazantseva episode

In June 2012 a resident from a CWD women’s drug rehabilitation facility died several days after being transferred to a local hospital. According to CWD reports, the resident Tatiana Kazantseva succumbed to complications arising from a history of injecting drug use [(96)]. Media reports alleged that Kazansteva had been assaulted while resident at the CWD facility immediately before her death [(98)]. Following Kazantseva’s death, local police commenced a broad investigation into CWD’s activities. These police investigations produced additional allegations of mistreatment at
CWD centres [(89)]. Over the months following Kazantseva's death, national media covered these investigations. This coverage described CWD's activities within the broader context of Russian illicit drug policy.

I analysed the media coverage over the six months that followed Kazantseva's death. Previous research suggested that CWD had successfully used traditional and online media to influence national drug policy during 2010-11, in the face of opposition from Russian federal agencies [(67,99)]. I considered the Kazantseva episode to be an extension of these earlier political contests, and consequently focused my analysis on the broader issue of CWD's exercise of influence rather than the specific circumstances of surrounding Kazantseva's death.

**RQ1: Did the Kazantseva case catalyse a national drug policy debate?**

I used internet search pattern methods to establish the relationship of the Kazantseva episode to both illicit drug policy and to establish the scale of public interest in these events. Search pattern methods in political communications are based on agenda setting theory [(100,101)]. Underpinning search pattern studies is that the principle that relative importance of an issue can be inferred from the volume of search queries for a specific term representing that issue. The volume of aggregate Internet searches for a term can thus be regarded as a measure of public interest in a particular policy issue [(102)].

First, I determined the date range for the Kazantseva case. Kazantseva died in June 2012 [98]. Following a lengthy investigation, in mid-December 2012 a court failed to find evidence implicating CWD in her death [(103)]. I thus determined a 6 month date range bounded by these incidents was appropriate to examine the Kazantseva episode.
Second, I established the appropriate search terms to represent the public interest in CWD during the case. Internet search methods require the selection of appropriate search terms to represent a concept \[(104)\]. I evaluated several search terms including “Tatiana Kazantseva”, “Kazantseva”, “City Without Drugs”, and “Roizman”. See Figure 1.1. Of these search terms, “Roizman” returned the highest volume of aggregated search during the June – December 2012 data range. I therefore used the term “Roizman” to represent public interest in the Kazantseva episode. All searches were in Russian, at a national level. I used Yandex Wordstat in preference to Google Trends as the primary data source, and replicated the method described by Zheluk and colleagues \[99\].

Third, I confirmed that interest in CWD during the date range was positively related to drug policy issues. Zheluk and colleagues conducted a similar analysis of a 2010 CWD court case \[(99)\]. The authors identified strong correlations between searches for CWD related search terms, and terms representing drug treatment and rehabilitation. These correlations suggested that the 2010 CWD episode could be considered a national drug policy debate.

Based on the study by Zheluk and colleagues, I compared Russian weekly national search volumes for the Russian term “Roizman”, with the terms for ”drugs”, ”addiction” and ”drug treatment”. I assumed these three terms represented drug policy. I conducted Spearman correlations to examine the relationship between searches for drug related terms and the search term “Roizman”. I did this to ascertain if the Kazantseva episode was interpreted as a drug policy issue by the Russian public. I obtained national weekly search volumes for the six month period covering the Kazantseva episode between June and December 2012. In addition, I obtained results for the following 6 month period, from January 2013 to June 2013 for the purposes of comparison.
Fourth, I used Yandex search patterns undertaken as part of this study to determine how the relative importance of the Kazantseva episode compared to concurrent national events. I compared Yandex search volumes for the term "Roizman" with interest in events involving prominent opposition figures reported in Russian media over the date range. See Figure 1.2. Through this comparison I evaluated the relative national interest in CWD during the period of the Kazantseva episode.

**RQ2. How was CWD framed in the traditional news media?**

I examined how CWD was framed in traditional news media articles during the Kazantseva episode. First, I identified the four most visited Russian news sources in December 2012 based on TNS Global media monitoring data [(105)]. See Figure 1.3. I then retrieved 186 news articles based on the term “Roizman” from these news sources via the Yandex News aggregator [(106)]. Of these news articles, 165 were non-duplicates and relevant.

Second, I coded these news articles to establish frames. Framing involves the “selection of some aspects of a perceived reality and make them more salient...to promote a particular problem definition, causal interpretation, moral evaluation or treatment recommendation” [(107)]. Kohrig and Matthes developed a method of frame analysis based on Entman’s theoretical framework [(108)]. This method involved separately coding and analysing the frame elements that contribute to individual news stories into the following categories: 1) why is this story newsworthy; 2) who is defining the problem; 3) consequences of the problem; 4) who is responsible; and 5) who will fix the problem? Hughes and colleagues subsequently adapted this method to the study of media coverage of illicit drugs in Australia [(109)]. I adapted the framing codebook originally used by Hughes and colleagues for this study. By conducting frame analysis I sought to develop an understanding of the arguments CWD deployed through traditional media.
Before coding the full sample of 165 news reports, I conducted reliability analysis to test the adapted codebook. Two Russian-speaking researchers initially coded 50 randomly selected news reports covering the June to December 2012 date range in order to establish the reliability of the adapted codebook (Cohen's kappa = 0.64) [(110)]. After the reliability of the modified codebook had been established, the researchers then coded the full set of remaining news articles. Both primary and secondary themes in each frame element were coded, and combined in the final results. Finally, I conducted inter-coder reliability analysis on the remaining sample of news reports using Cohen's kappa.

**RQ3: How did CWD frame their activities in social media?**

I sought to understand how CWD framed their activities in online social media. Russian political debate moved online during the 2000s in response to political constraints on traditional media. By 2012 researchers and commentators described the Russian language Internet as a catalyst for social activism [(111)], political mobilisation [(112)], and as a medium providing an alternative news agenda [(113)]. As Internet use in Russia grew, corruption and abuses of government power emerged as important themes online [(114,115)].

From the early 2000s, CWD operated several websites. Among these was a nationally popular personal LiveJournal social media blog titled “Strength in Truth”, written by the CWD President Yevgeniy Roizman [116]. Roizman’s blog was an important channel for CWD communications. Posts on Roizman’s blog were frequently cited in traditional national media.

I conducted analysis of the frames used in individual blog posts on the “Strength in Truth” blog. First, I made minor modifications to the codebook which I had developed for traditional news reporting in this paper. Two Russian researchers then conducted preliminary coding of 50
randomly selected blog posts from Roizman’s blog during the Kazantseva episode, and conducted inter-coder reliability analysis (Cohen’s kappa = 0.68). Using this modified codebook the two researchers then coded the remaining 310 of the 360 individual blog posts from Roizman’s blog in the date range June to December 2012. Intercoder reliability analysis was conducted on a random one-third sample.

Second, I recorded the number of comments associated with each post to determine which posts elicited the most public comments. See Figure 1.4. I identified the top 10 posts that had attracted the most comments. I then coded these comments to gain insight into the most salient elements of CWD’s communication with blog readers.

**RQ4: Were CWD’s health intervention effectiveness claims credible?**

CWD made several claims attributing population scale biological outcomes to their interventions. I evaluated four CWD – associated Internet sites to determine if these sites contained sufficient documentation which may reasonably allow researchers to make inferences about CWD’s impact on harms associated with illicit drug injecting in Sverdlovsk oblast. See Figure 1.5. I based my approach on a framework proposed by Habicht and colleagues for evaluating the implementation of public health programs and policies in complex environments [(116)]. The researchers described three types of inference that may infer a causal relationship between an intervention and observed effects. These inferences were adequacy, plausibility and probability. Of these, adequacy is the most basic inference. Adequacy evaluations seek to determine if health or behavioural indicators have improved among a target population as a whole. Plausibility evaluations attempt to control for the influence of confounding factors through the use of control groups.
Probability evaluations attempt to control for confounding through the use of randomised control trials.

I first identified two specific claims made by CWD claiming responsibility for measurable improvements in population level biological outcomes in Sverdlovsk oblast. These were: 1) reductions in overdose rates; and 2) improvements in drug treatment and rehabilitation outcomes.

Second, I examined six CWD monthly evaluation reports in the date range June to December 2012 to determine the extent to which reports detailed processes, outputs or outcomes of CWD interventions.

7.3 Results

RQ1: Did the Kazantseva case catalyse a national drug policy debate?

I first examined public interest in CWD by examining Internet search patterns. I found that mean weekly search volumes for the term "Roizman" over a 12 month period were comparable to volumes for other opposition figures active in Russian media at that time. For example searches for the term “Roizman” were approximately double those for Pussy Riot, broadly equal to those for jailed oligarch Khodorkovsky, and 10% of those for opposition leader Alexey Navalny. See Figure 1.2. This suggests that Roizman, and by extension CWD, were important figures in the Russian public agenda during 2012.

Second, I found moderate positive correlations between search patterns for Russian terms representing drug policy and "Roizman". These correlations were: rs=0.43 (p= 0.029) for the term "drugs"; rs=0.45 (p=0.019) for the term "addiction"; and rs=0.64 (p= < 0.001) for the term "drug treatment” between June and December 2012. No adjustment was made for outlying data points. These correlations for terms associated with illicit drug use were consistently moderately strong,
whereas there were no correlations for the following six month period. See Figure 1.6. This suggests that the Kazantseva episode may have been widely interpreted as an illicit drug related issue by the Russian public.

**RQ2. How was CWD framed in traditional media?**

I examined the framing of the Kazantseva episode by traditional media organisations. Russian media organisations primarily framed the Kazantseva episode as a criminal investigation. The Kazantseva case was the most frequent reason for traditional media reporting about CWD between June and December 2012 (63.21% of reports). While police and prosecutors were the most frequent primary sources cited (37.83), CWD and Roizman were also regularly cited as the primary source in media reports (31.25%). The Kazantseva case was frequently frames as a consequence of failing to adhere to formal and informal rules (38.26%), a threat to CWD operations and survival (22.61%) and a health problem (17.10%). CWD was identified as the responsible party in 50.92% of reports. Law enforcement and legal processes were regarded as the mechanism by which problems would be resolved (54.95%), followed by elected officials and other government agencies (14.33%). Scientific experts and other NGOs were almost absent from news reports, and drug policy was little debated. In contrast to the 2010, Bychkov case (99), the Russian President made no comments in support of CWD during the Kazantseva episode. A 100 000 person signature petition and open letters in national media (117) from from celebrities to President Putin failed to elicit either comment or assistance before the Kazantseva case was dismissed in December 2012 (118).

**RQ3: How did CWD frame their activities in social media?**

I next examined how CWD framed the arguments published in Roizman’s personal blog. The legal consequences of the Kazantseva case were an existential threat to CWD. This was reflected in the
frequency of blog posts coded to themes associated with managing the legal consequences of Kazantseva’s death. These included: 1) public relations activities (30.6%); the Kazantseva case (8%); CWD operations (7.9%); and calls to for public support or donations (6.5%). See Appendix 2. Roizman’s blog posts featured several additional prominent themes. These included: 1) non-drug related political and policy commentary (15.5%); 2) individual life stories (8%); 4) Roizman’s artistic endeavours (6.8%); and 5) drug policy commentary (5.6%). Roizman most often attributed blame for events to law enforcement agencies (42.8%); drug dealers and users (24.5%); and elected officials/government agencies (21.1%). However, Roizman’s posts also overwhelmingly suggested CWD was capable of independently resolving its difficulties (50.2%). Other actors in a position to resolve problems included federal or local politicians (14%); law enforcement agencies (13.5%); and members of the public (13.8%).

I found that CWD used Roizman’s blog to broadcast values-laden narrative descriptions of past and current events. These included Roizman’s description of how as a 20 year old he had come to the aid of a woman being harassed in a restaurant by a group of men [(119)]; CWD church and icon restoration activities [(120)]; and an emotive anti-abortion post written in the style of a fictional narrative [(121)]. Similarly, Roizman criticised the punk rock group Pussy Riot for conducting activities offensive to traditional Russian values [(122)].

CWD effectively deployed values-oriented arguments to build relationships with readers and supporters. Roizman frequently sought reader advice and deliberated publicly about how to approach specific problems [(123)]. For example Roizman frequently shared his concerns about what would happen if CWD closed in the face of police pressure, and described his personal sense of responsibility before the local community. Roizman’s online interactions with blog readers
contributed to the image of CWD as a strongly values driven, responsive and effective socially entrepreneurial organisation.

Second, I identified which of Roizman’s blog posts attracted the most public comment. See Figure 4. An anti-abortion post written in a literary style attracted the most comments (1190 comments) during the date range June – December 2012 [121]. Overall, values oriented posts directed at political themes were the most popular. Other popular themes included: anti-Putin statements; the arrest of the opposition leader Gary Kasparov; and evaluation of both national and local policy initiatives.

**RQ4: Were CWD’s health intervention effectiveness claims credible?**

I evaluated four CWD associated Internet sites to determine if they contained sufficient information to make inferences about CWD’s impact on biological outcomes on harms associated with illicit drug injecting in Sverdlovsk. First, CWD claimed their interventions had reduced overdose rates. CWD claimed responsibility for a reduction from 302 fatal overdoses in 1999 to 26 in 2003 in Yekaterinburg [124]. I compared CWD’s claim to a study of overdoses conducted during 2001 in 16 Russian cities, including Yekaterinburg [125]. Of the 16 cities surveyed, researchers reported the highest rates of non-fatal overdose in Yekaterinburg (82%) [6]. The investigators did not comment on any recent changes to overdose rates. This report came at the mid-point of CWD’s first claimed reduction in overdose rates. Moreover, there were several harm reduction programs operating in Yekaterinburg at that time [125]. These programs were explicitly involved in overdose prevention activities. Ultimately however, it was unlikely that either CWD or the harm reduction programs operated at sufficient scale to influence overdose rates in a city of over 1 million people.
Second, CWD claimed that their methods lead to drug use abstinence rates of 85% at an unspecified date range following rehabilitation [(126)]. In 2012, Russian government reports suggested that 2-5% abstinence rates at one year post-treatment could be expected [(127)]. Russian researchers meanwhile suggested abstinence rates of 11% at one year, and 5% at 5 years following treatment were achievable [(128)]. International researchers have reported one year abstinence rates of 23% to 40% [(129,130)], and rates of 8-18% abstinence at 3 to 5 years following treatment based on internationally accepted guidelines [(131)]. The discrepancy between CWD’s claimed abstinence rates, and the rates reported from other sources, suggests that CWD’s claims were not credible.

Third, I examined CWD’s monthly evaluation reports. These reports were approximately 2,000 words long, and consisted of simple numerical counts and chronological reporting of all CWD activities. See CWD’s August 2012 report [(132)]. Activities described in these reports included CWD participation in collaborative raids with police against alleged drug dealers, illicit drug seizures, as well as drug treatment and rehabilitation services. These reports provided limited data to substantiate CWD’s claims of minimising illicit drug use related harms among PWID.

7.4 Discussion

This exploratory case study examined the influence of the domestically funded Russian NGO City Without Drugs. CWD’s influence on Russian health policy is widely documented. CWD developed a reputation as an organisation able to reduce the harms associated with illicit drug injecting. However, I was unable did not identify any documentation that suggested CWD interventions had an impact on health outcomes at a population level. Moreover, I was not able to
identify documentation to suggest CWD clinical programs were effective in reducing the harms associated with illicit drug injecting. While CWD offered multiple instances of changed individual behaviour, these were self-reported by the organisation, and should be regarded as anecdotal. This suggested CWD’s health claims were not credible.

How is CWD’s influence to be interpreted? Access to media and framing of events provides an alternative explanation for CWD’s influence on Russian illicit drug policy. I identified several consistent themes that illustrated framing of events by traditional media and CWD during the Kazantseva episode. These themes, and the potential implications of these themes for internationally funded donor interventions are described below.

First, science did not feature prominently during the Kazantseva episode. Arguments based on science appeared infrequently in both traditional and social media during the episode. This research therefore suggests science was not a central consideration in the Kazantseva episode. Nevertheless, through traditional and online media, CWD had over the preceding decade crafted a reputation for producing health outcomes. Over that preceding decade Russian researchers and government agencies had neither systematically analysed CWD’s activities, nor sought to stimulate a public discussion of CWD’s activities based on scientific principles. That such analysis and public debate did not occur reflects the relationship of contemporary Russian addiction medicine to international science, as well as limited government and public demand for complex social policy based on internationally accepted scientific principles. Senior Russian addiction medicine researchers have consistently rejected international approaches to illicit drug policy change. The Kazantseva episode suggests that the deployment of arguments based primarily on internationally accepted scientific principles may exert limited influence on Russian decision makers and on public opinion.
Second, CWD were provided with access to traditional media and with opportunities to frame events at a level similar to government. This was an unexpected finding. This level of access may have reflected the ambivalent relationship between CWD and Russian government agencies. For example, the national officers of health and law enforcement agencies consistently described CWD as unregulated, unprofessional and unscientific [(133,134)]. Despite these national criticisms, CWD consistently collaborated with the local representatives of these same agencies. The precise scope and scale of these local collaborations was poorly documented on CWD internet sites. However, CWD appeared to be integrated into an informal referral system from local courts as an alternative to prison [(135)], as well as routinely making referrals to local hospitals for individuals in need of medical care [(136,137)], and cooperating with the Sverdlovsk regional human rights ombudsman [(138,139)]. CWD's unregulated status, unscientific methods, and alleged human rights abuses did not appear to be barriers to gaining access to media, or collaboration with government agencies. This ambivalent relationship between government and CWD contrasted with the generally negative government attitudes to donor funded NGOs involved in advocacy for drug policy change based on scientific and human rights principles.

Third, CWD consistently demonstrated respect towards prevailing community values. This was particularly evident in Roizman's social media activities. CWD maintained strong relationships towards the Russian Orthodox religion and respect towards the legacy of the Soviet past. CWD actively promoted church restoration and maintained close relations with Orthodox clergy [(120)]. CWD commemorated former Soviet events, such as the 9th of May World War Two Victory Day [(140)]. Further, CWD promoted nostalgic policy solutions. CWD's advocacy for Makarenko's Stalin – era pedagogy, and Brezhnev – era forced detention for drug users provided two examples of such solutions. These simple and familiar Soviet-style policy solutions appeared to resonate
with Russian public opinion more strongly than appeals to international scientific or human rights norms.

Fourth, the scope of CWD’s activities extended beyond reducing the individual harms associated with illicit drug use. CWD promoted a view of drug use as a social ill, affecting both parents and communities [(123)]. Further, CWD addressed a broad range of community social problems unrelated to illicit drug use. These included: child welfare [(141)]; palliative care [(142)]; community organised disaster relief [(143)]; tobacco control [(144)]; care for the physical environment [(145)]; and youth sporting activities [(146)]. CWD acted as a social entrepreneur, promoting personal responsibility and community well being, and reflected prevailing socially conservative local values. Thus, while CWD’s initiatives were not explicitly base on theory, they may be interpreted as broadly congruent with asset approaches identified in scientific literature. While CWD’s activities in the illicit drug domain appeared ineffective these community activities may have brought tangible benefits

Until 2012, internationally funded interventions in Russia were primarily directed at addressing public health and social problems from a Transition-era deficits perspective. By contrast, an assets approach focuses on mobilising individuals to engage in local deliberation, decision making and change, and to build on the foundations of their personal values and life experiences [(35,37)]. Through adopting inclusive asset oriented approaches, CWD may have contributed to strengthening local communities, and improving their health.

In summary, I identified several consistent themes that suggest how a domestically funded Russian NGO may have exerted influenced illicit drug policy. CWD’s political success may be attributed to its ability to navigate complex interest group dynamics, as well as formal and informal institutions
across tiers of government. CWD’s ability to mobilise broad support across tiers of government, media and celebrity endorsement in the face of opposition suggest that CWD was an NGO adept at navigating the realities of Russian power.

By 2012, CWD had engaged in such advocacy for more than a decade. CWD’s consistent and strident advocacy had secured political commitment, or quiescence from Russian decision makers active in illicit drug policy [(133)] at a time when donor funded NGOs had lost government support. Further, CWD’s exercise of power reflected a wider failure of Russian government agencies to provide services, to offer alternatives or to regulate CWD’s activities. Despite concerns from senior Russian government figures, CWD continued to operate, and to attract national media attention and public support during 2012 and beyond.

7.5 Future research

I have identified several opportunities for further research. First, the themes identified in this exploratory study do not describe causal relationships. Rather, these themes should be regarded as variables, which may serve as the starting point for the further development of hypotheses about illicit drug policy change in contemporary Russia. Those hypotheses should be subjected to further testing using a range of qualitative and quantitative techniques.

Second, research into the informal influence of Russian domestically funded NGOs is warranted. Ljubownikow traced the historical development of Russian civil society from the 1980s to 2013 [(147)]. He suggested that the dissolution of state control in the 1990s post-Soviet period facilitated informal practices rather the growth of civil society. Other researchers have noted the grass roots governance that has emerged during periods of turmoil during the 20th century. These periods of social and political chaos created a resilient grass roots culture of subsistence and self-reliance.
CWD’s influence primarily derives from such informal arrangements, and from the most recent instance of such turmoil during the 1990s. CWD’s resilience too may be explained by further exploring these origins.

Third, the political feasibility of framing interventions to make them more acceptable for Russian decision makers requires additional research. Commitments to internationally accepted scientific and human rights principles underpinned most international donor funded drug prevention, treatment and care, and policy interventions in Russia between 2000 and 2012. The NGOs engaged in implementing activities funded through these donor grants explicitly framed activities with reference to these internationally accepted principles. The possibility of alternative framing as a determinant of successful program implementation in post-2014 Russia has been described by several authors. For example, in early 2014, Twigg suggested collaboration with Russian organisations on health initiatives may be one of the few channels available for maintaining formal engagement during a period of heightened military tension, as occurred during the Cold War. Further research into the feasibility of international donor agencies adopting alternative framing that is acceptable to Russian decision makers is warranted.

### 7.6 Limitations

This 2012 case study captured a transitional period in Russian politics and illicit drug policy. Between 2012 and 2014 the opportunity for political dissent and advocacy decreased dramatically.

By mid-2014 the future for collaboration between Russia and international organisations in the illicit drug policy domain had become uncertain. Increasing controls over the Internet, and consistent government information campaigns through Russian television resulted in increasingly isolationist and patriotic, and socially conservative, public sentiment.
While the date range covered by this study pre-dates these 2014 events, I believe the findings remain valid. Based on the experience of the late Soviet period, the acceptance of collaboration with international organisations by Russian decision makers is likely to be gradual and unevenly distributed [153]. Under these conditions, the implementation and effectiveness of health interventions is likely to be facilitated by consideration of project framing concordant with contemporary Russian values.

7.7 Conclusion

International researchers have largely overlooked recent domestically funded drug policy initiatives operating entirely within prevailing Russian constraints and Russian paradigms. CWD merits scholarly attention for its capacity to mobilise national support and influence decision makers in a seemingly intractable policy environment. This study suggests that enhanced understanding of the exercise of influence by exclusively domestically funded NGOs may offer the potential for future international engagement with Russian decision making processes in illicit drug policy and in other health policy domains.
### Figures Chapter 7

#### Table 7.1

<table>
<thead>
<tr>
<th>Search term</th>
<th>Peak weekly search volume</th>
<th>Peak search date</th>
<th>Mean search weekly</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Without Drugs</td>
<td>7195</td>
<td>29.10.2012 – 04.11.2012</td>
<td>3274</td>
</tr>
<tr>
<td>Tatyana Kazantseva</td>
<td>456</td>
<td>06.08.2012 - 12.08.2012</td>
<td>57</td>
</tr>
</tbody>
</table>

Figure 7.1. Relative popularity of potential search terms associated with the Kazantseva episode in the date range June to December 2012.

#### Table 7.2

<table>
<thead>
<tr>
<th>Search term (Russian)</th>
<th>Peak national search volume June - Dec 2012</th>
<th>Week</th>
<th>Events during peak search period</th>
<th>Mean search over 12 months period between June 2012 and June 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navalny (Навальный)</td>
<td>128551</td>
<td>02.07.2012 - 08.07.2012</td>
<td>Arrested for alleged embezzlement. Widely regarded as politically motivated (224)</td>
<td>57476</td>
</tr>
<tr>
<td>Pussy Riot (Пусси Райот)</td>
<td>24862</td>
<td>13.08.2012 - 19.08.2012</td>
<td>Conclusion of trial and sentencing (226)</td>
<td>4401</td>
</tr>
</tbody>
</table>

Figure 7.2. Peak weekly search volumes for Russian opposition figures June to December 2012.

#### Table 7.3

<table>
<thead>
<tr>
<th>Source</th>
<th>Internet site</th>
<th>Count</th>
<th>Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIA Novosti</td>
<td>rian.ru</td>
<td>67</td>
<td>State owned</td>
</tr>
<tr>
<td>Kommomliskeya Pravda</td>
<td>kp.ru</td>
<td>52</td>
<td>Private - tabloid</td>
</tr>
<tr>
<td>Russia Business Consulting</td>
<td>rbk.ru</td>
<td>29</td>
<td>Private - business focus</td>
</tr>
<tr>
<td>Vesti.ru</td>
<td>vesti.ru</td>
<td>17</td>
<td>State owned - site of Russia 24 TV</td>
</tr>
</tbody>
</table>

Figure 7.3. Relevant and non-duplicate Russian news sources retrieved from Yandex News - 1 June 2009 – 31 Dec 2012.
Figure 7.4. Ten blog posts attracting the highest number of public comments June – December 2012 on Yevgeniy Roizman’s personal blog.

<table>
<thead>
<tr>
<th>Title</th>
<th>URL</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength in Truth</td>
<td>roizman.livejournal.com/</td>
<td>Roizman's personal blog</td>
</tr>
<tr>
<td>Egor Bychkov’s Blog</td>
<td>egor-bychkov.livejournal.com</td>
<td>Personal blog of Egor Bychkov’s. Egor Bychkov operated an informally affiliated organisation also titled “City Without Drugs” in a city Nizhny Tagil approximately 140Km from Yekaterinburg.</td>
</tr>
<tr>
<td>City Without Drugs Foundation</td>
<td>nobf.ru</td>
<td>Original CWD website. Infrequently updated.</td>
</tr>
<tr>
<td>Yevgeniy Malenkin: Sobriety – the position of the powerful!</td>
<td>malenkin.livejournal.com</td>
<td>Personal blog of a senior staff member at CWD in Yekaterinburg</td>
</tr>
<tr>
<td>Anastasia Udeverskaya, lawyer</td>
<td>udeervskaya.livejournal.com</td>
<td>Personal blog of the lawyer acting on behalf of CWD</td>
</tr>
<tr>
<td>My soul – a free bird. Everything has its time.</td>
<td>noth-special.livejournal.com</td>
<td>Member of the public and advocate for CWD. Based in Kursk. Cross-posting between CWD and noth_special blog on a regular basis.</td>
</tr>
</tbody>
</table>

Figure 7.5. CWD- affiliated Internet sites and blogs
<table>
<thead>
<tr>
<th>Search term</th>
<th>June – December 2012 (weekly)</th>
<th>January – June 2013 (weekly)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spearman correlation</td>
<td>P value</td>
</tr>
<tr>
<td>“Drugs”</td>
<td>0.43</td>
<td>p=0.029</td>
</tr>
<tr>
<td>“Drug use/addiction”</td>
<td>0.45</td>
<td>p=0.019</td>
</tr>
<tr>
<td>“Drug treatment”</td>
<td>0.64</td>
<td>p&lt;0.001</td>
</tr>
</tbody>
</table>

Figure 7.6. CWD-affiliated websites analysed. Correlations between weekly national search results for the term ‘Roizman’
## Appendix 1: Framing of the Kazantseva episode in traditional media

### 1. Why is this story newsworthy?

<table>
<thead>
<tr>
<th>Category</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazantseva case</td>
<td>101</td>
<td>63.21</td>
<td>Police action, court case and legal processes Kazantseva</td>
</tr>
<tr>
<td>Policy commentary drugs</td>
<td>35</td>
<td>12.50</td>
<td>Drug use, prevention, treatment, rehabilitation and policy</td>
</tr>
<tr>
<td>Politics – non-drug and non-Kazantseva related</td>
<td>28</td>
<td>10.00</td>
<td>Corruption, other political and policy commentary, interaction with government agencies</td>
</tr>
<tr>
<td>Other court cases and legal action</td>
<td>28</td>
<td>10.00</td>
<td>All non-Kazantseva related court case and legal processes directed at CWD</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
<td>4.29</td>
<td>Relatives, public, former CWD clients</td>
</tr>
</tbody>
</table>

### 2. Who is defining the problem?

<table>
<thead>
<tr>
<th>Category</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law &amp; enforcement</td>
<td>115</td>
<td>37.83</td>
<td>Police, FSKN, prosecutors and judiciary</td>
</tr>
<tr>
<td>CWD</td>
<td>95</td>
<td>31.25</td>
<td>All staff and supporters</td>
</tr>
<tr>
<td>Shapers of public opinion</td>
<td>51</td>
<td>16.78</td>
<td>Journalists, media social commentators, researchers, harm reduction and human rights activists, celebrities</td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
<td>5.92</td>
<td>Relatives, public, former CWD clients</td>
</tr>
<tr>
<td>Elected officials and agencies</td>
<td>17</td>
<td>5.59</td>
<td>Federal, oblast and municipal officials and non-medical and non-law enforcement agencies</td>
</tr>
<tr>
<td>Narcologists</td>
<td>8</td>
<td>2.63</td>
<td>All addiction medicine specialists</td>
</tr>
</tbody>
</table>

### 3. Consequences of the problem

<table>
<thead>
<tr>
<th>Category</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adherence to formal and informal rules</td>
<td>132</td>
<td>38.26</td>
<td>Corruption, adherence to police and court orders</td>
</tr>
<tr>
<td>CWD operations and survival</td>
<td>78</td>
<td>22.61</td>
<td>Practical effects of actions against CWD</td>
</tr>
<tr>
<td>Individual and population health problems</td>
<td>59</td>
<td>17.10</td>
<td>Individual drug use prevention, treatment and rehabilitation, overdose, physical and mental health, non-drug related individual health problems;</td>
</tr>
<tr>
<td>Social consequences</td>
<td>40</td>
<td>11.59</td>
<td>Social integration, family relations, social fabric, morality</td>
</tr>
<tr>
<td>Other</td>
<td>28</td>
<td>8.12</td>
<td></td>
</tr>
<tr>
<td>Crime and drug dealing patterns</td>
<td>5</td>
<td>1.45</td>
<td>Epidemiology of novel drugs, changes in patterns of criminal activity</td>
</tr>
<tr>
<td>Population health</td>
<td>3</td>
<td>0.87</td>
<td>Drug and non-drug related population health problems including HIV, TB infection patterns and epidemiology</td>
</tr>
</tbody>
</table>

### 4. Who is responsible?

<table>
<thead>
<tr>
<th>Category</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWD</td>
<td>138</td>
<td>50.92</td>
<td>All staff and supporters</td>
</tr>
<tr>
<td>Elected officials and agencies</td>
<td>52</td>
<td>19.19</td>
<td>Federal, oblast and municipal officials and non-medical and non-law enforcement agencies</td>
</tr>
<tr>
<td>Law &amp; enforcement</td>
<td>35</td>
<td>12.92</td>
<td>Police, FSKN, judiciary, prosecutors and investigators</td>
</tr>
<tr>
<td>Other</td>
<td>25</td>
<td>8.86</td>
<td>Addiction medicine specialists, ministry of health, journalists and media, celebrities</td>
</tr>
<tr>
<td>Drug users and drug dealers</td>
<td>22</td>
<td>8.12</td>
<td>Criminals</td>
</tr>
</tbody>
</table>

### 5. Who will fix the problem?

<table>
<thead>
<tr>
<th>Category</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law &amp; enforcement</td>
<td>161</td>
<td>54.95</td>
<td>Police, FSKN, prosecutors and judiciary</td>
</tr>
<tr>
<td>Elected officials and agencies</td>
<td>42</td>
<td>14.33</td>
<td>Federal, oblast and municipal officials and non-medical and non-law enforcement agencies</td>
</tr>
<tr>
<td>CWD</td>
<td>40</td>
<td>13.65</td>
<td>All staff and supporters</td>
</tr>
<tr>
<td>Shapers of public opinion</td>
<td>35</td>
<td>11.95</td>
<td>Journalists, media social commentators, researchers, harm reduction and human rights activists, celebrities, narcologists</td>
</tr>
<tr>
<td>Other</td>
<td>15</td>
<td>5.12</td>
<td>Relatives, public, former CWD clients</td>
</tr>
</tbody>
</table>
Appendix 2: Framing of the Kazantseva episode on the CWD blog operated by Yevgeniy Roizman

1. Why is this post newsworthy?

<table>
<thead>
<tr>
<th></th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public relations activities</td>
<td>202</td>
<td>30.61</td>
<td>includes celebrity endorsement, evidence of public support, publication of letters to/from government agencies, republishing media appearances</td>
</tr>
<tr>
<td>Politics – non-drug and non-Kazantseva related</td>
<td>102</td>
<td>15.45</td>
<td>Including corruption, other political and policy commentary, interaction with government agencies</td>
</tr>
<tr>
<td>Personal life stories</td>
<td>57</td>
<td>8.64</td>
<td>Drug users, older people not requesting support</td>
</tr>
<tr>
<td>CWD operations</td>
<td>52</td>
<td>7.88</td>
<td>Includes day to day operations, logistics and non-PR activities to ensure continuing operations</td>
</tr>
<tr>
<td>Kazantseva case</td>
<td>46</td>
<td>6.97</td>
<td>Includes police action, court case and legal processes Kazantseva</td>
</tr>
<tr>
<td>Artistic endeavours</td>
<td>45</td>
<td>6.82</td>
<td>Includes Roizman’s personal and CWD activities</td>
</tr>
<tr>
<td>Calls to public for support</td>
<td>43</td>
<td>6.5</td>
<td>Financial support, letter writing, petitions</td>
</tr>
<tr>
<td>Policy commentary drugs</td>
<td>37</td>
<td>5.61</td>
<td>Includes drug use, prevention, treatment, rehabilitation and policy</td>
</tr>
<tr>
<td>Other court cases and legal action</td>
<td>28</td>
<td>4.24</td>
<td>All non-Kazantseva related court case and legal processes directed at CWD</td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
<td>4.09</td>
<td>decline in spiritual values Roizman family activities</td>
</tr>
<tr>
<td>Calls from public/families for action</td>
<td>21</td>
<td>3.18</td>
<td>Case studies from families requesting support</td>
</tr>
</tbody>
</table>

2. Who is defining the problem?

<table>
<thead>
<tr>
<th></th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWD</td>
<td>352</td>
<td>69.70</td>
<td>Includes all staff and supporters</td>
</tr>
<tr>
<td>Shapers of public opinion</td>
<td>49</td>
<td>9.70</td>
<td>Journalists, media social commentators, researchers, harm reduction and human rights activists, celebrities.</td>
</tr>
<tr>
<td>Law enforcement</td>
<td>43</td>
<td>8.51</td>
<td>Police, FSKN, prosecutors and judiciary</td>
</tr>
<tr>
<td>Members of public and families</td>
<td>31</td>
<td>6.14</td>
<td>Drug and non-drug related issues</td>
</tr>
<tr>
<td>Drug users and dealers</td>
<td>11</td>
<td>2.18</td>
<td>Includes individuals involved in non-drug related crime</td>
</tr>
<tr>
<td>Elected officials and agencies</td>
<td>11</td>
<td>2.18</td>
<td>Federal, oblast and municipal officials and non-medical and non-law enforcement agencies</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>1.58</td>
<td>Russian Orthodox church, addiction medicine specialists</td>
</tr>
</tbody>
</table>

3. Consequences of the problem

<table>
<thead>
<tr>
<th></th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social consequences</td>
<td>139</td>
<td>24.91</td>
<td>Social integration, family relations, social fabric, morality</td>
</tr>
<tr>
<td>CWD operations and survival</td>
<td>122</td>
<td>21.86</td>
<td>Practical effects of actions against CWD</td>
</tr>
<tr>
<td>Adherence to formal and informal rules</td>
<td>93</td>
<td>16.67</td>
<td>Corruption, adherence to police and court orders</td>
</tr>
<tr>
<td>Individual health problems</td>
<td>86</td>
<td>15.41</td>
<td>Individual drug use prevention, treatment and rehabilitation, overdose, physical and mental health, non-drug related individual health problems</td>
</tr>
<tr>
<td>Individual crime and arrest</td>
<td>50</td>
<td>8.96</td>
<td>Individual crime and arrest</td>
</tr>
<tr>
<td>Crime and drug dealing patterns</td>
<td>35</td>
<td>6.27</td>
<td>Epidemiology of novel drugs, changes in patterns of criminal activity</td>
</tr>
<tr>
<td>Public health</td>
<td>13</td>
<td>2.33</td>
<td>Drug and non-drug related population health problems including HIV, TB infection patterns and epidemiology</td>
</tr>
<tr>
<td>Other</td>
<td>20</td>
<td>3.58</td>
<td></td>
</tr>
</tbody>
</table>

4. Who is responsible?

<table>
<thead>
<tr>
<th></th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law enforcement</td>
<td>187</td>
<td>42.79</td>
<td>All government police, judiciary and prosecutors</td>
</tr>
<tr>
<td>Drug users and drug dealers</td>
<td>107</td>
<td>24.49</td>
<td>Criminals</td>
</tr>
</tbody>
</table>
| Elected officials and agencies | 92  | 21.05   | Federal, oblast and municipal officials and non-medical and non-
<table>
<thead>
<tr>
<th>Category</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other unspecified</td>
<td>31</td>
<td>7.09</td>
<td>law enforcement agencies</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>2.52</td>
<td>Media, celebrities, harm reduction and human rights activists, social commentators, researchers,</td>
</tr>
<tr>
<td>Other drug rehabilitation providers</td>
<td>5</td>
<td>1.14</td>
<td>Russian Orthodox Church, addiction medicine specialists</td>
</tr>
<tr>
<td>Members of public and families</td>
<td>4</td>
<td>0.92</td>
<td>Drug and non-drug related issues</td>
</tr>
</tbody>
</table>

5. Who will fix the problem?  

<table>
<thead>
<tr>
<th>Category</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWD</td>
<td>219</td>
<td>50.23</td>
<td>Includes all staff and supporters</td>
</tr>
<tr>
<td>Elected officials and agencies</td>
<td>61</td>
<td>13.99</td>
<td>Federal, oblast and municipal officials and non-medical and non-law enforcement agencies</td>
</tr>
<tr>
<td>Members of public and families</td>
<td>60</td>
<td>13.76</td>
<td>Drug and non-drug related issues</td>
</tr>
<tr>
<td>Law enforcement</td>
<td>59</td>
<td>13.53</td>
<td>All government police, judiciary and prosecutors</td>
</tr>
<tr>
<td>Shapers of public opinion</td>
<td>21</td>
<td>4.81</td>
<td>Journalists, media social commentators, celebrities, researchers, harm reduction and human rights activists</td>
</tr>
</tbody>
</table>
References Chapter 7


55. Gentile M. Meeting the “organs”: the tacit dilemma of field research in authoritarian states. Area. 2013;


109. Hughes C, Spicer B, Lancaster K, Matthew-Simmons F, Dillon P. Media reporting on illicit drugs in Australia: Trends and impacts on youth attitudes to illicit drug use [Internet]. National Drug and


Chapter 8

Internet Search Patterns of Human Immunodeficiency Virus and the Digital Divide in the Russian Federation: Infoveillance Study

Published manuscript:

Internet Search Patterns of Human Immunodeficiency Virus and the Digital Divide in the Russian Federation: Infoveillance Study


URL: http://www.jmir.org/2013/11/e256/

doi: 10.2196/jmir.2936

PMID: 24220250
Author statement


Contributions: Zheluk conceived of and planned the study. Zheluk collected and analysed all results and prepared the first draft of the manuscript. Hercz, Gillespie and Quinn provided advice and input to prepare the draft manuscript for journal submission. Zheluk, Gillespie and Quinn made contributions to the final draft of the manuscript for publication.

Andrey Zheluk
Signature
Date 7/10/14

James A. Gillespie
Signature
Date 27/10/14

Daniel Hercz
Signature
Date 9 Oct 2014

Casey Quinn
Signature
Date 7 Oct 2014
Chapter 8: Internet Search Patterns of Human Immunodeficiency Virus and the Digital Divide in the Russian Federation: Infoveillance Study

8.0 Introduction

Internet search patterns provide a low-cost, rapidly accessible data source for a range of health problems. Search patterns have been described as behavioral measures of an issue’s importance to individuals (2). If individual Internet users are concerned or interested in an issue, they are more likely to search for information related to that issue. The relative importance of an issue among populations of Internet users can thus be inferred from the volume of searches for a term or terms representing that issue. Since 2006, researchers have used search patterns to study a wide range of health problems, notably influenza (3-6), as well as undocumented adverse drug interactions (7,8), suicide-related information (9), and HIV (human immunodeficiency virus) (10). Despite the widespread use of search patterns, researchers commonly suggest Internet users may not be representative of the entire population. Specific concerns include differences in access based on age (11), income and education (12), and gender (13). This means the social, economic, and demographic status of Internet users may not fully reflect those of the population as a whole.

8.1 Determinants of Internet Access

The propensity to access the Internet varies between socio-economic and demographic cohorts. The strongest determinants of Internet access are income and education. This finding is consistent in studies from the United States (14) and the European Union (15) and across middle-income
countries (16). Additionally, gender (17), English-language ability (18), broadband access price (19), urban location (20), ethnicity (21), and age (22) have also been reported as determinants of Internet use in both high- and middle-income countries. In summary, Internet users in both high- and middle-income countries are more likely to have higher incomes and higher levels of education.

8.1.1 The Digital Divide—Access and Use

Access to the Internet is an economic development policy issue. Telecommunications networks, including the Internet, are regarded as a catalyst for economic growth (23). Since the early 2000s, the term “digital divide” has been widely used to describe differences in Internet access and use across socioeconomic gradients within and between countries (24). In 2011, Hilbert reviewed international policy responses to the digital divide (25). In his review, Hilbert proposes four classes of variables with which to analyze the digital divide. These classes are the unit of analysis (eg, individual, country), determinants of access (eg, income, education), the kind of technology (eg, cell phones, fixed broadband), and how individuals connect (ie, access vs effective use). Others have similarly argued that access to infrastructure inadequately describes the digital divide (26). Basing their arguments on Roger’s theory of diffusion of innovations, these authors suggest analysis of the digital divide should focus on effective use, incorporating technical competence, and individuals’ adaptation of technology to meet their personal needs rather than access alone.

8.2 Use of the Internet for Health Information Seeking Online

The Internet is widely used for health information seeking in high-income countries. A 2013 study found 59% of all US adults searched for health information online, with 77% of these starting at search engines such as Google (27). Equally, there is a general scholarly consensus that a digital divide applies to online health seeking behavior (28). In 2006, Rice described the limited research
into health-related Internet use across economic and demographic gradients in the United States (29). More recent studies European (30) and US (31) studies suggest that income and education are the most important determinants of seeking health information online.

8.2.1 Search Patterns and Effective Use

Although a digital divide may exist, determining the sociodemographic profile of Internet users from search results is not straightforward. Aggregated Google search queries are the most commonly used data source for search studies but carry no demographic or economic information. In the case of disease surveillance, this means that groups with a significant disease burden, such as older or economically disadvantaged people without Internet access may be excluded from search results (32). By contrast, health information seeking research is generally based on qualitative research and statistical surveys. This research generally includes demographic characteristics and covers issues such as health literacy (33) and behaviors following access to health information (34). In summary, researchers have widely investigated the effective use of online health information in high-income countries. It is this research that provides the empirical foundation for a rich analysis of the relationship between health information seeking across economic and demographic gradients and patterns of online search.

8.2.2 Chronic Illness and Internet Use

Individuals with chronic health problems and disabilities are more likely to search for health information online. Online information seeking among people with chronic and terminal diseases has been widely researched (35,36). Cancer information seeking in particular has attracted considerable research interest due to its diversity, duration, and treatment complexity (37). The management of HIV as a chronic illness has similarly attracted scholarly interest. Studies suggest
PLHIV (people living with HIV) use the Internet extensively for health information. A 2006 US study found that 66% of PLHIV participants searched for health information at least half the time they were online (38). Furthermore, PLHIV Internet users were more likely to be better educated, have higher incomes, exhibit greater knowledge of HIV disease processes, and adhere to medication (39,40). In summary, while income and education are the most important determinants of health-related Internet use, individuals with chronic diseases may have a stronger incentive to use the Internet effectively.

8.2.3 Online Health Information Seeking in Middle-Income Countries

While research is limited, online health information seeking also appears to be important in middle-income countries. In 2011, the international health insurer Bupa surveyed online health information seeking among Internet users in 12 high- and middle-income countries (41). The researchers found higher rates of health information seeking in middle income countries (China 94%, Thailand 93%, and Saudi Arabia 91%) than in high-income countries (Australia 77%, United Kingdom 70%, and Spain 71%). Similarly, a 2010 Bupa study found 95% of Russian Internet users sought advice on health, medicines, or medical conditions online (42). Bupa researchers attributed the high rates of online health information seeking in middle-income countries to the high cost of medical consultations and concerns over service quality. While not peer reviewed, these Bupa surveys point to a particularly important role for health-related searches outside of high-income countries. Conversely, these studies investigated only the propensity to access health information among Internet users, leaving aside international comparisons of how effectively online health information is used across social and economic gradients. The relationship between the need for health information and access to the Internet was not investigated.
8.2.4 Search Studies in Middle-Income Countries

As recently as 2009, researchers suggested that Google Trends was unsuitable for disease surveillance outside of developed countries due to insufficient Internet access (43). However, the rapid increase of Internet use in middle-income countries suggests otherwise. Internet use is forecast to grow considerably more quickly by 2015 in middle-income than high-income countries (see Table 1; (44)). Since 2009, studies from Southeast Asia (45), Latin America (46), Russia (47), and China (48) suggest that search pattern studies are increasingly regarded as valid and reliable methods of disease surveillance in middle-income countries.

<table>
<thead>
<tr>
<th>Country</th>
<th>2009 actual Internet use</th>
<th>2015 predicted Internet use</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>28</td>
<td>47</td>
</tr>
<tr>
<td>India</td>
<td>7</td>
<td>19</td>
</tr>
<tr>
<td>Brazil</td>
<td>33</td>
<td>74</td>
</tr>
<tr>
<td>Russia</td>
<td>31</td>
<td>55</td>
</tr>
<tr>
<td>Indonesia</td>
<td>12</td>
<td>37</td>
</tr>
<tr>
<td>United States</td>
<td>70</td>
<td>73</td>
</tr>
<tr>
<td>Japan</td>
<td>74</td>
<td>81</td>
</tr>
</tbody>
</table>

Figure 8.1 Changes in Internet use in selected middle- and high-income countries (values indicate penetration in %, ie, number of users divided by population)

The potential of search patterns to improve public health surveillance in middle-income countries is well documented. First, online surveillance offers immediate insights into the present status of disease. That is, online surveillance may “predict the present” (49) without the reporting lags associated with complicated reporting procedures in public health bureaucracies (45). Second, online surveillance may overcome the weaknesses of traditional surveillance systems, such as poor sensitivity to new diseases (50) and the lack of skills and equipment required for early disease detection (51). Third, searches may overcome underreporting gaps from the private sector and from individuals who do not seek formal medical care, as a result of lack of motivation or leadership (52). Fourth, online surveillance may improve transparency. Central or regional
governments may wish to minimize reports of disease outbreaks that could affect tourism or political reputation (53) or what sensitive issues surveys may not reveal (54,55). In summary, online surveillance has the potential to improve disease surveillance in populations bearing the greatest burden of disease.

Consistent with the aims of infodemiology, our exploratory study examined “the science of distribution and determinants of information...(on) the Internet, or in a population, with the ultimate aim to inform public health and public policy” (1). We examined the relationship between Internet search patterns, disease prevalence, and the determinants of Internet access using the case of HIV in a middle-income country. Through investigating these relationships, we aimed to develop methods to complement traditional HIV surveillance in Russia and contribute to the science of health-related searches.

8.4 Methods

This exploratory study sought to determine if search methods can be used for disease surveillance in a large middle-income country with a dispersed population. We first assessed whether online surveillance is a valid and reliable method for monitoring HIV in the Russian Federation. Second, we analyzed the determinants of Internet access to determine the extent that they explain regional variations in searches for the Russian terms for “HIV” and “AIDS”.

8.4.1 Google and Yandex Searches in Russia

Most search pattern studies have used Google Trends (or the defunct Google Insights for Search) as the data source. Google Trends has been deployed in studies of influenza (4), dengue (12), and HIV (10). However, the structure of the Russian-language Internet market is unique. Whereas Google provided 84% of global Internet search queries in May 2011 (56), Google’s market share in
Russia was only 25% in 2010/2011 (57). The largest search provider in Russia in 2011 was Yandex, with 60% market share. In 2011, Russia overtook Germany as the European country with the highest number of unique visitors online (58). Russian Internet users grew from 43% of the population in 2010 to 55% in 2012 (59). In Russia, Yandex is a strong commercial competitor of Google.

The publicly available Google Trends data for Russia has several limitations. First, Google does not provide complete results, returning only subregions with the highest search volume. Google data were available for only 16 of Russia’s 89 subregions for the term “HIV” and 29 for the term “AIDS” during 2011. Second, Google does not provide raw search data. This makes direct comparisons between subregions and matching with variables representing Internet access determinants complex. We used WordStat as the primary data source, as Yandex made publicly available a complete raw search dataset for all Russian regions and subregions for the full 12 months of 2011. We used Google Trends as a secondary source of aggregated search results for validation purposes.

### 8.4.2 Case Study: Why is Search-Based HIV Surveillance Important in Russia?

HIV is a serious health problem in the Russian Federation. Russia has the highest cumulative number of PLHIV of any European country, largely concentrated among people who inject drugs (PWID). On December 31, 2011, there were 650,100 PLHIV registered in Russia (60). However, the true scale of HIV in Russia has long been the subject of considerable debate (61,62). Feshbach and colleagues’ 2005 study compiled data from official and unofficial Russian sources, as well as international agencies, to assess the quality of Russian HIV statistics (63). The authors suggested that official Russian HIV data are frequently inconsistent, diverge markedly from alternative sources such as UNAIDS (the Joint United Nations Programme on HIV/AIDS), and present major methodological obstacles. The authors concluded that official Russian estimates of HIV prevalence
were understated by a multiple of three to five times. Similar findings emerged from a 2007 UNODC (United Nations Office on Drugs and Crime) report that evaluated national data collection mechanisms related to HIV among PWIDs in nine lower income countries including Russia (64).

8.4.3 HIV Surveillance and Hidden Populations

HIV surveillance is further complicated by Russian drug laws, police, medical, and public attitudes. Most international observers regard Russian drug laws as punitive, unsupported by scientific evidence, and ineffective (65). A 2010 study into police behavior found widespread reports of extrajudicial policing practices, including extortion, torture, and rape of PWIDs (66). Attitudes among medical staff too are generally negative towards PLHIV (67,68). Public opinion is also generally negative towards individuals acquiring HIV sexually or through drug use (69). As a consequence of professional and social attitudes, many PLHIV avoid contact with medical organizations and avoid testing for HIV. Literature suggests there are disincentives for Russian PLHIV accessing health information directly from health professionals.

International researchers generally regard Russian HIV-positive PWIDs as a population hidden from public health surveillance. Since the early 2000s, researchers have sought to improve population estimates and document the conditions experienced by Russian PWIDs living with HIV (70,71). Traditional surveys and sampling methods among PWIDs are unreliable, as individuals may not report accurately on stigmatized and illegal behaviors. A 2011 study in Russia found that, among 193 HIV-positive participants, only 36% were aware of their HIV status (72). Another study of HIV-positive Russian PWIDs found persistent high-risk behaviors associated with HIV transmission (73). Among study participants, 25% had been refused access to medical care, 18% were refused employment or fired, and 6% were forced from family homes. Researchers found
39% of participants had probable clinical depression, and 37% had anxiety levels comparable to psychiatric inpatients. In summary, there is considerable evidence that Russia has large numbers of PLHIV, many of whom are likely to be alienated from the formal health system and be absent from official statistics. The high rates of Internet searches for health information, combined with stigmatization of HIV, suggest that the Internet may be an important resource for PLHIV in Russia.

Russian injecting drug users have generally avoided contact with the formal health system. Between 2004 and 2011, much of the contact with injecting drug users and other groups at high risk of HIV was conducted by donor-funded Russian non-governmental organizations (NGOs). The behavioral surveillance data collected by these NGOs also contributed to Russian national HIV reporting to UNAIDS. However, as the result of government pressures, the number of donor-funded harm reduction NGO projects in Russia decreased from 70 in 2007 to 20 in 2011 (74). The decrease in NGOs may also have eroded the capacity for data collection from populations at risk of HIV. In 2012, Russia did not report any HIV behavioral surveillance data associated with injecting drug use and sex work (75). In summary, the progressive dismantling of harm reduction projects in Russia means only surveillance data from individuals formally diagnosed with HIV in government clinics are available. Injecting drug workers, sex workers, and others at risk of HIV have disappeared from Russian government reporting.

RQ1 Method: Is Search Surveillance a Valid Method for Monitoring HIV in Russia?

To answer this research question, we examined the relationship between HIV prevalence across the Russian Federation and Internet searches for the terms “HIV” and “AIDS”. First, we obtained HIV prevalence data for each region and subregion from the Russian Federal AIDS Centre (60). We chose 2011 data as this was latest complete dataset available. The Russian Federal AIDS Centre publishes the most timely and comprehensive HIV dataset available. However, these data are
limited to formally diagnosed PLHIV and likely exclude many individuals at risk of HIV, or of uncertain serostatus, who deliberately avoid contact with government health services.

Second, we selected two terms to represent HIV searches. These two search terms were “HIV” (VICh in Russian) and “AIDS” (SPID). We referred to the Google Trends related-terms feature (76) to ensure each term referred to the subject of this study. In the case of “HIV”, all terms were related to HIV, whereas the term “AIDS” revealed several unrelated terms (Table 2). For example, the second most popular term associated with “AIDS” referred to the computer game “need for speed”. Based on these results, we anticipated that the search term “HIV” would have a stronger positive correlation with HIV prevalence than the term “AIDS”.
<table>
<thead>
<tr>
<th>Search related terms</th>
<th>Russian</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>“HIV”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>symptoms HIV</td>
<td>симптомы вич</td>
<td>100</td>
</tr>
<tr>
<td>symptoms</td>
<td>симптомы</td>
<td>100</td>
</tr>
<tr>
<td>AIDS</td>
<td>спид</td>
<td>65</td>
</tr>
<tr>
<td>AIDS HIV</td>
<td>спид вич</td>
<td>65</td>
</tr>
<tr>
<td>HIV infection</td>
<td>вич инфекции</td>
<td>35</td>
</tr>
<tr>
<td>HIV signs</td>
<td>вич признаки</td>
<td>35</td>
</tr>
<tr>
<td>analysis for HIV</td>
<td>анализ на вич</td>
<td>35</td>
</tr>
<tr>
<td>HIV infection</td>
<td>вич инфекция</td>
<td>30</td>
</tr>
<tr>
<td>HIV dating</td>
<td>вич знакомства</td>
<td>25</td>
</tr>
<tr>
<td>HIV photo</td>
<td>вич фото</td>
<td>20</td>
</tr>
<tr>
<td>“AIDS”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>test AIDS</td>
<td>тест спид</td>
<td>100</td>
</tr>
<tr>
<td>need for speed</td>
<td>нид фор спид</td>
<td>75</td>
</tr>
<tr>
<td>AIDS HIV</td>
<td>спид вич</td>
<td>55</td>
</tr>
<tr>
<td>HIV</td>
<td>вич</td>
<td>55</td>
</tr>
<tr>
<td>AIDS info</td>
<td>спид инфо</td>
<td>50</td>
</tr>
<tr>
<td>AIDS centre</td>
<td>спид центр</td>
<td>45</td>
</tr>
<tr>
<td>AIDS symptoms</td>
<td>спид симптомы</td>
<td>25</td>
</tr>
<tr>
<td>AIDS photo</td>
<td>спид фото</td>
<td>25</td>
</tr>
<tr>
<td>AIDS test</td>
<td>спидтест</td>
<td>25</td>
</tr>
<tr>
<td>speed hack</td>
<td>спид хак</td>
<td>20</td>
</tr>
</tbody>
</table>

Figure 8.2 Google Trends—Related terms for HIV and AIDS in the Russian Federation in 2011

Third, we aggregated Yandex searches for each month of 2011 to produce a single annual search figure for the terms “HIV” and “AIDS” for each of Russia’s 89 subregions (see the map in Multimedia Appendix 1; (95)) covering the data range January 1 to December 31, 2011. In Russian federal statistical compilations, several smaller subregions are routinely aggregated, producing 83 rather than 89 statistical subregions. In our calculations, we used population prevalence of HIV and searches rather than raw figures. This allowed comparison across regions and subregions. We used this single 2011 annual HIV search in our further calculations.
Fourth, we conducted Spearman correlations of per-capita Yandex monthly searches for the terms “HIV” and “AIDS” against HIV prevalence data for all Russian subregions in 2011. We repeated this process with each of eight Russian regions. This provided us with national and regional correlations between search and prevalence data for 2011.

Fifth, we obtained all available Google data for the terms “HIV” and “AIDS” for 2011 and repeated this analysis for validation purposes. Google search data for the term “HIV” were available for 16 regions and for “AIDS” for 29 regions. We then conducted Spearman correlations between Google and Yandex data for validation purposes.

RQ2: What is the Relationship Between the Determinants of Internet Access and Searches for the Term “HIV” Across Russia?

The relationship between Internet search patterns for specific health problems and the prevalence of these problems in populations is now well established. However, Internet users may not be representative of overall populations. Further, the characteristics of the Internet using population cannot be directly ascertained from search pattern data. We sought to extend understanding of the characteristics of Internet searching populations through data matching the determinants of Internet access (ie, age, income, broadband access price, and urban to rural ratios) with search patterns through multivariate analysis.

Several studies have examined the socioeconomic factors associated with HIV prevalence and injecting drug use in Russia. Moran et al investigated the relative importance of several variables in influencing HIV prevalence in a cross-sectional study based solely on Russian federal government statistics (77). The authors found urbanization, mobility, crime, and income growth associated with HIV prevalence. In 2011, researchers surveyed 711 PWIDs in two large provincial cities (78). The
researchers concluded PWIDs were typical Russians when compared with a random population. However, investigators drew their random sample from 2004 household survey data. While Russian per capita income grew from US $9800 in 2004 to US $17,000 in 2011 (79), the authors did not comment on this potentially important confounder. These two studies illustrate the logistic difficulties of obtaining timely, valid, and independent data in Russia.

8.4.4 Our Methodology

We examined the relationship between spatial patterns of online searches for the term “HIV” and the determinants of Internet access. We used data from RQ1 in our analysis. In RQ1, we demonstrated the relationship between HIV prevalence and searches for “HIV”. While this relationship was generally strong, differences in search patterns across regions may reflect differences in the determinants of Internet access as well as differences in HIV rates.

We selected principal component analysis (PCA) to explore the relationship between the determinants of Internet access and searches for the term “HIV”. PCA is a method of multivariate analysis for finding patterns in data rather than hypothesis testing. PCA aids in the interpretation of relationships in the original data by transforming the original variables into a new set of variables, the principal components (80,81). PCA has been widely used in public health to study relationships of health problems to socioeconomic variables. For example, PCA has been used to investigate European tumor prevalence (82), nutritional epidemiology in Greece (83), and epidemiological analysis in low- and middle-income countries (84). As a consequence, we considered PCA an appropriate method for this exploratory study.
First, we collated the data sources. We obtained search pattern data for the term “HIV” through PCA. We obtained Russian-language data for five determinants of Internet access (see Table 3) from the Russian federal statistics agency for 83 Russian statistical regions (85). The determinants of Internet access comprised each a single figure for each subregion for 2011. In compiling our data, we sought to most closely align search pattern, HIV prevalence, and determinants of Internet access data.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Determinant of Internet access (abbreviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable 1</td>
<td>Higher education students per 100,000 population (age)</td>
</tr>
<tr>
<td>Variable 2</td>
<td>Percentage aged 25-64 with higher education (education)</td>
</tr>
<tr>
<td>Variable 3</td>
<td>Gross regional product per capita (income)</td>
</tr>
<tr>
<td>Variable 4</td>
<td>Broadband price per month (Bband price)</td>
</tr>
<tr>
<td>Variable 5</td>
<td>Urban / rural population (urbanization)</td>
</tr>
<tr>
<td>Variable 6</td>
<td>Searches for HIV per 100,000 population during 2011 (search)</td>
</tr>
</tbody>
</table>

Table 8.3. Determinants of Internet access—List of variables in PCA.

Second, we conducted PCA on all Russian subregions to produce a national level analysis. We included the determinants of Internet access and per capita search for “HIV” for all subregions. We used a correlation matrix approach to standardize the variables, as we used different units with differing variances. Based on our review of Internet determinants, we anticipated that the variables we chose to analyze would correlate.

Third, we conducted separate PCAs to examine the relationship between HIV search patterns and the determinants of Internet access separately on each of the eight Russian regions. Previous research suggests that, while there is no minimum of variables and cases in PCA, a larger number is preferable (86). In designing this study, we purposely selected a smaller number of variables. We did this to permit analysis of both national data, as well as of regions with smaller number of subregions. Through analyzing both national and regional PCA separately, we anticipated we would identify additional spatial relationships not obvious at the national level.
8.5 Results

8.5.1 Correlations

We first investigated search surveillance as a valid method for monitoring HIV in Russia. We found generally strong correlations between HIV prevalence and searches for the terms “HIV” and “AIDS”. Yandex searches for “HIV” were very strongly correlated with HIV prevalence (rs=0.881, \(P \leq 0.001\)), whereas “AIDS” was strongly correlated nationally (rs=0.714, \(P \leq 0.001\)) (see Table 4). The strength of correlations varied across Russian regions. Several regions were less strongly correlated in Yandex. For example, HIV prevalence and searches in the central and northwestern regions were moderately correlated as a result of outlier data points. Further, Google national searches for the term “HIV” were moderately correlated (rs=0.672, \(P=.004\)) with HIV prevalence and weakly correlated with Yandex searches for “HIV” (rs=0.584, \(P \leq 0.001\)) (see Table 5).

<table>
<thead>
<tr>
<th>Region</th>
<th>HIV prevalence per 100,000 pop’n</th>
<th>Searches for “HIV” per 1000 pop’n</th>
<th>Spearman correlation for HIV prevalence &amp; “HIV” (2-tailed (P) value)</th>
<th>Searches for “AIDS” per 1000 pop’n</th>
<th>Spearman correlation for HIV prevalence &amp; term “AIDS” (2-tailed (P) value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>446.513</td>
<td>16.995</td>
<td>.881 ((\leq .001))</td>
<td>19.312</td>
<td>.714 ((\leq .001))</td>
</tr>
<tr>
<td>Central</td>
<td>279.2</td>
<td>21.832</td>
<td>.377 (.006)*</td>
<td>21.215</td>
<td>-.123 (.386)</td>
</tr>
<tr>
<td>Northwestern</td>
<td>586.6</td>
<td>23.619</td>
<td>.482 ((\leq .001))*</td>
<td>26.383</td>
<td>.209 (.137)</td>
</tr>
<tr>
<td>Southern</td>
<td>144.3</td>
<td>8.397</td>
<td>.486 ((\leq .001))</td>
<td>12.665</td>
<td>.486 ((\leq .001))</td>
</tr>
<tr>
<td>North Caucasus</td>
<td>58.8</td>
<td>2.758</td>
<td>-.179 (.206)</td>
<td>6.666</td>
<td>-.286 (.040)</td>
</tr>
<tr>
<td>Volga</td>
<td>437.8</td>
<td>17.322</td>
<td>.793 ((\leq .001))</td>
<td>20.366</td>
<td>.380 (.005)</td>
</tr>
<tr>
<td>Ural</td>
<td>805</td>
<td>24.037</td>
<td>.657 ((\leq .001))</td>
<td>19.379</td>
<td>.429 ((\leq .001))</td>
</tr>
<tr>
<td>Siberian</td>
<td>528.1</td>
<td>13.962</td>
<td>.804 ((\leq .001))</td>
<td>15.561</td>
<td>.503 ((\leq .001))</td>
</tr>
<tr>
<td>Far east</td>
<td>166.4</td>
<td>7.473</td>
<td>.0167 (.907)</td>
<td>11.197</td>
<td>.083 (.557)</td>
</tr>
</tbody>
</table>

*outliers.

Figure 8.4 HIV and AIDS correlations from Yandex—National and all federal regions of Russian Federation
Second, we examined the relationship between the determinants of Internet access and search patterns for the term “HIV” across Russia. We found considerable variation in the relationship between these determinants and search patterns. We first analyzed national PCA results (Table 6). We determined the number of components to analyze using the Kaiser, Scree, and cumulative variance methods (81). Kaiser and scree tests suggested three principal components (PCs), and the cumulative variance method suggested four PCs should be analyzed. In PC1 (the first and most important component), HIV search, age, and educational variables were moderately correlated. In PC2, per capita income was most important. This factor was weakly correlated with searches for HIV and explained 23% of the variance. The subsequent two components, which explain less variance, are more difficult to interpret.
8.5.2 Biplots and Spatial Relationships

We used biplots to explain spatial relationships in our PCA results. Biplots provide a visual representation of PCA data from the first two PCs (87). Biplots allow identification of clusters of subregions with similar characteristics. Further, the clustering of subregions along vector lines serves to highlight subregions more strongly associated with specific variables. Importantly, the clustering of subregions is subjective and requires additional analysis. On the national HIV search biplot (see Figure 8.1), PC1 was associated with Vector 3 (income), Vector 4 (broadband price), and Vector 5 (urbanization). PC2 was associated with Vector 1 (age), Vector 2 (education), and Vector 6 (HIV search). We obtained PCA results and biplots for all eight Russian regions. See Multimedia Appendix 2 for a list of subregions referenced in the national PCA. See Multimedia Appendices 3-5 for biplot results for each Russian federal region. Finally, we conducted a separate PCA for HIV prevalence data. We substituted the variable HIV search with HIV prevalence. The results of a PCA incorporating the variable HIV prevalence produced results with a similar form to those incorporating HIV searches at both the national and regional levels.
<table>
<thead>
<tr>
<th>Region</th>
<th>Relationship</th>
<th>Geographic clusters</th>
<th>Outliers</th>
</tr>
</thead>
</table>
| National   | PC1: V3, V4, V5 Income, broadband fees, urbanization | Cluster 1
37. Ingushetia
41. Chechnya
79. Amursk
81. Sakhalin
83. Chukhotka
Cluster 2
10. Moscow region
71. Kemerovo
26. Murmansk
78. Khabarovsk
59. Tyumen | 18. Moscow City
22. Nenets Autonomous Region
29. St Petersburg
61. Yamalo-Nenets |
|            | PC2: V1, V2, V6 Age, education, and HIV prevalence/ search | Cluster 3
18. Moscow city
24. Kaliningrad
29. St Petersburg City
46. Tatarstan
54. Samara
58. Sverdlovsk
62. Chelyabinsk
70. Irkutsk
76. Kamchatka
77. Primorsk
80. Magadan |
8.6 Discussion

8.6.1 Principal Findings

Overall, we found search patterns were a valid method of HIV surveillance in the Russian Federation. Furthermore, our research suggests that search patterns for HIV are generally not related to income or broadband price. However across Russian regions, we found considerable variation in the strength of correlations between search and disease prevalence, and the determinants of Internet access. Finally, our analysis suggested that the strong correlations between search and disease prevalence may indicate effective use of the Internet by individuals at risk of HIV and PLHIV.

RQ1: Is Search Surveillance a Valid Method for Monitoring HIV in Russia?

We found online search patterns for HIV were correlated with HIV prevalence in both Google and Yandex at the national level. It is noteworthy that the latest official Russian HIV data available at the time of writing in mid-2013 were for the year 2011. By contrast, Yandex search data were available with a delay of 4 weeks and Google data with a 48-hour delay. This timely availability illustrates the potential contribution of search pattern data to disease surveillance.

Second, we found considerable variation in the strength of correlations among regions in Yandex data. Overall, we found Yandex searches for the term “HIV” and HIV prevalence were most strongly correlated. This suggests PLHIV are more likely to search for “HIV” than “AIDS”. In the North Caucuses and far eastern regions, HIV prevalence was not positively correlated with search. We attribute this to the low HIV prevalence and low search volumes in these regions. By contrast, in the central and northwestern regions, search volumes and HIV prevalence were high, but
correlations were moderate. We attributed the weaker correlations to outliers in Yandex data.

Removing the central (Moscow subregion) and northwestern region (Leningrad subregion), outliers strengthened correlations from 0.377 to 0.551 and 0.482 to 0.939 respectively. This suggests correlation analysis should routinely account for outlying subregions.

Third, we found Google data are not adequate for subnational HIV surveillance in Russia. We attribute the low correlations to the multiple zero values present in our Google dataset. Of the 15 regions for which Google data were available, many months recorded a zero search value for the term “HIV”. These zero values were consistent with an earlier study (47) of the use of Google search for health policy analysis in Russia that found Google Trends requires an unknown threshold before results are displayed. While national level Google data were correlated with HIV prevalence, our analysis suggests it should not be used for regional analysis.

Finally, our results contribute to understanding of hidden populations of PLHIV in Russia. There is a general consensus that Russian HIV rates are underreported. Previous studies have reported considerable at-risk populations unaware of their HIV status in subregions with high HIV prevalence (eg, (74)). However, we found strong spatial correlations between official HIV rates and searches for HIV. This finding has several interpretations. First, the spatial variation in search results also appears in traditional surveillance. Researchers have found high populations of unknown HIV serostatus in subregions of high HIV prevalence. That is, additional searches for HIV related information by populations at risk of HIV and unknown serostatus may inflate already high search volumes in those subregions with high HIV prevalence. However, these additional searches would not change the overall spatial distribution of search patterns. A second interpretation relates to the search data used. Our analysis relied on annually aggregated search results. Our results are thus a static view of HIV prevalence over a 12-month period. This static
view does not capture longitudinal anomalies in search patterns. While this 12-month snapshot was appropriate for the purposes of this study, monitoring of weekly and monthly search patterns may produce different results and reveal spatial variations in searches.

**RQ2: What is the Relationship Between the Determinants of Internet Access and Search Patterns for the Term “HIV” Across Russia?**

We analyzed national and regional PCA results separately. First, we examined the two national level biplots. One biplot incorporated HIV prevalence as a variable and the other searches for “HIV”. All other variables remained consistent (see Figure 8.1). We found these two biplots to be near isomorphic.

The separate national biplots containing both HIV prevalence and HIV search produced three logically coherent geographical clusters. National cluster 1 was characterized by low-income, non-ethnic Russian subregions with low HIV prevalence. The exception to this is the Sakhalin subregion, with high per capita income. This clustering occurred along the broadband vector (V4), suggesting high broadband prices and limited access. National cluster 2 was associated with the urbanization vector (V5). It includes urbanized non-metropolitan areas. National cluster 3 included the Russian cities with the highest prevalence of HIV, along the HIV search/prevalence (V6) and education vectors (V2). In addition, it included the Magadan subregion. The Magadan subregion is highly urbanized but has a low HIV prevalence and low population. We attribute the inclusion of Magadan in this cluster as an indicator of potential HIV risk. Conversely, the isolation of Magadan, in northeastern Russia, away from borders and drug routes, suggests a lower risk of HIV transmission through injecting drug use.
Both national PCA biplots featured several outlier subregions (see Figure 8.1). For example, the Yamalo Nenets subregion (61) was an outlier. This is an oil-producing subregion, with very high per capita incomes and below average HIV rates. It was strongly associated with the income vector (V3). Second, Moscow and St Petersburg were outliers. We attribute these cities’ outlier positions to a statistical anomaly. Each city had a rural to urban ratio of zero and very high Internet access rates and incomes. In summary, national level PCA analysis of both the HIV prevalence and HIV search biplots suggested a stronger relationship between broadband access prices in several subregions. See Multimedia Appendix 4 for a discussion of PCA in Russian regions.

In summary, PCA is not a technique that establishes causal relationships. However, based on our preliminary analysis, we suggest that income and broadband prices do not generally appear to be associated with HIV searches, either positively or negatively, in the subregions of highest HIV prevalence. Further research, in the form of confirmatory factor analysis and regression analysis is needed to establish this relationship statistically. Contingent upon the results of this additional analysis, HIV search pattern data may be incorporated into HIV modeling.

Our findings extend beyond an examination of the digital divide in Russia as defined by access to the Internet. There is also a behavioral dimension implicit in our two research questions. Search patterns measure aggregate behavior at the population level, with important issues more frequently searched. Searches for the term “HIV” measure the importance of this disease in a population. Consequently, the generally strong correlations between search patterns and disease prevalence lead us to infer that the Internet is being used effectively by PLHIV. That is, searchers for “HIV” demonstrate the technical competence to search for health information they consider important. However, this is a cautious conclusion, and one that merits further research.
8.6.2 Further Research and Limitations

Our research suggests that further exploratory analysis applying search pattern methods to HIV surveillance in Russia is warranted. First, PWID and sex worker populations may be at increased risk of HIV as the result of the Russian government’s censorship of prevention, treatment, and care information (88,89) and decreased behavioral monitoring capacity among internationally funded NGOs. Further, in 2013, concerns emerged about the capacity of independent Russian social research organizations to continue unencumbered data collection (90). Search methods may present a partial solution to these emerging information constraints. Internet search patterns provide a valid near real time measure of health behaviors in the field at population level.

Second, additional research is required to establish how effectively Russians use the Internet for HIV and health information. Qualitative and survey research among populations at risk of HIV and PLHIV will assist the further development of search surveillance methods and the planning of online interventions. Research in Russia should also examine the quality of health information available to PLHIV, both through domestic and international Russian language websites.

Third, organizations working with at-risk populations and PLHIV may consider initiating studies that establish baseline measures of search patterns for HIV and related diseases. From these baselines, longitudinal studies will be able to rapidly identify unanticipated shifts in spatial and temporal patterns of HIV-related searches and HIV prevalence, well in advance of official incidence and prevalence data.
Fourth, the method described in this paper can be extended to other communicable and non-communicable diseases in Russian-speaking countries. Broader application of this method may require initial disease-by-disease and country-by-country validation. However, even without validation, this method provides a low-cost, rapid, timely initial assessment with which to shape further planning, analysis, and decision making.

Finally, our research had several limitations. First, we were constrained by the absence of time series data. To conduct data matching for the PCA, we used a single aggregate figure to represent total searches nationally and within each subregion. We believe this analysis would be strengthened by a month-to-month comparison of HIV prevalence data in each Russian region. Such data are not publicly available. Second, Google is the only data source in most middle-income countries. This limits the application of this method. An important exception is China, where Baidu is increasingly being used alongside Google for disease surveillance.

8.7 Conclusions

The use of data for disease surveillance has been widely promoted in popular literature. Under the rubric of “big data”, journalists have popularized the novel application of Internet search patterns in medicine (91). Scholars too, have speculated that data availability will lead to the evolution of new models of disease surveillance (92-94). While the potential application of large scale data analysis in health care has generated considerable popular and scholarly interest, most research has focused on high-income countries with well-functioning public health information systems. We believe it is in middle-income countries that search methods can make the greatest contribution to public health. It is in these countries that traditional surveillance systems are least developed and health data least available.
Clearly, a digital divide between rich and poor countries persists. However, Internet access in middle-income countries is growing rapidly, and online health information is in demonstrably high demand. Based on our preliminary research, we are cautiously optimistic in suggesting that access to the Internet should therefore not be considered a constraint to conducting search studies beyond high-income countries. It is in lower income countries that search pattern surveillance may move beyond a statistical novelty and be incorporated into local health data collection and decision making.
Appendix 8.1 Map of Russian Federation
### Appendix 8.2 List of regions and subregions reference for PCA biplots

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<td>Chukhotka</td>
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Appendix 8.3 Narrative analysis of PCA in Russian regions

This Appendix is an analysis of the main features of our PCA investigation of Russian regions in narrative form. We observed considerable variation between Russian regions in the relationships between the determinants of internet access and use. In analysing regions, we primarily focused our analysis on the relationships with HIV search/prevalence. As in the case of national PCA, we clustered subregions within each region, and analysed both HIV prevalence and search in two separate biplots. We found logically coherent clusters of subregions within regions, associated with specific variables. For example, in the Urals region (F), the Sverdlovsk subregion was most closely associated with both the HIV search and HIV prevalence vector (V6) In 2011 Sverdlovsk had the second highest HIV prevalence in Russia [53], suggesting ur PCA biplots produced results consistent with alternative data sources.

In the Far East (H), we found two subregions clustered around the broadband vector. These two subregions, Amursk and Jewish Autonomous subregions, had high broadband prices(Vector4). Also in the Far East region, we identified a cluster of most two subregions most strongly associated with HIV prevalence/search These were the Khabarovsk and Primorsk subregions. Khabarovsk had almost double the broadband price of Primorsk, a considerably lower HIV prevalence (128.5 vs 348.6) and a similar per capita rate of internet search for HIV. This may indicate undiagnosed PLHIV in Khabarovsk. Conversely, it may indicate exogenous factors such local school projects or news reports stimulating internet search. However the small population, low search volumes and low HIV prevalence in most subregions suggest results from the Far East should be treated with caution.

We found outlier regions required active analysis and incorporating incidence data. For example in the Siberia Region (G), the Kemerevo subregion (subregion 9) was an outlier not associated with any vectors. In 2011, Kemerovo had the highest incidence of HIV of all Russia subregions [53]. This suggests incidence data should also be included in PCA analyses. Similarly, in the Volga region (Table 4A), no subregion was strongly associated with the HIV prevalence/ HIV search vector. However, an outlier, the Samara subregion (12) had the highest regional incidence of HIV, while
another outlier, Perm (7) had the second highest. These outliers were not evident in the national level PCA.

Finally, in the North Caucasus region (D), we identified three geographical clusters. For example, Cluster 2, Chechnya and Ingushetia, had the lowest per capita incomes in Russia, and the highest prevalence of HIV in the North Caucasus in 2011 [53]. However, these two subregions also had among the highest broadband price in Russia and recorded low search rates for HIV. These low search rates, combined with high broadband prices, relatively high subregional HIV rates suggest the provision of HIV prevention, treatment and care may be a priority in these parts of the Northern Caucuses.
Appendix 8.4 PCA biplots - Russian regional HIV search and HIV prevalence.

National and Regional biplots
List of variables in PCA
Variable 1: Higher Education Students per 100000 population (Age)
Variable 2: Percentage of aged 25-64 with Higher Education (Education)
Variable 3: Gross Regional product per capita (Income)
Variable 4: Broadband price per month (Band price)
Variable 5: Urban / rural Population (Urbanisation)
Variable 6: Searches for HIV per 100000 population during 2011 (Search)
D North Caucasus Region HIV search biplot

D North Caucasus HIV Prevalence biplot

E Volga Region HIV search biplot

E Volga Region HIV prevalence biplot
F Urals Region HIV search biplot

F Urals Region HIV prevalence biplot

G Siberia Region HIV search biplot

G Siberia Region HIV prevalence biplot
H Far East region HIV search biplot

H Far East region HIV prevalence biplot
Appendix 8.5 Table summarizing PCA biplot results in Russian regions.

<table>
<thead>
<tr>
<th>Region</th>
<th>Relationship</th>
<th>Geographic clusters</th>
<th>Outliers</th>
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Internet search and krokodil in the Russian Federation 2011-2013:
an infoveillance study.

Published paper

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PMID:25236385
Author contributions


Contributions: Zheluk conceived of and planned the study. Zheluk collected and analysed all results and prepared the first draft of the manuscript. Meylakhs and Quinn provided advice and input to prepare the draft manuscript for journal submission. Zheluk, Meylakhs and Quinn made contributions to the final draft of the manuscript for publication.

Andrey Zheluk
Signature
Date 3/10/14

Peter Meylakhs
Signature
Date 3/10/14

Casey Quinn
Signature
Date 3/10/14
Chapter 9: Internet search and krokodil in the Russian Federation

2011-2013: an infoveillance study.

9.1 Introduction

Krokodil, otherwise known as desomorphine, is a cheap injectable drug easily synthesised in household kitchens from codeine containing medication (CCM). The first confirmed report of krokodil use in Russia occurred in 2004. From 2012, reports of horrific krokodil-related injection injuries began to appear beyond Russia in Western Europe (1) and the United States (2). We conducted this exploratory study to determine if several complementary data sources may provide insights into the relative scale and spatial patterns of behaviours consistent with an interest in the production and use of krokodil before and after the imposition of Russian federal restrictions on CCM sales in 2012.

9.1.1 Review of Literature on Krokodil

Current scientific literature on krokodil is limited. We reviewed international literature available through PubMed and Google Scholar. In addition, we searched the four most popular Russian online news sources (3), for the term "desomorphine" in the date range January 2009 to December 2012 using Yandex News. See Figure 9.1. Across the 4 sources, we identified 929 Russian language articles associated with the term "desomorphine" in this date range. This date range was bounded by the period of increasing public interest in 2009, and the 6 month period following federal restrictions on CCM sales across Russia in June 2012.
9.1.2 The origins of krokodil

Current literature describing the origins of krokodil in Russia is vague. Time magazine reported the first appearance of krokodil in the Siberian and the Far East Federal Regions of Russia in the early 2000s (4). We identified the first Russian news report of krokodil use in the Komi Republic in the western part of the Siberian Federal Region in May 2004 (5). A police report from 2004 described the seizure of a new illicit drug never before seen in Russia called desomorphine. Conversely, a 2010 video produced by the Russian Drug Control Service (FSKN) suggested krokodil first appeared in the Komi Republic in 2002 (6), and that by 2006, 19 Russian oblasts (subregional administrative units) were affected. These affected oblasts were primarily in the Siberian, Volga, Northwestern and Central Federal Regions. From 2006 onwards krokodil use increased dramatically according to Russian news reports (7). The ease of access to low cost CCM, and ease of domestic manufacture were widely reported as contributing to the spread of krokodil use (1). Shortages of heroin during 2010 have been described as a further factor contributing to krokodil use. Several authors suggested krokodil largely displaced traditional opiates as a consequence of Afghan heroin shortages after 2010 (4,8–10). A 2012 police report stated seizures of krokodil grew by 40 times from 2kg in 2006 to 100kg in 2011. By comparison, a mean of 2922 Kg of heroin were seized each year between 2006 and 2010 in the Russian Federation (11,12).
9.1.3 Prevalence of krokodil use

Estimates of the scale of krokodil use diverged markedly. In 2011, a senior Russian addiction medicine specialist reported 5 thousand krokodil users were receiving treatment nationally, out of a total estimated national population of 20-30 thousand users (13). In June 2012, the FSKN estimated between 5000 and 7000 deaths were attributable to krokodil in Russia over the preceding two years (7). Also in 2012, international researchers estimated 100 000 people were krokodil dependent in Russia, while suggesting the actual number could be higher (14). Pharmacy sales of CCM provided a further indicator of the scale and spatial distribution of krokodil use. For example, In the Urals Region, the FSKN reported an increase in annual CCM sales from 4.2 million in 2007 to 12 million packets in 2010 (15).

There was limited data describing the spatial distribution of krokodil use before the federal restrictions on sales of CCM in June 2012. Krokodil use had been widely reported across Russia (16,17). A December 2011 news report citing "various sources" described the results of toxicology tests conducted in several Russian oblasts (18). According to this unreferenced news report, toxicology tests suggested 20% of PWID in Chechnya were krokodil users, compared with 60% in Kazan and Ryazan, and 90% in Yaroslavl oblast. Overall the publicly available data on the scale and prevalence were both limited and fragmented (19) before the introduction of restrictions in June 2012.

9.1.4 Researching krokodil

A series of articles reviewing the current scientific understanding of krokodil appeared in the International Journal of Drug Policy (IJDP) in 2013. One of these articles by Grund and colleagues consolidated current scientific information, including interview data from Russian key informants
The authors pointed to the paucity of scientific research into krokodil prevalence and use. Several commentary articles accompanied Grund and colleagues' review. In one accompanying commentary piece, Heimer described the difficulties of investigating the prevalence of krokodil use without ethnographic and epidemiological data (19). Heimer further noted the time lag between submitting research proposals and fieldwork, describing his personal efforts directed at setting up field interviews being thwarted by changes in Krokodil use patterns as the result of federal restrictions on the sale of CCM June 2012. In summary, conducting research into krokodil was more complex than many established illicit drugs as the result of the novel nature of the substance and policy changes.

9.1.5 Morbidity and mortality associated with krokodil in Russia

Desomorphine was originally developed as a morphine substitute. It was first synthesised in the United States in 1932, with the aim of producing a low cost substitute with minimal side effects (20). However, laboratory-synthesised desomorphine was regarded as an unsuccessful substitute, being shorter lasting, stronger and more addictive than morphine. In Russia, krokodil, or what is termed desomorphine, is an illicit injectable drug domestically manufactured from codeine, iodine, phosphorus, paint thinner and lighter fuel (14). The resulting substance is regarded as impure, creating the potential for severe injury among people who inject drugs (PWID). It is the presence of impurities that has produced consistent reports of injuries characteristic of krokodil use. Characteristic injuries have included vascular damage, skin and soft tissue infections, necrosis and gangrene (21,22), as well as burns associated with domestic manufacture (23). The short duration of narcotic effects, strong dependence, and chemical instability of the domestically produced drug lead to reports of binges of frequent injecting among krokodil users (24).
Frequent injecting is generally regarded as a risk factor for HIV and other injecting related harms (25,26). Further PWID experience multiple comorbidities, creating a disproportionate need for health services (14,27). However, as a consequence of punitive drug laws, Russian PWID are often particularly unwilling to seek medical assistance, exacerbating injecting related injuries (28,29). In summary, the characteristics of drug preparation and use, as well as the legal environment in which PWID use illicit drugs increased the morbidity and mortality associated with krokodil use in Russia before the restrictions on CCM in 2012.

9.1.6 Russian policy responses to krokodil

The easing of restrictions on access to CCM may have increased the production and use of krokodil in Russia. During the Soviet period to 1991, CCM was only available through pharmacies with medical prescription (30). Following the fall of USSR in 1991, restrictions on sales of CCM were removed. In 2004, Russian manufacturers introduced new CCMs targeted at Russian consumers. Following advocacy by the largest Russian manufacturer Pharmstandard, these new CCMs remained accessible to consumers without medical prescription (31). While a two-packet-per-person limit on CCM sales formally existed, this was routinely ignored by pharmacists (32,33). From the mid-2000s, Russian government agencies explicitly linked the unrestricted access to CCM with the illicit consumption of krokodil (32). After 2009, krokodil became increasingly recognised as a public health and policy problem. Increasing public concern was accompanied by Russian media reports of conflicts of interest. In particular, the relationship between Pharmstandard and the Russian Minister of Health became the target of media scrutiny (34,35). Media reports suggested Pharmstandard’s advocacy had prevented the imposition of restrictions the sale of CCM. In summary, several failures in CCM regulation may have facilitated the expansion of krokodil use in Russia.
9.1.7 National CCM restrictions

At a national drug control conference in 2011, Russian President Medvedev announced restrictions on the sale of CCM without medical prescription (36). Federal restrictions on CCM sales were originally scheduled to start mid-2011. However, the Russian Ministry of Health successfully delayed the implementation of restrictions for 12 months. Ministry of Health officials argued that 40 million individuals using CCM for intended analgesic purposes would be disadvantaged by premature restrictions (37). In opposing immediate restrictions, the Ministry of Health also drew on widespread public opposition to restrictions on CCM sales (38). See Figure 9.2. The delays in restrictions lead to conflict in Russian national media between the Russian Federal Drug Control Service (FSKN), academics (39) and the Ministry of Health (37). The public debate over CCM restrictions thus illuminated inter-agency tensions in otherwise generally opaque Russian federal health policy landscape.

<table>
<thead>
<tr>
<th></th>
<th>How will this affect the battle against drugs in Russia</th>
<th>How will this affect the needs of ordinary patients?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generally positive</td>
<td>32%</td>
<td>11%</td>
</tr>
<tr>
<td>No effect</td>
<td>49%</td>
<td>21%</td>
</tr>
<tr>
<td>Generally negative</td>
<td>5%</td>
<td>56%</td>
</tr>
<tr>
<td>Difficult to answer</td>
<td>14%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Figure 9.2 Public opinion survey into consequences of proposed federal CCM restrictions May 2011 (38)

9.1.8 The effect of CCM restrictions

Between 2011 and June 2012, several Russian oblast governments implemented interim local restrictions on CCM sales (40,41). These interim restrictions were directed at reducing the production and consumption of krokodil in advance of federal bans (42,43). On 1 June 2012, a federal law restricted CCM sales across all of Russia. Russian media subsequently reported decreased sales volumes of CCM (44). However, media reports of krokodil production and use, and krokodil-related arrests continued (45,46). These media reports suggested the federal
restrictions on CCM sales had been only partially effective in curtailing krokodil production and use.

9.1.9 Krokodil and the Internet

Between 2010 and 2012 Russian policy makers emphasised the negative influence of the Internet in disseminating krokodil related information. In April 2011 the FSKN presented the results of its research into Internet search patterns for krokodil associated terms (47). The FSKN described a marked increase in Internet searches for methods of preparing and purchasing krokodil, from 3000 searches during 2010, to 50 000 in the first three months of 2011. Several days later, the Russian President Dmitry Medvedev reiterated Russian government concerns about the relationship between krokodil and the Internet at a national forum dedicated to illicit drug use prevention. President Medvedev demonstrated that when the term "desomorphine" was entered into the Yandex search engine, the first results revealed information on how to prepare the drug (36). Medvedev suggested these results proved that Internet users were most interested in producing desomorphine, rather than simply searching for general information about the drug. This widely reported demonstration by the Russian President served as the catalyst for subsequent federal restrictions on CCM.

9.1.10 Russian government statements about krokodil

President Medvedev's demonstration stimulated increased public interest in krokodil. The FSKN had reported steadily increasing Internet searches in the 12 months before President Medvedev's speech. However, extensive media coverage and the highest recorded volume of searches for "desomorphine" emerged in the week following the President's speech. See Figure 9.3. Further, searches for "desomorphine" remained consistently elevated after April 2011 until the Russian
CCM restrictions in June 2012. Medvedev’s speech may thus have contributed to the Russian government’s unintentional amplification of popular interest in krokodil production and use (48–50). Both before and after President Medvedev’s speech, Russian media consistently reported the harms of krokodil alongside the low price and ease of access to ingredients, and ease of drug synthesis in domestic laboratories.

Political and public concern over illicit drug use preceded President Medvedev’s speech. Public opinion polls since 2005 consistently rated illicit drug use as one of the most serious social problems in Russia (51). Between 2010 and 2012, the Russian government progressively tightened restrictions on all illicit drug information available online. For example, in 2011, a website operated by the NGO Andrey Rylkov Foundation was suspended for publishing public health information about opioid substitution therapy and harm reduction (52). Russian government policy towards illicit drug use and drug users is regarded as punitive. Moreover, in the post-Soviet period, drug use came to represent an existential threat, implicated in national spiritual and demographic decay. (See for example (53)). The intensity of public concern and political action directed at illicit drug use in Russia has been described as a moral panic (54). Moral panics are a sociological concept describing the disproportionate public response to issues represented in media (55,56). Over two decades, intense social and political pressures lead to the demonisation of drug users in Russia. After 2009, Krokodil increasingly served as a focus for illicit drug related concerns. However, President Medvedev’s April 2011 speech may have triggered a moral panic surrounding Krokodil, amplified public interest, and stimulated Internet search behaviour.
1.11 Public curiosity is stimulated by media reporting about illicit drugs

Exposure to stories about illicit drugs in traditional and online media has been found to increase public curiosity and the use of illicit drugs (57,58). Dasgupta and colleagues found mortality from prescription opiates increased significantly in the months following media reporting (59). In addition to the news effects, online media has increased information about manufacture, sales and use of novel illicit drugs, and undermined international drug control efforts (60–62). Further, researchers have noted the cohort most likely to experiment with new drug also most likely to use the internet (63). The Internet is now regarded as the main medium from spreading information about novel illicit drugs (64–66). Notably, Forsythe directly linked news reporting to increased rates of internet search to increased use of the novel illicit drug mephedrone in the UK during 2010 (67).

We conducted this exploratory infodemiology study in order to better understand if the relative
scale and spatial distribution of search behaviour was consistent with an interest in the production and use of krokodil in Russia before and after the imposition of federal restrictions on CCM sales in 2012. In conducting this study we examined “the science of distribution and determinants of information... (on) the Internet (and) a population, with the ultimate aim to inform public health and public policy” (68).

9.2 Methods

This study had two main objectives. First, to determine if Internet search patterns could detect regularities in behavioural responses to Russian CCM policy at population level. Second, to determine if complementary data sources could explain the regularities we observed.

9.2.1 Search patterns and illicit or stigmatised behaviours

Each Internet search is a behavioural measure of an issue’s importance to an individual (69). If individuals are concerned or interested in an issue, they are more likely to search for information related to that issue. The relative importance of an issue can thus be inferred from the volume of search queries for a specific term or terms representing that issue. The use of aggregated Internet search patterns may be considered a method of unobserved, real time behavioural field research at population scale (70). Researchers have used Internet search patterns to investigate illegal or stigmatised behaviours. For example researchers analysed search patterns to monitor US cigarette tax avoidance (71), and the use of racist terms when searching for information about Barak Obama prior to the 2012 US presidential elections (72). Other investigators have studied global abortion patterns, finding higher search rates in those geographic regions where abortions were illegal or restricted (73). In each of these instances, the authors suggested internet search providing insights into behaviour at a population level, beyond that available to traditional survey research.
9.2.2 Google and Yandex search in Russia

Most Internet search pattern studies have used Google Trends as the data source. Google Trends has been deployed in studies of influenza (74,75), dengue (76), and HIV (70,77). Globally, Google provided 84% of global Internet search queries in May 2011 (78). In Russia, Google’s market share in Russia was only 25% in 2011 (79), whereas Yandex had a 60% share. The proportion of the Russian population using the Internet grew from 43% in 2010 to 55% in 2012 (80). Further, there was near universal Internet use among the age groups most likely to use illicit drugs (81). Among both males and females aged under 35 years and living in major Russian urban centres, more than 90% were regular Internet users during 2012.

9.3 Case study: Why is search based krokodil surveillance important in Russia?

Illicit drug use data is generally regarded as difficult to obtain. Drug use estimates are imperfect even in high income countries with adequate resources (82). Researchers have generally divided illicit drug use estimation methods into direct and indirect approaches. Direct methods involve surveying household members about patterns of drug use. However, this method is expensive, and may not produce truthful responses, particularly in countries such as Russia, where illicit drug use carries severe criminal penalties and stigma (83). Further, household surveys may fail to reach drug using populations such as prisoners and the homeless. Indirect methods aim to estimate the size of drug using populations through comparing data sources. Examples of indirect methods include the multiplier method, based on estimates of the proportion of drug users receiving treatment each year (84). Additional methods include capture-recapture and back-projection (85), using data sources such as arrest, overdose, and needle exchange data (86,87). Drug use researchers suggest the main advantage of indirect methods is their lower cost, and greater
accuracy, as several measures from different data sources are generally combined to produce a single aggregated measure.

In addition we identified two references to national drug agencies using novel methods for estimating illicit drug use prevalence. The UK government made use of Google Trends when considering restrictions on the novel substance mephedrone in 2010 (67). Similarly, the Russian FSKN used Internet searches to develop a case for restricting CCM sales in Russia in 2011 (47). These two instances suggest online search pattern data has been used by national governments in shaping national drug policies. Through conducting this study, we aimed to develop search patterns as an additional method to complement indirect estimates of illicit drug using populations in Russian-speaking countries.

9.3.1 RQ1: Were there regularities in the Internet search patterns for the term “desomorphine” across Russia in 2011-13?

To answer this question, we examined search patterns using Yandex and Google Internet search engines. First, we determined the most appropriate search term to represent the informal term "krokodil" in Internet searches. We initially selected two search terms that we believed reflected the majority of searches for the concept central to this study (88). These two search terms we selected were "desomorphine" (дезоморфин in Russian) and "Krokodil" (крокодил). We referred to the Google Trends related terms (Top Searches) feature to ensure each term referred to the subject of this study. Google related terms provide information on the relative importance of searches related to the specific search term entered into Google Trends. In the case of "desomorphine", all terms were related to the drug desomorphine, whereas the term "krokodil" revealed primarily unrelated terms. See Figure 9.4. The term "krokodil" also means "crocodile" in Russian, leading to considerable ambiguity in search results. For example, the most popular term associated with
"krokodil" (crocodile) referred to a 1960’s Soviet-era children’s animated character "Gena the Crocodile". Conversely, there is anecdotal evidence to suggest that some Russian PWID may not immediately associate the term krokodil with desomorphine (16). Overall, based on information available from Google Trends and Russian respondents, we anticipated that the search term “desomorphine” would be more likely to reflect search patterns consistent with an interest in the production and use of krokodil.

Publicly available Google Trend data for Russia has several limitations. First, Google did not provide complete results, returning only oblasts with the highest search volume. Google data for the term "desomorphine" was only available for 8 of Russia’s 83 oblasts and 3 cities during the date range 2011-2013. Secondly, Google did not provide raw search data. This made direct comparisons between oblasts using Google data impossible. We thus used Wordstat as the primary data source. Yandex made publicly available a complete raw search data set for all Russian regions and oblasts for 6 months before and after the implementation of federal CCM restrictions in June 2012. We used Google Trends as a secondary source of aggregated search results for validation purposes.

<table>
<thead>
<tr>
<th>Desomorphine related search terms</th>
<th>Russian</th>
<th>Value</th>
<th>Krokedil related search terms</th>
<th>Russian</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desomorphine how to prepare</td>
<td>дезоморфин как приготовить</td>
<td>100</td>
<td>Gena the crocodile (Children's animation)</td>
<td>крокодил гена</td>
<td>100</td>
</tr>
<tr>
<td>Prepare desomorphine</td>
<td>приготовить дезоморфин</td>
<td>100</td>
<td>Crocodile game (Children's game)</td>
<td>игра крокодил</td>
<td>50</td>
</tr>
<tr>
<td>Krokedil desomorphine</td>
<td>крокодил дезоморфин</td>
<td>80</td>
<td>Krokedil drug</td>
<td>крокодил наркотик</td>
<td>50</td>
</tr>
<tr>
<td>Krokedil</td>
<td>крокодил</td>
<td>80</td>
<td>Crocodile/krokodil online</td>
<td>крокодил онлайн</td>
<td>45</td>
</tr>
<tr>
<td>Drug desomorphine</td>
<td>наркотик дезоморфин</td>
<td>60</td>
<td>Crocodile Dundee (Australian film)</td>
<td>крокодил данди</td>
<td>35</td>
</tr>
<tr>
<td>Desomorphine recipe</td>
<td>дезоморфин рецепт</td>
<td>50</td>
<td>Dundee (film)</td>
<td>данди</td>
<td>35</td>
</tr>
<tr>
<td>Krokedil drug</td>
<td>крокодил наркотик</td>
<td>30</td>
<td>Cheburashka (Children's animation)</td>
<td>чебурашка</td>
<td>30</td>
</tr>
</tbody>
</table>

Figure 9.4 Google Trends - Related terms for desomorphine - Russian Federation
Second, we obtained desomorphine search data for each Russia oblast covering the data range 1 September 2011 to 31 August 2013. Yandex provides 2 years of publicly available monthly search pattern data at any time. Additionally, we had six months previously downloaded monthly search pattern data for the term "desomorphine" for each Russian oblast, for the date range February to August 2011.

Third, we converted raw search figures for the term "desomorphine" to population prevalences. This allowed direct comparison across regions and oblasts. We used 2010 federal Russian census data (89) for our population prevalence calculation. We then multiplied each result by 100,000 to increase ease of comprehension, and to provide a population prevalence measure.

Fourth, we analysed search patterns before and after federal restrictions on CCM sales in June 2012. We obtained the mean search volume for 6 months before the restrictions, as well as 6 and 12 months after (i.e. to 31 August 2013). We excluded June 2012 data, as we anticipated atypical search patterns in the immediate post- restriction period. Overall, we segmented the available data to examine the effects of a federal policy change on the relative scale and geographic patterns of krokodil search across the Russia.

Fifth, we obtained all available Google data for the term “desomorphine” for the date range September 2011 – August 2012. Google search data for the term "desomorphine" was available for 8 of 83 oblasts only. See Figure 9.5. We did not consider this sample adequate to conduct correlations. Similar limitations with regional Russian Google search results have been reported in earlier studies (70,90).
9.3.2 RQ2: Can complementary data sources explain the observed regularities for the term “desomorphine” across Russia in 2011-13?

To answer this question, we initially reviewed the approaches used to validate search pattern data and drug population data. Search pattern studies have generally validated against an off-line measure. For example, the initial search pattern studies established correlations between search patterns and epidemiological surveillance data for influenza (74,91). Other studies focusing on issue salience, established a correlation between search patterns, traditional media and opinion polling (92). Each of these search studies revealed regular patterns of behaviour corresponding to a valid offline measure. However in this case, there was no analogous source of illicit drug use data available. We therefore combined several complementary data sources with a view to providing a plausible explanation for the observed regularities in Internet search patterns.

First, we obtained first court appearance data available for krokodil related criminal charges for the 77 of 83 Russian oblast data available from the site rospravodusie.com. The site rospravosudie.com is a publicly available non-government Russian criminal justice research project displaying criminal court case data across all Russian oblasts (17). One part of the project is
dedicated to court appearance data for popular illicit recreational drugs. In addition to krokodil, rospravosudie.com provides arrest data on 24 illicit drugs, including krokodil marijuana, amphetamines, JWH (“spice”), and heroin. The available krokodil data is a single per-oblast figure covering the date range 2010 to 2012. The Rospravodusie.com publishers note several limitations. First, the arrest data is based on sentencing documents. Only 50% of complete sentencing data is published, and only 50% of cases appear in courts. Second, the database allows comparison of the relative popularity of various illicit drugs. It is not possible to describe the absolute prevalence of illicit drug use based on this data. Third, there is an assumption that the detection rates for illicit drug crimes were on average the same nationally. Fourth, only the first court appearances for illicit drug cases are recorded. Subsequent appeals and cassations for illicit drug are excluded. In summary, the site authors suggest that despite these limitations, the data reflects the differences in access to illicit drugs across Russian regions.

To analyse krokodil related court data, we first obtained arrest rates for krokodil for 2010-12 as a single figure for each Russian oblast. We then converted the arrest rates for each oblast to a per 100000 population measure. This allowed us to investigate the relationship between court appearances and krokodil searches. We used the mean searches for "desomorphine" per 100000 population in the date range November 2011- May 2012 to represent pre-CCM restriction searches. We then conducted Spearman correlation between arrest rates and searches per 100000 population for "desomorphine" for the 77 regions for which court data was available.

Second, we used Google Trends visual data to provide indicative national search results for popular CCMs and “desomorphine” from January 2009 to January 2013. We identified several popular CCM available in Russia prior to the June 2012 ban (93). The four CCM we analysed with...
Google Trends were Kaffetin, Solpadeine, Pentalgin, and Codelac. Historical Yandex data was not available for this complete date range.

Third, we used Google Trends related searches to analyse several popular CCM available in Russia prior to the June 2012 restrictions. Through analysing these related searches, we sought to obtain additional information on the characteristics of public interest in CCM and the term “desomorphine” before and after federal restrictions. Historical Yandex data was not available for this complete date range.

Fourth, we used Yandex Keyword feature nationally to confirm that searches for “desomorphine” were associated with illicit drug use. Yandex provides a Keyword function that lists word combinations associated with a specified search term. Keywords are analogous to the Google related terms (Top Searches) feature (94). We identified 85 Yandex Keyword combinations incorporating the term “desomorphine”. These combinations included “desomorphine prepare” and “desomorphine recipe”. See Appendix 1. Yandex keywords are available nationally, for each Russian region and 83 oblasts, and many smaller intra-oblast cities. However, the date range is limited to the preceding 30 days only. As the search patterns from month to month are likely to be volatile within smaller geographic units, we obtained and analysed the results for Yandex national keywords only. In order to identify the main themes present in Keyword results, we hand coded the 85 keyword combinations from the national level Yandex Keyword Feature in the latest available date range, November 2013. Two Russian-speaking researchers then coded each keyword combination into one of three primary themes.
9.4 Results

9.4.1 RQ1: Were there regularities in the Internet search patterns for the term “desomorphine” across Russia in 2011-13?

In the 6 months before the CCM restrictions in June 2012, 21 of Russia’s 89 oblasts had Internet search rates higher than the national average (mean) of 16.67 per 100,000. See Appendix 2. In the 6 months immediately after restrictions, national average search rates dropped to 9.65 per 100,000. Further, the number of oblasts with a higher than average search rate dropped from 30 to 16. In the 6 month date range March to August 2013, search rates dropped further to 8.75 per 100,000, with 11 oblasts recording higher than average search rates. However, there were a number of oblasts where searches for “desomorphine” after sales persisted after federal the restriction on CCM sales. These included Sverdlovsk oblast (146.898 pre CCM restrictions vs. 81.098 post restrictions), Moscow city (31.245 vs. 20.586) and Vologda oblast (34.061 vs. 17.998). See Figure 9.6. Further detailed analysis of subnational search pattern results appears in narrative form in Appendix 3.

<table>
<thead>
<tr>
<th>CITIES</th>
<th>Pre-ban 6 months</th>
<th>Post-ban 3 months</th>
<th>% change post-ban 3 months</th>
<th>% change Feb-sept 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOLGOGRAD OBLAST</td>
<td>60.946</td>
<td>33.826</td>
<td>45.10</td>
<td>53.15</td>
</tr>
<tr>
<td>Cherepovets</td>
<td>50.324</td>
<td>29.367</td>
<td>42.00</td>
<td>49.67</td>
</tr>
<tr>
<td>SVYARTSK OBLAST</td>
<td>62.200</td>
<td>39.373</td>
<td>38.00</td>
<td>36.65</td>
</tr>
<tr>
<td>Kemerovsk Oblast</td>
<td>20.220</td>
<td>13.026</td>
<td>38.83</td>
<td>67.45</td>
</tr>
<tr>
<td>Permouzsky</td>
<td>13.116</td>
<td>6.281</td>
<td>52.01</td>
<td>53.08</td>
</tr>
<tr>
<td>ROSTOV OBLAST</td>
<td>56.490</td>
<td>43.459</td>
<td>23.11</td>
<td>34.59</td>
</tr>
<tr>
<td>Rostov-na-Donu</td>
<td>9.785</td>
<td>7.059</td>
<td>36.75</td>
<td>67.21</td>
</tr>
<tr>
<td>Stavropol</td>
<td>26.645</td>
<td>11.291</td>
<td>55.95</td>
<td>67.61</td>
</tr>
<tr>
<td>Volgodonsk</td>
<td>13.342</td>
<td>6.601</td>
<td>50.96</td>
<td>33.45</td>
</tr>
<tr>
<td>Tolyatti</td>
<td>9.420</td>
<td>4.247</td>
<td>54.53</td>
<td>49.00</td>
</tr>
<tr>
<td>SAMARA OBLAST</td>
<td>25.329</td>
<td>16.441</td>
<td>35.59</td>
<td>35.59</td>
</tr>
<tr>
<td>Samara city</td>
<td>16.441</td>
<td>12.277</td>
<td>25.59</td>
<td>25.59</td>
</tr>
<tr>
<td>Tolyatti</td>
<td>30.131</td>
<td>18.736</td>
<td>37.81</td>
<td>49.71</td>
</tr>
<tr>
<td>KRAINODAR OBLAST</td>
<td>18.051</td>
<td>9.329</td>
<td>49.13</td>
<td>47.13</td>
</tr>
<tr>
<td>Krasnodar city</td>
<td>31.774</td>
<td>20.617</td>
<td>38.17</td>
<td>55.49</td>
</tr>
</tbody>
</table>

Figure 9.6 Yandex search patterns for “desomorphine” in selected Russian subregional cities

9.4.2 RQ2: Can complementary data sources explain the observed regularities for the term “desomorphine” across Russia in 2011-13?

To answer this question, we used several complementary sources of krokodil related data. We found a Spearman correlation of .506 (p < .001) between searches for the term “desomorphine” and
first court appearance data for krokodil related charges for all Russian oblasts. That is a moderately strong positive correlation. See Figure 9.7.

Second, we examined national Google Trends results for four CCMs and “desomorphine”. Overall, search volumes for both CCM decreased in the sixth months before the June 2012 federal restrictions, as did searches for the term “desomorphine”. Public interest in CCM and the term desomorphine was roughly similar in the six months before the implementation of restrictions. The exception was an increase in search for the CCM pentalgin immediately before the June 2012 restrictions. See Figure 9.8. We attribute this marked increase in interest due to public concern over access to CCM for therapeutic analgesic purposes.

Third, we examined Google Trends related terms for CCMs and desomorphine. We found related terms for CCMs consistent with therapeutic and analgesic uses. See Figure 9.8. By contrast, related terms for “desomorphine” were consistent with an interest in the production and use of krokodil. The Google related terms data did not record all search results. We attribute this to the Google “threshold effect” described in earlier analysis of drug policy (90). That is, below an unspecified threshold value, Google records a nil value.

Fourth, we used the Yandex Keyword feature to analyse the word combinations used with the search term “desomorphine”. We found combinations associated with krokodil preparation and use accounted for 46.613% of searches, images and general information for 24.175%, and ambiguous terms for 29.212%. See Appendix 1 and Figure 9.9. We used Cohen’s Kappa to assess intercoder reliability on all 85 search combinations across three categories using two coders (Kappa = .772).
The preparation and use category included all terms associated with drug preparation and use.

Images and entertainment included visual material and terms unlikely to be associated with drug use and preparation (for example "YouTube desomorphine", "junkies desomorphine"). In summary, we found the combination of search patterns with complementary methods useful for identifying behaviours consistent with an interest in the production and use of krokodil.

![Figure 9.7 Google Trends results for CCM and desomorphine search 2009 - 2013](image)

<table>
<thead>
<tr>
<th>CCM name</th>
<th>Pentalgin</th>
<th>Value</th>
<th>Codelac</th>
<th>Value</th>
<th>Desomorphine</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian</td>
<td>pentalgin</td>
<td></td>
<td>кodelак</td>
<td></td>
<td>desomorphин</td>
<td></td>
</tr>
<tr>
<td>Date range</td>
<td>2009-2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pentalgin N</td>
<td>100</td>
<td>Codelac broncho</td>
<td>100</td>
<td>Desomorphine how to prepare</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Pentalgin instructions</td>
<td>65</td>
<td>Codelac phyto</td>
<td>75</td>
<td>Desomorphine krokodil</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Pentalgin composition</td>
<td>50</td>
<td>Codelac instructions</td>
<td>75</td>
<td>Krokodil</td>
<td>70</td>
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![Figure 9.8 Google related search terms for CCM from 2009-13](image)

<table>
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<tr>
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Figure 9.9 Main themes identified in Yandex Wordstat combined word searches for “desomorphine”

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<td>83 (77 correlated)</td>
<td>“desomorphine” searches</td>
<td>Dec 2011-May 12</td>
<td>-</td>
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<td></td>
<td>Yandex Wordstat</td>
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<td>77</td>
<td>desomorphine court appearances</td>
<td>2010-2012</td>
<td>0.506 (P&lt;.001)</td>
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Figure 9.10 Correlation between searches for term “desomorphine” and court appearances

9.5 Discussion

We found federal CCM restrictions in June 2012 coincided with changes in the relative scale and spatial patterns of Internet search behaviours consistent with an interest in the production and use of krokodil. These changes in Internet search appeared consistent with behaviours that may be anticipated in the production and use of krokodil in response to changed access to CCM.

We observed marked reductions in searches for the term "desomorphine" following CCM sales restrictions in June 2012. By comparison with the 6 months preceding federal restrictions, searches dropped by 42.095% nationally. See Appendix 2. However, the patterns of decreased search for "desomorphine" varied considerably. This suggests that CCM restrictions changed but did not extinguish behaviours consistent with an interest in the production and use of krokodil.

Third, we found the Google data available was inadequate for statistical analysis. Insufficient Google Trends data was available to conducting statistical analysis to identify oblasts where krokodil use may be prevalent. Google Trends data was available for only 8 of 83 regions. See Figure 9.5.
We identified several complementary data sources that provided a plausible explanation for the observed regularities in Internet search data. First, we found a moderately strong positive correlation (.506) between the geographic distribution of court appearances for krokodil related charges, and Internet searches for the term "desomorphine". This result should be treated with some caution. Court appearance data was available for 78 of 83 statistical regions. This may have affected the strength of correlations. More significantly, international researchers generally regard Russian policing as predatory and beyond the rule of law (95,96). A 2010 study of PWID found reports of evidence planted by police evidence, extortion money and arbitrary arrests and violence to be widespread. Further, Russian court processes are regarded by researchers and Russian public opinion as likely to produce outcomes favouring police and prosecutors (97–99). Both policing and judicial practices may be expected to distort court appearance data. It is possible that in the absence of these law enforcement practices, that the strength of correlation may differ. Conversely, the uncertainty surrounding Russian law enforcement data is consistent with descriptions of other data sources used for indirect drug population estimation by international researchers.

Second, the available Google Trends data suggested public interest in CCM and the term desomorphine was roughly similar in the six months prior to federal restrictions. However, the searches for CCM and “desomorphine” related terms were not identical. The interest in CCM and in “desomorphine” manifested as different national level search patterns over the date range. While we had insufficient Google data to conduct correlations, this difference is evident on visual inspection. See Figure 9.7. Similarly, Google Trends related terms results suggest different themes for “desomorphine” and CCM. See Figure 9.8. Whereas searches for the term “desomorphine” were associated with illicit drug use themes, the CCM search themes were primarily associated with therapeutic use of drugs. Finally, there is anecdotal evidence from Russian informants that
CCM was also widely consumed orally rather than injected prior to the introduction of Federal restrictions (100). The restrictions on CCM sales thus also affected oral use of CCM as a recreational drug.

Yandex keyword analysis revealed a consistent pattern of behaviour consistent with an interest in the production and use of krokodil. Yandex keyword data also revealed a strong popular interest in visual images of desomorphine use. See Figure 9.9. Overall, 23.59% of searches were coded as pertaining to the images and general information theme. These graphic images were actively employed in Russian government campaigns aimed at reducing krokodil use. However, the wide distribution of images may also have created a popular demand for viewing necrotic injuries as voyeurism or entertainment. While the available Yandex keyword data was outside of the date range of the study, it reveals persistent interest in behaviour consistent with an interest in the production and use of krokodil in Russia.

In summary, we used complementary data sources in order to investigate behaviours consistent with an interest in the production and use of krokodil. Our analysis suggests that these combined complementary sources, including online news sources, provided a useful addition to the conventional approaches used to analyse krokodil use in Russia. Further, our analysis also suggests it is plausible that Yandex search behaviour served as a proxy for krokodil production and use in the date range 2011-2012.

9.5.1 Further research and limitations

Our research suggests that further research into the use of search patterns for investigating illicit drug use prevalence is warranted. First, search patterns offer researchers and non-government actors an additional source of indirect data with which to track the prevalence of traditional and
emerging synthetic drugs at low cost and in near real time. We identified two references to national drug agencies in UK and Russia using internet search methods to research patterns of illicit drug use (47,67). Search pattern methods offer non-government actors similar capabilities. Further, the methods described in this paper are directly applicable to the study of other illicit drugs, and in Russian-speaking countries where Yandex is widely used alongside Google.

Second, the krokodil case represents an example of a broader class of illicit drug policy events. International and Russian researchers have partially attributed increased use of krokodil to decreased heroin supply after 2009. Similarly, in 2012, government policy blocked easy access to CCM. In each case, existing networks of PWID were disrupted, and patterns of illicit drug use rapidly changed (19). Combining Internet search and offline qualitative methods would extend understanding of rapid shifts in illicit drug markets and potentially improve public health responses to emerging synthetic drugs. This qualitative research may include existing drug use prevalence, strength of the heroin market, and internet access among PWID in Russia. In particular, this research would assist researchers with discerning rapid shifts in drug use patterns in response to policy changes and other external shocks to existing illicit drug markets.

Third, media censorship is increasing in contemporary Russia. However, our analysis of online information relied on measures of unobserved population level demand for online information only. By contrast, censorship may be expected to influence the supply of illicit drug related information. Russian government actions restricting the supply of illicit drug information are well documented in international literature. See for example (52,101). Future research should investigate the relationship between searches for information and the censored supply of information.
Finally, search methods do not estimate actual drug user population size. However, our research suggests search methods can complement existing drug using population estimation methods. For example, the Yandex keywords feature potentially provides a novel data source with which to track monthly shifts in keywords for illicit drug related terms. Keywords measures provide a low-cost method for identify spatial shifts in the relative scale of public interest in terms that are consistent with an interest in the production and use of novel and emerging illicit drugs in an increasingly complex environment in which the opportunities for conventional field work and surveys in Russia for international researchers are decreasing.

9.6 Conclusions

Illicit drug use data is generally regarded as difficult to obtain through traditional survey methods. We used complementary methods to explain observed regularities in patterns of Internet search behaviour before and after the imposition of Russian federal restrictions on CCM sales in 2012. Our analysis suggests it is plausible that Yandex search behaviour served as a proxy for patterns of krokodil production and use during the date range we investigated. More generally, this study demonstrates the application of novel methods recently used by policy makers to both monitor illicit drug use and influence drug policy decision making.
Appendix 9.1. Yandex Wordstat Keywords: combinations of words searched for with "desomorphine", November 2013.

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<td>3</td>
</tr>
<tr>
<td>как выглядит дезоморфин</td>
<td>What does desomorphine look like</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>последствия применения дезоморфина</td>
<td>Consequences using desomorphine</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>наркотик дезоморфин крокодил</td>
<td>Drug desomorphine krokodil</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>кто придумал дезоморфин</td>
<td>Who thought up desomorphine</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Total word combination searches</td>
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<td></td>
</tr>
<tr>
<td>Single word searches “desomorphine”</td>
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<td>5701</td>
<td>-</td>
</tr>
<tr>
<td>Total all searches November 2013</td>
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<td>12034</td>
<td>-</td>
</tr>
</tbody>
</table>
Appendix 9.2. Per-capita mean searches for "desomorphine" in all Russian federal regions & subregions. (**= region or subregion above national mean).

<table>
<thead>
<tr>
<th>Region</th>
<th>Pre-Ban 6-0 months Mean Dec 11-May 12</th>
<th>Post-ban 1-6 months Mean July 12-Dec 12</th>
<th>Post-ban 1-6 months % change July 12-Dec 12 (relative to pre-ban)</th>
<th>Post-ban 8-13 months Mean March-August 2013</th>
<th>Post-ban 8-13 months cumulative % change March-August 2013 (relative to pre-ban)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>16.667</td>
<td>9.651</td>
<td>-42.095</td>
<td>8.747</td>
<td>-47.519</td>
</tr>
<tr>
<td>Central</td>
<td>14.389</td>
<td>7.930</td>
<td>-55.111</td>
<td>6.544</td>
<td>-54.520</td>
</tr>
<tr>
<td>Belgorod</td>
<td>10.161</td>
<td>5.590</td>
<td>-44.909</td>
<td>3.965</td>
<td>-60.981</td>
</tr>
<tr>
<td>Vladimir</td>
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<td>6.495</td>
<td>-46.896</td>
<td>5.140</td>
<td>-57.975</td>
</tr>
<tr>
<td>Ivanovo</td>
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<td>8.068</td>
<td>-29.596</td>
<td>8.337</td>
<td>-27.248</td>
</tr>
<tr>
<td>Kaluga</td>
<td>9.518</td>
<td>5.628</td>
<td>-40.870</td>
<td>4.320</td>
<td>-54.609</td>
</tr>
<tr>
<td>Kostroma</td>
<td><strong>18.638</strong></td>
<td>6.290</td>
<td>-66.252</td>
<td>7.051</td>
<td>-62.167</td>
</tr>
<tr>
<td>Kursk</td>
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<td>8.420</td>
<td>-61.834</td>
<td>7.839</td>
<td>-64.464</td>
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<tr>
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<td>-11.949</td>
<td>2.269</td>
<td>-49.389</td>
</tr>
<tr>
<td>Orel</td>
<td>12.737</td>
<td><strong>10.081</strong></td>
<td>-21.008</td>
<td>5.159</td>
<td>-59.496</td>
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<tr>
<td>Ryazan</td>
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<td><strong>12.211</strong></td>
<td>-46.565</td>
<td><strong>12.080</strong></td>
<td>-47.137</td>
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<tr>
<td>Tambov</td>
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<td>-55.808</td>
<td>3.660</td>
<td>-71.617</td>
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<tr>
<td>Tver</td>
<td>8.345</td>
<td>4.534</td>
<td>-45.672</td>
<td>3.786</td>
<td>-54.627</td>
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<tr>
<td>Tula</td>
<td>10.886</td>
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<td>4.084</td>
<td>-62.525</td>
</tr>
<tr>
<td>Yaroslavl</td>
<td><strong>17.645</strong></td>
<td>8.206</td>
<td>-53.492</td>
<td>6.253</td>
<td>-64.562</td>
</tr>
<tr>
<td>Moscow City</td>
<td><strong>31.245</strong></td>
<td><strong>20.586</strong></td>
<td>-34.114</td>
<td><strong>20.874</strong></td>
<td>-33.192</td>
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<tr>
<td>Komi</td>
<td><strong>26.622</strong></td>
<td><strong>14.908</strong></td>
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<td><strong>11.447</strong></td>
<td>-57.001</td>
</tr>
<tr>
<td>Archangelsk</td>
<td>16.295</td>
<td>8.927</td>
<td>-45.216</td>
<td>7.934</td>
<td>-51.312</td>
</tr>
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<td>Nenets Autonomous Region</td>
<td>5.476</td>
<td>4.302</td>
<td>-21.429</td>
<td>2.738</td>
<td>-50.000</td>
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<td>Vologda</td>
<td><strong>34.061</strong></td>
<td><strong>17.098</strong></td>
<td>-51.160</td>
<td><strong>15.152</strong></td>
<td>-55.516</td>
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<tr>
<td>Kaliningrad</td>
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<td>5.855</td>
<td>-32.252</td>
<td>4.347</td>
<td>-40.696</td>
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<tr>
<td>Leningrad</td>
<td>1.645</td>
<td>1.110</td>
<td>-32.558</td>
<td>1.138</td>
<td>-30.814</td>
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<tr>
<td>Murmansk</td>
<td><strong>28.948</strong></td>
<td><strong>13.517</strong></td>
<td>-53.304</td>
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<td>-69.677</td>
</tr>
<tr>
<td>Novgorod</td>
<td>12.132</td>
<td>7.407</td>
<td>-38.950</td>
<td>5.256</td>
<td>-56.674</td>
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<td>St. Petersburg City</td>
<td><strong>22.185</strong></td>
<td><strong>16.598</strong></td>
<td>-25.184</td>
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<td>-57.956</td>
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<tr>
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<td>1.842</td>
<td>-34.667</td>
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<td>-24.000</td>
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<tr>
<td>Kalmykia</td>
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<td>1.401</td>
<td>-40.000</td>
<td>2.453</td>
<td>-5.000</td>
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<tr>
<td>Krasnodar</td>
<td>7.402</td>
<td>4.610</td>
<td>-37.717</td>
<td>3.344</td>
<td>-54.815</td>
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<tr>
<td>Astrakhan</td>
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<td>4.338</td>
<td>-53.603</td>
<td>3.713</td>
<td>-60.281</td>
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<tr>
<td>Volgograd</td>
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<td>-47.300</td>
<td>2.968</td>
<td>-70.007</td>
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<tr>
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<td><strong>12.638</strong></td>
<td>-27.882</td>
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<tr>
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<td>6.126</td>
<td>3.880</td>
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<td>-46.481</td>
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<tr>
<td>----------------------------</td>
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<td>---------</td>
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<tr>
<td>Ingushetia</td>
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<td>0.115</td>
<td>0.000</td>
<td>0.420</td>
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<td>2.348</td>
<td>-24.742</td>
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<td>Northern Ossetiya</td>
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<td>3.934</td>
<td>-41.404</td>
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<td>0.952</td>
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<td>0.000</td>
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<td>-55.578</td>
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<tr>
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<tr>
<td>Perm</td>
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<td>Nizhegorod</td>
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<td><strong>37.724</strong></td>
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<td><strong>49.756</strong></td>
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<td>-63.720</td>
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<td>Samara</td>
<td><strong>16.757</strong></td>
<td>10.668</td>
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<td>-25.967</td>
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<td>6.238</td>
<td>-57.442</td>
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<tr>
<td>Ulyanovsk</td>
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<td>8.736</td>
<td>-43.076</td>
<td>6.887</td>
<td>-55.055</td>
</tr>
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<td>Ural Federal Region</td>
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<td><strong>19.335</strong></td>
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<td><strong>13.478</strong></td>
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<td><strong>44.793</strong></td>
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<td><strong>11.952</strong></td>
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<td><strong>10.132</strong></td>
<td><strong>49.739</strong></td>
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<td>1.268</td>
<td>-51.515</td>
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<td>56.640</td>
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<td>Irkutsk</td>
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<td>-69.341</td>
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<td>-11.842</td>
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<td>Primorsky</td>
<td>9.809</td>
<td>4.451</td>
<td>-54.625</td>
<td>4.006</td>
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</tr>
<tr>
<td>Region</td>
<td>Population</td>
<td>Growth</td>
<td>Births</td>
<td>Deaths</td>
<td>Difference</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>------------</td>
</tr>
<tr>
<td>Amursk</td>
<td>3.836</td>
<td>1.755</td>
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<td>1.306</td>
<td>-55.957</td>
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<tr>
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<td>3.829</td>
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<td>14.303</td>
<td>7.027</td>
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<td>-60.718</td>
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<td>-67.925</td>
</tr>
<tr>
<td>Chukhotka</td>
<td>0.656</td>
<td>1.969</td>
<td>+200.000</td>
<td>0.000</td>
<td>100.000</td>
</tr>
</tbody>
</table>
Appendix 9.3 Analysis of regional Internet search patterns

We conducted additional analysis to demonstrate the complementary use of Google and Yandex data in analysing regional internet search patterns for behaviour consistent with an interest in the production and use of krokodil. We initially noted a discrepancy between Google and Yandex results at the oblast level. Specifically, between 2012-13, Yandex suggested search rates in Krasnodar oblast were lower than the national average. See Figure 9.6. Google data suggested Krasnodar oblast had among the highest search rates in Russia, whereas Yandex suggested Krasnodar oblast was 7.402 ie below the national average. See Figure 9.5 and 9.6 respectively.

We were able to investigate this discrepancy, as Yandex Wordstat provided search localised to the level of provincial cities within oblasts. We identified specific urban centres within Russian oblasts with high volumes of search for the term "desomorphine". For example, the southern Russian Krasnodar oblast recorded lower than national average search rates in the 6 months pre and post the June 2012 CCM ban. See Appendix 2. In the 6 months pre-ban, Krasnodar oblast record 7.402 searches per 100,000 (pre-ban national average 16.667) and 4.610 in the 6 months post-ban (postban national average 9.651). By contrast, Krasnodar city recorded 32.774 searches in the 6 months pre-ban, and 20.917 in the 6 months post-ban. Other cities in Krasnodar region such as Sochi (Sochi– 16.068 pre-ban, 9.320 post-ban) and Novorossiysk (11.986 pre-ban, 11.159 post-ban) recorded considerably lower search rates over the date range. In addition to Krasnodar region, we identified similar effects in Vologda oblast (Vologda and Cherepovets cities), and Samara oblast (Samara and Togliatti cities) See Figure 9.6. The raw data available through Yandex search results are of particular value in identifying the relative scale and spatial patterns of behaviours consistent with an interest in the production and use of krokodil at different administrative tiers.
Our research suggests that search for illicit drug use patterns varies considerably between oblasts, and between urban centres within a oblast. We found differences in search rates for the term "desomorphine" at different administrative scales. For example at the level of the 8 Russian federal regions, there was little differentiation in patterns of behaviour consistent with an interest in the production and use of krokodil. Similarly, within oblasts, we noted considerable variation between urban centres in the same oblast.

However, results from provincial cities should be regarded with caution. The absolute volume of search in smaller oblast cities can be low, and results should be interpreted with caution. For example, Kamensk-Uralskiy city in Sverdlovsk region, with a 2010 population of 174689 recorded a mean of 20.226 searches per month for the term "desomorphine" between December 2011 and May 2012. This suggested potentially high per capita rates of krokodil use during that period. However, this apparently high search rate equated to 35 searches per month. See Figure 9.9. Our results suggest investigation of Yandex data from all available urban centres in each oblast is recommended when investigating patterns of illicit drug use.
Appendix 9.4 Illicit drug search popularity of related terms in Google Trends

2009-2014

<table>
<thead>
<tr>
<th>Related terms (popularity)</th>
<th>Desomorphine</th>
<th>Heroin</th>
<th>LSD</th>
<th>Marijuana</th>
<th>JWH (spice)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desomorphine krokodil (100)</td>
<td>Buy heroin (100)</td>
<td>Buy LSD (100)</td>
<td>Marijuana (100)</td>
<td>JWH buy (100)</td>
<td></td>
</tr>
<tr>
<td>Desomorphine how to prepare (100)</td>
<td>Cocaine (75)</td>
<td>High on LSD (75)</td>
<td>Weed (85)</td>
<td>Spice (45)</td>
<td></td>
</tr>
<tr>
<td>Desomorphine recipe (55)</td>
<td>Heroine cocaine (75)</td>
<td>LSD tabs (50)</td>
<td>Marijuana (85)</td>
<td>JWH D18 (45)</td>
<td></td>
</tr>
<tr>
<td>Desomorphine consequences (56)</td>
<td>Better than heroin (80)</td>
<td>LSD (50) [latin letters]</td>
<td>Buy marijuana (85)</td>
<td>How to make JWH (40)</td>
<td></td>
</tr>
<tr>
<td>Krokodil drug (40)</td>
<td>Drugs (65)</td>
<td>LSD drug (50)</td>
<td>Photo marijuana (50)</td>
<td>JWH 250 (36)</td>
<td></td>
</tr>
<tr>
<td>Desomorphine photo (40)</td>
<td>Heroine film (50)</td>
<td>What is LSD (50)</td>
<td>Hashish (45)</td>
<td>jw.org (20)</td>
<td></td>
</tr>
<tr>
<td>Heroin and oil (40) [military song]</td>
<td>Mushrooms LSD (45)</td>
<td>Marijuana (40) [alt. Spelling]</td>
<td>How to make spice (20)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 9.5 Google searches for popular illicit drugs in the Russian Federation

2009-2014
References Chapter 9


4. Shuster S. The curse of the crocodile: Russia’s deadly designer drug. Time World June20 [Internet]. 2011; Available from: http://www.time.com/time/world/article/0,8599,2078355,00.html#ixzz2Yjgos4S


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CHAPTER 10

Conclusion
Chapter 10: Conclusion

10.0 Overview

This chapter summarises the main results of this research project. It describes the implications of these results for public health policy and practice, several limitations, and outlines potential directions for future research. The main objective of this thesis was to determine the nature of illicit drug policy initiatives that were politically feasible in Russia between 2010 and 2013. This thesis provides original mixed method approaches for assessing the scale of the problem, and for investigating responses that may be implementable by international donors.

This thesis investigates the influence of NGOs upon policy in the recent past, and suggests approaches to analysing the illicit drug policy as the Russian political landscape further evolves. As the conclusions of the individual studies that made up the thesis have already been discussed in their respective manuscripts, this chapter is instead on the thesis as a whole, the way in which the six studies inter-relate, and the overall conclusions that can be drawn from these results.

10.1.1 Overall contribution of this thesis

Robust research is needed to create a solid evidence-base to demonstrate the effectiveness of initiatives that may influence illicit drug policy in contemporary Russia, and to identify emerging opportunities to improve the health of people who inject drugs. The outcomes of this research may be used to inform the decisions of international research and funding
agencies in planning illicit drug policy interventions in the Russian Federation. This thesis made the following significant contributions to scholarly literature:

a. This thesis presents an argument for a complementary approach to the analysis of Russian illicit drug policy in response to the exhaustion of international initiatives. By 2013 large scale donor-funded programs directed at reducing the social and individual harms associated with illicit drug injecting became effectively unimplementable in Russia.

b. This thesis frames contemporary Russian illicit drug policy as an intractable policy problem amenable to pragmatist analysis. It examines what has worked in the recent past to influence Russian drug policy. It provides a rich examination of the Russian context, and identifies mechanisms that may inform future international scholarly and donor initiatives directed at drug policy change.

c. The thesis describes novel data sources and methods. These methods complement traditional qualitative and quantitative techniques. These methods will allow international researchers to continue gathering data despite the increasing constraints on field research in contemporary Russia.

d. The themes identified in this thesis, should be considered as the starting point for generating and testing new hypotheses about the implementation of politically feasible donor funded policy change initiatives. See Appendix 10.1 for a summary of the themes.

e. From the vantage point of 2014, this thesis proposes a rationale for maintaining international engagement with Russian civil society actors in an increasingly complex political context.
10.2.1 What framed the possibilities and limits of political feasibility of drug policy initiatives that relied on international funding sources?

In Section 1 of this thesis, I examine the possibilities and limits of political feasibility of internationally funded drug policy initiatives in contemporary Russia. This section consists of two chapters. In the first chapter (Chapter 3), I identified several interventions that may improve health outcomes for PWID. In this chapter I provide a typology of high level themes based up the consistency with which they appeared in international and Russian scientific and grey literature. In the second chapter (Chapter 4) I examine internationally funded policy initiatives that had influenced Russian decision makers. This chapter is based on interviews with national and regional NGO leaders. In each of these two studies, I use the policy triangle model to organise themes into high level frameworks directed at systematically identifying politically feasible interventions. Together, the two frameworks provide a rationale for international donors and scholars to consider political feasibility analyses when evaluating potential interventions directed at influencing Russian drug policy. With respect to the research as a whole, the frameworks are important in illustrating the overall context within which individual policy interventions (for example OST) are likely to fit into broader strategies directed at reducing the social and individual harms associated with illicit drug injecting in contemporary Russia. Several key insights emerged from this section of the thesis.
First, it was clear that all sectors and levels of government (national, provincial, and municipal), internationally and domestically funded NGOs, religious organisations, and private industry had contribute to initiatives directed at reducing harms associated with illicit drug injecting. However, small scale and informal arrangements at a local level between donor funded NGOs and government agencies are most likely to result in collaborative initiatives. For example, I found consistent patterns of collaboration between notionally hostile government agencies and donor funded NGOs at the local level. The informality of much Russian decision making reveals consistent patterns of locally negotiated collaboration between agencies and NGOs directed towards a shared goal of reducing both social and individual injecting related harms.

Second, there may be additional opportunities for donor funded interventions directed at drug policy change. Russian domestic drug policy changed rapidly between 2010 and 2013. These changes were strongly bounded by domestic institutions, ideas and interest groups. Internationally funded NGOs faced increased restrictions during this period. Nevertheless, within these constraints there also emerged several new initiatives directed at reducing drug injecting harms. During this period there may have been a role for international donors and research organisations in commissioning multiple small case studies to identify the scope and scale of these opportunities, and in the provision of financial and legal support to further the implementation of politically feasible interventions. As the Russian political landscape changes after 2014, the approach I describe in this thesis may assist in identifying new research and donor funding opportunities.
10.2.2 What political and other structures framed the feasibility of domestically funded non-government drug policy initiatives?

In Section 2, I investigate the operations of two Russian NGOs that had exerted influence on Russian national illicit drug policy. This section consists of Chapters 6 and 7. I describe two case studies involving the formally unaffiliated NGOs named City Without Drugs (CWD) that operate in provincial Russia. Chapter 6 examines a court case involving CWD in Nizhny Tagil. This study demonstrates the influence of a court case involving CWD on Russian government approaches to managing illicit drug use treatment and rehabilitation. Chapter 7 examines the media debate surrounding the death of a client in a CWD drug rehabilitation centre in Yekaterinburg. This chapter examines the framing of the CWD’s activities in traditional news reporting, and in a nationally popular blog operated by CWD.

Section 2 describes methods for investigating the political feasibility of interventions conducted by domestically funded Russian NGOs. With respect to the thesis as a whole, this section describes methods that complement investigation of policy actors, such as elected officials, government agencies, international donors and NGOs funded by international donors. Several important insights emerged from my analysis of Russian domestically funded non-government drug policy initiatives.

First, an emerging Russian model of civil society has been recognised in international literature (1–4). However, there are limited analyses of domestically funded Russian NGOs active in illicit drug policy advocacy and service delivery. I found that CWD polarised popular and scholarly opinion both internationally and within Russia. Critics of CWD allege that the organisation routinely engaged in routine human rights abuses. Conversely,
supporters suggested that CWD collaborated with local medical and law enforcement agencies to provide low cost and accessible drug rehabilitation services where no alternatives existed. CWD thus provides a politically feasible and domestically funded model for addressing important Russian health and social problems.

CWD influenced Russian domestic drug policy debates. Analysis of CWD’s media activities revealed several themes relevant to international scholarship, and to the framing of politically feasible donor interventions directed at drug policy change. CWD made adroit use of celebrity relationships, traditional and online media to provide a values-laden running commentary on a range of drug and non-drug related health and social policy problems. CWD offered a community-oriented socially conservative alternative to government policy pronouncements.

Second, my examination of domestically funded NGOs provides novel insights into the dynamics of Russian advocacy and decision making processes. By 2013, the Russian government had expressed active hostility both towards internationally funded NGOs that advocated drug policy change, and towards illicit drug policies concordant with international scientific and human rights principles. By contrast, CWD represented the exclusively domestic dimension of Russian illicit drug policy debate. CWD articulated populist socially conservative values in their approach to a broad range of concrete local social problems. CWD directed online and traditional media, celebrity endorsement and national support to exert formal and informal influence on specific instances of decision making. This approach afforded CWD political survival and many of their initiatives political feasibility.
Third, in the absence of international involvement, I was able to discern only limited deployment of any scientific justification in Russian policy debates. Domestic Russian drug policy debates largely by-pass science. In each of these two case studies of CWD, I found almost no discussion of international scientific opinion. CWD’s ongoing survival and popularity reflected the persistent lack of demand for more than “science as decoration” (5) from government or non-government agencies, or the broader Russian public.

The limited Russian demand for science has implications for international scholars and donors. International analysis of Russian anti-scientific irrationality first appeared during the Soviet era. See for example (2–5). In a 1991 Scientific American article, the Russian scientist Sergey Kapitza reflected on the Stalinist anti-scientism deeply embedded in Soviet society and scientific institutions (10). Kapitza described the popularity of faith healers and mystics that permeated then still-Soviet society as one manifestation of Soviet anti-scientific irrational reasoning. Somewhat presciently, Kapitza suggested Soviet anti-scientism carried the potential for future authoritarian manipulation and human rights abuses, as it institutionalised irrationality on a population scale. The Soviet anti-scientific legacy may offer a partial explanation for CWD’s popularity.

In summary, the two CWD case studies describe the ideas, interests and institutions that frame the feasibility of domestically funded non-government drug policy initiatives in Russia to 2013. These studies are primarily beneficial to international donors and researchers in determining how future interventions directed at drug policy change may be framed. The CWD studies suggest that successful NGO advocacy for drug policy change demands flexibility and engagement with local context and local values.
10.2.3. Contemporary Russia presented unique barriers to the application of conventional methods of researching illicit drug policy. What novel data sources and methods might evade these limits?

In Section 3 I outline methods directed at studying illicit drug policy problems in contemporary Russia. Section 3 consists of two chapters. Chapter 8, examines the relationship between Internet searches for the term "HIV" and HIV prevalence across the Russian Federation. In addition, I examine the influence of potential confounding factors such as income, education on Internet search for HIV using multivariate analysis. In chapter 9, I examine the application of online sources to examine changes in the relative scale and spatial distribution of behaviours consistent with the production and use of an illicit drug krokodil. I used these methods to examine the effects of a change in Russian national policy directed at restricting access to krokodil precursor substances.

This thesis describes the first use of Internet search patterns to study health policy and population health problems in Russia. I developed novel methods of investigating unobserved behaviours associated with health problems at population scale in near real time. These studies demonstrate the application of Internet search methods at different levels of aggregation and different date ranges. Further, these two studies demonstrate methods that are broadly applicable to investigating a range of epidemiological, policy and other behavioural questions in an environment decreasingly accessible to international field researchers.
Several insights emerged from my analysis in Section 3. These insights primarily concern the relationship of novel data sources to the specific circumstances in Russia between 2010 and 2013. These insights are outlined below:

First, my decision to use novel data sources was inspired by historical research into the complexities of gathering accurate demographic data in Russia. These themes predate analysis of contemporary drug use. For example, the early 19th Century fiction novel "Dead Souls" by Nikolai Gogol (11) describes the manipulation of mortality data for financial gain by a fictional protagonist. During the Cold War, Western scholars and security agencies experienced considerable difficulty in researching the USSR. Researchers found Soviet health and demographic data was inaccessible. For example, the 1939 Soviet census results were not released until 1990 (12,13). Similarly, the Soviet government consistently under-reported infant mortality (10), homicide, suicide, international migration, deaths caused by infectious diseases (plague, cholera, etc.), and employment injuries. In summary, international scholars regarded the official suppression of statistics as a mechanism of obfuscating excess mortality during the entire Soviet period.

The lack of access to Soviet data during the Cold War stimulated novel methods among international scholars. Immediately after World War 2, the US Air Force sponsored the Harvard Interview Project (15). This project consisted of 330 extended interviews about daily life in the USSR conducted among Soviet refugees in post-war Germany. Another project examined Soviet archives removed from the Smolensk region by the occupying German army during World War 2, and subsequently transferred to the US (16). Novel quantitative methods too, were applied to available Soviet data. For example, the revisionist Sovietologist
Sheila Fitzpatrick conducted a longitudinal study that tracked the names of senior bureaucrats listed in a telephone directory between 1928 and 1939. She did this to obtain empirical evidence of the population-level effect of Stalin-era purges (17).

After the fall of the USSR in 1991, international scholars gained greater access to Soviet archives. Scholars confirmed the ubiquity of rough approximations and deliberate falsifications in Soviet data (18–20). For example, Harrison found widespread and consistent patterns of deliberate falsification of records across a range of industries in order to meet production targets (21,22). Similarly, referring to her research into Soviet mortality during the 1930s, Merridale suggested “the ratio of hypocrisy to miscalculation in the initial estimates of mortality and population size is difficult to discover” (23).

Difficulties with data validity persisted after the 1991 collapse of the USSR. For example, during the 1990s, few methods existed for estimating the scale of unobserved economic activity in post Soviet economies. International researchers responded to the lack of valid data with novel methods and data sources. These included measurement of electricity consumption (24) and the circulation of foreign currency (25).

Questions concerning the validity of official Russian data have continued to the present day. Official illicit drug use and HIV prevalence data has generally been regarded as inaccurate by an order of several magnitudes (26,27). The validity of 2010 Russian census results too has been questioned (28,29). Journalists invoked Gogol's "Dead Souls" to describe alleged irregularities directed at demonstrating the demographic dividend delivered during the decade following the Yeltsin presidency. In summary, the novel methods I develop in this thesis are a response to the inadequacies of traditional data sources. However, in
developing these methods I drew inspiration from earlier endeavours using indirect and surrogate measures to explain population scale Soviet and Russian phenomena.

Second, the Russian search pattern methods I developed are based on syndromic surveillance literature. I was initially drawn to explore these methods by my interest in the novel use of Google Search data for influenza surveillance (1,2). The US government initially invested in novel public health surveillance methods following the domestic bio-terrorism attacks in 2001 (32). Underpinning syndromic surveillance was the assumption that by systematically collecting and matching diverse data sources, disease outbreaks could be detected in advance of conventional surveillance techniques (33). These data sources included school absenteeism, over-the-counter pharmaceutical sales, ambulance dispatch data and emergency department presentations. The use of Internet search patterns was among the methods proposed for syndromic surveillance (30).

Researchers noted that syndromic surveillance had potential public health applications beyond bio-terrorism surveillance. Data gathered at local and regional levels could also improve global and national monitoring of seasonal influenza and other health problems (34,35,36). By 2013, Internet search methods were widely accepted as a method complementing traditional disease surveillance (32). Further, search methods have been used to investigate non-health issues including US economic performance (38); UK cinema admissions (39); global recreational fishing patterns (40); migration flows from Latin America to Spain (41); and somewhat unusually, evidence of time travellers (42).

Context specific issues make search methods an attractive option for researching Russia. Russia’s enormous geographic spread, the complexity of researching illegal and stigmatised
behaviours, combined with near-universal Internet use in the age groups affected by HIV and illicit drug use provided the original stimulus for these methods. However, as my research progressed, I became aware of the importance of data source resilience. By 2014, government censorship (43,44), and reduced access to field work (45–47) were well documented. International researchers may circumvent these access problems by making use indirect sources produced for other purposes, which are less likely to face direct political interference and censorship.

10.3 Future research

Several opportunities for further research arise out of this thesis.

10.3.1 Increasing international tensions and engagement

From early 2014 events in Ukraine rapidly altered the security relationship between the Russian government, the European Union, and North Atlantic Treaty Organisation (NATO) (48). The European Union and NATO members progressively introduced sanctions against Russian government officials (49). Increased mutual mistrust was reflected in public opinion polls conducted in Russia (50) and internationally (51).

At the time of writing, an appropriate historical analogy has yet to be finally determined. In early 2014 the prominent Russian sociologist Lev Gudkov described the emergence of completely novel domestic social phenomena. Describing these phenomena, he suggests “We are facing problems that have never before been tackled by either international sociologists or political scientists. We are facing issues that have never before been researched, and we don’t even understand how to approach them.” (52). Researchers are
similarly struggling for appropriate analogies to characterise the increasingly complex relationship between Russia, Europe and the United States. Among the historical analogies used to characterise post-2013 Russian relationships are pre-World War Two appeasement (53) and by the Russian side, the resumption of the Cold War (54).

Despite increasing uncertainty, international researchers generally agree on the importance of maintaining engagement with the Russian Federation (55). Several authors have suggested that medical exchanges could provide a foundation for engagement, as they did throughout the most complex stages of the original Cold War (56). Similarly, Twigg and colleagues suggest several avenues by which such future collaborations may evolve (57). These include: 1) links between Russian and non-Russian professional peers at international forums; 2) collaboration on local initiatives; 3) the engagement of private businesses; 4) selection of safe politically feasible projects; and 5) engagement of Russian experts in specific global initiatives where their scientific expertise is acknowledged, such as maternal health and drug resistant tuberculosis. Further research into the potential of health initiatives to serve as the basis for broader scientific and political engagement is warranted. Indeed, this thesis provides several examples of such collaboration.

However, by September 2014 the prospects of unconstrained scholarly engagement had begun to dim. Russian media reported increasing rejections of Russian scholars’ publications by international scientific journals and international grants (58). Russian media suggested these rejections by Western journals were politically motivated.

Future evaluation of international engagement should equally examine Russian government deployment of health initiatives as foreign policy instruments. There are several
documented instances where the Russian government may have used health initiatives in this way. First, international harm reduction advocates report the Russian government’s inappropriate use of financial influence on the UNODC to prevent the adoption of internationally accepted scientific and human rights policies (59). Similarly, a 2014 report from the Global Drug Policy Observatory suggests that the Russian government has adopted an explicit international agenda directed at blocking international initiatives directed at harm reduction and drug decriminalisation at the 2016 UNGASS summit (60). Second, Collaboration with international agencies led to increased Russian influence on HIV and drug policy in Central Asia (61) (62). Third, health initiatives should be examined concurrently with Russian use of soft power. Nye described the use of influencing social and public opinion to attract and co-opt as alternatives to financing and coercion as “soft power” (63). Russian deployment of soft power was described as an important dimension of Russian government foreign policy in 2013 (51)(52)(53). In summary, future research into the developing relationship of international security arrangements to Russian illicit drug policy is warranted. This research should examine both international efforts within Russia, and Russian initiatives beyond its borders.

10.3.2 The legacy of Sovietology

The international security concerns that emerged during 2014 may revive scholarly interest in Russian policy processes. Between the early 1950s and late 1990s, US private foundations and military intelligence organisations directed several hundred million dollars towards studying the USSR (65,66). The term Sovietology described this multidisciplinary domain (67,68). However, scholarly interest declined following the 1991 dissolution of the Soviet
Union (69). Scholarly interest then shifted towards supporting economic and political change in the former USSR (70,71). This reflected the intent of the US and Western allies to transform formerly Soviet republics into Western-style liberal democracies. The successes and limitations of Sovietology (72,73), and of the following Transition period are now well documented (74–76).

The absence of scholarly interest in Russian policy and decision making processes between the 1990s and 2013 coincided with the epidemic of HIV and illicit drug injecting. There are limited parallels between the Cold War USSR and contemporary Russia. However the debates and trajectory of Sovietology as a discipline may warrant review when formulating future international research agendas and funding programs. Further, following the events of 2014, increased scholarly interest in Russia may also contribute to increased understanding of domestic Russian decision making processes in illicit drug policy.

10.3.3 Examining the transformative dimension of philosophical pragmatism

I adopted a pragmatist approach in this thesis. I consider Russian drug policy to be an intractable problem that donor funded programs and international scholarly analysis has failed to resolve. Pragmatism offers an epistemology directed at identifying “what works” in the local context, from the perspective of Russian NGOs. Goldenberg describes three dimensions of philosophical pragmatism (77). First, the meaning of concepts is to be sought in their practical bearings. That is, pragmatism seeks to unite theory and practice. Second, the function of thought is to guide action. Pragmatic research is thus directed towards practical outcomes. Third, that truth may be tested by the practical consequences of belief.
That is, determining what works takes precedence over doctrines, preconceptions, and hierarchies of evidence. What works may thus be considered true.

Further research into the transformative dimension of philosophical pragmatism is warranted. Morgan differentiated between philosophical, methodological and transformative dimensions of pragmatism (78). Other authors have suggested the methodological concerns have dominated pragmatist research in the social sciences (67,68). According to these authors, concerns associated with establishing rigorous mixed methods research, and instrumental problem solving have deflected scholarly attention away from the philosophical dimensions of classical pragmatism. Research into the transformative dimension of pragmatism thus implies a re-engagement with classical pragmatism and its attendant philosophical dimension.

In this thesis I refer to the transformative potential of philosophical pragmatism to re-frame scholarly understanding of contemporary Russian drug policy. Classical pragmatist philosophy has been linked by scholars to an explicitly political social justice agenda (78,80). For example Denzin suggests that pragmatist research requires explicit focus on the moral and political and consequences of analysis (79). In this process, the researcher serves as an active agent rather than impassive observer.

This social justice dimension is particularly salient to problem of human rights and health access in the Russian Federation. Most analyses of Russian drug policy have focused on compliance with formal international human rights norms. Such a legalistic approach is criticised by some international researchers. For example, Evans suggests that a concern over
optimisation of compliance regimes has displaced philosophical and political dimensions of human rights scholarship (81).

I take the view that pragmatic research may complement investigations focused on enhancing legal compliance regimes. The bioethics and legal domains offer instances of the successful application of inductive and experimental pragmatist approaches to complex decision making (82,83). Research into the human rights dimensions of Russian illicit drug policy may similarly capture and constantly changing interplay between institutional structures and the agency of actors (32). In particular, it is the “bottom up” analysis of this interplay that may offer novel research opportunities.

Pragmatic human rights research in contemporary Russia is politically feasible. In 2013, the foreign agents law required internationally funded NGOs to undergo additional auditing to confirm that they were not engaged in political activities (84). This law originally covered NGOs conducting health advocacy. However, in 2014, the Russian government determined advocacy by NGOs to improve specific individual’s access to health services was an appropriate activity for internationally funded NGOs (85). By expanding understanding of “what works” in a local context, research conducted within a pragmatist paradigm may contribute to the re-framing of future internationally funded scholarly and advocacy interventions directed at minimising the social and individual harms associated with illicit drug injecting in contemporary Russia.

Future research should examine successful local initiatives among both donor funded and domestically funded NGOs. Multiple small scale studies of program implementation at a local level may identify politically feasible mechanisms for influencing change. This
approach differs from Critical Realist approaches (86). Critical Realist scholars maintain ontological links with positivism. By advocating a pragmatist approach, I attempt to break from these rigid ontological categories, and prior assumptions. Pragmatism instead seeks to derive meaning from a richer understanding of context and processes.

The methods described in this thesis may be applicable to other internationally funded research and policy initiatives. The methods described in this paper may benefit emerging difficulties with tobacco control policy (87); and hepatitis C (88); in Russia, and in other Russophone post-Soviet nations. Finally, such research may lead to broader scholarly interest in the use of transformative pragmatist policy analysis in public health.

10.3.4 Insights from “big data”

Future studies should incorporate theoretical insights from “big data”. Big data refers to the use of large data sets that have become increasingly available as the result of increased internet and computer access (76). Researchers suggest these three dimensions characterise big data. These are volume, velocity, and variety (90). That is, data that is available in unprecedented quantities, instantly and in multiple structured and unstructured formats.

Internet search pattern methods have been described as one form of big data analysis (91). Search pattern data gathers unobserved population scale data in near real time (92). Several researchers have suggested the availability of big data demands a new approach to scientific enquiry (93,94). For example Anderson suggested the ubiquity of data renders traditional scientific methods obsolete. Rather than pre-existing hypotheses, proponents of this approach suggest that new knowledge will emerge from the application of algorithms to
mine data for plausible patterns. New hypothesis and new theories will emerge from identifying patterns in the data.

Scholarly enthusiasm for big data supplanting theory has not been universal. Rather, the selection of appropriate analytic frameworks for big data sets has been the subject of considerable scholarly debate. Social science researchers have suggested that all attribution of meaning to data sets should be considered subjective, and that it requires the application of judgement and theory (95,96). For example, Lazer and colleagues suggest that big data principles applied to search patterns does not mean that basic issues of measurement, construct validity and reliability can be ignored (97). Other investigators suggest that Google Internet search pattern data is particularly subject to non-transparent algorithmic manipulation, posing challenges for its use in scientific studies (98).

Overall, researchers in several domains have cautiously welcomed access to novel data sources. In public health domain, too, novel large data sets have generally been considered as a data source complementing traditional surveillance (37). Similarly, Crawford suggests big data analysis should complement existing models in the humanities and social sciences (99). Similarly, Geiger and colleagues expressed enthusiasm for the potential of novel mixed methods research incorporating large data sets (100).

Big data principles may be applied to emerging technologies. These may include for example such as as the analysis of waste water for illicit drug use patterns through sewage epidemiology (88,100), or to the use of data from fitness and health sensors associated with mobile devices (102). In summary, further research incorporating “big data” will continue to
be framed by existing theory and require validation against traditional measures if it is to gain scholarly acceptance beyond statistical novelty status.

The interpretation of online data across linguistic and cultural boundaries also merits scholarly attention. This is relevant both to the quantitative and qualitative online data I analyse in this thesis. In the Russian case, the difficulties of accessing and interpreting data at a cultural distance were reflected in the diversity of views concerning Soviet policy processes and social dynamics over much of the 20th century. Many of the physical and linguistic barriers, as well as mutual prejudices and suspicions remain. Further qualitative research into appropriate methods of validating and interpreting Russian online data is required. Field research to establish the relationship between online behaviour and off-line behaviour may enhance understanding of health seeking behaviour and health policy processes in the Russian Federation.

10.4 Limitations

This thesis had several limitations, which I have outlined below.

10.4.1 Typologies of successful implementation

This dissertation includes several typologies of potentially politically feasible interventions designed to reduce the social and individual harms associated with illicit drug injecting. See Chapter 4 and Chapter 5. These typologies do not imply a causal relationship, and do not represent statements of theory. Rather, the themes within these typologies represent an initial list of potential theoretical variables (103). The individual themes should be subjected to further investigation to explain these regularities. I did not further develop these
typologies in this thesis. I consider future research in this direction would have strengthened the findings in this thesis. Moreover, this thesis may have benefited from additional Russian face-to-face interviews. Further local field work case studies conducted with individual Russian organisations may have provided additional data as the basis for developing theory in support of the arguments presented in this thesis. I was primarily limited by financial barriers from developing additional “bottom up” case studies examining implementation in the field.

10.4.2 Facebook and Twitter

I did not examine online data sources other than Live Journal and Yandex during this study. International researchers have suggested Twitter provides a valid and reliable data source for epidemiological research (104–106). Similarly, Facebook has been used as a data source for examining opioid use (107), mental health (108), and health information seeking (109). Conversely, the authors of a 2014 systematic review of the use of social media in health care (110) questioned the validity of most research relying on social media as a data source. Capurro and colleagues noted that most research has consisted of observational studies describing the use of social media for topics of public health interest. Similarly, Grande and colleagues described social media as primarily a broadcast tool rather than data source for researchers (111). Other researchers have highlighted the restrictions on access to private data sets held by corporations as a barrier to social media research (112). For example, access to Facebook and Twitter data is limited. The selective access granted to this data may potentially retard future independent research into online behaviour based on these social media platforms.
International studies of Russian social media use have been more limited. Most notable among these was the 2012 Harvard-sponsored study described the use of Twitter methods to investigate Russian political debate (113). I identified several advantages to using Live Journal in preference to Facebook or Twitter in the Russian context. First, Live Journal provides complete and transparent data sources. These companies provide relatively complete and transparent data sets when compared to Facebook and Twitter. Second, Facebook and Twitter are not among the most popular social media in Russia. In 2013 Facebook recorded 10.4 million and Twitter 4.2 million monthly users (114). By comparison, Russian social networks Vkontakte recorded 46.8 monthly users and Odnoklassniki 39.4 million users. Further, in 2013, the social media platform Live Journal, with an estimated 5.7 million users was regarded as the main platform for online political debate in Russia (115).

After 2013 Russian online censorship of social media increased. From this time, a series of regulations increasingly aimed to limit online political discussion in social media (43,44). For example, the leading opposition figure Alexey Navalny was restricted from using the Internet or speaking to journalists (115). Increasing control of online media was accompanied by an expanded role for centralised government controlled television in shaping public opinion (116). Central control of television coincided with isolation from international collaboration and increased military tension (117). Russian political commentators have described the intensity of government information campaigns during 2014 as rivalling those that occurred in the USSR (118).

Internet search patterns offer a relatively resilient data source when compared with social media and television. Under conditions of increased censorship, analysis of Internet search
patterns is less likely to be censored or controlled. Internet search is a behavioural measure of demand for information. It is primarily an instrument for analysis of online commerce. By contrast, traditional and social media supply are primarily information. I was cognisant of the relative resilience of internet search patterns when selecting data sources for analysis.

10.4.3 Ethical issues and big data

There are potential ethical issues associated with the use of publicly available online data sets. In this research I used aggregated anonymous data extracted from the Google Trends and Yandex Wordstat tools. Internet search data is freely accessible. No ethics approval was required to conduct this research. The format of search data available to the public is in a format similar to electoral polling data, geographically aggregated to the level of city, state or nation and at different temporal scales.

Scholarly concerns over data matching first emerged during the 1990s. Increasing automation of commerce opened new opportunities to make use of data generated through commercial transactions (119). Three broad ethical concerns emerged: 1) individuals were not aware of personal information gathering; 2) individuals were not informed of the future use of data; and 3) individuals did not consent to data collection. As the quantities of data have increased, so have these concerns. In particular, the commercial matching of anonymous personal and geographic data to identify and classify individuals has has led to new ethical concerns about big data (120).

By 2013, ubiquitous internet and smart phone in high income countries resulted in big data concerns entering public debate. Several international episodes have contributed to
increasing public concerns over data collection and matching. In a widely-reported incident, the US supermarket chain Target unintentionally revealed a pregnancy through matching shopping data (121). The Edward Snowden data collection revelations (81) outlined the scope of government sponsored data collection high income liberal democracies. In 2014, a minor scandal followed revelations that Facebook had conducted peer-reviewed behavioural research without participant’s consent (82, 115). Of these episodes, it is only the Facebook episode that may be of formal concern to a human research ethics committee. The growing scholarly and public awareness of data matching may increase the complexity in this domain in the future. Balanced against these potential privacy concerns is the complexity of analysis required to ascribe meaning to patterns in matched data. “No matter how much data they have, it is always incomplete, and the sheer volume can overwhelm the critical signals in a fog of possible correlations” (99).

10.5 Conclusion

This thesis seeks to determine the nature of politically feasible illicit drug policy initiatives in contemporary Russia. I demonstrate that there were opportunities to re-frame earlier international approaches to scholarly and donor engagement during 2010-2013. This thesis provides a rationale for maintaining international engagement with Russian actors in an increasingly complex political environment. I also describe novel data sources and methods. These methods will allow international researchers to continue gathering data despite increasing constraints on field research.
In summary, this thesis advances the tools, techniques, and concepts required to evaluate both the context and mechanisms of Russian drug policy change. Through this improved understanding of context and mechanisms, scholars may enhance the implementation of policy initiatives directed at reducing harms among communities and individuals affected by illicit drug injecting.

Reflecting on the decade and more of international efforts at Russian drug policy change, some researchers may be reminded of the 1993 political epithet: “we’d hoped for the best, but things turned out just as they always do.” (125). However more pragmatically inclined scholars may view these efforts a little differently. And offer some final words aglimmer with hope: “To plan is human. To implement divine”.
Appendix 10.1 Summary of typologies of themes

Figure 2.2 Summary of themes present in contemporary Russian illicit drug policy and potential for international collaboration with Russian government agencies on illicit drug initiatives 2010 - 13

<table>
<thead>
<tr>
<th>CONTEXT</th>
<th>Consistency</th>
<th>Potential collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor quality data on PWID</td>
<td>+++</td>
<td>Positive</td>
</tr>
<tr>
<td>View of USSR</td>
<td>+++</td>
<td>Negative</td>
</tr>
<tr>
<td>View of Transition</td>
<td>+++</td>
<td>Negative</td>
</tr>
<tr>
<td>View of contemporary political events</td>
<td>+++</td>
<td>Negative</td>
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</tr>
<tr>
<td>Ponyatie and the law</td>
<td>+</td>
<td>Negative</td>
</tr>
<tr>
<td>Donor funded NGOs &amp; drug policy advocacy</td>
<td>+++</td>
<td>Negative</td>
</tr>
<tr>
<td>CONTENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government drug rehabilitation</td>
<td>+++</td>
<td>Positive</td>
</tr>
<tr>
<td>Drug treatment quality</td>
<td>+++</td>
<td>Positive</td>
</tr>
<tr>
<td>Isolation of medical education</td>
<td>+++</td>
<td>Positive</td>
</tr>
<tr>
<td>Russian addiction medicine</td>
<td>+++</td>
<td>Positive</td>
</tr>
<tr>
<td>OST</td>
<td>+++</td>
<td>Negative</td>
</tr>
<tr>
<td>Government stance towards harm reduction</td>
<td>++</td>
<td>Negative</td>
</tr>
<tr>
<td>Professional attitudes to donor funded harm reduction</td>
<td>++</td>
<td>Negative</td>
</tr>
<tr>
<td>ACTORS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSKN</td>
<td>+</td>
<td>Positive</td>
</tr>
<tr>
<td>State Anti-Narcotics Committee</td>
<td>+I</td>
<td>Insufficient data</td>
</tr>
<tr>
<td>Ministry of health</td>
<td>+++</td>
<td>Positive</td>
</tr>
<tr>
<td>Police</td>
<td>+++</td>
<td>Positive</td>
</tr>
<tr>
<td>European Court for Human Rights</td>
<td>+</td>
<td>Positive</td>
</tr>
<tr>
<td>International harm reduction networks</td>
<td>+</td>
<td>Positive</td>
</tr>
<tr>
<td>International Drug demand reduction NGO networks</td>
<td>+</td>
<td>Positive</td>
</tr>
<tr>
<td>Donor funded NGOs</td>
<td>+++</td>
<td>Positive</td>
</tr>
<tr>
<td>Russian public chamber</td>
<td>+</td>
<td>Positive</td>
</tr>
<tr>
<td>Russian complaints bodies</td>
<td>+</td>
<td>Positive</td>
</tr>
<tr>
<td>Russian Orthodox Church (ROC)</td>
<td>++</td>
<td>Positive</td>
</tr>
<tr>
<td>Local youth abstinence programs</td>
<td>+</td>
<td>Positive</td>
</tr>
<tr>
<td>Commercial drug clinics</td>
<td>+</td>
<td>Positive</td>
</tr>
<tr>
<td>Independent rehabilitation providers</td>
<td>+</td>
<td>Positive</td>
</tr>
</tbody>
</table>

This reflects the volume and consistency of data associated with a theme. For example, a small volume of consistent data is rated “+” where a moderate volume of consistent data is rated at “+++”.

412
Table 5.3 Typology of criteria used to evaluate policy initiatives in ESVERO case

<table>
<thead>
<tr>
<th>Themes</th>
<th>Consistency of responses</th>
<th>Feasible Russian govt</th>
<th>Feasible international donors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONTEXT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal uncertainty associated with Statute 230</td>
<td>51-79%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Federal drug policy changes directed against harm reduction</td>
<td>31-50%</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>NGO agency and adaptation to changes</td>
<td>31-50%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>ACTORS INFLUENCE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSKN</td>
<td>100%</td>
<td>Yes</td>
<td>NA</td>
</tr>
<tr>
<td>Ministry of Health</td>
<td>100%</td>
<td>Yes</td>
<td>NA</td>
</tr>
<tr>
<td>Domestically funded Russian NGOs</td>
<td>80-99%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>CONTENT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences in values between NGOs and government organisations</td>
<td>80-99%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Opioid substitution therapy advocacy (OST)</td>
<td>100%</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Central role of government in improving access to drug rehabilitation</td>
<td>100%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Local access to low threshold primary care service</td>
<td>80-99%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Local secondary care referral pathways</td>
<td>100%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>PROCESS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russian exceptionalism in policy processes</td>
<td>100%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Scientific evidence does not influence decisions</td>
<td>80-99%</td>
<td>Yes</td>
<td>Equivocal</td>
</tr>
<tr>
<td>Expedient view of human rights</td>
<td>100%</td>
<td>Yes</td>
<td>Equivocal</td>
</tr>
<tr>
<td>Government disinformation</td>
<td>80-99%</td>
<td>Yes</td>
<td>Equivocal</td>
</tr>
<tr>
<td>Advocacy through local service collaboration</td>
<td>80-99%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Public Chamber &amp; European Court for Human rights</td>
<td>31-50%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Individual advocacy through courts &amp; complaints</td>
<td>31-50%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Failures in donor funded harm reduction advocacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-harm reduction activism</td>
<td>31-50%</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>-NGO medical expertise</td>
<td>31-50%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>-Selection of appropriate NGO indicators</td>
<td>31-50%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>-Adequate NGO financing</td>
<td>80-99%</td>
<td>Equivocal</td>
<td>Yes</td>
</tr>
<tr>
<td>Responses to NGO City Without Drugs</td>
<td>51-79%</td>
<td>Equivocal</td>
<td>Equivocal</td>
</tr>
</tbody>
</table>
### Appendix 7.1 Framing of the Kazantseva episode in traditional media

<table>
<thead>
<tr>
<th>1. Why is this story newsworthy?</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazantseva case</td>
<td>101</td>
<td>63.21%</td>
<td>Police action, court case and legal processes Kazantseva</td>
</tr>
<tr>
<td>Policy commentary drugs</td>
<td>35</td>
<td>12.50%</td>
<td>Drug use, prevention, treatment, rehabilitation and policy</td>
</tr>
<tr>
<td>Politics – non-drug and non-Kazantseva related</td>
<td>28</td>
<td>10.00%</td>
<td>Corruption, other political and policy commentary, interaction with government agencies</td>
</tr>
<tr>
<td>Other court cases and legal action</td>
<td>28</td>
<td>10.00%</td>
<td>All non-Kazantseva related court case and legal processes directed at CWD</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
<td>4.29%</td>
<td>Relatives, public, former CWD clients</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2 Who is defining the problem?</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law &amp; enforcement</td>
<td>115</td>
<td>37.83%</td>
<td>Police, FSKN, prosecutors and judiciary</td>
</tr>
<tr>
<td>CWD</td>
<td>95</td>
<td>31.25%</td>
<td>All staff and supporters</td>
</tr>
<tr>
<td>Shapers of public opinion</td>
<td>51</td>
<td>16.78%</td>
<td>Journalists, media social commentators, researchers, harm reduction and human rights activists, celebrities.</td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
<td>5.92%</td>
<td>Relatives, public, former CWD clients</td>
</tr>
<tr>
<td>Elected officials and agencies</td>
<td>17</td>
<td>5.59%</td>
<td>Federal, oblast and municipal officials and non-medical and non-law enforcement agencies</td>
</tr>
<tr>
<td>Narcologists</td>
<td>8</td>
<td>2.63%</td>
<td>All addiction medicine specialists</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Consequences of the problem</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adherence to formal and informal rules</td>
<td>132</td>
<td>38.26%</td>
<td>Corruption, adherence to police and court orders</td>
</tr>
<tr>
<td>CWD operations and survival</td>
<td>78</td>
<td>22.61%</td>
<td>Practical effects of actions against CWD</td>
</tr>
<tr>
<td>Individual and population health problems</td>
<td>59</td>
<td>17.10%</td>
<td>Individual drug use prevention, treatment and rehabilitation, overdose, physical and mental health, non-drug related individual health problems;</td>
</tr>
<tr>
<td>Social consequences</td>
<td>40</td>
<td>11.59%</td>
<td>Social integration, family relations, social fabric, morality</td>
</tr>
<tr>
<td>Other</td>
<td>28</td>
<td>8.12%</td>
<td></td>
</tr>
<tr>
<td>Crime and drug dealing patterns</td>
<td>5</td>
<td>1.45%</td>
<td>Epidemiology of novel drugs, changes in patterns of criminal activity</td>
</tr>
<tr>
<td>Population health</td>
<td>3</td>
<td>0.87%</td>
<td>Drug and non-drug related population health problems including HIV, TB infection patterns and epidemiology.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Who is responsible?</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWD</td>
<td>138</td>
<td>50.92%</td>
<td>All staff and supporters</td>
</tr>
<tr>
<td>Elected officials and agencies</td>
<td>52</td>
<td>19.19%</td>
<td>Federal, oblast and municipal officials and non-medical and non-law enforcement agencies</td>
</tr>
<tr>
<td>Law &amp; enforcement</td>
<td>35</td>
<td>12.92%</td>
<td>Police, FSKN, judiciary, prosecutors and investigators</td>
</tr>
<tr>
<td>Other</td>
<td>25</td>
<td>8.86%</td>
<td>Addiction medicine specialists, ministry of health, journalists and media, celebrities</td>
</tr>
<tr>
<td>Drug users and drug dealers</td>
<td>22</td>
<td>8.12%</td>
<td>Criminals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Who will fix the problem?</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law &amp; enforcement</td>
<td>161</td>
<td>54.95%</td>
<td>Police, FSKN, prosecutors and judiciary</td>
</tr>
<tr>
<td>Elected officials and agencies</td>
<td>42</td>
<td>14.33%</td>
<td>Federal, oblast and municipal officials and non-medical</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>and non-law enforcement agencies</td>
<td>40</td>
<td>13.65</td>
<td></td>
</tr>
<tr>
<td>Shapers of public opinion</td>
<td>35</td>
<td>11.95</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>15</td>
<td>5.12</td>
<td></td>
</tr>
</tbody>
</table>

- **CWD**: All staff and supporters.
- **Shapers of public opinion**: Journalists, media social commentators, researchers, harm reduction and human rights activists, celebrities, narcologists.
- **Other**: Relatives, public, former CWD clients.
Appendix 7.2 Framing of the Kazantseva episode on the CWD blog operated by Yevgeniy Roizman

<table>
<thead>
<tr>
<th>1. Why is this post newsworthy?</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public relations activities</td>
<td>202</td>
<td>30.61</td>
<td>includes celebrity endorsement, evidence of public support, publication of letters to/from government agencies, republishing media appearances</td>
</tr>
<tr>
<td>Politics – non-drug and non-Kazantseva related</td>
<td>102</td>
<td>15.45</td>
<td>Including corruption, other political and policy commentary, interaction with government agencies</td>
</tr>
<tr>
<td>Personal life stories</td>
<td>57</td>
<td>8.64</td>
<td>Drug users, older people not requesting support</td>
</tr>
<tr>
<td>CWD operations</td>
<td>52</td>
<td>7.88</td>
<td>Includes day to day operations, logistics and non-PR activities to ensure continuing operations</td>
</tr>
<tr>
<td>Kazantseva case</td>
<td>46</td>
<td>6.97</td>
<td>Includes police action, court case and legal processes Kazantseva</td>
</tr>
<tr>
<td>Artistic endeavours</td>
<td>45</td>
<td>6.82</td>
<td>Includes Roizman’s personal and CWD activities</td>
</tr>
<tr>
<td>Calls to public for support</td>
<td>43</td>
<td>6.5</td>
<td>Financial support, letter writing, petitions</td>
</tr>
<tr>
<td>Policy commentary drugs</td>
<td>37</td>
<td>5.61</td>
<td>Includes drug use, prevention, treatment, rehabilitation and policy</td>
</tr>
<tr>
<td>Other court cases and legal action</td>
<td>28</td>
<td>4.24</td>
<td>All non-Kazantseva related court case and legal processes directed at CWD</td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
<td>4.09</td>
<td>decline in spiritual values Roizman family activities</td>
</tr>
<tr>
<td>Calls from public/families for action</td>
<td>21</td>
<td>3.18</td>
<td>Case studies from families requesting support</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Who is defining the problem?</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWD</td>
<td>352</td>
<td>69.70</td>
<td>Includes all staff and supporters</td>
</tr>
<tr>
<td>Shapers of public opinion</td>
<td>49</td>
<td>9.70</td>
<td>Journalists, media social commentators, researchers, harm reduction and human rights activists, celebrities.</td>
</tr>
<tr>
<td>Law enforcement</td>
<td>43</td>
<td>8.51</td>
<td>Police, FSKN, prosecutors and judiciary</td>
</tr>
<tr>
<td>Members of public and families</td>
<td>31</td>
<td>6.14</td>
<td>Drug and non-drug related issues</td>
</tr>
<tr>
<td>Drug users and dealers</td>
<td>11</td>
<td>2.18</td>
<td>Includes individuals involved in non-drug related crime</td>
</tr>
<tr>
<td>Elected officials and agencies</td>
<td>11</td>
<td>2.18</td>
<td>Federal, oblast and municipal officials and non-medical and non-law enforcement agencies</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>1.58</td>
<td>Russian Orthodox church, addiction medicine specialists</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Consequences of the problem</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social consequences</td>
<td>139</td>
<td>24.91</td>
<td>Social integration, family relations, social fabric, morality</td>
</tr>
<tr>
<td>CWD operations and survival</td>
<td>122</td>
<td>21.86</td>
<td>Practical effects of actions against CWD</td>
</tr>
<tr>
<td>Adherence to formal and informal rules</td>
<td>93</td>
<td>16.67</td>
<td>Corruption, adherence to police and court orders</td>
</tr>
<tr>
<td>Individual health problems</td>
<td>86</td>
<td>15.41</td>
<td>Individual drug use prevention, treatment and rehabilitation, overdose, physical and mental health, non-drug related individual health problems</td>
</tr>
<tr>
<td>Individual crime and arrest</td>
<td>50</td>
<td>8.96</td>
<td>Individual crime and arrest</td>
</tr>
<tr>
<td>Crime and drug dealing patterns</td>
<td>35</td>
<td>6.27</td>
<td>Epidemiology of novel drugs, changes in patterns of criminal activity</td>
</tr>
<tr>
<td>Public health</td>
<td>13</td>
<td>2.33</td>
<td>Drug and non-drug related population health problems including HIV, TB infection patterns and epidemiology</td>
</tr>
<tr>
<td>Other</td>
<td>20</td>
<td>3.58</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Who is responsible?</th>
<th>No.</th>
<th>Percent</th>
<th>Includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law enforcement</td>
<td>187</td>
<td>42.79</td>
<td>All government police, judiciary and prosecutors</td>
</tr>
<tr>
<td>Category</td>
<td>No.</td>
<td>Percent</td>
<td>Includes</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-----</td>
<td>---------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Drug users and drug dealers</td>
<td>107</td>
<td>24.49</td>
<td>Criminals</td>
</tr>
<tr>
<td>Elected officials and agencies</td>
<td>92</td>
<td>21.05</td>
<td>Federal, oblast and municipal officials and non-medical and non-law enforcement agencies</td>
</tr>
<tr>
<td>Other unspecified</td>
<td>31</td>
<td>7.09</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>2.52</td>
<td>Media, celebrities, harm reduction and human rights activists, social commentators, researchers,</td>
</tr>
<tr>
<td>Other drug rehabilitation providers</td>
<td>5</td>
<td>1.14</td>
<td>Russian Orthodox Church, addiction medicine specialists</td>
</tr>
<tr>
<td>Members of public and families</td>
<td>4</td>
<td>0.92</td>
<td>Drug and non-drug related issues</td>
</tr>
<tr>
<td><strong>5. Who will fix the problem?</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CWD</td>
<td>219</td>
<td>50.23</td>
<td>Includes all staff and supporters</td>
</tr>
<tr>
<td>Elected officials and agencies</td>
<td>61</td>
<td>13.99</td>
<td>Federal, oblast and municipal officials and non-medical and non-law enforcement agencies</td>
</tr>
<tr>
<td>Members of public and families</td>
<td>60</td>
<td>13.76</td>
<td>Drug and non-drug related issues</td>
</tr>
<tr>
<td>Law enforcement</td>
<td>59</td>
<td>13.53</td>
<td>All government police, judiciary and prosecutors</td>
</tr>
<tr>
<td>Shapers of public opinion</td>
<td>21</td>
<td>4.81</td>
<td>Journalists, media social commentators, celebrities, researchers, harm reduction and human rights activists</td>
</tr>
</tbody>
</table>
References Chapter 10

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Chapter 11 Postscript.
Chapter 11 Postscript.

11.0 Overview

This postscript chapter was written after the thesis was first submitted. This chapter serves several functions. First, the themes described in this postscript chapter serve to update the findings presented the original thesis. The thesis was originally submitted in 2014, at a time of military tension between Russia and NATO, and military conflict in Ukraine. The domestic debates within Russia at that time reflected emotionally intense public debates and an extreme nationalist state media. At that time the trajectory of Russian foreign and domestic policies, including illicit drug policies were uncertain. These circumstances were exceptional. As a consequence the conclusions and implications I presented in my originally submitted thesis were deliberately modest. Under the circumstances prevailing in late 2014, the presentation of more expansive findings would have been speculative.

With the passage of time, the trajectory of Russian foreign and domestic policies has became less uncertain. Several themes identified in the originally submitted thesis have been updated to reflect this lesser uncertainty. Second, this postscript serves as a response to thesis examiners’ questions. Two examiners suggested that I expand the conclusions. This postscript constitutes part of my response to these examiners’ requests. Third, this postscript provides the opportunity to describe suggestions for further NGO engagement and new research directions in the political circumstances that exist in the Russian Federation of 2015.
11.1 Introduction

This thesis originally covered the period 2010-2013. The period 2010-2013 was marked by rapid political change in Russia. This period spanned the relatively liberal period of President Medvedev’s term. During 2010-12, Russian civil society was increasingly active, and government protests frequent. The period of this thesis also spans the first year of President Putin’s third term. During 2013, the Russian government progressively increased controls over civil society and independent media. However, in early 2014 Russia commenced domestic and international media campaigns against the United States, EU and NATO, and started a military intervention into Ukraine.

There events accompanied a marked deterioration in the relationship between Russian and high income liberal democracies. The speed and scale of this deterioration in relationships was unanticipated. This unanticipated deterioration had particular salience for the conclusion to this thesis. The post 2013 period represented a disjuncture in Russian domestic and international politics. The period beyond December 2013 thus merits a separate analysis.

11.1.1 Reprising the original thesis

My original thesis examined Russian drug policy from a pragmatic perspective. In the thesis I examined both internationally and domestically funded civil society actors, in order to identify what had worked in the recent past to influence Russian illicit drug policy. However, between 2013 and 2015 the opportunity for political dissent and advocacy in Russia decreased dramatically. The Russian federal government increased controls over the Internet (1), conducted intense government information campaigns through Russian television (2,3), generating increasingly isolationist (4), patriotic (5), and socially conservative (6), public sentiment.
The changes in Russian international and domestic policies between 2013 and 2015 decreased the possibility of advocacy for illicit drug policy change. Russian drug policy advocates had expressed considerable pessimism about the possibility of change during the 2010-2013 period. "None of the theories work here. We’ve tried everything. But in the end, it's like throwing spaghetti against a wall and seeing what will stick" (7). The post-2013 evolution of Russian international and domestic policies did not generate optimism among Russian illicit drug policy advocates. At the Melbourne international AIDS Conference in mid 2014, a Russian speaker provided the following assessment on the future of illicit drug policy advocacy in Russia - “Perspectives? (We) have no idea. Probably there are no any in nearest future (sic). But we should continue to do what we can” (8).

11.1.2 The opportunities for drug policy advocacy in 2015

By mid-2015 the trajectory of Russian external and domestic policies was less ambiguous. Interest in Russia among NATO members has increased (9). However, rather than a potential partner, or an international aid recipient, Russia was framed as a threat to international security. The United States and European Union unambiguously sought both to contain the Russian Federation militarily, and engage Russian actors to defuse the potential for conflict (10). In 2015, Russia was primarily framed as a security threat.

The security tensions between Russia and NATO have had direct consequences for donor funded NGOs seeking to influence Russian illicit drug policy. In comparison to the 2010-2013, most donor funded NGO activity in Russia was considered an explicit threat to the Russian state. However, as the original thesis, and this postscript demonstrates, international researchers can maintain relationships with Russian research partners, and develop analytic methods and interventions that
may be of benefit to researchers and practitioners seeking to influence illicit drug policy within Russia in 2015 and beyond.

11.1.3 Themes

This postscript is divided into several themes. The themes covered in this postscript include: 1) The role of pragmatism in analysis of contemporary Russian illicit drug policy; 2) Ideas as a motive force for change; 3) Evolving Russian civil society organisations; 4) the Russian turns towards China; and 5) the promise international and domestic illicit drug policy change.

11.2 Pragmatism and analysis of contemporary Russian illicit drug policy

In this thesis I used a pragmatist research paradigm to analyse the influence of NGOs on Russian illicit drug policy in the period 2010-2013. Pragmatism is a generally accepted paradigm for researching and analysing seemingly intractable social policy problems (110,111,112). Pragmatism is also one of the main principles underpinning the harm reduction approach to illicit drug policy (14,15). Goldenberg described three dimensions of philosophical pragmatism as applied to health research (16). First, the meaning of concepts is to be sought in their practical bearings. Thus, pragmatism seeks to unite theory and practice. Second, the function of thought is to guide action. Pragmatic research is directed towards practical outcomes. Third, that truth may be tested by the practical consequences of belief. That is, determining what works takes precedence over doctrines, preconceptions, and hierarchies of evidence. In summary, a pragmatist research paradigm suggests that “what works” may thus also be considered true.
11.2.1 Wicked problems and framing

In the original thesis I framed Russian drug policy in the 2010-13 period as a “wicked” or intractable policy problem. In their highly cited 1973 paper, Rittel and Webber use the term “wicked problems” to describe such seemingly intractable policy circumstances. Wicked problems they suggest, “defy efforts to delineate their boundaries, to identify their causes and thus to expose their problematic nature” (85). Rittel and Webber go on to suggest problem framing as central to shaping responses to apparently intractable problems. They suggest both the analysis and responses to wicked problems are largely dependent on framing. That is, the framing of a problem suggests specific solutions. In this thesis, I suggested that systematic analysis of the patterns of local understanding of “what works” may be an appropriate response to the failures of conventional policy analysis, and interventions based on internationally accepted scientific and human rights principles. The systematic aggregation of patterns of “what works” across local initiatives may thus serve to reframe an apparently intractable problem.

11.2.2 Wicked problems and opaque Russian decision making

In the original thesis I framed Russian illicit drug policy was a wicked or intractable policy problem. In addition to the originally outlined argument, I suggest there may be a further reasons for considering illicit drug policy as a wicked problem amenable to pragmatic reframing. Contemporary Russian policy making is opaque. Kononenko and Moshes suggest "this uncertainty...makes it difficult to understand in the most practical sense how certain policies, events and decisions emerge and relate to each other" (18). The authors argue that the elusive nature of decision making is central to understanding the nature of decision making in contemporary Russia. Opacity of decision making may thus be considered an additional dimension of problem wickedness. In response to this decision making opacity, I focused
primarily on policy outcomes rather than policy processes and outputs in the thesis. That is, I sought to identify instances of behavioural or biological outcomes that may result from policies, rather than speculative analysis of opaque decision making processes, or formal policy pronouncements. This focus on “what works” at the biological and behavioural level was consistent with the pragmatic approach to illicit drug policy analysis throughout this thesis.

11.2.3 Implications

The framing of Russian illicit drug policy as a “wicked” problem has several implications for the analysis conducted in the thesis, for further research and for future international donor engagement in the Russian Federation.

First, in this thesis I sought to identify patterns of politically feasible interventions in an environment where conventional analyses had failed. In this thesis I identified consistent patterns of activity through case studies. The identified patterns of activity may then serve as the targets for further analysis by international donors and research organisations to determine if a causal relationship exist in each case. It is the systematic aggregation of patterns of “what works” within a specific context that may in turn reframe the otherwise apparently intractable problem of Russian illicit drug policy.

Second, the framing of Russian illicit drug policy as a wicked problem implies that the context and circumstances that I examined in the body of the thesis are unique, and that the findings are specific to the geographic and temporal context. That is, on the ideas, interests and “rules of the game” operating in the Russian Federation in the illicit drug policy domain between 2010-2013. This single country focus effectively precludes easy comparisons with other environments, or easy transfer of knowledge.
Third, while the findings from this thesis are highly context dependent, it is the approach to theory development described in this thesis may be generalisable to other health problems in Russia and beyond. In a highly cited 1993 paper, Firestone examines three approaches to generalising results from qualitative studies. These three approaches were sample-to-population extrapolation, analytic generalization, and case-to-case transfer (19). Of these, Firestone suggests analytic generalisation may be most applicable in qualitative case study research. Analytic generalisation he suggests, may account for and incorporate rival explanations that may inform the application of theory in other environments. Yin similarly advocates for analytic generalisation. Yin suggests (20) "in analytic generalization, the investigator is striving to generalise a particular set of results to a broader theory." In this thesis I aimed for analytic generalisation from a case study of a wicked Russian problem. It is through the incorporation of the approaches described in this thesis that future researchers may frame their research directed at managing apparently intractable health policy problems elsewhere.

Fourth, the framing of Russian drug policy as a wicked problem has implications for donors. A forum hosted by Open Society in New York in 2015 described the consistent failure of donor strategies to address wicked social problems in the US and internationally (21). Among wicked social problems, the forum addressed donor funded civil society programs operating in the former USSR. The discussants suggested donor programs in the former USSR had commonly failed to fund long term programs. Rather than one or three year programs, discussants suggested donor programs directed at wicked social problems required a decade long commitment. This suggests donor and research organisations may benefit from more robust initial assessment of the context of specific interventions to determine their “wickedness”, and may need to commit to funding long term projects that have sufficient flexibility to achieve their stated program goals.
In summary, the trajectory of Russian politics beyond 2013 suggests that pragmatism was an appropriate analytic approach for this thesis. Since early 2014 there has been a general failure of collaboration between international and Russian government organisations across scientific, security, commercial, and non-commercial sectors. From the perspective of 2015, there is no short or medium-term prospect of change, nor of new donor engagement with illicit drug policy change, or NGOs active within Russia. For the foreseeable future, monitoring the patterns of drug change initiatives within Russia, using online sources, avoiding Russian or international media coverage, and through engagement with local actors likely represents the limit of international support for illicit drug policy change in the Russian Federation. Such research activity should focus on extending the methods described in the originally submitted thesis. When the Russian domestic policy environment changes, such an approach is likely to detect the “green shoots” that may represent the targets for future international investment in Russian civil society and in Russian illicit drug policy change.

11.3 Ideas as a motive force for change

Ideas were the central motive force in reshaping the Russian political landscape after 2013. Ideas have been equated with paradigms, explanatory theories (22), ideologies, frames, norms (23), policy proposals and solutions (24). Other researchers suggest the ideas concept offers scope for the incorporation of political and values dimensions in explaining the complexity of transfer of scientific evidence between geographic locations (25). Importantly, ideas are generally regarded as playing a role in policy change (26,27).
Several authors have suggested that ideas and advocacy are causal factors in public policy change, of equal weight to political institutions and interests (28–30). Beland suggests ideas influence policy change in three ways (31). First, ideas determine issues that enter the policy agenda. Second, ideas shape the assumptions that affect the content of reform proposals. Third, ideas can become rhetorical instruments useful in describing the urgency of policy change. Similarly, Weiss describes the use of ideas to define problems as a “weapon of advocacy” (86). Overall, ideational processes affect the ways policy actors perceive their interests and the environment in which they mobilise.

In this thesis, I take the view that ideas have played an important role in contemporary Russian illicit drug policy, but that demonstrating a definitive causal relationship between ideas and health outcomes in a complex and rapidly changing political environment was unlikely.

After 2013 the Russian national government implemented an intense campaign focused on recasting Russia as the inheritor of Soviet and Imperial Russian history and values. International commentators have generally considered this was undertaken as response to failing Russian economy, to bolster political legitimacy during the 2010-2013 period (10). Whereas each of these themes had emerged in Russian foreign and domestic policy in the preceding decade, it was the intensity of mass media appeals to Soviet and Imperial ideas and values that most differentiated the period after 2013. There were several ideas that shaped the Russian decision making, including 1) Soviet nostalgia; 2) “spiritual bonds”; 3) post-Soviet Russian Orthodoxy; 4) post – Soviet Eurasianism; and 5) post-Soviet criminal culture. These are each described below.
11.3.1 Soviet nostalgia

Opinion polls have consistently suggested the influence of Soviet nostalgia on public opinion in Russia and other former Soviet republics (33,34). The Russian invasion of Ukraine amplified Soviet nostalgia in the Russian Federation after 2013 (35). The post invasion Soviet nostalgia particularly focused on the Soviet cult of world war 2 (36,37). Commentators have suggested that Russian government campaigns sought to mobilise the Russian population through identification of contemporary Russia with the USSR of World War 2, and to equate the contemporary tensions with Ukraine, United States and European Union as directly comparable with the Soviet military conflict with Axis powers. The reshaping of Soviet era events was an element of this campaign. In mid 2015, Russian government and media moved to rehabilitate Soviet era events. Soviet era events subject to rehabilitation included the Molotov Ribbentrop pact between Hitler and Stalin, the Katyn massacre of Polish officers during WW2, Soviet invasion of Czechoslovakia in 1968, and the Soviet Afghan War (38). In summary, after 2013, history was increasingly deployed as a political resource by Russian decision makers.

11.3.2 “Spiritual bonds”

In December 2012, President Putin spoke explicitly of the importance of “spiritual bonds” (dukhovnie skrepy) in Russia (37). President Putin spoke of “the evident deficit of those spiritual bonds, that once made us strong and in which we took pride”. President Putin’s reference to spiritual bonds was met with satirical responses from Russian non-government media (40). However, the spiritual bonds continued as a recurring theme, underpinning increasing social conservatism, nationalism and anti-Western sentiment.
Russian political commentators referred to President Putin’s appeal to socially conservative values as contemporary political hybridity (41). Political hybridity in the former USSR has been described as the persistence of authoritarian institutions alongside emerging institutional forms following the dissolution of the USSR (42). Moreover, Russian commentators suggested that contemporary appeals to spiritual bonds in Russian government owned mass media were themselves a pastiche of historically incommensurate elements. For example, during 2015, the “holy mother of government” icon of Soviet era leader Stalin was presented to the Russian Orthodox Church by Russian military (43). In summary, the hybrid and emotional character of Russian political debate suggests appeals to internationally accepted scientific and human rights principles directed at influencing Russian decision makers is likely to be limited for the foreseeable future.

11.3.3. Post-Soviet Russian Orthodoxy

Traditional values and social conservatism defined Vladimir Putin’s presidency from 2000 onwards. These values allowed Putin him to not only unite Russians with a coherent ideology but to also reposition Russia as a global power in opposition to the liberal and immoral European Union and United States (44). The Russian Orthodox church has served as an important actor in the definition of socially conservative values in Russia, and in intensifying hostility towards Europe and the United States. In 2008, church leaders signalled their formal opposition to the Universal Declaration of Human Rights and to donor funded NGOs on the grounds of incompatibility with Russian values (44). The Council of Russian Bishops called for resistance to the socially corrupting “emerging system of liberal values...(of) lies, untruth and insults to religious and national values” disseminated by donor funded NGOs. The intense engagement of the Orthodox Church in political action against liberal and opposition figures began with the Pussy
Riot case (45) and subsequent release of defendants in that case from prison during 2013 signalled an increase intensity a clash of permissive liberal values with Russian Orthodox values.

During 2014-2015, the Russian Orthodox exerted increasing pressure on law makers to pass socially conservative laws. In 2015, a prominent Russian Orthodox Church leader suggested "Russia's ability to stand up in the face of modern pseudo-values depends to a large extent on the active stance of Russian parliamentarians" (44). Specifically, gender stereotypes and sexuality were actively used as to strengthen Russian spiritual bonds (47). The Russian Orthodox church took an active stance against gay rights and called for re-criminalisation of homosexuality (48). During 2013, following Russia Orthodox Church pressure, all abortion advertising was banned. In 2015, the Church strongly supported legislation to removing abortion from Russian state health insurance coverage (49).

11.3.4 Post – Soviet Eurasianism

Eurasianism has provided an additional dimension to contemporary Russian values debate. Eurasianism has primarily been associated with Aleksandr Dugin, a former Russian academic and government adviser (50). Dugin suggests Russia is a distinct Russian Orthodox, totalitarian, and socially conservative and militarily expansionist civilisation, and in conflict with the United States and European Union, which each represent economic, political, and cultural liberalism, and moral decay (51). However, other Russian authors have suggested pragmatic nationalism, rather than Dugin's ideas dominate contemporary Russian decision making (52). While Eurasianism is not official Russian government ideology, it has offered Russian decision makers a historically founded explanation of contemporary events, and a potential trajectory.
11.3.4. Post-Soviet criminal culture

In addition to socially conservative and nationalist elements, contemporary Russian values incorporate criminal and informal dimensions. Political commentators have suggested these values also represent a further dimension of the hybridity of Russian politics (41). The post-Soviet criminal culture incorporates a merging of criminal and security structures of the Russian state (53,54), the use of organised crime as an instrument of domestic and foreign policy (9), popular disregard for the rule of law (55,56) and general acceptance of informality and crime in government decision making.

11.3.5 Implications

Since early 2014 an intense Russian government media campaign has shaped public opinion and consolidated support for President Putin. Anti-Western and anti-scientific ideas have featured prominently in domestic Russian media. Since 2014 all Western ideas have regarded with increasing suspicion in Russia. This suspicion has been particularly evident in the case of sex and illicit drug use (35). Russian political commentators have suggested that the intensity of Russian government mass media efforts reflect active preparation of the Russian population for a major military conflict with the United States and European Union (57) (58). In mid 2015, there is no indication when intense government campaign directing hostility towards the European Union and United States is likely to diminish. The potential future scenarios under which Russian domestic political ideas will again accommodate international influences is no more than a matter for speculation, and beyond the scope of a thesis focused primarily on public health.
11.4 Evolving Russian civil society organisations

In the period 2010-2013 Russian NGOs actively debated social issues and offered a genuine challenged government decision making in multiple domains including illicit drug policy. By mid 2015 the institutional opportunities for non-government organisations to challenge the Russian government had largely closed. Legal constraints and the assassination of the Russian opposition leader Boris Nemtsov in central Moscow were among the formal and informal signals sent by the Russian state towards civil society (59). Following Nemtsov’s assassination, Dmitry Gudkov, a deputy of the Russian Federal Duma said in May 2015,”The state is doing everything to freeze the development of civil society...and people are scared. Everyone understands the atmosphere in which we live. Not everyone is ready to risk their own life”(60).

11.4.1 The changing legal landscape for NGOs in Russia.

There are several themes that describe the changes to the Russian legal landscape since 2013. These include 1) the Foreign Agents Law; 2) The Undesirable Organisations Law; and 3) the continuing growth of Russian style civil society.

11.4.1.1 Foreign agents law

In 2012 the Russian federal parliament passed a law requiring all Russian NGOs who were receiving foreign funding and conducting political activity to register as as “foreign agents” following a court order (61). Organisations classified as “foreign agents” are subjected to regular audits and a greater administrative burden (62). This administrative burden includes inclusion on a federal register, increased reporting requirements and fines for non-compliance, as well as clear branding of the words “registered foreign agent” on all print and online materials.
The scope of NGOs affected by the foreign agents law changed between 2012 and 2015. Among the initial NGOs that entered foreign agents register include NGOs dedicated to exposing Stalin era repressions, ecology groups, consumer organisations, human rights organisations and Transparency International (62). However, it was only in late 2014 that this law began to be actively enforced. The increased enforcement activity followed a modification to the original law, that allowed auditors to respond directly to public complaints, without first referring to courts. By May 2015 there were 59 organisations on the foreign agents register, with the expectation of twice that number by 2015.

From mid-2015, the scope of organisations affected by the Foreign Agents Law also widened. In 2015, the foundation operated by the former Soviet president Mikhail Gorbachev became a target of the law, as it was a recipient of foreign grants (63). Further, a large Russian owned educational philanthropic organisation the Dynasty Foundation was similarly targeted (64). The Dynasty Foundation was entirely a Russian owned private philanthropic foundation that provided postgraduate education funding. In June 2015 the founder of the Dynasty Foundation and Russian citizen, Alexander Zimin ceased sponsorship and departed Russia in response to the government’s designation of the foundation.

11.4.1.2 Undesirable Organisations Law

In addition to the Foreign Agents Law, the Russian federation introduced the Undesirable Organisations Law in May 2015 (65). The Undesirable Organisations Law covers NGOs as well as all commercial organisations (66). Undesirable organisations are those described as constituting a “threat to the defensive capabilities or security of the state, to the public order, or to the health of the population” (67). Organisations covered by this law will be prevented from operating offices, distributing information, or financial transfers. National security concerns were cited as the reason
for this law. President Putin suggested “Western special services continue their attempts at using public, non-governmental and politicised organisations to pursue their own objectives, primarily to discredit the authorities and destabilise the internal situation in Russia” (67).

11.4.1.3 The continuing growth of Russian style civil society

From the early 2000s, Russia had increasingly supported a domestically funded civil society. Russian government funding for domestic NGOs increased after 2013. In 2012, when the first Foreign Agents laws passed, the Russian government allocated 2.32 billion rubles (approximately $USD 70 million) to Russian NGOs (62). In 2015, this amount was more than double at 4.8 billion rubles (approximately $USD80 million at the reduced ruble exchange rate that followed international sanctions).

Ljubownikow describes the evolution of a Russian-style civil society with continuities from the Soviet era (68). Similarly, Finnish researcher Kulmala suggests that much of the criticism of post-Soviet Russian civil society has been based on scholarly biases towards Anglo-American liberal models (69). Kulmala conducted ethnographic research with NGOs in north-western Russia. Rather than analysing Russian NGOs through a liberal lens, he suggests that a “Nordic model” of state-civil society relations may offer more appropriate framework for analysing Russian civil society. Close collaborative relationships between government and NGOs as exist in Scandinavian countries may, he suggests, also more accurately reflect the emerging trajectory of the evolution of Russian civil society. By 2015, Russian government funded grants to NGOs increasingly replaced international funding (62). Further, this suggested the Russian government had accelerated expansion of Russian-style civil society of quiescent service delivery oriented NGOs.
11.4.2 Implications

During 2014-2015 all Russian NGOs were affected by increasing government constraints. Russian government pressure on NGOs affected the possibility of Russian NGOs with constraints that had not existed since the demise of the USSR in 1991. However, NGOs responded actively to the threats to their ongoing operations. While literature on NGO responses is thus far limited, several implications for international donor organisations and researchers have emerged.

11.4.2.1 Decreased scope for decentralised NGO activity 2015

In the body of this thesis I identified a range of opportunities for collaboration between donor funded NGOs and local elected officials, businesses and government agencies. A summary of these opportunities appeared in Appendix to Chapter 10 of the original thesis. After 2013, Russian constraints on NGO activities decreased the opportunities for collaboration between international donors and regional NGOs (62). Regional elected officials and commercial companies that had previously collaborated with donor funded NGOs decreased collaboration during 2014-15. Regional actors were increasingly affected by the climate of fear associated with engagement with international organisations. By 2015, the sources of regional funding and support that characterised regional NGOs had largely disappeared. In response, many smaller NGOs choose simply to close, or to cut all ties with foreign funding sources, and pursue funding sources acceptable to the Russian federal government and local elected officials. In summary, donor funded NGO activity had become politically unacceptable in Russian regions by 2015. Whereas informal decentralisation has offered opportunities for local illicit drug policy change in the 2010-13 period, by 2015 these opportunities had largely disappeared.
11.4.2.2. Organisational restructuring and NGO survival

Some Russian civil society organisations have elected to change their organisational structures in order to evade the constraints imposed by recent Russian NGO laws. Several potential pathways have been documented. In May 2015, an article in the independent Russian newspaper “Kommersant” detailed several survival strategies used by Russian NGOs. These responses included 1) dissolution of an organisation, re-registration, and application for Russian government grants. In this instance, the historical record of the organisation remains intact, and the article authors suggested this was not the optimal approach; 2) re-registration as different organisational structure, with a less than 60 million ruble (approximately $USD 1 million) turnover. In this instance, the administrative burden is eased, but the tax burden is increased; 3) restructuring into a commercial service provider organisation. In this instance, organisations may sign contracts with international organisations to deliver services. Under these the transfer of international funds in exchange for services is possible, albeit at a higher tax rate; 4) Registration as a small commercial organisations with less than 60 million ruble annual turnover. These organisations similarly have a reduced administrative burden; and 5) Restructuring to operate as an initiative group. Initiative groups can not be audited or closed as they have no offices, bank accounts or staff. Despite the constraints on initiative groups, this organisational form has proved to be a sustainable organisational form for activist organisations operating in the illicit drug policy domain in Russia (70). For example, the Russian drug policy advocacy organisation Andrey Rylkov Foundation has operated as an initiative group within Russia since 2009 (71). Through their online engagement of global drug policy networks, the Foundation has consistently mobilised an extensive network of volunteers within and outside Russia. Moreover, the Andrey Rylkov Foundation has authored several reports on the failings of Russian illicit drug policy and engaged several UN committees in
reviews of Russian federal drug policy (72,73). In direct advocacy from an initiative group, the
Andrey Rylkov is operating in the tradition of Soviet-era initiative groups to disclose Soviet era
uses of forensic psychiatry as an instrument of political repression (70).

11.4.2.3. Reactions of international partners

International donors have reacted to legal restrictions imposed by the Russian government.
Russian NGOs that have sought to evade post-2014 laws have been affected by grant funding
conditions imposed by international donors (62). For example, Russian NGOs that seek to change
their organisational structure to a commercial organisation or initiative group are no longer
eligible for international grants. Further, once branded as foreign agent by the Russian
government, many donors will no longer provide funds, as one of the condition of grant funding is
not to engage in political activity. In response, the Soros Foundation starting to provide grants to
commercial organisations and initiative groups.

In summary, Russian organisational forms reflect the dynamic character of contemporary Russian
civil society. Each of the three NGO responses merits further investigation by international donors
and researchers. In understanding “what works”, traditional NGOs may not be the optimal
organisational structure outside liberal democracies. By increasing understanding of the diversity
of organisational structures, donors may examine novel financing mechanisms to support illicit
drug policy change, and other health initiatives in the Russian Federation in 2015 and beyond.
11.5 The Russian turns towards China

During 2014 Russian officials increasingly emphasised Russia’s strengthening social, political, security and economic ties with China. This emphasis by Russian officials followed the imposition of sanctions by the United States and European Union. (72,73). During earlier centuries the relationship between the Russian Empire, USSR and China had ranged from colonial occupation, to ideological partnership, and military conflict.(76). From 2014, Russia became increasingly dependent on China (77), and was generally assumed to be the junior partner in the emerging relationship. The relationship between Russia and China has implications for the analysis of Russian illicit drug policy, and the activity of internationally funded NGOs seeking to influence that policy. While I suggest that China is an object of interest for international donors and researchers, I do not propose to conduct a comparative case study in this postscript. A comparative case study is beyond the scope of the original thesis and this postscript. It is also not congruent with the method employed in the body of the thesis.

11.5.1 Russia- China comparisons

The post-2014 relationship between Russia and China suggest several areas for further research. There is merit in conducting a comparative analysis of policy decision making processes in the illicit drug policy domain in each nation. There are compelling reasons to conduct such an analysis. Russia and China are each geographically large and demographically diverse countries, with a similar history of socialist industrialisation and post-Socialist institutions. Moreover, there is extensive literature describing the similarities between Russian and Chinese policy and business decision making (78–82).
11.5.2 Russia- China HIV and illicit drug injecting

As with Russia, China has been affected by large scale opiate injecting and an accompanying epidemic of HIV (83). However, in contrast to Russia, China has adopted pragmatic approach. China accepted international scientific evidence, and adopted needle exchanges, opioid substitution therapy, and implemented programs via NGOs. while retaining severe penalties for drug distribution and enforcing mandatory rehabilitation.

11.5.3 Chinese NGO structures

Russian and Chinese NGOs have evolved in similar authoritarian environments. Chan suggested there was considerable variation in the how the Chinese state reacts differently to different kinds of NGOs. Chan described the variable control over NGOs as graduated control (84). In 2011 Hsu examined the relationship between NGOs and the Chinese state (85). Hsu identified a range of organisational structures and state control. These include 1) small provincial NGOs that focus on service delivery few problems; 2) larger cross regional NGOs conducting some advocacy experience greater control; 3) large national foreign funded NGOs that focus on human rights are subject to the highest level of surveillance and control; 4) NGOs with political patronage are immune to surveillance; 5) semi-privatised NGO operated as extensions of the state, started by bureaucrats during the 1980s and 1990s; 6) NGOs that have emerged after the early 2000s that operate without party or state support, and seek to bypass the state; and 7) online NGOs, that seek to operate largely online and thus avoid the state. These diverse Chinese NGO structures suggest a potential avenue for comparative research. The responses of Chinese NGOs to authoritarianism may benefit donor funded NGOs operating in contemporary Russia.
11.5.4 The potential of influencing Russian drug policy through China

The Russian turn to China may provide opportunity for influencing Russian illicit drug policy. The Chinese government has developed a pragmatic approach to illicit drug use prevention, treatment and rehabilitation (83). The emerging relationship may offer a pathway through which Chinese addiction medicine specialists may exercise influence over Russian government decision makers. The Chinese route may also be a pathway through which international donors may influence Russian drug policy.

11.6 The promise of international and domestic illicit drug policy change.

From the mid-2000s, Russian officials had increasingly used international forums to argue for the primacy of Russian values over scientific and human rights principles in shaping domestic illicit drug policy. For example, in 2011, the Director of the Moscow AIDS Centre, Alexey Mazus defended the Russian values-based approach to illicit drug policy in an article in the international journal Science (86). Mazus wrote “harm reduction measures cannot be effective in Russia, and I cannot agree with the pressure on Russia to adopt this program based on the fact that it was effective in some other countries.” In that article, Mazus also referred to the explicit reference for domestic drug policies in each UN member state to be ultimately determined local circumstances, ethics and cultural values as articulated in the 2006 Political Declaration on HIV/AIDS (87). Mazus’s claims that harm reduction programs could not be effective in Russia was questionable. However, he was accurate in his assertion that the Political Declaration on Drugs in 2009 (88), the Political Declaration on HIV/AIDS in 2011 (86) confirmed the sovereignty of individual nations in determining their domestic illicit drug and HIV prevention policies. This issue was described in Chapter 3 of the thesis.
In 2015, it is this sovereignty over domestic illicit drug policies by an increasingly isolationist, anti-scientific and socially conservative authoritarian state that is of particular concern to international advocates for the illicit drug policy change in the Russian Federation. Between 2013 and 2015 the Russian government distanced itself further from accepted scientific and human rights approaches directed at the prevention, treatment and care of illicit drug use (35). Russian state representatives presenting at international conferences reaffirmed that the control of HIV and illicit drug use in Russia would never be based on harm reduction methods, as these were alien to Russian cultural traditions.

11.6.1 UNGASS 2016

In March 2014 the CND conducted a high-level review of the implementation of the Political Declaration and Plan of Action on International Cooperation towards an Integrated and Balanced Strategy to Counter the World Drug Problem (90). At UNODC sponsored meetings in the leading up to the March 2014 CND meeting, delegates specifically referred to harm reduction and access by PWID to sterile needles and opioid substitution therapy as a human right, as well as a recommendation to remove criminal sanctions against drug use. At the March 2014 meeting, the CND adopted a Joint Ministerial Statement on the mid-term review of the implementation by Member States of the Political Declaration and Plan of Action. Further, at the 2014 CND meeting, the UN General Assembly resolved to hold a special session to examine the world drug problem in 2016.

In 2016, the UN will host the Special Session of the UN General Assembly on the World Drug Problem (UNGASS 2016) (91). The 2016 UNGASS meeting will debate changes to UN Drug Control Conventions (92). International advocacy bodies have expressed hope that this meeting will institutionalise illicit drug policies based on scientific and human rights principles at the
global level. Drug policy change advocates suggested that the 2016 UNGASS meeting represented “questioning of the underlining premises of the international drug control paradigm and calling for debate on alternative approaches” (93) and that “political leaders and citizens are pushing to rethink that ineffective and dangerous approach” (79).

11.6.2 Russia and UNGASS 2016

In 2016, the UN will host the UNGASS 2016 meeting to examine policy responses to illicit drug use at the global level. There is little prospect of the 2016 UNGASS meeting exerting influence on Russia illicit drug policy. There are several reasons why this may be the case. First, the Political Declarations on Drugs (88) and HIV (89) seek non-binding commitment from UN signatory nations to adhere to drug control provisions, and to ensure appropriate drug use prevention treatment and care are provided with reference to internationally accepted scientific and human rights principles within the constraints of national laws. Second, during 2014 the Russian government sought to undermine to exert financial influence on the UNODC to prevent the adoption of internationally accepted scientific and human rights policies (95). Similarly, a 2014 report from the Global Drug Policy Observatory suggests that the Russian government has adopted an explicit international agenda directed at blocking international initiatives directed at harm reduction and drug decriminalisation at the 2016 UNGASS summit (96). Finally, during preparatory meeting for the UNGASS 2016 meeting in May 2015, several nations opposed any change to international drug treaties (97). At that meeting Russia, the USA, South Africa and China defended the current drug control treaties and indicated they would opposed any change. In summary, the prospects of UNGASS influencing Russian domestic drug policy are limited.
11.6.3 UNAIDS and EECAC 2016

Within Russia, the UN has assumed a conciliatory approach to Russian illicit drug policy. During May 2014, UNAIDS in association with the Russian Government hosted the fourth conference on HIV/AIDS in Eastern Europe and Central Asia (EECAC) in Moscow (98). NGO advocates for Russian drug policy change suggested that a regional HIV conference organised by the Russian government provided legitimacy to ineffective illicit drug HIV policies in Russia and former USSR (99). The opposition to EECAC 2014 did not alter the UN’s position. The fifth EECAC conference scheduled in March 2016 in Moscow, as a collaboration between the Russian government and UNAIDS (96). Several Russian government representatives will be keynote speakers at the 2016 UNAIDS EECAC conference in Moscow. The limited political will by UN agencies to challenge Russia was described in Chapter 3 of the thesis.

11.6.4 Russian withdrawal from the European Court for Human Rights and Council of Europe

In the originally submitted thesis I identified the Public Chamber, European Court for Human Rights, and individual advocacy through courts and complaints mechanisms as potential mechanisms of influence on Russian illicit drug policy. International researchers have suggested that donors should fund initiatives that facilitate access to the ECHR (101). Researchers had suggested support for such politically feasible initiatives also represented support for civil society in contemporary Russia.

By 2015, the Russian Federation also appeared to reverse its commitment to European institutions. This included Russian government questioning of the legitimacy of ECHR decisions in the Russian Federation following the Yukos expropriation case (102,103). Second, the Council of Europe Second, in June 2015 the European Parliament repeated earlier condemnations of “the grave
violations of international law committed by the Russian Federation” with regard to the ongoing presence of Russia troops in eastern Ukraine and the illegal annexation of Crimea (104). Russian government officials had discussed the possibility of Russia formally withdrawing from the ECHR and Council of Europe following pressure from the Council of Europe in early 2015 (105). This withdrawal would remove access to European justice system for Russian citizens.

11.6.5 Russia moves further away from international science

Russian government appeals to traditional values were accompanied by a progressive rejection of science as the basis for policy decisions. For example, in May 2015 Vadim Pokrovksy, head of the state funded national HIV centre issued a widely reported public warning about the trajectory of the disease in Russia. Pokrovsky described HIV in Russia as a national catastrophe, warning of recent increases in HIV incidence as the result of ineffective government policies (106). Pokrovsky went on to suggest that sex education, opiate substitution therapy and an effective drug treatment system for PWID based on international scientific principles was the only way to avoid a catastrophic epidemic of HIV in Russia.

Pokrovsky’s May 2015 HIV warning was greeted with hostility by other Russian officials. A deputy of the Moscow regional parliament suggested Pokrovsky’s statistics were “fairytales” (107). Further, the deputy suggested Pokrovsky had “behaved as a typical agent acting against the interests of Russia”, and that he should face criminal charges for disseminating false data. The head of the Russian federal consumer agency Anna Popova responded in a similar fashion to Pokrovsky’s statistics. Popova stated Russia “doesn’t need Western experience to fight AIDS” (108). Popova went on to thank the Russian Orthodox Church for its role in addressing the problem of HIV in Russia, and suggested members of the public should not be unduly concerned by Pokrovsky’s
statistics. In summary, the Pokrovsky episode demonstrated the increasing rejection of all international ideas, including science after 2013 in the Russian Federation.

11.6.6 Access to analgesia and cancer suicides

During 2014-15, Russian decision makers attitudes to illicit drugs progressively affected access to pharmaceutical treatments. Federal restrictions on access to codeine containing medication were implemented during 2012, in response a nation wide domestic production of the domestically manufactured injectable drug “krokodil”. This policy process was described in Chapter 9 of the thesis. However, restrictions on access to analgesic medication were expanded after the codeine containing medication ban. During 2014 and 2015 several senior military figures affected by late stage cancer committed suicide, as they were unable to gain access to effective pain relief (109). Russian media reported these suicides as directly attributable to federal controls over access to analgesia. Further, in May 2015, new legislation further restricting access to medication was proposed in the Russian federal parliament. The May 2015 legislation would criminal penalties for medical staff from discussing the full range of potential analgesia and illicit drug treatment options with patients (110). At the time this postscript was written, this legislation was actively debated in the Russian media.
11.7 Conclusion

This postscript updated the findings presented in the original thesis that covered the date range 2010-2013. The Russia of 2015 is less tolerant and increasingly authoritarian relative to the Russia of 2013. By 2015 there was decreased scope for debate over drugs, sex and scientific evidence in national media in Russia. Even as HIV incidence increased among PWID, the Russian government increased controls over public policy debate. The prospect of changes to international treaties was limited, as was the likelihood of international organisations such as UNAIDS supporting domestic drug policy change within Russia.

With the passage of time, the trajectory of Russian foreign and domestic policies has became less uncertain. By 2015 Russia was unambiguously framed as a security threat, to be both military contained and engaged in order to progressively decrease the risk of military confrontation. This postscript also serves as a response to thesis examiners' questions. However this postscript provides only few additional recommendations. This is mainly because there are fewer politically feasible opportunities for international donor funded interventions directed at illicit drug policy change in Russia than there were in 2013. These limited opportunities for direct funding of Russian NGOs is likely to persist for the foreseeable future. While donor funded interventions are limited, the scope for ongoing research collaborations remains. The themes described in this chapter, and the methods described in the main body of the thesis suggest a potential research program for defence organisations, international donors academic researchers in the Russian Federation of 2015 and beyond.
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