Horizontal inequity in healthcare utilisation within the Indigenous Australians

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Background

- Twin principles of Medicare in Australia:
  - Equity in access to healthcare services: according to need
  - Equity in health care financing: payment according to ability

- Equity goal in healthcare access distinguishes between:
  - Horizontal equity – equal treatment of equals
  - Vertical equity – appropriate unequal treatment of unequals

- Horizontal inequity in healthcare: Economic approach
  - Unequal use of healthcare services for equal medical need regardless of socioeconomic status (SES)
Does inequity follow the similar pattern within Indigenous Australians?

- Indigenous Australians: Most disadvantaged community
  - Higher disease burden but lower access to health services
  - Higher hospitalisation but lower surgical procedures
  - Lower use of Medicare funded specialist services

- Closing the gap: Higher use of Medicare funded GP services

- Average improvement might mask within inequality and inequity
Method

- Horizontal inequity (HI) approach: 3 steps

  1. Identification and need-standardisation: Regression analysis

  2. Measurement: Concentration curve (CC) & Concentration index (CI) of need-adjusted use
     - HI>0: Pro-rich inequity
     - HI<0: Pro-poor inequity

  3. Explanation: The decomposition approach
Data and variables

Data: Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) of 2012-13

Sample: 2823 adult individuals from non-remote area

Probability of healthcare use:
   Any visit, GP visit & specialist visit in last 2 weeks
   Inpatient admission in last 12 months

Need indicators: Age, gender, SAH, mental health, disability status & diabetes

Ranking (non-need) variable: Household income
Non-need indicators: Private health insurance, concession card, employment & education
### Results

#### Regression analysis

- **Need variables:** Weak association of gender, age, SAH with specialist visit

- **Non-need variables**

<table>
<thead>
<tr>
<th></th>
<th>Any visit</th>
<th>GP visit</th>
<th>Specialist visit</th>
<th>Inpatient admission</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Odds ratio</td>
<td>95% CI</td>
<td>Odds ratio</td>
<td>95% CI</td>
</tr>
<tr>
<td>Household Income: Decile 1</td>
<td>Reference</td>
<td>Reference</td>
<td>Reference</td>
<td>Reference</td>
</tr>
<tr>
<td>Decile 5</td>
<td>1.59**</td>
<td>(1.11 - 2.26)</td>
<td>1.24 (0.84 - 1.83)</td>
<td>1.04 (0.46 - 2.35)</td>
</tr>
<tr>
<td>Decile 6</td>
<td>1.62**</td>
<td>(1.10 - 2.39)</td>
<td>1.01 (0.66 - 1.55)</td>
<td>2.64*** (1.29 - 5.39)</td>
</tr>
<tr>
<td>Decile 7</td>
<td>1.17</td>
<td>(0.77 - 1.78)</td>
<td>0.95 (0.60 - 1.52)</td>
<td>2.11* (0.95 - 4.66)</td>
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<tr>
<td>Decile 8</td>
<td>1.16</td>
<td>(0.75 - 1.80)</td>
<td>0.82 (0.49 - 1.36)</td>
<td>1.68 (0.74 - 3.82)</td>
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<tr>
<td>Decile 9</td>
<td>1.82**</td>
<td>(1.12 - 2.97)</td>
<td>1.04 (0.60 - 1.80)</td>
<td>2.70** (1.13 - 6.48)</td>
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<td>Decile 10</td>
<td>1.47</td>
<td>(0.82 - 2.65)</td>
<td>1.20 (0.64 - 2.26)</td>
<td>2.96** (1.13 - 7.77)</td>
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<tr>
<td>Private health insurance</td>
<td>1.69***</td>
<td>(1.34 - 2.14)</td>
<td>1.38** (1.07 - 1.78)</td>
<td>2.14*** (1.38 - 3.31)</td>
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<tr>
<td>Concession card</td>
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<td>(1.03 - 1.70)</td>
<td>1.12 (0.85 - 1.46)</td>
<td>1.25 (0.74 - 2.12)</td>
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<td>Education: Year 12 or above</td>
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<td>Reference</td>
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<tr>
<td>Education: Year 9-11</td>
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<td>0.88 (0.70 - 1.10)</td>
<td>0.68** (0.46 - 1.00)</td>
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<td>0.81 (0.58 - 1.13)</td>
<td>0.52** (0.29 - 0.94)</td>
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<tr>
<td>Education: Never attended</td>
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<td>(0.21 - 1.52)</td>
<td>0.88 (0.33 - 2.30)</td>
<td>0.27 (0.03 - 2.41)</td>
</tr>
</tbody>
</table>
Results

➢ Inequity: Specialist visit

Quintile distribution of specialist visit

Concentration curves

- Actual
- Need predicted
- Need standardised
- line of equality

Pro-rich HI: 0.016***
Explaining inequity in specialist visit
Policy implications

- Improve access to specialist care for low income people
- Incentive for more bulk-billing specialist services
- Strengthening and reforming Medicare safety net

Thank You