

# ‘What is this about? Let’s play this out’: the experience of integrating primary health care registered nurses with school learning and support teams

Catherine Sanford<sup>A,\*</sup> , Emily Saurman<sup>A</sup> , Sarah Dennis<sup>B,C</sup>  and David Lyle<sup>A</sup> 

For full list of author affiliations and declarations see end of paper

**\*Correspondence to:**

Catherine Sanford  
Broken Hill University Department of  
Rural Health, The University of Sydney,  
Corrindah Court, PO BOX 457,  
Broken Hill, NSW 2880, Australia  
Email: [catherine.sanford@sydney.edu.au](mailto:catherine.sanford@sydney.edu.au)

**Received:** 6 August 2021

**Accepted:** 15 March 2022

**Published:** 31 May 2022

**Cite this:**

Sanford C *et al.* (2022)  
*Australian Journal of Primary Health*  
doi:[10.1071/PY211190](https://doi.org/10.1071/PY211190)

© 2022 The Author(s) (or their  
employer(s)). Published by  
CSIRO Publishing on behalf of  
La Trobe University.

This is an open access article distributed  
under the Creative Commons Attribution-  
NonCommercial-NoDerivatives 4.0  
International License ([CC BY-NC-ND](https://creativecommons.org/licenses/by-nc-nd/4.0/))

OPEN ACCESS

## ABSTRACT

Changes in public health profiles and moves towards inclusive models of education have led to significant number of students in mainstream schools with special health needs. Addressing these needs requires collaboration between health professionals, educators and families. Integrated models of school-based health care can facilitate this collaboration; however, there is little evidence to guide their implementation. The School-Based Primary Health Care Service (SB-PHCS) is one such service that has been established in far west New South Wales. The School-Based Primary Health Care Service embeds health district-employed registered nurses with school learning support teams to increase service access, and improve health and education outcomes for students. We conducted focus groups with nurses and learning support teams to explore their experiences of implementing the School-Based Primary Health Care Service. Focus group transcripts were analysed using framework analysis. We found that defining the role and working across systems were challenges to program implementation, whereas a collaborative culture, relationship building and flexibility in work processes facilitated the integration of nurses into the school teams. We recommend others embarking on similar initiatives involve key stakeholders early in service development, understand each other’s systems and processes, and provide clarity about the new role, but plan to adapt the role to fit the context. This study will be of interest to those involved in the implementation of integrated models of school-based health care.

**Keywords:** adolescent health services, care navigation, child health services, collaboration, integrated health care delivery, primary health care, qualitative, school health services, school nursing.

## Introduction

School nursing is not a new phenomenon; however, school nursing has changed considerably since its inception in 1902. Whereas earlier services focused on infectious disease, acute illness and injury, changes in public health profiles have led to school nurses’ increasing involvement in longer-term concerns, such as chronic disease, mental health and disability (Broussard 2004). Education policy has also moved towards inclusive models of education, resulting in more students with disabilities and chronic health conditions attending mainstream schools. A recent analysis of Australian Early Development Census data found that 21.8% of Australian children who started school in 2015 had established or emerging special health care needs. In disadvantaged communities, this figure was even higher, at 27.1% (O’Connor *et al.* 2019). These figures are expected to rise over the coming years (NSW Department of Education 2019). Many of these health care needs, such as autism spectrum disorder, communication impairments and emotional problems, require consistent and coordinated approaches across the clinic, the classroom and the home, and collaboration between health professionals, educators and families.

School nurses engage with school communities in different ways, depending on the service model in place. Whereas some models operate on a referral basis, where students, parents or school staff make referrals to a stand-alone nursing service, others are moving

towards integrated interprofessional collaboration. For example, a high school in southwest Sydney has embedded a primary health care registered nurse (RN) in their learning support team (Dennis *et al.* 2016), and a recent review of Western Australian school health services recommended Child Health Nurses be formally integrated with school-based student services teams (Government of Western Australia Child and Adolescent Health Service and WA Country Health Service 2019). Integrating nurses into these teams increases the team's capacity to identify underlying health problems, provides a more holistic view of the child and family, and facilitates the interprofessional collaboration needed to address complex education, health and social needs.

Several models of collaboration between health and education professionals exist. These models vary in the degree to which they share information, resources, decision making power, accountability and traditional roles (Hillier *et al.* 2010). Interdisciplinary teams maintain discipline-based roles, but integrate knowledge from two or more disciplines, and may blur professional boundaries in a purposeful and negotiated manner (Choi and Pak 2006; Hillier *et al.* 2010). Interdisciplinary teams best describe nurses embedded in school-based student support teams. For example, school-based RNs may deliver components of the health and physical education curriculum, whereas teachers support health care navigation, depending on their existing relationships with families (Sanford *et al.* 2021).

Although the need for interprofessional collaboration is recognised, implementing these initiatives is challenging. Several enablers have been identified, including: clarifying the perspectives of various members; reaching consensus on collective aims, individual roles and responsibilities, and standards of confidentiality; and establishing clear communication and shared language (Sloper 2004; Webb and Bannor 2005; Hillier *et al.* 2010). For interagency ventures, professional stereotypes, and a lack of understanding of differing ideologies and organisational cultures are barriers to effective collaboration. Securing commitment at all levels of the agencies involved, establishment of cross-agency steering groups and joint staff training may overcome barriers to interagency collaboration (Sloper 2004). However, these enablers have been drawn from studies across professional groups, and there is little work specific to implementing collaborative models of school nursing.

This study aimed to address this evidence gap by exploring nurses' and learning support staff's experiences of implementing an integrated collaborative school nursing model, and formulating recommendations to guide the implementation of similar models of school-based health care. This contribution to the evidence is timely given New South Wales' (NSW) recent investments in school health services, including Wellbeing Health In-Reach Nurses, social workers and additional psychologists (NSW Government 2019; NSW Department of Education 2020).

## The School-Based Primary Health Care Service

The School-Based Primary Health Care Service (SB-PHCS) was developed in Broken Hill, NSW, through a longstanding collaboration between the Far West Local Health District, the NSW Department of Education and the Broken Hill University Department of Rural Health (Jones *et al.* 2019). Broken Hill is a remote, socioeconomically disadvantaged community of 17 708 people (Australian Bureau of Statistics 2016), with six public primary schools, one Catholic primary school and two public high schools. The SB-PHCS has been implemented in all nine schools.

The SB-PHCS aims to improve access to health and social services by providing care navigation, kindergarten health screening and health promotion (Table 1). The SB-PHCS employs five Primary Health Care RN full-time equivalents, and was progressively implemented between 2017 and 2019. A key tenet of the program is the co-location of RNs in the schools and their integration with Learning Support Teams (LSTs). LSTs work with students, families, classroom teachers and other professionals to identify and support students with additional learning needs at school.

## Methods

A qualitative study was conducted with LST members and the SB-PHCS RNs. Ethical approval was granted by the Greater Western Human Research Ethics Committee (GWAHS 2018-083), and approval to conduct research in schools was provided by the NSW Department of Education (SERAP 2018885) and the Diocese of Wilcannia-Forbes.

## Participants

This paper reports on six focus groups with LSTs and one focus group with nurses. The composition of the focus groups is outlined in Table 2.

Principals at all nine schools were emailed seeking approval for their school's participation in the study. Approving principals were asked to provide email addresses for the members of their LST. Individual LST members were then invited to participate in a school-based focus group. Eight schools responded. At the time of data collection, the SB-PHCS was newly implemented in two of the schools; these two focus groups were excluded from this analysis, as it was too early to report on their experience of integration. All primary health care RNs ( $n = 5$ ) were invited by email to participate in one focus group. Four RNs participated, one RN did not participate, as they were not available on the day of the focus group.

## Data collection

The LST focus groups were held between May and September 2019. Focus groups were held on school grounds to minimise participant burden. Five groups were conducted by two

**Table 1.** Services provided by the School-Based Primary Health Care Service.

Service component	Activities
Kindergarten health screening	Administer ASQ <sup>A</sup> -3 60-month questionnaire
	Administer ASQ <sup>A</sup> : Social Emotional-2 60-month questionnaire
	Collect relevant information: medical history, developmental disabilities, current service access, currency of dental and vision screens, body mass index
	Identify unmet service needs
	Refer/navigate care as necessary
Care navigation	Identify unmet service needs
	Identify relevant services
	Make referrals/assist LST to make referrals
	Follow up referrals and support families to access services
	Co-ordinate communication between family, service providers, and school
	Provide health education
	Provide emotional support
Health promotion	Direct provision of group health education to students and parents
	Coordinate and support other providers to deliver group health education to students, parents, and staff
	Dissemination of health information to school community (e.g. via newsletters)
	Environmental/policy initiatives (e.g. ensuring hygiene supplies available, Healthy School Canteens)

<sup>A</sup>Ages and Stages Questionnaires<sup>®</sup>.

**Table 2.** Focus group composition.

Focus group code	Participant type	Number of participants	Learning support team roles represented <sup>A</sup>
FG1-6	Learning support team members	2-7 per group (total = 21)	Assistant principal Deputy principal Learning support teacher School counsellor Instructional leader Intervention teacher Classroom teacher
RNFG	Registered nurses	4	N/A

<sup>A</sup>Roles and participant numbers have not been assigned to specific focus groups, as learning support team composition varies between schools, and doing so may identify individual schools.

researchers (CS, ES). Due to researcher availability and small group size ( $n = 2$ ), one focus group was conducted by one researcher (CS). The interview schedule included activity-oriented questions (Colucci 2007) and covered four areas of inquiry: LST scope and processes, health-related challenges faced by LSTs, RN activities and involvement in LST work, and the future development of the SB-PHCS.

The RN focus group was held in June 2019 at the Broken Hill University Department of Rural Health and was

conducted by two researchers (CS, ES). The interview schedule included activity-oriented questions and covered five areas of inquiry: RN role and activities, RN involvement in LST work, barriers and enablers of working with the LST/school, barriers and enablers to achieving health outcomes with students, and the future development of the SB-PHCS. All focus groups were audio recorded, and all responses to activity-oriented questions were recorded on paper and digitally photographed.

## Analysis

Data were transcribed verbatim using Express Scribe software. Focus group transcripts were analysed by framework analysis, a form of thematic analysis (Braun *et al.* 2018), using Spencer and Ritchie's five-stage process. This process involves: data familiarisation, identification of a thematic framework, indexing transcripts using the framework, charting the indexed data, and mapping and interpretation (Ritchie and Spencer 1994). Framework analysis was chosen because of its suitability to applied research and its ability to identify patterning of responses (Ritchie and Spencer 1994). A separate analysis explored the role of the RN (Sanford *et al.* 2021).

## Findings

The thematic framework consisted of three main themes and 12 subthemes relating to the experience of implementing

**Table 3.** Themes and subthemes.

Theme	Subtheme
People and culture	LST/school culture
	Flexibility and responsiveness
	Building relationships
	Valuing other professionals
Defining the role	Role unclear
	An evolving role/we work it out as we go
	RN communicates role and sets the boundaries
	School executives are key
	Transfer of responsibilities
Working across systems	Lack of specific processes
	Understanding how each other work
	Physical proximity

the SB-PHCS (Table 3). Subthemes are underlined in the description of findings below.

### People and culture

A pre-existing culture of collaboration was evident in the LSTs that reported more positive experiences with the SB-PHCS. Some LSTs articulated a link between being a collaborative team and the ease of integrating the RN position.

It really is very different from school to school ... here we're more collaborative and everything's open on the table ... information is delivered easily, people collaborate. (FG5)

We quite often have other agencies coming through the place and people are accepted and welcomed and I think that's the case with the RN and anyone else who walks in. (FG2)

Most LSTs embraced the RN position, describing them as 'one of us' (FG1) and 'absolutely part of our staff' (FG3). Learning support teams who valued the contributions of health and social care workers in schools described better acceptance of the RN role and more positive experiences of the SB-PHCS.

A willingness of LSTs to adjust their expectations and practices in order to 'work with rather than against' (RNFG) the RNs was important. This flexibility was reciprocal, with RNs describing 'being flexible with what each school needs and what they want' (RNFG) as key to their work. Examples included the tailoring of health promotion activities, varying RN involvement in individual cases depending on school preferences and capacity, and using different communication

strategies in different schools. RNs found it difficult when their scope of practice and potential contribution to student support were not recognised or understood.

Some people have embraced it and other people are like 'You're just a nurse', you know, 'You can't do that. You don't know. You're not allowed to refer'. Well it's like, just not an understanding of what nurses do. (RNFG)

Both RNs and LSTs discussed the importance of RNs establishing relationships within school communities to effectively implement the SB-PHCS. RNs described a delicate process of balancing pace while demonstrating your value and establishing trust without being obtrusive.

RN4: I think the relationship thing, that takes time as well. You know, I've been at [SCHOOL] for a term, just getting people familiar with you and what you can do when you're there. ... trying to get that balance right of getting to know people and not...

RN2: Being seen, but not jumping in too [quickly], you know. Being there and available.

RN3: And trusting you.

RN2: Yep. Trust is huge.

RN3: They're privy to all this information about kids.

RN2: If you can get a few wins on the board early.

RN3: Some credibility. (RNFG)

### Defining the role

Initially, LSTs and some RNs were unclear about the role of the RNs in the school setting. Several LSTs felt there was not enough information provided about the role. Some teams found this uncertainty disconcerting, whereas others seemed comfortable to work with it.

When the nurses first came on board, there was a very muddy role statement and everyone was really confused, and people were just left hanging... it certainly created a lot of stress and confusion. (FG4)

It was a bit funny though, because no one was quite clear on actually what the role was, I know they had that document, still didn't quite explain it ... It's like 'What is this about? Let's play this out. (FG5)

Some LSTs described the RNs as being 'lost' (FG4) and 'flying blind' (FG5), because 'there was no real role as such' (FG1). One RN described wanting more clarity around

the operational aspects of the role before beginning work in a school.

[a better orientation to] how the role works [would have been useful] because none of that was really provided on the first day. It was kinda like fly by the seat of your pants. (RNFG)

Participants felt the role had evolved since its introduction and was still evolving. A case-by-case, collaborative approach to negotiating the RNs' activities in the schools was described, with the RNs setting the boundaries within the scope of the role. This was challenging during early implementation and for RNs with no prior primary health care experience. In these cases, 'setting the boundaries' involved 'back and forth' between the schools, the RN and SB-PHCS management.

It was confusing at the time, because I don't think it was clear for [RN] what they could and couldn't do. So, [the school would request something and] the RN would be like OK, I'll go and see if I can, sort of thing. (FG6)

RNs with previous primary health care experience and those joining the SB-PHCS at later dates found the process of negotiating their role easier. They discussed the importance of knowing, and being clear and firm on the scope of the role.

If you can be clear on the role before you go into the schools, that makes it a lot easier ... Because I've worked in a school environment before and I've worked in community roles, you know, it's taking away that sort of acute [care aspect] and being clear on the role. So, I think that really helps you to then educate other people about it. (RNFG)

School executives were key personnel in program implementation, and RNs found it easier to establish their role in schools where principals or assistant principals were involved in the program from its inception.

Those APs [assistant principals] that are on board from the start ... I found that much easier to go into the school. (RNFG)

Principals and assistant principals were important in shaping and communicating the role of the RN within schools. If they understood the intent of the role, this 'filtered down' (RNFG) through the school community and RNs did not need to spend as much time clarifying the role or dealing with inappropriate requests. School executives' understanding of the roles of existing LST members was also thought to be important to the integration of the RN. Executives who understood this were better placed to ensure the RN complemented, rather than duplicated, existing LST roles.

The addition of the RN role necessitated a transfer of some responsibilities of existing LST members. Some participants resisted this, and felt that the RN's involvement duplicated and complicated existing processes. This sentiment appeared alongside a view that there are too many organisations providing similar services in schools, and that education is 'already an overloaded system' (FG4). Other participants welcomed this transfer of responsibilities and felt it allowed LST staff to focus on their core work, education.

Participant: When our old [LST member] was here, so much of their time was chasing up these doctors and these appointments, but now the RN does that so [new LST member] doesn't have to.

Facilitator: So, they've got more time to...

Participant: Yeah, yeah to actually do the assessments with the children, not chasing up the health department. (FG5)

### Working across systems

RNs felt working without 'formalised pathways' and 'specific processes' (RNFG) within and between services and schools was challenging, as was working with LSTs who were less structured in the process of providing learning support. Some of the SB-PHCS's core processes were not established before RNs entered schools. For example, establishing client consent processes within the school setting was 'quite a long battle' (RNFG) and delayed the implementation of the full scope of service activity. The amount of documentation RNs were tasked with was also problematic and impinged on time available for service provision. Nurses were required to 'triple enter' service activity records: in health system medical records, in activity-based funding reports and in schools' student record systems.

One of my concerns for the RN is probably the amount of administrative stuff, because I know that whatever they do for us they also need to do in the health system and it's a lot (FG3)

Participants felt that understanding how each other and their respective systems work was important for planning and implementing the SB-PHCS.

It's just such, two different systems. I've worked in both, I've worked in medicine and I've worked in education, and they are vastly different systems. [You need to take] into account when those two systems are butt on butt, how that is going to work. (FG4)

RNs with recent exposure to schools, either professionally or personally, had an advantage in the role, and some LST

members and RNs felt that service implementation could have been improved if program developers and RNs were better informed about school policies and practices prior to the SB-PHCS entering schools.

It'd be good to have a bit of an education system overview as well, about what structures are in place and what processes are in place ... 'cause I feel like a lot of my time has been going 'How does that work?' (RNFG)

Some of the initial confusion about the nurse's role in schools could be attributed to school staff's limited understanding of the scope of RNs' work within the health system.

RN4: Well it's like, just not an understanding of what nurses do, like, I think they've got a preconceived idea that ...

RN2: You're acute health care.

RN3: It's a traditional view of a nurse. (RNFG)

Physical structures were also important. Participants felt that the co-location of RNs onsite at schools and being present at LST meetings were conducive to establishing working relationships with education staff.

## Discussion

We found that low role clarity and a lack of clarity around systems and processes were challenges to program implementation. In contrast, a collaborative culture, the involvement of key school staff and flexibility in work processes facilitated the integration of the RN into the school team. Drawing on our findings and other literature, we offer the following recommendations to enhance the implementation of integrated models of school-based health care.

### Involve stakeholders early

Studies of the introduction of novel nursing roles suggest that involvement of stakeholders in the early stages of implementation facilitates a shared understanding of the role and its implementation plan (Sangster-Gormley *et al.* 2011), and improves role acceptance (Sangster-Gormley *et al.* 2013). Early involvement may also help to reach stakeholder consensus on the aims of the role, which in the case of the SB-PHCS, is to increase service access to improve health and education outcomes, and assist to clarify how a new role will function (Sloper 2004). The involvement of line managers is particularly important (Webb and Bannor 2005; Sangster-Gormley *et al.* 2011), and our finding that principals and assistant principals were key to the implementation of the SB-PHCS supports this. LST members'

involvement in role implementation was also evident in our subtheme, 'an evolving role/we work it out as we go', where RNs and LSTs took an ongoing, collaborative approach to defining the role once RNs were onsite in schools. Although some teams were comfortable with this approach, others would have preferred more clarity around the role prior to RNs entering schools. In addition to school executives, earlier involvement of key school staff may address potential barriers around role clarity, role delineation and acceptance, thereby enhancing implementation. This sentiment was shared by those involved in the introduction of nurse practitioner roles in the Canadian primary health care setting, where there was a top down approach to appointing positions, with little involvement of the staff the nurse practitioner would be working with (Sangster-Gormley *et al.* 2013).

### Understand existing systems and processes

Setting clear intentions for roles assists in clarifying how new roles will integrate with existing positions, systems and processes (Sangster-Gormley *et al.* 2011). For example, the SB-PHCS intended the RN role to be embedded with education, therefore, the service model placed RNs onsite in schools (Jones *et al.* 2019). Participants in our study felt that this co-location helped establish working relationships between RNs and education staff. However, for roles to be responsive to context, existing systems, processes, programs and resources should also influence role intention, and be incorporated into role operation (NSW Department of Education 2021). Although our study found individual RNs familiarised themselves with these systems and processes once they began work in the schools, and LST staff gradually gained an understanding of the SB-PHCS, some participants felt it would be more efficient if this knowledge was developed earlier in the service development phase. This may speed up the integration of the RN role with school teams and the establishment of service processes. It may also decrease potential frustrations around role clarity and duplication.

The implementation of school nursing roles should seek to understand existing school team aims, roles and processes to better define the aims of the RN position, and develop effective implementation plans. Involving frontline education staff early in implementation will facilitate the sharing of health and education systems knowledge. This will enable implementation teams to better understand the school and health system context.

### Provide initial role clarity, but plan to adapt and evolve the role to fit context

Clearly identified roles and responsibilities are a key principle of successful school health and wellbeing approaches (NSW Department of Education 2021). A lack of role clarity

has been identified as a barrier in the implementation and sustainability of other school nursing programs (Barnes *et al.* 2004; Brooks *et al.* 2007; Guzys *et al.* 2013). This is likely to be particularly challenging in less traditional models of school nursing. A key competency of school nurses is the ability to communicate and negotiate their role within the school setting (Barnes *et al.* 2004), and the RNs in our study recognised this aspect of the role. However, challenges in attracting experienced primary health care nurses meant some RNs were transitioning from acute care settings and ‘learning on the job’ (Jones *et al.* 2019), making this task challenging. Given nursing workforce shortages (Health Workforce Australia 2012), it is likely this challenge will be experienced by others establishing similar models of care. To optimise implementation, managers should ensure that RNs’ initial scope of practice is clearly outlined, and that RNs new to primary health care have a strong understanding of this prior to entering schools. Nurses should also be provided with timely guidance and support in the task of role clarification to ensure nursing practice is not constrained and avoid role ambiguity, which is associated with burnout and staff turnover (Jansen *et al.* 1996; Sangster-Gormley *et al.* 2013).

However, being ‘too stringent’ in pre-defining new roles can also hamper implementation (Sangster-Gormley *et al.* 2013), as there are benefits to sites adapting roles to meet their unique needs and context (Jones *et al.* 2019; NSW Department of Education 2021). Participants in our study felt that flexibility in the RNs’ work processes were key to integrating into a school. An optimal approach may be to engage key stakeholders in the development of clear and practical guidelines for the initial implementation of a new role, and build in frequent, structured opportunities with stakeholders, including frontline staff, to review and revise the intent and functioning of the role. This approach is supported by research on the implementation of nurse practitioner and clinical nurse leader roles, which found that sites that took a planned approach to role clarification were more successful in integrating new roles (Moore and Leahy 2012; Brault *et al.* 2014). Example activities included structured meetings and workshops to discuss and develop the role, developing documentation around team member roles, and undertaking pilot projects.

These findings and recommendations (Box 1) add to the identified enablers of interprofessional and intersectorial collaboration, and reinforce the importance of reaching a shared understanding of roles and responsibilities, and adequate preparation of staff (Sloper 2004; Hillier *et al.* 2010). Consideration of the above recommendations when developing implementation plans for integrated school-based health services could improve both the efficiency of the implementation process, and the experiences of school-based health professionals and education teams.

#### Box 1. Summary of recommendations for implementing integrated school-based health services

- Involve stakeholders early
  - Involve cross-sector stakeholders in service development and implementation. At the school level, consider principals, assistant principals and key student support staff.
- Understand existing systems and processes
  - Seek to understand school and health teams’ aims, roles and processes to improve the fit and acceptance of the school-based health care service and its implementation plan.
- Provide initial role clarity, but plan to adapt and evolve the role to fit context
  - Ensure health professionals’ initial scope of practice is clearly outlined and that health staff new to the primary health care/school setting have a strong understanding of this prior to entering schools.
  - Provide health professionals with guidance and support to clarify and negotiate their role in the school.
  - Plan frequent, structured opportunities with stakeholders, including front line school staff, to review and further develop integrated school-based health care roles.

## Limitations

This study used focus groups to describe the experience of implementing an integrated school-based health service from the point of view of front-line learning support staff and RNs in a rural community. Although focus groups have the benefit of building on group interactions and similar experiences, a limitation is a tendency towards normative discourse and dominant voices (Smithson 2000). The researchers were independent of the SB-PHCS, and familiar with both the health and education systems; however, it is possible that their alignment with the health system has influenced data collection and interpretation, so the findings were reviewed with education partners to minimise bias. In regard to generalisability of the findings, workforce stability and experience level in education and health tends to be greater in urban areas than in rural areas, and it is possible that the implementation experiences reported here may have different implications for urban settings. Finally, this study did not include the experiences of other stakeholders, such as executive staff or service recipients; however, studies with these groups are in progress.

## Conclusion

School nursing has changed, and although interprofessional collaboration is the way forward, implementing collaborative

models of school-based health care is challenging. This study addresses this challenge on the path to improved health, wellbeing and education outcomes for children by contributing to the literature guiding the implementation of collaborative models of school-based health care. Our recommendations should be considered in the development of service implementation and change management plans for integrated school-based health services.

## References

- Australian Bureau of Statistics (2016) Broken Hill (C) (Local Government Area), Community Profile. Available at [http://www.censusdata.abs.gov.au/census\\_services/getproduct/census/2016/quickstat/SSC10592](http://www.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/SSC10592) [Accessed 6 August 2021]
- Barnes M, Courtney MD, Pratt J, Walsh AM (2004) School-based youth health nurses: roles, responsibilities, challenges, and rewards. *Public Health Nursing* 21, 316–322. doi:10.1111/j.0737-1209.2004.21404.x
- Braut I, Kilpatrick K, D'Amour D, Contandriopoulos D, Chouinard V, Dubois C-A, Perroux M, Beaulieu M-D (2014) Role clarification processes for better integration of nurse practitioners into primary healthcare teams: a multiple-case study. *Nursing Research and Practice* 2014, 170514. doi:10.1155/2014/170514
- Braun V, Clarke V, Hayfield N, Terry G (2018) Thematic Analysis. In 'Handbook of Research Methods in Health Social Sciences'. (Ed. P Liamputtong) pp. 1–18. (Springer Singapore: Singapore)
- Brooks F, Kendall S, Bunn F, Bindler R, Bruya M (2007) The school nurse as navigator of the school health journey: developing the theory and evidence for policy. *Primary Health Care Research and Development* 8, 226–234. doi:10.1017/S1463423607000278
- Broussard L (2004) School nursing: not just band-aids any more! *Journal for Specialists in Pediatric Nursing* 9, 77–83. doi:10.1111/j.1547-5069.2004.00077.x
- Choi BCK, Pak AWP (2006) Multidisciplinarity, interdisciplinarity and transdisciplinarity in health research, services, education and policy: 1. Definitions, objectives, and evidence of effectiveness. *Clinical and Investigative Medicine* 29, 351–64.
- Colucci E (2007) "Focus Groups Can Be Fun": the use of activity-oriented questions in focus group discussions. *Qualitative Health Research* 17, 1422–1433. doi:10.1177/1049732307308129
- Dennis S, Noon T, Liaw ST (2016) Is there a role for a primary health nurse in a learning support team in a disadvantaged high school? Evaluation of a pilot study. *Australian Journal of Primary Health* 22, 530–538. doi:10.1071/PY15166
- Government of Western Australia Child and Adolescent Health Service, WA Country Health Service (2019) School-aged Health Service Review: key findings. Western Australia. Available at <https://www.healthywa.wa.gov.au/~media/Files/HealthyWA/New/School-health-services/School-Health-Review-Key-Findings.pdf>
- Guzys D, Kenny A, Bish M (2013) Sustaining secondary school nursing practice in Australia: a qualitative study. *Nursing & Health Sciences* 15, 353–9. doi:10.1111/nhs.12039
- Health Workforce Australia (2012) 'Health Workforce 2025 – Doctors, Nurses and Midwives – Volume 1.' (Health Workforce Australia: Adelaide, SA, Australia)
- Hillier SL, Civetta L, Pridham L (2010) A systematic review of collaborative models for health and education professionals working in school settings and implications for training. *Education for Health* 23, 393.
- Jansen PGM, Kerkstra A, Abu-Saad HH, Van Der Zee J (1996) The effects of job characteristics and individual characteristics on job satisfaction and burnout in community nursing. *International Journal of Nursing Studies* 33, 407–421. doi:10.1016/0020-7489(95)00060-7
- Jones D, Ballard J, Dyson R, Macbeth P, Lyle D, Sunny P, Thomas A, Sharma I (2019) A community engaged primary healthcare strategy to address rural school student inequities: a descriptive paper. *Primary Health Care Research & Development* 20, e26. doi:10.1017/S1463423618000907
- Moore LW, Leahy C (2012) Implementing the new clinical nurse leader role while gleaned insights from the past. *Journal of Professional Nursing* 28, 139–46. doi:10.1016/j.profnurs.2011.11.010
- NSW Department of Education (2019) Disability Strategy. A living document. Improving outcomes for children and young people, and their families. NSW Government, Sydney, NSW, Australia.
- NSW Department of Education (2020) \$46.8 million to expand well-being nurses in schools program. [Media release.] Available at <https://education.nsw.gov.au/news/latest-news/-46-8-million-to-expand-well-being-nurses-in-schools-program#:~:text=The%20NSW%20Government%20is%20expanding,nurses%20to%20support%20student%20well-being.&text=The%20NSW%20Government%20has%20earmarked,of%20students%20and%20their%20families> [Accessed 6 August 2021]
- NSW Department of Education (2021) Checklist and guidelines – tailoring health and wellbeing approaches at your school. Available at [https://www.education.nsw.gov.au/content/dam/main-education/student-wellbeing/whole-school-approach/tailoring-health-and-wellbeing-approaches/70343\\_Checklist\\_3.pdf](https://www.education.nsw.gov.au/content/dam/main-education/student-wellbeing/whole-school-approach/tailoring-health-and-wellbeing-approaches/70343_Checklist_3.pdf) [Accessed 2 November 2021]
- NSW Government (2019) Record \$18.5 billion Education Budget bonanza. [Media release.] Available at <https://www.nsw.gov.au/media-releases/record-185-billion-education-budget-bonanza> [Accessed 6 August 2021]
- O'Connor M, O'Connor E, Quach J, Vashishtha R, Goldfeld S (2019) Trends in the prevalence and distribution of teacher-identified special health-care needs across three successive population cohorts. *Journal of Paediatrics and Child Health* 55, 312–319. doi:10.1111/jpc.14192
- Ritchie J, Spencer L (1994) Qualitative data analysis for applied policy research. In 'Analysing qualitative data'. (Eds A Bryman, RG Burgess) pp. 173–194. (Routledge: London, UK)
- Sanford C, Saurman E, Dennis S, Lyle D (2021) 'We're definitely that link': the role of school-based primary health care registered nurses in a rural community. *Australian Journal of Primary Health* 27, 76–82.
- Sangster-Gormley E, Martin-Misener R, Downe-Wamboldt B, Dicenso A (2011) Factors affecting nurse practitioner role implementation in Canadian practice settings: an integrative review. *Journal of Advanced Nursing* 67, 1178–1190. doi:10.1111/j.1365-2648.2010.05571.x
- Sangster-Gormley E, Martin-Misener R, Burge F (2013) A case study of nurse practitioner role implementation in primary care: what happens when new roles are introduced? *BMC Nursing* 12, 1. doi:10.1186/1472-6955-12-1
- Sloper P (2004) Facilitators and barriers for co-ordinated multi-agency services. *Child: Health and Development* 30, 571–580. doi:10.1111/j.1365-2214.2004.00468.x
- Smithson J (2000) Using and analysing focus groups: limitations and possibilities. *International Journal of Social Research Methodology* 3, 103–119. doi:10.1080/136455700405172
- Webb V, Bannor B (2005) Collaborating with key school partners: triumphs and challenges. *Nursing Clinics of North America* 40, 689–697. doi:10.1016/j.cnur.2005.07.005

**Data availability.** Participants of this study did not agree for their data to be shared publicly, so supporting data is not available.

**Conflicts of interest.** Professor Sarah Dennis is a member of the editorial panel of the Australian Journal of Primary Health, but had no role in the peer review or acceptance of the paper.

**Declaration of funding.** The Broken Hill University Department of Rural Health is funded by the Australian Government Department of Health. This research did not receive any specific funding.

**Acknowledgements.** The authors express their appreciation to the focus group participants and our partners at the New South Wales Department of Education and the Far West Local Health District for their support of this work.

**Author affiliations**

<sup>A</sup>Broken Hill University Department of Rural Health, The University of Sydney, Corrindah Court, PO BOX 457, Broken Hill, NSW 2880, Australia.

<sup>B</sup>Sydney School of Health Sciences, Faculty of Medicine and Health, The University of Sydney, Western Avenue, Sydney, NSW 2006, Australia.

<sup>C</sup>Ingham Institute for Applied Medical Research, I Campbell Street, Liverpool, NSW 2170, Australia.