Remote Area Nurse Safety

On-Call After Hours Security
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The authors are grateful to the many people who have assisted in the production of this Report, including:

- PwC Indigenous Consulting
- Office of Evaluation DoH
- Central Australia and Top End Health Service Management and staff
- Office of the Chief Nursing and Midwifery Officer
EXECUTIVE SUMMARY

Introduction

The purpose of this review was to assess the effectiveness of current guidelines and how they are operationalised in practice for ensuring safety for remote primary health care staff working in Northern Territory (NT) government primary health care centres, when providing after hours on-call services in remote NT communities. In particular, the review was designed to assess the effectiveness of the Remote Health Atlas on-call safety and security procedures in ensuring a safe work environment by auditing on the ground practices.

The report did not include any assessment of staff travel, medical evacuations or visiting health services to remote centres. Also out of scope were NT Health urban primary health care services and remote Primary Health Care (PHC) services administered by other organisations. Notwithstanding the non-inclusion of this latter group of services, it is hoped that Aboriginal Community Controlled Health Organisations that are responsible for operating remote primary care clinics may find this report and the recommendations both relevant and useful.

The report recommendations aim to strengthen the effectiveness of existing arrangements for promoting and ensuring staff safety and security in remote health facilities.

Background

Central Australia Health Service (CAHS) and Top End Health Service (TEHS) manage NT government PHC services in 51 locations across the NT. These services are delivered on a daily basis by around 440 on-site staff employed as registered nurses and midwives (Remote Area Nurses (RANs)), Aboriginal and Torres Strait Islander Health Practitioners (ATSIHP), support staff and medical practitioners.

Remote PHC staff are responsible for providing essential primary health care services and are the first line of response for emergency medical issues, including those arising outside normal business hours, in remote areas of the NT. The majority of remote primary health care staff in the NT work and live hundreds of kilometres away from urban areas, in small and very small communities accessible by a four-wheel drive vehicle travelling along an unsealed road (that may be impassable during the wet season), or by small aeroplane or motorboat for Top End and island communities.

The safety of all staff is of paramount importance and the NT Department of Health (DoH) has implemented and updated strategies over many years to ensure remote PHC staff can operate in safe and secure environments. For registered nurses, remote area nursing presents both unparalleled opportunities and unsurprising challenges. The opportunities relate to the chance for nurses to take on significant clinical responsibilities (within an appropriate clinical governance framework), allowing them to exercise their full scope of practice in a primary health care setting. Many remote area nurses report this to be the
most stimulating and rewarding aspect of their job. The challenges relate to the geographical isolation and modest infrastructure of most remote communities, the potential difficulties in attracting, retaining and developing an appropriately skilled clinical workforce (which can impinge on arrangements for clinical supervision, continuous professional development and leave), and accommodating likely differences in cultural perspectives between non-Indigenous staff and the many Indigenous members of the local community (including differences in values, attitudes and beliefs) to ensure that the health care provided is culturally secure.

The safety of RANs on-call after hours was raised as an issue following the death of a nurse in the remote South Australian Aboriginal community of Fregon in late March 2016. An initial review was undertaken by the DoH which pointed to a need to examine more closely issues relating to the policies, practices and safety equipment available to RANs in the NT.

In April 2016 the Chief Executive Officer, DoH announced a review of existing policies, processes and procedures particularly relating to RAN security. Terms of Reference were endorsed and Price Waterhouse Coopers Indigenous Consulting (PIC) was engaged to conduct ‘arms-length’ interviews with managers and staff at all NT Health remote PHC centres and to provide an independent analysis of their findings.

In addition to the external review, a concurrent internal review of DoH policies and procedures and remote PHC centre documentation and staffing data was conducted. Four incidents of violence towards remote health staff occurred during the review period and recommendations arising from these events have been included in this report.

Review Questions

The following questions were used to guide the review process:

1. Is the current policy framework relating to staff safety and security in remote health facilities operated within NT Health effective, contemporary and appropriate to provide safe working environments as far as practicable?

2. Are remote PHC managers and staff compliant with the policy framework and are there identified barriers to compliance?

3. Are the current governance structures for work health and safety effective, including policy development and implementation?

4. What security and safety infrastructure and equipment measures are in place and if deemed necessary what are the options for enhancement?

In light of the above, what are the actions and/or options for strengthening the current arrangements?
Overview of recommendations

The review found that the remote context is not inherently dangerous. At the same time, there is a constellation of factors that are more likely to be present in remote NT settings which together contribute to assessable and manageable risks.

There are 14 recommendations arising from the review. Central to the recommendations is a risk management approach involving implementation of both standard policy and procedures (controls) and additional measures (mitigation), recognising that personal safety is the first priority for remote health centre staff.

Accordingly, to manage risk, it is recommended that there is a change in policy to mandate that all after hours call-outs in remote communities are undertaken by a team of two people (Recommendation 1a). This recommendation is a change from the current reliance on risk assessment as a trigger for a second responder to attend.

It is acknowledged that this recommendation will have resource implications, particularly for the smaller communities in Central Australia. The financial viability of this recommendation is supported by recommendations that:

- the second responder is a trusted local community member (Recommendation 1b) employed as a casual driver (Recommendation 7);
- budgets are reviewed to offset these costs and to ensure a focus on attracting and retaining permanent staff and reducing reliance on short term casual nursing staff (Recommendation 8&9);
- there is a review of roster patterns and health centre opening hours to minimise call-out requirements (Recommendation 4); and
- there is engagement with local community members and other government agencies (Recommendation 2) with a focus on collaboration and partnerships to counteract identified safety issues.

It is also recommended that:

- minimum orientation requirements are mandated for all remote PHC staff (casual and ongoing) and are immediately revised to include safety specific elements relevant to remote practice (Recommendation 5a);
- a standardised mandatory on-line remote specific orientation and induction package is developed (Recommendation 5b); and
- consideration is given to providing standardised internet access in nurses’ houses to facilitate access to on-line resources including procedures, protocols and learning modules (Recommendation 5c).

The review identified the importance of relationships with police when risks to safety or actual danger are identified, and noted that the current system of centralised triage can impede timely responses. Accordingly, it is recommended that the possibility for immediate
local engagement is explored (**Recommendation 1c**), and that nurses and other PHC staff are better equipped in situations of actual or potential risk.

Problems were identified with some equipment and infrastructure currently available for use during call-outs or in threatening situations. Similarly, there was a clear indication that there are ongoing maintenance issues that impinge upon safety of nurses at both health centres and nurses’ accommodation. Inadequate doors and locking systems, non-functional locks and security lighting, and inadequate or absent security screens were commonly cited concerns during this review and a major theme of the Australian Nursing and Midwifery Federation survey conducted in May 2016 (ANMF, 2016). Immediate rectification of these problems is recommended (**Recommendations 12 a–e**) along with ensuring more rigorous maintenance systems for existing equipment and infrastructure through enhancement of the TEHS and CAHS Infrastructure Coordinator roles, and improving feedback systems to inform staff of progress and action (**Recommendation 14**).

With the majority of call-outs being attended to at the PHC centre (rather than in people’s homes), there was limited evidence to recommend the immediate use of Personal Locator Beacons other than for vehicles required to undertake longer distance retrievals and evacuations by road. Immediately investigating the benefits of GPS vehicle tracking and some low cost options such as personal noise alarms and an automated system for reporting staff movements is recommended (**Recommendations 12 c, f & g**) along with exploring benefits of further safety and communications equipment and infrastructure in the longer term (**Recommendation 13**).

Identifying the most appropriate technology and the most useful measures for mitigating risk would be assisted by a better understanding of the demand for clinical services after-hours and the activities undertaken by remote PHC staff when ’on-call’. The review found that there was no consistency in recording requests for call-outs, actions undertaken during the call-outs or details of any travel required. These activities are currently recorded in different degrees of detail across a range of different documents. Accordingly, a standard method of documenting and reporting all after-hours activity is recommended (**Recommendations 3**).

With respect to staffing profiles, education and work practices, the review identified a number of factors impeding compliance with the existing policy and guidelines. The need for improved orientation specific to safety considerations has already been mentioned. However, with a high staff turnover, the burden of orientation on longer term staff is significant. Re-introduction of a relieving staff pool (to reduce reliance on casual staff) is recommended for greater consistency of staff knowledge and skills in relation to both clinical and safety matters, and as a cost containment measure (**Recommendation 6**).

The data also revealed that staffing profiles in some PHC centres and handover practices do not include a period of staff overlap, meaning that on occasions there is no second nurse and no alternative support staff. This situation requires priority risk mitigation (**Recommendation 6**) and longer term strategies to:

- review staffing profiles and allocate specific staffing budgets to PHC centres (**Recommendation 7**);
- strengthen ‘Back on Track’, Indigenous employment initiatives across all employment categories for Aboriginal staff (Recommendation 8); and
- renew efforts to recruit and retain staff, reduce vacancy rates and reduce utilisation of agency and short term casual staff with consideration of sponsored education pathways for attracting early career nurses into RAN positions (Recommendation 9a), together with resilience training for long term staff (Recommendation 9b).

In order for these initiatives to have full impact, there is also a need to ensure compliance with safety policies and procedures and effective governance of safety. This will be most efficiently achieved through a centralised governance system for ongoing monitoring and policy development. The gaps in Territory-wide consistency of practices identified in this review must be addressed through action by DoH, TEHS and CAHS, including the re-establishment of the NT-wide governance of the Remote Health Atlas (Recommendation 10). Specific recommended actions include:

- improving work health and safety (WHS) processes (Recommendation 10a); and
- realising the full capability of RiskMan (Recommendation 10c) as an incident management system.

Allocating appropriately experienced personnel to oversee and support WHS practices specific to PHC in both TEHS and CAHS is also recommended (Recommendation 11).

In conclusion, the review identified a focused interest in, and a strong commitment to improving, the safety of remote primary health care staff across the NT. The review team is aware that a number of the recommendations arising from the review are already being implemented, having been initiated by managers and/or RANs. This proactive impetus and focused effort to strengthen and continuously improve remote primary health care reflects great credit on the remote health workforce, and represents a key asset both for remote primary health care and for NT Health more generally.
RECOMMENDATIONS

It is recommended that:

1. DoH establishes an NT-wide policy and works with Health Services to update and implement guidelines to ensure that:
   a. all remote health professionals attending after-hours emergency call-outs, home-visits and business hours call-outs [collectively referred to as ‘call-outs’] are accompanied by a second responder;
   b. wherever possible the second responder is a trusted local community member employed and paid for any call-outs by the Health Service; and
   c. risk management for call-outs is improved, recognising that staff safety is the first priority. This includes working with the Health Services (TEHS and CAHS) and senior NT police to review current risk response practices and developing policies to optimise the safety and security of health staff delivering services in remote communities, particularly staff on-call after hours.

2. DoH works with CAHS and TEHS to initiate communication with the Department of the Chief Minister and other relevant Government agencies to establish mechanisms for collaboration and partnerships with remote community groups such as the local community council or equivalent, schools and non-government agencies, to share information and address local issues including staff safety and security.

3. DoH works with CAHS and TEHS to develop and implement standardised documentation and reporting of all after-hours activity.

4. The Health Services review electronic health records to identify timing of after-hours call-outs and consider implementing changes to roster patterns and health centre opening hours that minimise call-out requirements.

5. The Health Services revise the minimum orientation on commencement requirements for all remote PHC staff (casual and ongoing) in all remote PHC centres with regular compliance audits conducted, reviewed and actioned by District Managers. Revision of orientation requirements should involve the following actions, among other efforts:
   a. Immediate updating of existing programs to include mandatory safety, aggression minimisation and de-escalation training and procedures;
   b. Development of a standardised mandatory on-line Safety On-call Orientation package and Induction Programs that focus on community practices and policies; and
   c. Consider establishing as a standard arrangement, provision of employer-connected
user pays internet access in remote nurses’ houses to facilitate access to on-line learning, professional networking, and resources that mitigate isolation and promote resilience.

6. The Health Services should give priority to consideration of re-establishing an expert internal relief pool of experienced ongoing tenured remote nurses. This will provide backfill and ensure that there is a second nurse available in the community. Once second nurses are phased in to operation, handover practices and relief processes should be reviewed.

7. The Health Services review staffing establishments to ensure minimum FTE for RANs, ATSIHPs and support workers at each health centre, including identifying funding for employing trusted community members as casual drivers to be second respondents.

8. The Health Services continue and intensify their efforts to implement the expanded NT Health ‘Back on Track’ strategy aimed at increasing Indigenous participation in the workforce. For remote PHC centres, this extends beyond ATSIHPs to include recruitment of local people into funded Physical positions, highlighting the importance of community partnerships in attracting and retaining a skilled RAN workforce.

9. The Health Services in collaboration with DoH renew efforts to recruit and retain staff, reduce vacancy rates and reduce utilisation of agency and short term casual staff with consideration of:

   a. re-directing savings to sponsored educational pathways for attracting early career nurses into RAN positions; and

   b. providing long term staff with opportunities to undertake development programs to optimise personal skills and team-work capacity to prevent staff burnout and to reduce turnover.

10. DoH as the system manager works with the Health Services to re-establish NT-wide governance of the Remote Health Atlas, with the first priority being to review and revise safety policies to ensure:

   a. improved WHS legislative practices;

   b. consistency in NT-wide safety policies and practices including incorporation of Recommendations 1 and 2; and

   c. RiskMan capability is fully utilised as a tool for recording incidents, activating follow-up and remedial actions, and Health Service and system-wide monitoring of incidents associated with call-outs.

11. Each Health Service allocates to an experienced WHS Advisor responsibilities for overseeing and supporting WHS practices in PHC services and providing support and advice to PHC managers.

12. Each Health Service immediately addresses a number of infrastructure and equipment issues that increase risk for RANs living and working in remote communities.
including:

a. follow up of safety equipment audits to rectify non-functional duress alarms and satellite phones;

b. maintain up to date responder lists;

c. equip all vehicles with GPS vehicle tracking devices and high quality beam torches eg Mag torches;

d. follow up infrastructure audits to rectify deficits relating to doors, security screens, lighting and locks;

e. review essential remote communications systems to ensure that all communities have effective and reliable systems in place including back-up systems such as two-way hand held radios or long range portable phone systems;

f. investigate the benefits of a simple and inexpensive personal noise alarm for suitability and sustainability; and

g. investigate the suitability of an automated system for reporting when attending on call and on returning, with the system being linked to standardised risk assessment, documentation and appropriate escalation procedures.

13. Each Health Service explores the longer term costs and benefits of safety equipment and infrastructure including, but not limited to central locking on cars, reversing cameras, personal locator beacons, CCTV at PHC centres with monitoring and electronic health record access at RAN accommodation.

14. The role of Infrastructure Coordinator in the Health Services is reviewed and enhanced to ensure that infrastructure improvements, repairs and maintenance are investigated and prioritised, with feedback systems to inform staff of progress and action of any requests.
DEFINITIONS

- **Aboriginal and Torres Strait Islander Health Practitioner (ATSIHP)** is a recognised Aboriginal or Torres Strait Islander person who holds a Certificate IV in Aboriginal and/or Torres Strait Islander Primary Health Care (Practice), or equivalent as determined by the Aboriginal and Torres Strait Islander Health Practice Board of Australia.

- **After hours** means outside business hours which are the eight hours during which usual health centre business is conducted. These hours may vary between communities and depend on individual community needs. RANs and ATSIHPs are required to provide an after-hours emergency service to the community. This requires staff to be rostered on-call outside of business hours.

- **ANMF** – Australian Nursing and Midwifery Federation, the professional union for Australian nurses and midwives.


- **CAHS** – The Central Australia Health Service covers a geographical area of approximately 873,000 square kilometres encompassing the Simpson and Tanami Deserts and Barkly Tablelands with a total resident population of approximately 48,000 (approximately 20% of the NT population), of which about 45% identify as Aboriginal. A significant percentage of people, and in particular Aboriginal communities, reside outside the main towns of Alice Springs and Tennant Creek across a number of remote communities and outstations. CAHS includes two public hospitals (Alice Springs and Tennant Creek) and 26 PHC centres.

- **Call out** for an after-hours emergency is defined as a medical illness or complaint requiring immediate treatment. It is an expectation that all medical requests of a non-urgent nature are referred to the health centre during business hours.

- **DOH** - NT Department of Health.

- **Full time equivalent** (FTE) is a method of calculating workforce that takes into account staff working less than full time hours. Hours worked by part-time staff are combined to calculate the number of staff that would be employed in any setting if every staff member was working full time.

- **GPS tracker** is a device carried by a vehicle that uses a GPS to determine and track its precise location and at intervals the recorded location data can be stored within the tracking unit, or it may be transmitted to a central location data base or computer. This allows the vehicle’s location to be displayed against a map backdrop either in real time or when analysing the track later, using GPS tracking software. Data tracking software is also available for smart phones with GPS capability.

- **NT** – Northern Territory, Australia

- **PCIS** – Primary Care Information System is a client-focused health information system tailored for Northern Territory Remote PHC Centres. PCIS provides an electronic ‘whole of life’ Client Health Record with optimal security and privacy of client’s information and is purpose built to address cultural sensitivities.
- **PIC** – PriceWaterhouseCooper Indigenous Consulting provided independent consulting for this evaluation.

- **Primary Health Care (PHC)** means first level health care provided to individuals, families and communities.

- **Remote** is defined by the Accessibility/Remoteness Index for Australia (ARIA) as having an ARIA score >5.8 and up to 9.08. It is characterised by having very restricted accessibility to goods, services and opportunities for social interaction. Very remote areas (ARIA >9.08) have very little accessibility to goods, services and opportunities for social interaction.

- **Remote area nurse (RAN)** includes nurses and midwives working in health care service delivery in remote or very remote areas as defined by ARIA.

- **Remote Health Atlas** is a DoH website that enables remote health workers across the NT to access comprehensive operational policies online. The site features information on a wide range of topics and it is a strong intention that it will improve accessibility to current information regarding Remote PHC service delivery.

- **Remote PHC Centres** are operated by TEHS and CAHS to provide health care to the residents and visitors of 51 remote communities across the NT. The nature of remote PHC centres varies considerably. Not only is their geography different but some are located in large Aboriginal communities and have more than 10 staff, whilst others are in very small communities and have only three staff. The remote PHC centres located on the main highways of the NT in particular may perform significant amounts of paramedic type functions in addition to PHC, particularly in relation to motor vehicle accidents and tend to tourists. Some remote PHC centres are located in or near National Parks which also affects the focus of their activity.

- **TEHS** – The Top End Health Service (TEHS) region covers a geographic area of 475,338 square km of the total Northern Territory geographic area. The TEHS region includes the Greater Darwin (Darwin City, Palmerston and Litchfield), Daly, Tiwi, West Arnhem, East Arnhem and Katherine local geographic areas. The TEHS area shares borders with Queensland and Western Australia and has an estimated resident population of 196,573 people, which is 80.2% of the total NT population. Seventy-one per cent of the population live in the Greater Darwin area (140,386), with the balance in regional towns (Katherine – 11,187 and Nhulunbuy – 3,906), remote areas and discrete remote communities. The Indigenous population comprises 26% (50,577) of the total TEHS region population. TEHS includes three public hospitals (Royal Darwin, Gove District, and Katherine) and at the time of the review, 25 remote PHC centres. (TEHS now has 24 due to the transfer of Milingimbi Health Centre to Miwatj Health Service after this review was conducted.)

- **WHS** – Work health and safety,
INTRODUCTION

Background to the review

Following the circumstances related to the death of a remote area nurse in Fregon, South Australia in March 2016, the NT DOH initiated a review of relevant measures to ensure the safety of remote PHC staff in public sector operated remote PHC centres.

The Project sponsor for the review was Dr Robyn Aitken, Executive Director, Clinical Support, Education and Public Health Services. Members of the Project Steering Committee included Ms Janet Anderson, Deputy Chief Executive, Dr Robyn Aitken, Ms Kristyna Dillon, Senior Director Human Resources Branch, and Ms Heather Keighley, Acting Chief Nursing and Midwifery Officer. The Office of Evaluation supported the development and implementation of the review.

The review was designed to assess the safety of PHC staff during after-hours call-outs from remote PHC centres administered by CAHS and TEHS. It evaluated the effectiveness of the Remote Health Atlas on-call safety and security procedures by auditing on-the-ground practices. The review sought to identify any deficits in practice, equipment, organizational procedures and processes, and to make recommendations for improving WHS.

Remote PHC staff provide essential PHC services and are the first line of response for emergency medical issues in remote areas. In order to meet these responsibilities, RANs and ATSIHPs are required to provide after-hours emergency services to the community from 5pm – 8am and during weekends and public holidays. This requires staff to be rostered on-call outside business hours. Safety of all staff is paramount and the DOH has implemented and updated strategies over many years to ensure staff safety including when responding to after-hours call outs.

CAHS and TEHS manage a total of 51 remote PHC centres between them across the NT. Other NT remote PHC services are provided by Aboriginal Community Controlled Health Organisations.

While this report deals only with those services managed by TEHS and CAHS, it is hoped that the findings and recommendations may also prove useful to the Aboriginal Community Controlled Health sector in the NT.

The primary function of remote PHC centres is to deliver efficient and effective health services to remote Aboriginal communities as required by Service Delivery Agreements between the DoH and the Health Service. The service includes the provision of a diverse suite of culturally secure programs across the lifespan. During business hours, these programs include:

- Emergency care and first line clinical management
- Clinical assessments and delivery of PHC as prescribed by CARPA
- Chronic conditions management
- Child and family health
- Maternal care and women’s health
- Men’s health
- Mental health
- Dental and oral health
- Aged care
- Palliative care
- Communicable disease programs
- Prevention programs
- Health promotion
- Nutrition and physical activity.

All medical requests of a non-urgent nature are managed by the health centre during business hours which are usually eight hours per day. These hours may vary between communities and depend on individual community needs. RANs and ATSIHPs are required to provide an after-hours emergency service to the community. An after-hours emergency is defined as a medical illness requiring immediate treatment. This requires staff to be rostered on-call outside business hours.

PHC centre staff may include:
- PHC Manager (PHCM N5R)
- Aboriginal and Torres Strait Islander Health Practitioners (ATSIHPs)
- Clinical Nurse and/or Midwife Specialists (N4R)
- Clinical Nurse and/or Midwife (N3R)
- Aboriginal Community Workers (ACW) and/or Strong Women Workers (SWW)
- Administration Support Officer/s (AO2-AO4)
- Physical Driver/Gardener/Cleaner positions

Numbers and availability of staff vary depending on the size and location of the service.

Employment agencies play an important role in supplementing the workforce for remote PHC centres. CAHS and TEHS hire agency staff through workforce organisations and the Remote Area Health Corps (RAHC). RAHC is an Australian Government funded program designed to increase the pool of urban-based health professionals available for work in Indigenous communities by attracting, recruiting and orienting personnel and then providing ongoing support and training, assisting health professionals to make the transition to remote practice. Over time RAHC has developed a pool of health professionals who undertake regular placements in the NT.

The Nursing and Allied Health Rural Locum Scheme (NAHRLS) is also administered by the RAHC Board. NAHRLS was established by the Australian Government to support nurses, midwives and allied health professionals in rural and remote Australia to take leave from their work for up to 14 days to undertake professional development. NAHRLS nurses and midwives contribute to the remote PHC workforce.

Town based managers include:
- The District Manager, who is available via phone 24 hours, seven days per week to provide advice and assistance
The Duty Remote Medical Practitioner (RMP), who is available 24 hours, seven days per week for both clinical and other advice as required.

A senior nurse is also available for clinical and professional phone advice when required, along with PHC Directors of Nursing and Midwifery in TEHS and CAHS, Executive Directors of Nursing TEHS and CAHS, and the Chief Nursing and Midwifery Officer.

Staff are encouraged to use the CRANAPlus Bush Support Services line and/or EASA Counselling, Training, Consultancy Services (EASA) if counselling and support are required. CRANAPlus Bush Support Services provides 24-hour telephone counselling services using psychologists experienced in remote service delivery and the issues arising for remote health professionals.

Policies and procedures for all remote PHC centres can be accessed via the Department of Health Remote Health Atlas. This DoH website enables remote health workers across the NT to access comprehensive operational policies online. The site features information on a wide range of topics and it is a strong intention that it will improve accessibility to current information regarding remote PHC service delivery.
THE REVIEW

Evaluation Questions:

The following questions were used to guide the review process:

1. Is the current policy framework relating to staff safety and security in remote health facilities operated within NT Health effective, contemporary and appropriate to provide safe working environments as far as practicable?

2. Are remote PHC managers and staff compliant with the policy framework and are there identified barriers to compliance?

3. Are the current governance structures for work health and safety effective, including policy development and implementation?

4. What security and safety infrastructure and equipment measures are in place and if deemed necessary what are the options for enhancement?

In light of the above, what are the actions and/or options for strengthening the current arrangements?

Methods

This review used an approach incorporating both quantitative and qualitative data. Quantitative data was assessed from a range of sources including personnel and staffing records, callout information and quality checks of safety equipment to provide evidence of current practice and procedures. The qualitative data provided a more detailed understanding of current practice, the associated safety issues and to identify potential strategies for addressing these issues. A literature review provided background information about Work, Health and Safety legislation; violence, and mitigating violence against RANs; stress amongst RANs, and building resilience of RANs. As an evaluation, ethical principles were adhered to for both the design and conduct of data gathering. Participation was voluntary, participants could withdraw at any time during the data collection period, and the external review team ensured that there were no issues of bias or coercion.

A range of staff participated in the interviews and forums conducted by the external consultants, representing a cross section of the workforce and a variety of perspectives. The consultations with remote PHC staff were conducted by teleconference and email, and included participants from 51 remote PHC centres (Appendix 1). The interviews were guided by a structured interview tool developed collaboratively by DoH and the external consultants (PIC) (Appendix 2). PHC managers were the primary informants, but on a few occasions the entire remote PHC team participated in the teleconference (RANs, ATSIHPs, Aboriginal Community Workers, clinical managers and support staff). The remote PHC managers interviewed generally had over 10 years remote nursing experience and many had been in their current location for three to five years.

Three stakeholder forums were facilitated by PIC. The participants were key internal DoH, TEHS and CAHS stakeholders with regional or NT wide professional leadership and/or management responsibilities and external stakeholder representatives from the ANMF, peak bodies, recruitment agencies, researchers and tertiary education providers (Appendix 3). Most
stakeholders attended forums in person teleconference utilised as required in order to capture perspectives from outside of the regional centres where the forums were hosted. The forums were scheduled toward the end of the consultation period and enabled the consultants to gather alternate views and test the information they had received from the telephone interviews.

In addition, the Office of the Chief Nurse and Midwifery Officer (OCNMO) and the Director of the Office of Evaluation conducted face-to-face and teleconference consultations with remote managers in both Alice Springs and Darwin (Appendix 4).

Underpinning each consultation was the central aim of understanding the level of safety experienced by health staff providing after hours on-call services in remote PHC centres. All participants engaged in the interviews by both the external consultants and the DoH officers were reported to be interested and cooperative throughout the interviews and forums, welcoming the purpose of the review. There was universal sentiment expressed regarding the value of improving the safety of remote PHC staff undertaking on-call duties after hours.

During the period of the review there were four incidents involving aggression towards RANs. These incidents were subject to a formal Critical Incident Review by the health service. They were also analysed to contribute to the knowledge generated by the review and to the findings.
FINDINGS

The findings relating to each evaluation question are reported in summary form below.

Q1. Policy Framework

Is the current policy framework relating to staff safety and security in remote health facilities operated within NT Health effective, contemporary and appropriate to provide safe working environments as far as practicable?

The existing policy framework includes a range of Atlas items accessed through the internet portal. The key policy statement entitled Staff On Call – Safety Considerations was the benchmark for this review.

Related Atlas Items include:
- Critical Incident Follow-Up
- Duress Alarms
- Hazard Identification
- Health Centre Hours of Business
- Incident Reporting
- Security Incident Flowchart - CA Security Incident Flowchart
- What is an Emergency?
- Management On Call
- Managing Aggressive Incidents
- On-Call Expectations
- Security Incident Flowchart

Assessing and mitigating risk

This review reveals that the current Remote Health ATLAS policy places responsibility for assessing risk and responding to the assessed risk with the RAN. The Remote Health Atlas provides a set of questions designed to assist the RAN in assessing the level of risk prior to making a decision to attend a call-out. The review found that this document requires enhancement to make it more comprehensive in relation to the context of remote and Aboriginal community service delivery and the level of skills, knowledge and experience of RANs.

The interviewees identified that risk assessment was largely based on a set of mental cues, the reliability of which increased with level of knowledge of remote area practice, knowledge of community members and community relationships developed over time. RANs without skills and experience in any one of these areas found that there was a wide variability between the level of assessed risk prior to the call-out and the actual level of risk encountered when attending the client.
Decision making tools designed to assist with clinical risk assessment are well established, and used within remote health practice. For example, the CARPA Manual is widely used to guide clinical decision making in remote health practice across the NT. However, apart from the Remote Health Atlas, decision making tools to assess safety and security in the context of remote area nursing are limited. Nor is there a standard procedure for documenting such decision making to review and learn from experiences, and for work health and safety considerations. The review found that nurses documented out of hours on-call activities in an ad-hoc manner using the ‘call-out’ log, clinic diary entries, and the Patient Care Information System (PCIS). By ‘ad hoc’, it is meant that there is no consistency in recording call-outs, or the activities relating to the call-outs. In reviewing these documents/records, the reviewers were unable to find evidence of procedures relating to documenting risk assessments for attending or not attending a call-out.

Further, an analysis of the cases of assault that arose during the review period revealed that there are also deficits in risk assessment methodology or procedures for home-visits and emergency call-outs by remote health centre staff during the day.

It appears that although progress has occurred in terms of legislation and zero tolerance policies, practices have not been formalised and documented in relation to staff safety. Staff interviewed stated that they usually considered the clinical needs of the client before their own safety.

Many RANs expressed concerns that if they did not attend an emergency call-out they could be legally liable or their nurse’s registration could be put at risk. RANs and managers were also worried about client outcomes and community responses if the client deteriorated because the RAN didn’t attend, or if there were delays while contacting a second responder.

As the most reliable source of information across all PHC centres, PCIS patient records relating to after-hours call-outs provided the review with information about the frequency of call-outs and the clinical reason for the call-outs. The records reviewed showed that there were 14,394 call-outs in the three-month period from January 1 – March 31 2016. Of those callout records, 60% occurred between 5pm and 12 midnight during weekdays and 30% of all after-hours calls occurred between 8am and 5pm on weekends. Some PHC centres have reported substantially reducing their call-out rates by implementing a roster that includes staffing the health centre until 9pm during the week and opening the health centre during the day at weekends. Of the 14,394 callouts recorded, there were only four after-hours incidents reported using the system wide risk management tool: RiskMan. This frequency represents a rate of only .03% of all after-hours callouts for that time period. However, it is possible that the low rate may reflect under reporting. It also should be acknowledged that consequences of any adverse event are potentially very high and that breaches to safety and security (e.g. violent episodes) in the instances examined were largely unpredictable.
Second responders

The Remote Health ATLAS states that:

If the situation is considered an emergency, a risk assessment is undertaken to ascertain if a responsible community member is required while urgent treatment is being carried out.

The ATLAS further states that:

...the risk assessment should include:

- whether the client and/or household has a history of violence
- whether the client is currently displaying signs of aggression or violence
- whether the client has a weapon
- whether the client is suffering from the effects of alcohol or other drugs or from withdrawal symptoms
- whether there are signs of acute mental illness such as psychosis or hallucinations
- whether there are any other doubts / concerns about the situation.

There are differing approaches to this issue currently in place in the two Health Services. In CAHS, the attendance of a second responder alongside the nurse during after-hours call-outs occurs in accordance with the ATLAS guideline as per the extract above, that is when prompted by a risk assessment. In early 2015, the TEHS Work Health Safety Committee, chaired by the Director of Nursing, PHC TEHS, determined that the lack of predictability of risk for RANs attending after-hours call outs warranted the introduction of a second on-call system whereby all health centres would have a driver, preferably a local Aboriginal person, rostered on-call to provide both physical and cultural safety. On 20 March 2015, the Committee chair issued a Memorandum to the General Managers of East Arnhem, Katherine and Darwin regions recommending the endorsement of recruiting casual emergency drivers in all TEHS remote communities and that these drivers would always be rostered first on-call with the health practitioner. The recommendation was endorsed, and the roll-out began.

To date, the on-call driver initiative has been rolled out in 19 of the 25 Top End remote health centres. Where the managers have been unable to recruit a local person, a second nurse is rostered on call. It is acknowledged that from a risk mitigation perspective this has merit, however from a rostering and financial perspective is not ideal. Further it does not provide the cultural safety and community intelligence of a local community member. The review found that this change in approach has resulted in TEHS staff reporting that they routinely use a second responder equivalent to 88% of the time, whilst CAHS staff identify that a second responder is only used for 28% of call-outs.
Critical Community Relationships

Although CAHS and TEHS have different approaches to the need for two persons to attend after-hours call-outs, the Remote Health Atlas states that the ideal second responder is a responsible member of the local community who provides for both physical and cultural safety. Where this is not possible another person fulfils the role of the driver, and if all other possibilities are exhausted, a second member of clinical staff attends.

The interviews conducted identified relationships as a clear theme and were seen as making a positive contribution to the safety of RANs.

It is well understood by experienced remote staff that safety is enhanced where strong relationships with the community exist and is further strengthened through local employment of Aboriginal staff. Building positive relationships with community members, developing a relationship of mutual respect and trust, and involving the community in identifying and implementing strategies to reduce violence, including violence against staff in remote PHC centres, has been repeatedly identified in the literature as a critical risk mitigation strategy.

Many RANs and stakeholders expressed this view during the interviews and were concerned about the low numbers of ATSIHP’s in their teams and the impact this had on the availability of local people to provide support, advice and guidance.

Both local and national members and the Executive of CRANAplus and the ANMF are strongly advocating for a second responder for emergency callouts after hours who, where possible, is a local and respected community member. Data collected during the review, and historical evidence also identifies that when local people assume this role within paid employment, there is greater engagement with the role and a high degree of respect associated with the position. This approach to service delivery provides an opportunity for improved community engagement and is consistent with NT Government and NT Health Aboriginal employment strategies. Based on the data collected during the review, the national and international literature and experiences across government in the NT, such an initiative would be of great value and is a high priority action for improving safety and security of RANs.

PHC staff reported in every phone interview, the importance of relationships with police. Concerns were raised by RANs about NT Police’s centralised governance processes that could result in significant delays in local police becoming aware of, and responding to calls to support nurses located in remote communities. Reviewing the current system of triaging all calls to NT police through a centralised call system was suggested as an urgent priority to be addressed by senior representatives of Police and Health. In line with the previous discussion of engaging with local community members, liaison meetings between police, health staff and community members was also raised by participants as a way to discuss and resolve safety issues relating to call-outs at a local level.
Recommendations – Policy Framework

1. The DoH establishes an NT wide policy and works with Health Services to update and implement guidelines to ensure that:
   a. all remote health professionals attending after-hours emergency call-outs, home-visits and business hours call-outs [collectively referred to as ‘call-outs’] are accompanied by a second responder;
   b. wherever possible the second responder is a trusted local community member employed and paid for any callouts by the Health Service and;
   c. risk-management for callouts is improved, recognising that staff safety is the first priority. This includes working with the Health Services (TEHS and CAHS) and senior NT Police to review current risk response practices and developing policies to optimise the safety and security of health staff delivering services in remote communities, particularly staff on-call after hours.

2. The DoH works with CAHS and TEHS initiate communication with the Department of the Chief Minister and other relevant Government agencies to establish mechanisms for collaboration and partnerships with remote community groups such as the local community council or equivalent, schools and non-government agencies, to share information and address local issues including staff safety and security.

3. The DoH works with CAHS and TEHS to develop and implement standardised documentation and reporting of all after-hours activity.

4. The Health Services review electronic health records to identify timing of after-hours call-outs and consider implementing changes to roster patterns and health centre opening hours that minimise call-out requirements.

Q2. Compliance with the Policy Framework

Are remote PHC managers and staff compliant with the policy framework and are there identified barriers to compliance?

Compliance

The review reveals that the level of experience in both clinical aspects of the RAN role and living and working in a remote community significantly influenced the risk assessment relating to safety and security of attending call outs. The review identified that the use of a second responder, risk assessment tools, documenting and recording callouts was ad hoc. Orientation to clinical aspects of the RAN role is well established, but there is a high degree of variation across the NT in regards to orientation to safety and security policies and procedures.

Barriers

Barriers to compliance identified across all data sources relate to a persistent high turnover of staff and despite guidance available on ATLAS with regards to safety there is a clear priority given to orientation for clinical aspects of the role. There is a lack of a standardised, mandatory
and easily accessible framework for remote staff orientation that includes staff safety, risk assessment, management of aggression and de-escalation procedures. As reported above, staff seem to focus on delivering a clinical service in the first instance. This is further reinforced when staffing shortages are addressed by engaging short term and casual nurses which leads to a significant orientation burden on longer term staff, which in the absence of a standardised framework, is highly variable.

Staff Turnover
A positive finding of this review is that PHC managers in NT remote PHC centres are largely experienced nurses with long-term careers in the remote context. It was common for these managers to have 10 years’ experience, and many had lived for 3 to 5 years in their current placement. This longevity demonstrates a high level of commitment, and consistent with research, satisfaction with remote work despite the many challenges. Also consistent with the literature these experienced nurses expressed frustration with the numbers of agency and casual nurses on short term placements. The high turnover rates create the need for managers to be constantly engaged in providing orientation and induction specific to remote health and in providing significant support for both clinical practice and social-cultural adjustment.

Compounding the turnover of casual staff, PHC managers reported lower confidence in the skills and suitability of some agency nurses on short term placements even though they have been provided on the understanding that they are experienced in the remote setting. These respondents proposed that due to a range of reasons nurses on short term placements were often more likely to respond to non-emergencies when receiving call out requests after hours. Agency nurses participating in the review confirmed that they were more likely to attend a call-out in comparison with colleagues with greater familiarity with the community. Similarly, participants in the review identified that their decision to attend or not attend a call-out was influenced by experience.

The finding that casual agency nurses are more likely to attend callouts is significant for two reasons. First, an analysis of the staffing data demonstrated that at the time of the review 42% of RANs were employed on a casual or agency contract. Second, a summary report from the PCIS data revealed that over the period 1 January to 31 March 2016 there were 14,394 on call after-hours activities. Adequately preparing staff on short term placements for call-outs is therefore of significant importance in terms of orientation to the ATLAS items relating to on-call staff safety. Unfortunately, neither the ‘call-out logs’ nor the PCIS data was suitable for providing triangulation data in this regard. While this made it difficult to verify the participants’ perceptions relating to the Remote Health ATLAS, the lack of documentation in this area compromises a manager’s ability to monitor compliance with policies relating to on-call safety.

Orientation and handover
PHC manager participants overwhelmingly reported that orientation programs need enhancement particularly relating to safety and other on call procedures including measures such as aggression management and de-escalation. The documentation audit supported this finding, with little evidence of information relating to safety beyond the Remote Health ATLAS. Moreover, there were reports that when staff changed over between placements, a handover period for new staff was not routinely included. That is, new staff arrived after the previous
staff had departed. An overlap between commencements and departures supports safety for both clients and staff ensuring that there is time available for introducing new staff to the community and the clinical setting, and for orientation to local safety procedures and equipment.

**Staffing profiles**

A review of the actual staffing and budget profiles identified anomalies between the two. In CAHS a significant number of nursing positions for PHC centres are not allocated to the specific PHC centre budget but retained within a central budget for agency and casual relief staff. Assuming a minimum of two RANs at each PHC centre, it appears that 54% of PHC centres in CAHS and 12% in TEHS have at least one of their RAN FTEs within the central budget, and 34.6% and 8% respectively have all of their RAN FTE within this budget.

Whilst there is no evidence of this accounting practice affecting the overall staffing levels, it does affect the mix of permanent and casual staff employed in remote PHC centres and the ability to ensure a consistent mix of skills and experience. It also influences broader recruitment practices. For example, the vacancy rate is calculated on budgeted full time equivalent (FTE) positions. A current vacancy rate of 17% across remote PHC nursing positions in CAHS and TEHS reflects the number of positions budgeted directly against each PHC centre. Those positions held in the centralised casual budget are not included in this calculation, and so there is no true representation of the vacancy rates. Together, these factors influence skills mix, RAN turnover and quality of orientation.

A number of review participants reported a lack of Aboriginal staff, cleaners, drivers and administrative support. A review of the paid FTE as well as budgeted FTE revealed inconsistencies between allocations of staff to PHC centres across all of these categories. In the case of ATSIHPs, as with casual nursing staff, in some instances budget for these positions is not allocated to individual PHC centres, but instead is held in the centralised budget for the ‘Back on Track’ initiative which is designed to increase Aboriginal staff numbers. The review found that ATSIHPs make up 22% of the PHC clinical staff overall, and 10% of those who participate in on-call duties. The significance of this finding is two-fold. First, ATSHIPs who have greater knowledge of local people are not readily available for the on-call roster or to assist staff unfamiliar with the community in their risk assessment. Second, having local ATSIHP people employed within the health centre is known to encourage local people to take up non-medical positions in the health centres.

There are FTE for positions classified under the Physical stream allocated to TEHS PHC centres. However, these positions are not always occupied and this has been identified as one of the reasons why a second responder has not attended in approximately 22% of call-outs from TEHS PHC centres despite the implementation of a driver as the primary second responder for all after-hours call-outs. To address this problem TEHS is drawing upon a casual employee budget. This strategy has been reported to have a number of benefits. In particular, it spreads the load of on-call across a number of people, at the same time as increasing Aboriginal workforce participation. Interview participants also identified that where this strategy has been working well, the nurses have noticed a reduction in “humbug” calls, as well as feeling more confident attending call-outs at night. Counter to concerns raised about escalating expenditure associated
with this initiative, review participants identified that costs associated with overtime have decreased in some PHC centres through the positive influence of casual drivers decreasing the number of call-outs. As outlined earlier, there is currently no reliable documentation relating to call-outs and who attends, so this positive relationship has not been verified.

The situation is not the same in CAHS. For 11 out of 26 (42%) CAHS PHC centres, there is no allocated budget for Physical positions and it is not clear whether the casual budget used for RANs can be accessed, or would extend to address the problem in the same way as in TEHS. This situation is complicated by smaller sized communities in Central Australia and therefore a smaller complement overall of RAN FTE at individual PHC centres and the fact that less than 50% of PHC centre budgets have funds allocated for two RANs.

Another concern is when there is no Aboriginal or other staff employed in a community and the remaining staffing complement is two RANs. Whilst there are technically no single nurse posts, the review identified that a nurse may leave the community for days off and not be replaced, or if replaced in this and other circumstances, there may be no overlap at the changeover as outlined previously in this report. Accordingly, a single RAN may be left alone in a community with no other support staff, or staff available as a second responder, regardless of identified risk. This is of concern and has been identified as contributing to staff turnover and burnout. This was also identified as a significant risk in the ANMF NT survey conducted in May 2016 (ANMF, 2016).

In the past a permanent pool of relief nurses was available to backfill shortages. The advantages of this practice included reduced reliance on short term casual and agency staff and familiarity with NT health policy, procedures and remote locations. This practice has been recognised by researchers (Lenthall et al, 2011) and remote PHC staff for the support it provides for permanent managers and nurses, and as a workforce retention strategy.

**Education**

The value of education programs to reduce turnover and retain staff is well supported by both research findings and during the consultations with stakeholders and managers. Both CAHS and TEHS PHC services have introduced career pathways into remote area nursing; the Nurse 3 Program has been developed in partnership with the Centre for Remote Health (CRH) in Alice Springs and TEHS is also trialing a New Graduate program and pathways for Nurse 2 PHC programs in partnership with TEHS hospitals. There is strong support across the system for 'growing our own' to reduce the use of interstate and short-term staff. Recruitment pathways that incorporate education specific to the specialty of remote and Aboriginal health, that lead to improved retention are a proactive way of addressing the workforce shortage and issues relating to operating safely in remote settings. Increasing the number of longer term staff, compared with the significant use of casual and agency short term staff contributes to reducing the overall costs of the RAN workforce; savings which could be re-directed to employment of second responders.

The work by Lenthall et al also noted how difficult it was for nurses to study, and recommended installation of internet in nurses' housing to both facilitate access to on-line resources, but also as a way to mitigate professional and personal isolation. This recommendation from the 'Back from the Edge' (2009) project saw the implementation of a financial support scheme to assist
nurses install satellite internet access. However, this initiative has had limited success due to the difficulties in organising connections, short term rotations of staff, and individual responsibilities for maintenance. More success has been achieved by models whereby the employer installs the service and the employee engages through a user pays system.

Mindfulness and self-care programs are reported in the literature as useful in building resilience (Khoury, Sharma, Rush & Fournier, 2015). Resilience has been identified as an important feature in retention and may provide a key to reducing personnel costs and stabilising health budgets (Jackson, Firtko & Edenborough, 2007). Considering the environment in which RANs are working, introducing effective resiliency programs and systems could assist with achieving cost efficiencies from a stable workforce.

**Recommendations – Compliance**

5. The Health Services revise the minimum orientation on commencement requirements for all remote PHC staff (casual and ongoing) in all remote PHC centres with regular compliance audits conducted, reviewed and actioned by District Managers. Revision of orientation requirements should involve the following actions, among other efforts:

   a. Immediate updating of existing programs to include mandatory safety, aggression minimisation and de-escalation training and procedures;

   b. Development of a standardised mandatory on-line Safety On-call Orientation package and induction program that that focus on local practices and policies; and

   c. Consider establishing as a standard arrangement, provision of employer-connected user pays internet access in remote nurses’ houses to facilitate access to on-line learning, professional networking, and resources that mitigate isolation and promote resilience.

6. The Health Services should give priority to consideration of re-establishing an expert internal relief pool of experienced ongoing tenured remote nurses. This will provide backfill and ensure that there is a second nurse available in the community. Once second nurses are phased in to operation, handover practices and relief processes should be reviewed.

7. The Health Services review staffing establishments to ensure minimum FTE for RANs, ATSIHPs and support workers at each health centre, including identifying funding for employing trusted community members as casual drivers to act as second responders.

8. The Health Services continue and intensify their efforts to implement the expanded NT Health ‘Back on Track’ strategy aimed at increasing Indigenous participation in the NT workforce. For remote PHC centres, this extends beyond Aboriginal and Torres Strait Islander Health Practitioners to include recruitment of local people into funded Physical positions, highlighting the importance of community partnerships in attracting and retaining a skilled RAN workforce.

9. The Health Services in collaboration with the DoH renew efforts to recruit and retain staff, reduce vacancy rates and reduce utilisation of agency and short term casual staff with consideration of:
a. re-directing savings to sponsored educational pathways for attracting early career nurses into RAN positions; and

b. providing long term staff with opportunities to undertake development programs to optimise personal skills and team-work capacity to prevent staff burnout and to reduce turnover.

Q3. Governance Structures

Are the current governance structures for work health and safety effective, including policy development and implementation?

The current Remote Health Atlas guideline ‘Staff On-Call Safety Considerations’ was last revised in January 2009 and it would be prudent to review it to ensure that it fully encapsulates contemporary WHS requirements. The existing guideline does not mandate a second responder and supports the practice of RANs responding to most emergency calls alone unless they identify a particular risk through an informal risk assessment process. The guideline proposes support from an identified responsible community member or other alternatives such as the Night Patrol or police. The policy places responsibility on the individual to make their own decision around risk which, depending on knowledge, experience and information available, may be highly variable. Accepted practice for emergency responders such as police and ambulance is to respond in pairs to unpredictable situations.

The Remote Health Atlas provides best practice guidance across all health services in the NT (access is also provided to ACCHOs), and prior to the implementation of the New Services Framework, content was coordinated through a Territory-wide Best Practice Committee. Implementation is monitored through the Best Practice and Continuous Quality Improvement (CQI) teams. Since July 1, 2014 when the public health system began to operate as three entities (DoH, CAHS and TEHS), and remote health centres transitioned into the Health Services, there have been difficulties in maintaining this Territory-wide coordination. In an effort to ensure consistency, the Top End WHS Committee promulgated the recommendations to CAHS PHC via the Best Practice Committee process. CAHS did not adopt the recommendations and communication on 30 March 2016 identified that the solution was to update the Remote Health Atlas to include the second on call requirement for TEHS only. It is apparent that policy development and implementation in regards to the Remote Health Atlas have become disconnected and inconsistent.

Contemporary systems include established systems for risk assessment and reporting, development of risk registers, risk owners and where necessary teams established to address risk priorities. The introduction of RiskMan as a reporting tool across the NT has added to information available and provided a system to support increased analysis and reporting. Over the data collection period, incidents were recorded in 10 of the 26 CAHS communities and 16 of the 25 TEHS communities. Some individual communities had greater numbers of recorded incidents with a range of 0 – 13 incidents per community. Some incidents recorded best practice examples of follow up counselling and debriefing with external counselling services and/or management initiatives. However, many records were incomplete with no follow up or actions recorded in 36% of the incidents in CAHS and 43% of the incidents in TEHS. In addition,
the review of RiskMan incidents in comparison to the reports from review participants identifies a significant potential for under-reporting or coding practices that downgrade the severity of an incident. For example, assaults are not always escalated beyond a low level incident because of the coding used to enter the event into RiskMan. Accordingly, whilst governance systems are in place, there is a need for further work in terms of utilizing these systems to their full potential.

WHS is an increasingly complex and important area and the review found that not all staff and managers are fully aware of their accountabilities and responsibilities in this evolving environment. In TEHS there is a part-time WHS Advisor with expert knowledge of legislation and employer responsibilities. Considering the differences in WHS responses between CAHS and TEHS the benefits of a dedicated position in both Health Services is apparent.

**Recommendations – Governance Structures**

10. The Department of Health as the system manager works with the Health Services to re-establish NT-wide governance of the Remote Health Atlas, with the first priority being to review and revise safety policies to ensure:

   a. improved WHS legislative practices;

   b. consistency in NT-wide safety policies and practices including incorporation of Recommendations 1 and 2; and

   c. RiskMan capability is fully utilised as a tool for recording incidents, activating follow-up and remedial actions, and Health Service and system-wide monitoring of incidents associated with call-outs.

11. Each Health Service allocates to an experienced WHS Advisor responsibilities for overseeing and supporting WHS practices in PHC services and providing support and advice to PHC managers.

**Q4. Infrastructure and Equipment**

What security and safety infrastructure and equipment measures are in place and if deemed necessary what are the options for enhancement?

Infrastructure and equipment have been the subject of previous reviews prompted by breaches to RAN safety and are commonly reported as issues of concern in the literature (for example Lenthall et al, 2009). Whilst the review participants identified that many nurses have felt relatively safe attending emergencies, the tragic death of a remote area nurse in remote SA has changed that sense of security for some. The ANMF survey immediately following that incident identified concerns about infrastructure and equipment as a major theme (ANMF, May 2016).

A range of infrastructure issues were evident from interviews and audits conducted for this review. Of specific importance was the finding that the majority of care in response to call-outs is delivered at the remote PHC centre. There are adequate systems in place so that few people seek assistance by calling directly at the RAN residence. An after-hours call-out generally involves the RAN driving to the PHC centre where he/she is met by the patient and family and, where applicable, a second responder. Accordingly, there is a significant reliance on personal
communication systems, safety equipment and infrastructure at the PHC centre. Location beacons and other sophisticated monitoring equipment in vehicles would contribute little to enhanced safety in this context. If there is a requirement to leave the community, such as road evacuation, then location beacons and other sophisticated monitoring equipment in vehicles would be beneficial.

Communication systems however, were reported to be frequently unreliable with 30% of communities, mainly in CAHS reporting no mobile phone coverage. Telephone and internet outages were also reported as common across the NT. Participants in this review recommended access to two-way radio systems, long range portable land-line ‘Engenius’ phones and ‘Smart’ mobile phone technology to enhance communications and safety. Smart phones rather than the currently issued basic ‘flip-phone’ were recommended to improve access to SMS, GPS and video functions in emergency situations.

Some PHC centres are trialing the use of CCTV at the health centre with monitoring in nurses’ accommodation to allow on call staff to see who is waiting at the health centre. Access to client electronic health records (EHR) via tablets in nurses’ accommodation is another initiative being trialed to improve triage through the availability of the clinical history to aid decision making. According to the Remote Health Atlas, when staff are required to leave a community to undertake an evacuation or other activity outside the community, they are to report when leaving and arriving at the destination. This system is subject to human error (i.e. forgetting to report) and was identified as unreliable by PHC managers. Other jurisdictions utilise automated procedures such as the ‘Turnstall Lone Worker’ system to monitor staff working alone. This system requires regular reporting by mobile phone and has built-in risk assessment and automated escalation procedures.

The findings of the satellite phone and duress alarm audit showed that even if equipment was audited, there were gaps in follow up and repair of identified problems. Duress alarms were not reliably tested and responder lists were often not appropriate or current. This system therefore requires urgent review and more rigorous monitoring and follow through of failures and faults by District Managers.

Inadequate doors and locking systems in remote PHC centres were also a common problem when on-call, with clients and their family members unlocking doors or leaving them open or unlocked when exiting the health centre. Suggestions were made about installing self-locking doors requiring swipe cards or keys to access. In most communities, broken or inadequate locks and security screens at health centres and security lighting at nurses’ accommodation were a common concern. There were also suggestions to have electric gates at nurses’ accommodation and health centres to reduce risk when accessing the ambulance.

With regard to vehicle fit-out there were findings from the case studies and advice from the WHS advisor that the inclusion of central locking in cars, reversing cameras, improved vehicle lighting and high beam torches would have addressed particular incidents and risk of injury to staff and/or community members when driving, especially on call-outs after dark. Most staff were of the opinion that GPS tracking and personal locator beacons should be fitted to all vehicles, although some staff did question how this would improve their safety when on-call within communities.
Recommendations – Infrastructure and Equipment

12. Each Health Service immediately addresses a number of infrastructure and equipment issues that increase risk for RANs living and working in remote communities including:

a. follow up of safety equipment audits to rectify non-functional duress alarms and satellite phones;

b. maintain up to date responder lists;

c. equip all vehicles with GPS vehicle tracking devices and high quality beam torches eg Mag torches;

d. follow up infrastructure audits to rectify deficits relating to doors, security screens, lighting and locks;

e. review essential remote communication systems to ensure that all communities have effective and reliable systems in place including back-up systems such as two-way hand held radios or long range portable phone systems;

f. investigate the benefits of a simple and inexpensive personal noise alarm for suitability and sustainability; and

g. investigate the suitability of an automated system for reporting when attending on-call and on returning, with the system being linked to standardised risk assessment, documentation and appropriate escalation procedures.

13. Each health service explores the longer term costs and benefits of safety equipment and infrastructure including, but not limited to, central locking on cars, reversing cameras, personal locator beacons, CCTV at PHC centres with monitoring and electronic health record access at RAN accommodation.

14. The role of Infrastructure Coordinator in the Health Services is reviewed and enhanced to ensure that infrastructure improvements, repairs and maintenance are investigated and prioritised, with feedback systems to inform staff of progress and action of any requests.
REFERENCES


APPENDIX 1 - REVIEW OF THE LITERATURE

The principal WHS legislation in the NT consists of the Work Health and Safety (National Uniform Legislation) Act, supported by the Work Health and Safety (National Uniform Legislation) Regulations. This legislation, which took effect on 1 January 2012, is based on the national model WHS legislation developed by Safe Work Australia in consultation with the states and territories. The Work Health and Safety (National Uniform Legislation) Act (2014) provides a framework to secure the health and safety of workers and workplaces including minimising risk of harm. Managers and employees have a mutual responsibility to jointly manage the health, safety and wellbeing of all persons in the workplace.

Work Health and Safety (National Uniform Legislation) Act (2014) Section 18, states that employers must do what is reasonably practicable to ensure the safety of their workers. Reasonably practicable is defined in the legislation as doing what ‘is reasonably able to be done’ to ensure health and safety after consideration of all relevant matters. Relevant matters include consideration of the likelihood of something occurring and the degree of harm that might occur. Accountability rests with the employer to ensure that work practices, policies and procedures are in place to minimise risk, furthermore employees are not required to place themselves at risk in the performance of their duties.

A worker may cease, or refuse to carry out, work if the worker has a reasonable concern that to carry out the work would expose the worker to a serious risk to the worker’s health or safety, emanating from an immediate or imminent exposure to a hazard (Part 5, Division 6, Section 84).

The WHS Regulations also require that duty holders must:

...identify reasonably foreseeable hazards that could give rise to risks to health and safety (Chapter 3, Part 3.1, Section 34).

It also states that a duty holder must eliminate or minimise risks so far as is reasonably practicable (Section 35). Part of eliminating risk is to ensure that adequate and suitable training and education is in place to ensure staff can safely carry out their work responsibilities and is defined in the Regulations (Chapter 3, Part 3.2, Division 2).

The International Council of Nurses (ICN) in 2006 reported that nurses suffer from societal and legal tolerance of violence and has been seen as being expected by both society and nurses themselves (ICN, 2006). Perrone in 1999 (cited by Opie et al., 2010) described the health industry as one of the most violent industries in Australia. Gallant-Roman (2008) reported that nurses experience workplace violence at a rate four times greater than the average worker.

In a 2010 study, the authors reported that 79.5% of RANs experienced verbal aggression, 31.6% experienced property damage, and 28.6% suffered physical abuse, which is double the rate against urban health professionals (CRANplus Issues Paper; Opie et al., 2011). These experiences are believed to factor into the recruitment and retention of remote nurses with two-thirds of nurses surveyed by Opie et al. (2011) feeling concern for their safety (Fisher et al. 1996; Opie, 2011).

McCullough (2012) identified the following training measures with potential to reduce the risk of violence towards RANs:

- De-escalation techniques
Remote Area Nurse Safety

- Risk assessment
- Cultural safety.

The importance of community collaboration in the development of orientation programs, safety plans and addressing violence within the community was also recommended from her research.

In its Issues Paper CRANAplus has identified five key priority areas:
- A zero tolerance approach to violence and aggression towards the remote workforce;
- All after hours call-outs are accompanied;
- The development and implementation of minimum safety standards and training;
- Employers to ensure that remote structures, policies and systems are in accordance with WHS legislation; and
- Single nurse/clinician posts are poor practice and should be avoided.

The ANMF NT supports these views and currently has a campaign called 'Keep RANs Safe, RANs must b2 or more' and has published the following statements and links on their website:

ANMF NT has been seeking changes to staffing arrangements for Remote Area Nurses for several years and continues to advocate for improved working conditions.

Lenthall et al. (2011) noted the relationship between increased stress among permanent staff and the increase in vacancy rates and use of agency and short term staff. Permanent staff reported experiencing anxiety about the skills and knowledge of many short term and agency staff and suffered from 'orientation burnout' due to the continuous orientation of new staff. Recommendations from the 'Back from the edge' research included strengthening of the casual RAN relief pool and establishing a pool of permanent relief positions (Lenthall et al., 2011).

Various reviews have also reported the importance of professional development and its effect on recruitment and retention. A lack of continuing ongoing professional development was identified among other factors as a displeasing workforce factor (Kennedy, 2003 cited by Opie et al., 2011). Dade-Smith (2004) also identified a lack of opportunities for professional development as 'most unsatisfactory'. The 'Back from the edge' research (Lenthall et al., 2011) identified the education of RANs as a priority issue.

Lenthall et al. (2009) in exploring the stresses experienced by RANs, identified interventions to address this in the remote context and identified key areas where resources can be enhanced to better meet the high level of need. These are:
- adequate and appropriate education;
- training and orientation;
- appropriate funding of remote health services; and
- improved management practices and systems.

Building positive relationships with community members, developing a relationship of
mutual respect and trust, and involving the community in identifying and implementing strategies to reduce violence, including violence against staff in remote PHC centres, has been repeatedly identified as a critical risk mitigation strategy (Dade-Smith & Cliffe, 2016; McCullough, Lenthall, Williams & Andrew, 2012; Lenthall et al. 2011; Urbis, 2012; Working Safe in Rural and Remote Australia, n.d.). Engaging the community through early and sustained consultation, education programs aimed at addressing family and parenting skills, involvement of respected community members as ‘champions’, ‘two way’ education including cultural safety, and increased numbers of community employees have all been advocated for improving community-staff relationships.

Building resilience in the nursing workforce may provide a key to reducing personnel costs and stabilising health budgets (Jackson et al., 2007).

Nurses’ occupational settings will always contain elements of stressful, traumatic or difficult situations, and episodes of hardship. Therefore, combating these adverse effects through minimizing vulnerability and promoting resilience has the potential to impact positively on nurses' daily experiences (p7).

Furthermore ‘Mindfulness’ training in supporting resilience has been found to reduce burnout and improve supportive relationships, team work and client outcomes (Khoury, Sharma, Rush & Fournier, 2015; Querstrest & Cropley, 2013). Jackson et al. (2007) argued that providing programs to build resilience within nursing can make an important contribution to workforce stability. They suggested that it is ‘not only possible but favourable to build resilience as a strategy for assisting nurses to survive and thrive’.
### APPENDIX 2 - PHONE INTERVIEWS CONDUCTED

<table>
<thead>
<tr>
<th>Central Australia</th>
<th>Date Interviewed</th>
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<th>Date Interviewed</th>
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<tbody>
<tr>
<td>Alcoota (Engawala)</td>
<td>28 April 2016</td>
<td>Adelaide River</td>
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<td>Ali Curung</td>
<td>21 April 2016</td>
<td>Alyangula</td>
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<td>Apatula</td>
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<td>Angurugu</td>
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<td>Bonya</td>
<td>28 April 2016</td>
<td>Batchelor</td>
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<td>Canteen Creek</td>
<td>29 April 2016</td>
<td>Belyuen</td>
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<td>Docker River</td>
<td>27 April 2016</td>
<td>Bickerton Island</td>
<td>28 April 2016</td>
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<tr>
<td>Elliot incl. Barkly mobile</td>
<td>20 April 2016</td>
<td>Borroloola</td>
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<td>Epenara</td>
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<td>Haasts Bluff</td>
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<td>Tara (Neutral Junction)</td>
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<td>Palumpa</td>
<td>18 April 2016</td>
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<td>Ti Tree incl. Six Mile</td>
<td>28 April 2016</td>
<td>Pirlangimpi</td>
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<td>Tjikikala</td>
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APPENDIX 3 – STRUCTURED INTERVIEW TOOL

Safety in Remote Primary Health Care On-Call services.

Interview Questions

1. What is the process at your clinic for community members to call out a staff member after hours?

2. What factors do you take into account when making the decision to go on a call out or not after hours?

3. What supports are there in your community for the safety of health centre staff undertaking after hours call out?

4. What strategies have you tried to reduce call outs in your community?

5. How did your orientation and induction prepare you for after-hours call outs?

6. How does the infrastructure and safety equipment at your health centre impact on your safety during after-hours call outs?

7. Suggested improvements and any other comments.
APPENDIX 4 - EXTERNAL AND INTERNAL STAKEHOLDERS

EXTERNAL STAKEHOLDER GROUP

Charles Darwin University
Flinders University
Centre for Remote Health
Nursing recruitment agencies
Council of Remote Area Nurses of Australia (CRANA plus)
Australian Medical Association
Australian Nursing and Midwifery Federation
Aboriginal Medical Services Alliance of the Northern Territory.

INTERNAL STAKEHOLDER GROUP

Work Health and Safety
Nursing Recruitment
Senior Management within CAHS and TEHS (including Medical, Nursing and Aboriginal Health Practitioners)
Clinical support
Clinical Education

The second internal stakeholder forum was organised for the Continuous Quality Improvement Officers from CAHS and TEHS and capitalised on the fact that these staff would be present in Darwin on 19 May to attend another meeting.
APPENDIX 5 - MANAGERS' WORKSHOP

TEHS Managers' Workshop – held Casuarina Plaza on Thursday 12 May

Darwin Region; General Manager PHC – Darwin Region; General Manager East Arnhem; General Manager Katherine; Director Medical Services PHC; A/Director of Nursing and Midwifery PHC; A/District Manager East Arnhem South; District Manager East Arnhem North; District Manager Katherine; District Manager West Arnhem and Maningrida; A/District Manager Top End West; A/District Manager Prison and Watchouse.

CAHS Managers Workshop – Sitzler Building Wednesday 11th May

General Manager PHC; General Manager Barkly Region; A/Deputy General Manager PHC; A/Executive Director of Nursing and Midwifery CAHS; Director of Nursing and Midwifery PHC CAHS; A/Director ATSIHP’s CAHS; District Manager Southern; District Manager Northern; District Manager Central; District Manager Prison and Watchouse; 2 x Outreach Managers.
Department of Health

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