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MAPPING THE PREVENTIVE HEALTH WORKFORCE – OVERVIEW REPORT

Rose Ryan
Gail Power
Garima Verma
Serena Yu

Workplace Research Centre
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Acronyms

ANPHA	Australian National Preventive Health Agency
ACCHS	Aboriginal Community Controlled Health Services
CDPU	Chronic Disease Prevention Unit
FASD	Foetal Alcohol Spectrum Disorder
GWS	Greater Western Sydney
HPU	Health Promotion Unit
KAHPF	Kimberley Aboriginal Health Planning Forum
KAMSC	Kimberley Aboriginal Medical Services Council
KHPU	Kimberley Population Health Unit
KPML	Kimberley/Pilbara Medicare Local
LHD	Local Health District
NGO	Non Government Organisation
NPHP	National Public Health Partnership
PHSSR	Public Health Systems and Services Research
SWSLHD	South Western Sydney Local Health District
WACHS	Western Australia Country Health Services
WSLHD	Western Sydney Local Health District

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EXECUTIVE SUMMARY

This report puts forward a framework for collecting data about preventive health activities and the workforce that is delivering those activities. It is a project that was undertaken over the course of 2013-14 by the University of Sydney's Business School (Workplace Research Centre) on behalf of the Prevention Partnership Centre; for the Australian National Preventive Health Agency.

What is preventive health?

Preventive health activities are those that are designed to reduce the likelihood that something harmful to health will occur; or to minimise that harm if it does occur (National Public Health Partnership, 2006). It focuses on those health problems which are known to be amenable to intervention; and requires the identification of modifiable risk and protective factors, and the implementation of strategies to eliminate or reduce risk factors and maximise and increase protective ones.

The preventive health workforce comprises those people working in organisations that provide collective preventive programmes and campaigns for specific groups of individuals or the general population. Examples include public health departments, epidemiological surveillance and disease control centres, health promotion agencies, centres of public health education with activities involving the promotion of healthy lifestyles, healthy food and diets, and occupational health and safety networks.

What did this study involve?

The research was designed to pilot a data collection framework to map the preventive health workforce. A draft framework, constructed from a review of the literature was constructed in two contrasting locations – Greater Western Sydney in NSW and the Kimberley region in Western Australia. The draft framework was tested through interviews, focus groups, workshops, and reviews of documentation in the two regions.

What were the key findings?

The draft data collection framework proved to be useful. However, it pointed to the need to understand preventive health in a systemic way, including how the interface with other parts of the health sector, and other sectors, operate.

The preventive health system includes core activities such as immunisation, screening, and health promotion initiatives directed at both target groups and the general population. Some of these are delivered by organisations whose primary purpose is health related. However, increasingly health agencies are developing partnerships with other organisations operating in different settings - such as schools, community organisations and workplaces - to deliver preventive health messages.

In addition, some organisations whose primary purpose is not health-related have been thinking about the relationship between their work and health outcomes for the people that they engage with. This has led to new thinking in the preventive health space. Educational institutions, workplaces and communities are engaging in discussions about how they can contribute to improving the health of children, adults, families and communities.

Similarly, other organisations are considering the way in which their work contributes to the capacity for people to live healthy lifestyles. Local government authorities are taking greater account of the need for green space, providing incentives for more active travel, and developing recreational facilities. New thinking around the built environment is also looking at these issues together with

opportunities to reduce sedentary behaviour. Not for profit and philanthropic organisations are also considering health issues as part of their strategic and operational goals.

The way in which the preventive health workforce needs to be understood in a wider context led to a revision of the draft framework as it was initially constructed. The revised framework takes account of the need to understand a range of variables associated with:

- Actors: The organisations that provide preventive health services and the people that they employ. Who are they? Who do they employ? What is the demographic profile of their workforce and what capabilities do they bring to the job? How are they funded? How are they governed?
- Activities: What preventive health activities do they undertake? How much organisational resource is dedicated to these activities?
- Relationships: Who do they engage with around preventive health activities? Are they formal or informal relationships? What is the nature of the relationship?

The data collection framework identified a range of variables that can be gathered to answer these questions. It is designed to be flexible and to be customised to the particular purposes to which it can be put – whether these are based on questions around a particular geographic region or a project.

An implementation manual, has been prepared as an accompanying document to this report. It provides easy-to-read assistance for data collection, based on the experience of the researchers in collecting data for this project in Greater Western Sydney and the Kimberley.

1. INTRODUCTION AND BACKGROUND

This report puts forward a framework for collecting data about preventive health activities and the workforce that is delivering those activities. It is a project that was undertaken over the course of 2013-14 by the University of Sydney's Business School (Workplace Research Centre) on behalf of the Prevention Partnership Centre; for the Australian National Preventive Health Agency.

The context for the project was the significant investment that has been made by successive governments, at both State and Federal level, in building preventive health capacity. In 1997 Australian Health Ministers established the National Public Health Partnership (NPHP) with the broad objective of improving the public health effort through enhanced collaboration and coordination, and strengthened public health infrastructure and response capacity (NPHP, 1998). The work undertaken by this group was wide ranging and included public health priorities of healthy weight, injury prevention, environmental health and Aboriginal and Torres Strait Islander health.

A focus on prevention was continued through the National Partnership Agreement on Preventive Health; and further developed through the Preventive Health Strategy and the work of the Preventive Health Task Force in 2009. This included a specific focus on workforce development. An initial study (Human Capital Alliance, 2011) noted the difficulties in quantifying the preventive health workforce outside some core roles (such as Public Health Nurses and Public Health Physicians) where registration requirements provide easily accessible statistics. Based on membership of professional bodies (such as the Australian Health Promotion Association; and the Public Health Association of Australia), a workforce broadly in the range of 1300 – 2000 was estimated. However the audit concluded that it was impossible to estimate the size of the indirect workforce that might be engaged in preventive health activity. This, in large part, is a result of changes in the definition of preventive health that has occurred over time; and recognition of the wide range of occupations that contribute to delivering preventive health messages. This study is an attempt to map the scope and contours of that indirect workforce, identify the ways in which it contributes to delivering preventive health and public health messages, and consider the relationship between the direct and indirect workforces.

DEFINING PREVENTIVE HEALTH¹

Preventive health activities are those that are designed to reduce the likelihood that something harmful will occur or to minimise that harm if it does occur (National Public Health Partnership, 2006). It focuses on those health problems which are known to be amenable to intervention; and requires the identification of modifiable risk and protective factors, and the implementation of strategies to eliminate or reduce risk factors and maximise and increase protective ones. Internationally accepted definitions differentiate between different types of preventive health care, as being primary, secondary or tertiary in nature (OECD, Eurostat, WHO, 2011).

¹ There is considerable debate in the literature about the distinctions between preventive health, health promotion, population health and public health. Rather than rehearse these arguments in this report, we have relied on the internationally agreed definition of preventive health contained in the OECD, Eurostat and World Health Organisation classification for the System of Health Accounts (2011). This draws a clear distinction between preventive health and other health activities, determined according to whether the primary purpose of the activity is health promotion. In this context, health promotion is defined as: “... *having the primary purpose of risk avoidance, of acquiring diseases or suffering injuries which can frequently involve a direct and active interaction of the consumer with the health care system.*” We recognise, however, that across Australia, a variety of terms are used and that these can vary from jurisdiction to jurisdiction.

- Primary prevention: measures aimed at avoiding diseases and addressing risk factors in order to: reduce the onset of a disease, diminish the number of new cases, and anticipate the emergence and lessen the severity of diseases.
- Secondary prevention: interventions aimed at the detection of disease and then therapy as early as possible, e.g. via screening. Secondary prevention thereby increases opportunities for less costly and invasive interventions in order to prevent the progression of the disease and the emergence of symptoms.
- Tertiary prevention: aimed at reducing the negative impact of an already established disease or injury by attempting to avoid worsening or complications.

Preventive health interventions may be targeted to individuals, population sub-groups or the whole population. They include:

- Information, education and counselling programmes
- Immunisation programmes
- Early disease detection programmes
- Healthy condition monitoring programmes
- Epidemiological surveillance and risk and disease control programmes
- Preparing for disaster and emergency response programmes.

WORKFORCE ISSUES

The System of Health Accounts defines preventive health care providers as being those who:

“... provide collective preventive programmes and campaigns/public health programmes for specific groups of individuals or the population-at-large, such as health promotion and protection agencies or public health institutes as well as specialised establishments providing primary preventive care as their principal activity. This includes the promotion of healthy living conditions and lifestyles in schools by special outside health care professionals, agencies or organisations”

(OECD, Eurostat, World Health Organisation, 2011: 145)

Examples include public health departments, epidemiological surveillance and disease control centres, health promotion agencies, centres of public health education with activities involving the promotion of healthy lifestyles, healthy food and diets, and occupational health and safety networks.

The breadth of preventive health activities make obvious the difficulty of clearly quantifying the workforce, including as it does a range of roles working at both individual and population levels. In addition, the demarcation between preventive health and other workforces is blurred (Ridoutt et al, 2002; Human Capital Alliance, 2011) as a result of there being:

- a variety of occupational groups whose knowledge, skills and attributes overlap extensively;
- a variety of organisations (public, private and community sectors) and initiatives which require a range of workforce capabilities;
- multi-disciplinary workforces (e.g. medicine and nursing) with specific capabilities but without formal preventive health training, and whose contribution to preventive health may be ‘part time’; and
- unclear delineation between functions and titles exacerbated by a lack of credentialing requirements. (Ridoutt et al, 2002).

Interest in better understanding the range of occupations and roles delivering preventive health services, with a view to improving future capability, was at the heart of this project. A key part of the approach being taken is recognising the need to take a systems approach to the preventive health

workforce. This gives recognition to the fact that earlier stages of the preventive workforce project found a general agreement amongst preventive health stakeholders about the need for a better understanding of the workforce involved in delivering preventive health services in a broader sense. Thus, this project has focussed at an organisational level, including those organisations where preventive health activities are a core part of what they do (even though preventive health services may sit alongside other activities – such as in GP practices) and those organisations that are primarily established for a different purpose, but who play a role in delivering preventive health services (e.g.; schools) or whose activities influence the extent to which individuals can live healthy lifestyles (e.g. urban planners).

Internationally, there has been increasing interest in public health workforce issues over recent decades, as part of the rising interest in public health systems and services research (PHSSR). A seminal article in 2009 (Crawford et al, 2009) identified eight key research themes:

- The size and composition of the public health workforce
- The effectiveness of the workforce in impacting on population health
- Forecasting demand for the public health workforce
- Development and implementation of policy initiatives to strengthen the public health workforce
- Diversity within the public health workforce
- Issues related to recruitment, retention, turnover and retirement
- Education and training and qualifications
- Pay, promotion, performance and job satisfaction.

These research themes are highly relevant to the current project. As is most often the case, those questions related to quantification are those that are most frequently undertaken. However, as a recent report on strategies for enumerating the United States government public health workforce makes clear, counting heads is not enough to gain an understanding of workforce issues. It notes that:

“In simple terms we need to know who, trained in what, is practicing where and in what types of settings and how workforce differences affect health”

(University of Michigan et al, 2012)

It is clear that preventive health activities are being carried out in communities and in organisations that do not have preventive health as their primary purpose, and by individuals who do not necessarily have a health background or qualifications. In this report we refer to those organisations as being “non-core”. In an American context, this system has been found to include private non-profit associations, educational institutions, the personal health services industry, private-sector industry, community-based organisations, other public sector agencies and official governmental public health agencies (Van Wave, Scutchfield and Honore, 2010). A key finding from this research, however, is that these individuals and organisations may see themselves quite explicitly as having a direct impact on the health outcomes, and they make up a key part of the preventive health “system” that operates within Australia. The data collection framework that was but as part of this project helps us to understand this wider system in which the preventive health workforce operates, and the skills and capabilities that they bring to this work.

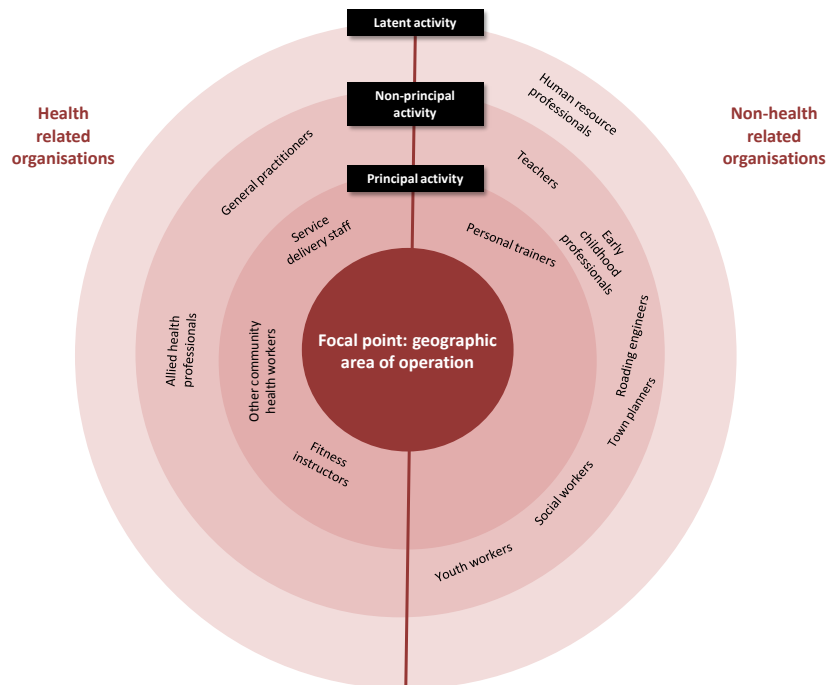
PROJECT OVERVIEW

On the basis of previous research, an initial framework was built on the basis that the preventive health workforce is working in organisations that can be segmented according to whether or not preventive health is the principal activity of the organisation. This segmentation can be characterised as follows:

- Core organisations where preventive health is a **principal activity**: those whose core concern is the provision of preventive health programmes targeting specific groups of individuals or the population generally. It includes organisations where preventive health may be only part of a continuum of health services provided (e.g.; primary health care/nursing providers), but preventive health is recognised as an intentional activity.
- Non-core organisations where preventive health is **not a principal activity**: those who provide preventive health benefits as an ancillary outcome of their main operations, including workplaces, schools, and local government.
- Non-core organisations where preventive health is a **latent activity**: those who could engage in preventive health activities but are not currently engaged, or are engaged peripherally (e.g.; unions, workplaces)

Figure 1 illustrates these levels of preventive health activity, and provides examples of the organisations involved. The levels of activity are centred on a geographical unit of analysis.

Figure 1. Domains of engagement in preventive health activity



As noted above, a key focus for this project is engaging with the notion that a considerable proportion of preventive health work is undertaken by people employed in occupations that do not have preventive health or health promotion activities as their primary purpose. Accordingly, an understanding of the nature and scope of the preventive health services that the non-health workforce deliver; and the interactions that they have with health professionals, is necessary to have a complete understanding of the system within which preventive health activities are carried out.

The questions to be answered by this project relate to the scale and scope of the public health workforce, broadly defined, at a regional level. It seeks to address the following questions.

- What prevention activity (primarily primary and secondary prevention) occurs at a local level in respect of preventive health? (Activities)
- Who is undertaking this activity and in what organisations, and in what institutional settings, do they work? (Actors)

- How do the direct and indirect workforces work together to deliver preventive health services? (Relationships)

The approach taken to the project involved mapping the workforce as part of a localised network for delivering preventive health services in two contrasting geographical areas. Details of how this was done are set out in Appendix One, and at various points in this report, but used qualitative methodologies, based on ideas drawn from network analysis and stakeholder analysis. The primary unit of analysis was organisational, with individuals being interviewed by virtue of their role within the broader preventive health system.

STRUCTURE OF THIS REPORT

The remainder of this report is in three sections. Summary case study findings from the two areas where the workforce data collection framework was tested are contained in Section Two. Section Three provides an overview of findings related to the preventive health workforce (actors), the nature of preventive health activity (activities) and relationships between the direct and indirect workforces (relationships). Finally, in Section Four, the implications of the findings for refining the workforce data collection framework are laid out, outlining the range of variables to be considered when using the framework in local areas. It is noted that the framework is designed to be flexible in its use, and able to be customised according to local needs and purposes. To this end, an implementation manual to provide guidance to those making use of the framework has been prepared as an accompanying document to this report.

2. CASE STUDIES

GREATER WESTERN SYDNEY

Western Sydney was the first regional setting used to inform the refining of the framework. The research commenced with a focus on the Western Sydney Local Health District (LHD) region. However it became clear that activities within this region involved a complex array of organisations and relationships spanning numerous geographic areas.

Greater Western Sydney (GWS) is predominantly covered by the Western Sydney LHD (WSLHD) and the South Western Sydney LHD (SWSLHD). These are some of the largest health districts in NSW, and cover a culturally and linguistically diverse population of over 1.7 million people, including large Aboriginal populations. These are also some of the fastest growing districts in NSW, estimated to grow by 20 per cent to over 2 million residents by 2021. Both districts have significant pockets of socioeconomic disadvantage, and also face large chronic disease challenges. (WSLHD 2013a; SWSLHD 2013, 2014).

A number of policies influence preventive health activities in Greater Western Sydney. These stem from national, state and local government policies, as well as the goals of non-government organisations (NGOs). In particular, at the time the research was conducted, federal initiatives under the previous Commonwealth Government's *National Partnership Agreement on Preventive Health*, which focused on obesity, alcohol and smoking included funding for a number of preventive health activities. State priorities also place emphasis on preventive health, and chronic disease targets are reflected in the NSW 2021 state plan (NSW Government 2011) and the *NSW Healthy Eating and Active Living Strategy 2013-2018* (NSW Health 2013a).

The national and state contexts particularly influence LHDs to implement programs such as the Healthy Children Initiative, Healthy Workers Initiative and the Get Healthy Information & Coaching Service. Local factors and existing partners drive preventive health to a lesser degree, particularly where they do not easily link to an overarching strategy and there is difficulty finding funding.

The workforce

The preventive health workforce in GWS operates from within both core and non-core organisations. Core organisations tend to comprise mainly people from health and community services backgrounds, and are supported to deliver programs by those with expertise in marketing, IT, evaluation, and administration. Many organisations have this expertise in-house, while others (particularly smaller organisations) have support provided through contracted services. It includes staff working within LHDs on health promotion and a large number of NGOs. Backgrounds span a range of health sciences disciplines including health promotion/public health, nursing, nutrition/dietetics, exercise and sports science and teaching. The workforce tends to be predominantly female, and includes people across a wide span of ages. Within NGOs there are also large number of volunteers, including interns and graduates seeking experience.

Core preventive health workers tend to stay within preventive health, moving between government and NGO roles as well as well as undertaking private practice supported by their education (e.g. nutritionists). Within the Government sector, there is also movement from operational to policy roles. Uncertainty around long term funding results in some employment insecurity, across both government and NGO sectors.

...just having that fear that there won't be a position at the end of the contract, I started doing private practice work on the weekends just to make sure that I have those skills as well as health promotion skills. I don't know that there are really all that many permanent health promotion positions. I would really like to stay in it...so I guess, just keeping my options open, I want to make sure that I'm skilled in both areas. (Employee)

The non-core workforce identified through this research includes a wide range of occupations working a number of very different organisations. Three main types of workers were identified:

- 'Champions' who drive preventive health message activities, and often have a health background or an interest. Many champions are in positions of strategic influence, and include managers of businesses or worksites; senior officials in transport departments and councils; and peak bodies for industries or professional organisations.
- Other professionals who engage with target populations often have expertise in the settings through which they engage, e.g. teachers, doctors. These can play an important role in identifying preventive health needs and referring people to specific programs.
- Other specialist non-core workers who engage specific populations through needs-based work, such as youth workers, CALD workers; domestic violence support workers. Preventive health can often align with the package of services required to holistically support such at-risk groups.

One of the key issues to emerge through the research undertaken in GWS was that the changing nature of preventive health has led to a shift in skill needs and work expectations, especially for workers trained under different policy settings. The move away from program delivery tailored to local health needs to broader population approaches and state-wide implementation, as well as high levels of auditing and program evaluation, has had a particularly significant effect.

...a workforce which 25 years ago it was all about doing your individual little things and so I think there's a little bit of change management difficulty in terms of going from 1,000 flowers blooming to a state wide implementation etc. So for some they find that really difficult and stressful, especially since we're monitoring, but they're meeting their benchmarks and people are finding that difficult because they're not used to having had such a strong light shone on the work that they do. (Manager)

Within this changed environment, preventive health workers both within government and NGOs undertake a diverse set of activities when engaging with the range of stakeholders involved. A workshop held with LHD Health Promotion Officers in the course of the research identified the following capabilities as being core to the work that they do:

- Raising awareness
- Increasing knowledge/Translating evidence and brokering knowledge/remaining informed
- Building partnerships/capacity building/understanding what drives partners/Training others
- Putting theory into practice/evidence building
- Research, developing, implementing and evaluating projects
- Negotiating and listening/influencing and lobbying
- Ensuring that strategies/initiatives are sustainable
- Role modelling/putting things into practice
- Providing access to programs
- Facilitating and delivering programs

Key skills at a strategic level relate to relationships and partnership building. In particular, emphasis was placed on understanding partners' organisations and their cultures. An important skill is to identify common interests using a strength-based approach to see where programs can fit with existing priorities. This also requires persistence, resilience, and the ability to communicate preventive health aims in tailored, accessible language.

You don't want to necessarily throw in something completely different for them, but things that people have some level of comfort with...even if it is something new, I might just sort of show them how it's not that much different from what they do... they can see that they don't have to build something from scratch but you know, they're already halfway there.
(NGO)

Activities are undertaken in the face of limited resources, a dynamic environment, and competing objectives for the organisations with which core LHD staff are working. It requires strong communication and interpersonal skills, persistence and resilience to motivate partners. Depending on programs, workers might also need cultural sensitivity and political awareness. The work of health promotion officers was described by one interviewee as 'getting things done'.

...you've got to roll out something, but it's often about bringing people around the table who might be influencers, who might be implementers...and you orchestrate that, and still have to deliver something at the end...(Health Promotion employee)

...you have to become creative and learn about trying to match people. And really get the best out of something that's quite small, or try and connect things that will help create something, where everybody's in the same boat. No-one's really coming into giving out a whole lot of money. (Health Promotion employee)

Core workers engaged in program delivery not only require content and program knowledge, but need to actively display strong interpersonal skills, cultural sensitivity, empathy and emotional intelligence to engage people. Resilience and persistence are also important attributes, particularly for those making and following up individual referrals and delivering front line services.

I think enthusiasm and to being able to sell the need for it. To be able to communicate with the groups and make them realise that this is something that they can do for themselves...Being appropriate, you know, you do think that people might be self-conscious, you do take them off to have their waist measured and things like that...you play it right so that it is appropriate, that people feel comfortable, that they feel you're a friend, and that you're offering something of benefit. (Health worker)

...incredible persistence, because we'll get GP's referring people in, you've got to hound them, ...a lot of teams turn themselves inside out chasing people up...getting them along, getting them teed up and so on, you've got to be pleasant and persistent. (Health worker)

...say for example, a nurse is screening people, one of the things is that these people have been in this condition for many years, and you have to strike at the time when they are ready to change...So it's really kind of being able to sell, sell the need and also be at a time when they're ready to change. (Health worker)

Content knowledge was also seen as being necessary for people working in both core and non-core organisations, although the level of depth or detail needed varied according to the roles being played. The majority of core workers engaged with for this research had spent their careers (so far) working in preventive health or other health related jobs (such as nursing, nutrition and dietetics). A considerable number were highly qualified with specialist university level qualifications, including qualifications at Masters Level or higher. Staff from other backgrounds often undertook specific health promotion training, including certificate and diploma level TAFE courses. In-house or on-the-job training and development was often provided to improve on these core skills, as well as gain other relevant skills e.g. program-specific skills, cultural competence. Key general skill gaps identified include project management, data literacy and understanding the political process influencing preventive health.

Outside the core workforce, a factor common across non-core workers engaged is an attitude open to exploring how preventive health fits with their organisational/professional goals, as well as the capacity to engage. This can depend on workloads, personal characteristics, interests and background. Some training in content knowledge is often needed by people delivering programmes or

activities in other settings. This is usually on an as needed basis, for example, to teachers or community workers, to directly deliver programs and ensure they keep to the program's messages. This is necessary to ensure consistency across settings, that messages are evidence based, and assists program evaluation.

...we like to go and work with those people who have that same training so that we can be confident that when they're out in the public, they're promoting the government guidelines as opposed to you know, their own beliefs ...(NGO)

...[the training] goes for two days, and that's sort of mandatory...One day as a nutrition based training and one day as a physical activity based training... they do an on line training beforehand as well...I also get the project officers to provide them quite a bit of support. So one of the girls would be out there helping them, you know, going through things, any questions we would ask them as well. They've got all the manuals, so they knew what to deliver...(Manager)

They don't need to be nutritionists, we provide them with all of the materials that they need to actually deliver the workshops... they just need the skills which is, that they enjoy public speaking, that they're good facilitators of groups...And if they get any questions or anything that they can't answer, we really stress that they need to admit that they're not an expert in nutrition and that they don't know, and all questions can be referred back to me or they just get their numbers and I follow them up. (NGO)

Activities and services

The preventive health services in GWS are varied, and are funded from initiatives being implemented to State and federal priorities. Both the WSLHD and SWSLHD have population health centres, which deliver on a range of activities from research and evaluation to health promotion and screening. Dedicated health promotion units within these centres deliver (or contract for the delivery of) a range of chronic disease prevention programs including: healthy weight, nutrition and physical activity; tobacco control.

Health promotion officers most commonly work in collaboration with other organisations both within and outside the health sector to disseminate evidence on what works in relation to preventive health activities, and to equip people in those organisation to deliver health promotion messages themselves. They also engage with non-core organisations interested in promoting healthy lifestyles (e.g.; built environment researchers, local councils). There is a focus on delivering programs to large target population groups, and programs and that can be scaled up and replicated in other areas. The table below illustrates some key time-limited activities of the WSLHD's Health Promotion Unit to support its long term goal. Each of these activities are evaluated, and progress is measured against specific targets.

Table 1: WSLHD key activities

Long term goal: 'Improved health and hospital avoidance for residents living within the boundaries of the WSLHD'	
Key short-term activities, settings and populations	
Healthy Weight Plan	<ul style="list-style-type: none"> • Healthy Children's Initiative: schools, early childhood centres • Healthy Workers Initiative: workplaces, workers • Increasing Healthy Food Access: food outlets in health facilities, within Parramatta, and at TAFE institutes • Increasing Physical Activity: Active Design Guidelines for councils • Diabetes Prevention: screening CALD and high-risk groups • Get Healthy Coaching: WSLHD residents

Tobacco Control Plan	<ul style="list-style-type: none"> • Quit 4 New Life: focus on women, pregnant women and their families • CALD Smoking Project: working with NGO clients • Smoke-free Mental Health Clients: designing and implementing plans • Smoke-free Aboriginal Community: designing and implementing plans • Smoke-free environments: designing and implementing plan at WSLHD • Smoke-free campaigns
Falls Prevention 65+ Years Plan	<ul style="list-style-type: none"> • Stepping On Program • Fit & Strong Challenge • Community Exercise Access • Aged Day Care Program • Acute Care Facilities
Equity Gap Plan	<ul style="list-style-type: none"> • Cervical Screening — increasing access for women • Domestic Violence — adolescents participating in ‘1 Billion Rising’ program; increasing number of women screened and referred to appropriate services • Equity Lens — all health promotion programs assessing their impact on equity; implementing schools equity framework and extending to other programs; all programs have considered Aboriginal and high-risk CALD groups

(WSLHD 2013b)

Relationships

There was common agreement across government and NGOs that relationships and partnerships are an essential part of effective delivery of preventive health services. Clinical professionals are often involved in preventive health services through their face-to-face engagement with populations. For example, GP clinics and hospital departments can be a setting for screening, and source of referrals into preventive health programs.

NGOs are also an important partner. Within GWS NGOs are contracted to deliver government programs e.g. the NSW Healthy Kids Association helps deliver Munch & Move resources (Healthy Kids Association 2014), while YFoundations is engaged to deliver the YHunger nutrition program to homeless youth (Healthy Kids Initiative 2014b).

In addition to those organisations conducting preventive health activities in line with government priorities, there are also a number that independently provide general healthy lifestyle programs and services. These include insurance companies, wellness providers, gyms, Out of School Hours Care providers, and management consultancies. In particular, corporate health providers often work directly with individual businesses and industry groups, often in partnership with insurers and superannuation funds. Non-core providers may be engaged as strategic partners, and/or to facilitate access to target populations either through referrals and recruitment or access to settings. Formal partnerships might be established through Memoranda of Understanding, such as those between the WSLHD and local councils, the NSW Department of Education and Communities, and the University of Western Sydney.

Non-core organisations, particularly large ones, might engage with multiple core organisations. For example three TAFE Institutes in Greater Western Sydney partner with two LHDs – Western Sydney and Nepean Blue Mountains (TAFE SWSi 2013). The multi-agency partnerships involved in Parramatta Council’s Health strategy illustrate the network complexity of preventive health initiatives.

The work undertaken in partnership with other organisations falls into four categories.

- *Delivery of health promotion messages:* An important part of the work is building the capacity of other organisations to deliver health promotion messages.

- *Ensuring that preventive health activities are included within other parts of the health system:* This includes coordination with preventive health officers in other LHDs, ensuring that health promotion messages are incorporated into primary health care service delivery (e.g. immunisation) and work with other specialist health care providers (e.g. falls prevention strategies amongst providers of services for older people).
- *Working with key local influencers:* The work of Health Promotion Officers with local councils plays a key role in the accessibility of sports and recreation facilities, active travel options and availability of healthy and nutritious food options.
- *Policy and advocacy:* Health Promotion Officers have a crucial input into the design of policies and programmes designed by State-level Government Departments and National level NGOs. This includes having input into programme guidelines, quality standards and implementation KPIs.

These activities are conducted with a large number of stakeholders. A Memorandum of Understanding has been signed with large strategic players e.g. the NSW Department of Education, local councils, and tertiary institutions. These establish networks to achieve stated goals, but also retain the flexibility to act on opportunities as they arise.

Network mapping by the WSLHD Health Promotion Unit identified at least 85 distinct organisations or groups engaged, which does not reflect the hundreds of entities within some groups, e.g. individual schools, and GP clinics. The box below illustrates the most influential partners involved in each of these activities undertaken by the WSLHD Health Promotion Unit.

Table 2: WSLHD activity categories and stakeholders

Activity Category	Health sector	Non-health sector
<i>Delivery of health promotion messages</i>	<ul style="list-style-type: none"> • Virtual providers (e.g. Healthy Kids website; Get Healthy Information and Coaching Service) • Better Health Company • Aboriginal Health Unit 	<ul style="list-style-type: none"> • Hundreds of schools and early childhood centres • Tertiary education facilities (UWS, TAFE) • Local Councils • Providers of face-to-face programmes (e.g. ECTARC; Better Health Company) • Face-to-face providers of local programmes (e.g. community associations; migrant resource centres; sporting clubs)
<i>Ensuring that preventive health activities are included within other parts of the health system</i>	<ul style="list-style-type: none"> • Medicare Locals • GP clinics • Aged care providers and retirement villages • NGOs 	
<i>Working with key local influencers</i>	<ul style="list-style-type: none"> • WSLHD – Executive Board and Corporate Services • Ministry of Health key persons 	<ul style="list-style-type: none"> • Parramatta Council • Blacktown Council • Holroyd Council • Auburn Council • Baulkham Hills Council
<i>Policy and advocacy – government</i>	<ul style="list-style-type: none"> • Ministry of Health • Other LHDs (particularly specialist units such as the Aboriginal Health unit) 	<ul style="list-style-type: none"> • Department of Education and Communities • Roads and Maritime Services

Activity Category	Health sector	Non-health sector
		<ul style="list-style-type: none"> Premiers Council for Active Living
<i>Policy and advocacy – non-Government</i>	<ul style="list-style-type: none"> Major health NGOs (e.g. Heart Foundation, Cancer Council NSW) 	

BROOME

The Kimberley region was selected as a second region in which to test the data collection framework, in part because of several population and health related factors which provided a contrast to GWS. The region is vast and 47.8% of the population live in very remote areas based on the Accessibility Remoteness Index of Australia. The consequence of this is that a high proportion of the population have poor access to health, education, retail and social services. The population displays a number of demographic characteristics that are relevant in relation to the social determinants that impact on health; including a young population, a high degree of transience, high levels of disadvantage and a higher than average rate of unemployment, particularly amongst youth. It also has an Aboriginal population that is 40% of the population as a whole, in comparison to 3.1% for Western Australia and 2.4% for Australia as a whole.

Not surprisingly, given the social determinants of health, health statistics and outcomes in the Kimberley are poor compared to the rest of Australia. Across a range of standard indicators (such as incidence of Type 2 diabetes, coronary heart disease, stroke, and lung cancer; child mortality rates and indicators of child development) outcomes are amongst the worst in Australia. Geographic and socio-economic characteristics mean that the health issues facing the region are complex and multi-faceted. Remoteness and poor access to medical services result in participation rates in screening programmes and preventive health activities being low. For example the region has low participation rates in screening for breast, bowel and cervical cancer although child immunisation rates show high rates of coverage. Poor environmental health, water quality and sanitation; poor quality housing; and poor access to safe drinking water and high quality food mean that the preventive health workforce in the Kimberley region faces some greater challenges than it does in other parts of Australia.

Like GWS, funding is provided for preventive health services in line with the federal priorities in place at the time that the research was undertaken. However, responding to local conditions and health priorities also plays an important part in determining preventive health programmes and initiatives. As at May 2014 priorities identified by the Western Australia Department of Health included:

- Disaster Management
- Environmental health, food, water and hazards
- Genomics
- Healthy Lifestyles
- Healthy planning and development
- Infectious diseases, sexual health and immunisation
- Licensing
- Medicines and poisons.

These functions involve the Department undertaking a vast range of activities; including community advice in relation to fire floods and cyclones, working with indigenous communities to train Aboriginal Health Workers and improve environmental health within local communities, health promotion around healthy lifestyles, working with Environmental Health Officers in Local Government, health risk assessment and environmental health surveillance.

The workforce

Similarly to GWS, preventive health services are provided by a wide range of organisations and providers. In contrast to GWS, and in response to local conditions, the number of providers is smaller, the health conditions being focussed on are more acute, and there is a greater focus on coordination of services to overcome some of the challenges posed by delivering health care services to remote populations. This means that there is a close integration of preventive health measures with primary care in the Kimberley region. As an overview, core providers funding and delivering preventive and primary care health services include the Kimberley/Pilbara Medicare Local (KPML); the Western Australia Country Health Services (WACHS); the Kimberley Aboriginal Medical Services Council (KAMSC) – an umbrella organisation for a group of independent community controlled Aboriginal Health Services (ACCHS); and Boab Health Services (previously the Kimberley Division of General Practice) and currently offering a range of allied health services throughout the Kimberley.

The KPML itself is relatively small. It was established in July 2012 and its role is to ensure that a range of appropriate services is available to meet local health needs, rather than being a direct deliverer of services. The primary care workforce plays an essential role in providing preventive health services in the Kimberley. There are four categories of GP services working in the region:

- GPs working in hospitals
- GPs in Aboriginal Medical Services (28)
- GPs in corporate practices (26)
- GPs in private practices (17) (PHCAtlas, 2013:13)

The low numbers of GPs across such a large geographical area results in the lowest level of consultations per person of all Medicare Locals in Australia. In addition, many GPs are located in areas of highest population density, so access to GPs in remote and very remote areas is almost non-existent. Conversely, lack of access to GPs and other primary health services results in greater complexity of health needs. WACHS, a service of the Western Australia Department of Health, also delivers a range of acute and primary health care services. These services have been adapted to meet the needs of local communities, with input into their development from a wide range of community representatives and key stakeholders

The two key NGOs delivering preventive health services face the same challenges. KAMSC employs a workforce of approximately 220 people, with around 50% being Aboriginal. Each of the ACCHS services deliver primary health care services to Aboriginal communities; and patient visits are frequently used for the purposes of “opportunistic” health checks and assessments. Preventive and public health programmes are also delivered, including child and maternal health, women’s health chronic disease, sexual health and social and emotional wellbeing. In addition to doctors and nurses, a large number of Aboriginal Health Workers are employed. A deliberate strategy is in place to raise the profile of health as a profession, encourage Aboriginal people to undertake training and take up employment in the health service.

Sustainable funding is hard to achieve, and KAMSC delivers its services across 14 programmes and around 20 different funding streams. A considerable amount of health promotion activity (undertaken by the Population Health Unit) involves attendance at large-scale events, social marketing and working with other community groups, with key performance indicators set out in funding agreements being related to indicators that are about the extent of mass “reach” to as wide a population as possible rather than working with people on a one-to-one basis. Coordinator roles in the Population Health Unit have as their primary focus up-skilling and empowering clinical staff delivering services directly, and ensuring that they have the resources they need to deliver health promotion as part of their primary health care services.

Staff working within the Population Health Unit come from a variety of backgrounds. While a majority have clinical, public health, Aboriginal health worker or health promotion backgrounds, others have a

experience in education, social work, and youth work. Because a considerable amount of the work of the Unit involves liaison with ACCHS and government and non-government agencies, both centrally and in remote areas, considerable attention is given to workforce capability in the areas of effective communication, knowledge and understanding of issues affecting the health and wellbeing of Aboriginal people living in the Kimberley, and community development. In addition, the health promotion aspects of the work of the Unit mean that other skills, such as graphic design, are included in the workforce capability of the Population Health Unit.

The allied health services offered by Boab Health Services comprise mental health, dietetics, paediatric nutrition, podiatry, and diabetes education. There is also a Closing the Gap team which focuses on improving access for Aboriginal people to mainstream primary health care services by tackling chronic disease risk factors, improving chronic disease management, and providing workforce training, expansion and support. 36 staff are employed in total. In addition to clinical staff with professional allied health qualifications, the organisation also employs occupational therapists, social workers and Aboriginal health workers.

Collaboration with other health service providers is central to how Boab Health Services work. Staff work alongside other providers and community groups in 32 different communities to provide clinical outpatient services, community based education and staff training; and accept referrals from other health professionals with patient consent. While services include primary prevention through health programs in the community, in reality most prevention work is secondary and tertiary prevention associated with chronic disease, with staff being overwhelmed by referrals.

Funding for the services delivered by Boab Health Services is on a competitive basis with contracts up for renewal every two years. This introduces a considerable degree of uncertainty into workforce planning and results in a high level of staff turnover. Faced with the high costs of housing in Broome, and with no guarantees that contracts will be renewed, it is common for staff to move on to other jobs. The organisation is then left with vacancies that can not be advertised until service contracts are renewed.

Activities and services

As noted earlier, the Kimberley-Pilbara Medicare Local (KPML) was established on 1 July 2012, and has achieved certification against the national Medical Local Accreditation Standards through the Institute for Healthy Communities Australia. Its role is the same as other Medicare Locals in Australia - to work with local health professionals and services to ensure that a range of appropriate services is available to meet local health needs, rather than as a service deliverer. To fulfil this role, it funds some NGO services through the Rural Primary Health Services and Regionally Tailored primary health care funds. For example the KPML funds providers to deliver Care Co-ordination and Supplementary Services, which aims to improve chronic disease management and follow up care for Aboriginal people with chronic health conditions. Through the Medicare Locals Fund, the KPML also funds health promotion and prevention measures. It also plays a role in growing workforce capacity through recruitment and retention initiatives aimed at ensuring that the region has access to a suitably qualified range of health care workers.

WACHS either delivers or funds a vast array of chronic disease prevention initiatives. The scale of the activity being delivered is indicated by the results of a stock take undertaken in 2011 by the Chronic Disease Prevention Unit (CDPU). The Unit surveyed agencies delivering WA Health funded initiatives and agencies that WA Health work closely with. 97 responses were received, and the results showed that

- 19 addressed physical activity specific initiatives;
- 13 addressed healthy eating/nutrition specific initiatives;
- 45 addressed healthy lifestyle initiatives (i.e.; initiatives that incorporated a multi-risk factor approach or had a general healthy lifestyle approach)

- 14 addressed smoking cessation/tobacco control specific initiatives; and
- 6 addressed other health issues outside the scope of the stock take.

The Department has in place a strategic plan for health promotion for 2012 – 2016 (Department of Health, 2012) building on an earlier framework put in place in 2007. This plan notes that while health promotion activities are most likely to be of interest to health and professional employees in government agencies and NGOs, nevertheless a wide range of people in workplaces, educational institutions, local government, the community and the media also play an important part in achieving health outcomes.

The plan sets out a “Framework for Action” which identifies levers for health promotion activities that include not only traditional interventions such as regulation and legislation, but also community development, creating environments that support healthy behaviours, and raising public awareness. The importance of building strategic partnerships across a range of sectors – industry, education, parks and recreation facilities, NGOs and government – is also emphasised.

Among the health programs provided by WACHS, a number have an important role in prevention. These include the following:

- Aboriginal health – provided within mainstream WACHS services and supplemented by local initiatives such as Aboriginal community health clinics and the employment of Aboriginal Health workers and Aboriginal Liaison Officers.
- Alcohol and pregnancy – This programme is designed to reduce the prevalence of Foetal Alcohol Spectrum Disorder (FASD) and provides information and advice to professionals working with women of child-bearing age.
- Allied health – a range of Allied Health personnel travel to local communities to provide a range of health-related services. In addition to health promotion, professionals such as audiologists and podiatrists provide primary and secondary prevention services that are relevant to the specific health needs of the Kimberley population.
- Chronic disease – WACHS has a number of services to assist people with chronic disease to self-manage their condition, and also provides support to other service providers
- Maternal, child and youth health – This includes a wide variety of services around breastfeeding, child development, immunisation, and prevention and treatment of common ailments experienced by children in the Kimberley.
- Men’s health Pit Stop – men participate in the Pit Stop programme through a series of stations, each involving a quick simple health check completed by a health mechanic, based on the concept of a mechanical tune up. The Pit Stop environment is non-medical and mobile campaigns are also used to access remote areas.
- General Public Health and School Health programmes offered across WA

In terms of the preventive health workforce, within WACHS the Kimberley Population Health Unit (KHPU) is made up of four teams.

- Health promotion – including Nutritionists, Health Promotion Workers, Aboriginal Health Workers, and Sexual Health Workers
- Chronic disease – including nurses, and with a particular focus on eye and ear disease
- Environmental health – including both Environmental Health and Aboriginal Environmental Health Officers
- Communicable disease – including Public Health nurses and with responsibility for immunisation.

In addition to population health, WACHS also plays an important role in prevention through Community Health clinics. These include child and maternal health workers, community midwives, school health nurses, diabetes educators and Aboriginal Health Workers. They provide a range of services, such as eye and ear health checks, and school entry health assessments. In addition, high priority is placed on developing relationships with schools and community groups to promote healthy lifestyles, and to educate people about some of the common health issues experienced in the region, particularly in relation to children and families at risk.

In addition to being a voice for the ACCHS, KAMSC also provides a wide range of regional services, in amongst which are a number of preventive health services delivered by the Population Health Unit. This Unit is staffed by 21 staff across seven areas of focus:

- Eye health
- Hearing health
- Maternal health
- Rheumatic heart disease
- Sexual health
- Tackling smoking and healthy lifestyles
- Healthy Communities

A number of other “non-core” organisations also undertake activities that impact on health promotion and preventive health activities. For example, the Shire of Broome delivers environmental health services, is improving the availability of recreational services to encourage a great uptake of physical activity, and, in association with the Police and liquor-selling outlets, is part of a Liquor Accord that places quotas on the amount of alcohol that can be sold to individuals. Several media and advertising companies have played a role in delivering information by, for example, interviewing health promotion staff and providing free advertising for events at which health promotion messages are being delivered. As in GWS, schools and education providers deliver programmes that educate children and young people about nutrition and the importance of physical activity. Lastly, several community based food producers are in operations that explicitly aim to improve health and nutrition through improved access to high quality food.

Relationships and partnerships

The importance of relationships and partnerships was a consistent theme that emerged from interviews with key stakeholders and from documentation. The challenges posed by the size and remoteness of the Kimberley, together with the relatively small size of the workforce, means that cooperation is essential for delivery of services. For example, allied health services are provided on a regional basis by Boab Health Services to other providers who would not be able to justify the costs of providing specialist services. Similarly, renal health services are provided across the region by KAMSC. At a very practical level it was evident that considerable cooperation existed in, for example, sharing the costs of travel to remote regions to maximise service coverage. The degree of cooperation required meant that preventive health activities are much more closely integrated with primary and acute care services than they are in more metropolitan regions.

The number of organisations who collaborate together to deliver both primary and preventive health and wellbeing services across the region is considerable. One of the services interviewed has in place a system for tracking their interactions with other organisations, and noted that it had worked with 75 different organisations over the previous twelve months. These included not only other health-related organisations but also NGOs such as Save the Children, Men’s Outreach programs and Men’s Sheds, Women’s groups, community groups, schools and child care centre and others.

Although many relationships and partnerships are informal and based on personal relationships between individuals and organisation, a formal mechanism for coordination exists in the form of the Kimberley Aboriginal Health Planning Forum (KAHPF). This group is made up of a wide range of high level representatives from the Aboriginal Health Services, Boab Health Services, WACHS, the Royal Flying Doctor Service, Aboriginal and indigenous corporations, NGOs and government departments. The Forum also has a number of sub-committees that include people with more hands-on and specialist roles across the participating organisations.

A Strategic Plan for the period 2012-2015 is in place for the delivery of primary health services for the Aboriginal people of the Kimberley (KAHPF, 2012). This includes a strong focus on the social determinants of health, including improved environmental health, food security, better educational outcomes and effective family functioning. KAHPF's preferred service delivery model for primary health care includes recognition of the desirability of a holistic approach to health issues (encompassing medical, psychological, family, social and cultural dimensions), working within the constraints imposed by the geography of the region, which demands a reliance on generalist rather than specialist health services, and the necessity of collaborative partnerships between community and government bodies.

The Strategic Plan contains a number of recommendations around current service provision based on an analysis of current issues and needs. In relation to preventive activities, an identified high priority is the creation of an inter-agency Health Promotion Unit that would combine existing resources allocated to Aboriginal health promotion across the region to create a unit to plan and deliver evidence-based health promotion programs targeting modifiable life-style related risk factors. Other recommendations concerning maternal and child health, men's health, chronic disease, disease control, oral health, social and emotional wellbeing and allied health similarly have a strong element of primary and secondary prevention.

A feature of the Strategic Plan that emerged through interviews was that the Plan was known about, and featured in the planning across a range of organisations where interviews were held. This suggests a high degree of buy-in to the Plan across the region.

3. GENERAL FINDINGS

This section of the report outlines general findings from the case studies that were undertaken. It starts by providing an overview of the methods that were used to collect data, and the strengths and weaknesses of the approaches that were taken. It goes on to provide an overview of the range of roles and occupations delivering preventive health services, the activities in which they are involved, and the relationships between core and non-core organisations. These findings lead into a discussion of how the findings have resulted in a refinement of the original framework, and the range of variables that could potentially be included in a data collection framework.

METHODOLOGY

As noted earlier, the methods used to collect data in each of the two local regions were primarily qualitative and informed by concepts drawn from Network analysis and Stakeholder analysis.

Details about the general data collection model, and how this was modified to suit local geographical circumstances, are set out in Appendix One. Further details of interview schedules and group activities designed to gather data to populate the framework, are also included in the Implementation Manual. This section of the report outlines the strengths and weaknesses of the different methods used; and lessons that have been learned that should be applied to any future data collection process.

A range of qualitative and quantitative techniques were applied for gathering information across the two case study sites. As they were put in place, assumptions that had been made in the development of the methodology became evident. Firstly, the focus on a geographical boundary defined by local health administrative units did not work in practice. As noted earlier in Greater Western Sydney, geographical proximity, and the delivery of State-wide initiatives by the government and by NGOs across LHD boundaries meant that administrative boundaries commonly had little relevance at a practical service delivery level. Conversely, in the Kimberley, distance results in some fragmentation of services, with some parts of the region having very limited access to a full range of primary and preventive health services.

Qualitative techniques were used in both of the two regions where the data collection framework was piloted. These took the form of semi-structured interviews, focus groups and workshops. These were useful for developing an in-depth understanding of preventive health activities being carried out, the perceived effectiveness of different interventions and for “snowballing” to identify the range of partners and other organisations that make up the preventive health workforce and network. Qualitative data collection also has the advantage of being relatively speedy to collect, but although it can collect information that is representative of the types of organisations delivering preventive health activities, it is unlikely to ever be able to comprehensively identify the whole preventive workforce.

Quantitative data was primarily collected in Western Sydney. It took a variety of forms, including questionnaires to Health Promotion Officers to gather demographic information and information on their health-related and non-health qualifications; and collection and analysis of organisational attributes (such as size, nature of the activities undertaken, and industry). An attempt to gather data on the nature of the relationships between key actors was also undertaken. For this project, the use of quantitative data collection techniques was felt to have offered little additional value for several reasons. The first of these was in order to be of use, we would have needed to have collected data more systematically and comprehensively than was possible in the time available. The second was because of concerns about confidentiality and respondent burden. Although we had considered use of a questionnaire for organisations that would supplement the information being gathered from interviews, it would have required organisations to have provided us with a reasonable amount of HR information within short time frames. Although we still regard the collection of more systematic quantitative data as being useful, this needs to be done within a time frame that allows for the careful design of questionnaires, ethics approval of them and the process for gathering data, sufficient notice

to organisations of the data to be collected, and provision of information back to them for checking and comment.

Two key points stand out from the learnings used to gather data in the two regional profiles. The first is that the data collection framework needs to be applied in a way that is flexible, and able to take account of local conditions. Differences between areas can result from varying administrative arrangements at State Government level, geographical considerations and the purposes for which data is being collected. Given the wide range of actors playing a role in the preventive health, and the fact that the geographical boundaries within which they are working do not always coincide with health administrative boundaries (e.g.; LHDs in close proximity to each other may share resources to deliver some activities; national campaigns may be being run in local areas) there is a particular need to be clear about the geographic unit of analysis that is the basis for data collection and analysis.

Secondly, there is a need for a mix of qualitative and quantitative techniques for gathering information. Quantitative information that is likely to be of interest includes the number of employees employed to undertake preventive health activities, their skills and qualifications, and the range of activities being delivered. The full range of variables that may be of interest are set out in Section 5, which describes the data collection framework. However, a quantification of the information is unlikely to ever be able to be comprehensive, given the wide range of people and organisations involved. In addition, an understanding of the networks and partnerships in place in local areas, between health and non-health related organisations engaged in preventive health activities is better understood as a result of the application of qualitative data collection methods.

Key overall findings are set out in the sections below, with the implications of these for the data collection model set out in the section summary.

THE PREVENTIVE HEALTH WORKFORCE

The preventive health workforce is made up of individuals working in organisations, often in partnership with each other. This approach reflects the principles of the Ottawa Charter for Health Promotion, which recognises the ecological, economic and political pre-requisites for health and the multi-agency efforts required (World Health Organisation 2014).

Drawing on the framework mentioned in Section 1, the organisations involved can be broadly grouped as 'core' and 'non-core'. **Core** organisations have preventive health as a main purpose or intentional activity and tend to be in the health sector, while **non-core** organisations have preventive health as an ancillary purpose or activity (including latent organisations that could potentially be involved). The word 'organisation' is used loosely, to include departments or individual positions within larger entities.

The way in which preventive health activity is structured, and the range of organisations involved, reflects a vast actual and potential preventive health workforce. In general, four general types of worker (as opposed to organisation) can be distinguished:

- workers in core organisations engaged directly in health promotion through social marketing and mass media campaigns targeted at the general population
- workers in core organisations who may play a dual role in direct service delivery and engagement with service delivery partners. This includes for example directly delivering primary and secondary prevention services such as immunisation or nutrition/physical education programmes to specific target populations; and engaging with people in non-core organisations, providing training and education to allow them to deliver preventive health messages
- workers in non-core organisations undertaking direct delivery of preventive health messages (eg; teachers in schools and tertiary education)

- people working in non-core organisations, often at a strategic or policy level, where healthy lifestyles, improved health or disease prevention is an ancillary outcome to the core purpose of the organisation. These workers were particularly found in local government and included urban planners, managers of recreation facilities, food safety officers and environmental protection officers. It should be noted, however, that while health outcomes might be ancillary to the purpose of the organisation as a whole, that improved health was often explicitly noted as a desired outcome of the activities being undertaken

The table below lists occupations and settings involved in preventive health: the 'core' column lists discipline areas, while the 'non-core' column lists both occupations/roles and settings. These only list *what this research came across for activities already being conducted*, and does not purport to reflect the full workforce, nor the full scope of latent individuals/organisations.

Table 3: Examples of the people involved in preventive health

Core (grouped by discipline)
Health and community services
Aboriginal Health Workers
Community nurses
Dentists and dental health nurses
Exercise and sports science; Exercise Physiology
Environmental Health Officers
Fitness
Health promotion/public health (at both policy/advocacy and delivery levels)
Health management
Medicine
Nutrition/Dietetics
Nursing and midwifery
Programme co-ordinators
Psychology
Sexual health workers
Social work (often for specific needs e.g. drug and alcohol counselling; youth work; CALD)
Sociology
Other disciplines
Research and evaluation
Built environment (at both policy/advocacy and delivery levels)
Law (policy/advocacy level)
Administration and clerical

Core (grouped by discipline)

Public policy (policy/advocacy level)

Economics (policy/advocacy level)

Multicultural liaison officer/health workers

Communications/marketing

Non-core (grouped by occupations/roles and settings)**Occupations/roles**

Built environment professionals — incl. planners, urban designers, architects, transport planners, and property developers

Community liaison officers (e.g. in schools, multicultural organisations, councils)

Cooks, food service (e.g. at early childhood centres; food outlets)

Doctors (esp. general practitioners, paediatricians, other specialists engaging with target populations)

Food producers and horticulturalists

Media personnel and organisations

Nurses and midwives

Nutritionists/Dieticians

Parents (especially via schools, early childhood centres, P&C Associations, canteen managers)

Politicians, senior government decision makers

Policy officers and analysts

Psychologists

Social workers (e.g. youth workers, those engaging with CALD communities; domestic violence specialists)

Teaching (early childhood, primary)

Settings

Businesses in general - General managers, HR managers, WHS Committee members, specific departments (e.g. for menu labelling — nutrition, menu designers, signage and marketing)

Community organisations e.g. migrant resource centres; ethnic/religious associations; sporting associations and facilities — engaging managers, HR managers, staff and volunteers

Councils – (strategic) General Managers, Councillors; (delivery) Community/recreation development officers, Community Liaison Officers

Research Institutes – academics, health practitioners, built environment professionals

Restaurants, pubs, clubs and representative bodies – a range of strategic roles, as well as staff

Schools - teachers (early childhood, primary, secondary, PE teachers), other staff (principals, canteen managers)

Non-core (grouped by occupations/roles and settings)

Tertiary education institutions– researchers, teachers, students, infrastructure services, communications and marketing departments, student union, food outlets, health and wellbeing services (e.g. counselling, medical)

Note: These tables reflect workers and organisations involved in preventive health activities explored in the current research. They may not reflect all current preventive health activities, nor can it capture latent individuals/settings for preventive health.

As noted above the range of preventive health activities are delivered across the health, education, social services, local government and social development settings. Within core health services, the workforce will generally be health qualified – if not in public health or health promotion, then in associated disciplines such as nutrition, nursing or health sciences. In some settings, community involvement and cultural competence may be more salient than health qualifications, and in others, an education or legal background may be more relevant.

The others ... who might come in, you know, as we've said I think we've got a teacher, and we've got a psychologist, we've got nutritionists. We did have a sociologist who just left, and quite a variety of nurses. ... We did have a Workforce Development person. So if they come from another avenue, the other way they might have come from, if they've done their Masters of Public Health, and they've done Health Promotion within their Masters of Public Health. (Manager, Government)

.... so we don't have enough Aboriginal people, I'll say that for a start. I think it's around 49 - 50 per cent at the moment, but a lot of those people are in administrative type jobs, so we're all trying to get more skilled Aboriginal people (Health Service Provider)

I've done a Community Services Welfare Diploma, a Drug and Alcohol and Mental Health and case work, and I've worked in the industry for about 10 years now for Local Government. (Health Promotion Officer, NGO)

Organisation

The way in which the preventive health workforce is organised varies, and within their organisations, the workforce will be structured in a way that reflects the place or significance of preventive health activity within that organisation. Core organisations such as state-level administration units are highly likely to have dedicated population health or health promotion staff, although the size of these units can vary. Their activities generally include both health promotion work at a population level, and activities across a bounded geographic location or with targeted population groups. Importantly, they are often required to work across organisational boundaries to achieve their goals

.... each of them takes on a different area to be responsible for. We talk together primarily as a team, and my direct line manager, we do a lot of communication with the communications team, the comms team, but also we do talk to other projects within, or projects I guess officers or managers within our LHD, because they might be working on something similar as well. So we'll just like bounce ideas or initiative their starting, et cetera. (NGO)

Other core health organisations will use primary health staff (e.g. GP practices, acute services) to deliver health promotion messages as a complementary role to their primarily clinical one. In non-core organisations, the staff most likely to be involved in health promotion and preventive health are either front-line staff (community workers, youth workers, teachers) or those working at a strategic or policy level (e.g. urban planners)

Strategic influences on the preventive health workforce

Across interviewees in both regions, the funding that had been provided for preventive health activities under the previous Government's National Partnership Agreement on Preventive Health was

seen as having a positive influence in expanding the workforce and its reach across the community. Responding to local health needs, however, is also seen as being important.

.... money drives our practice. That basically would be one of the strongest drivers of all. ... if I can't justify it through funding, through what's on particular strategic plans, it's very difficult for me to get anything up or approved. So I would start at the national level, what are on their national agenda, in terms of prevention? I wouldn't normally start at the local level; I would start and say what's on there and what's driving that national agenda, because that's important. Because that's going to be where there's funding opportunities. (Government manager)

I feel like there's no funding for sexual health promotion, like, there's a strategy for health promotion, but there's no mention of sexual health there's no actual budget for it at all, you know, we have to be very inventive and scratch around for \$900 grants, you know, that sort of stuff, you know. (Health Promotion officer)

While additional funding had been universally welcomed, the fact that funding under the NPAPH was assured only until 2015, and that local funding was renewed on an annual or biennial basis led to a degree of uncertainty for staff working in the area. It has also contributed to a perception that preventive health activities are a "poor cousin" in the health service. Other issues identified around funding included the fact that funding for preventive activities is not coordinated and NGOs in particular can have funding contracts with large numbers of organisations, all of whom have different contractual obligations and reporting requirements. Lastly, some NGOs reported that they were not funded at all for some health promotion activities - while they were provided with training and given resources, they were essentially being asked to deliver health promotion messages within the context of their existing job.

If somebody leaves, we're not allowed to fill that position until the 1st of July when there's more money. And it happens every year, we run out of money, and we get less and less, because we're not, we're not the whistles and the bells, that acute services and big hospitals. (Health Service Manager)

so we've got 20 different contracts on the roll. The funding is so lean, you know, I mean, we seriously questioned whether we would apply or not, but to be honest, we're going to give it a shot and try and make it work, but it is so lean. (Health Service Manager)

Because of the difficulties and uncertainties associated with government funding, a number of NGOs were conscious of the need to ensure that they were not entirely dependent on government funding.

... we're 96% self-funded. we're supported by donation supporters, people who, particularly people who donate through their pay is a large, it's probably the largest section of income for us. Of course, we have other things like what other charities do, such as bequests and so on. But, you know, you can't budget on bequests (NGO)

At the same time, one of the biggest strategic influences on the growth of the preventive health workforce is the increasing recognition of the importance of networks and partnerships with non-health organisations in health promotion and primary prevention. These influences are discussed in more detail in the section of relationships and partnerships.

PREVENTIVE HEALTH ACTIVITIES

As noted in the Western Sydney case study, the range of activities carried out by both core and non-core organisations is extremely varied. Some of the most common are outlined below. The skills and capability needed to carry out these activities very much reflects the list drawn up in the GWS case study, and set out on p.12. In particular, interpersonal skills (particularly influencing skills and relationship building) and strategic skills are essential for ensuring that primary and secondary preventive health activities in particular can be scaled up and reach a wide range of people and population groups.

Direct delivery of preventive and primary health services to targeted populations

One of the most well established of preventive health activities is the delivery of immunisation programmes and screening activities, for children and adults. These are most commonly delivered through primary health care services and in remote areas make an important contribution to overall health services. Opportunistic screening may also be becoming more common as part of the delivery of more acute services in some areas.

Well, that's our basis, primary health care with prevention of disease and injury. ... We do, screening of 0 to 18-year-olds, so we have within child health, we have the birth to school entry health assessments, and their universal screenings, but we also have an Aboriginal child health screen for the target, and then we have once they get into school, we have school entry health assessment, which is done in, can be pre-primary or year one, and then we have targeted assessments for those children more at need, or we also have a Kimberley Health Program where we offer ear health screening. (Government Community Health Manager)

But a lot of our stuff, even though it's clinical, is preventative with the opportunistic screening stuff. ... We've done a couple of opportunistic screening projects through the emergency departments where anyone who presents between the ages of 15 and 35, then they're automatically offered an STI test (Government, Health Promotion)

The direct delivery of preventive health services on a one-on-one basis also took the form of awareness raising and being a point of contact for individuals and communities to be provided with information. While some of these services include primary prevention programmes, in a number of cases it involves secondary and tertiary prevention (e.g.; nutrition programmes for people with cancer), or the provision of information to family members:

So our information centres at the Cancer Care Centres are one of our information points, and then we have, then we sort of manage information points all around our region. So they may be based in chemists, pharmacies or in libraries or council buildings or places where people are going to you know, hopefully, they're in place where people are going to be interested in looking at information about cancer. We'll have temporary information points as well and things like festivals and fetes and you know, major events, you know, when we can we'll try and have, have information available in some way, shape or form, trying to sort of make it appropriate to the audience that we're addressing. (NGO)

And as far as preventative health services goes, I guess the main, the main bit of our work is, mostly comes through referrals and that's really through chronic disease management, yeah. Part of that is a big preventative health, part of it in preventing you know, secondary sort of issues for people with chronic disease. There is some primary prevention with particular disease of diabetes and we do get some referrals, individual referrals from that, but most of the primary prevention stuff is with health programs out in

the community, so doing, yeah, and most of it has been invited by communities to come out and do healthy lifestyle sort of stuff, so, healthy food, exercise, chronic disease prevention. (Medical Service)

Health Promotion

Participating in health promotion activities is one of the most common activities undertaken by the preventive health workforce. This included providing resources, education and support to other professionals working with targeted populations. This might include, for example, providing resources and ideas to workplaces offering smoking cessation programmes, schools becoming engaged with health eating or physical activity programmes, community organisations in skin cancer awareness or putting up stalls at events and fairs.

we show schools how the three elements in Eat it to Beat it, just fit in to what they're already doing. So we come and do a healthy lunchbox presentation to the already existing kindergarten rotation program, and then our other workshops can be tagged onto P&C meetings. They can be set up separately, but it's, it's just part of what the school is already doing, and that's been quite successful in that they haven't felt like it's too much of a burden, and I haven't had too much resistance to getting the program going. (NGO, Health Promotion)

Health promotion activities also include delivery of major campaigns across a range of population health issues, such as smoking cessation, improved nutrition, eye and ear health, heart disease, maternal health and sexual health. Having good relationships with media, (particularly broadcast media) and other community organisations was seen as being particularly important for ensuring that the health promotion message achieved as wide a "reach" as possible.

But working with the media is very important. ... I'll always invite the media to big events, you know, and things like, you know, I've got my morning tea VIP functions, so I'm inviting them. Not just to go along and do a story but to be a guest, you know, invite the editor to be a guest of the lunch. ... The rest of that work will be done for me without me having to lift a finger or make a phone call, if they're coming along as a guest. You know, they'll make sure that they're covering the event. (NGO)

They do a lot of good things for us, for example, when it comes to community events, they normally put us on one, with one of their radio speakers to have an interview before the event. They do a bit of advertising ploys to remind people what's going on, so a bit of community focus in that perspective, which is great. (Aboriginal Medical Service, Health Promotion)

In some communities, it was also important to work with key community leaders, including Aboriginal elders, leaders within culturally and linguistically diverse communities, and elected MPs and members of local councils. Again, the importance of excellent communications and interpersonal skills was seen as being critical for ensuring that preventive health messages are carried widely across the community.

Also, then when it comes to the Aboriginal community, I work equally probably with Elders, getting Elders on board and also local, like key organisations, but even still, even doing that, it's very difficult without a long-term relationship with the communities. (NGO)

also we've got some funding from (the) Local Health District to translate and adapt part of the program to be appropriate for Mandarin speaking and Arabic speaking communities. (NGO)

Policy and advocacy

Another important role played in relation to preventive health was in relation to policy and advocacy. This often involves working with government officials and locally elected representatives to raise

awareness of particular issues, encourage the adoption of programmes of activity associated with preventive health, and in some cases enforce regulation (e.g.; around sale of tobacco and alcohol, or environmental health standards). Policy and advocacy activities were undertaken by both officials working in Government in policy development positions, but also by NGOs. Their legitimacy in playing this role stems from their expertise in the prevention and treatment of specific conditions (eg; Heart Foundation, Cancer Council) which is often based on a considerable amount of research and evidence.

we're at the moment campaigning for regulation to be enforced, not because we'd love to get rid of cigarettes, ... but just so that people can, who sell cigarettes can be more accountable. So we're pushing at the moment, to government, to bring in stricter regulations and controls over the sale of tobacco (NGO)

we have people all around the state who liaise specifically with MP's, ..., mostly volunteers, almost all volunteers in fact, who are fully trained and they're liaison people. And they, they're people who live in the electorate of the MP and they will approach the MP, let them know our concerns, see what their, you know, sort of gather what interest there is from that MP to sort of see what sort of support we might have within parliament (NGO)

I think the role of NGO's is unique and an important, they are important stakeholders in public health because they are often monitoring new developments and policy and research developments in health and it allows us often to trial or to investigate issues and in a sense, be like a crash test dummy for initiatives that the government may take on at a later point in time. (NGOs)

(NGO) has been an expert advisor on physical activity to the (State) Government on their healthy workers initiative. So that's meant that we've been able to embed "sit less" messages and active transport, public transport messages, cycling and walking in the government's policies and strategies around promoting healthy workplaces across (State). So that's been another avenue so that if you are an expert in an area, you have the ability to influence the policy in different ways. (NGO manager)

Working in collaboration with other parts of the health sector

The view of a number of interviewees was that increasingly, preventive health initiatives are being rolled out through programmes that are being coordinated with other parts of the health sector. Generally, this takes the form of the development of programmes that GPs and other primary health providers can refer patients to. These may be programmes designed to tackle particular health issues (e.g.; smoking cessation) or alternatively may be directed more generally at encouraging people to live healthier lifestyles.

so I do a lot of work with EDs as well, or the nurses and doctors in terms of trying to increase opportunistic screening rates. Community Health nurses, remote area nurses, practice nurses, GPs. (Government Health Promotion)

... essentially the program has eight sessions. We'll cover physical exercise, diet, you know, the whole, whole kind of nine yards in that regard. So we run those and we run them then for different groups for youngsters sort of obese youngsters, similarly for adults who, you know, who are kind of pre-diabetic, diabetic, obese, we do them for the elderly. ... So from the fairly basic core offering, it's a very similar program overall, but we've rolled it out into different settings and with different, different types of groups. (Umbrella organisation for Medical Services)

Working with organisations outside the health sector

In addition to increased collaboration within the health sector, LHDs and NGOs had often thought quite deliberately about the extent to which health can be improved by strategic partnerships with other organisations. In both localities where field work occurred, thinking had been developed about issues such as urban design, environmental health and the built environment. In some cases these partnerships were being pursued to eliminate health risks and improved disease control (e.g.; through environmental health initiatives) whereas in others, initiatives were being developed to encourage healthier lifestyles (e.g.; provision of dedicated cycleways and pedestrian areas).

(Local government) are actually getting quite good about now is their strategic planning. So they're actually starting to develop their plans about how you work with the community to develop environments that make it easier, you know, where there's safe parks and all that sort of stuff. ... And (name) is doing work with one of the shires, and the shires are really coming on board and including the Environmental Health Officers, which makes a big difference. (LHD Manager)

In some cases, strategic partnerships are formal and in other cases they are more informal. In some cases they involve the development of an intentional relationship with large organisations as a means of reaching large population groups.

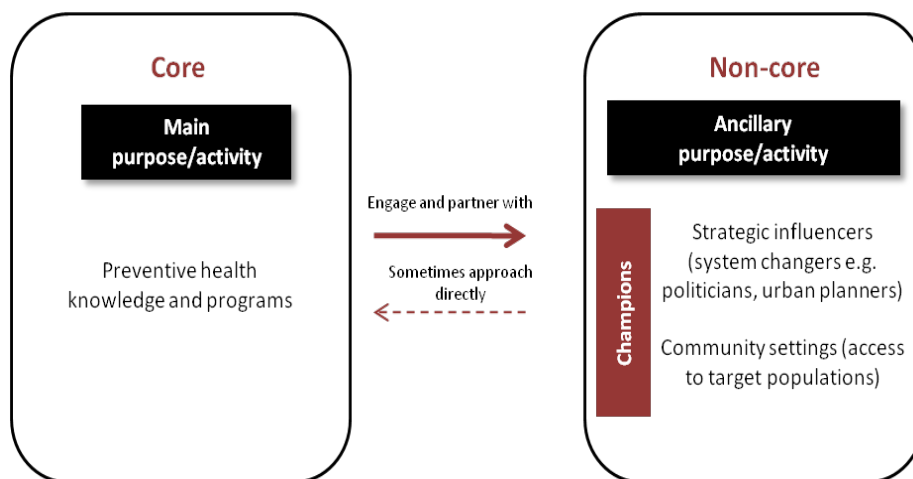
For me, I'm probably just, make contact with a large organisation that, you know, like, you know, there's a large organisation that sort of does a lot of the work for Sudanese people in (location), so if I want to sort of start edging my way into the Sudanese community to work some programs there, then I'll meet, you know, I'll ring up the organisation and say, hey, I've heard about what you do, can I come along, and you know, make sure I show an interest in their community, show that I'm genuine, you know, all that sort of stuff, I suppose. Just, it's just, I guess its influence, you know, it's just influence skills which is required for that. And not just, you know, when I say influence skills, not just fake influence like I'm trying to sell a car, but you know, the influence that shows that you're genuine, that you're compassionate, that you care about the people they care about, all that sort of thing. (NGO)

We have some formal partnerships. And our formal partnerships include education, and the education ones are the University, TAFE and schools. So we have those, and that's a formal written partnership agreement, and the partnership agreement really is – it's nothing about money. We go into that quite clear that most of us would not have money, but as partners we may be able to attract money. So we'll be looking for strategic win, we'll be looking at something that we can deliver at scale. (LHD)

RELATIONSHIPS

Typically, core preventive health organisations reach out to influence other organisations, and harness available resources to deliver preventive health messages and programs. This can be at a strategic/policy level, as well as on-the-ground service delivery. Core organisations will often play an influencing and facilitative role, engaging with non-core organisations to leverage key points of influence (e.g. politicians, urban planners, senior managers) and/or to coordinate access and program delivery to target populations (e.g. schoolchildren, local residents). Key contacts at non-core organisations are often considered 'champions' who are important for driving preventive health within their organisations, and might themselves run initiatives independent of core organisations to address identified prevention needs. The figure below illustrates these possibilities.

Figure 2: Relationships between core and non-core preventive health organisations



The engagement and partnership process follows a needs/interests based approach, and creates a complex and dynamic set of relationships that can change by project. The approach taken depends on the type of preventive health activity. For example:

- a core organisation wanting to deliver a program to school children may reach out to school principals (champions) to facilitate access and program delivery at a schools (community settings with access to target populations);
- a core organisation wanting to change transport options to encourage walking in a community might engage with the local council to influence planning processes around active travel; and
- a non-core organisation (e.g. a workplace, or council) might identify a need for an information session on nutrition or tobacco cessation and approach a core organisation to provide such services.

A key role of core organisations is therefore to build and maintain relationships and networks, and particularly to identify areas of overlapping/shared interests. Partnership development and stakeholder identification is often done through existing networks, analysis of publicly available information to identify who has shared interest, and is highly sensitive to the success of interpersonal relationships. Being in the right place at the right time was also a factor in identifying common interests and opportunities for partnership, particularly for non-core and non-health providers. However, it was also notable that most organisations were very pro-active in networking to ensure that they maintained productive working relationships, and identified opportunities at an early stage

It depends on the Principal. Like (name of school) they've had a couple of Principals that weren't interested in health, but basically most of them are. So I have a good working relationship with them ... so you get in , you tell them what you can do for them and how they should do it. Teachers coming up are very receptive to any assistance they can get. (Community Health)

...in the development of public policy, evidence is never enough. You have to have other levers to work, you have to have political ones, you have to have champions, it's often right place at the right time... (NGO)

they need to make connections with their inter-agencies and their networks within their own local health district, so they'll often go to like, you know, child and family inter-agency meetings, you know, Families New South Wales, sometimes, whatever they can fit in their schedule, they'll go to because their role is to get into the communities and try and get us, like enrolments essentially. So, yeah, they need to sort of make connections to then help access into those communities. (NGO Manager)

One of the identified benefits of building good relationships was that it was felt to help organisations to identify when local needs were changing, and to be able to quickly respond to this. This resulted in a relatively efficient change in the mix of services delivered. Good relationships could also result in shared services between organisations with each offering differing skills and expertise.

So issues are going to pop up in different areas based on the demographic changes. And some services are reflective of what used to be, so there are services that are set up and that community actually doesn't live there anymore. So, now, an issue is popping up elsewhere. And so it's about being able to be flexible in your service delivery to make sure it's still reflecting the needs, the current needs (Local Government)

So rather than try to each individually address something and say, can you do it [inaudible 12:50] can you do it collaboratively and put in a joint submission? So actually trying to get these primary health service providers to work together rather than to be seen to be competing against each other, which unfortunately has always been the nature of the beast, is that you're always competing for funds. (LHD Manager)

The last comment reflects the fact that while partnerships and collaborative arrangements had many benefits, they were not always easy to manage. In some areas this was as a result of a small number of organisations competing for a limited funding pool. In addition, different organisations have differing goals and KPIs. A change of mind set, and a degree of organisational altruism was sometimes needed to work together.

The problem with partnerships often is people have different mission statements. They have different funding requirements and different outcomes that they need to reach, so it's hard to find middle ground where you can like all come together because it's all going to be as beneficial for you. (Government)

...health is created outside of the health system quite clearly, but those other agencies, they have very specific responsibilities... I like to think about it in terms of the co-benefit that that has. Cause someone in transport is not really going to care about it because their job is X, Y and Z and that's what they get measured on. (Government)

we're starting to develop new relationships, as I say with planning and so we'll participate in some of their groups and for us it's about we want them to do something and we are a responsible partner and help them to achieve the things that they need to achieve as well. and I've been meeting recently with new people from new government agencies as part of developing a shared understanding, knowing what they do, what we do. (Government)

The need for positive and collaborative working relationships needs to be balanced by the fact that some partnerships are based on contractual agreements requiring contractors and sub-contractors to deliver specific services, often tied to detailed specifications and performance requirements.

And in fact I found some individual contractors do that very well, but you've got to manage the contracts. But we audited that to make sure it's delivered in a way, and it's not adapted, and it's not changed. ...You have to put those processes into place, or people adapt them the way they think. ... And then when you tell them that (you cant do that because) it's now not the evidenced, informed program that we gave you. (Government Manager)

With NGOs we go through a procurement process, which is, as you'd expect, so if there is particular bits of work that we want to contract out then we go for competitive tender and then there's contracts and as part of that contractual process that includes the way in which the funding is provided to that organisation and, again, the reporting and milestones that need to be met before the next funds come. (Government Manager)

The frequency and formality of meetings between different organisations and agencies varies. In some cases relationships are informal and designed to eliminate duplication of services, and in some instances to share resources. For example, in the Kimberley, the distances travelled could sometimes involved shared transportation to remote areas.

Within metropolitan areas, core organisations are more likely to be part of interagency networks that bring together a range of government and not-for-profit providers. These networks provide opportunities to identify service delivery and partnership opportunities. In some cases, networks are informal and held together by the individuals within them, while in others, there are formal Memoranda of Understanding that set out the purpose of the network and the ways in which the parties will work together. In both localities, moves were reported to try to facilitate networks becoming more strategic forums where members can present their needs and interest to other members. The example that was most advanced in this respect was the Kimberley Aboriginal Planning Forum, which pulls all relevant agencies and major service providers together. This group has developed a three year strategic plan based on identified health needs, with specific KPIs associated with different areas of health, and regular report backs in the achievement of those targets.

Many health-related NGOs undertake research and advocacy, and in this sense influence and set the groundwork for programs based on evidence and research. State and national offices are often involved in research and strategic activities, while any regional offices might engage with specific communities. For example the Cancer Council NSW develops preventive health programs centrally, but these tend to be implemented through regional offices. As with LHDs, NGOs also tend not to provide funding for partner organisations, but instead provide resources and support.

4. THE DATA COLLECTION FRAMEWORK

As a result of the data collected in the two localities used in this pilot project, the initial data collection framework has been revised. This was done to take account of some of the assumptions contained in the initial framework being challenged in the course of applying the tool on the ground. The factors that were seen to be most salient included the following:

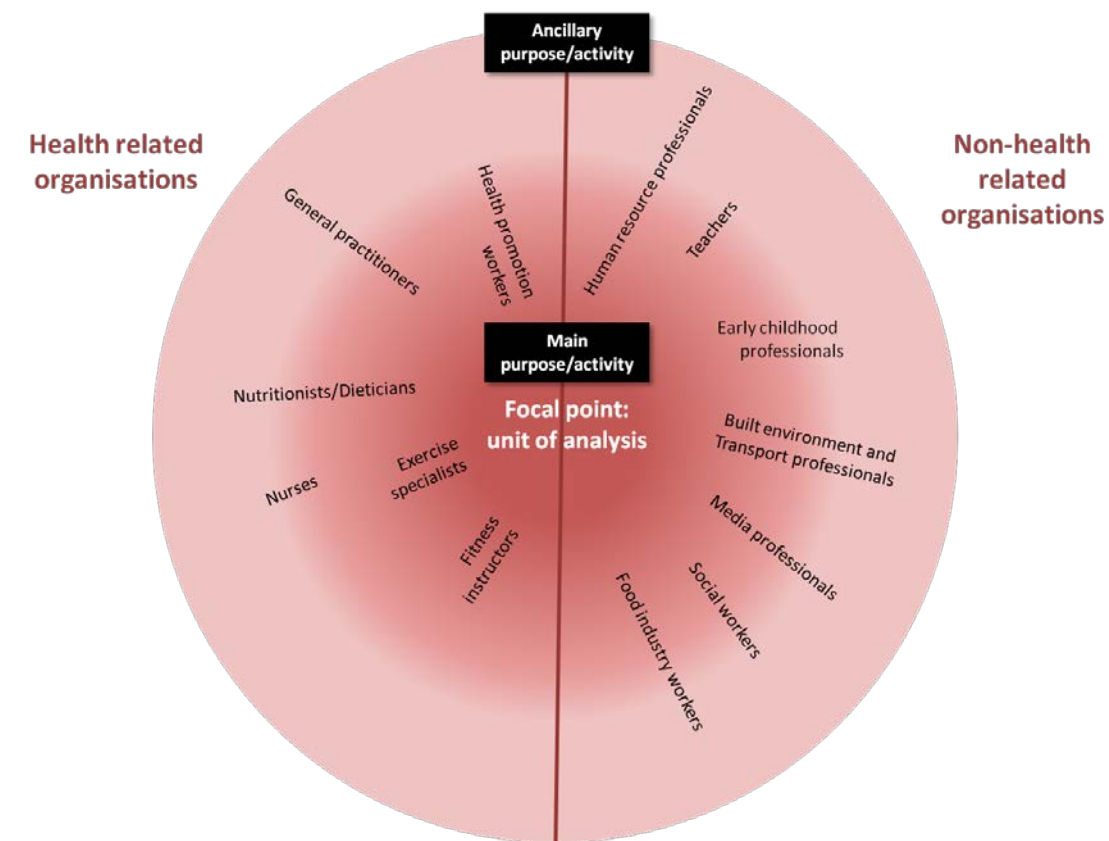
- The unit of analysis: Our initial unit of analysis was a geographically defined area, based on local health administrative boundaries. As we noted in relation to Greater Western Sydney, this may not always be feasible where on-the-ground services are delivered across these boundaries. On the other hand, having applied the framework, we suggest that it could be equally useful for mapping the workforce involved (or needing to be involved) around specific projects, or in addressing a particular health issue (e.g.; smoking cessation, improved nutrition) as well as in defined geographical areas.
- Purpose: It had been intended at the commencement of the project that the framework would be developed in such a way as to be replicated in any defined geographical area, and would provide comparable information for different geographical localities. It was clear from the fact that the generic data collection framework and process needed to be customised in each of the two localities in which it was tested that a “one-size-fits-all” approach is not appropriate, and that the framework needs to be flexible enough to take account of local conditions. In particular, in any locality where the data collection framework is going to be used, it will be important for the organisation commissioning the mapping process to be clear about the questions that are being asked and the purposes for which the data will be used. Some of the potential uses that were suggested to us during the course of the research included:
 - Understanding labour supply and demand issues in a particular geographical region
 - Gathering information on workforce capability, and capability gaps
 - Systematically mapping service delivery gaps and where duplication exists
 - At the start of a new project or initiative, identifying who needs to be involved and kept in touch.
- Methodology used for data collection: As discussed in Appendix One, both quantitative and qualitative methods were used to collect data. In general, qualitative methods (including interviews, focus groups and workshop activities) were more effective at drawing the “network map” or system that is involved in delivering preventive health services.

Despite this, quantitative techniques remain of value, particularly where the questions being asked as part of the mapping process involve questions that can only be answered through quantification of factors such as the number of people involved, demographic details, the proportion of the workforce that is qualified, and so on. It should be noted, however, that the collection of quantitative data is extremely time-consuming and expensive, and requires a high degree of security around data security.
- Boundaries between the core and non-core workforce: Even though it has been commonly noted that the boundaries surrounding the preventive health workforce are porous, the research found distinguishing between the core and the non-core workforce to be difficult to define. Our original framework assumed relatively distinct boundaries between the “narrowly defined” workforce and the “broadly defined” workforce. It also assumed that “core” preventive health organisations would be relatively easy to distinguish from non-core organisations. In reality, these distinctions are extremely difficult to make. Within the two localities in which data was collected, for example, we found the following:

- Core organisations delivering health services along a continuum from preventive health through to acute services, where the amount of resource being devoted to preventive health varying from locality to locality and sometimes dependent on the extent of other health needs
- Non-core organisations (such as food producers and local bodies) that had a clear and intentional focus on improving health outcomes at population level
- Even where non-core organisations delivered preventive health services, the amount of resource dedicated to this could vary. For example, while schools and child care centres are commonly involved in delivery of health promotion messages around nutrition and physical activity, the extent to which this is integrated into the curriculum varies widely.

As a result of this analysis our original framework was revised to reflect that fact that preventive health activities, and the workforce, are best seen as part of a continuum of services, both across the health and non-health workforces. It also reflects the fact that the focal point of analysis might be a project, a particular health prevention issue (e.g.; smoking cessation) This is illustrated graphically in Figure 2 below.

Figure 2. Domains of engagement in preventive health activity - revised



In seeking to undertake a workforce mapping exercise, the pilot project illustrated the value of gathering data not just about the workforce itself, but also the activities that they undertake and the relationships between various actors and activities. An understanding of the wider context within which preventive health services are being delivered - including both the policy context and the labour market one - is also important. Having reviewed our initial framework, and our experience of

collecting data in two localities, we suggest the following framework for the collection of data, with the variables to be included in any specific mapping exercise depending on the nature of the purpose for which data is being gathered. The framework distinguishes between actor, activity, and relationship attributes. It also includes not only traditional information about the size of the workforce and the activities it carries out, but also seeks to understand the capabilities that need to be developed across the workforce as a whole in order for the sector to effectively deliver priority preventive health goals.

Table 3: Actor, activity and relationship attributes

Type	Component	Variables
Context	Institutional settings and policy frameworks	Mandate for preventive health activities Funding for preventive health activities Constraints on processes (e.g. funding and contracting guidelines)
Organisations	Sector	Public – Federal Public – State Not-for-profit Private- for profit
	Business settings	Nature and structure of the organisation <ul style="list-style-type: none"> • Numbers of staff • Governance • Preventive health activities carried out • Funding sources for preventive health activities
	Primary/strategic purpose	Health/non-health <ul style="list-style-type: none"> • General activities carried out • Whether preventive health is a main or secondary activity • Estimate of percentage of total organisational resources spent on preventive health
	Place of preventive health within organisational structure	Central/peripheral Direct/indirect
	Preventive health activities undertaken	Direct delivery of services to individuals Health promotion Policy and advocacy Working in collaboration with other parts of the health sector Working in collaboration with organisations outside the health sector
	Key partnerships	Federal government State government Health bodies within the organisation Health bodies outside the organisation

Type	Component	Variables
		NGOs Aboriginal groups CALD groups Educational institutions Local Government Others
	Relationship attributes (for each relationship)	Name of partner organisation Status of relationship (existing, potential) Relationship attributes (formal/informal) Length of relationship Direction of interaction (one way approach/two way approach) Mai interaction type (referral, information sharing, joint programmes) Main interaction frequency
		Modes of engaging labour
Organisational workforce	Demographics	Gender Age Ethnicity Languages spoken
	Preventive health roles	Role occupation Job descriptions
	Modes of engaging labour	Staff occupations Recruitment and selection policies Nature of employment <ul style="list-style-type: none"> • FT/PT • Permanent /fixed term • Relative importance of contractors/project staff Retention and attrition issues
	Skills and capability	Health-related qualifications Non-health related qualifications
	Structure of jobs	Degree of task autonomy Skills utilisation Working time arrangements Workloads Wage setting processes and incentives
	Level and type of skill formation	Knowledge and technical knowledge needed Other attributes needed Qualifications of staff (health and non-health) On-job training arrangements

Type	Component	Variables
		Off-job training provided Identified skill gaps Career paths and job satisfaction
	Estimated effectiveness	Estimated effectiveness (scale of 1-10) of preventive health activity undertaken

A consideration of the practicalities of collecting this information is contained in an Implementation Manual that accompanies this report.

5. SUMMARY AND CONCLUSIONS

The purpose of this research was to provide information on the current state of the preventive health workforce, including its size and activities, within a limited number of strategically selected localities. This information was to be used to establish a framework for studying the public health workforce (broadly defined) elsewhere.

A draft framework was built as part of the scoping phase of the project, and piloted in two contrasting localities. The piloting process demonstrated the usefulness of the framework (described in detail in Section 4), but also pointed to some key issues for application. These included:

- The need to be clear about the unit of analysis for any workforce mapping exercise. While the pilot project used a geographic unit of analysis, there is potential to explore the possibility of projects or initiatives around a specific health issue as an alternative.
- The purpose of any mapping activity. This project was designed to develop a data collection framework. A generic framework has been developed, but the specific uses to which it can be put will depend on the questions of interest to those who are commissioning mapping activity.

In general, conclusions from the research point to the need to understand the systems within which specific parts of the health workforce operate. This includes not just the demographics of the workforce, but also the characteristics of the organisations within which they work, the activities they participate in, the relationships they maintain, and how these evolve in response to changing circumstances.

APPENDIX ONE: METHODOLOGY

PROCESS

In this section we detail the transition from the conceptual framework outlined in Section 2 to the practicalities of a data collection framework, and the redevelopment of the data collection framework.

For the purposes of the research, the central unit of analysis was the preventive (or public/population) health service delivery arm of the Local Health District² (LHD) in a State or Territory.

In addition to the core elements of the framework that were based on an understanding of the actors involved in delivering preventive health services and the activities that they are involved in, it was quickly realised that identifying the range of people and organisations involved in delivering preventive health activities required paying attention to the relationships and network that had been built up over time. To develop these understandings we made use of network analysis to both identify the actors involved at a local level and attempt to map the connections between different groups. Network analysis is a research approach that explores the structures and relationships between entities (or actors), and has been applied to public health issues to model the transmission of information and diseases, social networks and their influence on health behaviours, and health system/organisational structure (Luke and Harris, 2007).

“Snowballing” techniques were seen as being most appropriate for identifying those involved in preventive health activities within a delineated geographical boundary, and to map the preventive health network (Doreian and Woodward 1992; Luke and Harris 2007; Morris 2004). Snowballing techniques involve initially contacting a small group of actors, then identifying and engaging their contacts (Doreian and Woodward 1992). This approach more accurately and comprehensively identifies network participants particularly if there are changes over time (e.g. relationships change or agencies cease to exist) (Doreian and Woodward 1992). In public health, these networks can include government health agencies, educational institutions, not-for-profits and private entities (Van Wave et al 2010).

A four-step approach used by Doreian and Woodward (1992, p220) was adopted as follows.

1. Identify a fixed list of agencies at the core of the network — here we used an LHD or other State-level public/population health unit.
2. Using operational records of these agencies, identify the key organisations with whom they engaged e.g. through referrals or funding for services.
3. Ask senior persons and staff at each core agency to review and expand the list (through e.g. interviews, focus groups, or circulating the list).
4. Repeat steps 2 and 3 for organisations identified by the core agencies.

This approach builds a network based on flows in preventive health activity, which then enabled data to be captured about the types of organisations and workforces involved. Compared to an attribute based approach (i.e. focussing on occupations or organisations, and then determining if they undertake preventive health), a network approach using snowball sampling is more likely to capture the diversity of actors involved in preventive health.

The basic model for data collection was:

² The terminology used in this Scoping Report is that which is used in NSW. States and Territories differ in the terminology used in each jurisdiction, but the principal unit of analysis will remain the administrative unit responsible for delivering preventive health services in each State.

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- *Phase One:* Desk-based research and internet searches on the demographic profile of the locality and information on health issues. This included searching for any organisations involved in preventive health activities in the locality and gaining an understanding of their strategic direction and any activities that they engage in.
- *Phase Two:* Initial interviews with State level public health/health promotion officials. The purpose of these key informant interviews was to gain an understanding of key policy objectives, describing how preventive health systems work in that locality. In addition, these interviews were used for collecting data about the preventive health workforce employed by the Department itself, as a key deliverer of preventive health services and health promotion activity.
- *Phase Three:* From there, the data collection process would proceed to interviews within organisations in the two outer rings that carried out preventive health activity within the geographical boundaries of that LHD. It would include organisations whose principal activity is health promotion/prevention, and organisations who undertake health promotion/prevention as a secondary activity. The former group will primarily be constituted of organisations directly funded (most significantly by government agencies) for their preventive health activities. Importantly, the latter group includes organisations whose purpose is **not** preventive health and may not even be health related (e.g. Social Services Agencies). A secondary distinction is that organisations in both rings may deliver services that are health-related (e.g. Medicare Locals) or not (eg; schools and Youth Justice services) These organisations will be identified as those who work as partners with organisations with preventive health service delivery function, and who may or may not be funded to do so.

Interview schedules were devised for each of these 'rings', with information to be gathered from a senior manager in each organisation. The primary objective was to gain a deep qualitative understanding of the settings in which the preventive health workforce is employed and developed, and the relationships **between** organisations and individuals at local level. The interview questions were based on the draft data collection framework outlined on p 7, and focussed on system settings, such as funding priorities/constraints, the demarcation between regulated health professionals/managers and other preventive health workers, the role of qualifications, and the nature of career development. It also sought to identify the organisations or types of organisations undertaking preventive health activities as a peripheral activity, or that have a latent potential for delivery preventive health services.

In each of the two regions, it was necessary to modify the basic data collection framework because of local conditions. Details of how this was done are contained below

METHODS: WESTERN SYDNEY

The generic approach was piloted in the Western Sydney Local Health District. At a State level, NSW Health has a Centre for Population Health that is located within the Population and Public Health Directorate. It also delivers state-wide preventive health programs on behalf of the NSW Ministry of Health, through the *NSW Office of Preventive Health*. The Western Sydney LHDs (WSLHD) has a Centre for Population Health, within which sits the Health Promotion Unit (HPU). In coordination with the Deputy Director of the Centre for Population Health, we undertook the following steps and adjustments to implement the methodology.

Phase 1: Background information

This initial stage involved a review of policies, procedures, key documents (e.g. Annual Reports, job descriptions) and demographic and health data produced for the WSLHD area. It also involved liaising with senior staff in the LHD HPU to understand the structure and context of their health promotion

activities, overarching issues and trends in the district. It also involved interviews with senior managers at State level and within the LHD. While a full range of preventive health activities are undertaken in the LHD, the key focus for data collection was on primary and secondary activities associated with chronic disease.

This process took approximately 2 weeks, which included time for the WSLHD to collate and provide relevant internal documentation about its preventive health activities and related administrative records. Following the interview, the senior HPU staff assisted in arranging a workshop with members of the HPU.

Phase 2: Workshop with Health Promotion Officers

A two-hour Workshop with Health Promotion Officers was held to:

- Understand participant perceptions of the most effective health promotion strategies
- Identify and classify the range of organisations involved in preventive health activities in WSLHD
- Collect data on demographic and educational characteristics of health promotion officers.

The workshop involved three separate activities, details of which are included in the Implementation Manual accompanying this report. The main activity involved each team within the health promotion unit (e.g. Schools team, Falls Prevention Team, Partnerships Team) identifying the organisations and individuals with whom they engage, and categorising the nature of the relationship. Following this, each participant put a red sticker on the most important actors — ‘champions’ with the greatest impact on achieving preventive health outcomes in their district. This notion also required careful explanation — champions were those with a very high impact on actual preventive health outcomes/behaviours among the target population groups. This definition de-emphasised the role of those with power but indirect influence (e.g. policy makers), and emphasised the role of actors not initially considered (e.g. chefs at early childhood centres).

The network map exercise identified over 85 organisations or types of organisations (eg; schools and child care centres) with a variety of roles in preventive health. This data was converted into two MS Excel databases:

- actor characteristics (e.g.; industry, type of organisation, preventive health activities undertaken); and
- relationship characteristics. (e.g.; length of relationship, frequency of interactions, types of interaction).

Phase 3

It had originally been intended that Health Promotion Officers would supply the research team with contact details of the main organisations with which they worked. This proved not to be possible, partly because of the sheer numbers involved, and partly because of concerns expressed about privacy and the possibility of respondent burden. As an alternative, the research team distilled a contact list of actors to interview, based on the actor and relationship characteristics, with a view to capturing the dimensions of diversity across the pool of actors. Thus the data collection process aimed to reflect the full range of actors, rather than being a numerically representative sample.

For each organisation, we sought to identify a key informant — someone who had an overarching understanding of the organisation’s preventive health activities on the ground. They were invited to participate in a semi-structured interview about the nature of their organisation, the preventive health activities that they carried out, the nature of the workforce that carries out those activities and skills and capability issues. All interviews were transcribed and analysed using NVivo software.

METHODS: THE KIMBERLEY

The generic approach was also modified for the data collected in the Kimberley, because of constraints imposed by time and distance. While the data collection in Greater Western Sydney took place over a period of approximately three months, in the Kimberley it was truncated into a period of six weeks, with 4 days of interviews in Broome. In addition, Phases 2 and 3 were carried out simultaneously instead of sequentially.

Phase 1

A substantive desk-based research process, undertaken over the course of a week, sought to identify the key organisations involved in the delivery of preventive health services in the Kimberley and to gather information on demographics and health issues. While the emphasis in Western Sydney data had been on chronic disease, the information gathered from the Kimberley indicated a need to understand preventive health measures in the context of some considerable primary health challenges.

Phases 2/3

The desk-based research assisted in identifying some of the key organisations involved in delivering preventive health services in Broome, a town that acts as a central hub for many health and social services in the Kimberley. These organisations were contacted, given information about the purpose of the research and invited to participate by being interviewed during a four-day visit to Broome during April 2014. One organisation declined to participate. Those that agreed to participate were asked to email any relevant documentation (such as organisational charts and job descriptions) to the researchers ahead of the interview time so as to make maximum use of face-to-face time for exploring issues further. Snowballing was used to identify other organisations that were seen as being relevant to the project.

Interviews were carried out with 13 people in seven organisations, using a semi-structured interview schedule based on the interview schedule used in Phase 3 of the Western Sydney data collection. Some minor modifications were made to the schedule where it was clear from the desk-based research that they would not be appropriate in this different geographical location. In addition, a focus group was held involving people from four organisations that had been involved in arranging a major event that had a preventive health message associated with it. The themes explored in the focus group related to building and maintaining relationships across the range of organisations working in the preventive health area, and how communities can be mobilised around preventive health messaging.

All interviews and the focus group were transcribed and analysed using NVivo software.

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MORE INFORMATION

**Workplace Research Centre
The University of Sydney Business School**

T +61 2 9351 5625

F +61 2 9351 5615

E business.workplaceresearchcentre@sydney.edu.au

http://sydney.edu.au/business/workplaceresearch

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