Community health at the crossroads: which way now?

CommunityHealthAtTheCrossroads:WhichWayNow?Comm

Centre for Health Service Development

UNIVERSITY OF WOLLONGONG

December, 2008

Kathy Eagar

Alan Owen

Carla Cranny

Cristina Thompson

Peter Samsa

Other reports in this series

Owen A, Thompson C, Samsa P, Grootemaat P, Fildes D and Eagar K (2008) ***Community health: the evidence base. A report for the NSW Community Health Review***. Centre for Health Service Development, University of Wollongong

Eagar K, Owen A, Cranny C, Samsa P and Thompson C (2008) ***Community health: the state of play in NSW. A report for the NSW Community Health Review***. Centre for Health Service Development, University of Wollongong

Suggested citation

Eagar K et al. (2008) ***Community health at the crossroads: which way now? Final report of the NSW Community Health Review*** Centre for Health Service Development, University of Wollongong

Table of Contents

EXECUTIVE SUMMARY **1**

1 INTRODUCTION **4**

2 CONTEXT **4**

3 METHODS **6**

4 COMMUNITY HEALTH SERVICES **7**

5 CRITICAL ISSUES **9**

5.1 Community health: the evidence base 9

5.2 Community health: the state of play in NSW 9

5.2.1 Strategic vision for the NSW health system 10

5.2.2 The role of community health within the NSW health system 10

5.2.3 Hospital demand management 10

5.2.4 Governance of community health 10

5.2.5 The balance between primary (generalist) and specialist community health services 11

5.2.6 Linkages, partnerships, regional inter government planning and interagency service delivery 11

5.2.7 Information and information management 12

5.2.8 Position of community health in NSW in terms of national reform and Commonwealth opportunities 12

6 STRATEGIC OPTIONS **13**

6.1 Criteria for assessing the options 13

6.2 Option One: Maintain the fundamental role and structure of community health with incremental enhancements 15

6.2.1 Option 1A Status Quo 15

6.2.2 Option 1B Status quo with NSW policy mandate to maintain current community health investment 16

6.3 Option Two: Delineate and redevelop community health as a specialist service 17

6.3.1 Option 2A Redefine community health as a short term hospital demand management program 17

6.3.2 Option 2B Redefine community health as a prevention and early intervention program 19

6.4 Option Three: Reorganise community health into five community streams 21

6.4.1 Option 3A Delineate and organise community health as five horizontally integrated streams 21

6.4.2 Option 3B Delineate and organise community health as five vertically integrated streams 23

6.5 Option Four: Fundamental transformation of the NSW health system 25

7 ASSESSMENT OF THE OPTIONS **30**

8 DEVELOPMENT PATHWAYS **31**

8.1 Strategic and operational issues 32

8.1.1 Governance and management of community health 32

8.1.2 Capital works 33
8.1.3 Information and information management 33
8.1.4 Hospital demand management 33
8.1.5 The balance between primary (generalist) and specialist community health services 33
8.1.6 Linkages, partnerships, regional inter government planning and interagency service delivery 34
8.1.7 Quality and safety systems 34
8.1.8 Planning tools and models 34
8.1.9 Funding models 35
8.1.10 Workforce issues 35
8.1.11 Teaching and research 35

9 CONCLUSION 36

ATTACHMENT ONE 37

Review of Community Health in NSW - Terms of Reference 37

ATTACHMENT TWO 39

Members of the Review of Community Health in NSW Steering Group 39

ATTACHMENT THREE 40

Opportunities for improved efficiencies 40
Disinvestment/reinvestment 40
Opportunities to improve the effectiveness of community health services 42
Opportunities to improve technical efficiency 42
Opportunities to improve allocative efficiency 43
Opportunities to improve dynamic efficiency 44

ATTACHMENT FOUR 46

Information and technology issues 46
The Primary, Community and Outpatient Care Information Program 46
Telehealth 49
Performance indicators for community health 50

List of Tables

Table 1 Service development framework 26
Table 2 Typical attributes of a Level 4 PACHS 27

List of Figures

Figure 1 Summary assessment of the options 30
Figure 2 Community health options and pathways 31
Figure 3 Population needs-based planning process 32
Figure 4 NSW funding model and program allocations 44

Executive summary

Community health in NSW is at the crossroads and important decisions now need to be made. Most of those who worked in community health when it was established as a national program in the 1970s have now moved on and it is time for "generational change". A new generation of health professionals is positioned to lead a new paradigm of community health. The key question for them is 'which way now?'

Four major options for the future are outlined, three of which have sub-options:

Option 1: Maintain the fundamental role and structure of community health with incremental enhancements
- Option 1A Status quo
- Option 1B Status quo with NSW policy mandate to maintain current community health investment

Option 2: Delineate and redevelop community health as a specialist service
- Option 2A Redefine community health as a short term hospital demand management program
- Option 2B Redefine community health as a prevention and early intervention program

Option 3: Reorganise community health into five community streams
- Option 3A Delineate and organise community health as five horizontally integrated streams
- Option 3B Delineate and organise community health as five vertically integrated streams

Option 4: Fundamental transformation of the NSW health system

Each option is discussed and assessed against standard criteria that are based on the international evidence, the qualitative evidence from our consultations and our Terms of Reference.

Summary assessment of the options

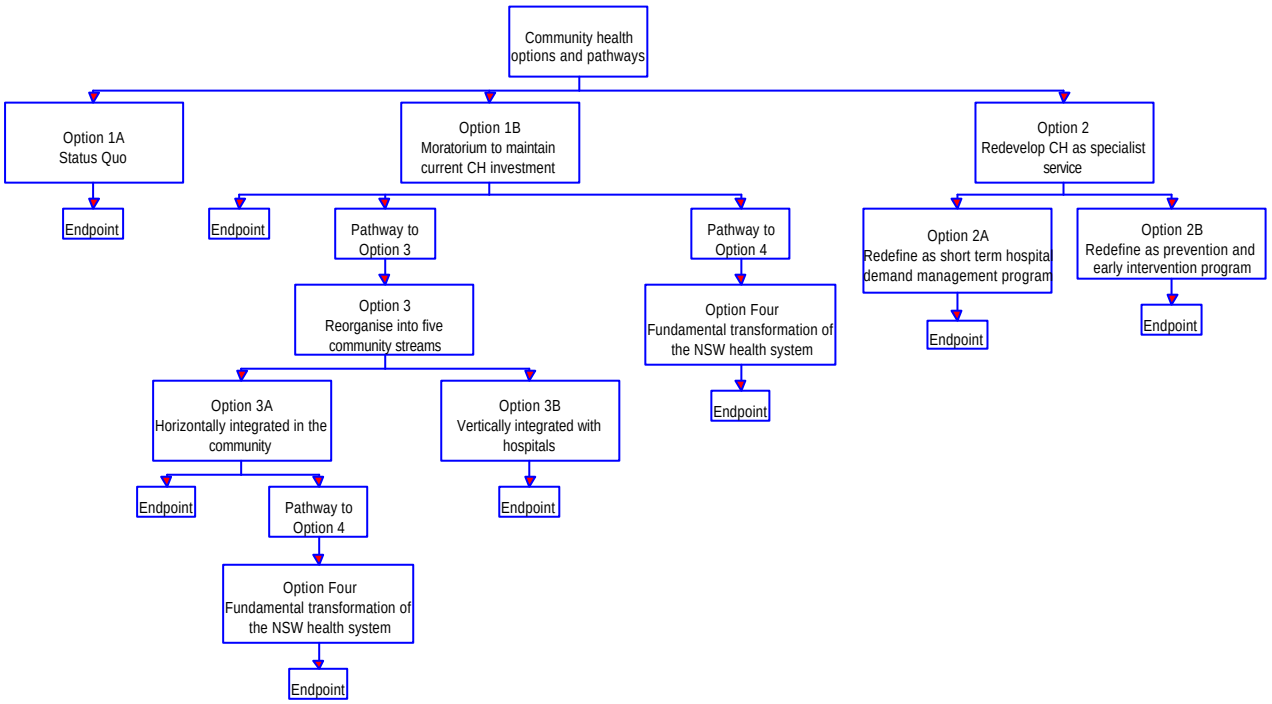
Criterion	Option 1		Option 2		Option 3		Option 4
	Option 1A	Option 1B	Option 2A	Option 2B	Option 3A	Option 3B	
Capacity to deliver on state plan	★★	★★	★	★★★★	★★★	★★★	★★★★★
Synergy with national policy directions	★★	★★	★	★★★	★★★★	★★★	★★★★★
Capacity to strengthen community cohesion beyond service provision	★	★★	★	★★★	★★★★	★★★	★★★★★
Consistency with evidence of reducing community service sector fragmentation	★	★	★	★★★	★★★	★	★★★★★
Consistency with evidence of effectiveness and efficiency	★★★	★★★	★★	★★★	★★★	★★★	★★★★
Capacity to plan and deliver/commission whole of NSW government services	★★	★★	★	★★★	★★★	★★	★★★★★
Capacity to link with GPs and support a HealthOne/Superclinics roll out and/or PCPs	★	★★	★	★★★	★★★	★★	★★★★★
Capacity to impact on health outcomes by a population planning approach	★	★★	★	★★★	★★★	★★	★★★★★
Encourages flexible responses - improving dynamic efficiency	★	★★	★	★★	★★★	★★	★★★★★

Criterion	Option 1		Option 2		Option 3		Option 4
	Option 1A	Option 1B	Option 2A	Option 2B	Option 3A	Option 3B	
Moves focus beyond short term demand management to longer term health outcomes and demand management	★	★★	★	★★★★★	★★★	★★	★★★★★
Feasibility - short-term (1-2 years)	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★
Feasibility - medium -term (3-5 years)	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★
Feasibility - longer-term (5-10 years)	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★

Not all of the criteria have equal weighting and, for this reason, it is not simply a matter of adding up the stars to give a total score. Some of the criteria are demonstrably more important than others and their relative importance may change over time. The weighting that should be applied to each criterion is fundamentally a policy issue. It is thus a decision for NSW Health and not a decision for us. Accordingly, we are not recommending a preferred option.

In addition to considering each option in isolation, it is also necessary to consider possible pathways towards the preferred option. These pathways are summarised below.

Development pathways



In considering the development pathway for community health into the future, the starting point is a decision by NSW Health on the option/s to be adopted. Once that decision is made, the next logical step is for NSW Health to commission a strategic (not operational) review of the NGO sector to agree on the future role of health-funded NGOs in NSW. The future role of the health-funded NGO sector needs to be aligned with the agreed future role of government-provided community health.

Once those decisions are made, the development focus then needs to expand to include the Area Health Services. The critical first task for each Area Health Service is the development of a population needs-based plan for each Area and each sector within the Area that is consistent with the preferred option/s. These plans will need to be developed in close consultation with strategic partners.

In doing so, Areas will need to consider the needs of their local catchment population, opportunities for improved efficiencies and opportunities to build more effective partnerships. Area plans will also need to address a range of strategic and operational issues that were identified in our second report, including workforce issues.

This final report of the NSW Community Health Review is necessarily schematic in its analysis of options for the future of community health in NSW. Its purpose is to clarify the choices that can be made. Once a choice is made, much more detailed work will be required to translate the preferred option into a NSW implementation plan.

In considering the options, it is important to stress that the future of community health cannot be considered in isolation. Decisions about the future of community health are fundamentally linked to decisions about the whole of the NSW health system in the context of opportunities to improve its technical, allocative and dynamic efficiency (see Attachment Three). All three are necessary if the residents of NSW are to receive high quality health services that are revitalised, cost effective and sustainable.

1 Introduction

This is the third and final report of the 2008 review of community health in New South Wales (NSW) undertaken by the Centre for Health Service Development (CHSD), University of Wollongong.

The NSW Community Health Review is a strategic review that has three major components and eleven Terms of Reference. The major components are:

1. An audit of the scope of activity and existing investment in community health services undertaken by NSW Health. This audit was completed by NSW Health.
2. Analysis of gaps in current provision of community health services with a focus on service delivery, governance, linkages and referral pathways with other parts of the health system including general practice, other providers of primary care services and acute and population health services.
3. Development of a vision for the future role and operation of a revitalised community health service sector with a focus on core services to be provided by community health services, best buys and areas for investment and disinvestment and a staged pathway for reform.

Our first report (*Community health: the evidence base*) summarised research on models of community health service delivery in NSW, elsewhere in Australia and internationally and synthesised the evidence on the effectiveness of community health interventions.

Our second report (*Community health: the state of play in NSW*) described current clinical and management structures and identified existing gaps in service provision. It also addressed issues such as linkages and referral pathways with general practices and other community based health services and with the acute and population health sectors.

This final report builds on these first two reports. It is strategically focussed and designed to inform future planning and resource allocation decisions in NSW in line with our Terms of Reference which include making recommendations, both short term and long term, for: *"a revitalised and cost effective community health sector… including a staged pathway for reform."*

The full Terms of Reference for the review are set out in Attachment One and the members of the Community Health Review Steering Group are listed in Attachment Two.

2 Context

This review is being undertaken against a fluid background at both the state and national levels. Since completion of our first two reports in late October 2008, the following events have occurred that are of direct relevance to this review:

- The Special Commission of Inquiry into Acute Care Services into NSW Public Hospitals (the Garling Inquiry) has reported. The NSW Government has indicated that it will respond to the Inquiry's 137 recommendations in March 2009.
- The Special Commission of Inquiry into Child Protection Services in NSW (the Wood Inquiry) has reported. The NSW Government has indicated that it will respond to the Inquiry's 111 recommendations in March 2009.
- The Council of Australian Governments (COAG) agreed in November 2008 on the overall framework and quantum of funding for the next National Healthcare Agreement (2008-2013). However, some matters remain outstanding. Specifically, COAG had previously agreed to consider a program of reforms to roles and responsibilities for funding and service delivery, with the goal of delivering more integrated and responsive services, clarifying accountabilities

between governments and improving performance. Specific proposals in relation to community mental health, disability services and aged care are to be considered in the first half of 2009. Two of these (mental health and aged care) are of specific relevance to this review.

- COAG had previously agreed to a new form of payment - National Partnership (NP) payments. These will fund specific projects and facilitate and/or reward States that deliver on nationally-significant reforms, with financial arrangements including incentive payments to reward performance.
- While funding amounts are yet to be decided, COAG agreed in November 2008 that the first wave of National Partnerships will begin in 2009, including (1) Hospitals and Health Workforce Reform (2) Preventative Health (3) Taking Pressure off Public Hospitals (4) Indigenous Health. All of these are potentially relevant to community health.
- The NSW State Government brought down a mini-budget in November 2008, with total efficiency savings of $125.9m in 2008/09 increasing to $336.2m in 2011/12. Of particular relevance to this review of community health is $64m in savings in 2008/09 to be achieved by *'local savings strategies in Area Health Services including reprioritisation of various initiatives'* (NSW Mini-Budget, 2008)
- As flagged in our compendium *Community health: the state of play in NSW* report, we have since undertaken consultations and received submissions from other key NSW government departments that interface with community health. The full range of methods used is described in the next section.

At a national level, the longer-term environment remains uncertain. Broader long-term reforms are being considered through three strategies, each of which is not due to be complete until mid 2009. These are the National Health and Hospitals Reform Commission, the development of a national primary care strategy and the national prevention taskforce. These three initiatives were described in our compendium *Community health: the state of play in NSW* report and the outcomes of each are relevant to the issues being considered in this community health review.

In this context, it would be easy to conclude that this review could not have been undertaken at a worse time because of high levels of uncertainty. This is particularly so given that the current global economic crisis is also requiring a major re-think at all levels of government.

But in another sense, this is an opportune time for re-vitalising community health because this may be '*the best of times and the worst of times*'[1]. These are times that allow us to ask the obvious question – where will the status quo take the NSW health system? The corollary to this question is equally important – can the NSW health system be better placed to meet its current and future challenges? The opportunities presented in times of 'crisis' can be important triggers to drive significant change.

This third report of the review addresses hard questions in hard times and in answering them it is apparent that the future of community health cannot be considered in isolation. This was a consistent message that was sent throughout the review: *'… a significant investment in community and other primary health services would improve the overall function of the health system, in particular the increasing demand on hospitals and emergency care.'*[2]

Decisions about the future of community health need to be considered in the light of the efficiency of the NSW health system as a whole. And the efficiency of the health system needs to be considered from three perspectives: technical, allocative and dynamic[3]. This framework is used to inform the analysis throughout the remainder of this report.

[1] Opening line of Charles Dickens' second historical novel *A Tale of Two Cities* (1859), set in London and Paris before and during the French Revolution.
[2] Submission to the review from the Council of Social Service of NSW.
[3] Independent Pricing and Regulatory Tribunal (2008) *Framework for performance improvement in health*. Independent Pricing and Regulatory Tribunal of New South Wales, Sydney.

3 Methods

A building block for this review is our first report detailing national and international evidence about models of effective and efficient community health service delivery. That background report, *Community health: the evidence base* examined a range of evidence on effective programs and interventions across the twenty community health service streams. In the process it examined evidence about areas for potential disinvestment and examined trends in the larger health policy environment such as the prominence given to comprehensive primary care and preventive strategies and action on the social determinants of health.

Another building block is our second compendium report *Community health: the state of play in NSW* that summarises the findings from consultations in the field focused on finding contemporary examples of good practice and analyses of Area issues, strategies and structures. This analysis of gaps in the current provision of community health focused on service delivery models, governance, linkages, referral pathways and relationships with other parts of the health system including non-government providers and general practice, other providers of primary care services and acute and population health services.

These reports used the framework of Health Benefit Groups and Health Resource Groups[4] in order to maintain a focus on the population level, the continuum of care and questions of allocative efficiency and were informed by data from a number of sources:

- A national and international literature review.
- More than 60 days of targeted consultation with key stakeholders including the NSW Health Department, other state and Commonwealth government departments, executives and key staff in each Area Health Service.
- Consultations with key partners such as General Practitioner (GP) representatives, community care providers, specialised provider networks, consumer groups and Non-Government Organisations (NGOs) provided the basis for strategic thinking. Views were sought in meetings and submissions and these groups widened the scope of consultation by conducting their own meetings and surveys of people in the field that were fed through to the review in submissions.
- A website was established and maintained to provide wide access to key documents and the submissions received and the Department prepared a series of Bulletins to keep interested groups and individuals informed of the issues being considered and the progress of the review.
- A survey was conducted on-line to gauge the views from the field and a 'blog' was used to allow individuals to comment on submissions and make more in-depth observations.

The component of the review that was used to focus the content for this third report was the analysis of submissions and feedback from strategic consultations with other parts of government and groups with an interest in policy and the strategic issues for community health. Meetings, regular teleconferences, correspondence and workshops with the steering group and other key informants were used to get feedback on the issues raised by the first two reports and the drafts of the strategic options.

This mix of methods was used to inform the development and weighing of a range of options for reform and the strategic considerations derived from the Terms of Reference. The review took a broad approach to evidence and measurement issues. Traditional hierarchies of evidence (which put randomised controlled trials and laboratory experiments at the top) generally do not work for issues concerned with the social determinants of health. The evidence needs to be judged on its consistency and fitness for purpose – that is, does it come from a large number of credible sources and does it convincingly answer the questions asked?

[4] Eagar K, Garrett P and Lin V (2001) *Health Planning: Australian perspectives*. Allen and Unwin, Sydney (p.192).

4 Community health services

This section provides a brief summary of what community health is.

'Community health' is used in this report as an umbrella term for community health services that provide a range of services that are delivered in the community to five population groups:

- Those in the community who are not at risk (health promotion)
- Those who are at risk of developing a health problem (prevention and early detection)
- Those who present with a health problem (assessment and investigation that does not require access to special technology)
- Those with a confirmed problem (community treatment)
- Those with chronic consequences arising from a health problem (continuing care)

It is a component of primary health care, which is a level of the health system. More importantly, the development of that level is also a well-recognised strategy for reform. It has been, and still is, promoted as an organisational intervention in the system as a whole with the goal of improving allocative efficiency.

It follows from this brief description that community health cannot and does not work in isolation. To be effective, community health needs effective partnerships at each point of the health care continuum:

- **Health promotion** – partners include (but are not limited to) public health units, local government, schools, other state government departments, non-government organisations (NGOs) and community groups
- **Prevention and early detection** - partners include (but are not limited to) schools, GPs, other state government departments, NGOs and community groups
- **Assessment and investigation** - partners include (but are not limited to) GPs, schools, other state government departments, Commonwealth-funded services such as Aged Care Assessment Teams (ACAT) and NGOs
- **Community treatment** - partners include (but are not limited to) GPs and hospitals
- **Continuing care** - partners include (but are not limited to) GPs, hospitals, other state government departments (particularly Ageing, Disability and Home Care, Community Services, Housing and Police), Home and Community Care (HACC) services and Commonwealth-funded services such as Community Aged Care Packages.

While some partners work with community health at only one or two points of the health continuum, general practice (both GPs and Divisions) are key partners across the care continuum.

Broadly speaking, community health consists of 20 different service types (Health Resource Groups) that fall into five streams. While some of these may be provided by separate teams, many are delivered by generalist community and primary health staff within a multidisciplinary model.

Every Area Health Service provides the five streams. However, the mix between the 20 service types within them differs by Area. These differences exist for several reasons including history, local population needs, organisational arrangements and the availability of alternate service providers.

Child, family and youth health services

- Child and family
- Physical Abuse and Neglect of Children (PANOC)
- Youth health
- Sexual assault
- Sexual health
- Womens health

Rehabilitation, aged care and chronic disease

- Aged and extended care
- Community nursing and domiciliary care
- Community rehabilitation
- Hospital demand management
- Multidisciplinary chronic disease management
- Palliative care

Community and priority populations

- Intake and initial assessment
- Counselling and psychosocial services
- Health promotion
- Aboriginal health
- Multicultural health

Oral Health

Mental Health and Drug and Alcohol

- Mental health
- Drug and alcohol

It is important to stress that these are 20 different service types that a client/patient may need, not 20 different specialist teams. While some services may be provided by specialist teams, many are delivered by generalist community and primary health staff within a multidisciplinary model.

Submissions to the review were explicit about the potential for bias in an approach that focuses on specialist streams in neglecting the importance of more generalist models and community development activities, as well as shared goals and the importance of roles that connect the system together. *'Communication/movement through the systems must be fluid and dynamic with all services supporting one another with the shared goal of providing the care the client needs. Sharing of information is essential.'* [5]

[5] Submission to the review: Generalist Models from Anne Collings, Director St. Vincent's Community Health Service.

5 Critical issues

This section summarises the critical issues identified in our first and second reports that lead logically into the options that follow in the next section.

5.1 Community health: the evidence base

Although the wider evidence base relating to general practice-primary health care was outside the scope of the review, the evidence is clear. Effective health systems depend on a strong integrated primary health care system and community health plays a central role in that system:

> *Robust evidence shows that patient care delivered with a primary care orientation is associated with more effective, equitable, and efficient health services. Countries more oriented to primary care have residents in better health at lower costs. Health is better in U.S. regions that have more primary care physicians, whereas several aspects of health are worse in areas with the greatest supply of specialists. People report better health when their regular source of care performs primary care functions well. In addition to features promoting effectiveness and efficiency, there are fewer disparities in health across population subgroups in primary care–oriented health systems.*[6]

There is also a good (and in some cases an excellent) evidence-base for the range of services that are typically provided by community health.

However, the amount of available evidence is sometimes limited and the quality varied. Many of the interventions reported in the literature may also be context specific. There are also holes in the evidence in some places. This is not to suggest that some services that are currently provided are ineffective. Rather, it reflects the historic lack of resources for research and evaluation in primary care and community health. This has resulted in only a limited evidence-base in some streams of care, an issue that will need to be addressed in the future.

5.2 Community health: the state of play in NSW

The starting point for considering the state of play in 2008 is the State Plan (in particular F4: *Embedding the principle of prevention and early intervention into Government service delivery in NSW*) and the State Health Plan, as they set clear strategic directions for the future:

1. Make prevention everybody's business
2. Create better experiences for people using health services
3. Strengthen primary health and continuing care in the community
4. Build regional and other partnerships for health
5. Make smart choices about the costs and benefits of health services
6. Build a sustainable health workforce
7. Be ready for new risks and opportunities

However, as outlined in our second report, the current situation is inconsistent with these directions. In particular:

1. Investment in community health has declined relative to overall health spending in NSW
2. Despite declining relative investment, there is a widely held perception that community health is expected to be all things to all people

[6] Starfield B (2008) *Refocusing the system*. New England Journal of Medicine. Vol. 359, No. 20, pp 2087-2091 (November 13, 2008)

3. Significant evidence was collected through the review of a growing mismatch between NSW community health policy (where the priority is on prevention and early intervention) and NSW practice (where the priority is on short-term hospital demand management).

5.2.1 Strategic vision for the NSW health system

In the light of the three issues summarised above, a fundamental question is whether, by default, the NSW health system is inevitably on the way to become simply 'an acute hospital system'. There is a widespread (but not unanimous) view both in the field and in the Health Department that this is the case and a strong message from the field that the current direction is unsustainable. *'This requires a change of mind-set to see the community as the natural setting for health care with the hospital as the expensive alternative if the illness is severe, requires surgery or high technology.'* [7]

While this issue is obviously bigger than the scope of this community health review, its resolution is fundamental to the future of community health in NSW.

5.2.2 The role of community health within the NSW health system

Two essentially incompatible views were put to the review. On the one hand, community health should provide the full range of services from prevention to palliation. On the other, there is a need to define a set of core programs. Implicit in this second view is an assumption that at least some of what community health currently does is of low priority and can be abandoned in favour of a set of core services that are more effective.

Our first report on the international evidence was intended to inform this issue. However, the evidence alone is insufficient to draw a conclusion on this issue because, as already noted, there is a reasonable to strong evidence base for services that are typically provided under the auspice of community health.

Agreement would be required about what services currently provided would *not* form part of the core. The view from the field is very clear on this - *'…does not see that anything further can be cut out of community health, and in fact has highlighted a number of gaps and recommendations for enhancements to community health.'* [8]

5.2.3 Hospital demand management

There is clear agreement and evidence to suggest that there will be an increasing need for more effective hospital demand management that is designed to prevent avoidable admissions, to facilitate early hospital discharge and to reduce the rate of hospital readmissions. But that does not mean that this role is best undertaken under the auspice of community health.

5.2.4 Governance of community health

As our second report illustrates, there are different organisational and governance structures in place in each Area Health Service. A key strategic issue is thus the best governance structure of community health into the future.

The review heard mixed views about whether there needs to be a standard governance arrangement across NSW or whether there should be flexibility at the Area level. Those views supporting flexibility are equally mixed about whether there should be room for flexibility within Areas as well as across Areas. This issue cannot be addressed in isolation as it depends on answers to bigger questions about the role and future directions for community health.

[7] Submission to the review from Dr John Ward, Clinical Leader in Aged Care, Hunter New England Health, Conjoint Associate Professor, Faculty of Medicine and Health Sciences, University of New England.
[8] Submission to the review from the Council of Social Service of NSW.

5.2.5 The balance between primary (generalist) and specialist community health services

The review found no consensus on the right balance between generalist and specialist community health services at any level of the health system. This is not surprising, as the determination of the right balance between specialist and generalist services needs to take account of a number of issues:

- The allocative and dynamic efficiency of the overall health system (see our compendium *Community health: the evidence base* report and Attachment Three of this report for further discussion on this issue)
- Projected workforce shortages
- Career development and promotion opportunities for staff
- How best to deliver services to consumers whose needs cross more than one speciality
- The interface between community health speciality programs and key partners such as general practitioners
- The different needs in urban and rural areas.

A number of submissions to the review saw no conflict at all between generalist and specialist models. As a member of the Spina Bifida Collaborative group pointed out, *'the local community health centre could provide a very valuable ongoing support service to young people with high support needs and significantly improve their health care and quality of life… A health worker in each community health centre with a special interest in young people could develop some expertise in these areas, network with primary and tertiary health providers, provide some case work and run support groups.'* [9]

Ultimately, achieving the right balance depends on bigger decisions about the future role of community health in NSW.

5.2.6 Linkages, partnerships, regional inter government planning and interagency service delivery

Many of the key issues for the future are grouped around the strategies that promote effective linkages within and beyond health. In considering this issue, Leutz's Laws of Service Integration are relevant. Based on a comparative UK:USA study, Leutz (1999, 2005) developed 6 laws to guide integration of health and community care:

1. *You can integrate some of the services for all the people, and all the services for some of the people, but you can't integrate all of the services for all of the people.*
2. *Integration costs before it pays.*
3. *Your integration is my fragmentation.*
4. *You can't integrate a square peg and a round hole.*
5. *The one who integrates calls the tune.*
6. *All integration is local.*

Each of these laws express important principles about achieving lasting change, but perhaps the most important is Leutz's third law - 'your integration is my fragmentation'. There is evidence of improved vertical integration between community health and hospitals in some areas (particularly through the introduction of clinical streams). However, there is also evidence that, in the majority of cases where the linkages are made from the hospital looking outwards, it has led to increased fragmentation from GPs, NGOs and other state government departments.

[9] Submission to the review from Dr Carolyn West, Director Spina Bifida Unit, The Children's Hospital at Westmead.

Input from strategic consultations with other parts of state government pointed to the importance of focus on where most people are most of the time (at home) and a strong generalist base for primary care, both as a means of improving integration and as way to encourage client and community participation. *'The community health system's pivotal, enabling role … is central to the health and well-being of many social housing tenants.'* [10]

This feedback pointed at the relative neglect of models in health that promoted more horizontal forms of integration in the community and the involvement of non-health service providers in planning interventions, which tended to be 'top-down'. This was due to the focus on the demands of acute care in current health practice and the growth of more specialised service streams coupled with narrow targeting of specific population groups such as the post acute and severely chronically ill.

A number of submissions from other government departments highlighted their concerns that the current pressures on community health squeeze out the opportunities for joint planning and reduce the capacity for support of innovative models of care. *'For example, attendance at DADHC planning sessions by NSW Health staff is often dependent on the work priorities faced by those staff at the time.'* [11]

5.2.7 Information and information management

While many information technology (IT) issues were identified as part of the review, the issues are not limited to IT. In meetings with executives and managers at both the departmental and area level, we heard criticism of community health because the staff cannot demonstrate what they do. But neither the data systems nor the information technology are in place that would allow community health to do otherwise. Irrespective of what strategic direction for the future is agreed, a major investment is required.

While the work currently being undertaken to develop a community health information system under the Primary, Community and Outpatient Care Information Program will help, as described in Attachment Four, there is a need to refine the current proposals because they will not meet future requirements.

5.2.8 Position of community health in NSW in terms of national reform and Commonwealth opportunities

The key issues for the Commonwealth's reform agenda include the relationship of community health with general practice and integration with other Commonwealth-funded initiatives. The National Health and Hospitals Reform Commission proposed in its *Beyond the Blame Game* report that community health should become a Commonwealth responsibility. A key strategic issue for NSW is thus how it responds on this issue. In the absence of a detailed proposal, it is difficult to know what this suggestion means in practice at this stage.

[10] Submission to the review from Housing NSW (p.2).
[11] Submission to the review from the Department of Ageing, Disability and Home Care (p.17).

6 Strategic Options

This section outlines options for the future. These options are not mutually exclusive. Some options might be adopted as the end point. Alternatively, one of the early options might be adopted as a development path to a subsequent option. This section does not include options that involve the transfer of community health to the Commonwealth, as it would be premature to consider this type of option at this stage.

Four major options are outlined, three of which have sub-options:

Option 1: Maintain the fundamental role and structure of community health with incremental enhancements (2 sub-options)
Option 2: Delineate and redevelop community health as a specialist service (2 sub-options)
Option 3: Reorganise community health into five community streams (2 sub-options)
Option 4: Fundamental transformation of the NSW health system

Each is discussed in turn under a series of sub-headings that reflect our Terms of Reference (see Attachment One). Before doing so, we outline the criteria that have been adopted for assessing each option.

6.1 Criteria for assessing the options

A set of criteria was developed to assess the relative merits of the options. The criteria are defined briefly below. They are based on the international evidence, the qualitative evidence from our consultations and are also derived from our Terms of Reference.

Not all of these criteria have equal weighting and the relative weight given to each is a matter for the Department to consider in the light of current and subsequent government (national and state) priorities and decisions. Some are demonstrably more important than others. This issue is discussed further in Section 7 where a summary assessment of the options is described.

Capacity to deliver on the State Plan (F4: prevention and early intervention)

This criterion assesses the degree to which each option is consistent with the broader policy environment within which NSW Health operates. For convenience, these have been synthesised into the two key areas of prevention and early intervention.

Synergy with national policy directions

There are consistent themes around prevention, early intervention and the re-orientation of priorities towards primary care, with the outlines of specific partnership agreements being accepted in principle. Much detail is still to be negotiated (before mid-2009) but the overall directions are clear enough to be incorporated into the criteria.

Capacity to strengthen community cohesion beyond service provision - capacity building, local answers, joint planning of a range of interventions and programs especially indirect services

This criterion is included as it is a practical expression of the capacity to deliver on the State Plan. It also reflects the major concerns expressed in the field about the narrowing focus of community health and the impact of hospital-driven priorities on local area planning for action on the social determinants of health.

Consistency with evidence of reducing community service sector fragmentation

All consultations, and in particular those undertaken with the community care and support and disability sectors, emphasised the extent of the fragmentation problem, most often attributed to the growth of 'micro-programs' in the Commonwealth aged care sphere and specialised programs directed at chronic diseases.

Consistency with evidence of effectiveness and efficiency

The information considered in the report on the evidence base and our consultations with the Areas (where models of good practice were the focus) can be used to evaluate the degree to which each option is consistent with evidence of effectiveness and efficiency. This criterion also relies on analysing relevant submissions and the results of strategic consultations.

Gives capacity to plan and deliver/commission with whole of government/whole of community

The key concept embodied in this criterion is that of joint planning, which is a pre-condition to commissioning new services, and a basis for decisions around better role delineation among existing providers.

Capacity to link with GPs and support a HealthOne/Superclinics/Multi-Purpose Services roll out and/or Community Health-Primary Health Care models such as Primary Care Partnerships in Victoria

Regardless of the outcomes from national-level reforms in this area, this criterion is important for NSW based on the international evidence of effective primary care models, ways of reducing fragmentation and building facilities and service networks that are more 'fit-for-purpose'.

Makes an impact on health outcomes by a population planning approach

This criterion reflects the consistent findings of the review that population planning has taken a back seat to planning for beds, facilities and services. It implies a capacity for understanding local population groups, routine measurement of the outcomes from health and related interventions and decision support tools to assist equity in resource allocation. This is also related to the improvement of allocative efficiency, and also equity, by using a service development framework designed to improve service planning and support decisions about the best service mix for the population and service setting.

Encourages flexible responses - improving dynamic efficiency

The aim of improved dynamic efficiency is to reduce the fragmentation brought about by multiple programs with tight eligibility criteria and the growth of specialist or narrowly focused interventions. This criterion implies a capacity to encourage the development of substitutable service types that can better respond to complex or health-related consumer needs.

Moves the focus beyond short term demand management to longer term health outcomes and longer term demand management

This criterion also reflects an option's capacity to encourage a focus of activity that is more 'up-stream' in a population or individual's health service encounters in the sense of early detection and the maintenance and restoration of physical function. This criterion is also consistent with the broader health policy environment within which NSW Health operates.

Feasibility - short-term (1-2 years)

The considerations around short-term feasibility are the capacity for an option to achieve quick and measurable (but also likely to be minimal) changes that can positively develop community health services' capacity to deliver on prevention and early intervention. Options that are more complex or require a set of logical steps to implement will, by definition, take more time.

Feasibility - medium-term (3-5 years)

The considerations around medium-term feasibility are similar to those in the short term with the added requirement that the capacity to plan for the necessary supporting infrastructure and implementation steps will be increased.

Feasibility - longer-term (5-10 years)

The considerations around longer-term feasibility are that the option requires a long lead-time and implies a capacity to plan and build the necessary supporting infrastructure. The number of inter-

related implementation steps will be greater and the ability to test feasibility issues at each step will be greater.

Each option is described and discussed below using headings derived from our Terms of Reference that summarise the key issues under each option that are relevant to the set of criteria and the proposed development pathway:

- Resource implications
- Implications in relation to clinical and management structures and the integration of community health within existing clinical networks
- Implications in relation to linkages and referral pathways within the primary and community health sector and between community health and the acute and population health sectors
- Implications in relation to mechanisms for improving the transparency and assessment of service quality and costs, including appropriate key performance indicators (KPIs) for community health
- Any other relevant issues.

6.2 Option One: Maintain the fundamental role and structure of community health with incremental enhancements

6.2.1 Option 1A Status Quo

Description of the option

In this status quo option, each Area will continue to establish and fund the community health services it can afford in the context of local circumstances. Incremental enhancements will be put into place either as local, state or national initiatives as funds allow.

Resource implications

Community health has been receiving a decreasing share of NSW health funding in each of the last three years. This could be expected to continue unless specific enhancement funding is made possible as a result of the new National Healthcare Agreement (NHA) or a National Partnership (NP) agreement or similar.

Implications in relation to clinical and management structures and the integration of community health services within existing clinical networks

As set out in our compendium report on the *Community health: the state of play in NSW*, each Area has discretion in determining its own management and network structures. There are four basic models in place and this diversity can be expected to continue:

- Area wide primary and community health service with budget and line management
- Area Primary and Community Network Model
- Integrated health service with area primary and community care program
- Area community health policy unit or directorate.

Implications in relation to linkages and referral pathways within the primary and community health sector and between community health services and the acute and population health sectors

There is no reason to believe that there would be any changes in linkages and referral pathways without structural reform of the system.

Implications in relation to mechanisms for improving the transparency and assessment of service quality and costs, including appropriate key performance indicators (KPIs) for community health services

The fundamental prerequisite for introducing routinely captured KPIs and outcome measures and for achieving improved information on service quality and costs is a community health information system that captures relevant activity data as well as both quality and outcome measures. This is an issue that needs to be addressed at a NSW level (see Section 8.1 and Attachment Four).

Other issues

As summarised in the compendium *Community health: the state of play in NSW* report, a continuation of current arrangements would be at odds with the *NSW State Health Plan* and the NSW policy on primary and community health.

6.2.2 Option 1B Status quo with NSW policy mandate to maintain current community health investment

Description of the option

This option is the same as Option 1(a) except in one important respect. Under this option, NSW Health would mandate that each Area Health Service is to at least maintain their current level and percentage of investment in community health. NSW Health would also seek to encourage Areas to make incremental enhancements as possible. The purpose of this policy mandate would be twofold:

- At least maintain current investment levels in community health
- Within the available pool of community health funding, to stop the drift of investment from prevention and early intervention to chronic disease and hospital demand management. This would be consistent with the NSW State Health Plan.

This option may be an endpoint in itself. Alternatively, it could be adopted as a development path to a subsequent option.

Resource implications

The total quantum and percentage of funding invested in community health would be maintained at current levels (as a minimum), as would be the investment in prevention and early intervention. Community health funding would be quarantined.

Implications in relation to clinical and management structures and the integration of community health services within existing clinical networks

See Option 1A.

Implications in relation to linkages and referral pathways within the primary and community health sector and between community health services and the acute and population health sectors

See Option 1A.

Implications in relation to mechanisms for improving the transparency and assessment of service quality and costs, including appropriate key performance indicators (KPIs) for community health services

See Option 1A.

Other issues

Some growth funding for community health may be able to be identified in the new National Healthcare Agreement (NHA) or a National Partnership (NP) agreement or similar.

6.3 Option Two: Delineate and redevelop community health as a specialist service

6.3.1 Option 2A Redefine community health as a short term hospital demand management program

Description of the option

Under this option, the target group for community health services would be people who are at risk of hospitalisation within 6 weeks and patients who have recently (6 weeks) been hospitalised. This option would redefine the NSW health system as an acute hospital system backed by a community health service with the same aims. All other community health functions would be closed, transferred to the NGO sector or potentially transferred to the Commonwealth.

Community based health services would provide time limited chronic disease assessment and stabilisation services to reduce the risk of a hospital admission for people of any age. The focus would be on the most complex or unstable chronic problems, multidisciplinary community acute post acute care services and time limited rehabilitation and case management services for people requiring outpatient or home based therapy to facilitate timely discharge.

Mental health services and possibly oral health would be maintained as stand alone programs and child, youth and family health services and the majority of the community and priority populations programs would be transferred to other agencies.

Resource implications

Hospital in the Home and Community Acute and Post Acute Care Services (CAPAC) represent the high cost end of the community health service spectrum and the volume of services required over time and their cost will continue to grow.

No net savings are likely to be achieved unless hospital beds are actually closed behind these services or virtual beds are funded through enhancements. There may be some limited revenue raising opportunities by charging privately insured patients with relevant cover for domiciliary care and by continuing to charge the PBS for pharmaceuticals.

Some one-off savings could be made through disposal of surplus Community Health Centres but a proportion of these resources would need to be retained to invest in the infrastructure costs of hospital avoidance and demand management services. These include telemedicine and home monitoring equipment, call centres, information technology and vehicles and hospital campus accommodation for the community teams. The extent to which direct GP referral to a CAPAC type program would actually prevent a hospital admission or ED attendance in the short term or simply improve access to a wider range of services for existing community clients without changing their disease trajectory is unclear from the current evidence.

There are also potential resource issues associated with the transfer of child, youth and family and community and population health services to other government agencies, the NGO sector or the Commonwealth that would need to be considered under this option. Examples include administrative costs associated with competitive tendering or outsourcing services to the NGO sector, the need to cash out entitlements if staff transfer with services and possible penalties for cost shifting that could apply under the Australian Health Care Agreements if service transfers do not form part of an agreed national reform agenda.

Implications in relation to clinical and management structures and the integration of community health services within existing clinical networks

Supporting effective hospital demand management services is relatively straightforward under Option 2A once the core programs and services are agreed. Decisions will be needed at local or regional levels about how these services are most efficiently configured.

Hospital avoidance services that target people with unstable complex chronic diseases at risk of hospital admission are provided by community nurses or specialist care coordinators/case managers. Liaison with GPs and specialist teams will be needed to assess changing medical, psychosocial and home care support needs. Specialist teams, case managers, community rehabilitation, pre-admission assessment and hospital outreach models are successfully operating in different parts of NSW with capacity to provide varying levels of personal care either through direct provision or by purchasing.

The key structural issue is whether the hospital avoidance and CAPAC services are integrated or separate services. This is primarily a matter of scale and volume and each Area will determine the model or models most appropriate to their local needs.

In regional centres where a single rural referral or base hospital is the major acute care supplier, a hospital administered CAPAC and ambulatory care service is likely to meet the workload efficiently with backup from telemedicine for remote consultation and follow-up.

Implications in relation to linkages and referral pathways within the primary and community health sector and between community health services and the acute and population health sectors

The key clinical issues are the local capacity to engage with and secure clinician buy-in so that GPs and medical staff have the right incentives to refer and discharge patients to the program as well as ensuring that there is credible clinical leadership and sound operational management for the program.

Under Option 2A hospital avoidance and community acute and post acute care services would continue to operate in conjunction with acute hospital patient flow units. They would function as an integral part of admission and discharge planning processes, maintain strong links and a physical presence in ED and work under clinical pathways for management of chronic and complex conditions. Arrangements for linkage with the primary and community care sectors are equally important.

Improved methods for exchanging patient information and assessments with GPs, community care agencies and HACC providers in real time using an electronic health record or equivalent is a precondition to successfully developing this option.

Implications in relation to mechanisms for improving the transparency and assessment of service quality and costs, including appropriate key performance indicators (KPIs) for community health services

As with other options, information systems will need to be designed or adapted to capture activity, quality and cost information at a level of sophistication that would enable hospital demand management services to be costed and potentially funded as part of an episode of care. At the minimum this would require a robust community health information system. This is an issue that needs to be addressed at a NSW level (eg, Section 8.1 and Attachment Four).

The first requirement will be to unbundle the current community health budget at Area and state level to identify the existing resources that will be retained to fund hospital demand management programs, the resources to be transferred to other agencies or used to contract services from the non government sector and the activities that are reasonable to transfer to the Commonwealth for program level or fee for service funding. Independent audit of these funds and negotiation for funding transfer will be required.

Other issues

Hospital demand management services are generally required to support high volume-high turnover acute hospitals in metropolitan and regional centres. A different model of generalist or primary health community nursing is required in rural and remote communities and this will need to be accommodated under this option.

The roles and responsibilities of midwives and early childhood health nurses would require review under this model to determine the most effective and appropriate approach to provision of universal home visiting for new mothers as mandated under the State Plan. At present this function is primarily provided by early childhood nurses or generalist community nurses in some rural areas. If hospitals continue to provide care for the postnatal period or the first six weeks and the remaining child health services transfer to other agencies, then changes to the workforce may be required to enable community midwives or team midwifery groups to provide assessment and home visiting services for both mothers and babies. Alternatively early childhood nurses would be employed as part of an integrated maternal and child health team.

There will be opportunity costs and equity issues associated with changes in the role of community health and transfer of responsibilities to GPs and other agencies. As the provider of last resort for many low socioeconomic groups that already have a high burden of disease and poor health outcomes, the risk is that these changes may result in reduced access for the most vulnerable groups.

6.3.2 Option 2B Redefine community health as a prevention and early intervention program

Description of the option

Under this option, responsibility for CAPAC services and funding growth in acute and post acute care would be transferred to hospitals in line with Option 2 A. The 5 major streams and the majority of the service types listed in Section 4 would continue to be provided and community health would be redefined and given a specific remit to focus on prevention and early intervention.

Child, youth and family health services would be strengthened under this option to provide universal and targeted services that are evidence based and have long term beneficial outcomes. This would include sustained home visiting for high risk families, allied health early intervention services and therapies, opportunistic immunisation and rapid response and sustained early intervention services for young people at risk of mental health or alcohol and drug problems.

The focus on prevention, early intervention, relapse prevention and maintenance for older people and people with chronic and complex health problems would be strengthened under this option. Community health would provide clinical expertise, multidisciplinary programs and psychosocial support in line with the evidence base on healthy ageing and effective chronic disease management.

Services addressing the needs of priority populations would continue to focus on strategies to improve access, and more active outreach within the community. They would support at risk groups and build capacity in line with the many (but unevenly distributed) examples of local innovation described as good practice in *Community Health: the state of play in NSW*.

Resource implications

The current level of investment in Community Health, less the cost of CAPAC-type services would be retained, with progressive enhancement of evidence based programs in line with the requirements of the State Plan.

Implications in relation to clinical and management structures and the integration of community health services within existing clinical networks

Child, youth and family; rehabilitation, aged care and chronic disease; oral health; and, community and priority populations would make up the core clinical streams in an overarching primary and community health service under a Director of Community Health.

Mental health and drug and alcohol services would continue to report to the Area Director of Mental Health & Drug and Alcohol Services with clearly defined arrangements for input into child and adolescent and older people's mental health assessment and early intervention services.

Community health would continue to participate in Area clinical networks and service development groups with hospitals and other service providers to facilitate integrated service planning and to ensure 'preventive' chronic disease programs are well integrated with the specialist teams in hospitals.

Implications in relation to linkages and referral pathways within the primary and community health sector and between community health and the acute and population health sectors

A stronger strategic focus on prevention and early intervention will reinforce the need for robust linkages, joint planning and complementary service development within the wider primary and community care system and with population health.

Under this option, community health would be strengthened to work as part of a local network with general practitioners and non government organisations to provide coordinated prevention and early intervention services, including case finding. They would also use tools such as 'enrolment' and 'registration' to target GP patients to participate in disease management programs or structured intensive early intervention services that require the clinical skills and expertise of community nurses and case managers, early childhood health staff and multidisciplinary allied health teams.

Community health would continue to work alongside public health units to provide opportunistic or targeted immunisation and other appropriate public health measures. They would use their clinical skills as required to support health promotion practitioners to implement aspects of priority programs such as falls prevention, nutrition and obesity prevention and to support whole of government capacity building initiatives.

Implications in relation to mechanisms for improving the transparency and assessment of service quality and costs, including appropriate key performance indicators (KPIs) for community health services

The fundamental prerequisite for introducing routinely captured KPIs and outcome measures and for achieving improving improved information on service quality and costs is a community health information system that captures relevant activity data as well as both quality and outcome measures. This is an issue that needs to be addressed at a NSW level (see Section 8.1 and Attachment Four).

Other issues

This option will increase the capacity of the NSW Health system to respond to the NSW State Plan and the NSW State Health Plan in a more proactive and systematic way and strengthen its capacity to partner effectively in whole of government initiatives.

This will require a specific commitment to sustained and equitable investments in prevention initiatives and early intervention programs where the evidence is clear but where there is a long lead-time to achieve better outcomes. In a time of escalating hospital demand and a wave of ageing baby boomers, sustaining this commitment may prove challenging. The question in economic terms is whether NSW can afford not to.

6.4 Option Three: Reorganise community health into five community streams

6.4.1 Option 3A Delineate and organise community health as five horizontally integrated streams

Description of the option

This option involves delineating and organising community health into clinical streams that are horizontally linked with other primary and community care services, primarily general practice and NGOs, with mechanisms for vertical coordination and communication with hospitals as required. In this option, five defined but still predominantly generalist based community health streams would be established:

- Child, youth and family,
- Rehabilitation, aged care and chronic disease (this program may be further sub-divided in large areas),
- Mental health and drug and alcohol,
- Oral health
- Community and priority populations

The 20 Health Resource Groups that sit within these five streams were listed in Section 4 (page 7).

Under this option, community health is organised into five clinical streams that focus on the needs of population groups who are high volume users of community based health services - children and families, people with chronic or complex diseases and older people - and priority populations with more specialised needs or a high burden of disease or disability where targeting is required to ensure access to appropriate health care. This includes indigenous people, people with mental health or drug and alcohol problems, victims of violence, people who are eligible for public dental treatment, refugees and new arrivals and other high risk or disadvantaged or vulnerable groups needing triage and support to navigate the health system.

Each stream would be staffed by multidisciplinary teams with relevant professional expertise and would offer the suite of evidence based interventions and mix of universal and targeted services across the care continuum that are needed by the population group in scope.

Resource implications

Available community health resources would be reorganised and more tightly targeted under the clinical stream model. This would enable explicit decisions to be made based on evidence about the balance of investment and best buys across the care continuum, the outputs that should be delivered and technical and allocative efficiency within each stream.

It would also highlight the sufficiency of the baseline funding as the population base or population group needs change over time using measures such as needs adjusted per capita funding or staff to population ratios to guide future investment.

Community health would also run hospital demand management services for acute hospitals in urban and regional centres. A funding formula or model linking community acute and post acute care (CAPAC) investment with hospital workload and commissioning of new services would be required to ensure that overall investment in the rehabilitation, aged and chronic care stream remained balanced and that CAPAC supply was maintained at the levels required.

Mental health and oral health already have quarantined funding or designated funding streams. Decisions about how the residual funding is split between the other streams and the proportion of the stream budget that should be allocated for shared overheads could be made centrally or by each Area Health Service.

Implications in relation to clinical and management structures and the integration of community health services within existing clinical networks

Child, youth and family; rehabilitation, aged care and chronic disease; oral health; and, community and priority populations would make up the core clinical streams in an overarching primary and community health service under a Director of Community Health.

These streams would continue to participate in Area clinical networks and service development processes with hospitals and other service providers to facilitate integrated service planning, communication and discharge planning, specialty level professional development and to provide advice on global resource allocation. Clinical leadership positions would ideally be shared between community health and hospital services.

Under Option 3A community and acute hospital funding and operations would remain separate. However, in some Areas it may be appropriate to incorporate sub-acute admitted and outpatient services under the rehabilitation, aged care and chronic disease stream.

Mental health and drug and alcohol services are already organised as a formal funding program with hospital and community mental health components that report to the Director of Mental Health & Drug and Alcohol Services in most Areas. No fundamental change to this arrangement is proposed but linkages in relation to common clients, jointly provided programs, collocations and shared infrastructure need to be formalised.

Implications in relation to linkages and referral pathways within the primary and community health sector and between community health services and the acute and population health sectors

Under Option 3A each stream would focus on building strong horizontal linkages and practical service partnerships within the primary and community care sector. This would include integrated arrangements for assessment, referral, care planning and case management, joint service planning and needs assessment activities and role delineation with general practice, relevant NGOs and government agencies.

Each community health stream would continue to provide relevant hospital in-reach and consultation liaison and assessment services as part of their models of care and maintain discharge planning protocols and clinical pathways to ensure hospital patients can access timely post acute care and multidisciplinary chronic disease services. Community health in most Areas would also continue to manage the formal CAPAC service to support demand management in acute hospitals in urban and regional centres with high patient throughput. These would be provided as part of the rehabilitation, aged and chronic care stream with funding linked to changes in hospital workloads.

Implications in relation to mechanisms for improving the transparency and assessment of service quality and costs, including appropriate key performance indicators (KPIs) for community health services

The fundamental prerequisite for introducing routinely captured KPIs and outcome measures and for achieving improved information on service quality and costs is a community health information system that captures relevant activity data as well as both quality and outcome measures. This is an issue that needs to be addressed at a NSW level (see Section 8.1 below).

6.4.2 Option 3B Delineate and organise community health as five vertically integrated streams

Description of the option

This option involves delineating and organising community health into streams that are vertically integrated with, and managed by, hospitals/clinical networks. In this option, five streams would be established, along with mechanisms for horizontal coordination and communication between them as required:

- Child, youth and family,
- Rehabilitation, aged care and chronic disease (this program may be further sub-divided in large areas),
- Mental health and drug and alcohol,
- Oral health
- Community and priority populations.

The 20 Health Resource Groups that sit within these five streams were listed in Section 4 (page 7).

Under this approach operational management of hospital and community based health services would be fully integrated and streamlining the vertical linkages between the acute/sub-acute inpatient, outpatient and community based services would be the focus of stream based service development, policy and planning.

Resource implications

Management of a whole of stream budget would theoretically provide opportunities to redefine the mix of resources allocated to inpatient, outpatient and community based care and across the care continuum from prevention to continuing care according to the workload in each setting and evidence on effective practice.

However, resolving competing resource allocation priorities across settings of care is challenging. This is particularly so in a funding environment with limited capacity for new investment to address growth and may be impossible to achieve in a no growth or low growth climate with escalating demand overall and high growth rates in hospital admissions and ED presentations.

Information presented to the Review team during the consultations and site visits suggests that where community health services have been integrated with acute hospitals in metropolitan areas and budgets have been pooled there has been a drift in resources toward acute admitted care. This has occurred even when there was solid evidence and policy support for community based early intervention or prevention programs and for chronic disease management. This finding is consistent with the NSW Health Audit results.

There is an agreed need to strategically expand community based service capacity to contain the rate of growth in demand for hospital care. In this context, a model that enables managers to transfer funds and skills out of community health to meet short term demand pressures in hospitals can result in decisions that are highly problematic.

Implications in relation to clinical and management structures and the integration of community health services within existing clinical networks

Under Option 3B community based health services would be functionally and administratively integrated with hospital services (as part of clinical streams) and staff would sit within the clinical network or hospital department most closely matched to the streams above.

In most Areas clinical streams or networks have a predominantly strategic or advisory role and provide clinical leadership to drive process improvement or service development and innovation across the Area. Operational budgets are generally held by network, cluster or hospital General Managers who are accountable for achieving global budgets and performance targets and have the ability to move resources (albeit at the margins) across services and departments to achieve these targets.

Unless NSW Health chose to mandate a statewide operational management structure, each Area would develop local arrangements to manage community based and hospital services and the arrangements are not likely to be uniform across NSW.

Some Areas can be expected to retain dedicated community health services with local managers who report to the Hospital and Community Health General Manager and may be a member of the Health Service Executive Team. In some locations General Managers will adopt a professional model to deploy staff and treat community health as a hospital outpatient service. The allied health department or business unit model or a whole health service nursing model with Nursing Unit Managers and Clinical Nurse Consultants allocated to specific services and wards are examples of this approach.

Under this Option there would be no need for an Area community health operational management structure but some Areas may retain a policy unit or reform group with a community health focus to drive process improvement and facilitate strategic linkages.

Implications in relation to linkages and referral pathways within the primary and community health sector and between community health services and the acute and population health sectors

Under Option 3B links with other primary and community care services will tend to reflect the strengths and weaknesses of the referral arrangements and care planning and coordination systems in place between general practice, NGOs and hospital services.

Consultations with Divisions of General Practice indicated that the quality and effectiveness of these relationships vary widely across NSW. Some Divisions reported strong working relationships with the local hospitals and community health including a range of shared programs, GP liaison positions and other formal and enduring linkages. Other Divisions reported inconsistent or personality based arrangements with local clinical networks that were not sustained over time and a widening gap between the local health service and local GPs.

Streams such as aged care, paediatrics/child health, mental health and services focussed on domestic violence or sexual assault have incentives to maintain formal linkages with NGOs and other government departments because of global funding arrangements and/or mandated statutory obligations. These streams are likely to maintain interagency linkages to ensure viable service systems irrespective of the management structure they work within but their ability to enter into binding agreements with third parties entailing resourcing commitments would be limited.

Implications in relation to mechanisms for improving the transparency and assessment of service quality and costs, including appropriate key performance indicators (KPIs) for community health services

Without a dedicated health information system to capture activity, costs and outcomes for non admitted patient services (both community health and outpatients) a fully integrated hospital and community health service structure is likely to result in a decrease in transparency and accountability. This model is especially prone to inconsistencies in the quality and usefulness of the data collected overtime because health service managers have the ability to move funds and personnel between services to meet global budget requirements.

Other issues

The most appropriate organisation structure and line management arrangements for community health under an integrated hospital and community service model will tend to reflect the size and role of the hospital and the workforce availability in rural and urban areas.

The integrated health service model already operates successfully in many rural and remote areas where medium and small hospitals and multipurpose services operate in conjunction with a small generalist community health team and some share allied health positions. These services and their staff are well known in local communities and access is relatively straightforward.

The need to define separate or specialised management and service structures increases with the size of the hospital, the number of staff employed and the complexity of the services offered. Visibility is also an issue and it is possible that without visible Community Health Centres, community health in metropolitan areas will become invisible and hard to access.

6.5 Option Four: Fundamental transformation of the NSW health system

Description of the option

Strictly speaking, this option is beyond the scope of this review as it involves a decision to fundamentally transform the whole NSW Health system. It has been included with the agreement of the review Steering Group. This option is not entirely new and the review found many examples of this level of thinking about the health system and the best ways to solve its problems. The difference being proposed here is that the decision would be taken centrally to start on this development pathway through a planned series of steps and with enough commitment and resources to see the process through across the whole of NSW.

Under this option, the centre of the NSW health system is a revitalised network of integrated Primary and Community Health Services (PACHS) that bring together local GPs, community health and NGOs in effective local partnerships.

Together with population health services, these services form the first tier of a transformed NSW Health system. Once in place, these first tier services would become the first point of contact for all but the most critically ill. As secondary and tertiary providers, the role of NSW public hospitals under this option is to back up and support a first tier network of GPs and community health (and not the other way around).

Under this option, each community health service would be responsible for working in partnership with GPs, NGOs and other state government departments in meeting the health needs of a geographically defined catchment population within the context of government policy.

The population size would vary across the state with each PACHS being responsible for populations of between 50,000 to 300,000 in urban areas with smaller catchment populations in rural areas.

Between 35 to 70 PACHS would be progressively established across NSW with an average population base of between 100,000 or 200,000 over a period of five to ten years.

Building on and accelerating what is already happening on a small scale, at the core of this option is a comprehensive Statewide network of ‘Health Hubs’. We use the generic term ‘Health Hubs’ to include HealthOnes, GP Super Clinics and polyclinics. While there are currently some differences between the various initiatives that are already being established, the common feature is that government and non-government services such as GPs and NGOs are located together and in close proximity with other services such as government and community services.

The priority services for consolidation into an integrated Primary and Community Health Service (PACHS) in each geographic catchment area include:

- Community health provided by NSW Health.
- Community mental health services provided by NSW Health.
- General Practitioners.
- Hospital outpatient and ambulatory care services where (1) providing services close to where people live is feasible in terms of quality, safety and service efficiency and (2) is desirable to improve consumer access. This would include treatment services designed to reduce preventable emergency department attendances, hospital admissions and hospital readmissions. In some cases, it may also be appropriate to collocate the local ambulance service
- Linked up services and 'whole of government' programs where collocating NSW Health and other government services would improve access and outcomes.

A critical feature of each PACHS is a formal health and community care partnership that makes provision for workforce flexibility and shared infrastructure to support extended service networks including IT and referral systems, telehealth, training and workforce development.

Each PACHS acts as the hub for other primary and community health services in the catchment. Drawing on the *Queensland Health Hubs and Precincts Service Development Framework*[12] a four tier Service Development Framework is proposed and is summarised in Table 1.

Table 1 Service development framework

Service type	Level	Catchment population
Rural Community and Ambulatory Care Service (spoke)	1	Up to 7,000 plus isolation
Rural Community Health Centre (spoke)	2	8,000 – 20,000
Metropolitan & Major Rural Community Health Service (spoke)	3	20,000-50,000
Comprehensive PACHS (hub)	4	50,000 (rural) -300,000 (urban)

The Framework has four levels that range in scale and complexity. Each hub (PACHS) would potentially have several spokes as well as formal partnerships with GPs and others who work from other locations. While it would not be feasible to physically collocate all PACHS providers, virtual collocation through IT would be a key feature of each PACHS. This would particularly focus on shared coordinated care and case management. In this model, the local Division of General Practice could form part of the hub.

Drawing again on the *Queensland Health Hubs and Precincts Service Development Framework* (March 2007) the attributes of a Level 4 PACHS are summarised in Table 2.

[12] Carla Cranny & Associates, Boyd Health Management and ERM Australia (March 2007) *Queensland Health Hubs and Precincts Service Development Framework Final Report for Queensland Health Planning and Coordination Branch*. Queensland Health

Table 2 Typical attributes of a Level 4 PACHS

Attribute	Comment
Catchment population	Major rural regional centres and urban growth areas with a catchment population of 50,000-300,000 people.
Partnering and planning arrangements	Formalised primary health care partnerships between community health, general practice (local division, local GPs) other key stakeholders (such as NGOs and AMSs), state government departments and local government will underpin the PACHS. This is likely to include integrated referral arrangements, shared or interfaced information systems, case management systems, shared workforce development and training and integrated health promotion activities and common approaches to capacity building. Population needs-based planning by key stakeholders on how best to meet the needs of the catchment population by achieving the appropriate nature and mix of local services (within the regional/state/national plan) is central. Public and private services would operate autonomously on the site with Memoranda of Understanding and other governance arrangements covering joint activities and site management if the PACHS facility is government owned. The PACHS will participate in community development and capacity building activities with local government, industry and community groups under the auspice of a Primary Health Care Partnership Council. Once established, consideration of trialing the establishment of primary care organisations (PCOs) as next stage of evolution from successful primary care partnerships based on level 4 hubs.
Health service components	Comprehensive range of community health services matched to local population profile and complementing services provided by local partners. Service profile would include all 5 community health streams outlined earlier in this report plus potentially GPs, NGOs, public health and population health services, some relocated hospital services and potentially the local ambulance service. Service delivery models and care coordination and case management systems for new growth areas designed in partnership with local Division of General Practice. Ambulatory care programs provided as alternatives to hospital services including antenatal and postnatal clinics, HIV services, Women's Health services, allied health clinics and chronic disease programs, community rehabilitation services, paediatric allied health and outreach clinics and specialist medical outpatient clinics. In some rural centres, may provide limited hours minor injuries and day medical procedures clinic, renal dialysis services or satellite chemotherapy services as well as a base for private diagnostic imaging, pathology and pharmacy services. Base for undergraduate and post graduate health professional education, training and workforce development in ambulatory and primary health care for all disciplines with specific linkages to general practitioner training networks, universities and professional training bodies. Research capacity into health needs and service models.
Health service attributes	Major ambulatory care centre offering outpatient, centre based, mobile and domiciliary services that are fully integrated and planned with the Division of General Practice. May have contract with provider for pharmacy, pathology and diagnostic imaging services.
Role in health service network	'Hub' providing full range of ambulatory and community health services for a regional catchment with capacity to provide specialist team outreach and telehealth consultation services to disadvantaged urban communities. 'Spoke' or satellite location for specialist treatment networks such as cancer care, renal medicine and paediatrics.
Workforce characteristics	A mix of generalist, specialist and allied health staff deployed in multidisciplinary teams with Team or Service staffing ratios reflecting the size and age profile of the catchment population, negotiated supply arrangements with other service partners or local providers and specialist team outreach responsibilities.

Attribute	Comment
	Arrangements for provision of on site medical services will reflect the models developed with the Division of General Practice to attract workforce to the region. Options may include sessional employment of local general practitioners, salaried medical officers or contracting services from a private contractor or the Division of General Practice. Specialist outpatient clinics will generally be provided as privately or publicly referred outpatient services run by visiting and salaried specialists with appointments at local hospitals. Some allied health professionals may be private practitioners providing services under contract to the CHS or employed under joint funding arrangements with the Division of General Practice or local GP surgeries.
Whole of government services	Regional hub supplying whole of government programs relevant to the catchment population in line. On site services may include Early Years Centres, Disability Support and Early Intervention Services, Commonwealth funded Carelink Centres and other relevant programs. NGOs funded by other government departments to deliver specific services may be collocated on the site.

This model provides the platform for the widespread introduction of patient enrolment systems, which are already being trialed on a small scale. In the short-term, this would allow for the development of life-long health records and create opportunities for information sharing between health professionals. Depending on developments at a national level, other possible benefits such as the opportunity to introduce better payment and funding models and the creation of incentives for an investment in prevention may also become possible.

Consistent with the need for a dynamically efficient health system, research and undergraduate and postgraduate teaching would be integrated as core business in each PACHS. An increasing focus on teaching in a community setting is well recognised as fundamental to meeting future workforce requirements and is consistent with emerging workforce models.

In the words of Julian Tutor-Hart[13], the goal is a fundamental transformation that moves beyond the principal teaching hospital as the 'centre of excellence' to the creation of a network of 'peripheries of excellence' across NSW.

Resource implications

This option needs to be capital-driven, including a major investment in a comprehensive Statewide network of Health Hubs and in IT. The starting point is to build on what is already available and the HealthOne and GP Super Clinics that are currently under development. Shared funding with the Commonwealth under the National Health Infrastructure program or similar may be possible. The achievement of comprehensive coverage would take 5 to 10 years, with the actual rate of development determined by the rate of capital investment.

Implications in relation to clinical and management structures and the integration of community health services within existing clinical networks

Community health streams would continue to participate in Area clinical networks and service development processes with hospitals and other service providers to facilitate integrated service planning, communication and discharge planning, specialty level professional development and to provide advice on global resource allocation. Clinical leadership positions would in some cases be shared between the PACHS and hospital services.

Mental health and drug and alcohol services are already organised as a formal funding program with hospital and community mental health components that reports to the Director of Mental Health and Drug and Alcohol Services in most Areas. No fundamental change to this arrangement is proposed but linkages in relation to common clients, jointly provided programs, collocations and shared infrastructure would need to be formalised.

[13] Tudor-Hart, J and Smith, G (1997) *Response rates in south Wales 1950-96: changing requirements for mass participation in human research*. Chapter 1 in Maynard, A and Chalmers, I (Eds) Non-random Reflections on Health Services Research: On the 25th anniversary of Archie Cochrane's Effectiveness and Efficiency. BMJ Publishing Group, London

Implications in relation to linkages and referral pathways within the primary and community health sector and between community health services and the acute and population health sectors

The PACHS option focuses on building strong horizontal linkages and practical service partnerships within the primary and community care sector. This includes integrated arrangements for assessment, referral, care planning and case management, joint service planning and needs assessment activities and role delineation with general practice, relevant NGOs and government agencies.

The evidence in our first report, *Community Health: the evidence base*, suggests that service coordination and integration in primary care settings is strengthened by formalised processes for service development and tools for patient level assessment and care coordination. The Primary Health Care Partnerships model in Victoria is one approach where integration and coordination was significantly improved by investment in common client assessment and prioritisation tools as well as formalised service development and interagency planning processes. The concept of GP patient enrolment being trialed in some HealthOne sites could also be used to define patient selection or eligibility criteria for GPs and other referrers to 'enrol' patients with complex care needs in the relevant community health stream/s and to define the package of services that community health is best placed to provide.

Community health would continue to provide (and potentially increase) hospital in-reach and consultation liaison and assessment services as part of their models of care. Community health would also maintain discharge planning protocols and clinical pathways to ensure hospital patients can access timely post acute care and multidisciplinary chronic disease services and would be responsible for the provision of a formal community acute post acute care service to support demand management in acute hospitals.

Implications in relation to mechanisms for improving the transparency and assessment of service quality and costs, including appropriate key performance indicators (KPIs) for community health services

As with the other options, the fundamental prerequisite for introducing routinely captured KPIs and outcome measures and for achieving improving improved information on service quality and costs is a community health information system that captures relevant activity data as well as both quality and outcome measures. This is an issue that needs to be addressed at a NSW level (see Section 8.1 and Attachment Four).

Other issues

The review found many contemporary examples of this level of thinking about the health system both in Australia and internationally. This includes the HealthOne initiative. The difference between what is happening now (and in the past) and what is proposed for the future is important to reiterate. In Option 4, NSW Health takes a central decision to start on this development pathway through a planned series of steps and with enough commitment and resources to see the process through across the whole of NSW. This would represent a significant departure from the past.

7 Assessment of the options

Figure 1 below provides a summary assessment of the options against the criteria discussed in Section 6.1 (page 13). With the exception of the short and medium term feasibility criteria, it will be seen that Option 4 rates the highest on most criteria.

Figure 1 Summary assessment of the options

Criterion	Option 1		Option 2		Option 3		Option 4
	Option 1A	Option 1B	Option 2A	Option 2B	Option 3A	Option 3B	
Capacity to deliver on state plan	★★	★★	★	★★★★	★★★	★★★	★★★★★
Synergy with national policy directions	★★	★★	★	★★★	★★★★	★★★	★★★★★
Capacity to strengthen community cohesion beyond service provision	★	★★	★	★★★	★★★★	★★★	★★★★★
Consistency with evidence of reducing community service sector fragmentation	★	★	★	★★★	★★★	★	★★★★★
Consistency with evidence of effectiveness and efficiency	★★★	★★★	★★	★★★	★★★	★★★	★★★★
Capacity to plan and deliver/commission whole of NSW government services	★★	★★	★	★★★	★★★	★★	★★★★★
Capacity to link with GPs and support a HealthOne/Superclinics roll out and/or PCPs	★	★★	★	★★★	★★★	★★	★★★★★
Capacity to impact on health outcomes by a population planning approach	★	★★	★	★★★	★★★	★★	★★★★★
Encourages flexible responses - improving dynamic efficiency	★	★★	★	★★	★★★	★★	★★★★★
Moves focus beyond short term demand management to longer term health outcomes and demand management	★	★★	★	★★★★★	★★★	★★	★★★★★
Feasibility - short-term (1-2 years)	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★
Feasibility - medium -term (3-5 years)	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★
Feasibility - longer-term (5-10 years)	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★

However, not all of the criteria in this figure have equal weighting and, for this reason, it is not simply a matter of adding up the stars to give a total score. Some of the criteria are demonstrably more important than others. The weighting that should be applied to each criterion is fundamentally a policy issue. It is thus a decision for NSW Health and not a decision for us. Accordingly, we are not recommending a preferred option.

The feedback received on the set of options indicated that they are best seen as a development pathway where the next logical steps are considered by a process of review and after consideration of the preconditions and resources required for supporting each step. This is similar to the processes used in the National Primary Care Collaborative Program and models developed by the Institute for Healthcare Improvement [14].

So, in addition to considering each option in isolation, it is also necessary to consider possible pathways towards the preferred option. These pathways are summarised in Figure 2 below. As the figure illustrates, Option 1B (the moratorium option) might be adopted as the endpoint. Equally, it could be adopted as a short-term measure that acts as a pathway to either Option 3 or Option 4. Option 2 could be adopted in the short-term, in which case the moratorium option would

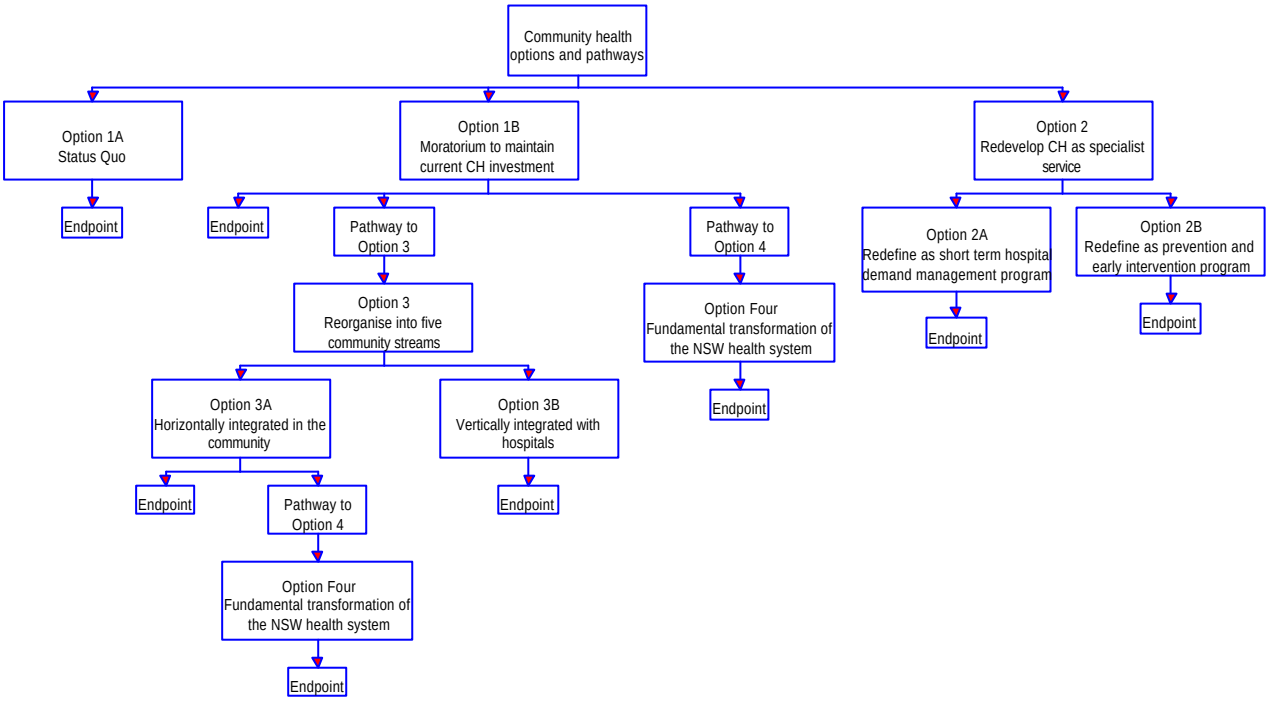
[14] McCannon CJ, Schall MW, Perla RJ. Planning for Scale: A Guide for Designing Large-Scale Improvement Initiatives. IHI Innovation Series white paper. Cambridge, Massachusetts: Institute for Healthcare Improvement; 2008. (Available on www.IHI.org)

not be necessary. Both of the sub-options within Option 2 are possible endpoints in their own right, with neither providing a logical pathway to another option.

If Option 4 is adopted as the preferred long-term strategy, there are two logical pathways. One is to progress from the moratorium option directly to Option 4. The other is to adopt Option 3A and reorganise community health into five specialist streams that are horizontally integrated in the community as a pathway for moving to Option 4.

In contrast to Option 3A, Option 3B is not a logical development pathway to transition to Option 4. It could, however, be adopted as an endpoint in itself.

Figure 2 Community health options and pathways



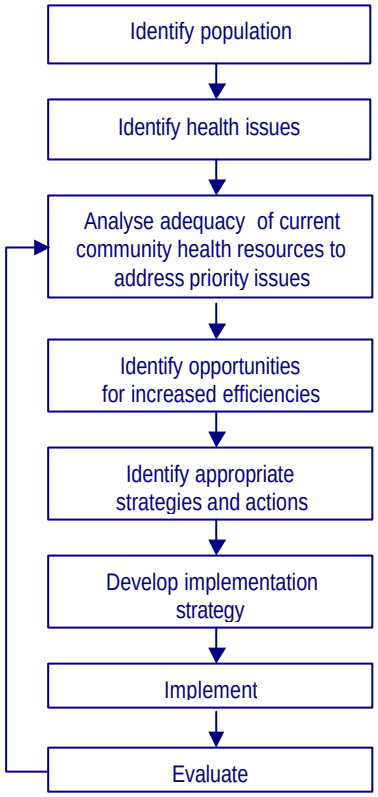
8 Development pathways

In considering the development pathway for community health into the future, the starting point is a decision by NSW Health on the option/s to be adopted. These options were described above.

Once that decision is made, the next logical step is for NSW Health to commission a strategic (not operational) review of the NGO sector to agree on the future role of health-funded NGOs in NSW. The future role of the health-funded NGO sector needs to be aligned with the agreed future role of government-provided community health.

Once those decisions are made, the development focus then needs to expand to include the Area Health Services. The critical first task for each Area Health Service is the development of a population needs-based plan for each Area and each sector within the Area that is consistent with the preferred option/s. These plans will need to be developed in close consultation with strategic partners. In doing so, Areas will need to consider the needs of their local catchment population, opportunities for improved efficiencies and opportunities to build more effective partnerships. Area plans will also need to address a range of strategic and operational issues that were identified in our second report, including workforce issues. A summary of the planning process is illustrated as Figure 3 and Attachment Three includes a discussion of opportunities for improved efficiencies.

Figure 3 Population needs-based planning process



8.1 Strategic and operational issues

A number of operational issues were considered above in the context of each specific option. This section discusses strategic and operational issues that are common across the options.

8.1.1 Governance and management of community health

The desirability and feasibility of moving to a standard governance and management structure across NSW varies according to the option. Under Option 1, the four basic management models currently in place would continue, perhaps with further variations.

Current management and governance arrangements would not be maintained under Option 2. Under Option 2A, the management of community would transfer to hospitals/clinical networks, with differing arrangements put in place to reflect the various arrangements now in place for the management of hospitals and clinical networks. Under Option 2B, all community health services could be managed in a standard structure under the leadership of a Director of Community Health.

The introduction of more delineated community health streams would result in some reorganisation within community health in Option 3. The governance implications differ according to which sub-option is selected. Under Option 3A a Director of Community Health position with line management responsibilities would be established in every Area Health Service. Under Option 3B, the management of community would transfer to hospitals/clinical networks, with differing arrangements put in place to reflect the various hospital and network management arrangements that are already in place.

Under Option 4, a Director of Primary and Community Health Services would have line and financial management responsibilities for each PACHS. A formal Primary Health Care Partnership Council, established through formal Memoranda of Understanding, would be established to formalise partnerships with GPs, NGOs and other key stakeholders including state government

departments, local government, industry and community groups. In time, there would also be potential to consider the trialing of Primary Care Organisations (PCOs) such as those that exist in New Zealand and elsewhere as the next stage of evolution from successful primary care partnerships based on level 4 hubs.

8.1.2 Capital works

As discussed in our second report, there has been little capital investment in community health for at least the last decade and much of the existing capital stock has been poorly maintained. Further, a number of services are provided out of rented premises that were not designed for this purpose. Many of these same issues apply equally to general practice, particularly in outer metropolitan and rural areas.

The capital implications for the future depend on the option/s selected. Option 4 is capital-driven and represents a major investment over perhaps a decade. The other options have no major capital implications. However, given the current state of capital and rented stock, an injection of capital funds will be required under any option.

8.1.3 Information and information management

The capacity to monitor the performance of any health service is predicated on effective information systems. NSW Health has demonstrated its capacity to drive change through the identification of relevant and appropriate key performance indicators (KPIs) through the NSW Clinical Services Redesign Program and via the inclusion of KPIs in Chief Executive's annual performance agreements. An appropriate suite of KPIs helps transparency, presents community health with the capacity to demonstrate 'value for money' and provides tangible evidence of the progress of the change process.

Regardless of the option, there is a recognised need for better information, better information systems, standard KPIs and better platforms to deliver new models of care such as telehealth. These issues are discussed in more detail in Attachment Four.

8.1.4 Hospital demand management

The implications for the best way to organise and deliver hospital demand management services vary according to the option/s selected. Irrespective of the option, there is clear evidence and agreement from all quarters on the increasing need for more effective hospital demand management that is designed to prevent avoidable admissions, to facilitate early hospital discharge and to reduce the rate of hospital readmissions. This is an international issue and is not limited to Australia or to NSW. The only issue to determine is the best way to ensure that effective services are in place.

8.1.5 The balance between primary (generalist) and specialist community health services

The right balance between generalist and specialist services cannot be determined in isolation but is part of a set of bigger issues about the role of community health services and where they fit within the broader NSW Health system. Under Option 1, the current balance is maintained. Under Option 2, community health would be redefined as a specialist service. Under Option 3A, a strong generalist base would be maintained although services would be organised into 5 streams. Under Option 3B, services would inevitably become more specialist at the expense of the current generalist base. Option 4 would result in a mix of primary and specialist services.

While there is reason to believe that generalist services are more efficient (see Attachment Three) there are strong pressures to move toward a more specialist model. These pressures were discussed in our *Community Health: The State of Play* report. More detailed work on this issue is required, including the commissioning of research and evaluation studies on the cost effectiveness and outcomes of the two approaches.

8.1.6 Linkages, partnerships, regional inter government planning and interagency service delivery

As noted in Section 4 (page 7), community health cannot work in isolation and is critically dependent on linkages and partnerships. The nature and strengths of those partnerships differs across the care continuum. For example, public health units are important partners in health promotion but not so in continuing care. At the other end of the spectrum, partnerships with hospitals are most important in treatment and continuing care services and are less important for the health promotion and prevention role that community health currently has. In contrast, partnerships with GPs and NGOs are essential across the whole health continuum.

In the ideal world, all partnerships would be equally strong but in practice this is hard to achieve. For this reason, each option structurally favours some partnerships at the expense of others. This is inevitable. However, regardless of the option/s selected, mechanisms to promote linkages, partnerships, regional, inter-government planning and interagency service delivery across the spectrum will be required.

8.1.7 Quality and safety systems

Under all options, community health services are part of existing accreditation systems for clinical and corporate quality and safety. It can be expected they will continue to conduct a wide range of quality improvement initiatives. *A Framework for Managing the Quality of Health Services in NSW*[15] (originally published in 1999 and reissued as a mandatory policy in 2005) has a requirement that is applicable to community health workers regardless of how services are organised. It refers to the requirement for 'formal mechanisms in place for assessing the competence of staff who work in isolation from other health workers'.

Although systems tailored to primary care have existed in the past, currently community health lacks a coherent approach to supporting and sharing information and ideas on quality and safety. The implementation of any of the options would be challenging for quality and safety, but the risks can be minimised if there is a relatively well-resourced, stable environment. This is understandable considering the complexity of the models of care, service types and organisational arrangements.

The example of a more coherent approach in nursing and midwifery in NSW Health (*Working with Essentials of Care*[16]) shows how the quality framework can be supported by a web-based resource manual to assist staff deal with a range of quality and safety issues. Regardless of the option/s selected, mechanisms to promote quality and safety will be a challenge in this sector. As the different options involve greater or lesser reliance on interagency service delivery, then the development of tools and strategies with greater or lesser scope will be required.

8.1.8 Planning tools and models

The current limitations on information also impact on the capacity to develop robust planning tools for community health which, as we indicated in the *Community Health: The State of Play* report, was a deficit identified consistently in our field visits and consultations. The 'right' tools and the 'right' planning models will in some cases be determined by the option and development pathway selected for the future. However, the following approaches have proven useful in the field or in other jurisdictions and could be implemented irrespective of the direction chosen:

- Development of a suite of evidence based service delivery models similar to the NSW Aboriginal Mothers and Babies Program and the specific programs in mental health to better

[15] NSW Health (1999) *A Framework for Managing the Quality of Health Services in NSW,* NSW Ministerial Advisory Committee on Quality on Quality in Health Care and the State Continuous Improvement Steering Committee.
[16] NSW Health (2008) *Working with Essentials of Care*, Nursing and Midwifery Branch. http://www.health.nsw.gov.au/nursing/projects/eoc.asp

define the core services and interventions in each of the major community health streams and a toolkit of resources and training to support their use.

- Trialing or implementing an integrated partnership planning model for community health, general practice and local NGOs similar to the Primary Care Partnerships framework in Victoria
- Development of needs-adjusted staff to population ratios or other planning benchmarks for key services that would be refined as information systems provided better information on activity, workload measurement, costs and outcomes.

8.1.9 Funding models

While significant work has been undertaken to develop better funding models for hospitals, no such work has been undertaken as yet for community health. The current NSW Health episode funding guidelines flag the intention to extend episode funding to community health. However, this requires the development of a suitable casemix classification for community health and the consistent collection of the information required to populate the classification.

Standard measures of service costs are essential to allow for the routine assessment of technical efficiency. When combined with routinely collected health outcome data, it will provide a level of transparency that is currently not possible as well as the capacity to assess allocative efficiency and value for money. A sophisticated information system is an essential prerequisite (see Attachment Four).

8.1.10 Workforce issues

A range of workforce issues were identified in our *Community Health: The State of Play* report and these will need to be addressed under any option. Once the agreed option/s for the future have been identified, a workforce strategy will need to be developed at both the State and Area levels that addresses the specific workforce issues inherent in the selected option/s.

8.1.11 Teaching and research

Increasing care provided in the community, coupled with the growing focus on complex and chronic conditions, inevitability creates an environment where greater emphasis will be placed on issues of sub-acute and non acute care, continuity and coordination, evaluation of models of care and local level population and service planning. Regardless of the option selected, there will be increasing demands for R&D infrastructure (linked to teaching and training), particularly around planning and evaluation.

As an essential enabler for improving the dynamic efficiency of the overall health system, clinical teaching will need to increasingly occur in the community and in patient's homes, rather than in 'teaching' hospitals. A move to formalise and strengthen the role of community health in teaching and research is required regardless of the option/s selected.

9 Conclusion

This final report of the NSW Community Health Review is necessarily schematic in its analysis of options for the future of community health in NSW. Its purpose is to clarify the choices that can be made. Once a choice is made, much more detailed work will be required to translate the preferred option into a NSW implementation plan.

In considering the options, it is important to reinforce that the future of community health cannot be considered in isolation. Decisions about the future of community health are fundamentally linked to decisions about the whole of the NSW health system in the context of opportunities to improve its technical, allocative and dynamic efficiency (see Attachment Three). All three are necessary if the residents of NSW are to receive high quality health services that are vitalised, cost effective and sustainable.

While Option 4 may be seen by some as representing too big a cost in the current climate, the potential return on investment for the whole of government needs to be considered. This is particularly because, in this case, transformative change can be achieved via manageable, incremental steps. This is essential, as service delivery will need to be maintained while the change is in progress.

Both the direction and the rate of change are important issues to consider. While some of the options in this paper could be implemented quickly, others (particularly Option 4) would take time. While we have suggested that Option 4 might take 5 to 10 years, the rate of change could, of course, be accelerated or slowed.

Community health in NSW is at the crossroads and important decisions now need to be made. Most of those who worked in community health when it was established as a national program in the 1970s have now moved on and it is time for “generational change”. A new generation of health professionals is positioned to lead a new paradigm of community health. The key question for them is ‘which way now?’

Attachment One

Review of Community Health in NSW - Terms of Reference

The Community Health Review has 11 Terms of Reference, grouped under three core themes.

1. Audit scope of activity and existing investment in community health services. The following components were addressed in the audit undertaken by the Health Department:
   - 1.1. Identify and report on the range of services that Area Health Services deliver under the banner of "community health" including:
   - 1.2. the modes of service delivery
   - 1.3. the client group/s and demand patterns (including projected demand)
   - 1.4. the asset base used to deliver those services (capital, fleet) and trends over time in the allocation of those assets
   - 1.5. the human resources employed to deliver those services and trends over time in allocation of those resources
   - 1.6. the financial resources allocated to deliver those services and trends over time in the allocation of those resources
2. Gaps in current provision of community health services.
   - 2.1. Identify and assess community health clinical and management structures within Area Health Services.
   - 2.2. Identify the existing community health service system, and gaps or deficiencies in service delivery.
   - 2.3. Identify and report on the strengths and weaknesses of the existing community health service framework.
   - 2.4. Identify the extent of linkages, including referral pathways, and gaps, to general practice, other government agencies, non-government organisations and other providers of community-based primary health care.
   - 2.5. Identify the extent of linkages, including referral pathways, and gaps, with other parts of the health system, namely the acute and population health sectors.
   - 2.6. Research and produce a report, which could be used as a resource guide, detailing national and international models of community health service delivery and identify and recommend models considered best practice.
3. The Future - Enhancing community health service delivery
   - 3.1. Produce a report and make recommendations, both short term and long term, for a revitalised and cost effective community health sector and identify a pathway for reform. This will include recommendations in relation to:
     - 3.1.1. clinical structures;
     - 3.1.2. management structures;
     - 3.1.3. integration of community health services within existing clinical networks;
     - 3.1.4. mechanisms for improving the transparency and assessment of quality of services provided by community health services;
     - 3.1.5. mechanisms to improve the transparency and assessment of service costs- for example through improvements to the UAR returns;

3.1.6. linkages and referral pathways within the primary and community health sector and between community health services and the acute and population health sectors

3.1.7. appropriate key performance indicators (process, output and outcome) for community health services

3.2. Define the core services to be managed by community health services including the integration of the delivery of services with primary health care. Review existing evidence on "best buys" for community health services and identify services that no longer offer "value for money" taking into consideration the priorities articulated in the State Plan and State Health Plan.

3.3. Identify and recommend areas of disinvestment/reinvestment to achieve this vision.

3.4. Recommend a staged pathway for reform.

Following this final report, the following component is to be addressed by the Departmental Working Group:

3.5 Based on the advice of 3.1.7, make recommendations as to appropriate Key Performance Indicators that may be introduced into Chief Executive Performance Agreements to strengthen the findings of the review.

Attachment Two

Members of the Review of Community Health in NSW Steering Group

Professor Ron Penny (chair)

Dr Richard Matthews, Deputy Director-General, Strategic Development

Dr Tim Smyth, Deputy Director-General, Health System Performance

Dr Di O'Halloran, Chair, NSW GP Council

Ms Heather Gray, Chief Executive, Greater Southern Area Health Service

Mr Mike Wallace, Chief Executive, Sydney South West Area Health Service

Professor Graham Vimpani, representative of the Children & Young People's Health Priority Taskforce

Ms Cathrine Lynch, Director, Primary Health & Community Partnerships Branch

Ms Janet Anderson, Director, Inter-Government & Funding Strategies Branch

Ms Liz Develin, Director, Centre for Chronic Disease Prevention & Health Advancement

Mr David McGrath, Director, Mental Health and Drug & Alcohol Office

Mr Raj Verma, Acting Director, Health Services Performance Improvement Branch

Mr Mike Rillstone, Chief Information Officer

Mr Peter Brandt, Associate Director, Demand & Performance Evaluation

Ms Kim Field, Area Director, Primary & Community Care, NSCCAHS

Ms Julie Cooper, Area Manager, Primary & Community Health, GWAHS

Mr Paul Gavel, Area Director, Workforce Development

Ms Deniza Mazevska, Program Director, Primary, Community and Outpatient Care (PCOC) Information Program

Ms Jennifer Sheehan, Manager, Strategic and Resource Planning Unit, Statewide Services Development Branch

Attachment Three

Opportunities for improved efficiencies

A specific term of reference for this review was to:

> *"identify and recommend areas of disinvestment/ reinvestment" (Term of Reference 3.3).*

This was linked to Term of Reference 3.3:

> *"Define the core services to be managed by community health services including the integration of the delivery of services with primary health care. Review existing evidence on "best buys" for community health services and identify services that no longer offer "value for money" taking into consideration the priorities articulated in the State Plan and State Health Plan".*

As discussed in Section 5.2.2, while some (but not) key stakeholders agreed with the need to define a set of core programs, others put an equally strong view that community health should provide the full range of services from prevention to palliation. The international evidence is not helpful on this issue because there is a reasonable to strong evidence base for community health services. Further, there is no agreement at any level of NSW Health about what services currently provided would not form part of the core.

For this and other reasons, our conclusion is that there is no justification for recommending the 'disinvestment' of any specific service. Rather, the issue is more helpfully conceptualised as one of identifying opportunities for improving the efficiency not only of community health but of the NSW health system as a whole. Implicit in achieving improved efficiencies is the need to better understand population needs and to plan and deliver services from a population planning perspective.

In this context, 'efficiency' has three meanings:

- Technical (production of the required output at the lowest cost)
- Allocative (the best mix of outputs to meet the health needs of the population)
- Dynamic (the adaptability of the system over time)

For clarity, the section below outlines opportunities that would need to be considered either by NSW Health or in Area Health Plans if the goal is 'disinvestment'. The remaining sections in this attachment outline opportunities to improve efficiencies. These opportunities could also be considered by either NSW Health or in Area Health Plans.

Disinvestment/reinvestment

Disinvestment/reinvestment is considered in this section by use of the Health Benefit Group (HBG)/ Health Resource Group (HRG) framework that we introduced in our first compendium report.

The HBG/HRG framework can be thought of as a matrix. Each Health Benefit Group (HBG) or column is defined as a population group who would potentially benefit from a health service.

Each Health Resource Group (HRG) or row is a health system response matched to population needs (matched to each HBG). HRGs describe the services that are required.

Using this framework, opportunities for investment and disinvestment may be considered by HBG (column) or by HRG (row). For any health condition, the five HBGs are:

- Health promotion for those in the community who are not at risk
- Prevention and early detection for those who are at risk
- Investigation of those who present with a health problem
- Treatment for those with a confirmed problem
- Continuing care with chronic consequences arising from the health problem

Using this framework, opportunities for disinvestment/reinvestment can be considered by HBG. So, for example, community health could disinvest in health promotion or in treatment services on the basis that they can be funded or provided by another level of government, by NSW public hospitals, by NGOs or by the private sector.

Alternately, disinvestment/reinvestment can be considered by stream or by HRG within each stream. The review has identified 20 community health HRGs that have been grouped into the five major streams repeated below.

While each Area Health Service would be required to provide each of the five streams, an Area could disinvestment/reinvestment by ceasing, downscaling or transferring one or more of the following HRGs to another funder or provider:

Child, family and youth health services

- Child and family
- Physical Abuse and Neglect of Children (PANOC)
- Youth health

Rehabilitation, aged care and chronic disease

- Aged and extended care
- Community nursing and domiciliary care
- Community rehabilitation
- Hospital demand management
- Multidisciplinary chronic disease management
- Palliative care

Community and population services

- Intake and initial assessment
- Counselling and psychosocial services
- Health promotion
- Sexual assault
- Sexual health
- Aboriginal health
- Multicultural health
- Womens health

Oral Health

Mental Health and Drug and Alcohol

- Mental health
- Drug and alcohol

Opportunities to improve the effectiveness of community health services

As noted above, the overall evidence on the effectiveness of community health interventions is good but patchy in parts (Report 1) and there is no agreement about what services currently provided would not form part of 'core' community health (Report 2).

Very few examples of what is not effective have been identified and clinical outcome evaluations would be required to identify if there are others:

Universal school screening

Universal school screening ceased more than a decade ago on the basis that it was not effective.

Mandatory child protection notification

The evidence is that mandatory child protection notification is not effective because it lacks sensitivity and specificity. The recent Special Commission into child protection in NSW has recommended the cessation of the current mandatory notification approach in NSW.

Opportunities to improve technical efficiency

Technical efficiency refers to the production of the required output at the lowest cost. Opportunities to improve technical efficiency are not new, with both clinicians and Area Health Services regularly making decisions based on technical efficiencies. Decisions arising from the recent 2008 NSW mini-budget are largely being made on the same basis.

Examples of technical efficiencies include:

Home visiting versus centre-based services

In general, clinic based services are more technically efficient. However, home visiting is often required for clients who are unable to access centre-based services.

Small disease-specific teams versus larger generalist teams

A trend in recent years has been the increasing establishment of small teams, each of which specialises in a specific health problem (eg, heart health team, diabetes team). These have developed for several reasons including specifically targeted budget enhancements and the development of disease or speciality-based clinical networks. While the evidence on efficiency is patchy, small disease-specific teams are not considered to be as technically efficient as larger generalist teams except for very low prevalence conditions. This is because each requires their own infrastructure (such as information requirements and intake and assessment processes) and because many patients have multiple co-morbidities and therefore require generalist services or services from more than one team.

Group versus individual therapy

All things being equal, group-based therapy and counselling is more technically efficient than individual therapy. The review was provided with many examples of the routine use of group therapy, particularly by allied health professionals.

Skill mix changes

There is good evidence that technical efficiency can be improved by changing the skill mix. This includes the increased use of nurse practitioners, therapy aids, personal care assistants and assistants in nursing.

Community versus hospital based services

The review was provided with many examples of services being moved between hospital and community settings on the basis of expected improvements in technical efficiency.

Episode funding for community health

Episode funding for hospital services has been introduced on the basis of improving and rewarding technical efficiency. Once the required information systems are in place, similar funding models could be introduced for community health.

Opportunities to improve allocative efficiency

Allocative efficiency refers to the best mix of outputs to meet the health needs of the population.

Examples of allocative efficiencies include:

Investment in prevention and early intervention

The key economic argument for investment in prevention and early intervention is improved long-term allocative efficiency. While these services represent a short-term cost, the economic argument is about the long-term return on investment.

Universal versus targeted home visiting for new mothers

While there is evidence to support universal home visiting to see new mothers, the evidence is that the functional and economic benefit of home visiting is greatest for families at greater risk.

Comprehensive assessment without screening

Programs such as the Aged Care Assessment Program can be made more efficient from an allocative perspective by the routine introduction of an initial screen prior to a comprehensive multidisciplinary assessment.

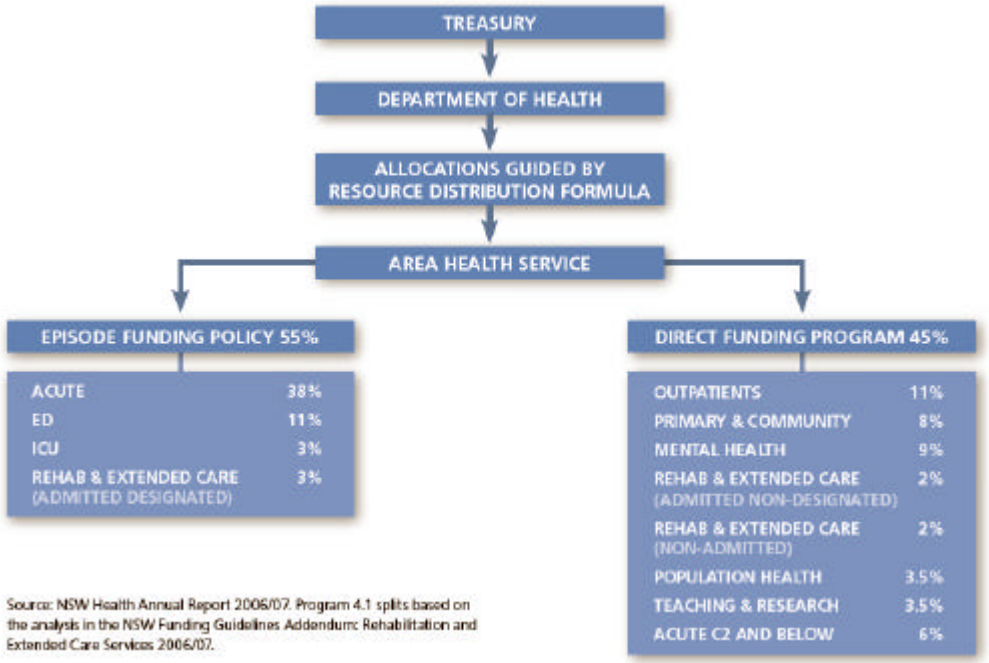
Shared common needs identification systems

The use of standardised client need assessment systems allows, with the consent of the client, assessment information to be shared between those involved in their care, including both community health and GPs. This is the rationale for the introduction of the Service Coordination Tool Templates (SCTT) system in Victoria and the Ongoing Needs Identification (ONI) system in Queensland. NSW DADHC is developing a NSW version of the ONI (ONI-N) for the same reason.

Explicit decision-making about program shares within an overall health Resource Distribution Formula (RDF)

The NSW RDF has been used for more than a decade to guide the allocation of funds to each Area. As summarised in Figure 4, NSW has a program funding structure and one program is Primary and Community Health, which represents approximately 8% of the NSW Health budget.

Figure 4 NSW funding model and program allocations



The proportion of funding allocated to each program is due largely to historic reasons rather than because there has been an explicit process to allocate funding to each program on the basis of need or with the goal of maximising allocative efficiency. Explicit decisions could be made over time to increase the proportion invested in community health on the basis of improving the allocative efficiency of the NSW health system as a whole.

Targeting available resources to those most in need

The targeting of available resources to those most in need can be pursued at different levels. At the population level, the refinement of a community health Resource Distribution Formula (RDF) that is more sensitive to different population needs could be used to determine (not guide) allocations to and within Area Health Services. At the individual level, strategies such as means testing (and charging) of community health can be used to re-direct available resources to people of lower socio-economic status, although this runs the risk of loosing a population health focus. Also at the individual level, initial and ongoing needs identification and assessment systems that are linked to priority-rating systems (such as the ONI-N) are designed to give priority to those in greatest need or at greatest risk.

Opportunities to improve dynamic efficiency

Dynamic efficiency refers to the adaptability of the system over time.

Examples of dynamic efficiencies include:

Multi-purpose building design

Buildings that can be adapted to meet changing needs and purposes over time are more dynamically efficient than buildings that are designed for a specific purpose and a specific point in time.

Patient enrolment

Internationally, there has been a significant move across health systems to introduce patient enrolment systems in which the patient/client enrols with a specific Community Health Centre

(CHC) and/or specific GP practice. The CHC and/or GP is responsible for coordinating and overseeing the provision of comprehensive primary health care to the patient. Patient enrolment systems are regarded as dynamically efficient because they provide the structural capacity to introduce new payment and funding models (capitation), create incentives for an investment in prevention, promote the development of life-long health records and create opportunities for information sharing between health professionals involved in the patient's care.

New models of care and organisational structures to better meet longer term requirements, backed up by a workforce strategy

As our compendium report on *Community health: the state of play in NSW* illustrates, the review received significant information on new models of care and organisational structures that have been introduced with the goal of increasing not only the technical but also the dynamic efficiency of the NSW Health system. Re-designing the workforce to better meet future needs is a fundamental aspect of dynamic efficiency.

Transferring responsibility for community health to the Commonwealth

As the discussion papers and submissions (see http://www.nhhrc.org.au) to the National Health and Hospital Reform Commission (NHHRC) illustrate, the current split of responsibilities between the Commonwealth and the states and territories is seen by many as a major barrier to improving the dynamic efficiency of the health system as a whole. Better opportunities for service substitution, for funds pooling and for streamlining administrative and financing arrangements are regarded by many as essential. This is one of the reasons that the NHHRC proposed in its first report that it may be better for the Commonwealth to become responsible for all primary care, including community health. As noted in Section 2, it is too early to know what such a suggestion may mean in practice. Should the Commonwealth wish to explore this option in partnership with the States and Territories, it will need to be considered by NSW in the light of its potential impact on the dynamic efficiency of the NSW health system as a whole.

Attachment Four

Information and technology issues

Our second report (*Community Health: The State of Play*) documents feedback received throughout the review on the inadequacy of current community health information and current community health information systems. This attachment summarises current initiatives to improve community health information and information systems. It also outlines the issues that will need to be addressed in moving towards a meaningful information system, KPIs and the technology platforms that are required to support community and home-based telehealth services.

The Primary, Community and Outpatient Care Information Program

The work currently being undertaken to develop a community health information system called Primary, Community and Outpatient Care Information Program is attempting to address a key concern. This concern relates to a 'free standing' community health information system that is essentially marginal to wider system level management. The current intention is to combine community health and outpatient data collections. This work subsumes the Community Health and Outpatient Care Information Project (CHOCIP).

The aim of CHOCIP is to:

> *"establish a routine, patient-level data collection of service events provided by community health and hospital outpatient services in the NSW public health care sector" (Mazevska 2008).*

The proposed architecture for the NSW Community Health and Outpatient Care Data Collection is a big step forward in standardisation and in considering the level of technical detail and the amount of resources required for a development program to achieve the aims of the *Integrated Primary and Community Health Policy*.

The framework recognises the importance of establishing the concept of an episode of illness. But it has been termed 'journey' in the framework. Episodes of care have also been recognised but have been termed 'chapters'. An episode of care (chapter) is defined in CHOCIP as:

> *A request for service and/or set of one or more service events provided by the same registered health service unit that address the same set of related problems or issues for the same registered client/patient.*

Inherent in this definition is the idea that each chapter can/should have a goal and, by extension, the outcomes can/should be measured as each 'chapter' is closed. Under the proposed data collection rules, each referral and/or set of one or more service events reported to CHOCIP must belong to a chapter of service. Each individual health service provider must determine whether a referral and/or service event marks the start and/or end of a chapter. However, there is no standard classification to distinguish between the different types of chapters. Rather, the proposed concept of a 'chapter' is simply a container record with a unique identifier.

The current proposal is to implement these concepts in a later stage of the data collection. In the interim, the intention is to derive them in the data warehouse. There is no current intention to embed these concepts into the day to day thinking of front line staff. This approach has been adopted for several reasons:

- AHS staff responsible for implementing and supporting source systems used by front line staff have indicated to the project that front line staff would resist creating journeys and chapters. They indicated that, if it was implemented, staff would have great difficulty attaching activity to the correct chapter and journey containers, particularly if there were several open chapters or

journeys at one time (which would be the case for clients with chronic or complex diseases). They believe the data quality would be so poor that the data would not be useful for reporting.

While the review team understands the reason for this feedback, we believe it is indicative of two important problems. The first is that the purpose of the proposed information system should not primarily be for reporting but to assist in the provision of care. The second is that, without the real time concept of an episode of care, there is no capacity to capture care goals or outcomes. We refer to both issues below.

- Most source systems used within NSW Health lack the ability to create the 'journey' and 'chapter' containers. In source systems where it is available, the functionality has not been implemented. CHIME is the exception, linking service events to a request for service to create a 'chapter' but as an unintegrated system it is not possible for it to create a 'journey' container.
- There are, as yet, no clear definitions around what activity should be contained in journeys and chapters.

The CHOCIP approach of deriving the concepts of 'journey' and 'chapter' initially is intended to address what are perceived to be two barriers to implementation of the data collection. The first is that derivation of the concept means that, at least in theory, all activity reported to the data collection (but not the goal of that activity or its outcome) will be covered by the concepts from the onset. The project team's perspective is that the alternative would be a patchy implementation as source systems and related data collections are modified over several years as funds, and the human resources to conduct the re-training involved, become available.

The second is that the business rules for creating and ending new journeys and chapters can be tested in the data warehouse rather than determined beforehand. That said, the project team recognises the difficulty of implementing derivation rules for these concepts.

The intended approach of the CHOCIP data collection, which is to implement the concepts of 'journey' and 'chapter' as derived concepts and implement it as a second stage is, in our view, not satisfactory. The major problem is that the final product will not have the capacity to measure patient/client outcomes.

Work to expand the data collection to address these additional information requirements and to integrate established data collections such the Mental Health Outcomes and Assessment Tools (currently reported to the HIE) and the Sub and Non-acute Patient (SNAP) data collection is recognised in the proposed forward work program. However, there is no commitment to funding this forward work program. This is a significant problem and needs fixing as a matter of priority.

The routine measurement of patient/client outcomes in community health (and in health care more broadly) is complex but essential and there are good existing examples that demonstrate that it is possible. Most notably, routine patient outcome measurement now occurs in rehabilitation, mental health and palliative care (see, for example, Simmonds and Stevermuer 2008[17]). Unfortunately, the proposed Community Health and Outpatient Care Information Project will initially not accommodate any of the outcome measures used in these three streams or more broadly.

What is required is a standard classification of chapter type, each with their specified goals of care, standard sets of clinical assessment tools (outcome measures) and counting rules. These standard outcome measures would be collected at the beginning and end of each chapter. For example, a patient/client starting a mental health episode (chapter) would be assessed using the agreed mental health outcome measures (MH-OAT), with these same measures captured at the end of the chapter. Likewise, a patient/client starting a palliative care episode (chapter) would be assessed using standardised palliative care measures both at the beginning of the chapter and at agreed intervals.

[17] Simmonds F and Stevermuer T (2008) The AROC Annual Report: the state of rehabilitation in Australia 2006. Australian Health Review. 32 (1): 85–110.

While in the short term it would not be possible (and, in fact may not be necessary) to define standardised assessment tools and outcome measures for each type of chapter, it would be possible to do so over time.

But the important first step is to procure and build the system with the capacity to capture standard measures for each class of chapter. The required steps, which can and should begin before the IT systems become available, are as follows:

1. Ensure the functional requirements for the system actually specify the requirement for the concepts of 'journey' and 'chapter'. These would include specifying the functionality for the goal of each chapter to be specified, assessments entered and outcomes measured. The functional specification of what is required is an initial planned activity of the Primary Community and Outpatient Care Information Program and is due to start in July 2009 if the business case to Treasury is approved
2. Standardise the definitions of chapters, agreed lists of possible goals for each chapter and the standardised clinical assessment tools to be used to measure both client needs and outcomes. These need to be specify what needs to be built in the system for each chapter type. This task needs to be the responsibility of community health. It cannot be done by IT or by information management alone
3. Assess and procure the system, or modules of existing systems, that meet the functional requirements
4. Provide training for community health clinicians on how to use both the IT system and the clinical functions built into the system. The key training is the clinical component, which will need to focus on why and how to embed the concept of the episode of care into day to day clinical practice. This is more about process re-design than it is about IT.
5. Develop policies and procedures that reinforce the collection of the care goal and the outcome of each patient/client 'chapter'. This will necessarily require the mandated use of a suite of standardised clinical assessment tools in day to day clinical practice. It will also require clear business rules on what indicates the beginning or closure of a 'chapter' and agreement on standardised triggers for further assessment or referral on to other practitioners. There will also need to be agreement on what information should, with the client's consent, be shared with other providers involved in their care (eg, their GP).

This level of performance measurement implies an understanding of a classification approach in the field, with rules for classification based on the goal of care for each client/patient. Key client characteristics (such as measures of physical function, mental health and well being and so on) that capture how well the goal of care is being achieved are essential. But, on a day to day basis, these concepts are relatively unfamiliar to providers, who are mainly concerned with program reporting requirements.

Underpinning this development is the need for an adequately resourced change management strategy that focuses on the collection and use of information. Standard clinical assessment tools and outcome measures need to be embedded in day to day clinical practice and not regarded as a (burdensome) data add on solely for reporting purposes.

It is not surprising that there are cultural and professional barriers to implementing an improved system, as the community health sector is not alone in being concerned with the burdens of administrative data collection, especially multiple reporting requirements for the same clients (Australian Institute of Health and Welfare, 2006).

CHOCIP recognises this fact and has several plans to address it:

- Data collections will be integrated with the Community Health and Outpatient Care Data Collection into a common data model as they are migrated from the HIE to a new data

warehouse. The common data model will apply to patients treated in any setting (e.g. admitted, non-admitted, and emergency department).

- Where possible, data will be sourced as a by-product of the information in source systems used to manage the day-to-day operations of the health service and clinical care
- Data collections, as traditionally defined, will be created dynamically by the data warehouse in what are referred to as 'data-marts'. Reporting of data to the data warehouse will be more closely aligned with the way source systems store data than has traditionally been the case and the number of times information needs to be reported will therefore be significantly reduced. Characteristics about the client, the individual service provider, the organisation service provider, and the service event will each be reported in separate data streams to avoid the need to report the same information multiple times.

The resources involved in moving in the direction we have proposed are considerable, but so are the benefits. For example in community health in Queensland between 2004 and 2006, the Health Department successfully introduced a standardised assessment tool (the Ongoing Needs Identification – ONI Tool) that included a capacity for priority rating (Stevermuer et. al. 2007). This development was supported by an adequately resourced change management strategy. In a similar development process in Victoria, the Service Coordination Tool Templates (SCTT) were introduced as a means of information sharing for their Primary Care Partnerships (http://www.health.vic.gov.au/pcps/coordination/index.htm)

In terms of the strategic direction for community health, moving beyond a largely transactional data system is essential. If community health services are to be in a position to demonstrate what they do and the outcomes they achieve, the capacity to capture care goals and outcomes is fundamental and not something that might be built in at a later date.

Finally, it is important to note that not all Area Health Services are proposing to move to the new system. Sydney South West AHS and the Children's Hospital at Westmead have extensive experience and knowledge of the Cerner product suite and will use it for both community health and outpatient care services. This product suite will also be used at a minimum for hospital based non-admitted patient services in North Coast AHS, North Sydney Central Coast AHS. South Eastern Sydney / Illawarra AHS and Sydney West AHS have also indicated that they will implement Cerner EMR for these services.

Cerner stakeholders have reported that the 'encounter' concept in Cerner could equate to the CHOCIP 'chapter' and that the 'episode' concept in Cerner could equate to the CHOCIP 'journey' concept. However, they advised that in practice the 'encounter' has been implemented inconsistently and extensive change would be required to standardise it. In addition, the 'episode' functionality had been reviewed by SSWAHS and a decision was made not to implement it as it was in an immature stage of development and problematic.

iSoft's iPM product, the alternative patient administration system software to Cerner, does not have a concept of 'journey' at all, and the 'chapter' concept could at best equate to the referral record, to which many service events could be attached if the users were willing to attach them to the referral. iPM is used primarily for outpatient activity in Greater Western AHS, Greater Southern AHS and Justice Health.

Telehealth

NSW Health has established telehealth infrastructure across NSW and videoconferencing is now routine practice in most Area Health Services and in NSW Health to reduce travel time and to provide remote education and training.

However, there has been only limited uptake in allied health or other primary health clinical services to date and our second report outlined some of the reasons. These include telephone and broadband charges for telehealth consultations and the lack of formalised networks between

specialist providers and regional teams. A further issue is that, to date, there has only been limited investment in home based vital signs monitoring systems, medication reminders and other tools that can reduce the need for some home visiting are required to support self management for chronic and complex patients.

While some of the building blocks and basic networks are in place further strategic investment in telehealth care systems and clinical care protocols and home care support technology will be required to take advantage of the potential of these mediums and impact on primary health care practice.

Performance indicators for community health

There is widespread recognition of the need for meaningful performance indicators for community health that are the by-product of routinely collected information. However, the implementation of such indicators presupposes that both the information technology and the data systems are in place, neither of which is the case at present (see above). Nevertheless, some developmental work has been done.

Based on the *Integrated Primary and Community Health Policy*, a project was undertaken in 2007 to arrive at *Suggested performance indicators for primary and community health services in NSW* (McDonald and Powell Davies, 2007). The report was the result of a consultation on two issues papers and related workshops with community health practitioners. The process was not comprehensive but focussed on three domain areas identified in the workshops as being of the highest priority.

The result was a partial map of the territory, within the scope provided by the policy, covering the domains of:

- 'core services and investment' (essentially an inventory of service types and workforce distribution) described as a prerequisite to establishing performance indicators.
- integrated and seamless systems, continuity across the sector, as a response to the fragmented system experienced by consumers and providers
- chronic conditions, seen as a priority area for contributing to reduced hospitalisation and illustrating the continuum of care from prevention through to ongoing care and acute/post acute care in the community.

The 2007 report emphasised the need to review how these indicators relate to other indicator sets and that the indicators would be:

> *"more potent as part of mainstream performance management systems than if they remain free standing."(p.11)*

The shortcomings in the approach (which were acknowledged as 'too hard' in terms of the available resources) were essentially its administrative rather than clinical focus and the inability to gain consensus on standardising basic counting rules. This resulted in a lack of detail about what should be collected in initial assessment processes and tools (priority area 3 in the policy), and about what client characteristics would be collected, including indicators of clients' needs as part of primary and community health activity (priority area 6 in the policy).

In particular there was little attention paid to how to routinely collect clinical information in a way that would allow clients to be classified in terms of their goal of care and how that routine clinical information could be used as part of an ongoing client record for the assessment of client outcomes. There was acknowledgment that this was important but no progress was made.

> *"It can be anticipated that in future years there will be a shift towards more outcome focused indicators." (p.11)*

Summary

On the one hand, many executives and managers at both the departmental and area level are critical of community health because they cannot demonstrate what they do. On the other, neither the data systems nor the information technology are in place that would allow community health services to do otherwise. A major investment is required.

While the work currently being undertaken to develop a community health information system under the Primary, Community and Outpatient Care Information Program will help, there is a need to refine the current proposals as outlined above. Community health managers and clinicians and the information technology and information management areas of NSW Health will need to work closely together to refine the specifications, implement the systems and change both the culture and work practices.