

# NSW Pain Management Report

Report of the NSW  
Pain Management Taskforce



Health

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# Foreword

Dear Minister

I am pleased to present the Report of the 2011 NSW Pain Management Taskforce.

The mission of the Report is:

**To provide equitable and evidence-based pain services that improve quality of life for people with pain and their families, and to minimise the burden of pain on individuals and the community.**

Worldwide, there is increasing awareness of the substantial burden of pain – in human and economic terms – and NSW is at the forefront of efforts to move from awareness of the problem to action.

Development of the NSW Pain Management Report has built on the existing work of the Pain Management Network of the Agency for Clinical Innovation, and the Taskforce would like to acknowledge the ACI Network's major contribution.

The Taskforce's recommendations are also in alignment with those of the Australian National Pain Strategy, which was developed through the collaborative efforts of health professionals, consumers, industry and funders nationwide.

Though there is a huge need for more research in pain management, there is considerable consensus as to the way forward in improving pain services – providing integrated multidisciplinary care at all levels, more training in pain management for health professionals in all disciplines, community-wide strategies to destigmatise chronic pain, and better access to early intervention.

The Taskforce would have liked to consult more broadly on the NSW Pain Management Report than was possible in the time available. However, those we have consulted have supported our recommendations, and through the ACI Pain Management Network, a broad group of clinicians and consumers has been involved in developing the recommended model of care.

We thank the Minister for Health and Medical Research for the opportunity to be involved in this important piece of work, and look forward to service improvements for the many residents of NSW that live with pain every day.

Professor Richard Chye, Chair

On behalf of the members of the NSW Pain Management Taskforce

**Professor Michael Cousins**

**Ms Fiona Hodson**

**Dr Milana Votrubec**

# Executive Summary

In June 2011, the NSW Minister for Health and Medical Research commissioned a Taskforce on Pain Management to provide key recommendations to inform a statewide plan for pain management services in NSW. The aims of the recommendations are to:

- ease the burden of chronic pain
- improve quality of life for people with pain
- help people with chronic pain re-enter the workforce.

To achieve these goals will require changes in health services, but also a cultural transformation in the way that health professionals and the broader community understand and deal with pain.<sup>1</sup> Chronic pain – defined as constant daily pain for a period of three months or more in the past six months – is stigmatised. Lacking knowledge about why pain may persist beyond the point of healing (or even without detectable tissue damage), society ascribes blame or weakness to the person with the condition. While scientific understanding about the pathophysiology of pain has improved greatly during the past 20 years, this knowledge has not yet been translated into standard care.

Many of the one in five adults in NSW estimated to have chronic pain<sup>2</sup> will have difficulty finding a health professional who knows how to manage their patient's condition. If people with chronic pain are referred to a multidisciplinary pain service, they may wait up to 18 months for an appointment. The long wait time will increase their risk of long-term disability and lessen their chance of ever returning to work. If children, they may stop attending school. They may lose their self-esteem, their relationship or their enjoyment of life due to their pain. Yet their family, friends, employers, schools and even many health professionals will often not believe their pain is real.<sup>3</sup>

*The High Price of Pain* report, conducted by Access Economics in 2007 in collaboration with the MBF Foundation and the University of Sydney Pain Management Research Institute, estimated that chronic pain costs the Australian economy \$34 billion per annum, or \$10,847 for each affected adult. This makes it the nation's third most

costly health problem.<sup>4</sup> The report found that the high cost of chronic pain was a result of both high prevalence and high impact; productivity costs accounted for \$11.7 billion, or 34 per cent of the annual total. It highlighted the need for chronic pain to be elevated as a health priority, and estimated that applying evidence-based treatments could halve the cost of chronic pain to the economy.

In 2010, Australia's National Pain Strategy<sup>3</sup> developed comprehensive recommendations for addressing the impact of acute, chronic and cancer pain. The Strategy was the result of a collaboration of clinicians and consumers under the leadership of the Australian and New Zealand College of Anaesthetists (ANZCA), the Faculty of Pain Medicine (FPM), the Australian Pain Society (APS) and consumer group Chronic Pain Australia (CPA), and was also supported by the MBF Foundation and the University of Sydney Pain Management Research Institute. It was the first document of its type in the world, but was quickly followed by similar initiatives in the United States, Canada and Europe.<sup>1,5,6</sup>

In developing the Report, the Taskforce has drawn on these bodies of work and has worked closely with the Pain Management Network of the NSW Agency for Clinical Innovation (ACI). The ACI Network has worked for many months on the model of care for pain management, and while the Taskforce takes responsibility for the contents of this document, it acknowledges the ACI Network's important contribution. The ACI Network also commissioned a literature review on models of care for pain management from the Sax Institute, with funding from the Motor Accidents Authority.

## Chronic pain as a chronic disease

Chronic pain may occur after an injury or surgery but beyond the time it usually takes for tissues to heal, or it may be associated with a comorbid condition (such as arthritis, cancer, diabetes, endometriosis, multiple sclerosis, or dental condition). In this situation chronic pain is a secondary chronic disease. Sometimes chronic pain has no identifiable origin; in this situation it is a primary chronic disease (see

below). Low back pain is a common presentation.

The defined scope of work of the Taskforce relates to chronic pain, but chronic pain occurs on a continuum: inadequate treatment of acute pain (after surgery, for example) increases the risk of progression to chronic pain, and the period of transition between the two (subacute pain) is an opportunity for early intervention.<sup>7-14</sup> Integration and coordination of chronic pain services, acute pain services, musculoskeletal services and others is vital. People with cancer-related pain will usually be treated in a cancer or palliative care service, but the Taskforce is aware of the need for access for cancer patients to specialist pain services where required, and for coordinated care across the system.

Underpinning the service design recommendations in the Report is the Taskforce's recommendation that chronic pain be recognised as a chronic disease in its own right. A growing body of scientific evidence suggests chronic pain has its own underlying disease process.<sup>15</sup> While injury or disease is frequently a contributor to chronic pain, it is changes in the nervous system that lead to ongoing pain in a large number of people, even after the stimulus has been resolved. In some patients, chronic pain arises without preceding injury or disease. The neurological changes associated with chronic pain are maladaptive; that is, they are fundamentally different to the 'helpful' nerve signals associated with acute pain. Hence, specialist clinicians consider chronic pain to be a serious disease entity with its own distinct causes, signs and symptoms.

Recognising chronic pain as a chronic disease would permit coding, recording and measurement of chronic pain in health service records, and may help destigmatise the condition. It would also enable chronic pain to be treated within the NSW chronic disease management framework, thereby supporting early intervention, coordinated care and active self-management.

Currently, there is no functional care pathway for people with chronic pain. They are commonly referred for multiple investigations, which often do not find a cause for the pain. They may receive ongoing treatment without improvement, and then be recommended for invasive procedures. In some cases, such procedures result in further harm. Moreover, reimbursement and insurance arrangements often work against evidence-based care. For example, treatment guidelines for low back pain recommend non-invasive therapies before considering surgery, yet non-invasive

therapies are not publicly funded while many surgical procedures are.<sup>16</sup>

Synthesis of the available literature indicates that the following factors maximise positive outcomes for patients:

- prompt, appropriate and targeted care processes for the management of acute and chronic pain
- screening and appropriate referral for those at risk of needing secondary and tertiary intervention
- use of multimodal therapies, including cognitive-based programs that build self-management capacity among those who experience chronic pain
- high-intensity rather than low intensity care processes for chronic pain management.

## Proposed model of care for pain management in NSW

The Taskforce recommends a model of care aligned with those developed by the National Pain Strategy<sup>3</sup> and the ACI Pain Management Network. The model is intended to apply across both the public and private sectors.

At the **population health level**, consumers and health professionals need evidence-based information about pain prevention and early intervention, pain medicines, multidisciplinary treatment, pain management programs and procedural interventions so they can make informed decisions. Insurers and employers have an important role in raising awareness of pain management in the workplace.

At the **primary health care level (tier 1)**, the Taskforce recommends applying the chronic disease management framework to pain management. Better access to multidisciplinary assessment and treatment at the primary health care level, especially via clinicians with a specific interest in pain management, is needed. Appropriate education and training resources and multidisciplinary outreach from tier 2 and tier 3 services are needed to boost the capacity of the primary health care sector to manage non-complex cases and to refer complex cases appropriately. Other important ways of facilitating effective pain management in the primary sector include a standardised screening tool/triage instrument, access to Medicare reimbursement for allied health care in pain management, and an electronic health record.

At the **tier 2 level (secondary or intermediate care)**, the model of care proposes development of multidisciplinary publicly-run pain management teams, led by pain medicine and/or other appropriate specialists, for appropriately triaged patients with low to moderate disability and medium complexity. This would be a step-up and step-down service between primary health care and tertiary-level multidisciplinary pain teams. Patients may be referred from private medical specialists, GPs, or primary health care multidisciplinary teams. Tier 2 multidisciplinary pain teams would ideally be co-located in a hospital outpatients' department, ambulatory/community care centre or in co-located consulting rooms.

At this level, it is also important to acknowledge that many patients with chronic pain who have specific causes (e.g. migraine, arthritis) are managed by medical specialists such as neurologists, rheumatologists, rehabilitation specialists and psychiatrists, often working in their own private rooms, with referrals to private allied health practitioners as needed.

The **tier 3 level (tertiary care)** is a multidisciplinary pain service (or centre) located in a major teaching hospital, led by a pain medicine specialist and with access to the full range of disciplines. There are 11 existing multidisciplinary pain services in NSW, nine for adults and two for children. They provide a full range of services, including multidisciplinary assessment and treatment, pain management programs, procedural interventions, and inpatient admission where needed.

However, these services cannot meet patient demand with existing resources, and few are fully capable of delivering evidence-based treatment. They require additional resources to provide a sustainable service. With improved pain management services at tier 1 and tier 2, and effective triaging to those services, tier 3 services would be able to provide timely care for the patients with the most complex care needs.

A new type of service, the **pain linkage service**, is proposed in response to a need explicitly identified by clinicians. Its roles would be to integrate pain services at all levels, provide regional and remote support, promote capacity building and up-skilling, and facilitate systems for improving triage, referrals and continuity of care. Each pain linkage service would ideally be co-located with a tier 3 multidisciplinary pain service but operate outside that service, across a defined geographical cluster of Local Health Districts. The nearest service would ideally be

contactable via a single statewide phone number.

The Taskforce proposes that **rural and remote pain management services** be developed at a primary health care level as far as possible. Placement of new tier 2 and tier 3 services would depend on optimal location, availability of staff and mode of operation following a needs analysis.

The proposed model of care is outlined in Figure E1.

## Education, training and workforce development

Education resources in pain management are needed for consumers, carers, GPs, other doctors, nurses, allied health professionals and aged care staff, and for insurance assessors and case managers. There is known demand for short factsheets (print and online). A coordinated approach to information development is needed to ensure consistency and quality of materials and to prevent duplication of effort. Consumer and clinician involvement in developing materials would encourage a patient-centred approach and make sure end users' needs are met.

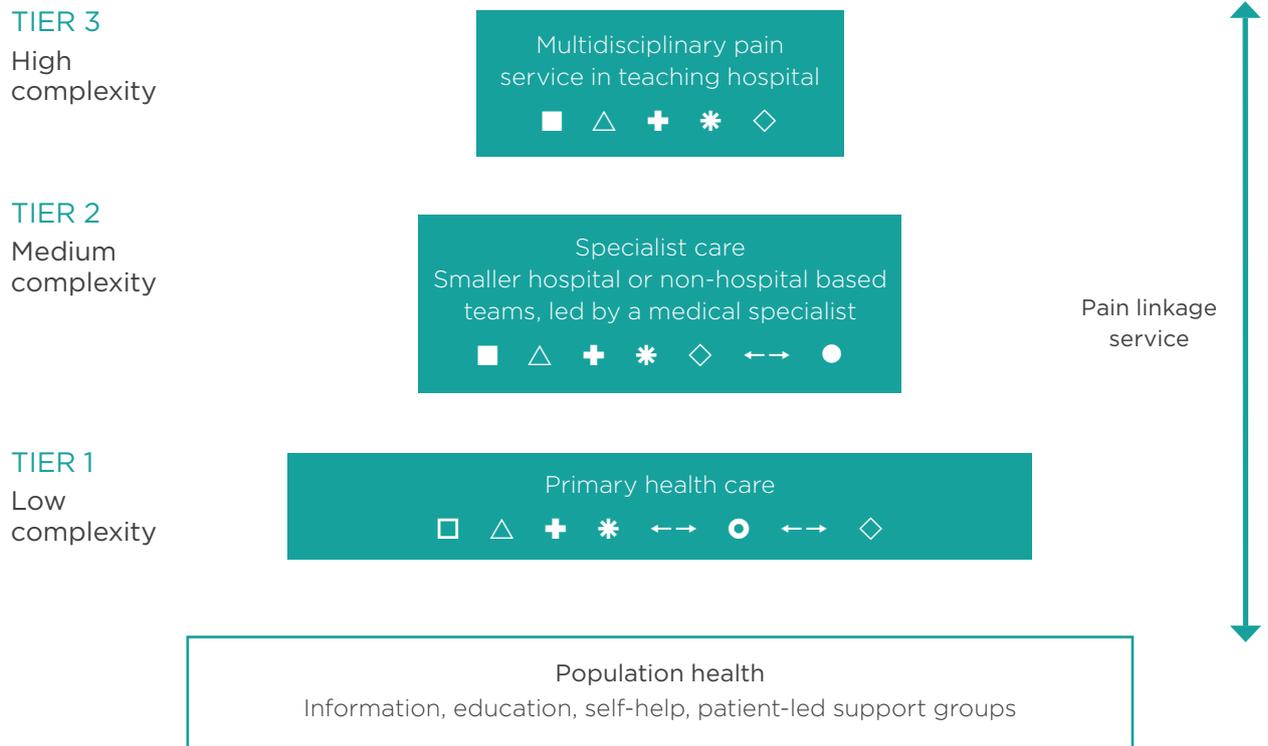
A resource for GP education will be the Royal Australian College of General Practitioners' (RACGP) new online training program in pain management, which is expected to be available at the end of 2012.<sup>17</sup>

Formal training in pain management for all disciplines is available at Masters level via the University of Sydney, and for medical specialists, via the Faculty of Pain Medicine. The University of Sydney's Medical School has recently introduced a Discipline of Pain Medicine, which will first conduct a one-day symposium for all medicine and health undergraduates and then work towards introducing pain medicine into the standard curriculum.

A statewide approach to clinical training and education initiatives in pain management would be valuable. The Taskforce proposes a training program for all disciplines similar to the national Program of Experience in the Palliative Approach (PEPA), which provides resources for clinical workforce placements or workshops.<sup>18</sup> Rotations in tier 3 pain services may be a practical method for capacity building.

A project to determine workforce needs in pain management in the future is also recommended.

Figure E1: Proposed model of care



**Legend**

■ Pain medicine specialist	△ Psychologist	● Other medical specialist
□ GP with specific interest in pain	⊕ Physiotherapist/Occupational therapist	○ GP
	* Nurse	◇ Pharmacist

## Research and data collection

Rather than prioritising one area of study, the Taskforce recommends data collection for ongoing measurement of patient outcomes and service performance, and development of a sustainable, coordinated research effort that is able to translate findings into service improvements.

The ACI Pain Management Network has nominated development and implementation of a common dataset as its number one priority for the Report.

The Taskforce acknowledges the challenges of developing

a common dataset across services and jurisdictions, but believes NSW should begin the process of establishing a state-level database as soon as possible; this would then be coordinated with the planned development of a national database.

The Taskforce proposes a dedicated pain management research program for NSW, with one tier 3 multidisciplinary pain service providing statewide leadership and coordination. Research should include basic science, translational research, population studies (including vulnerable populations), and research into the clinical, social and economic aspects of pain.

## Conclusion

The NSW Government has the opportunity to substantially reduce the suffering and the cost associated with pain in our community. As the population ages, the personal, community and economic costs will only rise. The Taskforce is mindful that additional resources will be needed to fully develop the proposed model of care, but firmly believes these changes are needed for patients to receive timely access to care and better outcomes.

Ultimately, there are enormous potential social and economic gains to be made by improving access to the right services at the right time in the best possible place for people with pain. An investment in pain management is an investment in the productivity and quality of life of our residents, our workforce and our social capital.

# Acronyms

ABF	Activity-based funding
ACI	Agency for Clinical Innovation
AN-SNAP	Australian National Subacute and Non-Acute Patient Classification System
AR-DRGs	Australian Refined Diagnosis Related Groups
CALD	culturally and linguistically diverse
CETI	Clinical Education and Training Institute (to be replaced by the Health Education and Training Institute, HETI)
FFPMANZCA	Fellowship of the Faculty of Pain Medicine, Australian and New Zealand College of Anaesthetists
FPM	Faculty of Pain Medicine
GP	general practitioner
HETI	Health Education and Training Institute
HIC	Health Insurance Commission
IASP	International Association for the Study of Pain
ICD-10-AM	International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification
IHI	Individual health identifier
LHD	Local Health District
MBS	Medicare Benefits Schedule
MOU	memorandum of understanding
MSOAP	Medical Specialist Outreach Assistance Program
NSW	New South Wales
PBS	Pharmaceutical Benefits Scheme
PCEHR	Personally controlled electronic health record
PEPA	Program of Experience in the Palliative Approach
PMRI	Pain Management Research Institute
RACGP	Royal Australian College of General Practitioners
STP	Specialist Training Program
URGs	Urgency Related Groups

# Glossary

Accredited pain service	An accredited pain service is one that meets the requirements for pain medicine specialty training set by the Faculty of Pain Medicine, Australian and New Zealand College of Anaesthetists
Acute pain	Pain immediately following surgery or injury, which is expected to be of relatively short duration. <sup>19</sup>
Cancer pain	Pain associated with cancer, either during the treatment phase, as a complication of treatment, or in cancer survivors.
Chronic pain	Constant daily pain for a period of three months or more in the last six months (sometimes the term 'persistent pain' is also used).
Complex regional pain syndrome (CRPS)	Complex regional pain syndrome (CRPS) is a severe chronic pain condition that most often affects one of the arms, legs, hands or feet. It is thought to result from dysfunction in the central nervous system. Typical features include intense burning pain, dramatic changes in the colour and temperature of the skin over the affected limb or body part, skin sensitivity, sweating, swelling, and dysfunction in the movement control system. Older terms used to describe CRPS are reflex sympathetic dystrophy syndrome and causalgia. CRPS may occur (though not always) after surgery or injury, though pain is out of proportion to the severity of the injury and may get worse rather than better over time. <sup>20</sup>
Diagnosis related groups (DRGs)	A patient classification system that provides a clinically meaningful way of relating the types of patients treated in a hospital to the resources required by the hospital. <sup>21</sup>
Interdisciplinary	Clinicians work together in an interactive manner to assess and manage patients.
Multidisciplinary	A number of different health care disciplines available at one clinic.
Neuropathic pain	Pain initiated or caused by a primary lesion or dysfunction in the nervous system.
Non-accredited pain service	A non-accredited pain service is one that is not accredited for pain medicine specialty training by the Faculty of Pain Medicine, Australian and New Zealand College of Anaesthetists.
Opioids	Medicines with actions similar to those of morphine, including substances derived from the opium poppy (morphine, heroin, codeine and thebaine) and synthetic and semi-synthetic medicines (such as pethidine, hydromorphone, fentanyl, methadone, buprenorphine, oxycodone, dextropropoxyphene, dextromoramide, pentazocine, tramadol and others).
Pain	An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.
Pain linkage service	Proposed new service to improve links between tier 3 (tertiary) multidisciplinary pain services and primary / community health care. The service would provide expert support, up-skilling and multidisciplinary consultation and advice to primary and secondary health care.

Primary health care	The first level of care or point of entry to the health care system for consumers. It includes (but is not limited to) services delivered by GPs, practice nurses, nurse practitioners, community nurses, allied health providers, Aboriginal health workers, pharmacists and dentists. <sup>22</sup>
Recurrent pain	Pain that occurs on a recurrent or cyclical basis, for example migraine or recurrent abdominal pain.
Red flags	Clinical features that suggest serious underlying condition.
Secondary health care	Services provided by practitioners who don't normally have first contact with a patient, such as medical specialists; intermediate between primary health care and that available at a tertiary facility.
Subacute pain	Pain that is progressing towards chronic pain, but this progression may be prevented.
Tertiary health care	Care provided in a service that has the personnel and facilities required for specialist investigation and treatment, such as within a teaching hospital.
Tier 2 pain service/team	A multidisciplinary public pain service led by pain medicine and/or other appropriate specialists, treating patients with low to moderate disability and medium complexity and located in a hospital outpatients' department, ambulatory/community care centre or in co-located consulting rooms.
Tier 3 Multidisciplinary pain service (multidisciplinary pain centre)	A pain service located in a major teaching hospitals, which provides comprehensive multidisciplinary care and procedural interventions, and is able to manage the most complex cases. Clinicians work in an interdisciplinary mode.
Yellow flags	Psychosocial factors that predict ongoing disability.

# Introduction

In June 2011, the NSW Minister for Health and Medical Research convened a Taskforce on Pain Management. The brief was to provide key recommendations from clinicians and consumers to inform a statewide plan for pain management services. The Taskforce has worked closely with the ACI Pain Management Network in developing the Report, and welcomes the opportunity to contribute to a better future for people living with pain.

It is estimated that one in five adults in NSW have chronic pain.<sup>2</sup> Many do not seek treatment, and many of those who do fail to find adequate care. Some will eventually be referred to a multidisciplinary pain service at a major hospital, but this will not usually happen, if it happens at all, until many months after the onset of pain.

A few very urgent patients, such as those with cancer-related pain, will be seen soon after referral. Most patients will face a long wait – between three and 18 months – for a first appointment.

By that time, the delay is likely to have contributed to a number of sequelae: depression, anxiety, physical deconditioning, social isolation, relationship breakdown, loss of income, and in some cases, dependence on opioid medicines.<sup>23-27</sup> Almost two-thirds of people with chronic pain report interference with daily activities, including sleep, sex, work and routine self-care, and according to research commissioned by Pfizer Australia, 20 per cent of those who live with chronic pain say that at some stage they have considered suicide as a result of their pain.<sup>28</sup>

Long wait times contribute to long-term disability, and the chances of returning to work after approximately two years off work are close to zero. Pain services are effectively being asked to work miracles.<sup>3,29-31</sup>

The mission of the Report is:

***To provide equitable and evidence-based pain services that improve quality of life for people with pain and their families, and to minimise the burden of pain on individuals and the community.***

## Current context

Scientific understanding of pain has changed in the past 20 years. Researchers have found that pain may persist beyond the time it takes for damaged tissues to heal, due to changes in the central nervous system. But this new understanding of pain has not yet been translated into health policy and practice. Many sufferers of chronic pain are stigmatised within the community and by health care providers, due to the subjective nature of pain alongside misconceptions about its physiological nature.

In March 2010, a National Pain Summit was held in Canberra following 18 months of consultation between clinicians, consumers and non-government organisations. The result was the Australian *National Pain Strategy*,<sup>3</sup> an evidence-informed framework with a similar mission statement to that above: to improve quality of life for people with pain and to minimise the burden of pain on individuals and the community. The National Pain Strategy is attached as Appendix 1.

The same year, the NSW Agency for Clinical Innovation (ACI) established the Pain Management Network, which includes more than 80 clinicians and consumers who have experience with chronic pain. Its Executive Committee meets monthly and receives input from three working groups, representing tertiary services, primary health care and community partnerships. The Network's activities to date have focused on the development of an agreed model of care for pain management. A survey of tertiary hospital pain services has made an important contribution to developing the model of care, as this information has

not previously been available. The Network has also been informed by a review of the literature on models of care (funded by the Motor Accidents Authority), and by a consumer survey.

Internationally, strategic plans for pain management have recently been produced in the United States,<sup>1</sup> Europe<sup>6</sup> and British Columbia, Canada.<sup>5</sup> These plans emphasise the need for redesigned health services, education of health care providers, self-management skills for patients, and destigmatisation of chronic pain across the community.

## Aims and scope

The aims of the Report are to:

- ease the burden of chronic pain
- improve quality of life for people with pain
- help people with chronic pain re-enter the workforce.

The scope of the Taskforce's work, as defined by NSW Health, included the following (for full details see Appendix 2):

- best estimates of the prevalence of pain in NSW, further initiatives to better document the prevalence of pain, and options to develop a population-based approach to delivering effective pain management services
- a review of the literature on the effectiveness of models of care for pain management
- identify the most effective pain management interventions, including finalisation of the model of care developed by the ACI Pain Management Network
- identify ways to improve transitions of care between primary health care and hospital-based services to prevent unnecessary hospitalisation
- outline the resource needs of the multidisciplinary pain services across NSW accredited by the Faculty of Pain Medicine, to ensure they are able to meet demand and address long waiting times for treatment
- identify research priorities related to patient experience and effective pain management.

According to this defined scope of work, the Taskforce has focused on chronic pain. However, chronic pain lies on a continuum. Inadequate treatment of acute pain, for example, increases the risk of progression to chronic pain, and the period of transition between the two (subacute pain) is an opportunity for early intervention.<sup>7-14</sup>

The Taskforce considered the spectrum from acute to chronic pain, including cancer pain, for all age groups.

## The nature of pain

The International Association for the Study of Pain (IASP) defines pain as an unpleasant sensory and emotional experience, associated with actual or potential tissue damage, or described in terms of such damage. That is, pain is a subjective human experience, and can only be truly appreciated by the individual experiencing the pain (see Appendix 1, *National Pain Strategy*, 'The science of pain', pp 53–57).

**Acute pain** is pain immediately following surgery or injury, which is expected to be of relatively short duration<sup>19</sup> – for example, pain resulting from burns, broken bones, surgery, kidney stones, or acute shingles. In this case, the cause of the pain is easy to identify, but different people experiencing the same injury will experience different levels of pain.

There is good scientific evidence to underpin safe, effective treatment of acute pain,<sup>32</sup> but acute pain remains undertreated in many Australian hospitals. Tissues such as muscles, tendons, ligaments and cartilage can heal particularly slowly, and early intervention with effective pain relief and restoration of function is vital to lower the risk of progression to chronic pain.

**Subacute pain** is a transitional stage between acute and chronic pain: the time between tissue healing (usually one or two months), and the six-month time point that defines chronic pain. During the subacute phase, appropriate intervention (pharmacological, psychological and social) may prevent progression to chronic pain. Presumably changes in the nervous system are occurring during this time, but the changes may still be interrupted.

**Recurrent pain** is pain occurring on a recurrent or cyclical basis, such as migraine or recurrent abdominal pain.

**Chronic pain**, also known as persistent pain or chronic non-malignant pain, is defined as constant daily pain for a period of three months or more in the last six months.

Chronic pain may occur after an injury but beyond the time it usually takes for tissues to heal, or it may be associated with a comorbid condition (such as arthritis, cancer, diabetes, endometriosis, multiple sclerosis, or dental

condition). Sometimes chronic pain has no identifiable origin. Low back pain is a common presentation.

**Cancer-related pain** can occur in patients at any stage of disease, and in cancer survivors. Pain may be caused by the disease itself or by cancer treatment, such as surgery or radiotherapy. Where the disease is the cause, anti-tumour treatment such as radiotherapy can alleviate symptoms. Cancer patients with pain are usually treated in a cancer or palliative care service, but may be referred to a pain service, for example if neuromodulation techniques, advanced pharmacotherapy or cognitive-behavioural treatment are required.

There is evidence that all types of pain are undertreated.<sup>33-41</sup>

## Chronic pain as a chronic disease

The Report aims to improve management of all types of pain but recognises that chronic pain is particularly costly, partly because of its high prevalence and partly because of its substantial impact on productivity.

*The High Price of Pain* report, conducted by Access Economics in collaboration with the MBF Foundation and the University of Sydney Pain Management Research Institute, estimated that chronic pain costs the Australian economy \$34 billion per annum; this makes it the nation's third most costly health problem. Productivity costs comprised one-third of the total economic impact, and direct health care expenditures were more than \$7 billion nationwide.<sup>4</sup> People with chronic pain are higher users of health care services than people without pain.<sup>42</sup>

The *National Pain Strategy*<sup>3</sup> recommended that Australian state and federal governments recognise chronic pain as a chronic disease in its own right, and the Taskforce endorses this recommendation. Currently, chronic pain is recognised only in relation to its primary stimulus (where one can be identified), such as musculoskeletal disorders; chronic pain itself as a disease entity is not recorded in hospital data. While specialist care for chronic pain is reimbursed under the Medicare Benefits Schedule (MBS), the multidisciplinary care (nursing and allied health) is not.

A growing body of scientific evidence suggests chronic pain has its own underlying disease process.<sup>15</sup> While injury or disease is frequently a contributor to chronic pain, it is changes in the nervous system that lead to ongoing

pain in a large number of people, even after the stimulus has been resolved. Strikingly, in patients with spinal cord injury, reorganisation of the cerebral cortex in the brain is more extensive in patients with more severe pain,<sup>43</sup> and in patients with neuropathic pain, pain levels are associated with the degree of reduction in brain matter.<sup>44</sup>

In some patients, chronic pain arises without preceding injury or disease, possibly as a result of psychological and/or environmental triggers. The neurological changes associated with chronic pain are maladaptive; that is, they are fundamentally different to the 'helpful' nerve signals associated with acute pain. Hence, specialist clinicians consider chronic pain to be a serious disease entity with its own distinct causes, signs and symptoms.

Recognising chronic pain as a chronic disease has implications for the way it is treated, and may help destigmatise the condition. Many health care providers, and the community generally, view pain as a "symptom of something":<sup>45</sup> they do not understand the complexity of the condition. Tait, Chibnall and colleagues have found that pain patients with no identifiable tissue damage were judged differently by clinicians: they were seen to have less legitimate pain and disability than patients with a diagnosable physical pathology.<sup>46-50</sup>

As noted by the US Institute of Medicine, reducing the enormous impact of pain will require a "cultural transformation" in how pain is perceived, assessed and treated, both by people with pain and by the health care providers who help care for them.<sup>1</sup>

Recognising chronic pain as a chronic disease would hasten development of treatments that address the physiological changes in the nervous system, as well as the psychological and environmental factors that contribute to those changes. It would also address the loss of self-esteem in patients with chronic pain, who feel their pain has no explanation and is not taken seriously by their health care professionals, employers, family, friends and the broader community.

Health care services that treat chronic pain within the model of chronic disease management would encourage early intervention, reducing the cost and the human impact of the condition.

The Institute of Medicine has recommended that the World Health Organization create a chronic pain category within the International Classification of Diseases,<sup>1</sup> and there is

strong support in the Canadian Government for chronic pain to be recognised and treated as a chronic disease. The Scottish Government includes chronic pain within its 'long-term condition' collaborative framework for policy development and redesign.

In NSW, chronic disease management aims to improve outcomes and quality of life for people with chronic conditions, to slow disease progression and reduce the risk of complications. The approach includes:

- coordinating care
- comprehensive health assessment
- multidisciplinary shared care plans
- evidence-based treatment protocols
- person-centred care
- support for active self-management where possible.<sup>51</sup>

The chronic disease management approach is closely aligned to the model of care advocated by the Report (section 5).

There is an urgent need to strengthen hospital-based pain management services in order to address long waiting times and poor care coordination. In the long term, coordinated primary health care is the preferred model of pain management for the majority of patients. But stronger hospital-based services are crucial to provide better support for primary health care clinicians, high-quality care for complex cases, and to serve as key resources for education and much-needed research.

## An opportunity for system change

The strategic plans for pain management developed internationally share some common elements. There is agreement that better pain management requires:

- the redesign of health services to enable integration across stepped levels of care: enhanced primary health care, satellite pain services and tertiary hubs
- regionally coordinated services
- triage and referral processes to assist patient flow
- multidisciplinary care at all levels
- education in pain management for all health care providers
- self-management for patients

- public health and community awareness initiatives to encourage prevention and early intervention
- system changes to facilitate best practice and improve outcomes.<sup>1,3,5</sup>

The role of the health care provider in effective pain management includes coaching and assisting patients with day-to-day self-management, but many health professionals have not received training in this role.<sup>1</sup> The Royal Australian College of General Practitioners (RACGP), together with the Faculty of Pain Medicine (FPM) of the Australian and New Zealand College of Anaesthetists (ANZCA), is developing a new online educational program to help GPs treat acute and chronic pain.<sup>17</sup> The program will improve access to pain management information for primary health care professionals and is expected to be ready by late 2012. Education in pain management may be taken further and embedded into undergraduate medical and health care syllabi. The University of Sydney has recently approved Pain Medicine as an independent academic discipline – a first in undergraduate education in Australia.

Education for the broader community may be provided through mass media, social networking, online information, insurers, workplaces (e.g. through Occupation Health and Safety training) and non-government organisations.

## Principles guiding the Report

The Taskforce has adopted the following guiding principles for the Report, derived from the principles underlying the Institute of Medicine report *Relieving Pain in America*<sup>1</sup> and Pain BC's *Strategic Plan 2010–2013*.<sup>5</sup>

**A moral imperative.** Effective pain management is a moral imperative, a professional responsibility, and an ethical issue for the community.<sup>^</sup>

**Chronic pain can be a disease in itself.** Chronic pain has a distinct pathology, causing changes throughout the nervous system that often worsen over time. It has significant psychological, cognitive and environmental correlates and can constitute a serious, separate disease entity.

**Need for comprehensive multidisciplinary approaches.** Pain results from a combination of biological,

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<sup>^</sup> The inaugural International Pain Summit on 3 September 2010 endorsed the Declaration of Montréal, calling for access to pain management as a universal human right. The Declaration has now been published in the journal *Pain* (2011).

psychological, and social factors and often requires comprehensive approaches to prevention and management. Multidisciplinary assessment and treatment may produce the best results for people with the most severe and persistent pain problems.<sup>15</sup>

**Importance of prevention.** Chronic pain has such severe impacts on all aspects of the lives of its sufferers that every effort should be made to achieve both primary prevention (e.g. in surgery for broken hip) and secondary prevention (of the transition from the acute to the chronic state) through early intervention.

**Wider use of existing knowledge.** While there is much more to be learned about pain and its treatment, even existing knowledge is not always used effectively, and thus substantial numbers of people suffer unnecessarily.

**Innovation.** Care should be evidence-based, while recognising the absence of evidence for new pain management strategies and supporting innovation to improve outcomes for patients. Continuous evaluation enables programs and services to improve quality and outcomes for people living with pain.

**The conundrum of opioids.** The Taskforce recognises the serious problem of diversion and abuse of opioid drugs, as well as questions about their usefulness long-term, but believes that when opioids are used as prescribed and appropriately monitored, they can be safe and effective, especially for acute, post-operative, and procedural pain, as well as for patients with cancer pain and appropriately selected patients with chronic pain.

**Roles for patients and clinicians.** The effectiveness of pain treatments depends greatly on the strength of the clinician-patient relationship. Pain treatment is never about the clinician's intervention alone, but about the clinician and patient (and family) working together.

**Patient-centredness.** The needs, values and preferences of patients and their families must be at the centre of pain services and programs. Programs and services will be developed in partnership with patients and their families and be responsive to their needs.

**Cultural competence.** Care should reflect the diversity of the population and the individuality of the client's needs, cultural and religious values, preferences and beliefs.

**Integration across the continuum.** Pain services should be coordinated and seamless through the service system (including home, community, hospital, residential, rural and remote care).

**Value of a public health and community-based approach.** Many features of the problem of pain lend themselves to public health approaches – the large number of people affected, disparities in occurrence and treatment, and the goal of prevention cited above. Public health education can help counter the myths, misunderstandings, stereotypes and stigma that hinder better care.

**Partnership.** Reducing the burden of pain on individuals, families, communities and society requires partnerships between clinicians, patients, government and health authorities, insurers, educational institutions, community partners and industry.

**Sustainability.** Sustainable programs and supports for people living with pain can be achieved through the dedication of appropriate resources, the redesign of existing services and the use of efficient and innovative models of treatment and support.

# What the evidence tells us

This section presents a summary of a literature review commissioned by the ACI Pain Management Network and conducted by the Sax Institute to inform the development of the model of care for NSW.

The prevention and management of pain is a key aspect of health care. There is increasing recognition that pain, particularly persistent pain, is a multidimensional phenomenon that requires a comprehensive, integrated and multifaceted model of care.

The literature revealed a heightened awareness of the epidemiology and impact of pain.<sup>1,3</sup> The unique challenges of working in the field of pain management, including the need to work with clients who can have very complex needs, have been identified. The impact of legislation, regulation and health and social policy on pain care has been identified. For example, factors related to opioid and other substance use, social benefits, medical and pharmaceutical benefit arrangements, mental health care, aged care, cancer care, indigenous health, rehabilitation and occupational medicine, and palliative care have been noted as impacting on the pain management field.<sup>1,3</sup>

In this Report, the aspects that constitute a model of care are described and the findings of the literature review are discussed in relation to each of these. A recommended model of care for NSW is proposed based on this. Although there does not appear to be a body of evidence that examines the implementation of models of care in their entirety, there is a range of research and other literature that provides cues as to the attributes of a model of care for more effective management of pain. Moreover, there is consensus that failure to intervene appropriately for those who experience pain has a number of undesirable risks for the individual, families and communities and places increased demand on acute and community services. In particular, there is a strong body of evidence that indicates that early, targeted pain management plays a significant role in the prevention of long-term pain conditions.

The questions examined in this literature review were drawn from the Changing Models of Care Framework (Queensland Health 2000). The questions follow, with a summary of the analysis of the literature related to each.

## **1. What are the issues associated with the current model of care?**

The major problems with the current approaches to pain management are long standing and well documented. They include:

- an overreliance on the biomedical view of pain and a concomitant lack of services within the biopsychosocial approach to responding to chronic pain
- limited timely access to existing services for a range of reasons
- a need to better target services to clients experiencing pain who have differing needs.

## **2. What are the values and principles involved in care delivery?**

The values and principles that guide care delivery are a commitment to the most effective, evidence-based approaches using a population approach to pain management. Achieving this requires clear appreciation of the structures and roles of each part of the health sector and clearly delineated care delivery processes across primary and acute health care sectors in NSW.

## **3. What are the current structures and roles in pain management? What are the care delivery processes and referral patterns and criteria for getting into and out of the service?**

The current care delivery processes for the management of pain suggest a need to (1) better define the type of services for specific populations who experience pain (2) promote pain management as a specialty area of practice that works collaboratively with other specialities to optimise patient experience and outcomes and (3) continue to ensure

care processes are founded on research related to the biopsychosocial view of pain.

The services provided at hospitals in NSW appear to vary based on the local context and history of the service. It is important that patients are clear about the types of services available to them in each Local Health District and that there is reasonable access to pain management services for the population of NSW.

There is evidence of a need to:

- optimise quality and consistency in care of the person with pain in all settings irrespective of the nature of pain through greater use of standardised care guidelines, protocols and pathways
- ensure there are valid and comprehensive screening and assessment processes to ensure the right level of care is available to patients
- provide a range of interventions for both acute and chronic pain, including behavioural programs for people with persistent pain
- better define the criteria for attendance at specialist pain services and improve the discharge process from specialist services to community and primary care services
- optimise case management for those with chronic and complex pain who need high levels of support
- further explore the use of technology to facilitate care processes
- better classify and code pain related presentations and use of services.

#### **4. What are the patient outcomes? Is the model of care delivery safe? Does it provide equity of access? Is it based on the most appropriate available evidence?**

Patient outcomes measured are varied but generally researchers seek to determine the impact of care on factors such as pain intensity and duration, quality of life and functional outcomes. Dependent on the intent of the pain management strategy and the research questions, other aspects that have been examined include participation in work/school; length of stay in hospital, medication usage and use of health care services.

Synthesis of the available literature indicates that positive outcomes for patients are maximised when there is:

- prompt, appropriate and targeted care processes for the management of acute and chronic pain
- screening and appropriate referral for those at risk of needing secondary and tertiary intervention
- use of multimodal therapies including cognitive based programs that build self management capacity among those who experience chronic pain
- high intensity rather than low intensity care processes for chronic pain management.

#### **5. What does the community think of the current model of care?**

The current models of care, particularly for those who experience chronic pain, do not meet community expectations of timely access to services where staff are responsive to their needs in supportive ways. There is a need to change community as well as individual expectations of pain management processes and outcomes. The extent to which individuals are assisted to understand the nature of their pain impacts on individual experience and satisfaction and shapes community expectations. Skilled and knowledgeable staff are critical to this process.

#### **6. What is the staffing profile and skills mix? What factors affect this?**

The staffing profile varies dependent on the nature of the service provided. Tertiary chronic pain services are usually staffed with medical staff, clinical psychologists, physiotherapists, and nursing staff who have specialist expertise in pain management. Occupational therapists, pharmacists and psychiatrists may also form part of the core staff establishment in a pain service. Irrespective of the staff profile of a pain service, close working relationships with other services that enable the effective management of pain as well as services that may require specialist pain input (e.g. services for oncology, surgery, older person care, chronic diseases and addiction) are essential. There is also a need to ensure that there are administrative personnel who support effective clinical service delivery in order to ensure clinical staff are well utilised.

#### **7. What is the cost of service delivery and what evidence is there that the model of care is cost effective?**

There is evidence that the ineffective management of pain is costly to the community. Efforts to better manage pain have been shown to have some impact on the

cost of delivery across the health care system. However, conclusions about cost effectiveness depend on where in the care continuum cost savings are measured and how. Some of the literature shows that a pain service is more expensive but quality of pain management is improved. Others question the degree of improvement related to the additional cost. If a model of care is intended to reduce hospital admissions and this has not been examined in the analysis then the conclusions are not sufficiently robust to make claims about the cost effectiveness. The general consensus is that as community and outpatient care is less expensive than inpatient care in Acute Hospitals, avoidance of admission and use of acute hospital care resources (e.g. Emergency Departments) is cost effective to the Acute Hospital Care sector. There are challenges in identifying the costs associated with the management of pain due to poor classification and coding processes.

As a whole, the literature related to the management of pain reflects the need for more effective management of pain, particularly for those who experience chronic pain. This necessitates a model of care that is inclusive of, yet far broader than, the traditional, biomedical approach which focuses on 'curing' pain. The acknowledgement that chronic pain is very different to acute pain in terms of its aetiology and complexity has resulted in renewed emphasis on pain as a multidimensional experience that needs to be viewed and managed through a biopsychosocial lens. There are examples of comprehensive approaches to pain management in Australia and internationally. The implementation of these models of care frequently involves the establishment of pain clinics within integrated pain services. Many of these pain services have described their model of care in detail on their websites and at conference presentations. There is increasing consistency in the attributes of these models of care. The emergent models:

- recognise the interaction of biological, psychological and social factors in the experience of and response to pain and aim to provide a suite of interventions and therapies to address these
- align to the principles of health promotion and prevention, early assessment and intervention
- are directed toward developing greater self-management of chronic pain
- necessitate a strong community and primary care sector
- are multidisciplinary and operate across the interfaces of population health, primary care and community health, and acute health sectors

- provide specialised pain services for those who have need for these in inpatient, outpatient and outreach services
- are increasingly oriented toward seeking to determine outcomes for both patients and the health system as a whole
- are informed by the best available evidence, including expert opinion.

The model of care adopted in NSW should:

- include strategies to enable the prevention of pain as well as the management of pain
- be directed toward optimising the health and wellbeing of individuals experiencing pain
- promote active engagement and self-management by the patient
- be multidisciplinary, comprehensive, integrated and system wide
- be underpinned by educated staff and informed clients, strong governance of the implementation of guidelines and protocols, and a culture of research generation and translation of that research into practice
- be appropriately resourced and sustainable
- have strong links to other parts of the health system
- be evaluated as a model of care in its entirety, not only of the elements within a model of care.

The available evidence supports a conclusion that that NSW Health should adopt a model of care that is consistent with a 'stepped care' approach, which:

- facilitates the identification and management of those at risk of chronic pain through evidence-based screening and triaging
- distinguishes among and responds to the patient's need for generalist or specialist pain management within the hospital and community
- is consistent with a chronic care model that acknowledges that while the majority of patients who experience chronic pain will be managed in the primary care sector, there are those who will require a different level of intervention through inpatient, outpatient or outreach activities within the public hospital system.

## Limitations of the literature review

The review examined existing grey and published literature and is not based on expert knowledge or familiarity of the current model of care and services and programs within NSW. The scope of this review and literature analysed reflects the volume able to be reviewed in the short timeframe and inevitably some studies have been omitted. Those studies that were reviewed consistently identified a variety of limitations in research design that prohibits generalisation of the findings. There were examples of more systematic reviews of the literature that resulted in contradictions with other reviews and there seems to be resounding consensus about the need for more research in order to draw more meaningful conclusions. The majority of literature examined related to chronic pain and within that, low back and adult populations. Other populations where pain management is a major focus of the model of care (arthritis, migraine, general musculoskeletal conditions) were not examined in detail.

An analysis of the literature by health professionals with expert knowledge of the current model of care, in conjunction with the National Pain Summit, can be found in the National Pain Strategy (Appendix 1).

# Who is affected?

## Prevalence of chronic pain in NSW

The best estimates of the prevalence of chronic pain in NSW come from a 2001 study by Fiona Blyth and colleagues, which was part of the 1997-1998 NSW Health Survey.<sup>2</sup> The NSW Health Survey is large, rigorous and representative of the NSW adult population, and the questions on chronic pain were directly based on the IASP's definition of chronic pain (i.e. pain experienced every day for at least three months in the six months prior to interview).

Of 17,543 completed interviews, 17.1 per cent of men and 20 per cent of women reported chronic pain. Chronic pain was more common among women than among men, and became more common with increasing age. Of those reporting chronic pain, however, younger adults (20–24 years) were most likely to report that pain interfered with their daily activities (84.3 per cent of women and 75.9 per cent of men).

People with chronic pain were more than three times more likely than the general population to have high levels of psychological distress, and chronic pain was strongly associated with social disadvantage. People with chronic pain were more likely than the general population to:

- have lower levels of completed education
- not have private health insurance
- receive a disability benefit or unemployment benefit
- be unemployed for health reasons
- have poor self-rated health.

Notably, people who were unemployed for health reasons were almost eight times more likely to report pain that interfered with their daily activities than people who were employed, even after adjusting for age, sex, and the presence of other health conditions.

Using the same questions to define chronic pain, similar prevalence estimates have been found by three subsequent Australian studies. The first was a community-based

study in northern Sydney that found a prevalence of 22.1 per cent.<sup>52</sup> The second was part of the BEACH study (Bettering the Evaluation and Care of Health), an Australia-wide sample of general practice encounters. It found a prevalence of chronic pain of 18.1 per cent.<sup>53</sup> The third, conducted in South Australia and based on more recent data, found a prevalence of 17.9 per cent.<sup>54</sup>

All these studies were based on household samples, and so excluded residents of aged care facilities. It is therefore likely that they underestimate the prevalence of pain in the adult population.

As the population ages, the prevalence of chronic pain is likely to increase. Based on a current prevalence similar to that in Australia (one in five), Pain BC projected a 56 per cent increase in people living with chronic pain by 2030. Again, this research did not incorporate data from residential aged care.<sup>5</sup> The United States and the United Kingdom report that the prevalence of chronic pain is rising.<sup>1,55</sup>

## Populations with particular needs

Some groups may be at higher risk of poor pain control, and may have special treatment needs. These groups include children, the elderly, people with disabilities, people from culturally and linguistically diverse backgrounds, and others.

### Children

The prevalence of chronic pain in children and adolescents is thought to be similar to the prevalence in adults, though few studies have been done.<sup>3,5</sup> A population-based Dutch study found that 25 per cent of healthy infants, children and adolescents reported recurrent or chronic pain within the previous three months.<sup>56</sup>

A Western Australian survey of back pain in 1608 adolescents (average age 14 years), members of the long-term Raine cohort study, found that 11 per cent had

experienced chronic back pain (i.e. lasting more than three months). Twenty-eight per cent had experienced back pain in the past month, and 46 per cent had experienced it at some point in their lives.<sup>57</sup> Similarly, a British study found that more than 50 per cent of adolescents had had back pain at some point in their lives.<sup>58</sup> Back pain in adolescence has been associated with back pain in adulthood.<sup>59</sup>

The impacts of chronic pain in children and adolescents include:

- loss of self-esteem, social connections, physical fitness and quality of life
- school absence and loss of vocational potential
- a substantial risk of continued pain and disability into adulthood
- loss of parental work productivity and income.<sup>3</sup>

As in adults, there is evidence that pain in children is undertreated. In an Australian study of pain in children with cancer, 46 per cent of parents reported that their child suffered “a lot” or “a great deal” with pain at the end of life.<sup>38</sup>

## Older people

With age comes an increasing burden of pain. The NSW study by Blyth and colleagues described above<sup>2</sup> found the prevalence of chronic pain peaked at 27 per cent among men aged 65–69 years, and at 31 per cent among women in the oldest age group (80–84 years). Among women, all age groups 50 years and over had a prevalence of more than 25 per cent. Analysis of recent data from the New Zealand health survey has found a similar pattern of rising prevalence with age, with 26 per cent of men 75 and over and 30 per cent of women reporting chronic pain.<sup>60</sup>

Comprehensive Geriatric Assessment has been shown to improve outcomes for older people in various settings, and can be adapted for use in pain services.<sup>61</sup> However, some multidisciplinary pain services have barriers to treatment for older people, such as no comorbidity. A study comparing clinician assessment of two hypothetical clinical vignettes, where only age differed, found that older people were judged to be 15 per cent less likely to be suitable for admission and 13 per cent less likely to succeed with treatment.<sup>62</sup>

Other barriers to access to pain care for older people include:

- limited mobility
- financial disadvantage
- comorbidities such as dementia, which limit treatment options
- reliance on other people for care and advocacy.<sup>3</sup>

The prevalence of pain in aged care facilities is substantially higher than in the community, with estimated rates of 50 to 80 per cent. There is evidence from Australian and international studies that pain is under-reported and under-treated among aged care residents, especially among those with cognitive impairment or limited verbal communication skills.<sup>63,64</sup> Pain in older people may present as mood and behavioural changes, reduced socialisation, impaired mobility, reduced function, and loss of independence.<sup>3</sup>

Evidence-based guidelines for pain management in residential aged care facilities were developed by the Australian Pain Society in 2005.<sup>65</sup> The Department of Health and Ageing distributed these guidelines, along with an educational toolkit, to all residential aged care facilities in Australia in 2006–2007. The guidelines recommend regular pain assessment and constant monitoring of treatment strategies (pharmacological and non-pharmacological).

Lack of staff and high staff turnover in aged care facilities are barriers to improving pain management, and it is very difficult to engage and coordinate external GPs, physiotherapists and psychologists. However, evidence-based staff training can improve knowledge, competence and self-efficacy in pain management.<sup>63</sup>

## Culturally and linguistically diverse communities

Estimates of pain prevalence in culturally and linguistically diverse (CALD) communities vary, and the reasons behind these variable estimates are likely to be complex. A recent NSW study compared the prevalence of back pain among Australian-born and Italian-born men aged 70 years and over. Among Australian-born men, 18.9 per cent reported experiencing back pain all or most of the time during the previous 12 months. Among Italian men the figure was higher at 29.6 per cent. However, there was no significant difference after allowing for socioeconomic differences: Italian-born men had lower education levels and were more likely to have worked in manual jobs, both of which are known risk factors for back pain.<sup>66</sup>

A study of chronic pain prevalence using data from the

2006/07 New Zealand Health Survey, however, showed that Pacific and Asian peoples had lower odds of reporting chronic pain compared with people identifying as European/Other. In that study, the overall prevalence of chronic pain in New Zealanders was estimated at one in six (16.9 per cent).<sup>60</sup>

## Aboriginal people

No studies of pain prevalence among Aboriginal people in NSW were identified. It is likely that prevalence is higher than among non-Aboriginal populations due to high rates of injury and comorbidities such as diabetes.

An unpublished project conducted in the Royal Darwin Hospital Emergency Department found less analgesia and less patient satisfaction of pain management among Aboriginal patients presenting to Emergency than among non-Aboriginal patients; it also described the inadequacy of a visual analogue scale for that population.<sup>67,68</sup>

## Justice Health clients

People in prison are known to have poorer health than the general population, despite their younger average age.<sup>69</sup> A 2001 survey of self-reported health status among the NSW prison population found 81 per cent of women and 65 per cent of men in prison had at least one chronic condition. Prisoners reported more body pain than the NSW community, with a particularly strong discrepancy between women prisoners and women in the community (mean score of 65.2 for prisoners and 79.8 for the community, with a lower score indicating more pain). Twenty percent of men and 24 per cent of women in the prison sample reported experiencing joint pain during the past four weeks. The prevalence of muscle pain was similar, at 18 per cent of men and 23 per cent of women.<sup>70</sup>

## Other groups

Other groups with particular needs who may have a higher prevalence of pain than the general population include:

- carers: older carers with chronic pain are a potentially vulnerable group, since carers with chronic pain report more psychological distress than carers without pain<sup>71</sup>
- veterans: an online US survey of veterans found 54 per cent of respondents had had pain for more than 10 years<sup>72</sup>
- disabled people, including intellectually disabled<sup>73</sup>

- compensable patients: poor outcomes after injury are associated with aspects of the compensation process.<sup>74</sup>

Recommendations for further research on pain prevalence appear in section 5.

# Current pain services in NSW

As part of the process of developing a model of care for pain management in NSW, the ACI Pain Management Network conducted a survey of the 11 accredited multidisciplinary pain services (that is, multidisciplinary pain centres) statewide. An accredited service is one that meets the requirements for pain medicine specialty training set by the Faculty of Pain Medicine, Australian and New Zealand College of Anaesthetists (see [www.anzca.edu.au/fpm/resources/professional-documents](http://www.anzca.edu.au/fpm/resources/professional-documents)).

The ACI Network Manager conducted face-to-face interviews during July 2011 to determine current service capabilities and constraints, and to identify areas of need. This information has not previously been available.

The ACI Network has also interviewed two regional hospitals with non-accredited pain services. There are several such services in metropolitan and rural NSW (including Tamworth, Dubbo, Lismore, Illawarra and St George). Though they are not training facilities for the pain medicine speciality, these services offer a chronic pain service and could play an important role in providing care close to people's homes.

Information to date suggests all accredited and non-accredited pain services in NSW are vulnerable to collapse. The Network intends to continue this work to fully understand their situation.

The Taskforce secretariat separately contacted all NSW Local Health Districts requesting summary information about existing pain services. It was identified that:

- nine LHDs (including St Vincent's and Children's) have accredited multidisciplinary services for chronic pain
- Northern NSW and Illawarra have non-accredited services

- Mid North Coast has an acute pain service at Port Macquarie Base Hospital that acts as a resource for GPs on complex pain, but lacks an outpatient chronic pain service
- Central Coast LHD has an allied health based chronic pain service but lacks a medical specialist
- four LHDs have no chronic pain management services (Western NSW, Far West, Murrumbidgee and Southern NSW).#

Drawing on the ACI Network's survey results, this section describes the suite of patient services offered at the 11 accredited multidisciplinary pain services, and their activities providing support and access to expertise, training and educating clinicians, conducting research and collecting data.

It also reports the views of the primary health care sector and consumers, also gathered by the ACI Pain Management Network.

## Overview of accredited multidisciplinary pain services

Of the 11 accredited multidisciplinary pain services in NSW, nine are located at adult hospitals and two at paediatric hospitals. All but one are in metropolitan Sydney (Table 1).

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# The response from the St Vincent's Health Network indicated that it sends rehabilitation physicians to Griffith Base, Moruya and Bega/Pambula hospitals once a week using the MSOAP program. It noted that over 50 per cent of clinic attendees in all three sites are pain patients, and that there is a major need for allied health support.

Table 1: Hospitals with accredited multidisciplinary pain services in NSW

<b>Adult hospitals</b>	Concord Hospital John Hunter Hospital, Newcastle
	Liverpool Hospital Nepean Hospital, Penrith Prince of Wales Hospital, Randwick
<b>Children’s hospitals</b>	Royal North Shore Hospital, St Leonards Royal Prince Alfred Hospital, Camperdown St Vincent’s Hospital, Darlinghurst Westmead Hospital
	The Children’s Hospital at Westmead Sydney Children’s Hospital, Randwick

The process for a patient to attend a multidisciplinary pain service usually starts with a GP referral letter to the service. This may happen if the case is complex, has not responded to primary health care measures (e.g. analgesia and physiotherapy), and/or if there are concerns about opioid use.

A nurse or staff specialist reviews the referral letter and sends a questionnaire to the patient to complete and return. The questionnaire is not uniform across services, but includes common elements. A nurse or staff specialist then triages the referral to a priority list. Most services do not have exclusion criteria.

All services give high priority to complex regional pain syndrome and pain associated with cancer or palliative care (although pain associated with palliative care is usually managed through palliative care services). High-priority patients generally have their first appointment two to four weeks after referral. Other priorities appear to be determined by the specialty areas of each service (e.g. burns, HIV-related pain, neuropathic pain or elderly patients). Some services give priority to compensable patients to maintain financial viability.

Paediatric services give priority to children with significant

psychological distress, or where school absences have become a concern. The big gap in service delivery is for children aged 16–18 years. Adult services cannot admit under-18s, and children’s services cannot admit over-16s. A transition process has not been identified.

A patient who does not fall into one of the high-priority categories described above will usually experience waiting times of between three and 18 months for an initial appointment at an adult service (Appendix 4). These waiting periods reflect many factors, including resourcing at each of the services. Seven services have waiting times of six months or more and three of those services have waiting times of more than 12 months. The result is that some patients receive multiple referrals in order to get an appointment, and some end up attending more than one service.

Four of the 11 multidisciplinary pain services are integrated with acute pain services from structural and governance points of view. However, while acute pain services have dedicated funding, chronic pain services have been less well recognised historically and their structure, staffing profile and service model have developed from the resourcing available, or goodwill from other departments. Three of the adult services and one of the paediatric services have no dedicated funding at all.

Appendix 5 summarises resources available at the 11 services.

All facilities report that their budget does not support an evidence-based model of care. Changeable staffing profiles mean that some disciplines may not be available, and where they are, time constraints prevent a truly interdisciplinary approach. In a multidisciplinary model, a number of different health care disciplines are available at one service. In an interdisciplinary model, clinicians work together in an interactive manner to assess and manage patients.

All services’ budgets have been eroded over time and at least two have been threatened with closure, the implication being that the sustainability of chronic pain services in NSW is not assured.

## Suite of services

The 11 accredited multidisciplinary pain services vary in how services are offered and which patients are considered suitable for:

- multidisciplinary assessment and treatment
- a pain management program (i.e. a program that helps patients develop self-management skills and reduce the impact of pain on quality of life and function, including paid employment).

## Multidisciplinary assessment

All services offer multidisciplinary pain assessment in a clinic environment. The makeup of the multidisciplinary team varies across services, but there are agreed core components; these are described in the next section.

For a range of reasons, some patients are triaged to medical-only assessment (assessment by a doctor only). People needing multidisciplinary pain assessment will wait the longest.

About half the adult services and both children's services do not have the resources to provide multidisciplinary treatment following a pain assessment. The patient may return to the tertiary service for medical review and/or to attend a pain program, but would be referred to private services or community health for one-on-one physiotherapy or psychology. Here they may again face long waiting lists (e.g. for publicly funded allied health) and lack of expertise in pain management. Moreover, pain service clinicians lack the time to liaise with primary health care and community health in a satisfactory way. This can result in poor coordination of care and unclear communication of progression against recommendations made. The multidisciplinary pain services are therefore unable to provide truly multidisciplinary care and follow-up.

## Multimodal pain management

Many patients require treatment in physical, psychological and environmental domains contributing to pain. Such treatments include multimodal pharmacotherapy, psychological and physiotherapy techniques aimed at reversal of brain neuroplasticity changes, and interventional techniques such as neural blockade, neuromodulation and radiofrequency lesioning.

## Pain management programs

All adult multidisciplinary pain services run group pain management programs, usually with input from doctors, nurses, psychologists and physiotherapists. Most programs focus on active self-management and include components of lifestyle change, exercise, cognitive behavioural therapy and coping mechanisms.

These programs take many forms and have evolved from resources available and recognition of the need for group-based education in an adult learning environment. Typically, programs have six to ten people in each group, and a limited number of groups each year.

Most pain management programs run over 20–30 hours. Three services offer high-intensity programs (~80–120 hours) for consumers with high levels of disability. The services that offer high-intensity programs are administratively obliged to fund them through compensable revenue; 50–80 per cent of attendance must be supported by billing to other agencies. Access for public patients is therefore undesirably restricted. The long-term viability of high-intensity programs has been challenged in two of the sites.

Only a proportion of people assessed will proceed to a pain management program. Services will not refer patients if they believe the patient will not benefit (for example because of cognitive impairment, physical disability, or lack of English language skills, for example). Furthermore, it is impossible in the current environment to provide places for all those who would benefit.

Paediatric services do not offer group programs as it is felt that education should be tailored to individual children and their parents.

## Inpatient services

Pain medicine specialists do not commonly admit people with chronic pain as inpatients, partly because of the lack of junior medical support (intern, resident medical officer or registrar) in the inpatient setting. One adult service provides a rehabilitation framework for admission for two or three weeks, and one paediatric service offers an inpatient rehabilitation stay of three to five weeks where return to school is the primary goal.

In services that require admission for procedures, admission can occur under the pain specialist, neurosurgeon or general surgeon. Across all pain services, there are roughly 380 admissions per year for interventional procedures for chronic pain management. Each of the adult services undertakes 4–12 neural blockades or neuromodulations per week. In facilities without dedicated theatre space, interventional procedures are often thwarted by urgent cases taking priority, which contributes to waiting times in the order of two or three years.

Six of the nine adult services perform specialised interventions requiring surgery (e.g. spinal cord and peripheral nerve stimulators and spinal pumps). There is a shared understanding that only those services with the capacity to trial, implement and evaluate these devices should undertake these procedures. Procedural interventions are rare in the paediatric community.

Consultations or referrals for pain medicine specialists to consult on inpatients range from three to 20 per week, with a median of 10. Paediatric inpatient referrals range from two to five per week.

Three services have a subacute clinic for people likely to transition from acute to chronic pain.

## Support and access to expertise

Most survey respondents said there is an immediate need for a triage/support service between multidisciplinary pain services and the primary health care sector. Its roles would be to:

- support GPs and allied health staff in identifying people early who describe chronic pain or who are at risk of developing chronic pain
- help primary health care clinicians triage referrals to the most appropriate service on a statewide basis
- provide primary health care clinicians with case management and advice
- provide multidisciplinary support and access to education for primary health care clinicians.

## Support for primary health care

Primary health care clinicians working in pain management include GPs, physiotherapists, psychologists, occupational therapists, practice nurses and community nurses. Survey

respondents from multidisciplinary pain services felt that skills and interest in managing chronic pain in this sector is highly variable. Suggestions to improve support for primary health care included:

- a single statewide phone number for clinicians to call for advice or educational resources
- expert multidisciplinary liaison teams (medical, nursing, physiotherapy and psychology) to link tertiary, secondary and primary health care, provide clinical support for skill development and evidence-based care, and help with screening and referrals
- improved communication and follow-up support after discharge from a pain service, with the possibility of telehealth support
- workshops and education opportunities for GPs, psychologists, nurses and physiotherapists in the local area
- defined geographic responsibilities for pain services to provide primary health care support.

Other issues require attention at the Commonwealth level, such as a review of financial incentives for GPs and exploration of telehealth.

## Support for specialists and general hospitals

Multidisciplinary pain services generally support specialists via letters and phone calls, but time is limited as this activity is not reimbursed. Education is also available within hospitals through Grand Rounds and other educational events.

Many multidisciplinary pain services have established but informal (and therefore often tenuous) links to one or two hospitals in the region. Support may be in the form of phone calls, joint clinics and/or satellite service development, and these strategies have helped build system capacity. However, lack of formal training positions and resources make it impossible to support this activity in any meaningful way.

## Support for rural and remote areas

Survey respondents felt they did not provide enough support to consumers and clinicians in rural and remote areas. All 11 accredited pain services are in or near metropolitan Sydney, and there are no defined geographic responsibilities for accepting referrals or providing clinical

support. Respondents felt regional responsibilities should be defined for each of the tertiary pain services in metropolitan Sydney, so clinicians have a clear point of contact.

While most hospitals will accept referrals from out of area, at least two services reported growing pressure from hospital administration to reduce this activity. This is clearly unacceptable in terms of equity of access.

One hospital provides regular medical outreach to a number of rural areas, funded through the divisions of general practice and Local Health Districts. This has fostered relationships and helped up-skill the local workforce.

All tertiary pain services felt they should be resourced to undertake more rural and remote activity, thus building a broader network of expertise, with the opportunity to refer patients to other services when appropriate. Suggestions to improve support for rural and remote areas included:

- acceptance of referrals on a geographic basis (if this is the patient's and GP's choice)
- establishing key services at sites already providing pain services (e.g. Dubbo, Tamworth, Lismore and Albury), and provide support and training to clinicians at those sites
- regular telehealth support for local clinicians (though it is acknowledged that infrastructure, cost and timing issues need to be addressed)
- a semi-regular multidisciplinary outreach pain service to provide clinical and educational support to identified rural areas.

## Clinician training and education

The pain medicine specialist training scheme accredited by the Australian Medical Council and conducted by the Faculty of Pain Medicine, Australian and New Zealand College of Anaesthetists, is felt to be exemplary. Rotating staff from other disciplines into the multidisciplinary pain services, including psychiatry, rehabilitation, paediatrics and general practice, was suggested as a practical way of building capacity.

Staff specialists from most services support GP education on a semi-regular basis (three or four times per year), usually with sponsorship from pharmaceutical companies or General Practice Networks (and presumably, Medicare Locals in the future). Attendance is usually local and there is

a focus on relationship development.

Training for nurses occurs within nursing departments at the hospitals. Clinical nurse consultants provide educational support for new or interested staff, but lack the time to do this in a structured way. One service offers workshops through the nursing department once or twice each year. There are usually no backup staff available for nurses or other staff to engage in succession planning or capacity building.

Allied health support to pain services is variable, discretionary and usually comes about through a special or historical interest in chronic pain. This means that if the staff member leaves, so does the position. One pain service provides internships for clinical psychologists in training and similarly for physiotherapists.

Undergraduate training is carried out at all tertiary pain services, both formally and informally. However, pain-specific training is not guaranteed during undergraduate training, and is very limited in most curricula.

The University of Sydney (at Royal North Shore Hospital) runs an online postgraduate pain management course open to all disciplines, which provides an avenue for qualifications up to Masters level. It is widely acknowledged that this is a valuable course and should not be replicated.

The University of Sydney's Medical School has also recently introduced a discipline of Pain Medicine, which will first conduct a one-day symposium for all medicine and health undergraduates and then work towards introducing pain medicine into the standard curriculum.

Education resources for consumers remain limited, though a number of consumer and non-government organisations provide printed or web-based information. A collaborative project between the Hunter Medicare Local (GP Access) and the Hunter Integrated Pain Service has developed an animation and published it on YouTube for open access. It is intended for broad use by consumers, clinicians, insurers and others, and aims to shift thinking about pain away from a purely biomedical focus and towards a whole-person approach. The Hunter Integrated Pain Service will use the animation as a short educational session for health professionals, and also for community education.

An online survey will invite consumer feedback on the animation, and the number of views and comments on

YouTube will be monitored. This work will be expanded and a similar animation developed for children if resources are available.

The animation can be found at <[www.youtube.com/watch?v=4b8oB757DKc](http://www.youtube.com/watch?v=4b8oB757DKc)>, and links to other consumer resources can be found on the website of painaustralia at <[www.painaustralia.org.au/general/links.html](http://www.painaustralia.org.au/general/links.html)>.

## Data collection and research

Three of the 11 accredited multidisciplinary pain services in NSW are collecting hospital-based data. However, these data are not being used to evaluate services or compare outcomes. Royal North Shore Hospital has collected a large amount of data concerning normative values using standard psychosocial instruments.<sup>75</sup>

One service has dedicated, though limited, NSW Health funding for research. Other sites have some quality-improvement activity funded by the department of anaesthetics, pharmaceutical companies, or grants and bequests.

## Views of primary health care clinicians

The ACI Pain Management Network has consulted informally with a number of divisions of general practice, individual GPs, physiotherapists working in metropolitan and rural areas, and private psychologists.

### Clinical support

Primary health care clinicians report an overwhelming feeling of disconnection with the tertiary sector, with poor communication and follow-up. These clinicians need a single phone number for help with triage, referral, advice, support, and feedback following their patient being seen in a tertiary service.

Even experienced primary health care clinicians said they need to refer clients to tertiary-level services, and this support should be prompt to assure confidence in the ability of services to back up these valuable clinicians. They felt support should be provided within three months.

Suggestions to improve support and communication between tertiary pain services and primary health care clinicians included:

- a process for providing more extensive feedback in both directions, and written reports of a multidisciplinary nature (including psychology, which is not always included)
- support and linkage resources for generation of such reports
- shared care arrangements
- multidisciplinary outreach services providing educational and clinical support
- succinct communications with less jargon.

## Education

Clinicians with greater skill levels in chronic pain would like:

- rotations into pain services for training purposes
- access to in-depth education, training and mentorship
- a professional development pathway for practice nurses in pain and chronic disease

Rural clinicians prefer training close to home.

The Royal Australian College of General Practitioners (RACGP), in collaboration with the Faculty of Pain Medicine (FPM), is developing an online training program that focuses on the tools and skills needed to prevent people progression from acute to chronic pain.<sup>17</sup>

There is also a need for basic one-stop-shop educational resources that are easy to locate (e.g. can be embedded within Medical Director or similar software). Painaustralia reports considerable demand from the primary health care sector for education materials for patients and clinicians.

## Tools

Primary health care clinicians see a need for:

- a uniform simple screening and assessment tool to assist with referrals
- concise resources, such as one-page clinical pathways
- links with the Connecting Care program, to provide community-based self-management coaching, monitoring and case management
- opportunities and incentives for telehealth.

## Consumer views

The reporting timeframe did not allow formal consumer consultation. However, the community care working group of the ACI Pain Management Network conducted a rapid online survey via SurveyMonkey, with notification via several non-government organisations. Respondents were asked to agree or disagree with the eight statements listed in Table 3. The purpose was to assess whether respondents' views matched the ACI Network's understanding of consumers' perspectives. By the closing date of 26 August there had been 219 respondents.

Overall there was strong agreement with the eight statements. The main dissenting view was in relation to the proposed achievable waiting time of three months to access a tertiary pain service. Many consumers felt this was too long.

## Summary

Of the 11 accredited multidisciplinary pain services in NSW, very few are sustainable stand-alone services fully capable of delivering evidence-based multidisciplinary treatment. Current resources are insufficient to meet patients' needs, as evidenced by long waiting times. The shortfall is statewide, across metropolitan Sydney and rural NSW.

There is also considerable unmet demand for clinician support and education, and a lack of succession planning and leave replacement for all disciplines.

There is consensus between consumers and health professionals as to the way forward. The following sections outline the requirements for an improved model of care for pain management in NSW, and recommendations to support its implementation.

Table 3: Statements for consumer survey

- 1 Consumer representatives should be formally incorporated into the tertiary hospital structure so that service delivery is driven by known consumer needs.
- 2 Timely access to tertiary services is critical with a three-month waiting list being considered reasonable and do-able although not optimal.
- 3 Consumers would like opportunities to have ongoing review, support and follow-up subsequent to an assessment and treatment by the pain services, in recognition of their changing needs and circumstances due to pain disability and severity. Such support may be through enhanced integration between tertiary and primary health care levels of health service provision.
- 4 Consumers would like access to expertise at a local level. This can be achieved through strong and ongoing tertiary unit support to local clinicians in regional or local hospitals, as well as in primary health care settings. A liaison support person (i.e. a pain-trained health professional) to assist the patient to navigate the system will also improve access to appropriate care.
- 5 Consumers would like to be engaged in an active partnership with clinicians where empathetic support is paramount. This may require specialised training for clinicians about the lived experiences of people in pain.
- 6 Consumers would like flexibility in program design as one size does not fit all. Consideration needs to be given to literacy, Indigenous and culturally and linguistically diverse backgrounds, as well as other factors influencing access to programs (e.g. family issues).
- 7 Consumers would like information in order to have realistic expectations of the diverse range of pain programs and interventions available.
- 8 Consumers would like outcome measures to be recorded which reflect patient satisfaction with the service in addition to goals achieved, and transference into problem solving and life skills in managing pain. These outcomes should be transparent and available for the public record.

# Model of care for pain management in NSW

## Clinical guidelines

Existing clinical guidelines and comprehensive evidence reviews for pain management are listed in Appendix 6. According to the World Health Organization, the area of greatest need for further guideline development is chronic non-cancer pain, as chronic pain patients are at the highest risk of their pain being inadequately managed.<sup>76</sup> The World Health Organization is developing guidelines for chronic pain in children and adults.

Even where guidelines exist, there is a clear need to make them more easily available in summary format to clinicians, and to encourage their uptake.

### *The Taskforce recommends that:*

- NSW Health supports the development of an evidence-based clinical resource for pain management similar to the eviQ online resource for cancer treatments, available via Medical Director and similar software for ease of use by primary health care clinicians.

## Current model of care

Many people with pain do not receive the best available care. There is an opportunity to substantially improve outcomes in pain management by translating existing knowledge into practice through a defined, evidence-based model of care.

Figure 1 broadly describes typical current care. As well as general practitioners, many patients initially present to allied health professionals and complementary practitioners. It is estimated that 50 to 80 per cent of patients who visit a complementary medicine practitioner are there for treatment of pain.<sup>77-80</sup>

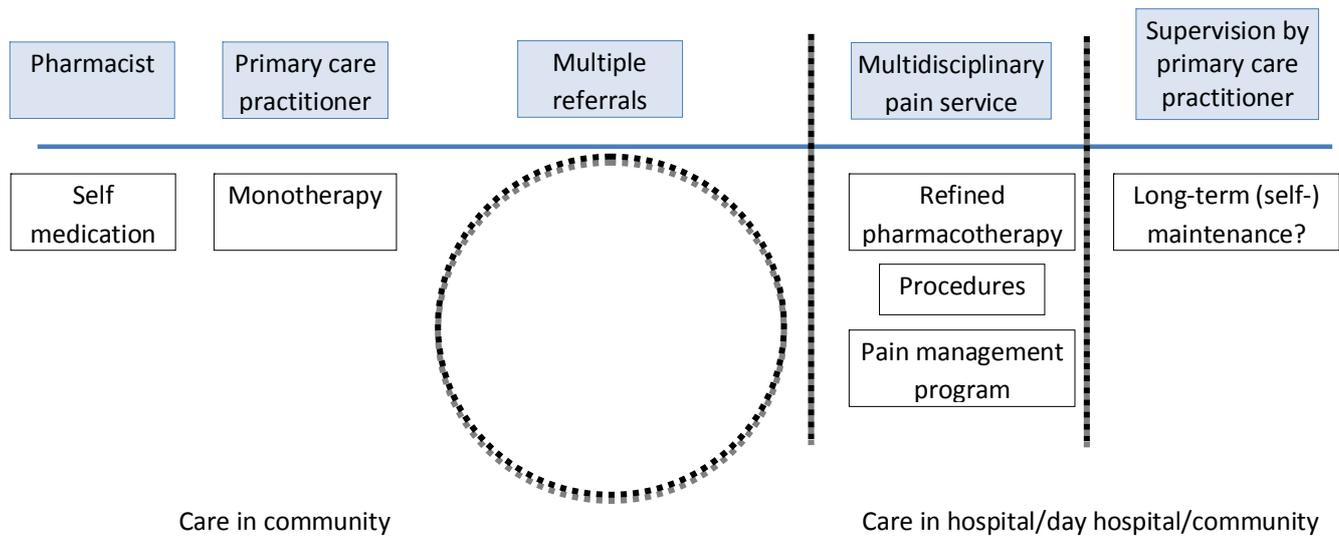
The dotted 'fault lines' in Figure 1 show the points at which people get 'stuck' in the system. For example, a common pattern is that people with ongoing pain are referred to

multiple practitioners for investigations, in pursuit of an identifiable cause for the pain, which may not be found.<sup>81</sup> They may receive ongoing physical and pharmacological treatment, and may also be recommended for one or more procedures. The cycle may continue for months or years, with some people receiving long-term and/or ineffective treatments, while others are unable to access treatments that are effective but not covered by Medicare.

The second major 'fault line' in the current model of care is the barrier to access to multidisciplinary pain services (shown as a vertical dotted line in Figure 1). Many of those referred to such a service will receive high-quality care, but as discussed in the section 4, wait times are typically long and there is great variability in access and service models. Some people may not be referred to multidisciplinary pain services at all. Primary health care practitioners may not know that such services exist, or may not think it is worth referring to them because of long wait times.

The third 'fault line' in current delivery of care occurs on discharge from a multidisciplinary pain service. There is a need to improve systems for patient transition and communication between care providers across care settings, and to develop an adequate relapse strategy. Strengthening the capacity of community organisations could also help support patients in coping with their condition and navigating health care. Such organisations have proven to be vital supports for people with other chronic conditions, such as arthritis, cancer and diabetes.

**Figure 1: Current model of care**



*This diagram shows a progression from acute through recurrent to chronic pain; however, it should be noted that chronic pain does not always begin with an acute episode and the progression may not be linear. The first row of boxes (above the line) identifies the practitioner or service delivering care at each stage. The boxes below the line show the type of care usually delivered. The bottom row shows the care setting.*

Source: National Pain Strategy.<sup>3</sup>

In many ways, Australia is a world leader in pain medicine. In 1999 a multidisciplinary Faculty of Pain Medicine was established, where specialists from five specialty colleges could go on to train in pain medicine. The Faculty's training, assessment and examination process is highly respected. In 2005 pain medicine was recognised by the Australian Government as an independent specialty.

However, with only 269 Fellows of the Faculty nationally, pain specialists are unable to service 20 per cent of the population. Hence there is a need for a stepped model of care, which focuses on:

- improving understanding of chronic pain and its management in the broader community
- improving support, skills and capacity in pain management for primary health care practitioners
- developing intermediate services for people with moderate levels of disability
- adequate and sustainable resourcing of multidisciplinary pain services in the tertiary sector, so they can care effectively for people with high care needs
- service integration and continuity of care.

## Proposed model of care: a pain management network

The proposed model of care draws on the model outlined in the National Pain Strategy<sup>3</sup> and on the ongoing work of the ACI Pain Management Network. The model is intended to apply across both the public and private sectors.

At the **population health level**, consumers and health professionals need evidence-based information about pain prevention and early intervention, pain medicines, multidisciplinary treatment, pain management programs and procedural interventions so they can make informed decisions. Insurers and employers have an important role in raising awareness of pain management in the workplace. Mass media campaigns have a role in communicating key messages to a large audience. Self-help and support groups can be delivered face-to-face or via the web. Programs for carers should be included.

At the **primary health care level (tier 1)**, the Taskforce recommends applying the chronic disease management framework to pain management. Better access to multidisciplinary assessment and treatment at the primary health care level, especially via clinicians with a specific interest in pain management, is needed. GPs that choose to develop a specific interest in pain would undergo

appropriate education and training and become part of a multidisciplinary pain team, which would include physiotherapists, occupational therapists, psychologists, nurses and/or nurse practitioners, and other allied health professionals such as social workers and rehabilitation counsellors. Chronic pain presentations would be appropriately triaged to primary health care if they are assessed as non-complex using a triage instrument.

At the **tier 2 level (secondary or intermediate care)**, the model of care proposes development of multidisciplinary publicly-run pain management teams, led by pain medicine and/or other appropriate specialists, for appropriately triaged patients with low to moderate disability and medium complexity. This would be a step-up and step-down service between primary health care and tertiary-level multidisciplinary pain teams. Patients may be referred from private medical specialists, GPs, or primary health care multidisciplinary teams. Tier 2 multidisciplinary pain teams would ideally be co-located in a hospital outpatients' department, ambulatory/community care centre or in co-located consulting rooms.

At this level, it is also important to acknowledge that many patients with chronic pain who have specific causes (e.g. migraine, arthritis) are managed by medical specialists such as neurologists, rheumatologists, rehabilitation specialists and psychiatrists, often working in their own private rooms, with referrals to private allied health practitioners as needed.

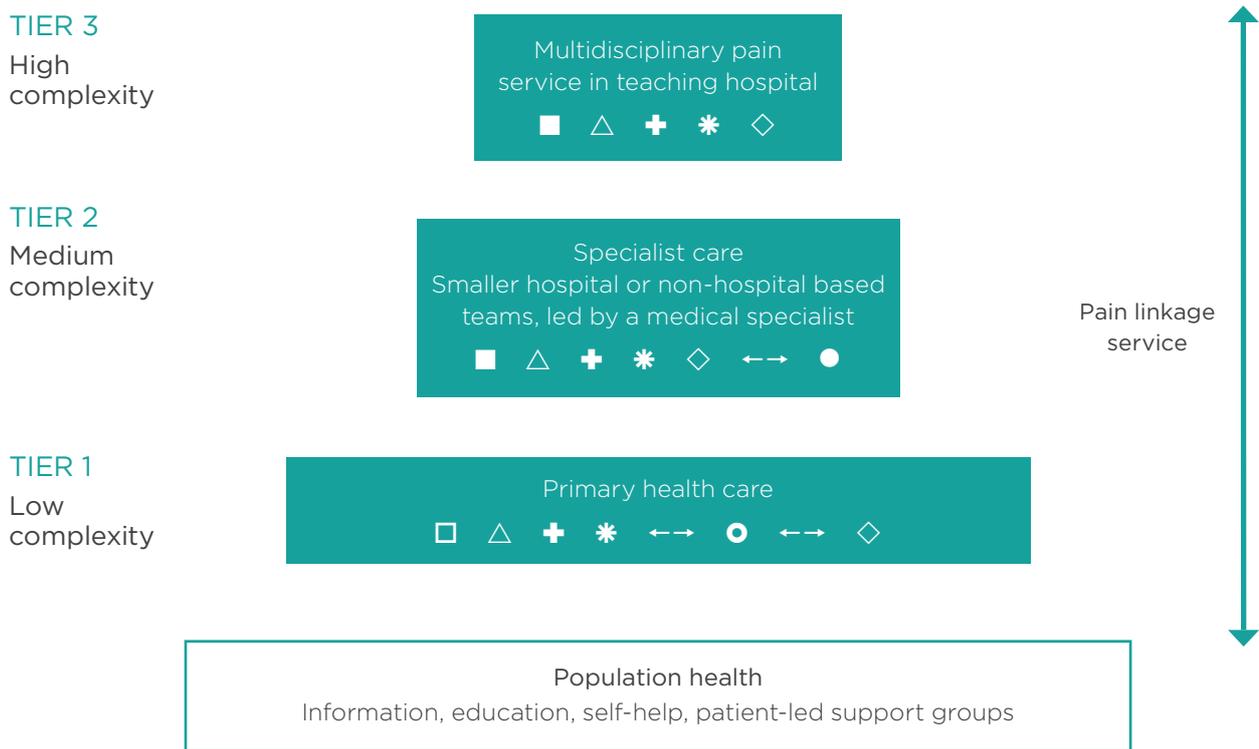
The **tier 3 level (tertiary care)** is a multidisciplinary pain service (also known as a multidisciplinary pain centre) located in a major teaching hospital, led by a pain medicine specialist and with access to the full range of disciplines. With improved pain management services at tier 1 and tier 2, and effective triaging to those services, tier 3 services would focus on providing timely care for the most complex patients with chronic pain, cancer pain, acute pain and subacute pain.

Both tier 2 and tier 3 services would be involved in identifying patients discharged from acute care settings who are at risk of progressing to chronic pain. The main difference between tier 2 and tier 3 services is that tier 2 services may not have access to all disciplines, or the ability to treat patients needing procedural interventions. Tier 3 multidisciplinary pain services also play a key role in education, training and research.

A new type of service, the **pain linkage service**, is proposed to improve integration between pain management services at all levels. It would form strong links between population health initiatives, primary care practitioners, tier 2 and tier 3 pain services, and also between health care practitioners broadly and those with a specific interest in pain. The pain linkage service would provide clinical support (especially in rural and remote areas), promote capacity building and up-skilling, and facilitate systems for triage management, referrals and continuity of care, especially between hospital-based services and primary health care.

The proposed model of care is outlined in Figure 2 and Table 4 and each level is described in more detail below.

Figure 2: Proposed model of care



**Legend**

■ Pain medicine specialist	△ Psychologist	● Other medical specialist
□ GP with specific interest in pain	+ Physiotherapist/Occupational therapist	○ GP
	* Nurse	◇ Pharmacist

The Taskforce is mindful that additional resources will be needed to fully develop the proposed model of care, but firmly believes these changes are needed for patients to receive timely access to effective care. Ultimately, there are enormous potential social and economic gains to be made by improving access to the right services for people with pain. *The High Price of Pain* report estimated that applying evidence-based treatments could halve the cost of chronic pain to the Australian economy – a saving of \$17 billion per annum.<sup>4</sup>

**The Taskforce recommends that:**

- existing resourcing to the 11 accredited multidisciplinary pain services in NSW be quarantined to ensure that the current level and standard of service is maintained
- LHD Boards review decisions that have reduced chronic pain service capacity, particularly noting

the recommendations of this Plan in relation to the optimal delivery of chronic pain services

- an Implementation Plan be developed to progressively implement the model of care in all Local Health Districts across NSW, as appropriate to local needs and clinical capabilities
- the establishment of additional pain services required to conform to the model of care be prioritised in future health system enhancements
- pain services at all levels involve consumers in service design and governance, including continued consumer participation in the ACI Pain Management Network
- NSW Health establish a dedicated office or body to advise the Minister and implement the Pain Management Plan.

**Table 4: Summary of service characteristics**

Level	Setting	Practitioners	Service characteristics
Continuum of service by case complexity Pain linkage service integrates care at all levels			
Population health	<ul style="list-style-type: none"> <li>General community</li> </ul>	<ul style="list-style-type: none"> <li>Public health and health promotion</li> <li>Non-government organisations</li> </ul>	<ul style="list-style-type: none"> <li>Population-based education and campaigns</li> <li>Community-based support</li> </ul>
Tier 1	<ul style="list-style-type: none"> <li>Primary health care</li> </ul>	<ul style="list-style-type: none"> <li>General practitioners</li> <li>General practitioners with specific interest in pain</li> <li>Nurse/nurse practitioner</li> <li>Physiotherapist</li> <li>Psychologist</li> <li>Community pharmacist</li> </ul>	<ul style="list-style-type: none"> <li>GPs may work with or without a multidisciplinary team and with or without support from Medicare Local</li> <li>Mainly private practitioners</li> <li>Multidisciplinary team can see patients in a public hospital</li> </ul>
Tier 2	<ul style="list-style-type: none"> <li>Private rooms</li> <li>District hospital (rural, regional or metropolitan)</li> </ul>	<ul style="list-style-type: none"> <li>Pain specialist with FPPMANZCA</li> <li>Rheumatologist</li> <li>Neurologist</li> <li>Rehabilitation specialist</li> <li>Anaesthetist</li> <li>Psychiatrist</li> <li>Allied health</li> <li>Nurse/nurse practitioner</li> <li>Distant support from a tier 3 service</li> </ul>	<ul style="list-style-type: none"> <li>Medical specialists working in their own private rooms, with or without a multidisciplinary team</li> <li>Multidisciplinary pain team co-located in district hospital and publicly run</li> <li>May offer low-intensity pain management program</li> <li>May have support from Medicare Local</li> <li>Patients with low to moderate disability, mood dysfunction, opioid use</li> <li>'Distant' support from a tier 3 service could include teleconferencing, videoconferencing or fly-in-fly-out support (via Medical Specialist Outreach Assistance Program (MSOAP), Specialist Training Program (STP) and/or pain linkage service)</li> <li>Work towards at least one tier 2 service in each regional/rural LHD (if tier 3 not available), so that each LHD has at least one pain service</li> </ul>
Tier 3	<ul style="list-style-type: none"> <li>Multidisciplinary pain service at a major teaching hospital</li> </ul>	<ul style="list-style-type: none"> <li>Pain specialist with FPPMANZCA</li> <li>Other medical specialists, e.g. rehab specialist, rheumatologist, psychiatrist, addiction specialist</li> <li>Physiotherapist, clinical psychologist and other allied health (e.g. occupational therapy) with specific pain expertise</li> <li>Clinical nurse consultant</li> <li>Care coordinator (also CNC)</li> </ul>	<ul style="list-style-type: none"> <li>Multidisciplinary assessment and treatment with access to full range or disciplines</li> <li>Low-intensity and high-intensity pain management programs may be offered</li> <li>Patients with higher disability, mood dysfunction, opioid use</li> <li>Patients requiring procedural interventions including blocks and implantable devices</li> <li>Accredited pain specialist training service</li> <li>Pain linkage service resourced separately from the tier 3 pain service to coordinate education and patient flow/referrals between tier 1, 2 and 3 services</li> <li>One tier 3 pain service resourced to provide research leadership and coordination for broader network</li> </ul>

### Tier 3: Multidisciplinary pain services

As described in section 4, there are currently 11 multidisciplinary pain services (also known as multidisciplinary pain centres) located at major teaching hospitals in NSW with Faculty of Pain Medicine accreditation for specialist training. However, these 11 services (nine adult and two paediatric) cannot meet patient demand with existing resources, and few are fully capable of delivering evidence-based treatment.

The Taskforce puts forward the following as necessary features for a tier 3 multidisciplinary pain service.

- The service is:
  - > accredited by the Faculty of Pain Medicine for medical specialist training
  - > located in a major teaching hospital, with access to a range of diagnostics, infrastructure and disciplines
  - > formally linked to a pain linkage service, defined tier 2 services and defined rural and remote Local Health Districts
  - > linked with an acute pain service.
- The service provides:
  - > multidisciplinary assessment and treatment for patients with complex care needs and any type of pain problem: chronic pain, cancer pain, acute pain or subacute pain
  - > pain management programs with multidisciplinary input, resourced to enable access for public patients (including rural and regional patients who need to travel to attend), and with the capacity for a carer or family member to attend with the patient
  - > procedural interventions for pain management
  - > inpatient admission and management for selected patients
  - > consultation liaison services to other hospital-based services, to reduce length of stay and prevent unnecessary readmission
  - > a triage and follow-up services for patients with complex acute pain and those at risk of progressing from acute to chronic pain (e.g. review of trauma patients after five to seven days and review of patients undergoing spinal surgery)
  - > clinical support for nursing staff and registrars
  - > outpatient care and liaison for people with pain that is not responding to usual treatment in primary health care or tier 2 services.
- Patients referred to multidisciplinary pain services may have red-flag or yellow-flag indicators of psychosocial distress, significant comorbidities or psychosocial complexity, and/or impaired capacity to carry out activities of daily living and work.
- Children's services must cater for children up to 18 years.
  - > The service has minimum staffing of:
    - > a clinical director with HIC-recognised qualifications (FFPMANZCA) in pain management
    - > staff specialist, pain fellow, psychiatrist and addiction medicine specialist (or in paediatric services, a music and play therapist, occupational therapist and social worker)
    - > psychologist and physiotherapist with postgraduate qualifications in pain management or award-recognised expertise
    - > clinical nurse consultant
    - > an additional clinical nurse consultant in a care coordinator role, to coordinate patient care and transitions between the tier 3 service, tier 2 services and primary health care
    - > clerical support.
- All clinical staff have training in pain management, are familiar with relevant treatment protocols and clinical practice implications and include these in the strategic planning and evolution of the service.
- Interdisciplinary communication and planning takes place.
- The service is able to access consultations as needed from clinicians not included within the minimum staffing requirement, such as occupational therapists and vocational counsellors.
- The bio-psychosocial model of pain is used throughout assessment and treatment.
- The service is committed to applying scientific knowledge to their practice and contributing to the development and dissemination of information to providers and consumers.
- Quality improvement is built into the service model.
- The service has dedicated space and time to conduct its business, including procedure rooms and/or theatre space as required, office and clinic space, and a patient education environment.
- The service has access to surgical capability as required, and may also have the capacity for research and training (full-time equivalent staff ratios will therefore be over and above the minimum resource requirements described later in this document).

*The Taskforce recommends that:*

- NSW Health set a target to reduce the maximum waiting time for individual assessment by appropriate team members to three months\*
- the Minister for Health and Medical Research take a recommendation to AHMAC to hold discussions with insurers re coverage of hospital-based cognitive-behavioural programs for people with severe chronic pain
- the admission criteria for paediatric pain services be reviewed to enable access for children aged 16–18 years (following children’s guidelines or establishing adolescent services)
- paediatric services be reviewed from a statewide planning perspective, and the model of care adapted if necessary
- any new government-funded pain services in metropolitan tertiary hospitals comply with Faculty of Pain Medicine accreditation standards.

## **Tier 2: Multidisciplinary pain teams and medical specialists**

Specialist care for people with pain outside the hospital setting is undertaken by a range of medical specialists (including pain specialists, rheumatologists, neurologists and rehabilitation specialists) and allied health professionals, usually in their own private rooms.

People with recurrent migraine, for example, would be appropriately referred to a neurologist by their GP. The neurologist may then refer to a hospital-based pain service if the patient does not respond to usual treatment.

However, long wait times (and in many areas long distances) to hospital-based services are a major barrier to access, and the patient’s path to appropriate specialist care is often circuitous, wasting health care resources and lowering the patient’s chances of returning to their usual activities.

The Taskforce proposes that multidisciplinary publicly-run pain management teams be developed as an intermediate service between primary health care and tertiary-level multidisciplinary pain services, providing lower-cost care to people who do not require high-end specialised interventions.

The tier 2 team would work closely with local primary and specialist providers, both public and private. This tier could provide care more quickly and closer to home for people in regional areas, provided they offer appropriate services delivered by staff with adequate training.

The Taskforce suggests the following as key features for a tier 2 multidisciplinary pain team:

- The team is:
  - > co-located in a hospital outpatients department, ambulatory/community care centre or in co-located consulting rooms
  - > formally linked to a pain linkage service, and a tier 3 multidisciplinary pain service (e.g. from Tamworth to John Hunter), and defined Local Health Districts.
- Distant support for tier 2 services by the pain linkage service and tier 3 services may be in the form of:
  - > teleconferencing and videoconferencing
  - > fly-in-fly-out support, e.g. through the Medical Specialist Outreach Assistance Program (MSOAP), Specialist Training Program (STP) and the pain linkage service.
- The team provides:
  - > multidisciplinary assessment and treatment for patients with low to moderate disability and medium complexity, where pain is not responding to usual treatment in primary health care
  - > pain management programs at an appropriate intensity to the patient population (generally less complex patients), and with the capacity for a carer or family member to attend with the patient
  - > ongoing care for people who have been seen in a tier 3 pain service and require regularly or intermittent support (including GP shared care where possible)
  - > pre- and post-surgical review of patients not responding to the usual reduction of analgesics
  - > patient education and assistance with pharmacological management
  - > clinical support for primary health care, e.g. prescribing advice.
- Patients referred to tier 2 services may have red-flag indicators of biological problems or yellow-flag indicators of psychosocial distress. Referral to tier 3 services will be necessary for surgery, complex cases, people with significant comorbidities, or for whom a high level of disability impairs work and life activities.

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\* The Taskforce believes this goal is achievable, if not optimal. Cancer patients with active disease and patients with vascular ischaemia pain or severe neuropathic pain should be categorised as urgent (as is current usual practice) and ideally seen within one week.

- The team has minimum staffing of:
  - > a medical specialist, preferably with HIC-recognised qualifications (FFPMANZCA) in pain medicine
  - > nurse, psychologist and physiotherapist with recognised education and training in pain management
  - > clerical support.
- The team has dedicated space and time to conduct its business, including office and clinic space and a patient education environment.

*The Taskforce recommends that:*

- NSW Health progressively establish tier 2 services in regional/rural Local Health Districts (where tier 3 services are not available), so that each LHD has at least one pain service
- NSW Health develop arrangements to facilitate shared care between medical specialists, GPs and hospital-based pain services.

## Tier 1: Primary health care

Pain management in the primary health care sector is patchy. Few clinicians have received education and training in pain management and patients have poor access to information and self-management resources.

A chronic disease model of coordinated care provides a framework for multidisciplinary pain management and self-management support outside the hospital setting for cases of a non-complex nature. It would also provide follow-up and continuity of care for patients who have attended a tier 2 or tier 3 service.

Care would ideally involve GPs, allied health professionals and community pharmacists, with clinical and educational support from pain linkage services. Better access to multidisciplinary assessment and treatment at the primary health care level, especially via clinicians with a specific interest in pain management, is needed. Many general practitioners (GPs) may choose not to be directly involved in the pain network. However, improved knowledge of pain among all GPs would enable them to make appropriate referrals.

GPs that choose to develop a specific interest in pain would undergo appropriate education and training and become part of a multidisciplinary pain team, which would include physiotherapists, occupational therapists, psychologists,

nurses and/or nurse practitioners, and other allied health professionals such as social workers and rehabilitation counsellors – all with specific training in pain management, and clinical and educational support from pain linkage services (described below).

Community pharmacists support patients in getting the most out of their medicines, and are ideally placed for monitoring chronic pain and triaging acute pain. Since May 2010, people purchasing non-prescription analgesics containing codeine need to speak to a pharmacist. This presents an opportunity to further utilise community pharmacy as a screening agency with appropriate 'referral' for patients with poorly controlled pain.

The opportunities for pain management offered by the creation of Medicare Locals require further consideration as the structure evolves. The HealthOne model of care may also provide a suitable framework for integrated primary health care. Partnerships between pain services, Medicare Locals, Divisions of General Practice, aged care teams and community organisations help ensure efficient use of limited health resources, but experience to date shows that these partnerships take time and effort to establish.

In the shorter term, providing elements of the Connecting Care chronic disease management program (such as telephone coaching) could assist people with pain in self-management and care coordination.

The necessary components of coordinated primary health care for pain management are:

- Access to multidisciplinary assessment and treatment at the primary health care level, especially via clinicians with a specific interest in pain management. For example, a pain service might operate three days a week from a GP's rooms or other facility, staffed by rotating GPs and allied health practitioners such as a physiotherapist, psychologist, vocational counsellor and pharmacist/ medicines counsellor.
- Access to education and training resources for multidisciplinary pain management in primary health care.
- Semi-regular outreach support from a pain linkage service. For example, the team from the pain linkage service might visit a primary health team on a regular basis to provide multidisciplinary clinical support and education.

- Facilitation of shared care between a GP with a specific interest in pain, medical specialists and hospital-based pain services.
- Remuneration (e.g. via MBS item numbers for pain management) for GPs with designated training in pain management.
- Encouraging GPs to refer laterally from usual primary health care to GPs with a specific interest in pain (for example, the RACGP may provide a directory of GPs with a specific interest in pain management).
- A centralised patient enrolment process to reduce service shopping and collect population data
- A real-time monitoring and auditing system for opioid prescriptions and codeine-containing products, to identify inappropriate prescription and unsanctioned use.

Implementation of the personally controlled electronic health record (PCEHR) with a national individual health identifier (IHI), along with provider identifiers, will assist care coordination. National PCEHR registration is expected to be available for all citizens from 1 July 2012. Medicare is to provide the individual health identifier.

The Taskforce has received advice from the E-Health and ICT Strategy Branch of NSW Health that the E-Health suite of applications will be ready to store patient individual health identifier by 1 July 2012. However, the PCEHR will initially be limited to selected demographic and summary information. Pain services have an opportunity to develop a dataset to include in the PCEHR. The need for a minimum dataset is discussed in section 7.

***The Taskforce recommends that:***

- NSW Health formally recognise chronic pain as a chronic disease
- Local Health Districts work with Medicare Locals or other bodies to develop coordinated primary health care arrangements for pain management, with clinical and educational support from hospital-based pain services and/or pain linkage services
- NSW Health encourage enrolment in the Connecting Care program for people with chronic pain and a co-existing eligible condition
- NSW Health provide access to elements of the Connecting Care program for all people with chronic pain, including telephone-based health coaching, contact centres, and real-time flags

- NSW Health implement a process to encourage patients with pain to 'opt in' to the PCEHR, such as creating a script for staff at the patient's entry point to the service
- the Minister for Health and Medical Research take a recommendation to AHMAC that MBS item numbers be reviewed to improve outcomes for pain management in primary health care
- the Minister for Health and Medical Research take a recommendation to AHMAC that specialists, as well as GPs, have access to MBS enhanced primary health care items for pain management
- the Minister for Health and Medical Research take a recommendation to AHMAC that a national real-time monitoring and auditing system for opioid prescriptions and codeine-containing products be linked with pain service records.

## Population health

The community generally – both consumers and clinicians – need more information about pain management services and how to access them. They also need evidence-based information about prevention and early intervention, pain medicines, complementary therapies, multidisciplinary treatment, pain management programs and procedural interventions so they can make informed decisions.

A discussion of the evidence base for program-level interventions can be found in section 4.

***The Taskforce recommends that:***

- NSW Health support the development of population health programs for prevention and early intervention in chronic pain (such as mass media and social marketing campaigns, online information and group programs)
- NSW Health and other agencies integrate pain prevention messages into broader health promotion and chronic disease prevention initiatives
- NSW Health and Medicare Locals collaborate with the National Prescribing Service to develop resources educating consumers about quality use of pain medicines, and encouraging consumers to approach community pharmacists for medicines information and advice
- NSW Health work with insurers and employers to raise awareness of prevention, early intervention and pain management in the workplace.

## Pain linkage services

The Taskforce recommends that new pain linkage services be established as an integral component of the new model of care.

Pain linkage services would best be co-located with tier 3 multidisciplinary pain services, but have a well-defined discrete role in developing and maintaining links between tier 3 services, tier 2 pain teams, primary health care, and population-based initiatives. It is not the purpose of pain linkage services to provide additional consultations in tier 3 pain services.

In recommending the establishment of pain linkage services in NSW, the Taskforce is responding to the immediate need expressed to the ACI Pain Management Network by clinicians at all levels. The role of the pain linkage service would be regional, rural and remote support, capacity building and up-skilling across all tiers of the model of care, promoting service integration and equity of access to expertise, and an opportunity to apply preventive approaches and early intervention.

Pain linkage services will also facilitate the continuity, quality and safety of care, especially during transitions between different sites of care.

It is suggested that pain linkage services be organised in geographical clusters of designated Local Health Districts, tier 2 teams and tier 3 services (as described under 'service system' and in Figure 3, below).

The Taskforce proposes the following characteristics for the pain linkage service:

- The service is:
  - > located within or near a tier 3 multidisciplinary pain service, though it would work outside the tier 3 service
  - > formally linked to designated tier 2 and tier 3 services, and to Local Health Districts within a defined geographical region
  - > formally linked with other pain linkage services in NSW through a governance structure that enables statewide communication and clinical improvement.
- The service provides:
  - > regional, rural and remote support for tier 2 services and primary health care (e.g. through telehealth and outreach)

- > support for GPs and allied health professionals in identifying people early who have chronic pain or are at risk of developing chronic pain
- > help for primary health care clinicians to triage referrals to the most appropriate service on a statewide basis (while maintaining patient and GP choice)
- > case management and advice, multidisciplinary support and access to education for primary health care clinicians
- > access to low-intensity pain management programs for appropriate consumers (e.g. via online modules, train the trainer programs for local clinicians, and/or face-to-face sessions).
- The service would ideally have one access point (phone number) statewide, to ease clinician access.
- The pain linkage service would primarily assist clinicians managing people with low or moderate levels of disability, but also those requiring ongoing support for patients discharged from tier 3 services.
- The service would not be required to refer to designated pain services; it may also provide links with single-discipline specialists, where appropriate for the patient (e.g. a neurologist for migraine).
- The service would ideally work collaboratively with Medicare Locals within their regions, as the structures evolve.
- The pain linkage service would require high levels of expertise and specific interest in pain management across disciplines, and be able to support disadvantaged patient groups and those with particular needs, such as Indigenous people, CALD communities, Justice Health clients and the elderly.
- Suggested minimum staffing is:
  - > staff specialist in pain medicine
  - > physiotherapist and psychologist with Masters level qualification in pain management (or equivalent award-based recognition of expertise)
  - > clinical nurse consultant
  - > clerical assistance.

### *The Taskforce recommends that:*

- NSW Health supports a demonstration project to collaboratively develop a service model for pain linkage services, with an inbuilt evaluation component

- the Minister for Health and Medical Research take a recommendation to AHMAC that MBS item numbers be reviewed to encourage allied health involvement in the management of complex pain.

## Rural and remote services

The Taskforce proposes that rural and remote pain management services be developed at a primary health care level as far as possible, to be in keeping with the overall model of care. Strategically placed tier 2 and tier 3 services may be developed based on optimal location, staffing resources and mode of operation following a needs analysis.

## Multidisciplinary collaboration

In some patients, collaboration between disciplines can be very beneficial in assessment and treatment of chronic pain. Close collaboration between pain medicine, oncology and palliative medicine already exists, with a number of jointly qualified specialists, however further strengthening of links is needed. Better access to mental health care is essential in view of the high level of depression and other mental health conditions in patients with chronic pain. Psychiatrists and psychologists are now strongly involved in pain medicine. Patients with chronic pain also frequently need access to rheumatology, neurology and rehabilitation medicine, and some of each of these specialists are also qualified in pain medicine.

Collaboration between pain medicine, addiction medicine, psychiatry and general practice services is essential for patients with addiction who also have chronic pain, and patients with chronic pain where there is also concern about unsanctioned use of prescription opioids; see the RACP's *Prescription Opioid Policy* on this subject.<sup>82</sup>

## Access to pain medicines

There is still considerable debate about the nature and extent of benefits and adverse effects from use of opioids in chronic pain and ways of maximising these benefits. However there is also growing concern that increasing per capita consumption of prescription opioids in Australia could soon be accompanied by increasing overdose deaths and other serious adverse consequences. These adverse effects have already been readily apparent for a decade in the USA, where per capita opioid consumption is much higher and increasing more rapidly than in Australia.

It should be noted that there is a limited but important number of medicines with high-level scientific evidence (i.e. NHMRC Level I) for treatment of pain, and these are not available to all patients.

Opioid analgesics are the only medicines approved for pain by the Therapeutic Goods Administration that are currently listed on the Pharmaceutical Benefits Scheme (PBS). Non-opioid medicines such as gabapentin, pregabalin and duloxetine have pain as an approved indication but are only PBS-listed for indications other than pain. Access to evidence-based pain medicines needs to be improved to ensure equitable access.

### *The Taskforce recommends that:*

- the Minister for Health and Medical Research take a recommendation to AHMAC to pursue negotiations with the PBS to list all medicines with approved indications for pain.

## Resourcing of hospital-based services

A sustainable resourcing model is needed for chronic pain. The ACI Pain Management Network has consulted with hospital-based pain management services in order to establish their resource requirements. Requirements to support the proposed model of care (for tier 3 multidisciplinary pain services, tier 2 pain teams and pain linkage services) are summarised in Appendix 5.

Activity-based funding (ABF) may assist resourcing of hospital-based services. Cancer pain is usually managed through cancer and palliative care services, classified as subacute care by the Australian National Subacute and Non-Acute Patient Classification System (AN-SNAP). Acute pain is largely dealt with as part of the acute episode of care (classified by Australian Refined Diagnosis Related Groups (AR-DRGs).

The Taskforce has received advice from the NSW Health Casemix Policy Unit, Inter-Government and Funding Strategies Branch on ABF proxy classification systems for chronic pain management.

For admitted patients, there are currently two ICD-10-AM codes (International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification) reflecting chronic pain: R52.1 and R 52.2. These codes fall under DRG Z61A - Signs and Symptoms,

Not same day patient and DRG Z61B - Signs and Symptoms, Same day.

However, chronic pain is coded as the principal diagnosis only when a patient is admitted specifically for pain management and no related definitive diagnosis is established. Commonly such patients will be admitted to day surgery for a pain management procedure.

The site of pain is generally used to assign the principal diagnosis code. The DRGs R52.1 and R52.2 will be assigned as principal diagnosis only when the site of pain is unspecified, and chronic pain is documented and meets the definition of principal diagnosis (the diagnosis established after study to be chiefly responsible for occasioning an episode of patient care.)

For subacute patients, in AN-SNAP there is one code 222 that groups pain syndromes, namely:

- neck pain
- back pain
- extremity pain
- headache (includes migraine)
- multi-site pain
- other pain (includes abdominal/chest wall).

For emergency care, Urgency Related Groups (URGs) are the national proxy classification and have been developed based on the relationship between resource use and disposition, diagnosis and triage. The URG classification currently comprises 73 classes, but it is currently being reviewed.

***The Taskforce recommends that:***

- NSW Health undertake or commission a study to identify the drivers of cost of chronic pain management service models in the relevant service settings (acute, subacute, emergency departments and outpatients)
- NSW Health investigate appropriate resourcing models for chronic pain services
- NSW Health prepare a submission to the Interim Independent Hospital Pricing Authority requesting that the provision of chronic pain management be included in the process of refining the proxy classification systems relating to AR-DRGs, AN-SNAP, URGs and Tier 2 Outpatient Clinics.

## Service system

As a principle, tier 3 services (with the associated staffing and expertise) should be seeing the most complex patients which are referred from tier 2 teams, primary health care or pain linkage services. MOUs between services can ensure each tier is supported by higher-tiered services in terms of expert advice, education and training. Rural and remote services will be developed at a primary health care level where possible. All metropolitan services will be linked to rural and remote regions and vice versa.

As stated in the model of care, the function of tier 3 multidisciplinary pain services would best be served by the 11 existing accredited pain services in NSW, with additional resourcing to shorten waiting times and ensure a sustainable high-quality service. One of these services would be designated to take a leadership role in research (see section 7).

Existing non-accredited services are located at Lismore, St George, Illawarra, Tamworth, Wagga Wagga, Orange and the John Hunter paediatric pain service. As noted in section 4, some of these services are threatened with closure. Suggested priority locations for additional tier 2 services are Dubbo, the Central Coast and Mid North Coast where population densities are high. Expressions of interest could be sought from Local Health Districts (rural and metropolitan) to determine their interest and capacity to support a tier 2 pain team.

Both low-intensity and high-intensity pain management programs need to be offered statewide. An assessment of patient outcomes and needs would determine the optimal number and length of programs. At least one high-intensity program may need to be resourced statewide, facilitating access for public patients. Consumers need some flexibility to choose the program they attend.

Pain management programs need ongoing evaluation to determine the most effective mix of programs from a design and content perspective. Evidence-based programs need to be developed for populations with particular needs, including the elderly, burns patients, Indigenous people, people with spinal cord injury, CALD communities and Justice Health clients.

The proposed pain linkage services require resources to develop strong links between tier 2 and 3 services and primary health care services statewide. Figure 3 shows a

generic cluster model, though further work is required to define the most appropriate cluster boundaries. The Taskforce proposes that each pain linkage service be linked to two or three tier 3 services, along with the tier 2 pain teams and primary health care services in defined Local Health Districts. All pain linkage services would provide appropriate advice and triage regarding paediatric cases.

***The Taskforce recommends that:***

- NSW Health support a project to analyse gaps in existing pain services and map current patient flows, in order to determine areas of greatest need, the optimal number and length of pain management programs statewide, and appropriate geographic links between tier 3 pain services, tier 2 pain teams and Local Health Districts
- NSW Health support development of an evaluation framework for pain management programs, and pilot programs for populations with particular needs, including the elderly, burns patients, Indigenous people, those with spinal cord injury, and CALD communities
- NSW Health and pain management services foster partnerships with insurers to develop collaborative strategies for early intervention and improved outcomes for compensable patients
- NSW Health support the creation of a quality framework for acute and chronic pain management and implement system-wide ongoing quality improvement processes, with input from other agencies as needed
- NSW Health provide ongoing support to the ACI Pain Management Network to develop ways of addressing clinical variation, including:
  - > an agreed set of referral and triage criteria for pain services at each level (tier 3 multidisciplinary pain service, tier 2 pain team, pain linkage services and primary health care)
  - > a screening tool/ triage instrument to prioritise referrals across the system
  - > a process for transitioning children into adult services
  - > consensus recommendations on the optimal components and duration of pain management programs, based on the needs of the population they serve
  - > processes to enhance safe use of pain medicines, such as monitoring of appropriate medication use and guidelines for medicine use

- in persistent pain
- > a system to address other areas of clinical variation over time as identified
- the full-time ACI Pain Management Network Manager position be maintained in order to support multidisciplinary clinician and consumer engagement and ongoing transformational change
- NSW Health encourage MOUs between chronic pain, acute pain, aged care, cancer and palliative care services, and develop mechanisms for links between pain and other clinical services such as rehabilitation, musculoskeletal, neurology, addiction medicine and mental health (mechanisms might include cross-disciplinary meetings and shared education events)
- NSW Health and Justice Health develop a funding model for pain services at an appropriate level to provide liaison and consultation services to Justice Health clients
- Local Health Districts work together with Justice Health to develop MOUs regarding provision of pain management services at an appropriate level to Justice Health clients.

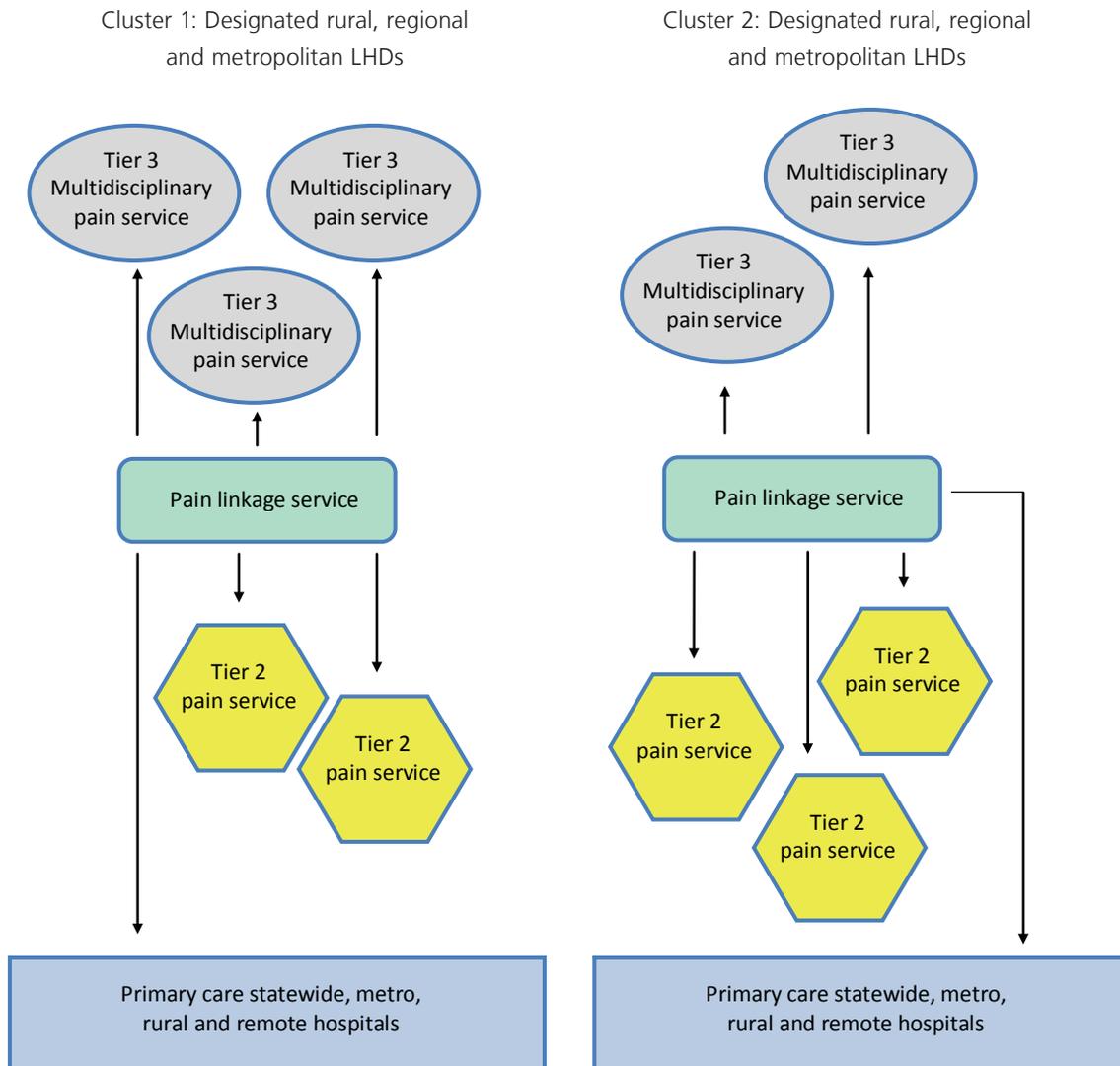
## **Training and workforce development**

Opportunities for nursing, medical and allied health staff to pursue formal training and achieve professional qualifications are critical to delivering specialty care in pain services. There are different pathways involved for respective professions. Training programs rely on experienced clinicians and clinical academics for delivery of high-quality information. A statewide approach to clinical training and education initiatives for pain management would be valuable.

The pain medicine specialist training scheme is building a body of clinicians to take pain services into the future. Rotating staff from other disciplines into tier 3 pain services, including psychiatry, rehabilitation, palliative care, aged care, paediatrics and general practice, may be a practical method for capacity building. A program similar to the national Program of Experience in the Palliative Approach (PEPA), which funds clinical placements or workshops (including backfill and travel expenses), could provide major benefits. Clinical nurse consultants are the mainstay of educational support, but there is often no backup nursing allocation for succession planning or capacity building.

The University of Sydney's postgraduate pain management

**Figure 3: Geographical relationships between pain linkage service (green), tier 3 pain services (grey), and tier 2 pain teams (yellow) within a cluster of Local Health Districts**



course is open to all disciplines for qualifications up to Masters level. Physiotherapy staff in one tier 3 service have been working with their national professional body towards the introduction of a recognised pathway for pain specialisation and training. Training aimed at clinical psychology graduates is being developed.

Since many people with pain see complementary practitioners, the Taskforce believes that training for complementary practitioners should also include pain management, and invites complementary practitioners to play a role in improving the evidence base for pain management.

***The Taskforce recommends that:***

- NSW Health increase the number of training positions for medical specialists in pain
- NSW Health support a project to determine workforce needs in pain management in the future (numbers of practitioners and skills required)
- NSW Health resource training programs for clinicians of all health professions wishing to develop skills and knowledge in pain management (e.g. a program like the PEPA, which provides resources for clinical workforce placements or workshops for all health professionals)<sup>18</sup>
- NSW Health create a single pain training hospital network, providing a centralised point of application for registrars
- NSW Health provide additional resources at each accredited tier 3 pain service to meet service and training requirements
- NSW Health resource clinical academic appointments in relevant specialties to support these training programs
- NSW Health encourage providers of health and medical training to include pain management in undergraduate and postgraduate curricula.

## **Clinical practice education**

Resources need to be developed to build the capacity of the workforce (medical, nursing, allied health and aged care staff) in pain management.

Information provided needs to be consistent, up-to-date and accessible in a range of formats. It needs to address the varied backgrounds and learning needs of end users within

the health system, and backed up by access to specialist expertise to help manage difficult cases.

A coordinated approach to information development is needed to ensure consistency and quality of materials, and to prevent duplication of effort.

***The Taskforce recommends that:***

- NSW Health facilitate the review of existing clinical practice resources, their distribution as appropriate, and development, production and maintenance of new resources as needed
- NSW Health support development and production of a set of pain management factsheets (print and online) for primary health care clinicians, consumers and carers
- NSW Health and Medicare Locals support implementation and uptake of the RACGP's new online training program in pain management, when it is available<sup>17</sup>
- NSW Health collaborate with insurers and employers to develop education resources in pain management for assessors and case managers
- pain services and consumers be involved in developing materials.

# Research priorities

Interdisciplinary research is needed in all areas of pain management, including basic science, translational research, population studies, and research into the clinical, social and economic aspects of pain. Qualitative research into practitioner–patient communication, patient decision-making, and the patient’s experience is also needed to improve service delivery.

## Research program for pain management

Rather than prioritising one area of study, the priority is to develop a sustainable, coordinated research effort that is able to translate findings into improved patient outcomes.

There are diverse views about the best way to organise a statewide research program. The view of the Taskforce is that one tier 3 multidisciplinary pain service should have a leadership role to foster partnering and collaboration across NSW.

Some studies would still be led by other services: their role would not be limited to data collection. An application process could be conducted to select the lead service, with transparent access to research funding by all tier 3 services. Population studies could be conducted by the lead service and also by the Sax Institute.

The small but important volume of research activity in paediatric services also needs support to promote clinical improvement.

The Taskforce proposes that a model for research development and implementation include a research lead centre to conduct basic research and to provide leadership in clinical research (including clinical trials) and translational research development and management. This would include research into the role of physical, psychosocial and environmental factors in chronic pain. Clinical trials could be carried out at any or all pain services. (Palliative medicine has received support via the Cancer Institute NSW.)

A mentoring program for young clinicians interested in research, similar to the Young Investigators Group supported by the Cancer Institute NSW and Medical Oncology Group Australia, would also be valuable.

The Taskforce **recommends that:**

- the Minister for Health and Medical Research establish a dedicated pain management research program for NSW, including academic appointments across disciplines and research clinicians in clinical services
- one tier 3 multidisciplinary pain service be resourced to provide leadership and coordination for research across NSW, collaborating with other services
- the Minister for Health and Medical Research advocate at the Commonwealth level for recognition of pain management as a category in National Health and Medical Research Council funding and as a priority research area.

## Data collection and analysis

Better data are needed in order to:

- measure the incidence and prevalence of pain and rates of treatment, and changes over time
- assess the associated burden of disease, in economic and social terms
- determine the effectiveness and cost-effectiveness of changes in treatment, policy and service organisation.

Pain management services in NSW need a defined minimum dataset to support consistent service delivery systems. There is a great deal of consensus about the types of measures that should be recorded. However, current resources do not permit consistent collection and entry of patient information, patient outcomes or the journey of the patient through the system.

The ACI Pain Management Network rates development and implementation of a database as its highest priority recommendation.

The Taskforce acknowledges the challenges of developing a common dataset across services and jurisdictions, and believes NSW should begin the process of establishing a state-level database as soon as possible, but also coordinated with the development of a national database. The Taskforce notes that Stanford University is currently working towards a national database for the United States.

A database to measure individual patient outcomes and service performance should include:

- patient information
- outcome measures (which may be tailored to populations with particular needs, including children, the elderly, and CALD communities)
- system measures (tracking the journey of the patient through the system and measuring waiting times)
- consumer satisfaction or benefit
- process measures.

The timing of outcome measures needs to be agreed and defined.

***The Taskforce recommends that:***

- NSW Health support studies to estimate chronic pain prevalence in children, aged care residents, CALD populations, Indigenous populations, veterans and Justice Health clients in NSW
- NSW Health support a modelling project to develop a population-based assessment of future demand for pain management services
- NSW Health delegate responsibility for creating a minimum dataset for pain management to an appropriate authority
- NSW Health facilitate the development, implementation and operational support of a statewide database for pain management to enable systematic collection and evaluation of data on key pain outcome measures in adults and children, as described above (it is desirable that this development be coordinated with the establishment of a National Pain Outcome Collaboration)
- NSW Health resource a statewide database manager and nominated data entry staff for

- ongoing development and maintenance
- the Minister for Health and Medical Research put forward a recommendation to the Australian Health Minister's Advisory Committee (AHMAC) that a National Pain Outcome Collaboration be supported and aligned with developments in NSW
- NSW Health support consistent coding of pain nationally, which is crucial to quantify the burden of pain in NSW and Australia.

# Summary of recommendations

## Clinical guidelines

### *The Taskforce recommends that:*

- NSW Health supports the development of an evidence-based clinical resource for pain management similar to the eviQ online resource for cancer treatments, available via Medical Director and similar software for ease of use by primary health care clinicians.

## Proposed model of care

### *The Taskforce recommends that:*

- existing resourcing to the 11 accredited multidisciplinary pain services in NSW be quarantined to ensure that the current level and standard of service is maintained
- LHD Boards review decisions that have reduced chronic pain service capacity, particularly noting the recommendations of this Plan in relation to the optimal delivery of chronic pain services
- an Implementation Plan be developed to progressively implement the model of care in all Local Health Districts across NSW, as appropriate to local needs and clinical capabilities
- the establishment of additional pain services required to conform to the model of care be prioritised in future health system enhancements
- pain services at all levels involve consumers in service design and governance, including continued consumer participation in the ACI Pain Management Network
- NSW Health establish a dedicated office or body to advise the Minister and implement the Pain Management Plan.

## Tier 3: Multidisciplinary pain services

### *The Taskforce recommends that:*

- NSW Health set a target to reduce the maximum waiting time for individual assessment by appropriate

team members to three months\*

- the Minister for Health and Medical Research take a recommendation to AHMAC to hold discussions with insurers re coverage of hospital-based cognitive-behavioural programs for people with severe chronic pain
- the admission criteria for paediatric pain services be reviewed to enable access for children aged 16–18 years (following children’s guidelines or establishing adolescent services)
- paediatric services be reviewed from a statewide planning perspective, and the model of care adapted if necessary
- any new government-funded pain services in metropolitan tertiary hospitals comply with Faculty of Pain Medicine accreditation standards.

## Tier 2: Multidisciplinary pain teams and medical specialists

### *The Taskforce recommends that:*

- NSW Health progressively establish tier 2 services in regional/rural Local Health Districts (where tier 3 services are not available), so that each LHD has at least one pain service
- NSW Health develop arrangements to facilitate shared care between medical specialists, GPs and hospital-based pain services.

## Tier 1: Primary health care

### *The Taskforce recommends that:*

- NSW Health formally recognise chronic pain as a chronic disease
- Local Health Districts work with Medicare Locals or other bodies to develop coordinated primary health care arrangements for pain management, with clinical and educational support from hospital-based pain services and/or pain linkage services

\* The Taskforce believes this goal is achievable, if not optimal. Cancer patients with active disease and patients with vascular ischaemia pain or severe neuropathic pain should be categorised as urgent (as is current usual practice) and ideally seen within one week.

- NSW Health encourage enrolment in the Connecting Care program for people with chronic pain and a co-existing eligible condition
- NSW Health provide access to elements of the Connecting Care program for all people with chronic pain, including telephone-based health coaching, contact centres, and real-time flags
- NSW Health implement a process to encourage patients with pain to 'opt in' to the PCEHR, such as creating a script for staff at the patient's entry point to the service
- the Minister for Health and Medical Research take a recommendation to AHMAC that MBS item numbers be reviewed to improve outcomes for pain management in primary health care
- the Minister for Health and Medical Research take a recommendation to AHMAC that specialists, as well as GPs, have access to MBS enhanced primary health care items for pain management
- the Minister for Health and Medical Research take a recommendation to AHMAC that a national real-time monitoring and auditing system for opioid prescriptions and codeine-containing products be linked with pain service records.

## Population health

### *The Taskforce recommends that:*

- NSW Health support the development of population health programs for prevention and early intervention in chronic pain (such as mass media and social marketing campaigns, online information and group programs)
- NSW Health and other agencies integrate pain prevention messages into broader health promotion and chronic disease prevention initiatives
- NSW Health and Medicare Locals collaborate with the National Prescribing Service to develop resources educating consumers about quality use of pain medicines, and encouraging consumers to approach community pharmacists for medicines information and advice
- NSW Health work with insurers and employers to raise awareness of prevention, early intervention and pain management in the workplace.

## Pain linkage services

### *The Taskforce recommends that:*

- NSW Health supports a demonstration project to collaboratively develop a service model for pain linkage services, with an inbuilt evaluation component
- the Minister for Health and Medical Research take a recommendation to AHMAC that MBS item numbers be reviewed to encourage allied health involvement in the management of complex pain.

## Access to pain medicines

### *The Taskforce recommends that:*

- the Minister for Health and Medical Research take a recommendation to AHMAC to pursue negotiations with the PBS to list all medicines with approved indications for pain.

## Resourcing of hospital-based services

### *The Taskforce recommends that:*

- NSW Health undertake or commission a study to identify the drivers of cost of chronic pain management service models in the relevant service settings (acute, subacute, emergency departments and outpatients)
- NSW Health investigate appropriate resourcing models for chronic pain services
- NSW Health prepare a submission to the Interim Independent Hospital Pricing Authority requesting that the provision of chronic pain management be included in the process of refining the proxy classification systems relating to AR-DRGs, AN-SNAP, URGs and Tier 2 Outpatient Clinics.

## Service system

### *The Taskforce recommends that:*

- NSW Health support a project to analyse gaps in existing pain services and map current patient flows, in order to determine areas of greatest need, the optimal number and length of pain management programs statewide, and appropriate geographic links between tier 3 pain services, tier 2 pain teams and Local Health Districts
- NSW Health support development of an evaluation framework for pain management programs, and pilot programs for populations with particular needs, including the elderly, burns patients, Indigenous

people, those with spinal cord injury, and CALD communities

- NSW Health and pain management services foster partnerships with insurers to develop collaborative strategies for early intervention and improved outcomes for compensable patients
- NSW Health support the creation of a quality framework for acute and chronic pain management and implement system-wide ongoing quality improvement processes, with input from other agencies as needed
- NSW Health provide ongoing support to the ACI Pain Management Network to develop ways of addressing clinical variation, including:
  - > an agreed set of referral and triage criteria for pain services at each level (tier 3 multidisciplinary pain service, tier 2 pain team, pain linkage services and primary health care)
  - > a screening tool / triage instrument to prioritise referrals across the system
  - > a process for transitioning children into adult services
  - > consensus recommendations on the optimal components and duration of pain management programs, based on the needs of the population they serve
  - > processes to enhance safe use of pain medicines, such as monitoring of appropriate medication use and guidelines for medicine use in persistent pain
  - > a system to address other areas of clinical variation over time as identified
- the full-time ACI Pain Management Network Manager position be maintained in order to support multidisciplinary clinician and consumer engagement and ongoing transformational change
- NSW Health encourage MOUs between chronic pain, acute pain, aged care, cancer and palliative care services, and develop mechanisms for links between pain and other clinical services such as rehabilitation, musculoskeletal, neurology, addiction medicine and mental health (mechanisms might include cross-disciplinary meetings and shared education events)
- NSW Health and Justice Health develop a funding model for pain services at an appropriate level to provide liaison and consultation services to Justice Health clients
- Local Health Districts work together with Justice Health to develop MOUs regarding provision of pain management services at an appropriate level to Justice Health clients.

## Training and workforce development

*The Taskforce recommends that:*

- NSW Health increase the number of training positions for medical specialists in pain
- NSW Health support a project to determine workforce needs in pain management in the future (numbers of practitioners and skills required)
- NSW Health resource training programs for clinicians of all health professions wishing to develop skills and knowledge in pain management (e.g. a program like the PEPA, which provides resources for clinical workforce placements or workshops for all health professionals)<sup>18</sup>
- NSW Health create a single pain training hospital network, providing a centralised point of application for registrars
- NSW Health provide additional resources at each accredited tier 3 pain service to meet service and training requirements
- NSW Health resource clinical academic appointments in relevant specialties to support these training programs
- NSW Health encourage providers of health and medical training to include pain management in undergraduate and postgraduate curricula.

## Clinical practice education

*The Taskforce recommends that:*

- NSW Health facilitate the review of existing clinical practice resources, their distribution as appropriate, and development, production and maintenance of new resources as needed
- NSW Health support development and production of a set of pain management factsheets (print and online) for primary health care clinicians, consumers and carers
- NSW Health and Medicare Locals support implementation and uptake of the RACGP's new online training program in pain management, when it is available<sup>17</sup>
- NSW Health collaborate with insurers and employers to develop education resources in pain management for assessors and case managers
- pain services and consumers be involved in developing materials.

## Research program for pain management

### *The Taskforce recommends that:*

- the Minister for Health and Medical Research establish a dedicated pain management research program for NSW, including academic appointments across disciplines and research clinicians in clinical services
- one tier 3 multidisciplinary pain service be resourced to provide leadership and coordination for research across NSW, collaborating with other services
- the Minister for Health and Medical Research advocate at the Commonwealth level for recognition of pain management as a category in National Health and Medical Research Council funding and as a priority research area.

## Data collection and analysis

### *The Taskforce recommends that:*

- NSW Health support studies to estimate chronic pain prevalence in children, aged care residents, CALD populations, Indigenous populations, and Justice Health clients in NSW
- NSW Health support a modelling project to develop a population-based assessment of future demand for pain management services
- NSW Health delegate responsibility for creating a minimum dataset for pain management to an appropriate authority
- NSW Health facilitate the development, implementation and operational support of a statewide database for pain management to enable systematic collection and evaluation of data on key pain outcome measures in adults and children, as described above (it is desirable that this development be coordinated with the establishment of a National Pain Outcome Collaboration)
- NSW Health resource a statewide database manager and nominated data entry staff for ongoing development and maintenance
- the Minister for Health and Medical Research put forward a recommendation to the Australian Health Minister's Advisory Committee (AHMAC) that a National Pain Outcome Collaboration be supported and aligned with developments in NSW
- NSW Health support consistent coding of pain nationally, which is crucial to quantify the burden of pain in NSW and Australia.

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