Back pain: a National Health Priority Area in Australia?

Andrew M Briggs and Rachelle Buchbinder

Given that up to 80% of Australians experience back pain and 10% have significant disability as a result, should back pain be classified as a National Health Priority Area (NHPA) and integrated into a National Service Improvement Framework area?

ABSTRACT

- The aim of the National Health Priority Area (NHPA) initiative is to promote cooperation between government and non-government organisations to monitor, report on and develop strategies to improve health outcomes for Australians.
- The seven existing NHPAs (cancer control, injury prevention and control, cardiovascular health, mental health, diabetes mellitus, asthma and musculoskeletal conditions) were selected on the basis of their profound burden on the health of Australians.
- Up to eighty per cent of Australians will experience back pain at some point in their lives and 10% will experience significant disability as a result.
- Back pain disrupts individuals' quality of life and accounts for an enormous cost to the community.
- Integrating back pain into the NHPA framework has many potential benefits, including more systematic development and implementation of programs aimed at minimising back pain-related disability by providing a focus for policy, legislation and public awareness; and promotion of best-practice management of the condition.
- A disadvantage of making back pain an NHPA is the risk that back pain management could become further medicalised and ineffective interventions could become more accepted.
- Coordinated action on back pain is needed, and integrating back pain into the NHPA framework is one solution.
- Informed decision making through consultation with key stakeholders is a necessary first step towards ensuring that favourable outcomes are achieved.

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National Health Priority Areas

The Australian Government established the NHPA initiative in 1996, aiming to engage cooperation between government and non-government organisations to monitor, report on and develop strategies to improve health outcomes for Australians.[1] The initiative seeks to focus public attention and health policy on areas of health which impose a significant national burden, but also where improved health outcomes are attainable to reduce that burden[2] (Box 1). There are currently seven NHPAs (Box 2). In addition to NHPAs, a strategic national policy approach to manage and improve chronic disease prevention and care was endorsed by the Australian Health Ministers in 2005. This approach includes a National Chronic Disease Strategy, five National Service Improvement Frameworks (for asthma; cancer; diabetes; heart, stroke and vascular disease; and osteoarthritis, rheumatoid arthritis and osteoporosis), and a blueprint for nation-wide surveillance of chronic diseases and associated determinants.[4]

The current federal government has provided strong indications that the NHPA initiative will be retained for chronic diseases and expanded to focus on modifiable risk factors for chronic disease and illness, notably obesity.[5] While welcome, classifying obesity as an NHPA is a departure from the original chronic disease-specific selection criteria of the NHPAs, and raises the issue of whether other conditions, such as back pain, should also be included within the NHPA and National Service Improvement Frameworks.

Why is back pain important?

An investigation of the burden of all diseases in Australia in 2003 found back pain to be among the top 20 burden-imposing diseases in terms of disability-adjusted life-years.[6] Lifetime prevalence of low back pain is reported to be as high as 79.2% in Australian adults[7] and 84% in adolescents,[8] with about one in 10 people experiencing significant activity limitation.[7] Back pain and intervertebral disc disorders were identified as by far the most significant work-related problems in the National Health Survey for the financial year 2004–05,[9] and were reported as a long-term health condition more frequently than NHPA conditions such as asthma, osteoarthritis and hypertension.[6,10] In addition, the prevalence of back pain has increased over successive national surveys to a greater extent than some current NHPA conditions (Box 3), and this may have major implications for Australian productivity.

In 2006, the Council of Australian Governments announced the National Reform Agenda (NRA) to address the challenges facing Australia's economy and drive national prosperity.[11] Human capital, a key element of the NRA, is dependent on increasing

1 Key criteria set by the Australian Government for defining a National Health Priority Area[3]

The health area must:

- Contribute significantly to the burden of illness and injury
- Have potential for health gains and reduction in the burden of disease
- Share common health risk factors and health inequalities to other National Health Priority Area conditions ◆

2 Current National Health Priority Areas and the year each was established

National Health Priority Area	Year established
Cancer control	1996
Injury prevention and control	1996
Cardiovascular health	1996
Mental health	1996
Diabetes mellitus	1997
Asthma	1999
Musculoskeletal conditions: osteoarthritis, rheumatoid arthritis, osteoporosis	2002

3 Trends in the prevalence of self-reported long-term conditions* in Australian National Health Surveys 1995, 2001 and the 2004–05 financial year[10]

Condition	1995	2001	2004–05
Back pain and intervertebral disc conditions	6.4%	20.5%	15.1%
Arthritis	15.7%	13.9%	14.9%
Mental and behavioural problems	5.9%	9.6%	10.7%
Hypertensive disease	11.5%	10.3%	10.4%
Asthma	11.1%	11.6%	10.2%
Diabetes	2.4%	3%	3.5%

* Conditions that have lasted or are expected to last 6 months or longer. ◆

workforce participation, retention, motivation and productivity by optimising health and minimising disability. Back pain is associated with significant workforce absenteeism and "presenteeism" (being at work, but unproductive), thus imposing a significant threat to Australia's human capital.

Although back pain imposes the greatest burden during middle-age, important from a societal work productivity perspective, it is not trivial in youth or old age. While the prevalence of back pain is reportedly low in children (1%–6%), it rises sharply during adolescence (18%–50%) to approach the prevalence in adults.[12,13] In Australia, back pain is one of the most common long-term health conditions reported by teenagers and young adults (9.1% for 15–24-year-olds and 15.3% for 25–34-year-olds).[6] Back pain experienced by children and adolescents is associated with disability in up to 94% of cases,[14] and of imminent concern is the increasing prevalence of back pain in adolescents, suggesting a growing burden into adulthood[15] accompanied by a threat to future workforce productivity. At the other end of the age spectrum, it is commonly believed that the prevalence of back pain decreases around the middle of the sixth decade, but recent epidemiological evidence suggests that this may only be true for benign back pain, and that severe back pain increases into old age.[16,17] Taken together, these data highlight the magnitude of the problem and provide substantive evidence for considering making back pain an NHPA.

Are National Health Priority Areas worthwhile?

NHPAs are relevant for health consumers and their families, health providers and policymakers. They provide a focus for policy directives and decisions, basic and clinical research priorities, education, and community awareness, and participation in health promotion and prevention of chronic disease. The value of NHPAs, and health policies generally, may be seen through the implementation of change in practice, service, and governance policies.[18] For example, reductions in tobacco smoking, an increased proportion of adults performing physical activity, and an uptake of health screening programs including mammography and Pap smear testing[2] reflect positive changes in public awareness and government support for reducing the risks of developing some NHPA conditions. Moreover, in response to the NRA, several reforms and programs have also been proposed for diabetes and mental health.[19]

Back pain as a National Health Priority Area

Back pain meets the broad criteria for a NHPA (Box 1) and shares risk factors common to other NHPA conditions (Box 4); it imposes a significant personal and societal burden in Australia, and, importantly, health outcomes can be improved by adopting a biopsychosocial approach to its management.[19] While the vast majority of acute presentations are considered to be caused by mechanical non-specific factors, there is strong evidence that staying active and continuing usual activities leads to a faster recovery and a lower risk of chronic pain and disability.[20] Nonetheless, recent evidence suggests that nearly a third of individuals do not achieve a full recovery and return to work 12 months after the initial onset of pain,[21] and in the workplace, back pain is an enormous contributor to lost productivity, second only to mental health.

Like obesity, back pain differs in some respects to other NHPA conditions. Back pain is neither a single chronic disease with a definitive aetiology nor an injury, and it does not cause death. Furthermore, disability due to back pain may be more amenable to prevention, and significant health and financial benefits could be observed quite quickly by improving the application of evidence-based practice. For example, population strategies such as mass media campaigns that aim to demedicalise the problem have been shown to be effective in shifting back pain-related beliefs of both society and doctors and to result in improved health and financial

4 Common risk factors for selected National Health Priority Area (NHPA) diseases and conditions* plus back pain

	Risk factor					
Disease or condition	Tobacco smoking	Physical inactivity	Poor diet and nutrition	Excess body weight	High blood pressure	High blood cholesterol level
Type 2 diabetes†		✓	✓	✓		
Asthma†	✓					
Coronary heart disease†	✓	✓	✓	✓	✓	✓
Stroke†	✓	✓	✓	✓	✓	✓
Lung cancer†	✓					
Colorectal cancer†		✓	✓	✓		
Osteoarthritis†		✓		✓		
Osteoporosis†	✓	✓				
Back pain	✓	✓		✓		

* Reproduced from the Australian Institute of Health and Welfare[3] except for back pain, which we have added. † Currently included in an NHPA. ◆

5 Advantages and disadvantages of making back pain a National Health Priority Area

Advantages

- Provides opportunities to target funding at preventing or minimising disability related to back pain through appropriate public health and workplace initiatives.
- Provides a more cohesive focus for health policy, legislation and public awareness of back pain management and prevention.
- Encourages a societal shift towards more evidence-based beliefs about back pain.
- Provides a framework for more effective monitoring of use of health services in primary and secondary health care.
- Encourages improved uptake of best-practice back pain management guidelines in primary care.
- Provides a way to consider the views of the wide range of stakeholders to ensure buy-in and support for new initiatives.

Disadvantages

- Fuels vested interests to promote ineffective interventions for back pain.
- May potentially increase medicalisation of back pain by focusing on the problem.
- Provides opportunities for management of back pain that are not evidence-based or fail to embrace a biopsychosocial framework. ◆

outcomes.[22] Nevertheless, implementation of evidence in this area presents a major challenge, not least because of the many stakeholders involved. Back pain-related disability involves not only the health care field, but also workplace, compensation, and societal issues.[23]

The advantages and disadvantages of integrating back pain into the NHPA framework are summarised in Box 5. On the merit side, it may provide opportunities for preventing or minimising disability, improve the dissemination and uptake of best-practice back pain management guidelines in primary care,[20] provide a more cohesive focus for considering changes to health policy and legislation (eg, recent changes to legislation about whiplash in Australia have improved outcomes for neck-related disability[24]) and provide a way to consider the views of the wide range of stakeholders. On the other hand, making back pain an NHPA has the potential to paradoxically *increase* the burden of back pain by inadvertently increasing the focus on the problem itself and providing justification for those with (or without) vested interests to promote clinically ineffective interventions. This is of some concern as we have recently observed that a self-reported special interest in back pain among Australian general practitioners is strongly associated with back pain management beliefs and practices that are contrary to the best available evidence.[25] This may be analogous to the workplace epidemic of repetitive strain injuries seen in Australia in the 1980s, believed to have arisen as a result of excessive medicalisation of the phenomenon coincident with other industrial, political and social factors.[26]

While back pain could become a new NHPA, there is also merit in integrating back pain into the musculoskeletal conditions NHPA (Box 2). Strategies to reduce the burden of these conditions overlap and may be equally applicable to back pain.

Conclusion

The NHPA framework aims to limit the development and progression of chronic conditions, slow the onset of complications that cause disability, reduce preventable hospital admissions, and reduce geographical and other variations in care — all of these aims are highly relevant to back pain. As back pain becomes an increasingly significant public health problem, it is time to carefully consider the merits of making back pain a national health priority. A first step would be informed decision making by health policymakers through consultation with clinicians, researchers, non-government organisations and professional groups, with due consideration of the potential risks.

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Competing interests

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References

1 Australian Government Department of Health and Ageing. Department of Health and Ageing Factbook 2006 [rescinded]. Canberra: DoHA, 2006. http://www.health.gov.au/internet/main/publishing.nsf/Content/Factbook2006-1 (accessed Mar 2009).
2 Australian Institute of Health and Welfare and Commonwealth Department of Health and Family Services. First report on National Health Priority Areas, full report. Canberra: AIHW and DHFS, 1997. http://www.aihw.gov.au/publications/index.cfm/title/121 (accessed Mar 2009).
3 Australian Institute of Health and Welfare. Why are risk factors included in the National Health Priority Areas initiative? Canberra: AIHW, 2005. http://www.aihw.gov.au/nhpa/riskfactors/index.cfm (accessed Mar 2009).
4 National Health Priority Action Council. National Chronic Disease Strategy. Canberra: Australian Government Department of Health and Ageing, 2006. http://www.health.gov.au/internet/main/publishing.nsf/Content/7E7E9140A3D3A3BCCA257140007AB32B/$File/stratal3.pdf (accessed Mar 2009).
5 Australian Labor Party. National obesity campaign [media statement]. Canberra: ALP, 17 Oct 2008. http://www.alp.org.au/media/1008/msheag170.php (accessed Mar 2009).
6 Australian Institute of Health and Welfare. Australia's health 2006. The tenth biennial health report of the Australian Institute of Health and Welfare. Canberra: AIHW, 2006. (AIHW Cat. No. AUS 73.) http://www.aihw.gov.au/publications/index.cfm/title/10321 (accessed Mar 2009).
7 Walker BF, Muller R, Grant WD. Low back pain in Australian adults. Prevalence and associated disability. *J Manipulative Physiol Ther* 2004; 27: 238-244.
8 Jeffries LJ, Milanese SF, Grimmer-Somers KA. Epidemiology of adolescent spinal pain. A systematic overview of the research literature. *Spine* 2007; 32: 2630-2637.
9 Australian Bureau of Statistics. Australian social trends 2007. Work-related injuries. Canberra: ABS, 2007. (ABS Cat. No. 4102.0.) http://www.abs.gov.au/ausstats/abs@.nsf/latestproducts/63ED457234C2F22DCA25732C002080A7?opendocument (accessed Mar 2009).
10 Australian Bureau of Statistics. National health survey. Summary of results 2004–05. Canberra: ABS, 2006. (ABS Cat. No. 4364.0.) http://

www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4364.02004-05?OpenDocument (accessed Mar 2009).

11 Council of Australian Governments. 10 February 2006 communiqué. Canberra: COAG, 2006. http://www.coag.gov.au/coag_meeting_outcomes/2006-02-10/docs/coag100206.pdf (accessed Mar 2009).

12 Leboeuf-Yde C, Kyvik KO. At what age does low back pain become a common problem? A study of 29 424 individuals aged 12–41 years. *Spine* 1998; 23: 228-234.

13 Taimela S, Kujala UM, Salminen JJ, et al. The prevalence of low back pain among children and adolescents — a nationwide, cohort-based questionnaire survey in Finland. *Spine* 1997; 22: 1132-1136.

14 Watson KD, Papageorgiou AC, Jones GT, et al. Low back pain in schoolchildren: occurrence and characteristics. *Pain* 2002; 97: 87-92.

15 Hakala P, Rimpela A, Salminen JJ, et al. Back, neck and shoulder pain in Finnish adolescents: National cross sectional surveys. *BMJ* 2002; 325: 743-745.

16 Dionne CE, Dunn KM, Croft PR. Does back pain prevalence really decrease with increasing age? A systematic review. *Age Ageing* 2006; 35: 229-234.

17 Hartvigsen J, Christensen K. Pain in the back and neck are with us until the end — a nationwide interview-based survey of Danish 100-year-olds. *Spine* 2008; 33: 909-913.

18 Wyatt M, Underwood MR, Scheel IB, et al. Back pain and health policy research. The what, why, how, who, and when. *Spine* 2004; 29: E468-E475.

19 Victorian Government Department of Premier and Cabinet. The history of the National Reform Agenda. Melbourne: DPC, 2007. http://www.dpc.vic.gov.au/CA256D800027B102/Lookup/NationalReformAgenda-History/$file/The%20History%20of%20the%20NRA%20For%20Website.pdf (accessed Mar 2009).

20 Australian Acute Musculoskeletal Pain Guidelines Group. Evidence-based management of acute musculoskeletal pain. A guide for clinicians. Brisbane: Australian Academic Press, 2004.

21 Henschke N, Maher CG, Refshauge KM, et al. Prognosis in patients with recent onset low back pain in Australian primary care: inception cohort study [abstract]. *BMJ* 2008; 337: a171.

22 Buchbinder R. Self-management education en masse: effectiveness of the Back Pain: Don't Take It Lying Down mass media campaign. *Med J Aust* 2008; 189 (10 Suppl): S29-S32.

23 Loisel P, Buchbinder R, Hazard R, et al. Prevention of work disability due to musculoskeletal disorders: the challenge of implementing evidence. *J Occup Rehabil* 2005; 15: 507-524.

24 Cameron ID, Rebbeck T, Sindhusake D, et al. Legislative change is associated with improved health status in people with whiplash. *Spine* 2008; 33: 250-254.

25 Buchbinder R, Staples MP, Jolley DJ. Doctors with a special interest in back pain have poorer knowledge about how to treat back pain. *Spine* 2009. In press.

26 Ireland DCR. Australian repetition strain injury phenomenon. *Clin Orthop Relat Res* 1998; 351: 63-73.

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