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# PREVENTIVE HEALTH CARE IN AUSTRALIA:

The Shape of the Elephant, Reliance on Evidence,  
and Comparisons to U.S. Medicare

Joan Stieber, JD, MSW  
2004-05 Packer Policy Fellow

February 2005

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# FOREWORD

Ms Joan Stieber was selected as one of two inaugural Packer Policy Fellows for 2004-05.

Ms Stieber is a lawyer and senior health policy analyst in the Office of Legislation, Centers for Medicare and Medicaid Services in Washington, DC. She is responsible for monitoring and analysing key Medicare legislation, including health promotion and prevention initiatives, and is the contact with Congressional staff on these issues.

Her project compared the coverage of preventive health services in Australia and U.S. Medicare, and efforts to apply evidence-based decision-making processes to prevention (including the role of cost-effectiveness). She undertook the project at La Trobe University in Melbourne.

The Packer Policy Fellowship Program was initiated by the Department of Health and Ageing to promote health policy exchange with the United States. It reciprocates the Harkness Fellowships in Health Care Policy, sponsored by the Commonwealth Fund, an American philanthropic foundation which has enabled promising Australian health care researchers and clinicians to work in the United States since 1998.

The Packer Policy Fellowship has been made possible due to kind support from the late Mr Kerry Packer AC, Chairman of Consolidated Press Holdings Limited.

The initiative provides an opportunity for two American health care policy researchers or practitioners to spend six to ten months in Australia each year conducting original research and working with leading health policy experts.

In addition, the fellows participate in a program of seminars and policy briefings with key stakeholders, including industry associations, officials at the Australian and State Government levels, service providers and academics to gain a broad understanding of the Australian health care system.



**Ian Bigg**

Acting Assistant Secretary  
Policy and International Branch  
Department of Health and Ageing



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# I. THE CONTEXT

## A. Prologue and Terminology

If there is one thing a foreign visitor is likely to have heard about Australia's health care system before arriving "down under", it is the achievement of universal health insurance through a "public-private partnership". This feature places it, on a continuum of health care financing models, at a midpoint between the United Kingdom's purely public system at one end, and the United States' largely market-driven model at the other. However, such a visitor would quickly learn upon arrival that Australia's health care structure is extremely complex.

That complexity is largely rooted in federalism tensions over the balance of federal and state responsibility for health care services. While these issues affect all types of services, they are particularly pronounced in the realm of prevention, which traditionally has been viewed as a state-level obligation but is gradually emerging as a federal priority.

This paper is based on research conducted during a 2004-2005 Packer Policy Fellowship, which offers study opportunities for American health policy practitioners in Australia, modeled on the Harkness Fellowships. The paper takes as its starting point a common policy goal in Australia and the United States to increase the focus on prevention in the health care system, based on the best available evidence. This goal is premised on beliefs that better preventive care will improve the health of individuals and, over time, save money for the health care system overall. However, each country faces formidable obstacles in meeting this goal, given limited resources, competing demands, and difficulties in measuring the impact of prevention on health outcomes and costs.

The paper provides a brief summary of the Australian political system and health care financing schemes to illustrate the context in which prevention operates. It describes Australia's approaches to preventive health care in different sectors, and draws comparisons to the preventive benefits covered under the U.S. Medicare program. It reviews efforts in each country to evaluate the effectiveness and cost effectiveness of prevention and the extent to which such evidence is reflected in policy. Finally, it considers the challenges faced by Australia and the United States, and lessons that can be learned from each country's innovations and strategies.

Much of the paper is based on interviews conducted by the author in Australia with federal and state government officials, staff of non-government organizations and private health insurance companies, academics, and health care practitioners. Having encouraged frank discussion by those in politically sensitive positions, these experts are not referenced individually except where their views are included in public documents.

For purposes of this paper, the terms *prevention*, *preventive health care* and *health promotion* are used to describe a range of activities with the goal of reducing the risk of ill-health or disability within an identified population. While such interventions may involve individualized contact between service providers and members of the targeted group, they are based on group parameters (as opposed to services aimed at diagnosis or treatment of a particular patient's symptoms or condition). At some points, the paper also uses the term *population health* to refer to such activities, as this term is widely used in Australia (sometimes synonymously with *public health*). However, prevention is really a subset of population health, which may encompass additional programs beyond the scope of this paper, such as health surveillance and monitoring, environmental standards, food safety, and biosecurity.

The paper considers all levels of preventive interventions including *primary prevention* (seeking to prevent or delay disease in healthy persons), *secondary prevention* (seeking early detection of disease), and *tertiary prevention* (seeking to reduce disability caused by existing disease,

including chronic disease management strategies). These may include both clinical services (such as immunisations and cancer screenings) and behavioral/lifestyle interventions (such as those aimed at smoking cessation, falls prevention, and increased physical activity).

In discussing evidence-based decision-making models, the term *effectiveness* is used to describe “the extent to which [a] problem is reduced or the amount of improvement in health that results” from a particular program or intervention (Partnership 2001, p. 2). The term *cost effectiveness* is used to describe “the relationship between resources used (costs) and the health benefits achieved (effects) for a given technology” (Neumann & Johannesson 1994, p. 207), often in comparison to alternative strategies. *Cost effectiveness analyses* may consider both economic and non-economic factors such as an intervention’s accuracy and reliability; the cost of the intervention and of subsequent treatment that may result from or be averted by it; and effects on recipients’ future productivity and quality of life. While cost effectiveness is only one of several types of economic evaluation, it is the one most often used in the Australian policy context. The Partnership for Prevention<sup>1</sup> (2001, p. 3) suggests that cost effectiveness is the optimal approach to considering “what policies, programs, or services yield the greatest health benefits for any given amount of resources?”. The term *cost effectiveness* may also be used as an umbrella for economic evaluation in general. For all of these reasons, it is the term adopted in this paper.

## B. Health System Shaped by Politics

As in any country, the policies and priorities of Australia’s health care system, and the resources devoted to that system, are shaped by the nation’s political decision-makers. Thus, a brief overview of the context in which those players operate is helpful in understanding the choices affecting health care financing in general and investment in prevention in particular.

Compared to the United States, Australia is a young and sparsely populated country. It officially came into being in 1901 as a federation of six former British colonies. Today, the Commonwealth of Australia includes six States and two self-governing Territories, with a total population of about 20 million. Over recent decades, its demographics have become increasingly diverse, with almost a quarter of current residents having been born overseas. About two percent of Australians are of Aboriginal or Torres Strait Islander descent. However, these Indigenous Australians make up almost a quarter of those living in remote areas, and just one percent of those living in major cities (DIMIA 2003, 2004).

Australia’s governing structure draws on both the United Kingdom’s parliamentary system and the United States’ model of constitutional federalism. As in the United States, all powers not specifically assigned to the federal government are reserved for the States. Also like the United States, the legislative branch includes a House of Representatives (with seats allocated according to population) and a Senate (with equal representation from each State) (Wicks 2000).

However, the key feature of Australian politics (like the United Kingdom and unlike the United States) is a lack of separation between the legislative and executive branches. Rather, the party (or coalition of parties) with a majority in the House of Representatives forms the

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<sup>1</sup> The Partnership for Prevention, based in Washington DC, is a consortium of public and private sector organizations committed to advancing research, advocacy and public policy related to preventive health care in the United States.

government, and provides the Ministers who oversee the executive agencies and make up the principal federal decision-making body. Thus, the Health Minister is himself an elected member of Parliament – a role for which there is no direct counterpart in the United States. In addition, in virtually all cases, each party votes as a unified bloc. While the outcome in the Senate (which may have a different party balance than the House) is not guaranteed, this structure greatly enhances the governing party's ability to enact its legislative agenda (Wicks 2000).

In the health care arena, this has led to significant shifts in policy each time the government has changed hands. Under alternating Labor and Liberal Coalition governments: universal tax-funded health insurance (Medibank) was first established in 1975 (supplementing pharmaceutical coverage enacted in 1950); private health insurance reemerged as a significant payer by 1983; a universal public system (Medicare) was reinstalled in 1984; and the government introduced financial incentives to purchase supplementary private insurance (including a 30 per cent rebate on premiums) between 1997 and 2000<sup>2</sup>. Further changes have been enacted since the October 2004 election (which retained the conservative governing coalition led by Prime Minister John Howard), including an increase in the private health insurance rebate to 40 percent for people aged 70 and over, and to 35 percent for those aged 65 to 69 (effective April 1, 2005) (DoHA 2005a).

In contrast, the more extensive “checks and balances” built into the U.S. political system, coupled with less party cohesion in Congressional voting patterns, make major health system reforms (such as universal coverage) much more difficult to achieve. On the other hand, the systems that are in place (including the U.S. Medicare and Medicaid programs, enacted in 1965) have enjoyed far greater stability than Australian Medicare.

A further federalism feature with implications for health care financing in Australia involves the inverse relationship between States' Constitutional responsibility for many health care services and their limited revenue-raising capacity compared to that of the Commonwealth (known as “vertical fiscal imbalance”) (Webb 2002). While income was previously taxed by both state and federal governments, the Commonwealth took sole responsibility for income taxation in 1942 to fund the war effort, with compensatory grants to the States conditioned on their agreement to levy no income tax of their own. This arrangement remains in effect today, with a reinstatement of state taxes viewed as politically unviable on top of the substantial tax levied by the Commonwealth (Parliament 1996; Grewal & Sheehan 2003).

Two more recent events further affected the fiscal balance between the States and Territories and the federal government. In 1997, the Australian High Court struck down state taxes on petroleum products, tobacco, and alcohol as violating a Constitutional prohibition on state excise tax (*Ha* 1997). And in 2000, the Commonwealth introduced a sweeping goods and services tax (GST), with the States receiving all GST revenue. Thus, while the States are major partners in the Australian health care system, they depend greatly on federal revenue-sharing to carry out their mandated responsibilities.

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<sup>2</sup> Other incentives include lower Medicare tax for people over certain income thresholds who have private health insurance, and lower private insurance premiums for those who join before age 31 and maintain continuous coverage. A “community rating” requirement for private insurance is viewed as a further incentive, prohibiting differential premiums based on health risk or claims experience. These policies have boosted private insurance participation, now at 43 percent (Hillless & Healy 2001; DoHA 2004d).

## C. Health System Overview

Like the proverbial elephant examined by blind men, the Australian health system is viewed quite differently according to the location of the viewer. Services are provided and funded by both the public and private sectors, with public sector responsibilities allocated (and sometimes overlapping) between federal, state, and local governments.

The pre-federation colonial governments had long subsidized hospitals and the 1901 Constitution recognized health care (except for quarantine matters) as the province of the States. This balance of responsibilities remained relatively intact until a 1946 amendment authorized federal benefit payments in several areas including pharmaceutical and medical services. However, the States retained their role in operating (and partially funding) public hospitals, which (unlike in the United State) provide the bulk of inpatient care for persons at all income levels, and include the nation's most respected teaching and research centers. States also have statutory responsibility for community-based services (including allied health, mental health, and home and community care), and engage in public health and health promotion activities (in some States, with some local government support).

In contrast, the federal government is primarily a funder rather than a provider of health care, subsidizing access to prescription drugs, physician services, and nursing homes for the aged. It also contributes substantially to the funding of state-administered public hospitals, community care, and public health activities.<sup>3</sup>

At the same time, Australia has a robust private sector, with most physicians and other health professionals in private practice, and about 34 percent of hospitals privately owned (DoHA 2004c). Private health insurance is a significant partner in the system, with 40 private health insurance funds registered as of early 2005. Thus, Australia falls again at a midpoint on a health insurance continuum -- with neither a single-payer system (as in Canada) or hundreds of different payers (as in the United States).

However (like Canada but unlike the United States), the system is anchored by a strong principle of equity. And while the optimal extent of means testing and public subsidies for private insurance are continuing (and contentious) topics of debate, a commitment to universality remains strong.

Universal access is primarily achieved through Medicare, for which Australians of all ages are eligible.<sup>4</sup> The "three pillars" of Medicare include: the Australian Health Care Agreements (AHCAs), the means by which federal funds are channelled to States and Territories for public hospitals through negotiated budgets; the Pharmaceutical Benefits Scheme (PBS), subsidizing the cost of prescription drugs; and the Medicare Benefits Scheme (MBS), covering care by general practitioners (GPs) and specialists (plus allied health professionals under very limited circumstances). The MBS covers physician services to hospital patients at 75 percent of a designated schedule fee, and services in non-hospital settings at 100 percent of the schedule fee (increased from 85 percent at the beginning of 2005 in fulfillment of a 2004 federal election promise). For non-hospital services, if the physician "bulk bills" (accepts assignment of the schedule fee), the patient pays nothing; otherwise, the patient pays any charges beyond the schedule fee (and prior to 2005, would have also paid the 15 percent "gap" between the

---

<sup>3</sup> For more information on federal vs. state and territory health responsibilities and funding, see Hilless & Healy (2001); Duckett (2004).

<sup>4</sup> In comparison, U.S. Medicare covers only those age 65 and over and younger people with disabilities or who are on dialysis. A joint federal-state program, Medicaid, provides coverage for low-income people.

85 percent Medicare rebate and the schedule fee).<sup>5</sup> However, out-of-pocket costs for non-hospital services are capped at \$700 per calendar year (or \$300 for certain populations). In most cases, specialists are paid at a higher rate for services furnished pursuant to a GP's referral, resulting in such referrals being viewed as essentially mandatory.

As a supplement to Medicare, private insurance may cover care in private hospitals (primarily elective surgery) or as a "private patient" in a public hospital (offering shorter queues, greater choice of physician, and extra amenities), some ancillary services not covered by Medicare (primarily dental and optical care, physiotherapy, and chiropractics), the "gap" between Medicare payment for hospital services and the Medicare schedule fee, and (in some cases) hospital billing beyond the schedule fee. Private insurers are prohibited from covering out-of-hospital physician charges beyond the schedule fee (a cost containment strategy aimed at discouraging doctors from inflating their rates).

Despite this intended equilibrium between public and private payers, some experts believe the "partnership" is less balanced than it may appear. One suggests that, given stringent regulation of private insurance, the system is really a "public system with some private features". Another suggests that the public subsidies enjoyed by private insurance produce, at best, a "public-public/private partnership". Yet others, noting substantial regional differences, view the system as *nine* "public-private partnerships" (one for each State and Territory and one for the Commonwealth overall) (Interviews 2004).

However best described, the core Medicare arrangements fail to reach most public health activities (traditionally viewed as the primary locus for prevention, as discussed further below). Federal contributions to state public health efforts are currently implemented through yet another revenue-sharing mechanism: the Public Health Outcome Funding Agreements (PHOFAs), established every five years between the Commonwealth and each State or Territory.

However, the visibility of prevention as an emerging federal priority reached new heights in the Commonwealth's 2003-2004 Budget, in which Senator Kay Patterson, then Minister for Health and Ageing, announced new steps towards making prevention "a fundamental pillar of Medicare" (DoHA website d).

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<sup>5</sup> About 72% of GP services are currently bulk billed (DoHA 2005b). In a similar U.S. arrangement, physicians who voluntarily "accept assignment" under U.S. Medicare receive 100% of the Medicare "allowed charge" (roughly analogous to the Australian "schedule fee"), but Medicare pays only 80% for most outpatient services, while the patient pays 20% in coinsurance. However, balance billing by U.S. physicians is statutorily limited to 15% beyond the Medicare allowed charge, while in Australia such a limit would arguably be viewed as violating a Constitutional ban on the "civil conscription of physicians".

## D. Prevention – Who is Responsible?

In theory, a health system with a public payer that covers people of all ages (like Australian Medicare) would have more incentive to invest in preventive care than a country with age-specific public coverage (like U.S. Medicare), as the same payer that funds prevention would reap the benefits of healthier patients down the road. However, Australian health experts point out that despite its universality, their multi-level system encourages cost-shifting between different provider types and funding streams, leaving little incentive for prevention within any one jurisdiction. Such fragmentation is viewed by many experts as the single greatest obstacle to realizing the promise of prevention as cited in official policy.

Fragmentation also plagues the U.S. health system but in different ways. While insurance coverage may depend on employment, age, or income, each subgroup (apart from the uninsured) is generally covered by a single primary payer for a comprehensive range of benefits. Thus, while Australia's system is divided by service categories, U.S. health financing splinters along population lines. While each form has its drawbacks and benefits, U.S. fragmentation adversely affects the *system* (leaving an estimated 45 million uninsured), while Australian fragmentation unduly burdens insured *consumers* who must contend with multiple bureaucracies to access a standard continuum of care. A comparison of these different types of fragmentation is displayed in Exhibit 1.

**Exhibit 1**  
**Fragmentation in Health Care Financing in Australia vs. United States**

AUSTRALIA		
Fragmentation of coverage across payers: multiple payers cover a range of services for entire population		
Population (%)	Payer	Major Benefit Categories Include:
Universal coverage  (100%)	Federal Government	<u>direct funding:</u> <ul style="list-style-type: none"> <li>■ physicians (including some screening/prevention)</li> <li>■ diagnostic pathology/radiology</li> <li>■ Rx drugs</li> <li>■ nursing homes</li> </ul> <u>subsidy to States/Territories:</u> <ul style="list-style-type: none"> <li>■ public hospitals</li> <li>■ home and community care</li> <li>■ mental health and disability services</li> <li>■ palliative care</li> <li>■ public health (including some screening/prevention)</li> </ul> <u>subsidy of services covered by private insurance</u> <ul style="list-style-type: none"> <li>■ through 30-40% rebate</li> </ul>
	State/Territory Government  <i>(some services are means-tested; some may be supplemented by local government)</i>	<ul style="list-style-type: none"> <li>■ public hospitals (including inpatient Rx drugs)</li> <li>■ allied health</li> <li>■ home and community care</li> <li>■ mental health and disability services</li> <li>■ palliative care</li> <li>■ ambulances</li> <li>■ medical equipment and supplies</li> <li>■ public health (including some screening/prevention)</li> </ul>
	Private insurance purchased by consumer	<ul style="list-style-type: none"> <li>■ private hospitals</li> <li>■ private patients in public hospitals</li> <li>■ allied health (e.g., dental, optical, physiotherapy, chiropractic)</li> <li>■ may include ambulances</li> </ul>
	Self-pay by consumer	<p>may include State/Territory services that are means-tested (where patient is ineligible) or not locally available through public source</p>

Exhibit 1 continued

Fragmentation in Health Care Financing in Australia vs. United States

UNITED STATES		
Fragmentation of coverage across population subgroups: within each subgroup (excluding the uninsured), one payer generally covers a comprehensive range of services		
Population Subgroup (% of Total Population *)	Payer	Major Benefit Categories Usually Include:
Age 65+ / disabled / on dialysis (13.7 %)	Federal Government (Medicare) **	<ul style="list-style-type: none"> <li>■ hospitals</li> <li>■ physicians</li> </ul>
Low-income (eligibility varies by State) (12.4%)	Federal and State Governments (Medicaid)	<ul style="list-style-type: none"> <li>■ allied health</li> <li>■ medical equipment and supplies</li> </ul>
Privately insured - employment-based (60.4 %)	Private insurance purchased (in whole or in part) by employer for employees and their dependents	<ul style="list-style-type: none"> <li>■ Rx drugs ***</li> <li>■ ambulances</li> <li>■ diagnostic pathology/radiology</li> </ul>
Privately insured - non-employment-based (9.2 %)	Private insurance purchased by consumer	<ul style="list-style-type: none"> <li>■ hospice</li> <li>■ home health</li> </ul>
Uninsured (15.6 %)	Self-pay by consumer	<ul style="list-style-type: none"> <li>■ nursing homes</li> <li>■ mental health</li> <li>■ screening/prevention</li> </ul>

\* Source: U.S. Census Bureau, Current Population Reports, *Income, Poverty, and Health Insurance Coverage in the United States: 2003* (2004). Percent estimates are not mutually exclusive as people may be covered by more than one type of insurance during the year.

\*\* Beneficiaries may have a supplemental private payer or be dually eligible for Medicare and Medicaid.

\*\*\* For Medicare beneficiaries, a drug benefit administered by private insurance plans begins in 2006. Injectable drugs administered by a physician or during a hospital stay are already covered as a regular benefit.

Exhibit 1 - Notes:

1. In both countries, publicly financed health care is furnished to military personnel and veterans outside of the regular insurance systems. These arrangements are not included in this comparison.
2. The amount of reimbursement may be limited by consumer cost-sharing. Both public and private insurance in the U.S. generally involve significant cost-sharing. Australia has less cost-sharing and its extent is often means-tested. Ambulances in Australia often require patient membership, though they are also subsidized by States and may be covered by private insurance.

Given Australia's multi-tiered system, where *should* responsibility for prevention lie? Most experts view it as a "government" obligation but offer differing opinions as to the appropriate level of government, and the most effective delivery and payment mechanisms. Historically, prevention was seen as a state-level public health function, not a federal insurance issue, but current practice has moved beyond that simple bifurcation. In considering funding models for population health, Woodley (2001, p. 35) notes that it "encompasses such a broad range of activities ... it is unlikely that any single purchasing mechanism will be most effective in all circumstances."

In fact, innovative preventive services are underway at all levels and are financed in a variety of ways: through state health departments and non-government organizations, federally-coordinated/state-implemented national strategies, MBS initiatives directed at GPs, special programs for Indigenous Australians and the elderly, and (to a limited extent) private health insurance. While a comprehensive review of such efforts is beyond the scope of this paper, some examples at each level are described below.<sup>6</sup>

<sup>6</sup> Given the author's fellowship placement in Melbourne, Victoria, many of the selected examples are from that State. This should not be construed as suggesting that other States and Territories do not offer some excellent prevention programs as well.

## II. THE SHAPE OF THE ELEPHANT

### A. Prevention in the States and Territories

**Chronic Disease Prevention and Management:** Not surprisingly, prevention efforts at state and territorial levels have increasingly focused on the most costly sector for which they have primary responsibility: public hospitals. An illustrative example is the Hospital Admission Risk Program (HARP) in the State of Victoria, the “prevention” component of that State’s Hospital Demand Management Strategy. Initiated in 2001, HARP is intended to reduce the avoidable use of hospital emergency departments and inpatient services by improving community resources for “at risk” populations. It includes a wide range of projects and activities, including falls prevention in older people and care management of chronic obstructive pulmonary disease, chronic heart failure, and diabetes. Though HARP has not yet achieved its envisioned systemwide effect, staff have reported improved patient outcomes and reduced emergency demands at the local level. An evaluation of HARP is currently in-progress, and plans to disseminate the most effective model projects statewide are underway (DHS 2004).

While HARP is largely a tertiary prevention effort targeting high-end users of hospital emergency care, other state programs have identified primary prevention of chronic diseases as their top health promotion priority. For example, the New South Wales Department of Health (2003a) has proposed a Chronic Disease Prevention Strategy aimed at cardiovascular diseases, cancers, chronic lung disease, diabetes, obesity, falls in the elderly, and poor emotional and psychological well-being. A primary vehicle for developing and implementing such programs would be the 17 Area Health Services (AHSs) (soon to be consolidated into eight). These entities, which are unique to New South Wales (NSW), receive a global budget from the State with substantial flexibility to allocate resources across hospital and community-based services within their geographic area. Among other goals, this decentralized authority was meant to boost investment in cost effective prevention. However, some experts view that part of the AHS mandate as an “unrealized opportunity”, noting that demands on acute services have always taken precedence, especially given state responsibility for public hospitals (Interviews 2004). Clearly, NSW officials hope their Chronic Disease Prevention Strategy will give new prominence to prevention throughout the State.

**Tobacco Control and Skin Cancer Prevention:** In addition to government-initiated programs, non-government organizations (NGOs) have been the driving force behind some of Australia’s most visible and successful prevention efforts (often in partnership with state and territory governments, which may fund certain NGO projects in whole or in part). Notable among these are the QUIT program aimed at tobacco control, and SunSmart (formerly the “Slip! Slop! Slap!” campaign) to prevent skin cancer.

While each State and Territory offers a version of QUIT, Victoria has long been recognized as a leader in tobacco control, having enacted the first broad tobacco control legislation in Australia. Among other provisions, the Victorian Tobacco Act 1987 imposed a dedicated tax on tobacco products, which was used to establish the Victorian Health Promotion Foundation (VicHealth) with a mandate of “buying out” tobacco sponsorship of sports and arts events. When the High Court invalidated Victoria’s tobacco levy as an impermissible excise tax in 1997, VicHealth’s funding shifted to the state government, while its mission expanded over time. Today VicHealth provides grants for a wide range of innovative health promotion projects, and is the primary funder of the QUIT program in Victoria.<sup>7</sup>

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<sup>7</sup> Similar health promotion foundations were created by statute in South Australia (SA), Western Australia (WA) and the Australian Capital Territory (ACT). Those in WA and ACT are still in operation today.

QUITVictoria was founded in 1985 by the Cancer Council Victoria, which still allocates about a third of its program budget to QUIT activities (Cancer Council Victoria 2004). The multi-faceted program includes hard-hitting educational campaigns; support of smoke-free sporting events; programs for schools, workplaces, community groups, and health professionals; and supportive services for people seeking help with smoking cessation (QUITVictoria website). In recent years, the Victorian government has supplemented these community-based efforts with regulatory reforms, such as stiff fines for tobacco sales to minors (2000), and smoking bans or restrictions in restaurants and enclosed shopping centers (2001) and bars, clubs and gaming venues (2002) (DHS 2002). These collective approaches, combined with those of other States and the Commonwealth government under the National Tobacco Strategy, are largely credited with reducing daily smoking rates in Australians age 14 and over from about 30 percent in 1985 to about 20 percent in 2001 (AIHW 2004), giving Australia the third lowest national smoking prevalence in the world (after Sweden and Singapore). This on-going shift in cultural smoking norms is especially remarkable given 1950s smoking rates as high as 70 percent amongst Australian men (NSW 2003b).

It is also no surprise that, in the country known as “the skin cancer capital of the world”, strong prevention programs have emerged in that area, again led by NGOs. Half of all Australians will be treated for skin cancer during their lifetime, incurring the highest costs to the nation’s health system of any form of cancer. The “Slip! Slop! Slap!” campaign was launched in Victoria in 1980 with an animated seagull urging television viewers to “*slip on a shirt, slop on some sunscreen, and slap on a hat*” (Montague et al. 2001, p. 291). This widely recognized but limited campaign evolved into the multi-faceted SunSmart Program in 1988, described as “the most comprehensive population-based primary prevention program for skin cancer anywhere in the world” (Cancer Council Victoria website). As with QUIT, SunSmart in Victoria is funded by VicHealth and that State’s Cancer Council, while similar programs exist in other States and Territories (linked nationally through the Cancer Council Australia).

SunSmart officials stress that the program’s success is rooted in the recognition that structural changes are critical to achieving individual behavior change. Thus, the program has expanded from educational messages to include a wide range of organizational initiatives. For example, by December 2000, 71 percent of Victoria primary schools were “SunSmart accredited”, and by 1998, 52 percent of local governments (with SunSmart support) had established sun protection policies for their outdoor workers and 72 percent for their children’s programs. Similar practices were adopted by sport and leisure organizations, workplaces, trade unions, and community health centers. During the same period, entrepreneurial ventures were launched to market sun protection merchandise, and governments were persuaded to reduce taxes on such products and remove restrictions that had allowed sunscreen to be sold only in pharmacies. As an end result, between 1988 and 1998, the proportion of Victorians “liking to get a suntan” dropped from 61 to 35 percent, while increasing numbers reported seeking shade, wearing hats, sunscreen and protective clothing, and staying inside during peak sun hours. Corresponding trend data since 1988 show a clear reduction in sunburn risk (a proxy measure of skin cancer risk) (Montague et al. 2001).

## B. National Screening Strategies

Despite its fragmented health system (or, more likely, *because* of it), Australia is awash in “national strategies”. In some cases, this designation is accompanied by federal funding (supplemented by States and Territories); in other cases, it may lead to new practice standards with considerable impact in the field without dedicated funding. Those strategies that do attract dollars may be financed in different ways: some through the PHOFAs, others through project-specific means. They also vary significantly in planning and organization: some are meticulously researched beforehand; others move quickly in response to time-sensitive concerns.

While many national strategies are aimed at consensus in treatment approaches, prevention is particularly amenable to such efforts as population health responsibilities across sectors are less clear, and multi-level interventions are often the key to success. Indeed, the National Public Health Partnership (an advisory group to the Australian Health Ministers Advisory Council made up of health department executives, which in turn advises the federal, state and territory Health Ministers) cites such national programs as “a key platform for Australia’s public health sector” (NPHP 1999, p. ii). Current strategies in the prevention arena include (among others)<sup>8</sup> well-established programs for breast and cervical cancer screening, with a bowel screening pilot project recently completed, and an organized diabetes program under consideration.

**Cervical and Breast Cancer Screening:** The Australian government officially launched both its National Cervical Screening Program and its National Program for the Early Detection of Breast Cancer (now known as BreastScreen Australia) in 1991, following a range of pilot projects in each area. GPs had previously provided Pap smears and referred women for mammography on an “opportunistic” basis, but lacked systematic processes for recruitment or follow-up of participants, or standard policies on the optimal age range or frequency for screening.

Mitchell (2000) notes three key factors in the development of the cervical screening program in the 1980s, including concern by gynecological oncologists about large numbers of women presenting with what they considered a preventable disease; the emergence of public health as a respected and influential discipline; and challenges to the medical establishment by a vocal women’s health movement. International standards for organized screening programs and exposés of Pap test inaccuracies also contributed to momentum to move beyond opportunistic screening, which had yielded disappointing results.

The model adopted for the national strategy recommends a two-yearly screening interval for women aged 20 to 69, and relies on Pap Test Registers maintained by the States and Territories (with PHOFA support) to allow reminder letters to be sent to previously screened women (supplemented in some States by electoral rolls to identify and invite previously unscreened women as well). Women who have had a Pap smear are automatically listed on the Register unless they affirmatively “opt out”. The program also provided leverage over pathology laboratories to meet specified performance standards (made mandatory by the Health Minister in 1999 for all labs reporting Pap results) (Mitchell 2000) – a critical element absent a federal statutory mandate such as the Clinical Laboratory Improvement Amendments of 1988 (CLIA) (PHSA §353) in the United States.

BreastScreen is organized along similar lines with a significant financing difference: while most Pap smears are provided through GPs and reimbursed under the MBS, BreastScreen services are furnished directly by, or under contract with, the State and Territory BreastScreen programs (in coordination with the patient’s GP), with the help of PHOFA funds. While procedures may vary across States, invitation letters are generally sent to all women in the target age group of 50 to 69, and thereafter at two year intervals (while women aged 40-49 and over 70 may participate at their own initiative). As with pathology standards, the BreastScreen strategy was paired with the development of national accreditation guidelines for mammography facilities, replaced by mandatory standards in 1994 (serving a similar function to the Mammography Quality Standards Act, PHSA §354, in the United States).

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<sup>8</sup> Other examples of prevention-related strategies include the National Drug Strategy, the National HIV/AIDS and Hepatitis C Strategies, the Immunise Australia Program, the National Injury Prevention Strategy, the National Strategy for an Ageing Australia, and Beyondblue (a national depression initiative).

To ensure access in rural and remote areas, the program operates mobile screening units (including, in some regions, four-wheel-drive trucks to transport mammography equipment by road and barge), and may subsidize transport and accommodation costs for women who must travel long distances. Services are free to eligible women and (unlike diagnostic mammography) a doctor's referral is not required (AIHW 2003a). Some perceive this easy access as a shifting of cost from the federal level (paying physician and radiology fees under the MBS for screening mammograms billed as "diagnostic") to the States (which operate BreastScreen programs and may provide significant support to supplement PHOFA funds).

It is important to note that Australia's cervical and breast screening strategies are targeted at asymptomatic women without family history or other factors placing them at higher-than-average risk. High risk women are viewed as more appropriately served through their GPs, as they may need more frequent assessment, fit within different age parameters, or be candidates for genetic counseling (especially for mammography). For MBS purposes, these cases are not considered "screening" (a notable distinction when compared to U.S. Medicare policy, as discussed further below).

From a U.S. (insurance-based) perspective, it is also important to understand that these programs go well beyond the delivery and financing of Pap smears and mammograms. Rather, they are designed to follow participants from recruitment and screening through rescreening and clinical assessment of any detected abnormalities, including further diagnostic tests and referral for treatment (as necessary) – with the process beginning again upon reinvitation every two years. It is this degree of continuity that led one BreastScreen official to note in comparison that (for most women) "the U.S. has breast screening, but no breast screening program". Another suggests that recent controversies over mammography's impact on mortality may be due to the fact that, in most countries, it is performed in isolation, failing to capture the benefit of a comprehensive strategy (Interviews 2004). This distinction may also be viewed in terms of the different outcomes achieved by preventive health services provided to individuals as opposed to an organized public health program yielding population-wide benefits beyond its individual recipients.

Australian health officials credit the national cervical and breast screening strategies as contributing to a decline in mortality from these cancers since the programs began (noting that advances in diagnosis and treatment have also played a part). Yet cervical cancer mortality has remained relatively high in remote areas, with the death rate for Indigenous women more than four times that of other Australian women (AIHW 2003c). In addition, both programs are striving to improve participation rates within the crucial age groups: only 57 percent of women age 50-69 received BreastScreen services in 2001-2002, and 62 percent of women age 20-69 received cervical screening in those years (AIHW 2003a, 2003b). However, data from Victoria suggest that, if cervical screening is measured over a 3-year (rather than 2-year) interval as advocated by some experts, participation by women age 20-69 may be close to 80 percent (Cancer Council Australia 2004).

**Bowel Screening Pilot Project:** Building on the successes and lessons learned from the breast and cervical screening strategies, a bowel (colorectal) cancer screening pilot program began at three sites in 2002 and 2003, and is currently under evaluation within the Australian Government Department of Health and Ageing (DoHA) in Canberra. The pilot is aimed at testing the feasibility, acceptability, and cost effectiveness of an organized national approach to fecal occult blood test (FOBT) screening for persons age 55 to 74. While two types of immunoassay FOBTs (but not the traditional guaiac-based test) are included in the pilot, it excludes other procedures (flexible sigmoidoscopy, colonoscopy, and barium enemas) covered for colorectal cancer screening under U.S. Medicare (though Australia may cover these as follow up tests in the event of a positive FOBT result). Australian officials believe evidence supports only FOBT as a screening modality, and many are aghast that the U.S. covers colonoscopies for asymptomatic screening purposes. In fact, one perceived purpose

of the pilot is to reduce the inappropriate use of screening colonoscopies, freeing up limited resources for its use as a diagnostic tool. While the federal Health Minister has committed to a national bowel screening strategy, some experts suggest its implementation could take several years, as many areas lack the capacity to provide systematic screening and follow-up, and negotiation of a federal-state funding mix is expected to be complex (Interviews 2004).

**Diabetes Strategy:** The national screening strategies are also viewed as potential models for population-based strategies beyond cancer detection and prevention, with particular interest in identifying persons at risk for diabetes (labeled “pre-diabetes”) at a point that early intervention could deter or delay the onset of this debilitating (and costly) disease. The development of this strategy is still at an early and speculative stage; however, the prevention and better management of diabetes and other chronic illnesses associated with an aging population are top priorities in Australia (as in the United States).

Some officials suggest that invitations sent out under a bowel screening program (which, unlike cervical and breast screening, would be directed at both women and men) would provide an ideal opportunity to also encourage participation in blood glucose testing (for those with certain risk factors) and other preventive health measures. Others express concern about the potential cost of widespread diabetes screening and are considering options for how such a program might be targeted most effectively. In fact, screening is only one of several approaches under consideration for identifying pre-diabetics; alternative options may include opportunistic case-finding or paper-based risk-assessment tools. The National Public Health Partnership plans to undertake an economic evaluation comparing the costs and benefits of targeted vs. population-wide approaches to diabetes prevention, and to explore the optimal balance of investment in different approaches to inform the pursuit of a national strategy.

Whichever direction this process may take, it is clearly intended to encompass *more* than screening (if, indeed, screening is included at all). While Australian officials are interested in the new diabetes screening benefit under U.S. Medicare, they question what the U.S. program is prepared to *do* for those whom it identifies as pre-diabetic. For example, will the program be allowed to cover the lifestyle interventions critical to preventing full-scale diabetes in this very high risk population? Given restrictions on U.S. Medicare coverage of prevention, this question is more than academic. The answer would seem to turn on whether pre-diabetes is, itself, classified as a “medical condition” amenable to “treatment”, or merely as a risk factor for a disease that has not yet been diagnosed.

## C. Encouraging GPs to Practice Prevention

As with States’ concern with preventing hospital costs, federal health officials’ are focused largely on the sectors they fund directly, with particular attention to GPs, whose primary source of income is Medicare. GPs are also viewed as critical to prevention activities, both because such efforts mesh with the mission of primary care and because, for most Australians, a GP consultation is the entry point into the health care system overall. Almost half the physicians in Australia are GPs, and an estimated 85 percent of Australians see their GP at least once each year.

However, since 1978, Australian law has explicitly prohibited Medicare payment for a “health screening service”, defined as “a medical examination or test that is not reasonably required for the management of the medical condition of the patient” (unless the federal Health Minister “otherwise directs”) (HIA §19(5)). This sounds similar to a statutory restriction on U.S. Medicare, which bars payment for services not deemed “reasonable and necessary for the diagnosis or treatment of illness or injury” (SSA §1862(a)(1)(A)). This language (along with an exclusion for “routine physical checkups”) (SSA §1862(a)(7)) has long been interpreted as precluding U.S. Medicare coverage of prevention unless Congress passes a specific exception to this threshold coverage rule.

While both countries' provisions reflect lawmakers' intent that publicly financed insurance should be aimed primarily at curing illness, not preventing it, the Australian variation is more flexible in two significant respects. First: exceptions to the Australian "no screening" rule may be made at the Health Minister's discretion, while an exception under U.S. Medicare requires a statutory amendment. Second: the directives issued by the Australian Health Ministers, to date, include one so broad as to potentially swallow the contrary rule. That ruling allows "Medicare benefits to be payable for ... a medical examination or test on a symptomless patient by that patient's own medical practitioner in the course of normal medical practice, to ensure the patient receives any medical advice or treatment necessary to maintain his/her state of health" (MBS §13.3.3). This wording not only reflects substantial deference to the judgment of individual physicians, but arguably makes room for a range of preventive activities aimed at "maintaining" a still-healthy person's state of well-being.

Additional flexibility is suggested by an MBS item for mammography in otherwise symptomless women with a family history of breast cancer (MBS §59300), supporting the prevailing view that the Medicare screening exclusion does not apply to persons at "high risk" for a particular disease. This question has been explored in the U.S. context with different results -- for example, it was concluded that the U.S. Medicare program lacked the authority to add coverage of blood glucose screening for asymptomatic persons at risk of diabetes absent a statutory amendment (which was passed by Congress in 2003) (MMA §613).

Despite the greater flexibility offered by Australian Medicare rules, the MBS' limitations and fee-for-service payment scheme are viewed as disincentives for GPs to expand their focus on preventive care. Other structural barriers noted by Raupach et al. (2001, p. 354) include limited time, training curricula dominated by curative medicine, and a fragmented approach to policy. At the practice level, GPs lack infrastructure to support health promotion such as ancillary staff, reminder/recall systems, and computerized access to relevant practice guidelines. Some GPs also express concern that "health promotion activities for individual patients may contribute to victim blaming, diverting time and energy from the far more important task of addressing social, cultural, and environmental factors".

In response to these obstacles, federal health officials have introduced a series of initiatives aimed at incentivizing GPs to become key players in preventive health care and chronic disease management. Other projects in collaboration with GP organizations have produced practical tools to help GPs incorporate prevention into their everyday practices. Examples of these programs are described briefly below.

**Enhanced Primary Care:** In 1999, Medicare coverage was established for an annual health assessment beginning at age 75 (or 55 for those of Aboriginal or Torres Strait Islander descent, due to their poorer health status and life expectancy), which may be conducted either in the patient's home or the GP's consulting rooms. Apart from cervical cancer screening and immunisation, this was the first explicitly "preventive" service payable under the MBS, in a new category dubbed "enhanced primary care" (EPC). Additional health assessments were added in 2004 for residents of aged care facilities and Indigenous Australians aged 15 through 54.

The assessments are aimed at "early detection of problems and conditions that are potentially preventable or amenable to intervention and to improve health and quality of life", with attention to physical, psychological, social, and environmental factors as well as the strictly medical (Raupach et al. 2001, p. 360). Federal health officials express their hope of eventually expanding such coverage to include periodic assessments for the general population throughout the aging process – for example, at ages 50 and 65 (supplementing the current age 75+ checks) (Interviews 2004).

The EPC umbrella also provides payment for case conferencing and multidisciplinary care plans for patients of any age with “chronic conditions and complex care needs”. This initiative is meant to improve coordination between GPs and allied health professionals in addressing the needs of those with long-term illnesses.

While the EPC health assessments seem popular, GPs give the chronic care items mixed reviews. Some suggest the care plans, as defined, are too burdensome and are thus seldom used; others believe the interface between GPs and other professionals was insufficiently thought out (Interviews 2004). A DoHA-commissioned evaluation of the EPC program’s first two years (including an educational campaign on the new items) echoes these sentiments, noting that “health assessments were the most used items, case conferences the least; care plans increased over the [educational program] period but there was confusion over their use”. The evaluators also found considerable geographic variability in the items’ adoption, with a 36 percent greater uptake of health assessments in rural areas per full-time-equivalent GP. However, despite these mixed results, they concluded the EPC items have “sown the seeds of change for general practice”, and urged that the program be continued and refined (DoHA 2003a, pp. 2, 5).

In fact, further EPC items are planned for early 2005, including GP-directed care planning for chronically ill patients who may not need a multidisciplinary team, and a focus on National Health Priority Areas such as cardiovascular disease, cancer, or arthritis, which are not already targeted by other incentive schemes (DoHA 2004a).

**Practice Incentives Program:** A further GP initiative called the Practice Incentives Program (PIP) was established in 1997 (and expanded in 2002), making “blended” payments (combining fee-for-service with an additional incentive award) to accredited GP practices (as opposed to individual GPs) for meeting designated targets within their overall patient populations. Incentive payments are available for “best practice” management of chronic conditions such as diabetes, mental illness, and asthma; and for achieving utilization goals for cervical screening and immunisation. PIP also makes payments to GP practices engaged in teaching, after-hours care, and rural-based services, as well as for investments in information technology. Raupach et al. (2001, p. 359) suggest that these incentives may help build “the infrastructure and skills necessary to collect a national data set ... [enabling a systematic examination of] the relationship between GP-based health promotion activities and health status indicators”, thereby contributing to a much-needed evidence base.

However, as with EPC, PIP is not without critics: the Australian Medical Association opposes PIP-based blended payments, and many GPs perceive the program as mired in “red tape” (AMA 2002; Interviews 2004). Federal officials are acutely aware of these problems and, in May 2003, established a high-level review “to reduce the administrative workload involved in accessing incentive-based general practice programs and GP items” (AMA 2002, p. 3). The so-called “Red Tape Taskforce” has recommended short and long-term changes to simplify EPC and PIP, and plans for these and further revisions are currently underway.

**General Practice Immunisation Incentives Scheme:** An additional preventive health program is particularly worthy of note for its use of *consumer* incentives to supplement those directed at GPs. The General Practice Immunisation Incentives Scheme (GPII) was established by the Australian government in 1998 to promote immunisation for children under seven years old (one of several initiatives under its “Immunise Australia” plan). The scheme provides an “incentive payment” to GPs upon their report to the Australian Childhood Immunisation Register (ACIR) that a vaccination series has occurred (whether or not directly provided by the GP), and a quarterly “outcome payment” to GP practices that achieve a 90 percent immunisation rate for children under seven in their practice. The program also supports immunisation infrastructure at local, state and national levels (AIHW 2004; Raupach et al. 2001).

Additional incentives for parents were introduced in 2000 by making certain means-tested government benefits contingent upon compliance with recommended immunisation schedules. The Maternity Immunisation Allowance is payable for children from 18 months of age when all recommended vaccinations have been recorded on the ACIR, and the Child Care Benefit (helping low-income families with childcare costs) is available only when immunisation for children under seven is up-to-date. In both cases, a child may be deemed exempt from immunisation if medically contraindicated, or the parent may file a “conscientious objection” based on “a personal, philosophical, religious or medical belief that [their] child should not be immunised” (DoHA website a).

A series of evaluations of GPII revealed that the average childhood immunisation rate in GP practices increased from 73 percent in August 1998 (when the program began) to 92 percent in November 2003. Practices achieving the target of 90 percent coverage increased from 12 to 78 percent over the same period. While the program was viewed as highly successful in meeting its immediate goals, it is also significant to note the evaluators’ finding that the scheme had, more generally, “promoted a population health perspective among GPs encouraging them to think about aggregated data, health promotion and disease prevention”. Concern was expressed, however, about the program’s continuity: it began as a two-year scheme, which was extended several times, but its “perceived ‘stop start’ nature” has been criticized by some GPs (DoHA 2004b, pp. 6, 12).

**Australian Divisions of General Practice:** No discussion of general practice in Australia (including GPs’ involvement in prevention) would be complete without reference to the Australian Divisions of General Practice – a unique network of local GP organizations (with state-level support entities) established by the Australian government in 1992. There are 120 Divisions across Australia (half urban, half rural), with memberships ranging from 800 GPs in densely populated Brisbane (the largest Division by population, covering 1,287 square kilometres) to 16 in the sparsely-populated NSW Outback Division (covering 128,061 square kilometres – an area the size of Maine, New Hampshire and Vermont combined). Approximately 95 percent of all GPs belong to a local Division, with about 35 percent actively participating (DGP 2004b).

Federal funding of the Divisions was initially project-specific, with the goals of facilitating communication amongst isolated GPs, improving integration of GPs and other health care providers, and encouraging GP participation in local projects (including “health promotion, illness prevention and population [health] activities”) (DGP 2003, p. 27). The Divisions were also intended as a vehicle for negotiation between dispersed GPs and the federal government (as the States have no role in GP financing). The program’s project-based funding was replaced in 1997 by block grants reflecting national priorities, including increased emphases on health outcomes, information technology, consumer participation, and the role of GPs in public health. Division officials note that this shift has led to greater national consistency but has decreased their ability to adapt to local needs or focus on areas under state (vs. federal) jurisdiction (for example, services for the disabled). They view the Divisions, nonetheless, as in the forefront of current efforts to reexamine the structure of primary care, and whether payment approaches beyond fee-for-service may be preferable in tending to an aging population with complex cross-sector needs (Interviews 2004). This debate (by GPs and others) is viewed by many as critical to the goal of improving access to prevention in Australia; indeed, the federal Minister for Health and Ageing, Tony Abbott, has praised the GP Divisions as “doctors working with doctors’ to promote a ‘wellness culture’ over an illness culture” (DGP 2004a, p. 2).

While a focus on prevention and early intervention is amongst the Commonwealth’s goals for the Divisions, the extent of their involvement in such activities, to date, has varied significantly. Still, by 1999, nearly every Division was involved in at least one health promotion campaign, mostly based on the National Health Priority Areas of diabetes, mental health,

cardiovascular disease, cancer, and injury prevention, as well as immunisation (Raupach et al. 2001). Some state-level organizations of GP Divisions have also joined in preventive health care collaborations with their state health departments, such as the Active Script Program in Victoria. In 2003, this initiative (first started in 1999) set out to reach 3,500 GPs in 23 Divisions, encouraging them to formally “prescribe” exercise (using a special “Active Script Prescription Pad”) for their sedentary patients, and linking patients to opportunities for physical activity in their communities. This concept borrows from New Zealand’s “Green Prescription” program, and has helped shape Australia’s newer “Lifestyle Prescriptions” (announced as part of a “Focus on Prevention Package” in the 2003-2004 Federal Budget, but still under development) (Interviews 2004; DoHA website b).

**Prevention Tools for GPs -- Red Book/Green Book and SNAP:** While EPC, PIP, and GPII offer financial incentives for prevention, and most GP Divisions address structural issues and educate practitioners, other collaborative efforts strive to give GPs practical tools to incorporate prevention into their regular patient consultations. A primary resource is the “*Guidelines for Preventive Activities in General Practice*” (commonly known as “the Red Book”), developed by the Royal Australian College of General Practitioners (RACGP). Currently in its 5<sup>th</sup> Edition (with a 6<sup>th</sup> Edition expected in early 2005), the Red Book compiles recommendations for primary and secondary prevention “of relevance to general practice where research has shown a demonstrated benefit” (RACGP 2002, p. v). The book is intended as a “hands on” tool, including a fold-out “life cycle chart” providing an overview of preventive activities recommended at each age. Further charts provide questions-and-answers on preventive activities for children and adolescents, the elderly, and prior to pregnancy; genetic screening, immunisation, type 2 diabetes, osteoporosis, oral hygiene, psychosocial concerns, and patient education; and prevention of cardiovascular disease, stroke, and cancer. While the recommendations are based on Australian guidelines wherever possible (such as those endorsed by the National Health and Medical Research Council or the Australasian Cochrane Collaboration), overseas resources were also consulted, including the U.S. Preventive Services Task Force (USPSTF)<sup>9</sup> and its Canadian counterpart.

Indeed, in compiling recommendations in a GP-friendly format, the Red Book plays a similar role to materials issued by the USPSTF (first through its “*Guide to Clinical Preventive Services*”; now updated periodically on its website). However, Australian general practice experts point out that the Red Book’s guidance is more *directive* than that offered by the USPSTF. For example, the Red Book states that “routine screening for prostate cancer ... is not recommended” (RACGP 2002, p. 38), while the USPSTF “concludes that the evidence is insufficient to recommend for or against routine screening for prostate cancer” (USPSTF website). They view this not as a difference in interpretation of the evidence, but in their approach to developing recommendations based upon the evidence, so as to be most useful to GPs in their real-life practices. However, they estimate that only 50 to 60 percent of the Red Book’s recommendations have been implemented by GPs (Interviews 2004).

To supplement the Red Book, in 1998 the RACGP issued a second guide on “*Putting Prevention into Practice*” (known as “the Green Book”), addressing the organizational supports needed to implement preventive care at the practice (vs. patient) level. For example,

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<sup>9</sup> The U.S. Preventive Services Task Force is an independent body of medical experts convened by the U.S. Department of Health and Human Services, which conducts systematic evidence reviews of clinical preventive services, and periodically publishes evidence-based recommendations on the effectiveness of such services (USPSTF website). While the Task Force considers services for all ages, Congress in 2000 expanded the Task Force’s mission to include the evaluation of services of particular relevance to older Americans. A corresponding group, the Task Force on Community Preventive Services, reviews preventive interventions provided at the community (vs. individual patient) level (TFPCS website).

it suggests that a GP practice conduct a “preventive needs assessment” (considering both the practice’s capabilities and the patients’ needs); appoint a “prevention coordinator” and develop a “prevention plan”. It also discusses ways to motivate patient and staff involvement in prevention activities, and to ensure that prevention efforts are sustainable over time (RACGP 1998).

A similar program called “*Prevention Dissemination and Implementation*” is overseen by the U.S. Agency for Healthcare Research and Quality (AHRQ, which also staffs the USPSTF), in partnership with other public and private organizations. The program facilitates implementation of clinical preventive services at a systems level. For example, the National Business Group on Health, with technical support from AHRQ, has developed an “Employers Guide to Health Improvement and Preventive Services” to promote employment-based prevention and health promotion activities (AHRQ website; NBGH website).

A next generation of practical prevention tools is exemplified by Australia’s “*Smoking, Nutrition, Alcohol and Physical Activity (SNAP) Framework for General Practice*”. SNAP was developed by the Joint Advisory Group on General Practice and Population Health (now defunct) and was piloted in two NSW GP Divisions in 2004. SNAP provides GPs with a step-by-step approach to working with patients on the four SNAP “lifestyle risk factors”, which together contribute to the top ten causes of morbidity and mortality in Australia (except dementia), including heart disease, stroke, chronic obstructive pulmonary disease, lung and colorectal cancers, diabetes, asthma, arthritis, and depression (JAG 2001).

SNAP reflects a newer trend toward addressing risk factors common to multiple diseases (rather than disease-specific interventions), thereby maximizing the benefit of limited prevention resources. It also focuses on health inequalities across population groups, helping GPs to target interventions toward those who may be most at risk. The model incorporates a five-stage approach to facilitating behavior change for all of the SNAP risk factors, based on smoking cessation guidelines developed by the U.S. Department of Health and Human Services. The five steps (known as the “5 As”) encourage GPs to *Ask* (about risky behaviors), *Assess* (the level of risk), *Advise* (on behavior change strategies), *Assist* (through counselling and pharmacotherapy), and *Arrange* (for referrals and follow-up) (RACGP 2004).

Although the Commonwealth funded the distribution of SNAP (and the Red Book) to GPs, some advocates express concern that there are no MBS items or incentive payments specific to SNAP. Thus, reimbursement is available only in instances that overlap with another existing program (such as EPC 75+ assessments or PIP incentive payments for chronic disease management) (Interviews 2004).

While GPs appreciate these supports and recognition of their efforts, there is concern in some quarters that perhaps GPs are being asked to do too much. This view is linked to a perception that the Commonwealth lacks an overall strategy for prevention, and has not adequately addressed the question of whether the GP consult is, in fact, the most effective setting for such activities (Interviews 2004).

In fact, some public health advocates suggest that insurance-based initiatives will always have limited success, as they reach only those who present themselves at the GP’s (or other health practitioner’s) door, rather than reaching out to settings where people are carrying on their daily lives. They express concern about GPs’ lack of training in population health, which requires different skills than the practice of clinical medicine. Finally, they note that MBS payment for GP services is an uncapped entitlement and question whether funds for GP prevention efforts could be spent more productively in the public health sector (to supplement severely limited PHOFA funds). (Interviews 2004).

## D. Targeted Populations: Indigenous Australians and the Elderly

**Prevention in Indigenous Communities:** In addition to the general prevention initiatives described above, it is important to acknowledge efforts since the 1980s to address the significant health disparities experienced by Australia's Aboriginal and Torres Strait Islander people. Indigenous Australians face much greater levels of illness and disability than other Australians, including extremely high rates of kidney disease and type 2 diabetes. In 1999-2001, the average life expectancy of Indigenous men and women was 56 and 63, respectively, compared to 77 and 82 for Australian men and women overall. Yet despite their poorer health status, per person expenditure for Indigenous people under the MBS and PBS was just 37 percent of that for other Australians in 1998-99 (the most recent data available), due to poor access to, and utilization of, publicly-funded services. While some of the gap was filled by programs provided through community-controlled Aboriginal Medical Services, the Commonwealth's Office for Aboriginal and Torres Strait Islander Health (OATSIH), and other targeted State/Territory and Commonwealth programs, total federal health spending for Indigenous Australians was about 75 percent of that for non-Indigenous Australians during this period (AIHW 2004).

Amongst a wide range of Indigenous health initiatives, four Coordinated Care Trials (administered by OATSIH) were conducted in five Indigenous communities between 1997 and 1999. A key feature of these projects was the pooling of funds that would otherwise have been spent on participants under the MBS, PBS, and other federal, state/territory or joint programs (sometimes referred to as "cashing out" these entitlements). The pooled funds were accompanied by an infusion of extra dollars to raise total spending to a level equivalent to what would have been spent if MBS and PBS services were utilized by Indigenous Australians at the same rate as other Australians. The goal of the trials was "to achieve a more coordinated approach to the delivery of health care services to people with a diverse range of complex and chronic care needs" (Commonwealth 2001).

While prevention was only one of several types of services provided, a national evaluation of the trials concluded "there is much potential for disease management and health promotion" as well as capacity building to undertake population health initiatives within a coordinated care context. For example, some trials included measures aimed at improving nutrition and safe food handling, reducing dog bite injuries and youth suicides, and managing diseases like diabetes. The evaluation cautioned, however, that "pooling of funds beyond the health system" may also be required to address the broader social and environmental determinants of ill health (Commonwealth 2001).

In addition to the gains the Coordinated Care Trials may have brought to the participating communities, it is interesting to consider the broader possibilities for this model of multi-modality care funded through a cross-sector pooling of funds. Indeed, the trials' evaluators noted that the funds pool has "proved a useful mechanism for encouraging integration between Commonwealth and State/Territory funded services", which may have "broad applicability to health care reform" (Commonwealth 2001).

On a practical level, the remote areas where many Indigenous Australians live have long suffered severe shortages of health care professionals and services. With limited access to GPs and specialists, other health professionals (including nurses and trained Aboriginal Health Workers) have often stepped in to provide services that might be zealously guarded by physicians in more urban environments. The GPs and other providers that do serve these communities are also likely to have forged close working relationships, based on personal friendships and practical necessity. Thus, it is ironic that some programs for the most underserved populations in Australia may present some of Australia's best models of integration across a broad continuum of care.

However, some experts in Indigenous health care remain skeptical about the Coordinated Care Trials' results, suggesting that it was the extra funds that made the difference, not the funding arrangements per se. According to this view, the "cashing out" model was merely a financing mechanism to channel more resources to Indigenous health; it did not necessarily change how care is structured or delivered on the ground (Interviews 2004).

Further efforts to address the poor health of Indigenous Australians have included EPC health assessments (paid under the MBS) beyond those generally available beginning at age 75. The annual "Older Person's Checks" begin at 55 for people of Aboriginal or Torres Strait Islander descent, and biannual "Adult Health Checks" (for ages 15 through 54) are funded for this population alone. While these recent Medicare additions are valued by Indigenous health programs, they may also be impacted by workforce shortages; for example, treatment guidelines for rural practitioners in Central Australia suggest the assessments "should only be performed if there are resources to provide follow up and treatment" (CARPA 2003, p. 260).

Such resource barriers are being addressed on a more systemic level through the Primary Health Care Access Program (PHCAP), implemented in selected Indigenous communities including the former Coordinated Care Trial sites. Funded jointly by the federal, state and territory governments (including pooling of MBS and PBS funds), PHCAP brings together mainstream health systems and Indigenous-specific programs to improve access to primary care and, at an individual level, empower people to take better care of their own health (Dwyer et al. 2004).

**Special Initiatives for the Elderly:** Other programs are targeted at older Australians (defined as 65 and over for the general population, or 55 and over for Aboriginal and Torres Strait Islander people), as Australia joins the United States and other countries in preparing for an aging population. These include both broad-based efforts such as the 2001 National Strategy for an Ageing Australia (including a prevention-focused "healthy ageing" component), and risk-specific programs like the National Falls Prevention for Older People Initiative (originally funded in 1999-2000 through EPC but now independent of that program). This initiative "aims to reduce the incidence, severity and mortality associated with falls in [older] people ... living in the community, residential and acute care settings". Workforce training projects are underway for nurses working in GP practices and remote areas, and for Home and Community Care Workers who interact with older people living independently in the community. The initiative is also facilitating research to enhance understanding of falls and falls-related injuries, to determine whether vitamin D may reduce the risk of falls and injury in elderly women, and whether a GP-based health promotion program to reduce alcohol and drug use in later life and increase physical activity may affect the risk of falls. Additional demonstration and pilot projects are underway in several States and Territories (DoHA 2000, pp. 4; Interviews 2004).

However, discussions of "healthy ageing" in Australia extend beyond the aged, citing evidence that "physical activity and good nutrition over the whole of the lifecourse have a major influence on health and functional capacity in older people" (PMSEIC 2003, p. ii). Similarly, Australia's "healthy ageing" strategies look beyond the health arena – for example, focusing on the "built environment [as] a key influence on older people's health and quality of life" (PATF 2004, p. 1).

U.S. Medicare has also initiated a range of "healthy aging" activities, which are discussed further in the context of "evidence-based prevention" below. However, given the constraints of an age-based health insurance program, its ability to look beyond its immediate beneficiary population, or beyond the medical services sector, is limited. Nonetheless, U.S. health officials (beyond the Medicare program) have recently sought to engage non-health industries in health planning efforts, as evidenced by a December 2004 National Falls Prevention Summit in Washington, DC, which included homebuilding and home safety industry groups among its participants. Following from this conference, a National Action Plan to Reduce Falls in the Elderly is expected to be issued in 2005 (NCOA 2004).

## E. Prevention Under Private Health Insurance

Approximately 43 percent of Australians were enrolled in private health insurance at the end of 2004, with 30 percent of premium costs rebated by the federal government (increasing in April 2005 to 35 and 40 percent for those aged 65-69 and 70+, respectively). While neither government officials or the private health funds themselves currently view private insurance as a significant player in prevention, there is increasing interest in its potential benefits. Most health funds that do offer preventive care focus on chronic disease management. For example, MBF (considered to be one of the more prevention-oriented insurers) offers asthma and diabetes management programs, with the latter including free enrollment in Diabetes Australia (a national NGO providing discounted diabetes self-management products and other services) (Interviews 2004; MBF website).

Private insurers are undoubtedly cautious about forays into prevention after a 2003 backlash over “lifestyle benefits”. Some companies had offered coverage of sports shoes, sports club fees, golf clubs, and relaxation CDs as marketing enticements, particularly targeted at younger (and healthier) customers. However, the 30 percent government rebate on premiums (beginning in 1999) brought greater scrutiny of what, exactly, the taxpayers’ money was being used to support. Based on agreement with the private insurance industry after a series of media reports, the federal Health Minister announced that “[f]rom 31 December 2003 the payment of private health insurance benefits for goods and services which are primarily for sport or entertainment rather than direct healthcare, will cease” (DoHA 2003b). While some “fitness benefits” are still available, they are limited to health management programs approved by the fund to prevent or ameliorate a specific health condition. Those enrolled in such programs (including certain weight loss regimens), accounted for three percent of private insurers’ ancillary (non-hospital) benefits in 2002-2003 (PHIAC 2003).

Australia’s statutory reinsurance scheme is also viewed as a disincentive for investment in prevention by private insurers. All private health insurance organizations pay levies into a Reinsurance Trust Fund, which then pays out for each enrollee who is over 65 or hospitalized for 35 days within a 12 month period. Through this mechanism, insurers with a greater proportion of low risk (usually younger) members subsidize those with a greater proportion of high risk members (largely the chronically ill and elderly). This “risk equalization” scheme is meant to counterbalance the system’s community rating mandate, but it’s also viewed as encouraging hospitalization over services that may reduce the need for inpatient care. While federal officials have considered revising the rules to reward private insurers for keeping patients *out* of the hospital, no changes to the reinsurance pool have yet been agreed upon (Parliament 2003; Interviews 2004).

## F. Comparisons to Prevention Coverage Under U.S. Medicare

As noted above, the U.S. Medicare program is prohibited by law from covering preventive health care without the specific authorization of Congress. Over the years, Congress has, in fact, passed a series of statutory amendments creating a package of prevention benefits for Medicare beneficiaries. These include flu, pneumonia, and hepatitis B vaccinations; screening for breast, cervical, colorectal, and prostate cancers; glaucoma screening; bone densitometry tests; diabetes glucose monitoring and self-management training; and medical nutrition therapy for patients with diabetes or renal disease. In late 2003, as part of the law creating Medicare coverage for prescription drugs, Congress added three more prevention benefits (effective January 1, 2005), including diabetes screening, cholesterol tests, and a one-time preventive physical exam for newly enrolled beneficiaries (MMA §§611-613).

The parameters of these benefits are shown in Exhibit 2, along with a comparison to the closest analogous service available through public programs in Australia. Several differences between U.S. Medicare and Australia's prevention benefits (through the Medicare Benefits Scheme and other programs) are apparent (keeping in mind, however, that U.S. Medicare covers only persons 65 and over, plus younger persons with disabilities or who are on dialysis, while Australian coverage is universal).

## Exhibit 2

### Prevention Benefits Covered by U.S. Medicare and Australian Analogues

<i>Benefit</i>	<i>U.S. Medicare</i>	<i>Australian Public Programs (closest analogue to U.S. Medicare benefit)</i>
<b>Cancer Screening</b>		
Breast cancer	<ul style="list-style-type: none"> <li>■ annual mammogram for age 40+ (including digital technologies)</li> <li>■ one-time baseline mammogram age 35-39</li> </ul>	<ul style="list-style-type: none"> <li>■ mammogram (and related services) every 2 years through national strategy (target age 50-69)</li> <li>■ through GP referral, as needed, for high risk</li> </ul>
Cervical/vaginal cancer	<ul style="list-style-type: none"> <li>■ Pap smear every 2 years (including automated technologies) (annual for high risk)</li> <li>■ pelvic exam (and clinical breast exam) every 2 years (annual for high risk)</li> </ul>	<ul style="list-style-type: none"> <li>■ Pap smear/pelvic exam (and related services) (not including automated technologies) every 2 years through national strategy and GPs (target age 20-69)</li> <li>■ through GPs as clinically indicated</li> </ul>
Colorectal cancer	<ul style="list-style-type: none"> <li>■ annual FOBT (guaiac or immunoassay) age 50+</li> <li>■ flexible sigmoidoscopy every 4 yrs age 50+</li> <li>■ colonoscopy every 10 yrs (2 yrs for high risk)</li> <li>■ barium enema (alternative to sigmoidoscopy or colonoscopy)</li> </ul>	<ul style="list-style-type: none"> <li>■ pilot strategy through GPs for immunoassay FOBT (target age 55-74), in evaluation phase</li> <li>■ national strategy under development</li> <li>■ through GPs or GP referral as clinically indicated</li> </ul>
Prostate cancer	<ul style="list-style-type: none"> <li>■ annual PSA age 50+</li> <li>■ annual digital rectal exam age 50+</li> </ul>	<ul style="list-style-type: none"> <li>■ not covered as a routine screening test</li> <li>■ through GPs as clinically indicated</li> </ul>
<b>Other Screening</b>		
Glaucoma	<ul style="list-style-type: none"> <li>■ annual screen for those at high risk</li> </ul>	<ul style="list-style-type: none"> <li>■ not covered as a routine screening test</li> </ul>
Diabetes	<ul style="list-style-type: none"> <li>■ diabetes screen for those at high risk (<i>new in 2005</i>)</li> </ul>	<ul style="list-style-type: none"> <li>■ not covered as a routine screening test</li> <li>■ through GPs as clinically indicated</li> <li>■ national diabetes strategy under consideration</li> </ul>
Cardiovascular Disease Risk	<ul style="list-style-type: none"> <li>■ blood lipid (cholesterol) test (<i>new in 2005</i>)</li> </ul>	<ul style="list-style-type: none"> <li>■ not covered as a routine screening test</li> <li>■ through GPs as clinically indicated</li> </ul>
Osteoporosis	<ul style="list-style-type: none"> <li>■ bone densitometry tests for estrogen-deficient women and others at high risk of osteoporosis</li> </ul>	<ul style="list-style-type: none"> <li>■ screening covered under MBS for limited high-risk groups (including history of low-impact fracture; excluding postmenopausal women absent history of fracture)</li> </ul>

**Exhibit 2 continued**

**Prevention Benefits Covered by U.S. Medicare and Australian Analogues**

<i>Benefit</i>	<i>U.S. Medicare</i>	<i>Australian Public Programs (closest analogue to U.S. Medicare benefit)</i>
<b>Immunisations</b>		
Influenza	<ul style="list-style-type: none"> <li>■ covered annually</li> </ul>	<ul style="list-style-type: none"> <li>■ national vaccination program for age 65+</li> <li>■ national vaccination program for Indigenous Australians over 50 (and age 15-50 at high risk)</li> </ul>
Pneumococcal	<ul style="list-style-type: none"> <li>■ covered as needed (usually once in lifetime)</li> </ul>	<ul style="list-style-type: none"> <li>■ national vaccination program for children age 2, 4, and 6 months and adults age 65+ (<i>new in 2005</i>)</li> <li>■ national vaccination program for Indigenous Australians over 50 (and age 15-50 at high risk)</li> </ul>
Hepatitis B	<ul style="list-style-type: none"> <li>■ covered for those at risk</li> </ul>	<ul style="list-style-type: none"> <li>■ no systematic coverage for adults</li> <li>■ through GPs as clinically indicated</li> </ul>
<b>Other Benefits</b>		
Diabetes self-management	<ul style="list-style-type: none"> <li>■ diabetes self-management training</li> <li>■ blood glucose monitors and testing strips</li> </ul>	<ul style="list-style-type: none"> <li>■ self-care education included in MBS benefit for diabetic “annual cycle of care”</li> <li>■ monitors/test strips available through National Diabetes Supply Scheme</li> </ul>
Nutrition therapy	<ul style="list-style-type: none"> <li>■ for beneficiaries with diabetes or renal disease</li> </ul>	<ul style="list-style-type: none"> <li>■ review of diet included in MBS benefit for diabetic “annual cycle of care”</li> <li>■ may be provided through State/Territory programs</li> </ul>
Preventive physical exam (“Welcome to Medicare Visit”)	<ul style="list-style-type: none"> <li>■ One-time exam w/in 6 months of enrollment in Medicare Part B; includes height, weight and blood pressure measurement; electrocardiogram; and education, counseling and referral related to other covered preventive benefits (<i>new in 2005</i>)</li> </ul>	<ul style="list-style-type: none"> <li>■ annual health assessment and follow-up for age 75+ (55+ for Indigenous Australians) and aged care facility residents</li> <li>■ biannual health assessment and follow-up for Indigenous Australians age 15-54</li> </ul>

When Australia’s range of programs are considered together, the preventive services they provide are more similar than different to those covered by U.S. Medicare. However, in some respects, U.S. Medicare offers more expansive (and expensive) screening benefits. For example, U.S. Medicare covers screening mammograms annually versus every 2 years in Australia, and makes no differentiation between recipients age 40+ while Australia targets those age 50-69. Pap smear coverage under U.S. Medicare includes some newer technologies (such as liquid-based cytology), while Australia has concluded there is “currently insufficient evidence” to support public funding for this cervical screening method (DoHA 2004e). U.S. Medicare covers a range of colorectal cancer screening tests while Australia’s bowel pilot was limited to immunoassay FOBTs for a more limited target age group. And bone densitometry testing is widely available to postmenopausal U.S. beneficiaries, while such coverage is very limited under the Australian MBS.

Several preventive benefits under U.S. Medicare appear to have no distinctly identifiable national counterpart in Australia, such as routine cholesterol screening (to detect risk of cardiovascular disease) and glaucoma screening for those at high risk. U.S. Medicare covers routine prostate cancer screening while Australia does not. And while Australia is considering

a national diabetes strategy (with a potential screening component), U.S. Medicare's new screening benefit is already underway for those meeting specified risk factor criteria.

On the other hand, Australia's national strategies offer much greater scope and continuity for breast and cervical cancer screening, and its health assessments for older adults go way beyond the one-time preventive exam newly-covered by U.S. Medicare. It is also likely that some preventive services without a clear coverage mechanism may, in fact, be available (although not systematically) through Australia's more flexible approach to the statutory prevention restriction on the MBS, and the exclusion of high risk persons from the definition of "screening" tests (who would thus have access to such tests whenever needed, as determined by their GP).

Even accounting for vastly different financing and delivery systems in Australia and the United States, this comparison of preventive benefits raises interesting questions. For example, if coverage decisions are evidence-based, is each country considering different evidence? Or are they reaching different conclusions based on the same (or similar) evidence? To what extent are coverage decisions influenced by politics, and what other factors play a role? These questions merit further study beyond the scope of this paper; however, the answers also reflect each country's approach to insurance coverage (and other resource allocation) decisions, as considered in the following section.



### III. WORKING TOWARD EVIDENCE-BASED PREVENTION

#### A. Decision-Making Models

Australia has well-established processes for assessing both the clinical effectiveness and cost effectiveness of new medical services (covered under the MBS) and new pharmaceuticals (covered under the PBS) – that is, the two pillars of Medicare financed directly by the federal government. When questions arise as to whether a new prescription drug or medical procedure should be added to the Pharmaceutical Benefits Scheme or the Medicare Benefits Schedule (or, in some cases, whether coverage should be retained for an already-established benefit), a formal review is conducted by the Pharmaceutical Benefits Advisory Committee (PBAC) or the Medical Services Advisory Committee (MSAC), as appropriate. While neither committee has focused much attention on *preventive* services or pharmaceuticals, they offer important models for how evidence-based decision-making could be adapted to the realm of prevention.

PBAC was established in 1954 as an independent statutory body to advise the Health Minister on which prescription drugs should be made available as pharmaceutical benefits (NHA §101). The Committee is required by law to consider the effectiveness and cost of a proposed new benefit compared to existing alternative therapies. It also considers the appropriate dosage, refills, and indications for a new drug, and advises the Pharmaceutical Benefits Pricing Authority (which negotiates prices with the product's sponsor company) on cost issues (DoHA website c). Whether a new drug is recommended for listing on the PBS is independent of its approval by the Therapeutic Goods Administration (TGA), which considers the drug's safety and effectiveness for use in medical practice (the role of the Food and Drug Administration in the United States); however the drug's sponsor may apply to PBAC while TGA approval is still pending (Aroni et al. 2003).

Interestingly, cost effectiveness reviews were not part of PBAC's original mandate – this element was added to the statute in 1987 (but not fully implemented until 1993) in response to the escalating cost of pharmaceuticals and concerns about maximizing the efficient use of the taxpayers' money. Economic analyses are conducted by PBAC's Economics Sub-Committee, upon whose advice PBAC decides whether a new drug represents "value for money" (now the key criterion for listing on the PBS). Ultimately, the Health Minister may reject PBAC's affirmative recommendation of a drug or amend its proposed coverage parameters, but he may not add a new drug to the PBS that has not been endorsed by PBAC. Thus, while PBAC's role is "advisory", it holds substantial power over the shape of Australia's pharmaceutical benefits (Aroni et al. 2003; Duckett 2004).

In contrast, MSAC was established by the Health Minister in 1998 without a statutory mandate; thus it functions at the discretion of the Minister, who may accept or reject both its positive and negative recommendations. However, there has been no instance, to date, in which MSAC's advice has been overruled (unlike PBAC, whose recommended approval of Viagra was famously rejected by the Health Minister due to cost concerns in 2002) (Aroni et al. 2003).

MSAC is the latest incarnation in a series of Medicare advisory groups including the Australian Health Technology Advisory Committee (AHTAC) and the Medicare Benefits Advisory Committee (MBAC). Its primary mission is to advise the Health Minister on "the strength of evidence pertaining to new and emerging medical technologies ... in relation to their safety, effectiveness and cost effectiveness and under what circumstances public funding should be supported". The Committee may also propose interim funding to enable further data collection

when “evidence is inconclusive but suggests that the procedure could be safer, more effective, and more cost-effective” than an already-funded procedure (DoHA 2004e, pp. 1, 3). While most applications for assessment come from the medical industry, they may also originate with the Health Minister, the Australian Health Ministers Advisory Council (AHMAC), or the Department of Health and Ageing, as well as medical organizations or clinicians.

The year after MSAC’s creation in Australia, a new evidence-based coverage decision process (also including an expert advisory committee) was announced by U.S. Medicare (Federal Register 1999) (for diagnostic and treatment services only, as the agency lacks statutory authority to make coverage decisions for prevention). The program’s reviews may lead to one of three outcomes including “coverage based on evidence of benefit”, “non-coverage based on evidence of harm or no benefit”, or “non-coverage based on lack of evidence sufficient to establish either benefit or harm”. CMS recently adapted the latter category to allow for certain “rare instances” showing sufficient promise to support limited coverage contingent upon patients’ enrollment in an approved clinical trial or further data collection through an approved data registry. This condition is viewed as both a patient safeguard and a way to ensure the collection of further data upon which future coverage decisions may be based (CMS website a; Kolata 2004).

While the U.S. Medicare process directly affects only its 42 million elderly or disabled beneficiaries, it has enormous influence given the program’s dual role as the world’s largest single health care purchaser, and as a model for other public and private payers who often adopt its coverage policies. Exhibit 3 compares Australia’s MSAC to the U.S. Medicare Coverage Advisory Committee (MCAC) -- an element of U.S. Medicare’s National Coverage Determination (NCD) process.

**Exhibit 3: Comparison of Australia’s Medical Services Advisory Committee (MSAC) and U.S. Medicare Coverage Advisory Committee (MCAC)**

Advisory Body	Australia: Medical Services Advisory Committee (MSAC)	United States: Medicare Coverage Advisory Committee (MCAC)
Decision-Maker	Minister for Health and Ageing	Centers for Medicare & Medicaid Services (CMS)
Mission / Criteria	Advise Health Minister on whether new or existing medical procedures are safe, effective, and cost effective, and should receive public funding	Advise CMS on medical items or services being considered for coverage under “reasonable and necessary” standard of Medicare law; only one component of CMS’ National Coverage Determination (NCD) process
Membership	Includes medical specialists, general practitioners, epidemiologists, health economists, consumer representatives, health administrators/planners	Includes medical specialists, health policy experts, health economists, consumer and industry representatives
Assessment Applicants	Medical industry, professional organizations, Minister for Health, AHMAC, Dept. of Health and Ageing, clinicians	Medical industry, professional organizations, CMS, other government agency, member of the public
Process / Flexibility	<ul style="list-style-type: none"> <li>■ All eligible applications reviewed</li> <li>■ MSAC commissions independent technology assessment, appoints specialist committee</li> <li>■ Applicant and Department of Health and Ageing may comment on draft technology assessment</li> <li>■ Specialist committee submits advice to MSAC</li> <li>■ MSAC formulates recommendation, submits to Health Minister</li> <li>■ Health Minister issues decision and final technology assessment report</li> </ul>	<ul style="list-style-type: none"> <li>■ CMS accepts NCD application if determined to be complete, with evidence available</li> <li>■ CMS may (at its discretion) commission independent technology assessment and/or seek MCAC review and/or conduct in-house review</li> <li>■ If MCAC review: specialty panel holds open meeting(s), considers evidence, submits recommendation to CMS</li> <li>■ With or without MCAC review: CMS formulates draft decision, posts for public comment</li> <li>■ CMS finalizes and posts decision and implementation instructions</li> </ul>
Transparency	MSAC meetings are confidential; applicant may view and comment on draft research protocol and draft final report; final reports including technology assessments are posted on website upon endorsement by Health Minister; MSAC minutes (listing topics considered) also posted at that time	Status of NCD reviews are posted on website; MCAC meetings are public, minutes posted; technology assessments are posted; draft NCDs are subject to public comment; final decisions are posted including summary of, and CMS response to, public comments, and summary of evidence considered in decision

While both MSAC and MCAC play key advisory roles, they are substantially different in the following significant ways:

**Process / Flexibility:** The U.S. Centers for Medicare & Medicaid Services (CMS) has considerable discretion over whether to accept a request for an NCD (based both on completeness of the application and availability of relevant evidence), whether to commission an external technology assessment and/or seek review by its advisory committee (MCAC), or whether to conduct an evaluation entirely in-house. In contrast, in Australia, every application for a service potentially eligible for MBS reimbursement leads to a technology assessment, which may (on occasion) involve substantial time and resources only to find that evidence is lacking to answer the question at hand, or the application is withdrawn to make way for an even newer technology.

**Transparency:** The U.S. coverage decision process is significantly more transparent than its Australian counterparts, reflecting a trend toward ever-increasing demands for accountability of U.S. government entities. In fact, MCAC was “established to provide a public forum in which particularly complex or controversial decisions can be discussed” by both experts and stakeholders (Tunis 2004, p. 302). Recent amendments to U.S. Medicare law mandated further avenues for public comment into the NCD process, plus tighter timeframes and a mechanism for appeals (MMA §731). In contrast, the more limited transparency in Australia’s advisory and decision-making processes has been a source of controversy in that country, as well as (in the case of PBAC) an area of contention during negotiation of the Australia-United States Free Trade Agreement. Also, unlike MCAC, industry representation is conspicuously absent from MSAC though (in a controversial move) an industry-friendly member was added to PBAC in 2001. While the consequences of such transparency and stakeholder participation may be debated pro-and-con, U.S. officials view their increasingly open and systematic process as having “substantially reduce[d] the frequency and intensity of conflicts with stakeholders, and allow[ed] for an orderly and informed exchange of views” (Tunis 2004, p. 302).

**Mission / Criteria:** The key difference, however, between the Australian and U.S. processes is in the criteria used to assess whether public support of a new technology is warranted. MSAC’s standards (safety, effectiveness, cost effectiveness) are much more straightforward than the ambiguous “reasonable and necessary” rule of U.S. Medicare, for which clearly defined criteria have never been finalized. Most significantly, economic evaluations (considering “value for money”) are central to the mandate of both MSAC and PBAC, but have not been formally recognized as part of the U.S. process, to date. This distinction is reflected in the integral role played by health economists in MSAC and PBAC deliberations, while U.S. Medicare’s MCAC only recently added its first economist.

## B. The Role of Cost Effectiveness

In fact, the role of cost effectiveness in coverage decisions for U.S. Medicare (as well as other U.S. payers) has been a thorny issue for many years. In 1989, the Medicare agency invited comment on a proposed process and criteria for making coverage decisions, including “cost-effectiveness [as] one of several potential factors to be weighed” under some (though not all) circumstances. It proposed to add this previously unaddressed criterion based on the belief that “considerations of cost are relevant in deciding whether to expand or continue coverage ..., particularly in the context of the current explosion of high-cost medical technologies.” The proposal called for a “flexible definition of cost-effectiveness that encompasses a wide range of [quantifiable and nonquantifiable] impacts” (Federal Register 1989). Yet even this tentative approach elicited strong industry opposition and (after languishing for a decade) the proposal was withdrawn in 1999. It was replaced at that time with an announcement of the current NCD process, including clearly delineated procedures but no explicit criteria or mention of cost effectiveness.

The following year, CMS tried again to clarify the “reasonable and necessary” coverage standard for U.S. Medicare. In signaling its intent to develop a proposed regulation, the agency identified two “anticipated criteria”, including whether an item or service demonstrates “medical benefit” and “added value to the Medicare population” (with the latter principle limited to narrow circumstances) (Federal Register 2000). However, this latest approach to rulemaking was withdrawn in 2003 given “substantial competing interests” regarding the criteria. Instead, CMS announced that it would consider issuing “sector-specific guidance documents ... [on how] expectations and evaluation of evidence may differ ... depending on the nature of the topic under review” (Federal Register 2003). Absent formal rulemaking, the agency has continued to refine its NCD process to make it increasingly more efficient and user-friendly – but with still no reference to economic costs or benefits.

Commentators have proposed several explanations for Americans’ aversion to cost effectiveness as an insurance coverage criterion. Neumann (2004, p. 309) suggests such resistance “is grounded ... in Americans’ deep-seated distaste of limits and of the corporate or government officials who impose them.” He also notes that cost effectiveness analyses (CEA) are never value-neutral and “may not capture public preferences for allocation of limited resources”. Tunis similarly cites (among other factors) “public resistance to recognizing that healthcare resources are limited” (Tunis 2004, p. 303), which may be heightened when decisions are controlled by organizations for whom reduced spending on treatment is linked to increased profits for managers and investors (as is the case for many U.S. private payers, though not for Medicare). Jackson suggests that “when for-profit entities are the only obvious beneficiaries of more rational allocation of health care resources, such policies will continue to lack public legitimacy”. In contrast, “in countries with tax-funded health care systems [like Australia] ... funders of care have greater legitimacy in placing limits in the name of the society as a whole”. While U.S. Medicare (as a publicly-funded program) should arguably merit the same respect, Jackson notes that “retirees bring the habits and expectations of their working life to U.S. Medicare” (Jackson 2001, pp. 326, 327).

Neumann likewise suggests that other countries’ acceptance of CEA confirms that the United States’ failure in this regard “is driven more by [its] own cultural, political, and institutional conditions than by the technique’s inherent methodological shortcomings”. Americans have demonized managed care for trying to limit their choice of treatments and providers, and may view cost effectiveness as a more formal means to achieving the same end. In the case of U.S. Medicare, Neumann compares CEA to “an elephant in the living room, officially ignored despite its obvious importance” and predicts “coverage decisions [will continue to] reflect an untidy combination of evidence-and politics-based medicine ... in which CEA plays a behind the scenes but not explicit role” (Neumann 2004, pp. 309, 311-312).

The proposed connection between managed care and Americans’ resistance to CEA raises further questions such as whether the lack of CEA in U.S. coverage processes has helped propel the growth of managed care. Conversely, has Australians’ acceptance of CEA as a proper role for policymakers helped to keep managed care at bay? While answers to these questions are beyond the scope of this paper, it is interesting to note that the most scathing thing often said about a health-related proposal in Australia is that it’s “akin to U.S.-style managed care!” Paradoxically, however, Australians accept without question that access to specialists should be controlled by a primary care gatekeeper – a classic element of U.S. managed care.

Whatever the relative importance of economic analyses in Australian vs. U.S. Medicare, both countries’ coverage decision processes reflect – indeed, are at the forefront of – a trend toward evidence-based decision-making in health care financing, building on the “evidence-based medicine” (EBM) movement that preceded it. That movement (based on early work by Cochrane and others) has led to a system of international protocols for assessing the effectiveness of health care interventions based on empirical evidence, not just expert opinion

or traditional practices. While EBM and its progeny usually address only clinical effectiveness, there is increasing interest in economic issues and multi-intervention comparisons. Neumann and Johannesson (1994, p. 206) describe this as an “ongoing expansion of technology assessment’s focus from questions of “Is it safe?” and “Does it work?” to ... the previously inviolate notion of “Is it worth it?”” However, experts note that, when cost is considered at all, it is properly addressed only *after* clinical effectiveness has been demonstrated.

## C. Application to Prevention

While the value of EBM is now widely accepted in clinical medicine, there is less consensus on its feasibility in the realm of population health. *Should* EBM principles and an MSAC-like advisory model be applied to prevention? When this question was posed to a range of Australian health policy experts, the response was an overwhelming ‘yes’ – with caveats. Frequently cited concerns involve the adequacy of data, the adaptability of methods, and the inevitable influence of politics.

**Adequacy of Data:** While authoritative evidence on the effectiveness of some public health measures (such as tobacco control) has long been available, a lack of sound research on many preventive interventions is viewed as a major obstacle. However, many reject the notion that limited data precludes the development of an evidence-based framework for prevention, noting that MSAC is often obliged to make recommendations based on less-than-optimal evidence. Advocates of an MSAC-like process for prevention concede the need to go forward with programs for which good evidence may be lacking, but suggest they be used as an opportunity to generate better evidence.

At the same time, some Australian officials express frustration with what they view as a perpetual search for more evidence while ignoring (or underfunding) preventive approaches that we already know are worthwhile. They suggest a more productive research agenda would focus on ways to improve access to already-validated services in underserved populations or geographic areas. A further perspective (from the U.S.) is offered by McGinnis et al. (2002, p. 90), who propose that research be expanded to “include more attention to understanding how social factors and social environments affect health and well-being”.

**Adaptability of Methods:** Supplementing concerns about the scope of available evidence, many experts cite methodological hurdles in applying EBM principles to population health. Frommer and Rychetnik (2003) note that the criteria used to appraise the quality of clinical research are incomplete for appraising research in public health settings, where randomized clinical trials (the EBM “gold standard”) may be neither feasible or appropriate. Prevention often involves multiple activities with multiple players, across a variety of sectors; thus isolating the effects of any one intervention or combination of interventions may require new and customized research protocols and measures of success. Comparative cost effectiveness analyses of prevention may be even more challenging, as alternative approaches may involve different modalities, in different settings, seeking somewhat different outcomes (as opposed to the much simpler task of comparing two drugs prescribed for the same illness). The timeliness of cost reviews may also be at issue as the prerequisite clinical effectiveness of many preventive interventions has yet to be demonstrated.

In addition, many preventive services target behavioral risk factors, which are greatly influenced by social conditions and health inequalities. The MSAC model is not well equipped to address these confounding elements, leading some to believe prevention is too complex for a similar process. Finally, experts point to long time intervals between many preventive interventions and their measurable outcomes, and (for cost factors) between the point of investment and when any savings might accrue. For policymakers focused on short-term budget forecasts or the length of time between elections, the long-term successes of prevention strategies may seem unacceptably tenuous.

As a result, as EBM has spread to public health and other settings, it has become necessarily more eclectic, considering any type of research with a rigorous methodology (not just randomized clinical trials). To aid in that process, the National Public Health Partnership has published “*A Schema for Evaluating Evidence on Public Health Interventions*” (Rychetnik & Frommer 2002), to supplement the checklists and criteria used in clinical medicine.

**Influence of Politics:** A further area of concern in extending EBM principles is the inherently social and political nature of population health, which may play out in many ways. Frommer and Rychetnik (2003, pp. 58, 69) caution that allocating public health resources solely on the basis of effectiveness evidence (devoid of values or politics) would be neither feasible or ethical; however evidence may “initiate, inform or justify ... social and political arguments”. Aroni et al. (2003, p. 98) suggest that “the production and acceptance of scientific knowledge is a political as well as a technical process”. Even the decision to seek out evidence (especially in relation to costs) may reflect a political agenda, in some cases undermining the credibility of the resulting data. On the other hand, evidence may not yield the desired result or support politically popular programs, thus making it a tricky political proposition.

Considering this dilemma, Gibson (2003, p. 24) cites the hypothesis (posed by Dery) that “politicians or administrators reject data that do not coincide with behaviour they are unwilling to change; and ... change behaviour that does not coincide with data they are unwilling to reject.” More often, however, politicians are frustrated by a lack of relevant and objective evidence. Thus, some experts note, the larger challenge may be not that politics supersedes evidence, but that researchers fail to collect, analyze, and present evidence in ways that are most useful to policymakers. Moodie (2005, p. 21) suggests this may require a new type of public health practitioner schooled in “how governments and political parties make policy, how decisions are made, how resources are allocated and how this can be influenced for the public good.”

Addressing these complexities, Australian experts and academics are in the vanguard of movements to extend EBM principles to the field of public health, as well as health policy decision-making processes overall. For example, the Sydney Health Projects Group at the University of Sydney’s School of Public Health has developed an excellent curriculum to teach public health administrators and policymakers how to *interpret* and *apply* relevant research (supplementing courses for a different audience on how to *conduct* such research directly) (SHPG website). A thoughtful collection of essays on “*Evidence-based Health Policy*” edited by Lin and Gibson (2003) explores the intersection between EBM and public policy analysis, seeking to define both areas more broadly and expand their often rigid methodologies. Australians are also in the leadership of an international effort to expand the long-established Cochrane Collaboration<sup>10</sup> into the realm of public health and health promotion (Cochrane website).

While these approaches go beyond preventive health care (as that term is used in this paper), they point the way toward potential models for evidence-based prevention policy. Indeed, while EBM principles have focused primarily on medical treatments (not prevention), the U.S. Preventive Services Task Force was the first to adapt a hierarchy used to plan clinical research to the purpose of judging the strength of such research, resulting in a “level of evidence” framework now used for all types of evidence reviews (Frommer & Rychetnik 2003). In 2001, the Task Force further refined that methodology so that its graded recommendations now reflect not only the strength of evidence on a given intervention but also its magnitude of benefit.

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<sup>10</sup>The Cochrane Collaboration, first established in 1993, is an international organization amassing systematic evidence reviews of health care interventions according to consistent protocols.

## D. Comparing Coverage to Guidelines

Even as such models are being adapted to prevention, the pathway from evidence to insurance coverage (or other public funding) is not always clear. The goal of evidence reviews (to assess what's known about an intervention's effectiveness and cost) and the goal of health insurance (to ensure access to services) do not always coincide, and (as noted above) the political pressures on any public program must be taken into account.

The difficulties in aligning funding decisions with evidence are illustrated by the extent to which current preventive coverage under U.S. Medicare and Australian public programs reflect or digress from each country's prevention recommendations. Exhibit 4 compares coverage for screening and immunisation with authoritative guidelines in each country, including those of the U.S. Preventive Services Task Force and the National Health and Medical Research Council (NHMRC) and other sources in Australia. This Exhibit also shows differences between the two countries' recommendations in regard to the same or similar services.

**Exhibit 4: Funded Screening and Immunisation Benefits Compared to Evidence-Based Recommendations**

<i>Covered under U.S. Medicare</i>	<i>Recommendations by U.S. Preventive Services Task Force (Date) *</i>	<i>Covered under Australian Public Programs</i>	<i>Australian Recommendations (Source / Date) **</i>
<b>Breast Cancer Screening</b>			
<ul style="list-style-type: none"> <li>■ annual mammogram for age 40+ (including digital technologies)</li> <li>■ one-time baseline mammogram age 35-39</li> </ul>	<ul style="list-style-type: none"> <li>■ mammogram every 1-2 yrs for age 40+ (2002)</li> </ul>	<ul style="list-style-type: none"> <li>■ mammogram (and related services) every 2 yrs through national strategy (target age 50-69)</li> <li>■ through GP referral, as needed, for high risk</li> </ul>	<ul style="list-style-type: none"> <li>■ women under 40: mammographic screening not recommended</li> <li>■ women 40-49: no recommendation (eligible for biannual screening at own discretion)</li> <li>■ women 50-69: biannual mammography recommended</li> <li>■ women age 70+: no recommendation (eligible for biannual screening at own discretion)</li> <li>■ women at increased risk: individualised surveillance program recommended</li> </ul> <p>(NBCC 2004)</p>
<b>Cervical Cancer Screening</b>			
<ul style="list-style-type: none"> <li>■ Pap smear every 2 yrs (including automated technologies) (annual for high risk)</li> <li>■ pelvic exam (and clinical breast exam) every 2 yrs (annual for high risk)</li> </ul>	<ul style="list-style-type: none"> <li>■ Pap smear at least every 3 yrs if ever sexually active</li> <li>■ end screening after 65 if recent normal Pap smears and not at high risk</li> <li>■ insufficient evidence re: automated Pap technologies or HPV test as primary screening method</li> </ul> <p>(2003)</p>	<ul style="list-style-type: none"> <li>■ Pap smear/pelvic exam (and related services) (not including automated technologies) every 2 yrs through national strategy and GPs (target age 20-69)</li> <li>■ through GPs as clinically indicated</li> </ul>	<ul style="list-style-type: none"> <li>■ Pap smear every 2 yrs if ever sexually active, between age 18 and 70</li> <li>■ age 70+: doctor may advise discontinuing Pap smears if last 2 normal smears w/in last 5 yrs</li> </ul> <p>(NCSP – undated publication, posted on website updated Dec. 2004)</p>

**Exhibit 4 continued: Funded Screening and Immunisation Benefits Compared to Evidence-Based Recommendations**

Covered under U.S. Medicare	Recommendations by U.S. Preventive Services Task Force (Date) *	Covered under Australian Public Programs	Australian Recommendations (Source / Date) **
<b>Prostate Cancer Screening</b>			
<ul style="list-style-type: none"> <li>■ annual PSA age 50+</li> <li>■ annual digital rectal exam age 50+</li> </ul>	<ul style="list-style-type: none"> <li>■ insufficient evidence for or against routine screening w/ PSA or digital rectal exam (2002)</li> </ul>	<ul style="list-style-type: none"> <li>■ not covered as a routine screening test</li> <li>■ through GPs as clinically indicated</li> </ul>	<ul style="list-style-type: none"> <li>■ recommends against screening of asymptomatic men (AHTAC 1996)</li> </ul>
<b>Colorectal Cancer Screening</b>			
<ul style="list-style-type: none"> <li>■ annual FOBT (guaiac or immunoassay) age 50+</li> <li>■ flexible sigmoidoscopy every 4 yrs age 50+</li> <li>■ colonoscopy every 10 yrs (every 2 yrs for high risk)</li> <li>■ barium enema (alternative to flexible sigmoidoscopy or colonoscopy)</li> </ul>	<ul style="list-style-type: none"> <li>■ screen men and women age 50+</li> <li>■ insufficient data to determine which strategy is best; likely cost-effective regardless of strategy</li> <li>■ unclear whether increased accuracy of colonoscopy offsets additional complications, inconvenience, cost (2002)</li> </ul>	<ul style="list-style-type: none"> <li>■ pilot strategy through GPs for immunoassay FOBT (target age 55-74), in evaluation phase</li> <li>■ national strategy under development</li> <li>■ through GPs or GP referral as clinically indicated</li> </ul>	<ul style="list-style-type: none"> <li>■ FOBT every 1-2 yrs for people over age 50</li> <li>■ flexible sigmoidoscopy every 5 yrs for people over age 50</li> <li>■ people w/ family history and average or slightly elevated risk: annual FOBT and consider sigmoidoscopy every 5 yrs after age 50</li> <li>■ people w/ family history and moderate risk: colonoscopy every 5 yrs at age 50+ (or 10 yrs younger than first family diagnosis) + FOBT each intervening year (NHMRC 2000)</li> </ul>
<b>Glaucoma Screening</b>			
<ul style="list-style-type: none"> <li>■ annual screen for those at high risk</li> </ul>	<ul style="list-style-type: none"> <li>■ insufficient evidence for or against routine screening</li> <li>■ patients at high risk may benefit from screening (1996)</li> </ul>	<ul style="list-style-type: none"> <li>■ not covered as a routine screening test</li> <li>■ through GPs as clinically indicated</li> </ul>	<ul style="list-style-type: none"> <li>■ no guidelines readily available</li> </ul>

**Exhibit 4 continued: Funded Screening and Immunisation Benefits Compared to Evidence-Based Recommendations**

<i>Covered under U.S. Medicare</i>	<i>Recommendations by U.S. Preventive Services Task Force (Date) *</i>	<i>Covered under Australian Public Programs</i>	<i>Australian Recommendations (Source / Date) **</i>
<b>Screening for Type 2 Diabetes</b>			
<ul style="list-style-type: none"> <li>■ diabetes screen for those at high risk <i>(new in 2005)</i></li> </ul> <p>Risk factors include:</p> <ul style="list-style-type: none"> <li>■ hypertension</li> <li>■ dyslipidemia</li> <li>■ obesity</li> <li>■ history of impaired fasting glucose or glucose tolerance</li> <li>■ or at least 2 of following: overweight, family history of diabetes, history of gestational diabetes or baby over 9 pounds, age 65 or older</li> </ul>	<ul style="list-style-type: none"> <li>■ screen adults w/ hypertension or hyperlipidemia</li> <li>■ insufficient evidence for or against routine screening in asymptomatic adults <i>(2003)</i></li> </ul>	<ul style="list-style-type: none"> <li>■ not covered as a routine screening test</li> <li>■ through GPs as clinically indicated</li> <li>■ national diabetes strategy under consideration</li> </ul>	<ul style="list-style-type: none"> <li>■ screen people w/ impaired glucose tolerance or fasting glucose</li> <li>■ screen Indigenous Australians (and certain other high-risk ethnic groups) age 35+</li> <li>■ screen age 45+ w/ obesity and/or hypertension; women w/ obesity and polycystic ovary syndrome; people w/ cardiovascular disease <i>(NHMRC 2001)</i></li> </ul>
<b>Cardiovascular Risk (Blood Lipid) Screening</b>			
<ul style="list-style-type: none"> <li>■ blood lipid (cholesterol) test <i>(new in 2005)</i></li> </ul>	<ul style="list-style-type: none"> <li>■ screen for lipid disorders in men 35+ and women 45+</li> <li>■ screen younger adults if other risk factors for coronary heart disease <i>(2001)</i></li> </ul>	<ul style="list-style-type: none"> <li>■ not covered as a routine screening test</li> <li>■ through GPs as clinically indicated</li> </ul>	<ul style="list-style-type: none"> <li>■ regular blood lipid testing recommended for age 45+ (at least annually for adults at high risk)</li> <li>■ screen younger adults if other risk factors for coronary heart disease</li> <li>■ general population screening regardless of age not recommended <i>(NHFA/CSANZ 2001)</i></li> </ul>
<b>Osteoporosis Screening (Bone Densitometry)</b>			
<ul style="list-style-type: none"> <li>■ bone densitometry for estrogen-deficient women and others at high risk of osteoporosis</li> </ul>	<ul style="list-style-type: none"> <li>■ screen women 65+ (60+ for women at increased risk)</li> <li>■ no recommendation for or against screening younger postmenopausal women <i>(2002)</i></li> </ul>	<ul style="list-style-type: none"> <li>■ screening covered under MBS for limited high-risk groups (including history of low-impact fracture; excluding postmenopausal women absent history of fracture)</li> </ul>	<ul style="list-style-type: none"> <li>■ bone densitometry recommended for patients age 45+ presenting low trauma fracture</li> <li>■ DEXA scan recommended for women at high risk of osteoporosis <i>(OA 2002)</i></li> </ul>

**Exhibit 4 continued: Funded Screening and Immunisation Benefits Compared to Evidence-Based Recommendations**

<i>Covered under U.S. Medicare</i>	<i>Recommendations by U.S. Preventive Services Task Force (Date) *</i>	<i>Covered under Australian Public Programs</i>	<i>Australian Recommendations (Source / Date) **</i>
<b>Influenza Immunisation (Adults)</b>			
<ul style="list-style-type: none"> <li>■ covered annually</li> </ul>	<ul style="list-style-type: none"> <li>■ annual flu vaccination for age 65+ and others at high risk (1996)</li> </ul>	<ul style="list-style-type: none"> <li>■ covered annually under national program for age 65+</li> <li>■ covered annually under national program for Indigenous Australians over 50 (and age 15-50 at high risk)</li> </ul>	<ul style="list-style-type: none"> <li>■ recommended annually for age 65+ (age 50+ for Indigenous Australians) (NHMRC 2003)</li> </ul>
<b>Hepatitis B Immunisation (Adults)</b>			
<ul style="list-style-type: none"> <li>■ covered for those at risk</li> </ul>	<ul style="list-style-type: none"> <li>■ recommended for young adults not previously immunized and all persons at high risk (1996)</li> </ul>	<ul style="list-style-type: none"> <li>■ no systematic coverage for adults</li> <li>■ through GPs as clinically indicated</li> </ul>	<ul style="list-style-type: none"> <li>■ recommended for infants and pre-adolescents, and others in certain high risk groups (NHMRC 1996)</li> </ul>
<b>Pneumococcal Immunisation (Adults)</b>			
<ul style="list-style-type: none"> <li>■ covered as needed (usually once in lifetime)</li> </ul>	<ul style="list-style-type: none"> <li>■ recommended for age 65+ and others at increased risk (1996)</li> </ul>	<ul style="list-style-type: none"> <li>■ covered under national program for children age 2, 4, and 6 months and adults age 65+ (<i>new in 2005</i>)</li> <li>■ covered under national program for Indigenous Australians over 50 (and age 15-50 at high risk)</li> </ul>	<ul style="list-style-type: none"> <li>■ recommended for age 65+ (50+ for Indigenous Australians) (NHMRC 2003)</li> </ul>

\* Recommendations of the U.S. Preventive Services Task Force may be accessed at <http://www.ahrq.gov/clinic/uspstfix.htm>.

\*\* Key to Australian sources:

NBCC = National Breast Cancer Centre

NCSP = National Cervical Screening Program

NHMRC = National Health and Medical Research Council

AHTAC = Australian Health Technical Advisory Committee (NHMRC subcommittee)

NHFA = National Heart Foundation of Australia

CSANZ = Cardiac Society of Australia and New Zealand

OA = Osteoporosis Australia

While each country's coverage generally reflects its own experts' guidelines, there are some discrepancies. In several cases, U.S. Medicare benefits (enacted by Congress) are more generous than the USPSTF recommends. For example, screening Pap smears are covered every two years with no cutoff age despite the Task Force's conclusion that a three year interval, ending for most women at 65, would be adequate. U.S. Medicare covers a broader range of colorectal screening methods than the Task Force has clearly endorsed. U.S. Medicare also covers prostate cancer screening while the Task Force notes "insufficient evidence for or against" such routine tests. However, in making such comparisons, it is important to keep in mind that *lack of evidence on effectiveness* is not the same as a finding of *ineffectiveness*. And given the differing goals of insurance and evidence reviews, some would argue that insurance coverage should be broader than the universe of definitively "proven" tests – or should at least interpret the available evidence expansively. On the other hand, preventive interventions may be offered to large numbers of *healthy* people; thus the burden of proving effectiveness (and minimal harm) is arguably even more important for prevention than for therapeutic treatments.

Conversely, Australian coverage appears to be less generous in some respects than is supported by relevant guidelines. For example, NHMRC's recommendation of flexible sigmoidoscopy every 5 years after age 50 (in addition to FOBT) is not included in the proposed bowel screening strategy. Australia's MBS does not cover routine cholesterol screening tests as recommended by its National Heart Foundation and Cardiac Society for those over 45. And bone densitometry coverage excludes most postmenopausal women despite Osteoporosis Australia's recommendation of such testing for women "at high risk of osteoporosis" (noting in their Guidelines for GPs that only a subset of these "attract a Medicare rebate") (OA 2002).

In addition, there appear to be differences between the recommendations of U.S. and Australian experts, such as the targeting of mammography, the frequency of Pap smears, the strength of prostate screening guidance, and the proposed scope of bone densitometry. However, such comparisons are complicated by Australia's lack of a single authoritative source of guidance on prevention comparable to the U.S. Preventive Services Task Force (for clinical preventive services) or the Task Force on Community Preventive Services (for broader population health programs). Raupach et al. (2001, p. 354) note that "a lack of standardized guidelines and, in some cases, inconsistent guidelines about health promotion and disease prevention issues contribute to a lack of clarity in the educational messages provided to [Australian] GPs." Some Australian guidelines may also reflect advocacy interests; thus they may be viewed as less impartial than those issued by an entity like NHMRC. These concerns are echoed in a 2004 Australian Government review of investment in health and medical research, which observed that the "current guideline development process is fragmented and inconsistent, with a range of organisations developing [health] guidelines, largely based on their own priorities" (Investment 2004).

Apart from the proposed vs. funded parameters for services that are covered in each country, it would be instructive to identify cases where evidence-based recommendations are not reflected in public benefits at all. While a comprehensive review of such omissions is beyond the scope of this paper, examples of USPSTF-recommended services not covered by U.S. Medicare have been noted by the Partnership for Prevention, including diphtheria-tetanus booster vaccinations; screening for depression, hearing impairment and visual acuity; and counseling on tobacco cessation, diet, injury prevention, and the use of aspirin to prevent heart disease (Partnership 2003a).

## E. Pathways From Evidence to Funding

Despite lingering gaps between guidelines and funded services, prevention coverage in each country is fairly consistent with expert recommendations. However, such coverage has come (in both countries) in fits and starts – propelled by “issues of the day” and windows of political opportunity. This uncertainty has inspired a number of innovative initiatives aimed at establishing a more reliable pathway between evolving knowledge of “what works” and actual access to services. Since access depends largely on funding (through insurance benefits, public health budgets, or other mechanisms), the designers of such processes understand that a more prevention-focused system cannot be achieved without a link to some sort of funding opportunities.

In describing the need for such a process, one Australian expert laments that medical care and pharmaceuticals are financed through an “entitlement model” while prevention has been relegated to a “begging model” (Interviews 2004). The result is underfunded prevention and a skewed financing system with incentives not to deal with health until it reaches a problematic stage. Moodie (2005, p. 19) suggests this tendency is exacerbated by “little, or no, voter demand ... for prevention”, while consumer demand is high “for the latest therapies”.

**Australian Examples:** To strengthen the “business case” for investment in prevention, the Australian Government Department of Health and Ageing commissioned a study from Applied Economics, which was viewed as a necessary first step toward developing a more systematic process for funding decisions. The resulting report (*“Returns on Investment in Public Health”*), issued by the Department in 2003, provided epidemiological and economic analyses of public health programs aimed at reducing tobacco consumption and heart disease, preventing HIV/AIDS, vaccinating children against measles and *haemophilus influenzae* type b (Hib) diseases, and increasing road safety. For each program, the authors estimated costs over one to three decades (based on available data); reduction in disease or injury and resulting effects on longevity, quality of life, and health expenditures; and savings to society (in general) and government (in particular). In each case, they found major health benefits and a positive return on investment. For example, smoking prevention activities were found to have saved the government \$344 million in treatment costs, equaling \$2 for every dollar spent on anti-smoking programs over the last three decades (Applied Economics 2003).

This study is viewed as a milestone not only for its actual results but for the fact that it was undertaken by a government entity. Some officials involved in the project describe its impact, to date, as “extraordinary” (Interviews 2004). It has been cited by a wide range of senior decision-makers, both to illustrate Australia’s achievements in public health and the cost implications of successful programs. Perhaps more importantly, it has grabbed the attention of the media, sparking editorials on the need for increased government investment in prevention. Some predict the report’s greatest benefit will be in helping to make a case for such investment to Treasury officials who oversee macro-economic policy and budgets beyond the health portfolio. The ultimate goal is to change the perspective of policymakers to see funding for prevention as a long-term investment, not just a short-term deficit.

In conjunction with this effort, federal officials have signaled interest in developing a consistent, evidence-based process to inform government decisions on investment in prevention. Such a model was first proposed in the late 1990s with the dual goals of facilitating funding decisions and addressing system fragmentation (by reallocating resources across sectors), as supported by evidence. A more recent proposal would design a “priority setting mechanism” to review prevention initiatives against standardized criteria (for example, sensitivity of the issue, magnitude of the problem, and the intervention’s expected costs and benefits). However, unlike MSAC and PBAC reviews, which may lead to funding if endorsed by the Health Minister, the envisioned process for prevention would go through the usual budget channels. While this would be a less assured pathway to funding than some advocates would prefer, it’s viewed as

a way to promote better informed decision-making for prevention, including consideration of a decision's economic consequences.

**U.S. Examples:** Similar efforts are underway in the United States to enhance prevention under U.S. Medicare and to depoliticize coverage decisions for new preventive services. In 2003, the Partnership for Prevention issued a report titled *"A Better Medicare for Healthier Seniors: Recommendations to Modernize Medicare's Prevention Policies"*. The report identified barriers to expanding prevention coverage for Medicare beneficiaries and proposed alternatives to Congress and CMS for a more rational decision-making process. Under the current process, it noted, "Congress is burdened by the inefficiencies of service-by-service decision-making about frequently complex clinical prevention matters. Some preventive services that provide great health benefits at a low cost are overlooked in favor of other services that do not meet [sufficient] evidence standards to be recommended, but have effective political advocacy groups. ... The ideal decision-making process would be proactive, comprehensive, and coordinated and based upon rigorous review of scientific evidence and expert guidance" (Partnership 2003a, pp. 3-4).

While noting several alternative ways of achieving this goal, the Partnership's "preferred option" urged Congress to amend the Medicare statute to empower CMS to make coverage decisions for clinical preventive services based on evidence-based recommendations, such as those of the U.S. Preventive Services Task Force (consistent with the Medicare coverage determination process already applied to other types of services). Other recommendations urged Congress to give CMS flexibility to determine the types of preventive service providers eligible for reimbursement; to require greater collaboration on preventive care between CMS, the Agency for Healthcare Research and Quality (AHRQ), the Centers for Disease Control and Prevention (CDC), and other agencies; and to support the development of further evidence-based recommendations for prevention (Partnership 2003a).

In a supplement to this report, the Partnership (2003b) analyzed the costs and benefits to Medicare of covering cholesterol screening, tobacco cessation counseling, vision screening, and a prevention-focused "Welcome to Medicare" examination (all non-covered services at that time, though Congress has since enacted a cholesterol screening benefit and a one-time preventive physical exam – presumably due, in part, to the Partnership's advocacy). While the Partnership predicted a substantial "return on investment" for the analyzed services, it cautioned that most preventive care will not save money or break even; thus it is imperative that policymakers understand the difference between *cost effectiveness* (improving health and quality of life for a reasonable cost) and *cost savings* (the unrealistic benchmark often applied by Congress in considering new preventive benefits for Medicare). (Partnership 2001, 2003a, 2003b). Neumann (2004) similarly warns that cost effectiveness analyses "should never be conceptualized or promoted as a cost-containment tool but rather as a technique to obtain better value". These reminders suggest that, while Australian policymakers have accepted "value for money" as an appropriate standard for public expenditures, the concept may still be poorly understood and at times misapplied in the United States.

Other Partnership for Prevention projects (currently in-progress) include a collaboration with Rand Corporation to identify approaches to improving prevention that could be implemented by CMS in the short-term without a statutory change, and a National Commission on Prevention Priorities to rank USPSTF-recommended services according to their clinically preventable burden and cost effectiveness (thus helping providers and payers maximize their prevention resources).

These efforts supplement projects overseen by CMS under the umbrella of its "Healthy Aging Initiative". Informed by a series of "evidence reports" (CMS website c), a seven-state Medicare smoking cessation demonstration project is nearing completion in 2005, and a behavioral risk reduction demonstration is under development. The former pilot will identify the best ways

to help elderly beneficiaries stop smoking; the latter will test a risk assessment questionnaire coupled with customized follow-up (e.g., information by mail or Internet with-or-without telephone coaching to support behavior change). While both projects were undertaken with the assumption that Congressional action would be needed to translate results into regular Medicare benefits, they are meant to help guide such decisions along a more clearly-defined path from evidence to funding.

However, in December 2004, CMS signaled its intention to create a smoking cessation counseling benefit for Medicare patients diagnosed with a smoking related illness, or on medication for which dosing or metabolism is affected by tobacco use (CMS website d). Defining smoking cessation as “treatment” for a medical condition, not “prevention” (as it has been viewed in the past), allows CMS to pursue such coverage under its current authority. While this strategy is limited to those who are already ill rather than preventing illness, it arguably moves the program closer to applying its coverage decision process to a wider range of services.

Similarly, the role of the U.S. Preventive Services Task Force and its influence on U.S. Medicare policy have evolved over time. While the first Task Force was convened in 1984 with a narrow mandate, the second and (current) third Task Forces (convened in 1990 and 1998, respectively) have become increasingly visible beyond their original clinical audiences. Most notably, Congress seems to have “discovered” the Task Force in recent years, as seen in a number of bills citing its recommendations as the requisite standard for either an individual proposed Medicare benefit or proposed revisions to the Medicare coverage decision-making process for prevention overall.

Despite Americans’ resistance to cost effectiveness as an insurance criterion, some suggest this approach may be *more* appropriate – even imperative -- for prevention as compared to other types of coverage. For example, while USPSTF recommendations are based solely on evidence of clinical effectiveness, a Cost Work Group of the Task Force suggests that “[c]ost-effectiveness is particularly relevant for decisions about how to implement preventive services, because these decisions typically represent major investments in the future health of large populations” (Saha et al. 2001, p. 36). From a different angle, in identifying challenges to cost effectiveness as a decision tool, Tunis (2004) cites its “highly problematic [nature when] translated to decisions about the care of individual patients ... who may be unable to obtain [a] potentially beneficial intervention because it has been deemed not to be worth the price.” Arguably, this logic could be inverted to suggest such analyses might be better suited (or at least less problematic) to interventions planned on a population-wide basis.

In fact, in a recent dual precedent, CMS issued its first national coverage determination on a new preventive technology (immunoassay fecal occult blood tests) and acknowledged its first explicit consideration of cost effectiveness as a factor in an NCD. These actions were enabled by the unique wording of the statute (BBA 1997) that established Medicare coverage of colorectal cancer screening, which authorized the U.S. Secretary of Health and Human Services to add coverage of new colorectal screening tests at a future date, thus creating a placeholder for new technology without further action by Congress (as would otherwise have been required). The cost effectiveness of the immunoassay FOBTs as compared to traditional guaiac-based FOBTs was considered in both the technology assessment prepared for CMS’ coverage review and in its pricing of the new tests (CMS website b; Tunis 2004).

In a second coverage authority “placeholder” provision for new types of prostate cancer screening tests, Congress explicitly required the consideration of costs in addition to other factors (BBA 1997). Several Congressional proposals to allow CMS to make coverage decisions for prevention overall have also conditioned that authority on evidence that a new preventive benefit is medically effective and either cost effective or a cost saver (U.S. House 1999, 2001). While no such proposal has been enacted, to date, they signal Congress’ willingness to consider cost effectiveness mandates for prevention while still sidestepping

them for other types of coverage decisions. In an interesting contrast, Australia has clearly established cost effectiveness as a key coverage criterion for its other services (diagnostics, treatment, pharmaceuticals), but has not yet reached consensus on a similar model for prevention.



## IV. CHALLENGES FOR AUSTRALIA AND THE UNITED STATES

In exploring pathways from evidence to funding, Australia and the United States face many common challenges. In both countries, prevention is widely viewed as undervalued and underresourced in a culture dominated by “curative medicine”. Australian spending on public health (of which prevention is a subset) has held steady at about two percent of total recurrent health expenditures since the early 1990s (AIHW 2001). Comparable estimates in the United States range from three percent (NCHS 2004) to five percent (McGinnis 2002), though cross-country comparisons are difficult as definitions may vary considerably.

Both countries face escalating health care costs for the aging “baby boom” generation (though an aging population per se is cited as second to demands for new technology in driving predicted spending increases) (Commonwealth 2002). Australian and U.S. health officials place the aging-related “chronic disease epidemic” amongst their top priorities, and cite prevention as a crucial strategy in addressing this looming threat to each nation’s productivity (HHS 2003; Treasury 2004). Some more cautious observers predict prevention will not reduce costs, only defer them, but agree that investment in prevention may be warranted on other grounds (Interviews 2004).

More broadly, both countries face challenges in applying what Moodie terms the “new public health” to address diseases associated with longevity, industrialisation, health inequalities, and environmental damage, many of which may be largely preventable. He suggests that “21<sup>st</sup> century public health” must better understand the language and culture of non-health sectors imposing barriers to health, such as economics, politics, commerce and advertising (Moodie 2005).

Both countries face challenges in overcoming perceived disincentives to investment in prevention, which may be viewed as less urgent or tangible than other services with which it must compete for funds. Perhaps most importantly, policymakers must reconsider the timeframes used to assess the returns on their investments; for example, the five- and ten-year budget windows used by the U.S. Congressional Budget Office to estimate costs or savings of proposed legislation will fail to capture the long-term promise of many preventive services.

Finally, many experts identify the engagement of consumers as a high priority in improving preventive health care in Australia – an equally challenging goal in the United States. Such involvement may come through education, community programs, or financial incentives, but the designers of such programs must take care not to “blame the victim” in encouraging consumers to address behavioral risk factors such as diet, smoking, or inactivity.

Beyond these shared dilemmas, Australia and the United States each face unique challenges reflecting their different political structures, health delivery and financing models, coverage decision-making processes, and underlying values about government responsibility. For example, many of the current U.S. efforts to promote evidence-based prevention have been driven by non-governmental entities (though often with government funds), as compared to key Australian efforts initiated by government. This difference is not surprising given U.S. ambivalence toward government’s role in health care overall, leave alone the more “personal” realm of prevention, both of which are widely accepted by Australians as proper functions of government. U.S. efforts are also hampered by the strictly interpreted statutory restriction on Medicare coverage of prevention, compared to the more flexible reading of such limits in Australian law. Thus, many projects seeking to expand prevention under U.S. Medicare have focused narrowly on “best practice” models that could be applied under existing law, rather than advancing a systematic decision model for prevention (which would require a statutory

change). And despite contributions by Partnership for Prevention and others to Medicare cost analyses, both current and proposed evidence-based processes for prevention in the United States continue to focus primarily on clinical effectiveness, with little (explicit) regard to cost effectiveness.

Thus, while Australia and U.S. Medicare must confront many common dilemmas, the differences noted above (and throughout this paper) suggest country-specific challenges as well. They also point toward opportunities for each country to learn from the experience of the other (both positive and negative), as proposed briefly below.

## A. Key Challenges for Australia

### **Addressing Fragmentation and Skewed Incentives**

Australia's multi-tiered funding system is seen by many of its participants as creating strong disincentives to prevention, as one sector's investment may produce savings in a different sector than its own. Some also view the choice of prevention approaches as driven more by funding than evidence, in order to shift costs to a different funding stream. It is tempting to suggest the U.S. model is preferable in this regard, as each insured subpopulation is generally covered by a single payer for a full range of services; however, given the time interval between investment and outcomes for many preventive services, coverage stratified by age group (with U.S. Medicare eligibility beginning at 65) may give rise to similar cross-sector disincentives.

Australia may more profitably build on models it has already established to bridge gaps between payers such as the National Public Health Partnership, which seeks to enhance cooperation across all governmental levels and develop integrated responses to public health priorities. On-going policy debates about the structure of primary care may also yield opportunities to improve links between GPs and other health professionals (financed by different sectors), and to explore alternatives to fee-for-service payment that may be more appropriate to population health.

Ultimately, however, health officials must address larger questions (beyond prevention) about whether, and how, current federal-state funding relationships can best meet the system's needs.

### **Establishing a Coordinated Prevention Strategy**

A foreign visitor interested in preventive health care would be hard pressed to find more innovative models than in Australia. Yet Australia's own population health experts express considerable frustration with the lack of a coordinated vision or strategy for prevention to guide their efforts across multiple sectors, funders, and philosophies. It is not unusual to hear the Australian health system described as having "grown like Topsy" (though many who use this phrase seem unaware of its distinctly American origin in the 1852 novel "Uncle Tom's Cabin" by abolitionist Harriet Beecher Stowe).

Raupach et al. (2001, p. 363), in reviewing GP initiatives, note the lack of an "overall vision, articulated in health policy, of the part that GPs should play in health promotion. Rather, health promotion has appeared on the agenda, and these initiatives represent fragmented responses to that appearance."

Again, the National Public Health Partnership may offer a starting point in shaping such a vision. A high-level inter-division "prevention policy group" recently established within the federal Department of Health and Ageing also seems promising. Beyond these administrative efforts, the system's experience with synchronized national programs (such as SunSmart and BreastScreen) could be applied more broadly to prevention, allowing consideration of the most effective practitioners, settings, and methods for particular services, bridging the interests of individual funding streams.

Australia may also wish to consider the benefits of a centralized source for recommendations on prevention, such as the U.S. Preventive Services Task Force and the Task Force on Community Preventive Services provide in the United States. The current array of Australian guidelines produced by multiple organizations makes it harder to locate guidance on the optimal use of preventive services and may lead, at times, to conflicting advice.

### **Building on Evidence-Based Decision-Making Models**

Australia already has in place excellent evidence-based decision-making processes, providing pathways from evidence to funding for medical services and pharmaceuticals. Many Australian experts would like to see these models adapted to public health and prevention, enabling more systematic reviews of effectiveness and cost effectiveness, and clearer links between evidence and access to services. In shaping such a process, Australia may wish to consider the pros and cons of greater transparency and public input than are currently available under MSAC or PBAC, but are applied to national coverage determinations by U.S. Medicare.

## **B. Key Challenges for U.S. Medicare**

### **Addressing Legal Impediments to Coverage of Prevention**

U.S. health officials have placed a high priority on improving access to prevention for Medicare beneficiaries. However, the current statutory structure (requiring Congressional action for each new preventive benefit) provides a major obstacle toward achieving this goal in any systematic way. Legislated coverage mandates often take years to enact, are subject to intensive interest-group lobbying, and represent a high degree of Congressional micromanagement. While Australia has similar statutory limits on Medicare coverage of prevention, it has interpreted those limits more flexibly.

Like Australia, U.S. Medicare has established an excellent evidence-based model for coverage decisions related to new technology in areas other than prevention. CMS' recent national coverage determination on immunoassay fecal-occult blood tests (under an unusual exception to its lack of statutory authority for prevention decision-making) suggests the same model may work well for population-based benefits. The Partnership for Prevention, among others, has urged Congress to amend the statutory preclusion of prevention, which dates back to the program's enactment in 1965 but no longer makes good sense today.

In the interim, Congressional leaders and health officials could opt to revisit their strict interpretation of the Medicare statute's prevention prohibition – for example, considering whether screening tests for those at high risk of an illness may be eligible for coverage (as in Australia), or whether some tertiary preventive services might be reclassified as “treatment” (as currently envisioned for a limited smoking cessation counseling benefit).

### **Recognizing Cost Effectiveness as a Decision-Making Criterion**

Although the evidence-based decision-making process established by U.S. Medicare (for non-prevention services) parallels Australian models in many ways, the scope of evidence it considers is limited by the lack of an explicit cost effectiveness criterion. While this is arguably a drawback for all coverage decisions, it would be particularly relevant if the process were extended to prevention, for which cost considerations may be viewed as even more appropriate.

Regardless of where prevention decisions lie (with Congress or CMS), there is considerable anxiety about the potential cost of such services, which (unlike most other benefits) may be used by all 42 million Medicare beneficiaries (projected to increase to 79 million by 2030), or at least a large percentage of them. Congress and health officials have struggled with the tension

between “modernizing” U.S. Medicare by promoting prevention and healthier lifestyles, and concern about the effect on the program’s fiscal integrity. This anxiety has fueled proposals to limit prevention coverage to services shown to be cost effective if not outright cost savers.

The limited existence of good data on many preventive interventions would complicate such a standard (in both Australia and the United States). Are cost effectiveness comparisons possible when only a subset of approaches has been studied? Is it appropriate to reject a service with poor cost effectiveness while continuing coverage of others for which no such studies have been done? Some experts suggest that cost effectiveness is only a fair basis for policy if used systematically for all services.

Despite these limitations, cost effectiveness as *one of many* coverage considerations is an idea whose time has come, as all countries struggle to get best value from their health care resources. Indeed, its relatively greater acceptance as applied to prevention in the United State may present opportunities to explore its applicability to health care decisions overall.

### **Moving Beyond Opportunistic Screening and Health Promotion**

While coverage decision-making processes for prevention under U.S. Medicare may be less than ideal, the program does now include a comprehensive range of screening and other preventive services. However, many benefits (such as some cancer screening tests) are greatly underutilized. Even when utilization rates compare favorably to Australia’s, there is less assurance in the United States that services are targeted toward those who need them most, or that they are followed up reliably if further services are warranted. In contrast, Australia’s national screening strategies are designed to avoid just these sorts of deficiencies.

Of course there is a tremendous difference in scale between Australia and the United States. U.S. Medicare alone (covering just 14 percent of Americans) has more than twice as many beneficiaries as the entire Australian population. And coordinating a “national strategy” across 50 States would be hugely more complex than across Australia’s eight States and Territories. On the other hand, despite its smaller scale, federalism tensions (especially in health care) are particularly intense in Australia, due in part to greater government involvement in the funding and delivery of services.

While Australian models may not be directly transferable, their organized multi-intervention national strategies (such as those for breast and cervical cancer screening) may point to benefits beyond the “opportunistic” delivery of such services in the United States. In particular, the multi-sector nature of Australia’s national strategies suggests that the key to expanding prevention in U.S. Medicare may lie outside the program itself (and outside traditional insurance coverage), through collaborative arrangements with other governmental and non-governmental entities. Partnership for Prevention (2003a, p. 2) notes that “Medicare has missed opportunities to partner with others responsible for beneficiaries’ health and to maximize the benefits of existing partnerships, to leverage community resources for health protection and promotion, and to use population-based approaches to complement the work of health professionals.”

## V. CONCLUSION

Stepping beyond one's own borders brings not only valuable perspective on lessons to be learned from other countries, but also a renewed appreciation for the things one's familiar system does well. When viewed through the prism of Australia's complex health financing arrangements, the comprehensive nature of coverage under U.S. Medicare – approaching a “single payer” system for its population subgroup – seems more efficient than it may, at times, appear from an American vantage point. At the same time, this comparative exercise makes clear that U.S. Medicare (and other U.S. health care payers) would benefit from exploration beyond their usual boundaries – both “outside the box” within the United States as well as outside the continent.

Looking beyond Medicare and prevention to the health care system overall, Australia's most crucial lesson may be its focus on equity. A similar commitment has failed to take hold in the United States, which has been grappling for years with how to cover the uninsured. Even in Australia, consensus on how that principle should be actualized is constantly evolving and a source of considerable controversy. Thus, in both countries, the quest for a more prevention-focused system coexists with larger challenges, and a reminder that the relative merits of preventive vs. curative medicine mean little to those who lack meaningful access to either one.

At the end of the day, the greatest challenge to both countries may be to bring health care in general, and prevention in particular, into the worldview of their non-health sector planners and economists. A better understanding of the impact of health on the nation's present and future productivity may be the key to shifting the public's view of prevention from optional to indispensable.



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