

Olympic medals or long life: what's the bottom line?

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THE NEXT OLYMPIC GAMES will be held in Athens in September 2004. Before Olympic fever runs too high, we would like to take a moment to reflect on the governmental priorities indicated by expenditure for the Sydney Olympics and healthcare in Australia, Canada and the United Kingdom. This comparison shows that in 2000 Australia spent far more on the Olympics.

Sport-loving Aussies may be enthusiastic about spending money to mine Olympic gold, but this enthusiasm may not involve a recognition that the cost includes forgoing spending on other activities. There is little explicit discussion of how limited resources should be allocated between Olympic athletes, healthcare, education, defence and other national priorities. Questions of funding do come up, and the debate over Medicare in Australia regularly spills into the popular press, but we rarely hear a politician stating that war is being funded *at the expense* of Medicare, or that Olympic gold is being pursued with dollars that *have been taken from* education, or, perhaps of even greater concern, that current healthcare and Olympic pursuits *take precedence over* the fiscal health of future generations.

But that is effectively what happens. However, the lack of explicitness paves the way for political decisions to be driven by a myriad of factors including media headlines, electoral cycles, political imperatives and the savvy of individual Ministers. None of these are likely to lead to decision making in which the most "benefit" (however broadly defined) will result from the given expenditure. In addition, the notion of decision making being based on societal values is lost.

As economic resources are limited, choices are being made every day about what to fund and what not to fund.¹ Deficit or debt financing can expand the funds available, but the ability to raise debt is itself a limited resource. In healthcare, it has been argued that no matter how big the pot gets, the claims on resources will always outstrip the resources available.² Thus, there will always be two questions: how best to spend the resources allocated to healthcare; and, how much should be allocated to it. Both of these questions would be well served through open and transparent debate about values, as values are at the core of priority-setting activity.³ We can start by examining current expenditure and the governmental priorities it implies.

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ABSTRACT

- On a per capita basis, Australia spent more than seven times as much on its Sydney Olympic team as did Canada, to win four times as many medals.
- Compared with Australia, Canada spent an additional amount per capita (standardised to the purchasing power parity rate at year 2000) of US\$1605 per life-year gained on healthcare in 2000.
- Neither country is "right" or "wrong" in making these funding choices, but they highlight the need for more explicit discussion about what is being spent, what is obtained for the given expenditure and what society actually values.

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1: Medal totals and expenditure on Olympic athletes for Canada, Britain and Australia for the Sydney 2000 Olympics^{4,5}

Country	Total medals won	Expenditure			Per capita per medal
		On Olympic athletes	Per medal	Per capita	
Canada	14	\$62M	\$4.42M	\$1.99	\$0.14
Britain	28	\$238M	\$8.50M	\$4.00	\$0.14
Australia	58	\$280M	\$4.82M	\$14.80	\$0.26

Figures quoted are Canadian dollars, converted at year 2000 exchange rates.

Olympic spending

Australians can take great pride in their medal haul at the Sydney Olympics, particularly in comparison with Canada and Britain. Box 1 gives the medal tallies and amounts spent on the athletes for the 2000 Olympics. While the medal tallies are exact, it should be noted that the spending estimates are probably not very precise, and that each nation has its own system for counting costs. This means that comparisons are only approximate. The Australian costs might have been inflated because Australia, as host nation, was spending up big. The costs reported in Box 1 do not include the cost of hosting the games (such as building venues and providing services and security to the visitors), which was over \$1.3 billion for the New South Wales government, which met the greater part of the expense.⁶

It is apparent that Australia spent more resources per capita on their Olympic team, and was rewarded with the number of medals won. Britain and Canada, while winning fewer medals than Australia, spent less per capita for each medal won — in a sense, a more efficient result. Is the additional "benefit" represented by the extra Australian medals worth the additional expense? This is a matter for society to consider — although at present such decisions are not well informed by

societal values. There is more to be gained from Olympic spending than just medals (such as developing skills and technologies for wider application, raising national morale, providing grist to the advertising and marketing mill). Assessing the spin-off effects would be an important step towards setting societal priorities.

Healthcare spending

To put Olympic spending in perspective, Box 2 gives recent data on life expectancy, public and private health expenditure, and health expenditure per capita for the same countries. In 2000, Canada spent \$2534 per capita on health, more than 1000 times as much as it spent on the Olympic team. Australia spent \$2213 per capita on healthcare, or about 170 times what it spent on its Olympic team.

In comparison with Australia, Canada spends more per capita on healthcare, but receives a slightly higher benefit, at least in terms of life expectancy. In this case, the additional benefit is “bought”, relative to Australia, at a cost per capita (standardised to the purchasing power parity rate at year 2000) of US\$1605 per life-year gained. We assume in this argument that there is a positive association between spending and benefit, although there are examples within the developed world of countries spending more on healthcare but having a lower life expectancy (notably the US).

Costs, benefits, choices

Just as Olympic spending produces more than medals, healthcare spending produces more than life-years (see hdr.undp.org/statistics/default.cfm for a detailed list of various health and non-health indicators of human welfare). Our point is to show how comparisons can be made, and to suggest that making such comparisons may be an appropriate way of highlighting the value judgements implicit in spending choices.

Only looking at expenditures can be misleading: both costs and benefits must be considered when addressing questions of efficiency.⁸ Moreover, the interplay between spending in one sector and another is quite complex. For example, increased revenue generated from the Olympics may enable greater funding of healthcare, and spending more on athletics may improve the health of the population.

As we gear up for Athens, and claims for more spending on Olympic athletes arise, it would be useful to consider that these claims are being staked on scarce resources that could be spent elsewhere in society.² This may seem so simple as to be not worth saying. However, in the past we have seen calls in the press for more money for Olympic athletes on one page, and on the next a discussion of the Medicare funding “crisis”. Before the public demands more funding for more medals, or governments pursue more healthcare funding through taxation or other private means, we need to examine what “benefit” is obtained for the given expenditures, how this compares with other uses of the limited resources available, and how we might change it by taking some resources from one area to increase the resources available to another.

2: Life expectancy and healthcare expenditure for Canada, Britain and Australia⁷

Country	Life expectancy at birth in 2001	Healthcare expenditure		
		Public*	Private*	Total per capita (PPP US\$) [†]
Canada	79.2	6.5	2.5	\$2534
Britain	77.9	6.0	1.4	\$1804
Australia	79.0	5.9	2.3	\$2213

*Public and private expenditure measured as a percentage of gross domestic product.

†Total healthcare expenditure per capita measured in US\$ standardised to the purchasing power parity (PPP) rate at year 2000 (see hdr.undp.org/statistics/faq.cfm#16).

A simple framework

One way to do this would be to employ a relatively simple economic approach to priority setting. The basic process, which has been used with success in health organisations in Australia and elsewhere, begins by describing what resources are currently being expended.⁹ Following this, an advisory panel of relevant stakeholders can determine:

- If additional resources were available, how would they best be spent?
- To obtain resources to fund new priorities, how could current programs be offered to the same level of effectiveness but with less resources?
- What programs can be scaled back or even stopped, thereby freeing resources for priority areas if the “value” of the priority areas is deemed greater than the programs currently receiving funding?^{10,11}

This type of approach could be conducted first within and then across government portfolios. Measuring the benefit, or return on investment, obviously becomes critical, and is no doubt challenging even within a single portfolio, let alone across sectors of the economy.¹² But it is this way of thinking, known in economic terms as marginal analysis, that can enact a process of shifting resources to get the optimal benefit in return. Importantly, societal values can be incorporated directly into the process. By holding discussions with a broad base of citizens on an ongoing basis, a set of principles can be identified¹³ to guide government spending and hold decision makers accountable for resource allocations. It is a process in which physicians should certainly take an interest.

Competing interests

None identified.

References

1. Farrar S, Ryan M, Ross D, Ludbrook A. Using discrete choice modeling in priority setting: an application to clinical service developments. *Soc Sci Med* 2000; 50: 63-75.
2. Auld C, Donaldson C, Mitton C, Shackley P. Economic evaluation. In: Detels R, Holland W, McEwan J, Omenn G, eds. *Oxford textbook of public health*. 4th ed. Oxford: Oxford University Press, 2001.
3. Ham C, Coulter A. Explicit and implicit rationing: taking responsibility and avoiding blame for health care choices. *J Health Serv Res Policy* 2001; 6: 163-169.

4. Coulter D. Is the track to Olympic gold medals paved with hard cash? *Christian Science Monitor* 3 October 2000. Available at: search.csmonitor.com/durable/2000/10/03/fp7s2-csm.shtml (accessed Oct 2003).
 5. Sport England. What we do. Was available at: www.english.sports.gov.uk/ (accessed Aug 2003; now inaccessible).
 6. Cost of the Olympic and Paralympic Games. Auditor-General's report to Parliament 2002. Available at: www.audit.nsw.gov.au/agrep02v2/costofolympic-games.pdf (accessed Oct 2003).
 7. United Nations Development Programme. Human Development Reports 2003. Available at: hdr.undp.org/statistics/default.cfm (accessed Oct 2003).
 8. Weinstein M, Stason W. Foundations of cost-effectiveness analysis for health and medical practices. *N Engl J Med* 1977; 296: 716-721.
 9. Miller P, Parkin D, Craig N, et al. Less fog on the Tyne? Programme budgeting in Newcastle and North Tyneside. *Health Policy* 1997; 40: 217-229.
 10. Mitton C. Priority setting for decision-makers: using health economics in practice. *Eur J Health Econ* 2002; 3: 240-243.
 11. Cohen D. Marginal analysis in practice: an alternative to needs assessment for contracting health care. *BMJ* 1994; 309: 781-785.
 12. Mooney G, Russell E, Weir R. Choices for health care: a practical introduction to the economics of health provision. London: Macmillan, 1986.
 13. Shiell A, Mooney G. A framework for determining the extent of public financing of programs and services. Commission on the Future of Health Care in Canada. Ottawa, Ontario: Canadian Government Publishing, Communications Canada, 2002.
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