A B S T R A C T

Health goals and targets have been widely used to indicate strategic direction and priority for health improvement on a population basis. This paper provides an overview of Australia's experience in using health targets and considers the relevance of this experience for Canada. It gives special attention to the challenge of developing a broadly based set of targets that reflect the social, economic and environmental determinants of health alongside more traditional measures of health status. It examines how the technical challenge of measurement, the bureaucratic barriers between government departments, and the political conservatism inherent in federal systems of government present formidable barriers to effective action on comprehensive national health targets.

The paper concludes with a reminder of the need for intersectoral action to address the determinants of health. Based on the Australian experience, it suggests for Canada an ideal combination of a national population health framework to guide direction and priority, to be implemented through action at a more local level, through well-defined partnerships.

A B R É G É

Les objectifs et cibles en santé ont été largement utilisés pour indiquer les directions stratégiques et les priorités pour améliorer la santé du point de vue de la population. Cet article donne une vue d'ensemble de l'expérience australienne dans l'utilisation des cibles de santé et évalue la pertinence de cette expérience pour le Canada. Il porte une attention particulière sur le défi de développer une large gamme de cibles qui reflètent les déterminants socio-économiques et environnementaux de la santé en plus des mesures plus traditionnelles de l'état de santé. Il examine comment le défi technique de mesure, les barrières bureaucratiques entre ministères et le conservatisme politique inhérent aux systèmes fédéraux de gouvernement représentent des barrières considérables aux actions concrètes sur les cibles globales de santé nationales.

L'article conclut en rappelant le besoin d'actions intersectorielles afin d'agir sur les déterminants de la santé. Basé sur l'expérience australienne, il suggère pour le Canada une combinaison idéale entre un cadre national de la santé de la population, pour indiquer les directions et priorités qui devraient être implémentées par des actions aux niveaux les plus locaux, à travers des collaborations bien définies.

Achieving Population Health Goals: Perspectives on Measurement and Implementation from Australia

Don Nutbeam, PhD

Internationally, health goals and targets have been used as a tool for governments to indicate strategic direction and priority for health improvement on a population basis.¹ Health targets offer a benchmark against which existing policy and the effectiveness of expenditure on current programs and services can be examined.

Australia's history of using national health goals for such purposes is chequered. The first national attempt was published in 1988 in the *Health for All Australians Report*.² This Report set goals and targets relating to major causes of premature death and morbidity and major behavioural risk factors. Targets were only proposed in areas "where substantial national health statistics existed," and for these reasons made little reference to the possibilities for change in the social, economic and environmental determinants of health.

In 1991 the Commonwealth Health Department commissioned a review of these targets. The review was intended to consider what progress had been made in relation to the 1988 targets and to examine options for extending the range of targets to reflect a "social view of health." This review process extended over two years, and included substantial technical consultations with academics and health professionals, and political discussions on the policy implications with individual State Health Ministers and their departments.

The process led to proposals for major revisions in a Report published in 1993 entitled, *Goals and Targets for Australia's Health in the Year 2000 and Beyond*.³ This Report not only included revisions to many of the originally proposed health targets concerning premature mortality and morbidity and behavioural risks, but also proposed two new categories of health targets concerned with personal health literacy and healthy environments.

Figure 1 is derived from the Report and provides an illustration of the framework for the proposals and the relationship between the different types of targets that were proposed. It shows how each of three key determinants of health – health literacy, health behaviours and healthy environments – is inextricably linked to the others. The Report made a strong case for co-ordinated public health action to address all of the determinants, particularly by adding to existing efforts to promote health literacy and healthy lifestyles with matching attention to the creation of healthy environments.

Challenges in the development of health targets in different sectors and settings

The section of the Report on healthy environments reflected the greater attention and recognition being given to social, economic and environmental determinants of health status. The Report substantially expanded the targets to reduce occupational and environmental hazards that were proposed in the original *Health for All Australians* report, recommending health-related goals and targets in six sectors/settings. The first three covered broad elements of the "physical" environment, namely the physical environment (e.g., water supply, air quality, waste disposal),

Professor of Public Health and Head, Department of Public Health and Community Medicine, University of Sydney, Australia

Correspondence and reprint requests: Dr. Don Nutbeam, Professor of Public Health and Head, Department of Public Health and Community Medicine, Edward Ford Building A27, University of Sydney, NSW 2006 Australia, Tel: 61 2 9351 4385, Fax: 61 2 9351 5205, E-mail: donn@pub.health.usyd.edu.au

housing, and transport; the three others encompassed “social” environments which are more commonly referred to as “settings” for health interventions, namely worksites, schools and health care settings.

This part of the report was structured partly to reflect the way in which government was organized (e.g., housing, employment, environment), and partly to build upon existing working relations between the health sector and other sectors (e.g., health-promoting schools). Such an approach was seen as important in defining the respective roles of the different sectors in establishing a workable model for monitoring progress, and in determining accountability for the achievement of targets.⁴

The Report also highlighted some of the important barriers to progress in achieving change in these structural determinants of health. Most important was the barrier presented by poor collaboration between the different sectors of government. In practice, the health sector has little or no jurisdiction over the other sectors indicated above, and was not welcome in its attempt to influence decision making. In addition, the process of developing targets for healthy environments exposed the more technical problems of identifying sensible and measurable indicators that made clear the relationship between environmental standards and human health.

Not surprisingly, attempts to develop *health* targets in each of these six sectors/settings were politically and technically difficult and met with mixed success. Part of the lengthy development process was consumed with efforts to negotiate a common position between the different sectors concerned with the different “environments”. Through this process, widely varying conceptual and ideological perspectives to the same issue were exposed.

Part of the task in developing *health* goals and targets in the different settings was to define these differences, and, through a process of negotiation, find a common approach that recognized the legitimacy of each of the different perspectives.⁵

Thus, for example, in the section on housing, although some of the major health issues concerning infectious disease control, injury prevention, and access to

Figure 1. Relationship between the four groups of health targets

health services were high on the “health agenda”, goals and targets were developed to fit a comprehensive structure provided by the existing National Housing Strategy. This approach was perceived to be far more relevant to those working in the housing sector who were ultimately to be responsible for implementation of much of the action required to create a health-supportive housing environment. Consequently, the structure of the sub-headings in the report concerned adequate housing, secure and affordable housing, as well as safe housing. The “health agenda” could comfortably fit in this structure. Table I provides an illustration of the construction of a target for “healthy housing”.

Such a process of negotiation ensured that the different sectors were engaged in defining the problems and arriving at solutions that made sense in the context of existing plans and priorities of the sector concerned. Through this process, important progress in achieving understanding and commitment to *health* goals and targets by other sectors was achieved.

Progress in these negotiations was linked to the other major obstacle in this process – what measurements to use. The solution

to this technical problem was addressed by the use of *intermediate indicators* which provided a mechanism for working back from “health outcomes” to the underlying environmental determinant, and factors which might indicate progress in achieving change in this environmental determinant (comparable to the chain of linkages made between health outcomes, health behaviours and health literacy). For example, the health target to increase the proportion of the population with access to safe drinking water uses as an *intermediate indicator* of success those mechanisms which are in place to provide and monitor water quality – in this case the *number* of water monitoring sites, and the *frequency* with which the water meets agreed standards for water safety. Relevant targets would be to increase the number of water monitoring sites and to increase the proportion of times those sites recorded water quality above nationally agreed standards. This provided a practical way of assessing improvements in water quality in a way that is meaningful to those in the water industry responsible for safe water supply. Table I summarizes this example as it appears in the report.

TABLE I
Examples of Targets and Intermediate Indicators for Healthy Environments

Housing and Health	Physical Environment
Goal: To increase the proportion of people living in adequate housing	Goal: To ensure that all Australians have access to a safe water supply
Priority population: Aboriginal and Torres Strait Islanders	Priority population: Aboriginal and Torres Strait Islanders Rural and remote communities
Target: To reduce exposure to risks to health associated with poor living conditions	Target: To increase the proportion of the population with access to safe drinking water
Intermediate indicator: To increase the proportion of ATSI in remote and rural communities who live in dwellings which have: <ul style="list-style-type: none"> • potable water • adequate water supply • electricity • bathing and laundry facilities • waste and sewage disposal 	Intermediate indicators: To increase the number of monitored drinking water sites To increase the proportion of monitored drinking water sites which meet NHMRC standards

Progress in implementation

The subsequent history of this Report and its proposals is somewhat mixed, although the initial responses were very positive.⁶ The Report served as a catalyst for the inclusion of a commitment to develop national health goals and targets as a part of the Medicare Agreement between the Commonwealth Government and States and Territories. Thus for the first time, Australia had a statement concerning desired population health outcomes within the legislative agreement which governs the release of resources for the publicly funded health system. The Agreement committed the Commonwealth and States to a process leading to finalization of national health goals and targets in a limited number of priority areas within one year.

The product of this effort, *Better Health Outcomes for Australians*,⁷ is disappointing in many respects, particularly in the extent to which it fails to adequately encompass the social, economic and environmental determinants of health which were a prominent feature of the recommendations from the review which preceded it. The report acknowledges that "improvement in the social and environmental determinants of health has the potential greatly to reduce health inequalities between population groups," but rather lamely concluded, "the healthy environments concept, in its broadest context, has not been addressed within the current national health goals and targets process. A mechanism will need

to be found to ensure that this important area is addressed."

It is not difficult to speculate on the reasons for this conservative response to the recommendations of the review. The Commonwealth and State Health Departments were reluctant to sign off on a set of recommended targets for improvement in population health over which they felt they had no control. This political concern was compounded by the technical challenge of measurement and monitoring. Although the review had identified a solution to these concerns through the proposed intermediate indicators, there was no simple, inexpensive way of gathering the information. It became too hard, and there was insufficient collective will to move decisively – a common failing of federal systems of government.

Where are we now?

The consultations undertaken in the preparation of the 1993 review of National health goals and targets emphasized the dangers inherent in the health sector seeming to impose its priorities on other sectors. The report stressed that "in proposing health goals and targets which impact upon other sectors it is imperative that the intent and process be made clear." The proposals in the report focus on existing practical opportunities for collaboration through which it would be possible "to explore the potential for integrating health goals to reduce risk and promote health into the work programs

of other sectors rather than to devise targets prescribing particular strategies," concluding that "target setting should proceed at a pace that will allow for the development of a true partnership." This approach to building on existing common ground between sectors, combined with transparency in purpose, appears to offer a basis for developing the effective partnerships for health which are required to advance health and greater equity in health by addressing its underlying determinants.

A further lesson emerging from this experience is that there is a delicate balance to be struck between the technical need to improve the quality of measurement and the public health imperative for effective action to address underlying social, economic and environmental determinants of health. Waiting for the final word on such indicators may result in "analysis paralysis" – leading to unnecessary postponement of effective action to improve public health.

In Australia some limited support has been provided to foster further development of the actions implicit in the 1993 review. In 1994-95 the Federal Government funded a review of successful approaches to intersectoral action. The report from this review, *Working Together: Intersectoral Action for Health*, has provided guidelines on how to establish effective and sustainable partnerships between the health sector and other sectors, and has become a widely used resource document in Australia and elsewhere.⁸

In 1996-97 the Federal Government funded a special supplement to the *Australian and New Zealand Journal of Public Health* to examine issues in the measurement of *health-promoting environments*.⁹ This included papers examining the development of indicators for health-promoting environments in schools, work sites, sport and recreation settings and indigenous communities. The Australian National Health and Medical Research Council (NHMRC) separately sponsored a systematic review of school health and health promotion in sport and recreational settings with the purpose of both improving understanding of the advantages and weaknesses of operating through different settings, and advancing the science of measurement.^{10,11}

These activities can be viewed as a beginning rather than an end. "Healthy environments" are still far from centre stage in the health portfolio, and still very marginal to other portfolios. Governments in Australia and elsewhere need to be constantly reminded of the importance of the health impact of decisions across all portfolios, and of the need for action across portfolios to achieve substantial improvements in health, and achieve greater equity in health. Health authorities should be encouraged to continue work through settings and across sectors in ways which are clearly effective and locally feasible. The academic and scientific community needs to respond in a more creative way to the challenges of measurement and evaluation which are presented by such a holistic approach to health advancement.

Lessons for Canada?

There are many similarities between Canada and Australia which make the experience in Australia relevant. Both countries operate under a federal system of government, both have a national health service delivered by the States/Provinces, and both have a well developed commitment to public health and health promotion.

Canada's health priorities are well reflected in current analyses of popula-

tion health and its determinants, and demand a response which includes the health system but inevitably requires action for health across government. Our experience in Australia has indicated that there are formidable obstacles, technical and political, to achieving a unified, national response to the complex problems of addressing the environmental, social and economic determinants of health. Where progress has been achieved it has been at a more local level – State, city, and community – and through bilateral partnerships between the health services and other sectors. In the latter case such action is most achievable where there are clearly defined goals and targets of obvious mutual benefit, and where roles and responsibilities between sectors are clearly defined.

This experience seems to suggest the ideal combination of a national population health framework to guide direction and priority, to be implemented through action at a more local level, and through well-defined partnerships.

ACKNOWLEDGEMENTS

This paper draws substantially on previous work by the author in collaboration with Marilyn Wise and Elizabeth Harris.

REFERENCES

1. Nutbeam D, Wise M. Planning for Health for All: International experience in setting health goals and targets. *Health Prom Int* 1996;11(3):219-26.
2. Health Targets and Implementation Committee. *Health for Australians*. Canberra: Australian Government Printing Service, 1988.
3. Nutbeam D, Wise M, Bauman A, Leeder S. *Goals and Targets for Australia's Health in the Year 2000 and Beyond*. Canberra: Australian Government Printing Service, 1993.
4. Harris E. Healthy Environments – Beyond the Four Disease Groups. *Health Prom J Australia* 1994;4(3):34-38.
5. Nutbeam D, Harris E. Creating Supportive Environments for Health: A case study from Australia in developing National Health Goals and Targets for Healthy Environments. *Health Prom Int* 1994;10(1):51-59.
6. Pickering S, Bennett J, Ashpole K. National Health Goals and Targets – The Commonwealth Government's Approach to Achieving Better Health Outcomes for All Australians. *Health Prom J Australia* 1994;4(3):5-8.
7. Commonwealth Department of Human Services and Health. *Better Health Outcomes for Australians: National Goals, Targets and Strategies for Better Health Outcomes into the Next Century*. Canberra: Australian Government Publishing Service, 1994.
8. Harris E, Wise M, Hawe P, et al. *Working Together: Intersectoral Action for Health*. Canberra: Australian Government Publishing Service, 1995.
9. Holman D, Nutbeam D (Eds.), Health promoting environments. *Australian and New Zealand J Public Health* 1997;21(4).
10. NHMRC Health Advancement Standing Committee. Health Promoting Sports, Arts and Racing Settings. Canberra: NHMRC, 1997.
11. NHMRC Health Advancement Standing Committee. Effective School Health Promotion: Towards Health Promoting Schools. Canberra: NHMRC, 1997.