

THE NSW HEALTH OUTCOMES PROGRAM

Traditionally State health systems in Australia have monitored their achievements by measuring the throughput of patients and related activities. There has been little systematic attempt to determine the impact of public health and clinical services on the health of people, i.e. to assess the health outcomes of these services and to use this information for improving their effectiveness.

The overall objective of the NSW Health Outcomes Program is to reorient the planning, implementation and evaluation of health and related services towards optimal health outcomes within available resources.

A health outcome is a change in the health of an individual, group of people or population which is attributable to an intervention or series of interventions. The health change can refer to a wide variety of manifestations, ranging from death, injury and disease to intermediate determinants which may themselves influence the occurrence of injury and disease. Examples of these are individuals' health experiences such as symptom levels, behavioural and lifestyle factors such as smoking and sun exposure, and knowledge and understanding of health issues.

If decisions about health and related services are to be based on their health outcomes, it is essential to specify markers of health which can be measured with sufficient reliability and precision to detect change. These markers are referred to as health indicators. Some indicators are clearcut and well established, e.g. overall and disease-specific mortality rates, and rates of disease and injury occurrence. Indicators for other types of health outcomes are less clearcut. For example, what types of indicators can be used to determine the health outcome of hospital admissions for asthma? To be useful, a health indicator should be chosen or designed to serve a clearly defined purpose, and it should be valid and reliable for that purpose. Indicator data should be readily interpretable, and should help to determine whether (and what) action is needed to improve the related health outcome.

The reorientation towards health outcomes has four major elements:

- information, based on health indicator and systematic cost-effectiveness data;
- the organisation of public health and clinical services (or the maintenance of existing service configurations where appropriate) which are built on the information derived from indicator and cost-effectiveness data;
- continuous monitoring of services, using indicator data; and
- subsequent adjustment of services.

Accordingly, the NSW Health Outcomes Program comprises the following:

1. A series of short-, medium- and long-term demonstration projects which show how health indicator and cost-effectiveness data can be obtained and used to develop, monitor and improve the organisation of public health and clinical services.
2. Incorporation of the service configurations and associated monitoring processes from successful demonstration projects into the NSW health system.
3. Dissemination of indicator data for use throughout the health system.
4. Systematic review of knowledge in the topic areas covered by the demonstration projects, and of parallel

health outcomes-oriented developments in other Australian and overseas health systems.

While the program is focused on the health of the population of NSW, it is consistent with national and worldwide concern to enhance understanding of the relative costs and effectiveness of interventions employed in the prevention, diagnosis and treatment of disease.

DEMONSTRATION PROJECTS FOR 1992-93

The NSW Health Department will soon invite expressions of interest for the conduct of demonstration projects under the NSW Health Outcomes Program. The projects should show how an outcome-oriented approach in the planning, implementation and evaluation of public health and clinical services can produce measurable improvements in health outcomes at a local level. They should also serve as models which could be adopted in other localities or integrated into the NSW health system. For 1992-93 demonstration project proposals will be considered in the following topic areas:

- overall quality of hospital care;
- prevention and/or management of ischaemic heart disease;
- the organisation and delivery of critical care services;
- management of asthma;
- prevention and management of tuberculosis; and
- the organisation and delivery of immunisation programs.

Meritorious proposals which contribute to the Health Outcomes Program in other topic areas will be considered. While projects may be confined to one or more NSW Health Areas and Regions, the results of any locally-based projects should be applicable to other NSW localities. Preference will be given to projects which:

- involve or lead to collaboration among different sectors of the health system, e.g. public health and clinical services, or between primary, secondary and tertiary services; and
- include consultation with consumers.

Two major benefits of the demonstration projects are envisaged. First, completed demonstration projects will exemplify the practical utility of an outcome-oriented approach in the planning, implementation and evaluation of public health and clinical services. Second, they will provide functional models of health service organisation in major topic areas of importance which will be adaptable elsewhere in NSW and Australia.

EXAMPLE OF A DEMONSTRATION PROJECT

There is good evidence from Australian and overseas studies that people with serious injuries are much more likely to survive if they receive prompt treatment in centres which can provide specialist trauma care. The length of the delay before receiving highly expert services is an important determinant of the outcome. The first hour — known as the 'golden hour' — is crucial.

One important health outcome of trauma services is increased survival rates after major trauma. Because survival is so strongly associated with rapid access to major trauma centres, a valid intermediate outcome is an increase

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Successful conference

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- the format of presentations should be ten minutes speaking time with five minutes for questions, with the ten-minute limit strictly adhered to;
- breaks between sessions should be longer, to facilitate contact among people;
- the location and facilities of Westmead Hospital Education Block were well suited to the conference;
- more presentations should be encouraged in Aboriginal health, epidemiological methods, health promotion, mental health and chronic diseases;
- presentations should be more action-oriented and should conclude with a summary of the public health actions taken or recommended;
- staff working in the fields of HIV/AIDS, Drug and Alcohol and Mental Health, as well as local council staff and general practitioners and other clinicians, should be encouraged to attend the conference;
- the conference should where possible avoid parallel streams, to maintain a generalist understanding and outlook among network members;
- panel discussions, following a group of related presentations, should be included for important issues; and
- high standards of visual presentation should be encouraged.

The recommendations will be taken into account in the organisation of the next network conference.

In conclusion, the first NSW Public Health Network Conference was very successful and has provided a solid foundation for high-quality annual network conferences in the future.

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EDITORIAL COMMENT

Congratulations and thanks go to Mark Bek for his outstanding efforts to make the conference the great success it was. With the able assistance of Marion Haas, Mark organised the funding, venue, program, speakers and support activities. — *Editor*.

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in the proportion of seriously injured people who receive definitive trauma care within the 'golden hour'.

In the conventional service configuration, seriously injured people are taken by ambulance to the nearest hospital which, in most instances, is a lower-level hospital and not a major trauma centre. The injured person is assessed at this hospital as having a serious injury, given initial treatment to stabilise his or her clinical condition, and then transferred to a trauma centre, arriving there after some considerable delay. Studies in western Sydney in 1988 showed that this service configuration was likely to affect outcomes adversely; only about 6 per cent of seriously injured patients reached the definitive place of care within an hour.

Consequently a reorganisation of trauma services in western Sydney was proposed, with the following elements: (i) triaging of injury cases at the place where the injury occurred by ambulance officers, using a set protocol, and (ii) immediate transport of seriously injured patients (as judged by the triage protocol) direct to major trauma centres, bypassing the local hospital. Modelling of this new approach suggested that the proportion of seriously injured patients reaching a major trauma centre within the 'golden hour' would rise from 6 per cent to 80 per cent. The modelling also showed that the shift in patient load could be managed with modest resource enhancement. The new approach was implemented in March 1992, and a preliminary evaluation has confirmed that the anticipated benefits are being realised.

This is an example of how appropriate health indicator data on a health outcome (in this instance, an intermediate outcome) have been used to identify and assess a problem, develop a plan for a new service configuration that would improve health outcomes, and then evaluate the new service when it was implemented. The plan clearly defined the roles and responsibilities of the relevant service providers such as the Ambulance Service and hospital trauma services. Further clinical indicators are being developed for continuous monitoring of the effectiveness of the service.

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The Bulletin aims to provide its readers with population health data and information to motivate effective public health action. Articles, news and comments should be 1,000 words or less in length and include the key points to be made in the first paragraph. Please submit items in hard copy and on diskette, preferably using WordPerfect 5.1.

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