

DEMONSTRATION PROJECTS FUNDED UNDER THE NSW HEALTH OUTCOMES PROGRAM, 1992-93

As foreshadowed in the December 1992 issue of the *Public Health Bulletin* the NSW Health Department in January 1993 advertised a call for expressions of interest in carrying out demonstration projects under the Health Outcomes Program. It was intended that the projects should show how an outcome-oriented approach in the planning, implementation and evaluation of public health and clinical services could produce measurable improvements in health outcomes. The demonstration projects were also intended to serve as models which could be adopted in other localities or integrated into the NSW health system. There was an enthusiastic response, and 79 expressions of interest were submitted. Seventeen projects were selected for funding. This supplement presents summaries of the 17 successful projects.

OPTIMISING INJURY OUTCOMES ON THE NORTH COAST

This project will demonstrate how specific organisation change in an area or district can result in better health services — using injury as a case study. Management teams will be established to examine two problems: orthopaedic trauma and self-inflicted injury. Based on current clinical thinking and published literature, appropriate care protocols will be developed for both prevention and treatment of these conditions. Team membership will comprise local groups, public health and relevant others. This information will be used in subsequent phases to develop injury goals and targets and performance indicators for the district health services in 1994. This process will enable districts to identify and achieve the most cost-effective use of available resources, reduce the incidence of serious injury on the North Coast and ensure provision of optimal care in its early detection, treatment and rehabilitation.

*John Beard and Anne Kempton
North Coast Region Public Health Unit*

OUTCOMES FOR CORONARY ARTERY BYPASS GRAFT SURGERY PATIENTS AT ST GEORGE HOSPITAL

A project team consisting of representatives from St George Hospital, the Area Health Service office and the Public Health Unit for Central and Southern Sydney aims to measure short- and medium-term (up to six months) health outcomes for patients undergoing coronary artery bypass graft surgery. Key indicators of in-hospital quality of care will be chosen, as will post-hospital indicators measuring mortality, morbidity, function and quality of life. A process for review of the outcome data will be established. The project will also compare, on the basis of practicality and cost, methods to collect health outcome data on patients in the community.

*Mark Bek
Central and Southern Sydney PHU*

OUTCOMES OF PATIENTS TREATED FOR CONGESTIVE HEART FAILURE IN WESTMEAD HOSPITAL

Congestive heart failure is a relatively common illness, particularly in the elderly. The condition may cause significant restrictions in daily activities and urgent hospital admission is often required. Relatively little is known about the long-term impact of current treatment or about the way the condition arises and progresses. This project aims to develop disease indicators for the condition and to explore ways of measuring outcomes for its treatment. The project will be based on all patients entering Westmead Hospital over a three-month period who have a principal diagnosis of congestive heart failure. Details of their presentation and hospital stay will be collected. At three and six months after discharge follow-up details will be collected, including overall health, health service use and quality of life. Clinicians have been involved in the design of the study and intend to use the results to help refine the management of this disease and the distribution and use of resources within the hospital.

*Fiona Blyth
Westmead Hospital*

ORGANISATION AND DELIVERY OF IMMUNISATION PROGRAMS

This project aims to establish and evaluate a system of delivery of on-the-spot immunisation to children and adolescents less than 15 years old in hospital, general practice and early childhood centres in the Central Sydney Health Area. The main outcome measure will be assessment of the number of immunisations given over the four-month study period in each of the three sites. The first stage of the project will involve notifying parents of children who attend any of the three sites of their child's immunisation status. If immunisation is incomplete parents will be given advice about ensuring their children are fully immunised. They will not be offered on-the-spot immunisation unless it is specifically requested. This group will be followed up to determine action taken after notification of the child's immunisation status. The second stage of the project will implement on-the-spot immunisations to all children who present with incomplete immunisation. The outcome indicators assessed will be overdue immunisation and uptake of the offer of on-the-spot immunisations.

*Margaret Burgess
Royal Alexandra Hospital for Children*

QUALITY OF CARE AND OUTCOME INDICATORS FOR RURAL TRAUMA

This project will focus on the development of health indicators to monitor rural trauma services. Indicator data will be collected on trauma

notifications, medical retrieval cases and injury-related deaths and will be used to evaluate a change in the organisation of trauma services for country sectors. The proposed adjustment to rural trauma services should result in better integration and more efficient utilisation of widely spread clinical services responsible for the management of serious trauma. Additional funding for this project is provided by the Motor Accidents Authority.

*Tony Burrell, Orange Base Hospital
David Lyle, Epidemiology and Health Services
Evaluation Branch, NSW Health Department*

BARWON MANAGEMENT INFORMATION SYSTEM

With the planning of the proposed health service partnership Barwon Health, and the resulting joint commitment to achieving positive health outcomes, comes the rare opportunity to plan from scratch a system which can become the major tool guiding the process of management to achieve such positive outcomes. The project will include:

- identifying the health needs of the community;
- assisting in casemix funding arrangements;
- determining the range of services required to meet identified need; and
- reviewing clinical programs.

This will enable appropriate indicators to be identified and used for the improvement of health programs of a rural health service. The preliminary use of the information derived through this new management information system will determine the direction of resource allocation within the key program areas of the health service.

*Lyn Clarke
Moree Plains Health Service*

ESTABLISHING HEALTH INDICATORS FOR DIABETES — A CONSENSUS APPROACH

As the population ages the prevalence of diabetes is increasing. Diabetes is responsible for a large amount of suffering, morbidity and premature mortality because of the long-term vascular and other complications associated with it. The treatment of diabetes requires long-term care and generates significant costs. There is evidence that in many people the development of diabetes and related complications can be prevented or delayed by lifestyle changes and optimal management of the condition. It is therefore essential that the health care system monitors this condition through population-based measures, such as the number of people developing diabetes, and through health service-based outcome indicators. In September 1993 a workshop will be held to further the development of health outcome indicators for diabetes and the data collections necessary to support them. The workshop will comprise NSW health professionals working in the area of diabetes and consumer representatives. A report

will be produced which will become the foundation of developments in diabetes information systems and health outcome indicators.

*Stephen Colagiuri
Diabetes Australia*

MOREE ABORIGINAL HEALTH STRATEGY

The Moree Aboriginal Liaison Committee, which comprises representatives of community-based and Health Department Aboriginal health services and the Aboriginal community in Moree, is embarking on a long-term strategy to address some of the health problems commonly experienced by the Aboriginal community. The goal of this project is to set up a system which will collect and disseminate information about the health status of the Aboriginal residents of Moree. The system is to be designed and operated by Moree-based Aboriginal health workers, and the adult Aboriginal population of Moree will be the primary target for feedback of results. This community-based project represents an alternative to the "top-down" approach, based on routinely collected administrative data, to improving health status information for Aboriginal populations. It is hoped the system will become a model for evaluation and monitoring systems for Aboriginal health initiatives elsewhere.

*Val Dahlstrom
Moree Aboriginal Liaison Committee*

DEVELOPMENT OF AN INDICATOR FOR ACUTE MYOCARDIAL INFARCTION

Developing and piloting a standard diagnostic indicator for acute myocardial infarction is the aim of this project. The standard diagnosis will be based on a combination of information on patients' symptoms, cardiac enzymes, ECG findings and previous history of myocardial infarction obtained from clinical records. Data will be collected for patients aged between 25 and 70 years who are admitted to one of the Newcastle hospitals participating in the WHO MONICA Project. The indicator will be validated against the more complex diagnostic criteria developed for the WHO MONICA Project, and will also be compared to ICD codes from the hospital morbidity data. A standard diagnostic indicator is essential for any long-term monitoring of acute myocardial infarction to guard against outside influences such as changes in administrative procedures, ICD coding, admission criteria or patient mix.

*Annette Dobson
Centre for Clinical Epidemiology and Biostatistics*

ASSESSMENT OF DIABETES IN SOUTH WESTERN SYDNEY: DOES AMBULATORY STABILISATION IMPROVE HEALTH OUTCOMES?

This project will compare the health outcomes and costs associated with ambulatory stabilisation of diabetics on insulin, with more traditional methods

of initiating and stabilising insulin treatment on an inpatient basis. The project will be carried out in the South Western Sydney Area Health Service (SWSAHS). Ambulatory management is already undertaken at the Lidcombe Hospital Diabetes Centre and to a limited degree in other SWSAHS hospitals. The project will:

- determine whether short- and medium-term health outcomes are compromised by the newer ambulatory method of patient management;
- provide assessment of direct and indirect costs associated with ambulatory management versus hospital admission; and
- assess the "critical mass" of staff and equipment necessary for the operation of a successful ambulatory service.

Outcomes to be assessed will include diabetes knowledge, general well-being, psychological adjustment, metabolic control, lost work days, hospitalisation and frequency of adverse diabetes events (e.g. hypoglycaemic episodes). The project will recruit all appropriate patients and follow them up to a six-month review.

Jeff Flack
Diabetes Centre, Lidcombe

NEW ENGLAND IMMUNISATION REGISTER

An actively maintained, voluntary immunisation register based upon a birth cohort is already operating successfully in Armidale and surrounding areas. This involves the full cooperation of all local immunisation providers, the Regional Child Health Service (affiliated with the New England Region Public Health Unit), the New England Tablelands Health Service and the School of Health at the University of New England. This health outcomes project proposes to enrol a birth cohort of infants from the remainder of the New England Region on to a voluntary immunisation register. Immunisation rate and punctuality of immunisation will be measured before and after implementation of reminder protocols derived from the Armidale Register experience. Four different intervention protocols which involve reminders to clients, providers or both will be allocated to specific geographic districts. Costs of each intervention will be measured and a cost-effectiveness analysis performed. Attitudes of clients, providers and health services will be assessed.

Andrew Gardiner
New England Region Child Health Service

EVALUATION OF THE IMMUNISATION SERVICE IN ORANA AND FAR WEST REGION

This project aims to evaluate the immunisation programs offered in a rural area of NSW and in particular seeks to examine a cluster sampling method to provide ongoing evaluation of

immunisation programs. It also aims to identify constraints leading to failures in compliance on the part of parents and care givers which cause problems in immunisation programs in the State. Professionals involved in the components of the delivery of immunisation services have agreed to participate in the study. Its organisers have undertaken to pass on results to the individual participants as well as to publish the study results.

John Hall
Orana and Far West PHU

QUALITY OF CARE AND OUTCOME INDICATORS FOR CRITICAL CARE

A new service configuration for critical care will be developed in South Western Sydney Health Area. This will reorganise existing ambulance and hospital services to deal more effectively with critical illness, whether it occurs in the community, at an acute hospital or when the need arises to transport critically ill patients between hospitals. The new plan will work alongside the State Trauma Plan. To monitor and evaluate these changes the project team will also develop and test a set of quality of care and outcome indicators. Quality of care will be monitored by identifying the number of preventable deaths and avoidable complications occurring among critically ill patients. Other clinical indicators will be developed to monitor the performance of components of the Area critical care service such as retrieval times for critically ill patients transported between hospitals and compliance with interhospital transportation guidelines.

Ken Hillman, South Western Sydney Area
David Lyle, Epidemiology and Health Services
Evaluation Branch, NSW Health Department

PROFILING SEVERITY OF ILLNESS AND OUTCOME OF INTENSIVE CARE

This project will add substantial value to an existing information system that contains a standardised core of clinical data collected by 50 intensive care units in Australia. Information is collected locally on demographics, diagnosis, illness severity (APACHE II and SAPS II) and patient outcomes and forwarded to a national clearing house managed by the NSW branch of the Australian and New Zealand Intensive Care Society. For this project a production data analysis and reporting system will be designed and built for the national ANZICS database to enable individual intensive care units to monitor their activity, evaluate outcomes and make adjustments to services when a change in performance occurs. A statistical report on critical illness in Australia will be prepared using the national ANZICS database.

David McWilliam
Royal Prince Alfred Hospital

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NSW HEALTH OUTCOMES PROGRAM

SELECTION OF PROJECT

A rigorous selection process was followed to select the 17 Health Outcomes Demonstration Projects. In general, proposals were likely to be successful if they:

- clearly exemplified the specification and use of health outcome indicators to inform decision making about health services and the subsequent monitoring of services;
- demonstrated the active collaboration between different groups within the health system and different health sectors;
- demonstrated that the project would be relatively easily replicated in different locations or integrated into the health system; and
- built on existing work.

In addition, projects were reviewed in terms of the strategic importance of the project to the Health Outcomes Program, priority to the NSW Health Department and also on practical issues such as the track record of the investigator/s, feasibility, budget and timeline for the project.

Proposals were independently reviewed by several members of the NSW Health Department and a series of review committees. The final recommended list of projects was reviewed by the Director-General and the Executive Directors of the Health Department.

Ten proposals to conduct asthma projects were received. During the review process it was noted there was considerable overlap among these Expressions of Interest.

It was decided not to recommend funding of any asthma projects at this stage, but instead to commission a review of outcome development for asthma. This review will provide a status report on the development of health outcome indicators for asthma, identifying where there are gaps in knowledge and recommending projects which would provide information to fill these gaps. This information will be used to target health outcome projects in the next round of funding.

The next round of Health Outcomes Program funding will be available around July 1993.

Demonstration projects

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THE BARRABA PROJECT

The Barraba Project will demonstrate a practical way of putting together information about small communities, developing health outcome targets and planning local strategies. This approach should be helpful to communities throughout rural NSW. As an example, local information about early deaths from heart disease could be used to set targets for improvement. People in the community would then have greater commitment to efforts aimed at better nutrition and activity levels. The Barraba Shire has a population of 2,500 — of whom 1,500 live in Barraba. The project team involves representatives from hospital and health services, local government and adult and community education. The project is being coordinated by the New England Region Public Health Unit with assistance from the Department of Public Health, University of Sydney.

Bob Scott

New England Region PHU

IMPROVING CARDIOVASCULAR HEALTH OUTCOMES IN AN ABORIGINAL COMMUNITY

The Orana and Far West Region Health Promotion Unit developed a protocol for cardiovascular disease risk factor screening which was implemented in Wilcannia in 1989 and repeated 12 months later. This project will repeat the risk factor screening and publish the methods and a user's guide allowing the screening to be performed in other

localities. The project will also interview individuals who had a very high cardiovascular disease risk in 1989 to identify their contact with the health system and barriers to better health. The project will provide lessons for improving accessibility, acceptability and effectiveness of health services in a local setting.

John Stephenson

Orana and Far West Region Health Promotion Unit

EVALUATION OF TUBERCULOSIS PROGRAM OUTCOME INDICATORS AND A TARGETED INTERVENTION TO MINIMISE DELAY IN DIAGNOSIS

Though the incidence of active tuberculosis in NSW has fallen over the past few decades it remains an important public health issue, especially in South Western Sydney where the rate of new TB disease reported in 1991 was exceeded only by one other Area. Part one of this project aims to develop and establish mechanisms for monitoring indicators of treatment service effectiveness. Part two will evaluate and cost a strategy to reduce delay in diagnosis of TB. Delay, and contributors to delay, in diagnosis will be determined for all new cases at the Liverpool Chest Clinic over a 12-month period. The intervention involves provision of information and access to a laboratory service providing a rapid diagnostic test. A group of general practitioners serving a high-risk population will pilot the new arrangements. Evaluation will involve comparison of the time of diagnosis for the intervention group with that using routine methods.

Greg Stewart

South Western Sydney PHU