

consumer participation





## consumer participation – winner

### Healthier People and Healthier Homes

Bourke Hospital

Far West Area Health Service and Walgett Aboriginal Medical Service

#### Abstract

The Community Working Party of Collarenebri has worked with the Far West Area Health Service and Walgett Aboriginal Medical Service to see two of its programs aimed at improving people's health, Housing for Health and Well Persons Health Check, adopted and embraced by the entire community. From the initial survey of Murdi Paaki Aboriginal Housing stock, the Housing for Health (HfH) program has instituted significant works to repair or install health hardware in homes with some improvements going from 0 percent in survey 1 to 100 percent in survey 2. A significant spin-off of the HfH program has been the Healthy Housing Worker program with the long-term employment of two Aboriginal people in the community to provide ongoing handyman services to the homes.

The Far West Well Persons Health Check has been adapted from the original in Northern Queensland to be delivered in Far West communities such as Collarenebri for the early detection and prevention of disease, to adequately profile and document each community's health needs, focussing on diseases associated with lifestyle. These dual programs have succeeded through partnership with local health facilities and strong collaboration with the local community working party to achieve a beneficial health outcome incorporating the physical, mental and environmental health of families.

#### Aim

These dual programs aim to achieve healthier people and healthier homes. It does this by the early detection, intervention, prevention and education of lifestyle risk factors and illnesses; promotion of preventative house maintenance and tenant support, capacity building, education and empowerment of

local and regional health staff and the community; and over time, achieve a real reduction in the community burden of the preventable and manageable diseases, all made possible through a strong working relationship with the local



*Collarenebri kids at Well Persons Health Check pool promotion*

Community Working Party.

#### Background

Collarenebri has a population of 505 people: 35 percent Aboriginal, 86 percent over 15 years of age. The communities of Far West NSW have the poorest health status in NSW. Males and females are more likely to die at any age from any cause compared to other males and females in NSW. All communities in Far West NSW are also below the average socio-economic status of NSW. Socio-economic disadvantage is closely linked to poor health outcomes. The NSW Department of Health's report of the Health Survey program for 2002 indicates incidence above the NSW average for Far West NSW respondents for alcohol risk drinking behaviour, smoking, asthma, diabetes,

overweight and obesity, and below average intake of fruit and vegetables.

## Method

The success of health programs is often related to community ownership and acceptance. In order to achieve the level of success which will see real improvements in health, health programs in small isolated communities have to survive intense scrutiny by often wary residents, and benefits need to be tangible and outcomes achievable. The HfH program required a team of skilled tradespeople willing to work with and mentor local residents keen to develop trade skills such as plumbing or carpentry. Once the program is finished, local healthy housing workers remain to conduct running repairs earlier before problems become entrenched and damage becomes significant or health-impacting. The development of skills within the community ensures an ownership of the good maintenance of the housing.

The Well Persons Health Check has been used previously in Northern Queensland and Far West NSW to provide early detection and intervention into preventable diseases, particularly those associated with lifestyle, such as diabetes, kidney disease, liver disease, hypertension, dental disease and some sexually transmitted diseases. The check is undertaken by local health service staff, including the resident general practitioner, and augmented by other Area-based staff to ensure as much specialist knowledge and training as possible. All check team members underwent formal training by the University of Sydney Department of Rural Health in the lead up to the check.

## Planning and implementation

The HfH program has seen local residents working alongside skilled tradespeople in the repair of health hardware in homes. Without functioning bathrooms, kitchens or laundries, it becomes more difficult to stay healthy or recover from disease. In Collarenebri, all Murdi Paaki houses were surveyed for health hardware essentials (functioning toilets, running water, sewer connections, safe electricity and gas, functioning facilities for cleaning children, clothes and preparing food). Repairs were

undertaken by local tradespeople through a local Aboriginal employment and a training program at TAFE for carpenters and plumbers. A follow-up survey showed significant improvements in the status of health hardware, eg safe power, water and electricity connections from 50 percent to 97 percent; all drains functioning from 10 percent to 85 percent; toilets functioning from 60 percent to 100 percent; all septic pumps out and repaired; and all houses with at least two smoke detectors. The acceptance of the program was largely due to the drive and commitment of the local Community Working Party.

The Well Persons Health Check was also made successful through the direct involvement of the Community Working Party and the Health Advisory Council. The program had four stages:

1. Community consultation and pre-check activities (team creation, training, art competition to design T-shirt received on completion of check) and promotional event – a pool party
2. The check
3. Clinical follow up and distribution of individual results
4. Community report.

A nine-station health screening was carried out over 10 days from early morning, followed by the serving of a healthy breakfast to participants (they were required to be fasting for the check and therefore on exit were hungry!).

## Outcomes and evaluation

One third of the adult community participated in the Collarenebri Well Person Health Check, which included 72 percent of Indigenous persons aged over 18 years.

The program found over one third of the participants had fasting sugar levels above the normal range and thirty new cases of elevated sugar which required further investigation; 62 percent of the participants had cholesterol above the recommended level with 28 percent newly diagnosed with elevated cholesterol; 72 percent were found to be overweight with 39 percent being obese; over 90 percent of the participants had high levels of belly fat; only one fifth of men and one-third of women stated they

were eating enough fruit; over half of the participants were calculated at doing enough physical activity to have some benefit to their health; while 70 percent had normal blood pressure; 27 percent possible new cases of kidney disease which will require further investigation; one in four participants required dental treatment within 2-4 weeks. One in three people indicated from a subjective social and emotional well being questionnaire, that they may have been experiencing some social and emotional distress in their lives in the past four weeks. Sixty one percent of the participants were not current smokers.

The HfH program has seen electrical, plumbing and carpentry works completed. Ongoing maintenance will now be undertaken by local healthy housing workers who will remain in the community. Through maximising 'hands-on' involvement and participation, individual people and their families have the opportunity to directly learn about important environmental health and safety issues in the home and community; and more importantly learn how to prevent and fix them. HfH in Collarenebri undertook to build on the ownership and participation of the grass-roots community members through maximising the employment opportunities in all aspects of the program and incorporate indigenous employees from NSW Health as part of the service delivery.

Undertaken simultaneously, the two programs provided for crossover of staff to take full advantage of local expertise and resources that ultimately resulted in high response, attendance and participation.

Key aspects of project coordination (ownership and participation) were:

- project endorsed and invited through the local Aboriginal Community Working Party
- Collarenebri Aboriginal Land Council, Mangankali Aboriginal Corporation, Barriekneal CDEP Aboriginal Corporation were also directly involved in the process

- Walgett Aboriginal Medical Service Board also endorsed the project and provided staff as part of the survey and check teams
- the local general practitioner was a member of the check team during the screening and the follow-up.
- each housing survey team (there were three) consisted of a range of Elders, women, youth (four per team) Aboriginal health workers (one per team) and Aboriginal Environmental Health Workers (one per team). The check team included as many Aboriginal health workers as other health professionals
- many of the local staff 'crossed-over', particularly local Aboriginal health staff
- all Survey teams undertook the Well Persons Health Check first and later provided advice and encouragement to local families during house surveys.

#### Future scope

The Well Persons Health Check provides an excellent means of identifying preventable diseases and earlier intervention than might otherwise occur. This population screening technique is particularly beneficial in smaller isolated communities as it identifies specific primary health services which will be most useful in combating the health problems specific to that area. Run in conjunction with the Housing for Health program, a greater awareness of healthy living practices is generated and health promoting activities can be better targeted. The upskilling and use of local people means sustainable local programs and a greater insight for local health workers in the principles of environmental health and safety and the resulting health outcomes. This in turn contributes to local service development and greater participation and more meaningful programs planned for this and similar communities.

## consumer participation – Minister’s Peak Award

### WellingTONNE Challenge

Wellington Community Health  
Macquarie Area Health Service

#### Abstract

The WellingTONNE Challenge was designed as a community health promotion program targeting cardiovascular disease and diabetes. The Challenge was a multifaceted 12-week program, which focussed on weight loss, increasing physical activity and increasing fruit and vegetable consumption. It was designed for the community to work together to achieve an accumulated 1000 kilogram weight loss.

The Challenge commenced on February 22, 2003 and finished on the May 17, 2003. A total of 405 people registered in the program. Results for the WellingTONNE Challenge include achieving an accumulated weight loss of 772 kilograms, showing significant increases in physical activity and fruit and vegetable consumption. Feedback from participants indicated an improvement in health status with adjustments to cholesterol, blood pressure and diabetic medications required.

The WellingTONNE Challenge meets the criteria under the NSW Health Healthy People 2005 – Healthier People strategy as it focuses on reducing overweight/obesity, promoting physical activity and promoting healthier diets.

#### Aim

To reduce the risk of cardiovascular disease and diabetes in Wellington.

Due to the long-term nature of this aim, short-term contributing goals were developed. These included:

- the community losing an accumulated 1000-kilograms in 12 weeks
- increasing participation in physical activity
- increasing fruit and vegetable consumption



*WellingTONNE Challenge project team and monitoring scales.*

#### Background

Evidence supporting the implementation of targeting cardiovascular disease (CVD) and diabetes in Wellington includes:

- diseases of circulatory system, including CVD, leading cause of death for males and females in Wellington between 1988 and 1998, 43.8 and 50.4 percent respectively (Macquarie Area Health Service, 2001).
- diabetes is Australia’s fastest-growing chronic disease with 520,000 Australians diagnosed with diabetes and 1,040,000 unaware they have diabetes (Diabetes Australia, 2001a).
- increase in the number of overweight or obese Australians, 56 to 60 percent (Australian Bureau of Statistics, 1997 & Diabetes Australia, 2001b).
- obesity is a major risk factor for both CVD and diabetes (Australian Institute of Health and Welfare, 1999).

## Method

Wellington Community Health Centre staff who had experience or interest in CVD, diabetes, health promotion, research or were of Aboriginal descent, formed the project team. The project team met on a weekly basis and utilised brainstorming and flow charting techniques in both the understanding of what the health problems were and potential ideas for a large scale health promotion activity. Each member was allocated tasks from the meetings with deadlines attached to these tasks. Data was obtained through a reviewing of literature concerning CVD, diabetes, obesity and community health promotion programs targeting all these areas. This information was disseminated through team meetings.

Consultation on impact of CVD, diabetes and obesity and the concept of a multi-factorial health promotion strategy as a possible solution involved the Macquarie Area Health Service (MAHS) – Health Improvement Team and the Wellington Health Council. Anecdotal evidence from clients attending services provided by the Wellington Health Service, in particular the diabetic, dietetic and cardiac rehabilitation services, indicated community need for weight loss.

## Planning and implementation

A 12-week multifaceted program, the WellingTONNE Challenge, was designed for participants to not only lose weight but to increase healthy behaviours. The Challenge involved the community working together and supporting each other to lose a tonne of weight. The Challenge design also incorporated individual goal setting, physical activity, information sessions, monthly weigh-ins, cooking demonstrations, community activities and supermarket tours. Evaluation methods were also developed.

Local food businesses and physical activity providers were also involved, providing healthier food options and physical activity opportunities respectively. The WellingTONNE Challenge received approval from Macquarie Area Health Service and Western NSW Human Ethics Research Committee.

An extensive media campaign was developed to encourage participation. The WellingTONNE Challenge attracted enormous publicity on a local, state and national level due to its concept of a community working towards addressing overweight and obesity.

Identifying, researching, planning, approval processes and funding availability for the Challenge took approximately 12 months.

The WellingTONNE Challenge commenced on February 22, 2003 with a registration and weigh-in day. A total of 405 people registered in the Challenge. Records of participant numbers and comments were documented throughout the Challenge, which contributed towards evaluating the program.

Weekly meetings were conducted by the team to monitor the progress of the Challenge with program alterations made if required.

## Outcomes and evaluation

The WellingTONNE Challenge used a variety of evaluation tools including recording the total accumulated weight loss, comparing pre and post behaviour questionnaires, documentation of feedback, recording attendance figures and a program evaluation survey.

Data analysis revealed the following outcomes were achieved:

- Increasing physical activity – 21 percent increase in the number of participants walking four or more times a week.
- Increasing fruit and vegetables consumption – There was an 11 percent increase in the number of participants who eat eight or more meals a week with vegetables and a 16 percent increase in the number of participants who consume two or more pieces of fruit a day.

All results are highly significant and are within 95 percent confidence levels.

An accumulated weight loss of 772 kilograms was achieved by participants, with feedback from the participants requesting that this outcome be met by November 2003.

Average participant rates for the information and exercise sessions were 57.2 and 65.5 respectively whilst 303 participants attended two or more weigh-ins.

Feedback from participants indicated an improvement in health status with adjustments to cholesterol, blood pressure and diabetic medications required. Comments by participants from the evaluation program survey revealed that participants were feeling better about themselves and they enjoyed working as a community.

Follow up data will be collected in November 2003. Due to community demand, aspects of the Challenge were extended with the goal of total community ownership of the WellingTONNE Challenge by November 2003.

#### Future scope

The WellingTONNE Challenge falls under the NSW Health Healthy People 2005 – Healthier People in that it focuses on reducing overweight/obesity, promoting physical activity and promoting healthier diets.

At the request of the funding body, the Commonwealth Department of Health and Ageing, a proposal has been submitted to develop the WellingTONNE Challenge into a kit for other rural communities in Australia.

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## consumer participation – D-G’s Commendation

### Dorrigo Active Community 2003 Project

Dorrigo Community – Dorriggo Multipurpose Site  
Mid North Coast Area Health Service

#### Abstract

The Rural Chronic Disease Initiative (RCDI) is funded by the Commonwealth Department of Health and Ageing to assist rural communities with populations less than 5,000 people to pilot local solutions to chronic disease over a 12-month period using a ‘whole of population’ approach.

Dorrigo Plateau community has chosen hypertension/ cardiovascular disease as the major perceived chronic health issue, and lack of physical activity as the major contributing risk factor. Since September 2002 over 12 regular exercise groups have been established and numerous workshops held to educate the broader community and to upskill local human resources to sustain the community revitalisation.

Two hundred and fifty people are registered with Dorriggo – Active Community, and significant health outcomes are now emerging. Participants in Weight Watchers have lost a total of 500kg and general practitioners report numerous episodes of medication reduction and even cessation for blood pressure and blood sugar levels, lowering of cholesterol levels, patients sleeping better and less depression associated with bereavement and isolation.

The Department of Sport and Recreation piloted the launch of an annual regional Active Community Award with a presentation to the Dorriggo community in August, 2003.

#### Aim

To increase whole of population uptake of physical activity within the Dorriggo community, support skills development at the local level, improve health behaviours and lessen incidence and consequence of hypertension/cardiovascular disease within 12 months.



#### Background

The Rural Chronic Disease Initiative is one of 14 initiatives funded under the Federal Government’s Regional Health Strategy aimed at assisting people in rural communities to prevent and better manage chronic diseases such as diabetes, asthma, heart disease, stroke, cancers and depression.

Dorrigo has been established as one of ten 18-month pilot sites across rural Australia, with populations less than 5,000, to develop and pilot local solutions to chronic disease within the community.

All pilot sites implementing the initiative must identify which chronic disease is prevalent and implement some innovative rural strategies designed to lessen its incidence and consequence. At the completion of the pilot phase, successfully trialled strategies will be written up as a resource kit and made available to other small rural communities to implement.

## Method

A project manager was recruited who undertook intensive and comprehensive community consultation with the Plateau population. This entailed meetings with numerous community organisations (35 focus groups), across all age groups to outline the aims of the RCDI pilot and to engage whole of population support for the project.

A survey was undertaken to ascertain which chronic disease was of greatest concern amongst Dorriggo Plateau residents, and to identify which of the four risk factors (diet, exercise, smoking, or alcohol) were contributing most to that health issue. Three hundred surveys were collected, representing 10 percent of the Plateau population, and a further round of community consultation with the focus groups was conducted to deliver the collated results.

Survey results indicated that 54 percent of the community recognised hypertension/cardiovascular disease as the major perceived chronic health issue, followed by osteoporosis 15 percent and COPD 14 percent.

Sixty percent of the community felt that physical activity (or lack of it) was the biggest contributing risk factor and that this would be the area of community action.

These focus groups also enabled resource mapping to be undertaken, to tease out the local skillmix within the community who could be offered community development training to implement and sustain opportunities for increasing uptake of physical activity across the community.

Regular media coverage through the local newspaper was established to ensure communication updates for the project, and the community members were encouraged to contribute to the intervention plan.

## Planning and implementation

Since September 2002, and by community request over 12 regular exercise groups have been established, local fitness leaders sourced, venues located and fee for services standardised.

The following table represents activity interventions implemented and sustained, now well established, all of which are operating independently of the Project Manager.

Class	Frequency	Average attendees
Aquafitness	Twice/week	15
Fitball	Twice/week	15
Walking group	Once/week	20
Tai Chi	Once/week	15
Yoga	Twice/week	15
Gymbaroo (one to five years)	Twice/week	10
Soccer fitness for mums	Once/week	15
Active and older strength training	Twice/week	8
Ballroom dancing	Once/week	30
Aerobics	Once/week	25
Archery	Once/week	12
Weight Management	Once/week	25
Exercise kits on library loan	six week borrowing period	20

Other workshops and activities have been conducted, again in response to demand.

- Supermarket nutrition tours – led by dietitian, 30 attended.
- Dorriggo High School Sport Selections revised – student survey to look at preferred activities. The school now offers archery, cycling, aerobics, and has replaced movie watching as a wet weather sport in favour of aerobics, puck hockey and healthy cooking.
- Weight Watchers commenced – 38 members have collectively lost 500kg (eight people’s body weight)

A Weight Management maintenance group has now replaced Weight Watchers.

- Pedometer bulk order – placed in response to community request to adopt the Rockhampton 10,000 step program. Now 70 pedometers in use, acting as visual prompt to walk five miles/day.
- Twenty Exercise kits on library loan – keenly taken up by farming families, many of whom cannot readily access opportunities now available in town. These are heavily utilised.
- TwoQ Fever Clinics – 48 farmers tested and vaccinated.
- Two Give me Strength workshops – to highlight impact of osteoporosis and the preventative role of seven simple exercises in increasing strength, balance and bone density, 100 attended.
- Weekly winter aquafitness – Shire Council sponsoring cost of weekly bus to heated pool 80km away, 15 attend.
- Men's Health Expo – conducted to offer a free look under the bonnet, in conjunction with Primary Health nurses and the local GP, 40 men attended.
- BMX – Shire Council have approved construction of track and work has commenced.
- Fitness leaders training – seven community members trained as leaders to sustain exercise groups and commence new groups in the outreach villages of Hernani, Ebor and Dundurrabin.

#### Outcomes and evaluation

- Two hundred and fifty community members (aged one year to 90 years) are now engaged in an exercise program, most of whom were not previously exercising.
- Seven fitness leaders are in the process of gaining accreditation with Fitness Australia to complement and expand the few physical activity opportunities previously available locally.
- Twelve regular activities have been established and are running independently into the second year.
- Participants and leaders have completed an evaluation survey which reveal significant health gains are now emerging. This has attracted much media attention, the best promotion now is word of mouth.
- Activities reflect community priorities and are all available locally, no travel.

#### Outcomes to date include:

- Weight Watchers – 500kg lost since January 2003
- Participants report – more energy, feeling better, eating better, sleeping better, incidental weight loss, increased mobility and balance, less depression due to increased social interaction, less back and joint pain
- General practitioners report – noticeable decrease and cessation of hypertensive and diabetic medications associated with weight loss, lower blood pressure and cholesterol levels, more stable blood sugars, less nocte sedation scripts.
- Policy change at schools – increased uptake of physical activity
- Food outlets report increased requests to stock healthy low fat/low sugar foods
- Supportive partnerships formed with Departments of Education, Health, Sport and Recreation, Libraries Australia, National Parks and Wildlife Service, Bellingen Shire Council, MNC Division of General Practice.

#### Future scope

- All interventions have been implemented and are operating independently.
- Participation fees are standardised (one cost for all activities), fitness leaders gain fee for service.
- Exercise kits are accessible in an affordable library loan system.
- Partnerships are established with non health agencies – a multidisciplinary approach to health.
- Physical health gains and community pride have become the motivation to continue.
- Seven fitness leaders currently completing training to become accredited, to sustain initiatives established, and to commence outreach initiatives in the satellite villages on the Plateau.
- Formal evaluation conducted by Northern Rivers University of Rural Health in November 2003.
- Department of Sport and Recreation to present an Active Community Award to the Dorrigo community in September 2003 and criteria established to introduce an annual regional competition, encouraging other small rural populations of less than 5,000 to become more active.

## consumer participation – finalist

### Mullumbimby Waterbirths Project

Mullumbimby Hospital  
Northern Rivers Area Health Service

#### Abstract

Water immersion for pain management during labour and birth has been an option selected by women for many decades. Women in the Byron Shire were only able to access water immersion for birth outside the health service and many women had home water births. In June 2000, women were demanding the option of water birth at Mullumbimby and District War Memorial Hospital. At the time, the hospital admitted low risk women and water birth was not considered a low risk birthing option. Water immersion was available for pain management purposes, however women were refusing to leave the water and 'accidental water births' began to occur. In April 2003 the Northern Rivers Area Health Service Board approved a 'Water Immersion During Labour And Birth' Policy and Practice Guidelines for Mullumbimby & District War Memorial Hospital staff, formalising an alternative birthing option. The recognition of the importance of women's choice in the birth reinforced by consumer demand has resulted in increased options for local women. Consumer input has been essential during all aspects of the project and will continue to inform the evaluation and subsequent improvements.

#### Aim

To provide safe and effective care, utilising evidence based policy and practice guidelines, for women who choose to use baths during labour and/or birth at Mullumbimby & District War Memorial Hospital.

To provide an alternative to home water births whilst fulfilling the birth goals of women and their families.



*Birthing experience at Mullumbimby and District War Memorial Hospital*

#### Background

Commencing in 2000, some 'low risk' women were asking for water birth as an option and when declined, continued to remain in the bath and deliver. Feedback received by staff indicated that some women would prefer to birth at home if they were not offered the choice of a water birth. Without a policy to endorse water birth, each occasion was documented and reported to the Area Quality Council as a clinical (and later a critical) incident. During 2001, in response to the pressure for water births, midwives visited Sydney hospitals with established water birth facilities and returned with accidental water birth policies and procedures that were integrated into the *Hospital Policy and Procedure Manual*. The objective was to ensure safe practices were undertaken when women chose not to leave the bath after using water immersion for pain management.

During the period 2000 to 2002 – 19 women out of 298 delivering chose to have a water birth. The women initially gave birth in the Birthing Unit bath. However, as the practice became more popular the women engaged a private contractor and a ‘pool’ was brought in at the time of labour and delivery.

The number of women electing for a water birth increased each year and the NRAHS Board decided that contemporary policy and practice guidelines were required.

## Method

The reporting of water births as clinical incidents has achieved two outcomes. Firstly, the frequency of water births and associated maternal and neonatal outcomes were monitored (see Figure 1; Tables 1 and 2) and secondly, the desire of women for an alternative birthing experience was relayed to the Area Quality Council. Legal advice was sought to address concerns of council members and to inform the project.

In December 2002, the NRAHS Board directed the formation of a water birth evaluation team (WET). The team consisted of clinicians (doctors – GP, obstetrician, paediatrician, specialist obstetricians and midwives), managers and a birth service consumer.

The team’s objectives were to:

1. recommend to the Executive a preferred birthing option (of the four options detailed by lawyers engaged by the NRAHS) for women currently having ‘accidental’ water births
2. cost the preferred options
3. develop Policy and Practice Guidelines for water births at Mullumbimby and District War Memorial Hospital.

To determine the preferred option, an extensive literature search was performed, clinicians liaised with a water birthing service at the Gold Coast (Qld), adding this perspective to previously gathered data (from Sydney). Other ‘consent for water birth’ policies/procedures from throughout Australia were reviewed and integrated in the development of a *NRAHS Policy and Practice Guidelines* for water immersion during labour and birth. Further, staff education packages from other water birth centers

were reviewed for applicability to the local setting. The consumer representative was required to seek opinion from other women who had or would prefer a water birth and this data was to be integrated into the decision making process.

## Planning and implementation

The team met regularly over a four-month period documenting the analysis of data gathered from all sources (literature, birthing services, consumers and clinicians). Based on the analysis, the team developed recommendations for the NRAHS Board commencing from the principle that women should utilise water immersion through labour and if elected, through birth.

The issue of mother and neonatal safety was addressed with review of the existing evidence. Limited evidence was available. The anecdotal evidence and study outcomes indicated that low risk women, assessed and cared for by experienced clinicians, with the guidance of clear policy and practice guidelines would experience a safe water birth.

The team completed a briefing paper for the NRAHS Board in March 2003 identifying their preferred options and associated costs, offering draft policy and practice guidelines and suggesting involvement in an international study being undertaken by the Oxford Centre for Health Care Research and Development (OCHRAD) in water immersion during labour and birth. It was suggested that the team continue to review water births at Mullumbimby Hospital after implementation of the recommendations.

## Outcomes and evaluation

The NRAHS Board approved the *NRAHS Policy and Practice Guidelines* for water immersion during labour and birth in April 2003. A, three and six-monthly review will be undertaken by the team and a report to the executive will be completed.

Water immersion during labour and birth continues to be monitored with birth outcomes being assessed. These include: neonatal apgar scores at one and five minutes, degree of perineal trauma, use of analgesia during labour, postnatal infection, neonatal

**Table 1.** Total number of births at Mullumbimby Hospital 2000 – 2003 year to date, and proportion of births where women opt for water birth

year	total deliveries	number of water births	proportion opting for water birth
2000	98	3	3%
2001	107	6	5.6%
2002	93	10	10.7%
2003 – YTD June	53	5 (no bath Dec-April)	since April 2003 – 9.4%

**Table 2.** Vaginal trauma during birth: Mullumbimby Hospital November 2002 to June 2003

delivery	grazes	tears	episiotomy	total trauma	intact	total
normal	5	29	4	38 (64%)	21 (36%)	59
water birth	3	1	0	4 (57%)	3 (43%)	7
totals	8	30	4	42	24	66

complications and maternal transfers. The following demonstrates some of these outcomes:

Table 1

- The number of women opting for water births is increasing over the last 3 and half years.

Table 2

- A range of maternal birth indicators relating to vaginal trauma. Of the total number of births (66): 38 (64%) of normal vaginal deliveries resulted in vaginal trauma compared to 4 (57%) for all water births. It is anticipated that this proportion will become smaller as the data collection grows.

Figure 1 – for normal vaginal deliveries (NVD), water used for pain relief (H2O) and water births comparison of:

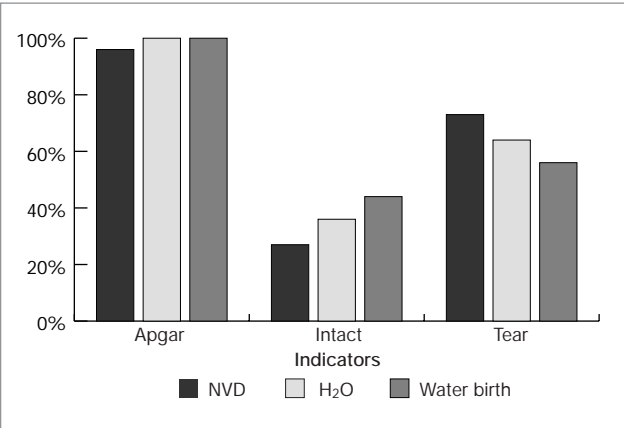
- proportion of neonates with Apgars at 9 at 5 minutes
- proportion of intact perineum.p
- proportion of vaginal tears.

As can be seen the Apgar scores are higher for water birth deliveries; and intact perineum and vaginal tears and proportionally lower and higher respectively.

The project has also achieved the following:

- The birthing unit bathroom is being refurbished to include a bath constructed similar to the dimensions of the consumers’ purpose built pool. Consumers are involved in the design and refurbishment of the bathroom.
- A request to be involved in the OCHRAD study is being developed for submission to the NRAHS Ethics Committee.
- A case review of each water birth is completed and presented to the visiting medical officers and midwives meeting and the WET meeting.
- A consumer survey is to be collated during the six-month review. The number of women who choose water immersion during labour and birth will continue to be monitored with trends reported to the NRAHS Board through the WET team.
- Midwives and doctors have been accredited to manage water births at the hospital and ongoing education has been programmed.
- Staff from other birthing units have been invited to attend education forums and an active interest has been identified from university students – medical and nursing.

Figure 1. Birth outcomes 2002-2003



Future scope

Water immersion during labour has been available in birthing units throughout NSW for some time. Water immersion during birth has been restricted to birthing centers linked to tertiary facilities. The recognition of Byron Shire women’s birthing choice by the NRAHS Board has resulted in a unique rural birthing service. Consumer demands were recognized and service change resulted. Future involvement in OCHRAD will ensure additional evidence will become available in the future which will support this consumer driven initiative.



efficiency





## efficiency – winner

### Child and Family Occupational Therapy Project

Northern Beaches Child and Family Health  
Northern Sydney Area Health Service

#### Abstract

The early remediation of perceptual-motor disorders in children has been recommended in evidence based literature. The problems of long waiting lists and limited outcome measurement in therapy services are common however. Working as a team, this project has achieved efficiency of service provision for these children who require occupational therapy (OT) on the Northern Beaches, by allocating resources to provide the greatest benefit to clients.



*'All services were amalgamated ... and strategies were devised to streamline administrative processes.'*

All services were amalgamated into the Child and Family Health (C&FH) Team and strategies were devised to streamline administrative processes. Tools to assist therapy provision and outcome measurement were created including the Home and School OT Recommendations Manual, the OT Group Programs Manual and the Parent Rating Scale (PRS) assessment which was validated via independent research in a sample of 272 parents.

Assessment waiting times were reduced by 82 percent and the number of clients receiving therapy was increased by up to 80 percent. Outcome measurement studies (n=70) indicated

statistically significant improvements in client's perceptual-motor performance ( $p < 0.001$ ) with large effect size scores (0.8-1.1). The department is now a benchmark for services around Australia and overseas, has presented this work at occupational therapy conferences and sold its resource manuals to over 100 other services.

#### Aims

1. To maximise the efficiency of community paediatric OT services by reducing assessment waiting times (10 weeks with no wait for treatment benchmarked as optimal) and increasing number of clients offered weekly intervention. Sustainability of improvements greater than 12 months to be ensured.
2. To establish effectiveness of community paediatric OT services via statistically significant gains in performance outcomes for children with perceptual-motor disorders and parent satisfaction regarding service delivery.

#### Background

The largest client group referred to paediatric OT has been documented as children who exhibit perceptual-motor and associated disorders (Springfield & Rodger, 1993). Estimations of population prevalence range between 5-15 percent (Henderson & Stott, 1977; Keogh et al, 1979; Smyth et al, 1991). Longitudinal studies (Geuze & Borger, 1993; Lyytinen & Ahonen, 1989; Losse & Henderson, 1991; Cantell, Smyth & Ahonen, 1994) indicate that without intervention these difficulties will be retained into adolescence with negative concomitants of poor academic achievement, vocational ambition, social adjustment and self-concept.

Prior to the implementation of this project, 2.4 (FTE) therapists working from separate OT departments serviced a population in excess of 85,000 children between the ages of 0-18 years living within the Northern Beaches sector of Sydney. Waiting periods for an initial assessment reached up to 13 months at one centre, therapy outcomes were not routinely measured and complaints regarding waiting times were received from both parents and Department of Education staff.

## Methodology

1. A team of key stakeholders was convened including the Community Health Sector Manager, Northern Beaches Community and Family Health Service Director, OT managers, and paediatric OT staff.
2. Available diagnostic data was analysed including:
  - comments and complaints from previous parent satisfaction surveys
  - analysis of referral, occasion of service and workflow data for each service
  - table of information re current clients on assessment waiting lists
  - flowcharts tracking clinical pathways for case management of clients
  - literature review of service delivery models and recommended outcome measurement procedures (Oliver, 1990; Mandich et al, 2001; Culp & Packard, 1980; DeGangi et al, 1993; Palisano, 1989; Platzer, 1976; Hansen et al, 2000; Shechtman, 1993; Lomonaco, Scheidlinger & Aronson, 2000; Mishna & Muskat, 1998).
3. The team established the priority issues to be addressed:
  - administrative duplication including management of intake and waiting list systems, facilities and equipment, medical records and discharge systems
  - high proportion of time (up to 30 percent in one department) allocated for non client-contact duties ie writing of assessment reports, prescription of individual home programs, designing of group therapy programs, photocopying and equipment maintenance

- inconsistent and inefficient clinical outcome measurement. No standardised evaluation of functional outcomes for the child or the family's perception of change.

Clinical indicators were formulated:

- structure – staff FTE
- process – waiting times prior to initial assessment  
– number of clients offered weekly therapy
- outcomes – parent satisfaction  
– clinical outcomes for clients in regard to perceptual-motor performance.

## Planning and implementation

A strategic plan was agreed upon by the team for the implementation and trial of the following.

### Structure

Amalgamation of all paediatric OT services across the Northern Beaches sector into the Child and Family Health Service under the management of the senior (grade 2) paediatric occupational therapist.

### Process

A database was created to support the management of a single intake, waiting list, medical record and discharge system. Volunteers were enlisted to assist with photocopying and equipment maintenance. Standardised assessment report, progress report and progress note proformas were designed according to best practice guidelines and trialled by a subgroup of experienced therapists. A comprehensive Home and School Therapy Recommendations Resource Manual (Gwynne et al 1999) was collated, including 90 pages of home program recommendation sheets. Standard group therapy programs in accordance with evidenced based literature were designed, including weekly session outlines, weekly home therapy exercises and homework sheets.

### Measuring outcomes

A parent rating scale (PRS) evaluation tool was developed and validated via an independent research project funded by the Dalwood Trust Fund to provide an efficient, reliable and family-centred means of routine clinical outcome measurement.

Two formal outcome studies were conducted involving pre and post therapy measurement of perceptual-motor performance via norm-referenced testing and parent perceptions using the PRS. Independent analysis of results was ensured by enlisting the support of 4th year OT students who were blinded to the names and diagnoses of the subjects. Parent satisfaction surveys were redistributed.

### Outcome

An additional 0.2 FTE hours (8.3 percent resource increase only) were allocated to enable the amalgamation of all paediatric OT services into the Northern Beaches Child and Family Health Team and implementation of the process strategies resulted in streamlining of referral systems, clinical pathways and therapy protocols. Assessment waiting times

were reduced, with a maximum reduction at Mona Vale of 82 percent from 13 months to 10 weeks. Treatment waiting times remained negligible.

Uniform assessment waiting times across all centres, of six to eight weeks for early intervention clients and 10 weeks for school-aged clients have been

sustained for over 18 months despite staff turnover.

Report writing time was reduced by 50 percent and home program planning time was reduced by up to 90 percent. Non client-contact duties were therefore reduced resulting in an increased number of clients receiving therapy per week (average increase of 55 percent). Maximum increase of 80 percent was noted at Mona Vale.

The Northern Beaches Child and Family Health OT service is now able to accommodate up to 180 clients in therapy per week with a clinical staff establishment still at only 2.4 FTE.

Research evaluating the parent rating scale (Gwynne, Swain and Blick 2000) was conducted, involving a sample of 272 parents of children between the ages of three and seven years. Concurrent validity results indicated a strong Pearson's-r correlation with the gold-standard perceptual-motor test of 0.62 ( $t=4.56, p<0.001$ ). Intra-rater reliability was found to be very high, at 0.86 ( $t=5.059, p<0.005$ ) and 0.93 ( $t=7.5, p<0.0005$ ) for the separate subscales.

Two outcome studies indicated highly statistically significant improvements for clients. (See table 1).

**Table 1.** Outcome study results

sample size and age range of sample	therapy provided	method	T-scores	Effect	Level of size	Interpretation significance
Study 1. n=31 Ages: 4-9 years	Mean of 11.7 sessions attended. 39% individual, 43% group, 18% paired sessions Group therapy.	Pre-post therapy measurement using mean scores on three norm-referenced perceptual-motor performance tests.	Range: 1.9 – 6.82	Range: 0.78 – 1.06	P<0.001	Highly significant gains on performance testing with large effect size
Study 2 n=39 Ages: 3-10 years	Mean of 10 group sessions attended per child.	9 group programs evaluated. Pre-Post therapy measurement using the PRS.	Range: 7.617 – 13.335	Range: 0.82 – 1.18	P<0.001	Parent's perceptions show highly significant gains in performance with large effect size

Results from re-administration of a parent satisfaction survey (n=33) indicated that more than 80 percent of clients were now satisfied with all aspects of the service. Only 20% were dissatisfied with the waiting time for assessment as compared with 90 percent in the previous survey at Mona Vale.

### Future scope

The Northern Beaches Child and Family Health OT service has become a benchmark for others around NSW and elsewhere. Recent visitors have included therapists from Canada, Israel and Darwin as well as orientation for staff from the Hunter Area Health Service and the Far West Children's Health service.

The Home and School Therapy Recommendations Manual has been sold to over 80 services around Australia including Department of Education teams. The parent rating scale, group therapy manual (including 30 group programs) and outcome measurement research have been presented at NSW Area Health Service meetings and OT conferences, with the manuals being sold to many centres.

This project has complemented the broader Northern Sydney Health planning for the amalgamation of health services on the Northern Beaches and service streaming of Area Child and Family Health teams.

Community paediatric OT resources are now allocated to provide the greatest benefit to clients.

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## efficiency – finalist

### 'My Bed's Better Than Your Bed'

Taree Community Health  
Mid North Coast Area Health Service

#### Abstract

This paper provides an overview of the success of the Community Acute Post Acute Care Services Program (CAPACS) introduced in the Manning Region of the Mid North Coast Area Health Service in September 2002.

Aims of the program were to:

- promote early discharge of clients following their acute admission or procedure from the Manning Base Hospital (MBH), Taree
- offer an alternative to inpatient care, where appropriate
- increase patient choice
- maximise the recovery potential of individuals
- increase the availability of hospital beds.

These strategies would in turn prevent the cancellation of elective surgery and alleviate bedblock in the Emergency Department.

Following the inception of the program, the following achievements have been realised:

- decrease in the length of stay of most joint replacements
- provision of intravenous antibiotics in the home
- almost all laparoscopic procedures and hernia repairs now utilise the Day Only Unit
- reduction in admissions via the Emergency Department for some clients with deep venous thrombosis and cellulitis.

The program offers service from 7am to 9pm seven days per week with after hours support available to clients through the Emergency Department.

The program has fulfilled its aims and an application for enhancement funding has been lodged to enable



*'The CAPACS Program possesses proven potential to decrease length of stay of health care consumers and decrease waiting lists for elective surgery'*

the service to expand its geographical boundaries and provide access to a larger number of health care consumers requiring a safe, efficient and effective alternate model of health care delivery.

#### Aim

The aim of developing a CAPACS Program in the Manning Region of the Mid North Coast Area Health Service was to offer an alternate model of care delivery to substitute for acute care provided in the hospital setting. The program adheres to the principles of primary health, improves efficiency and is cost effective. Ultimately this will increase the availability of acute care beds to health care consumers.

#### Background

Statistics available from the MBH show occupancy rates greater than available bed numbers, cancellation of elective theatre cases secondary to bed unavailability and frequent bedblock in the Emergency Department. When bedblock occurs

in the Emergency Department, the hospital is forced to utilise overtime due to lack of available staff to provide direct care to those clients awaiting a bed. Currently the hospital still has 12 beds closed, which includes a six bed high dependency unit, due to inability to recruit staff.

The introduction of a CAPACS Program in the Mid North Coast Area Health Service has the potential to decrease the length of stay of numerous inpatients and increase the availability of acute beds for both elective and acute patients therefore increasing patient throughput. The program will provide a safe, efficient and effective model of care that allows consumer participation (and satisfaction) in their own homes.

## Methodology

A trial of an Early Discharge Program conducted by the Southern Network Community Health Staff of the Mid North Coast Area Health Service in 1999 highlighted the need for such a program within our Health Service.

In October 2002 NSW Health identified an increased need for hospital in the Home-type programs, claiming reduction in the cost of an episode of care, increase in client satisfaction, decrease in the length of stay, increase in patient throughput and decrease in bedblock (Anderson 2003).

The Mid North Coast Area Health Service identified a number of contributing factors to the bedblock situation. These included factors beyond our control such as an increasing ageing population and the increased need for nursing home beds and supported living facilities within the region.

Challenges for the program included:

- reducing length of stay for joint replacement patients
- increasing the use of day-only facilities with home support now available
- decreasing the length of stay of all patients requiring anticoagulation
- providing a home-based intravenous antibiotic service
- identifying suitable non complex deep vein thrombosis and cellulitis patients willing to be cared for at home.

Initially it was agreed that the program would only service the Taree Central Area and clients living in close proximity to the MBH.

## Planning and implementation

To facilitate successful implementation of this program an indepth education plan was developed. The following strategies were instituted by the CAPACS team:

- Individual appointments were made with all honorary medical officers seeking their input and ideas and providing them with copies of all policies, protocols and staff credentials.
- Meetings arranged with all resident medical officers (RMOs), providing them with the same information. Staff also booked an ongoing timeslot for further provision of information to RMOs within the three-monthly RMO orientation program.
- Individual letters were mailed to all GPs in the region explaining the function of the CAPACS Program, outlining referral processes and providing contact information.
- Multiple inservice programs were provided to staff in every ward and unit at MBH.
- Promotional material by way of large posters and a CAPACS booklet were distributed in every unit at MBH providing quick reference for all staff.
- A full round of clinical areas of MBH is conducted daily, liaising with staff and assessing potential clients.
- Excellent working relationships were developed, through hard persistent work, with the preadmission clinic.
- To ensure equity of access for all referrals a maximum of two visits per client per day were offered.
- Client handouts were developed for the CAPACS program, including
  - Emergency procedures
  - ‘Care of your PICC line’
  - ‘Care of your IV cannula’
  - ‘Following your lap cholecystectomy’
  - ‘Following your hernia repair’

- The support received from Dr Pickles, local physician and infectious disease specialist on a voluntary basis, has been invaluable and must be acknowledged.

### Outcomes and evaluation

To measure the outcomes of the service, a client register is maintained which records name of the client, address, phone number, unit record number, date of birth, doctor, diagnosis, treatment provided, date of admission and discharge, the occasions of service provided and the number of bed days saved.

Clinical indicators have been established using a database which measures the effectiveness of the CAPACS Program. Clinical indicators collected including results show:

- readmission rates = 1 (2.1%)
- wound infections = nil (0%)
- intravenous device infections = nil (0%)
- adverse events = nil (0%)

Since the inception of the program in mid September 2002 to May 31, 2003 the service has provided 1575 occasions of service to 219 clients and saved 850 bed days, outlined in the graph below. Overall budget for the program since commencement is \$202,105. The equivalent projected inpatient bed cost per day (as at May 2003) for the same period for the patients accepted into the program totalled \$809,701.50.

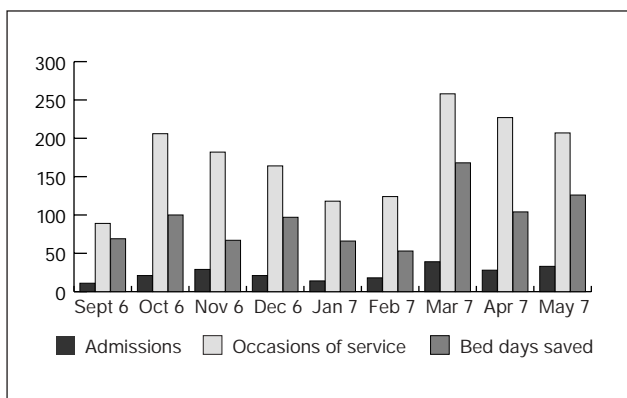


Figure 1. Bed days saved September 2002 – May 2003.

Minor setbacks were identified early in the program showing that most clients did not live within the Taree Central Area. The service was therefore extended and provided to anyone living within a 30-minute radius of the community health centre. Difficulties were also experienced due to the inability of the CAPACS to home visit four to six times per day with clients who were receiving fourth or sixth-hourly intravenous antibiotics. This was overcome with the introduction of Baxter infuser devices and the IV Cephazolin protocol for the management of cellulitis.

To date, the program has:

- decreased the length of stay of most joint replacements by three to four days
- seen the majority of patients undergoing hernia repairs and laparoscopic cholecystectomies discharged on the day of surgery
- decreased the length of stay of clients requiring medium to long-term anticoagulation treatment
- prevented admission of some deep vein thrombosis and cellulitis patients from the Emergency Department.

### Future direction

The CAPACS Program possesses proven potential to decrease length of stay of health care consumers and decrease waiting lists for elective surgery whilst providing an alternate model of care.

CAPACS is a program that can be easily implemented in rural areas which demonstrates benefits to patients and their families. It increases personal choice for recovery, reduces travel time and inconvenience for families and facilitates an optimal recovery pathway outside a traditional hospital environment.

The benefits in cost reduction through reduced bed-days and increased capacity for throughput in acute facilities is apparent and dramatic.

## efficiency – finalist

### Hunter Health Energy Management Initiatives

Hunter Health Capital Works

Hunter Area Health Service

#### Abstract

The seven-year Energy Management Program conducted by Hunter Health has had outstanding results. In 2000/01, Hunter Health met the Government Energy Management Policy 2005 target of 25 percent energy reduction with four years remaining and exceeded the stipulated requirement by a further 5 percent. The project



*'As a direct result of these initiatives, a marked and sustained reduction in energy use has been achieved by Hunter Health...'*

resulted in total energy saving between 1998 and 2001 of \$1.6 million and additional real dollar savings of \$750,000 in energy purchasing costs over 2001/2002. These savings have been passed on to Hunter people as new or enhanced healthcare services. Hunter Health is now the largest commercial user of solar hot water in Australia and has reduced carbon dioxide emissions by 8,500 tonnes per year. As a direct result of the research, planning, policy development and implementation of innovative energy saving concepts, Hunter Health is regarded as a model of energy conservation performance within the NSW Government.

#### Aim

To implement energy saving initiatives across Hunter Health to reduce costs and to meet the NSW Government Energy Management Policy; (GEMP) 25 percent target for sustained energy reduction and consequent reductions in greenhouse gas emissions, and to ensure that these levels are sustained.

#### Background

Hunter Health provides services to 532,000 people across 25,000 square kilometres. The organisation accounts for 7 percent of NSW Health's energy use. This energy is used across 15 hospitals, 20 community health centres, 42 child health centres, 15 child dental health clinics, five business units, two aged care facilities, two mental health facilities and two polyclinics.

Hunter Health embraced the concept of energy management during the mid 1980s and welcomed the Government Energy Management Policy requirement stipulating that all NSW Government authorities and agencies must reduce their energy consumption by 15 percent by 2001 and by 25 percent by 2005.

This GEMP initiative, known from 1995, was the impetus in fast tracking energy initiatives already underway at Hunter Health, which commenced in 1995.

#### Method

Following the GEMP report, Hunter Health undertook research of other organisations and available energy initiatives which led to the development of a viable Energy Management Policy – which formed the basis for future planning.

Commencing in 1998, the Energy Services Section of the then Department of Public Works and Services (DPWS), acting for Hunter Health as client, undertook comprehensive energy audits of 13 health facilities operated by Hunter Health. Prior to this period energy audits had previously been carried out at Allandale and Royal Newcastle Hospital. This auditing process took approximately three months for each facility and involved the identification of areas of energy wastage, incorrect energy form, and areas where solar energy and heat pumps could be used successfully.

Hunter Health compiled a works program to implement recommendations made following the audits, with a view to reducing energy usage by replacing high energy use equipment with more modern and efficient equipment and by using a combination of alternative energy sources including solar energy and waste energy recovery. Expertise from other public and private organisations were also harnessed to ensure the most appropriate technologies were used.

The energy manager at Hunter Health has implemented strategies to achieve reductions in energy consumption and emissions of greenhouse gases. His approach is modelled on the following elements:

**Table 1.** Strategies to achieve reductions in energy consumption and emission of greenhouse gases

Commitment	Secure the commitment of senior executive management, local and decentralised staff
Management Plan	Development of a comprehensive management plan: <ul style="list-style-type: none"> <li>With centralised focus – Environmental committees/teams action plans developed to address augmentation of energy sources conduct energy audits of all hospital sites and benchmarking of HAHS energy use.</li> <li>With Decentralised focus – Individual sites prioritise projects from audits, evaluate projects that sites can undertake. internal review of energy housekeeping.</li> </ul>
Finance	Yearly allocation of capital funds; use of state/federal grants; internal loan funds; operating funds; special purpose funds.
Project management	Assess and prioritise energy audit recommendations; select target areas; use of expert designers, consultants, in-house resources, DPWS, MEU or SEDA; assess energy reduction options, with strong commitment to solar technologies; finalise designs; compliance with all standards.
Ownership	Individuals given ownership of project work; nominated hospital representative involved with construction of project; hospital assumes ownership and management upon completion of project.

### Planning and implementation

A schedule for the Works Program was established and the energy management committees at each site were consulted to ensure upgrades had minimal impact on service delivery. Works undertaken by Hunter Health between 1998 and 2002 included:

- installation of solar photovoltaic panels at Wansey Dialysis Centre. This unique system is a grid-connected solar/battery installation
- installation of solar-augmented hot water systems – high users of energy in hospitals – at 10 Hunter Health sites. Hunter Health is now the largest commercial user of solar hot water in Australia
- installation of an innovative system to reduce energy and cost for potable hot water system at Muswellbrook Hospital
- lighting upgrades to replace old fluorescent lamps with more modern and efficient lamps and reflectors, thus achieving improved energy efficiency and lighting levels
- installation of controls on lighting and air conditioning systems to ensure operation only when required
- installation of the most efficient means of cooling for buildings, including natural cooling and different air-conditioning types tailored for each facility

**Table 2.** Energy usage and hospital admissions from 1995-2001

Year	1995/96	1998/99	1999/2000	2000/2001
Total energy use (electricity, coal and gas in giga joules)	420,000	300,000	290,000	290,000
Emissions of carbon dioxide in tonnes	56,000	48,000	47,000	48,000
Hospital admissions *weighted separations	91,500	98,500	104,000*	103,000*

- design and installation of heat recovery systems on air conditioning chillers, which use waste heat to generate hot water.

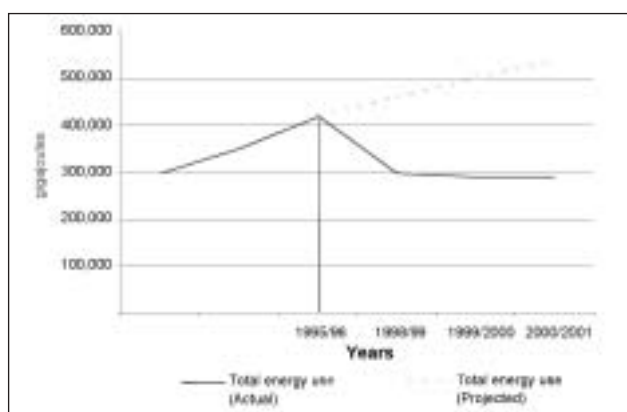
### Outcomes

As a direct result of these initiatives, a marked and sustained reduction in energy use has been achieved by Hunter Health as shown below, while hospital admissions/weighted separations have increased by an average 5 percent:

This represents a 30 percent reduction in energy usage at Hunter Health over the last seven years. A total energy saving from 1998/99 to 2000/01 of 360,000 GJ of energy and 25,000 tonnes of carbon dioxide emissions saving \$1.6 million in energy costs between 1998 and 2001.

In 2000/02 Hunter Health met the Government Energy Management Policy (GEMP) 2005 target of 25 percent energy reduction with four years remaining and, in fact, exceeded the stipulated requirement by a further 5 percent.

**Figure 1.** Total energy use at Hunter Health



The market cost for electricity for Hunter Health was approximately \$3.9 million per annum and the cost of gas was \$1.4 million per annum. By changing to bulk energy purchasing contracts negotiated by DPWS, Hunter Health has obtained very competitive rates and saved a further \$450,000 per annum in electricity and \$300,000 per annum in natural gas costs for the 2001/02 year. The project has resulted in the reduction of carbon dioxide emissions by 8500 tonnes per year.

The NSW Parliamentary Standing Committee on Public Works 2002 Report on Government Energy Reduction targets (Report No. 52/8) stated the following:

*“The achievement of the Hunter Health in reducing energy consumption while maintaining and ensuring critical health services shows what commitment and strategic planning can achieve. What is of considerable note in these achievements is that these energy savings have been made in the health area where the need to ensure reliability of the service is absolute.”*

The committee went on to state:

*“MEU (the Ministry for Energy and Utilities) should consider this model as a benchmark for assessing agency energy management frameworks under the improvement plan signaled by the Government”.*

## Future scope

The approach taken by Hunter Health has delivered tangible results together with a proven model which is available for application in other health services and other State Government agencies.

As part of this project and in response to Hunter Health's request, the DPWS developed an Ecologically Sustainable Products Contract No 7017 to allow Hunter Health to easily purchase energy and water efficient products. This contract is now available to all NSW Government Agencies through NSW Supply as is the Bulk Energy (Electricity) Purchase Contract No 777.

In addition, a Project Definition Plan component was developed jointly by Hunter Health and DPWS, which sets ecologically sustainable design guidelines for the development of new or refurbished facilities. This focus within the Project Definition Plan enables Hunter Health to continue energy saving initiatives to achieve or exceed the targets set by the NSW Government for reducing energy consumption and greenhouse gas emissions under the Government Energy Management Policy (GEMP). PDP guidelines provide a model for new facilities, and cover as solar modifications, insulation, glazing, air conditioning, building services controls, lighting, hot water and photovoltaic systems.

access





## access – winner

## Speech Pathology Screening Clinics for the Community

Lithgow Hospital  
Mid West Area Health Service



*'Overall waiting periods have fallen from an average of 9.3 months to 3.4 months.'*

### Abstract

Growing waiting list periods for clients wishing to access speech pathology led to the development and implementation of the Speech Pathology Screening Clinics for the Community in August 2002 in order to improve the community's access to speech pathology and to reduce waiting times. After a period of six months, waiting periods had fallen from an average of 9.3 months to 3.4 months. This is a decrease in waiting times of 63.4 percent. Increased compliance with best practice processes was also addressed through these clinics (NSW Health, 1999. Speech Pathology Australia, 2001. Syrmiss et al, 1997).

### Aim

The aim of the project was to reduce speech pathology waiting times by 50 percent by February 2003.

### Background

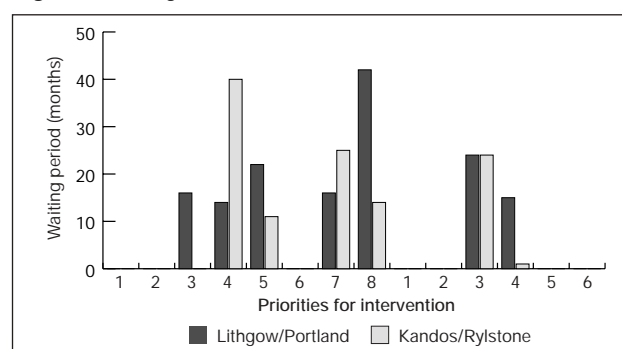
The speech pathology department at Lithgow District Hospital provides services to paediatric and adult clients with difficulties in the areas of swallowing or feeding, speech, language, fluency, voice, and the acquisition of literacy skills. Input is also provided to a number of programs, for example, First Steps, Speech and Hearing Clinic, and Lithgow Early Intervention Program. A variety of service delivery models are incorporated into service provision including the use of individual therapy appointments, the provision of groups or home and school programming, and education to the community.

The department provides services to the community of Lithgow and a number of small communities covering a wide geographical area. The population serviced is approximately 21,659 people.

Prior to the implementation of this project a prioritisation protocol had been developed and put into practice by the speech pathologists across Mid Western Area Health Service (MWAHS), in order to address waiting list times and to provide more equitable service to local communities. Paediatric and adult clients were prioritised as per Table 1.

Despite the implementation of this protocol, waiting times remained high as demonstrated in the following graph:

**Figure 1.** Waiting times at June 2002



**Table 1.** *Prioritisation of clients waiting to access speech pathology*

Priorities for intervention	Paediatric clients	Adult clients
1	Inpatient swallowing	Inpatient – acute
2	Outpatient swallowing	Inpatient – rehabilitation Outpatient – swallowing
3	Early stuttering	Neuro – progressive Neuro – non-progressive
4	Voice	Voice
5	Speech and language (birth –kindergarten)	Nursing home visits
6	Head injury	Accent reduction Stuttering DADHC
7	School age	
8	Advanced stuttering DADHC	

## Method

A number of tools were used to determine the nature and extent of the problem and to identify how change could best be made within the resources available. The following tools were used:

- Comparison of population to therapist ratios across speech pathology departments within MWAHS. This allowed a comparison to be made regarding population sizes and whether they were comparable across MWAHS or whether the department based at Lithgow District Hospital was required to service a larger population.

**Table 2.** *Comparison of population: therapist ratios across MWAHS*

Centre	Population	Population per FTE
Lithgow	21,659	21,659
Cowra	11,450	19,083
Molong	6,007	15,017
Bathurst	43,486	14,495
Orange	38,453	12,817
Parkes/Forbes	32,886	10,960
Canowindra	8,692	8,692

As demonstrated by the Table 2, at times when the Lithgow speech pathology department is staffed by one FTE, as in June 2002, it has the largest population requiring service across MWAHS.

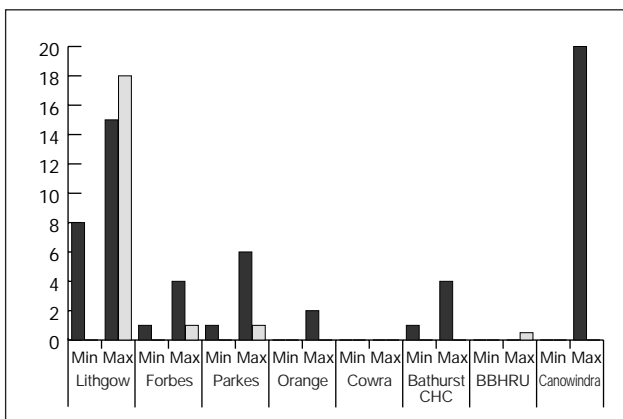
Comparison of waiting list times across speech pathology departments within MWAHS. It was then able to be determined whether waiting periods being experienced in Lithgow were comparable with other centres, or whether waiting periods were higher.

There is a history of long waiting periods at Lithgow District Hospital, as evidenced by the following graph, which indicates higher minimum and maximum waiting periods in Lithgow when compared with other centres across MWAHS.

Evaluation of the expectations of customers and service partners. This information was collected anecdotally. Expectations from the following customers and service partners were noted:

- Clients: to be able to access speech pathology.
- Carers/parents: to be able to access speech pathology for the child/person for whom they are caring.
- Referring agents: that referrals are acted on in a timely manner.

**Graph 2.** Comparison of waiting periods, 2001



- Speech pathology staff: to have the capacity to provide an adequate service to the community.
- High waiting periods meant that the above expectations could not be met.

### Planning and implementation

Having established that waiting periods in Lithgow were high in comparison with other centres in MWAHS and that a larger population required a service, a cause and effect diagram was developed in order to assist in the identification of areas in which change could be made most effectively.

Using the above diagram, areas in which change could most effectively be made were identified as information and accessibility. Thus the way in which the community was able to access speech pathology services was changed. This was implemented in August 2002.

The screening clinics were held once per month at Lithgow District Hospital and bi-monthly in both Rylstone and Portland.

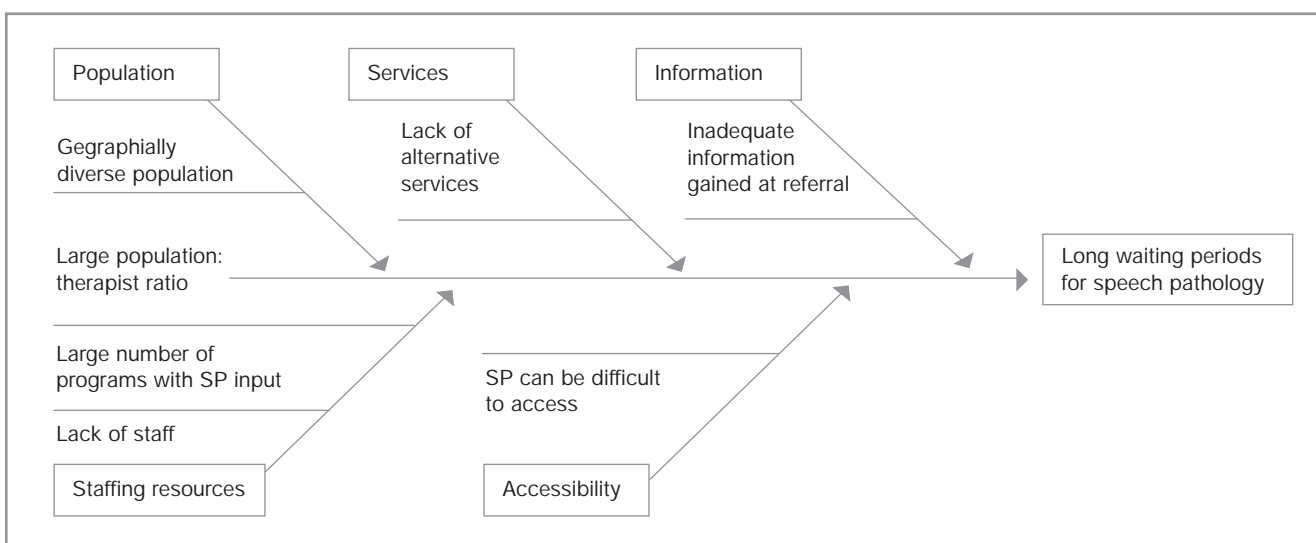
Immediate benefits were noted upon implementation of the screening clinics. The first was that it allowed clients to gain face-to-face contact with a speech pathologist within one to two months, and the second was that by increasing the range of management options available, fewer clients are placed on the waiting list as their needs are best met using other options.

### Outcomes and evaluation

In February 2003, a comparison was made between waiting periods prior to the implementation of the project in June 2002, and waiting periods after the screening clinics had been implemented for a period of six months (February 2003). The comparison is shown made in Graph 3.

Overall waiting periods have fallen from an average of 9.3 months to 3.4 months. Thus waiting periods have fallen by approximately 63.4 percent.

A further positive outcome of the project was that it allowed the speech pathology department to meet the better practice indicator pertaining to referral processes (NSW Health, 1999).



**Diagram 1.** Cause and effect

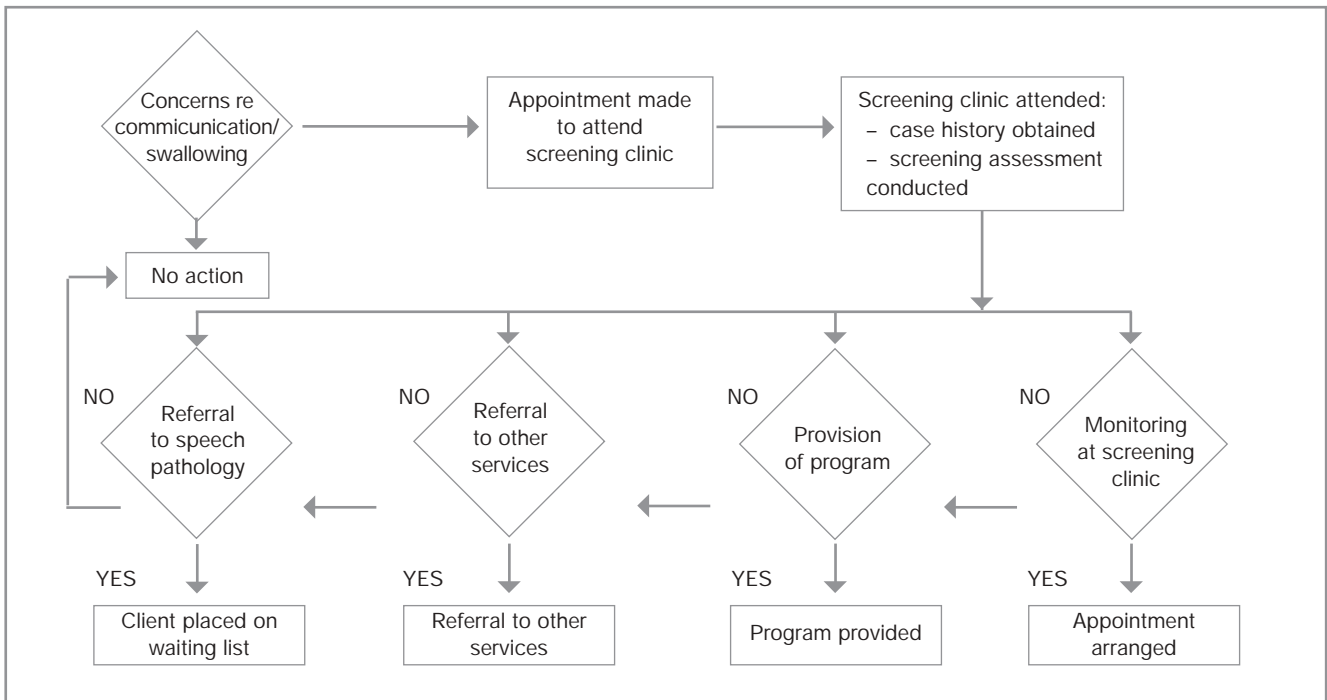


Diagram 2. Accessing speech pathology – screening clinics

### Future scope

There are a number of future directions for this project. They include implementation of the screening clinics in speech pathology departments and clinics that are experiencing high waiting periods, and adaptation of the clinics for use by other allied health disciplines.

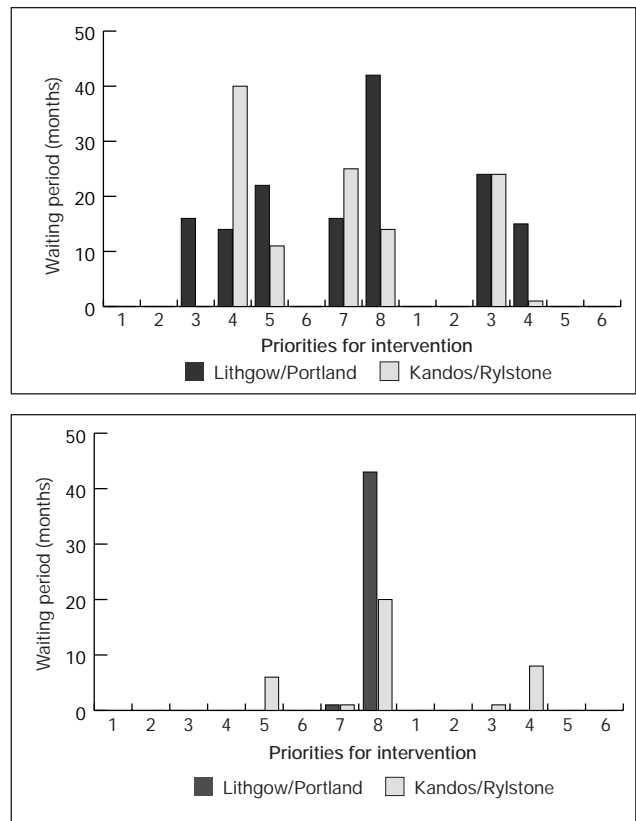
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Graph 3. Comparisons of waiting periods: June 2002 and February 2003.

## access – finalist

### Peak Respiratory Program

Northern Rivers Area Health Service

#### Abstract

Pulmonary rehabilitation is accepted as best practice management of moderate to severe chronic obstructive pulmonary disease, yet this service has not been available to most eligible consumers, particularly those in rural and remote communities. An innovative model was developed in NRAHS to maximise access to pulmonary rehabilitation programs (PRP) for all residents within the rural health service. Three formats for service provision were developed, one being an optional intermittent site program. This intermittent format was offered to existing generalist staff at all smaller sites with portable equipment kits, standardised documentation and guidelines, \$2000, in-servicing and clinical support.

To May 2003, 309 patients had completed the eight-week PRP from 11 sites in NRAHS, with 51 percent having attended the intermittent programs in RMMA 4-7<sup>1</sup> area health facilities. Outcome measures for quality of life and exercise capacity show that all three formats are clinically effective. Workplace impacts were assessed and reflect a culture shift regarding staff attitudes and ongoing service provision to chronic respiratory disease patients.

#### Aim

To provide accessible pulmonary rehabilitation services for all residents of Northern Rivers AHS.

#### Background

The Priority Health Care Program (PHCP) in Northern Rivers Area Health Service (NRAHS) identified the provision of pulmonary rehabilitation services as a key deliverable of their respiratory peak model. Pulmonary rehabilitation is defined as “a multi-modality system that includes patient education,



*Participants of the Pulmonary Rehabilitation Program*

exercise training and psychosocial support delivered by an interdisciplinary team of therapy specialists. Meta-analyses and excellent randomised controlled trials show clearly that comprehensive pulmonary rehabilitation enhances health related quality of life and self efficacy” (Frith, 2002:5). The Australian Lung Foundation (ALF) reports that “fewer than 1 percent of patients with moderate to severe COPD in Australia are receiving pulmonary rehabilitation per annum (approximately 1 in 200)” (ALF, 2000).

#### Method

Staff consultation across sites identified multiple barriers to the provision of pulmonary rehabilitation services. These included:

- limited knowledge or experience in provision of pulmonary rehabilitation
- negative attitudes to working with chronic respiratory disease clients
- lack of specialized respiratory staff in NRAHS and little likelihood of recruiting
- identification and recruitment of suitable patients

- full clinical loads for existing multidisciplinary staff and resentment of expectations for expanding roles with no additional resources
- lack of necessary equipment for the provision of pulmonary rehabilitation
- no locally appropriate guidelines for provision of pulmonary rehabilitation
- lack of suitable and available venues for conducting pulmonary rehabilitation.

The PHCP funding enabled a respiratory coordinator position to be established to work with a multidisciplinary respiratory clinical advisory committee – comprising a physician, GPs, consumers, physiotherapists, social worker, community nurse, discharge planner and evaluator. This team developed and oversaw the implementation of the Peak respiratory model that incorporated the provision of pulmonary rehabilitation programs across the area. The coordinator was responsible for collecting prospective data on:

- number of patients to complete pulmonary rehabilitation
- number of sites providing pulmonary rehabilitation
- standardised patient outcome measures: quality of life and six-minute walk test
- impact on staff.

### Planning and implementation

Prior to the commencement of programs, area wide multidisciplinary education was conducted, standardised guidelines developed and essential equipment purchased for provision of pulmonary rehabilitation. Pulmonary rehabilitation was then rolled out in NRAHS in three formats:

1. Permanent site based – conducted by respiratory liaison worker and local multidisciplinary team at two major hospitals from September 2001. The liaison workers received two weeks' training and commenced standardised programs with the support of physiotherapists that could then provide locally accessible observational training opportunities for existing staff at smaller sites.
2. Home based – conducted by respiratory liaison worker and the respiratory outreach staff at a pilot site.

3. Intermittent site based programs – conducted by local physiotherapists and the local multidisciplinary team, were offered from October 2001.

The last two formats described above significantly improved access for clients in rural and remote areas. This is further discussed under outcomes and evaluation.

To support the optional intermittent programs conducted by existing staff at the nine smaller hospitals, the coordinator offered the following:

- self selected timing of program
- \$2000 for each program conducted
- transportable loan kits of essential equipment delivered to site (two sets initially)
- in-servicing at the site for all staff
- standardised documentation and practice guidelines
- attendance at program sessions until staff felt confident
- co-ordination of media coverage to local community and GPs.

### Outcomes and evaluation

Monitoring of data shows that the option for intermittent site based programs has been well supported and has increased accessibility to this service for rural and remote patients. Of 309 patients completing the program in NRAHS, 51 percent are from RRMA 4-7 areas (see Figure 1).

Effectiveness of each format has been evaluated by comparison of standardized outcomes for quality of life and six-minute walk test.

Figure 2 shows the comparison of percentage differential outcomes for each category score and the total quality of life (QOL) score. Positive outcomes are demonstrated for each program format. Figure 3 shows the comparison of functional capacity. The six-minute walk test, across the three formats reflects positive outcomes for each, with the greatest increase in metres achieved by the intermittent site program.

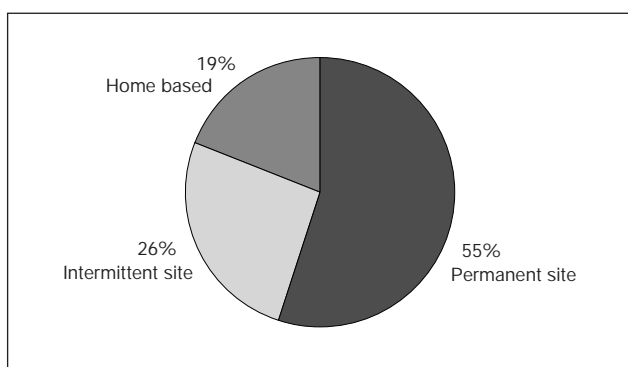
The impact on workplaces was also assessed. A survey of all staff involved in the provision of pulmonary rehabilitation programs aimed to identify if there were any changes to attitudes or behaviour in regard to chronic respiratory disease patients since the implementation of the peak model. Positive trends were identified in relation to level of service provision, understanding of patients' needs and level of interest in working with this patient group, as highlighted below.

The survey reflected that before the peak program , 19 percent of staff had a minimal interest, 81 percent a reasonable interest and no staff expressed a keen interest in working with chronic respiratory disease patients. Currently 19 percent expressed a reasonable level of interest and 81 percent expressed a keen level of interest in working with chronic respiratory disease patients.

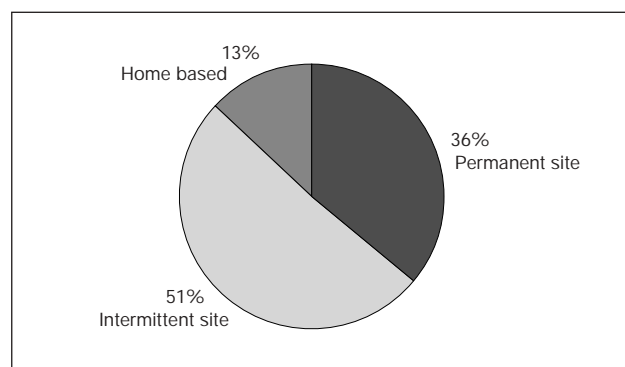
### Future scope

The peak model for provision of pulmonary rehabilitation is applicable for all other area health services both metropolitan and rural, but has the potential for greatest impact on access and equity of service provision for those in rural and remote communities.

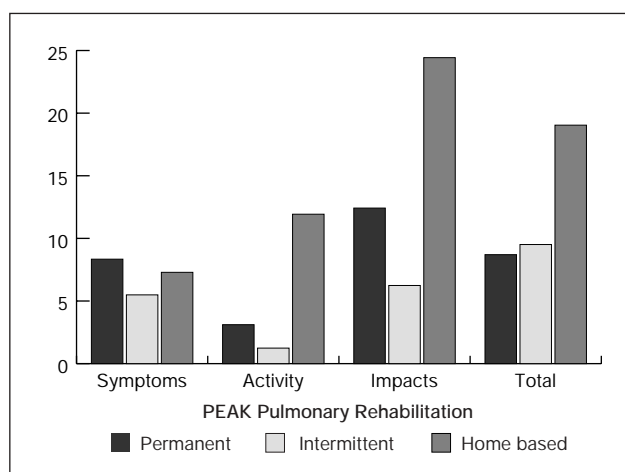
The barriers that were successfully addressed with this peak model are transferable to other comprehensive and specialised services that are identified best practice but not accessible to all consumers, particularly those in rural communities ie cardiac rehabilitation, arthritis self-management programs.



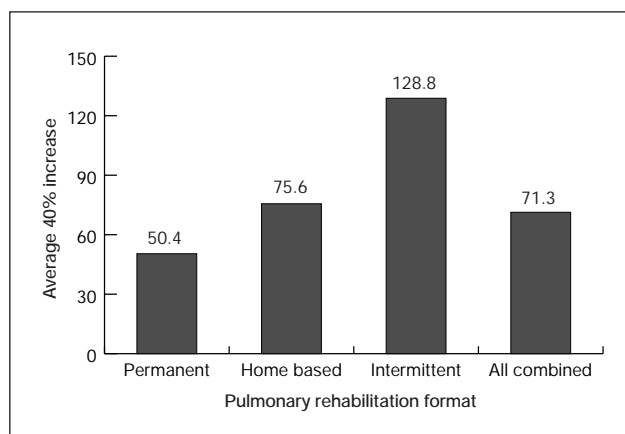
**Figure 1a.** Percentage of pulmonary rehabilitation patients from each format in the first six months of the peak model



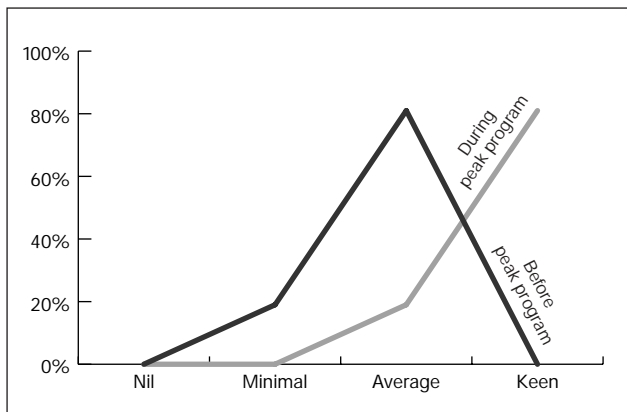
**Figure 1b.** Percentage of pulmonary rehabilitation patients for each format after eighteen months of the peak model.



**Fig 2.** Quality of life percentage differential



**Fig 3.** Average 6MWT increase in metres



**Fig 4.** Level of interest in working with chronic respiratory disease patients

### References

Dr Peter Frith, "Draft Evidence Base and Standards for Pulmonary Rehabilitation in Australia" March 2002 : pg5

## access – finalist

### Caravan Park Outreach Clinic

Maitland Dungog Community Nursing Service  
Hunter Area Health Service

#### Abstract

The project commenced as a pilot in 2001, as members of the community nursing team recognised the health and social needs of a socioeconomically disadvantaged group, resident within a caravan park, situated on the fringes of the Maitland community. In particular, the plight of resident women and children warranted attention.

Utilising a van borrowed from the Aboriginal Health Service, the project team commenced on-site outreach clinics, targeting issues identified by the female residents themselves. The model of service delivery was, and still is, based on the concept of community capacity building and features dual themes of 'advocacy' and 'partnerships in care'.

Key aims and objectives are to improve access for the women and children to diverse existing social and health services and to develop support networks that will see inroads in achieving improved maternal and child health outcomes sustained. Specific objectives have been developed to meet a variety of resident needs over the course of the project lifespan, from 2002 to 2003, and, thanks to funding, activity remains ongoing.

Outcomes can be demonstrated in a number of key areas and the project is now recognised by authoritative bodies, both within the Hunter Area Health Service and externally, as having the potential to be translocated to other similar settings.

#### Aim

'To enable equitable access to services on the basis of need, irrespective of geography, socio-economic group, ethnicity, age or sex.'

The Caravan Park Outreach Clinic is an initiative of community nurses from the Maitland Dungog Health Service. It commenced as a pilot project in March 2000, and in June 2002, funded by 'Womens' Health Outcomes', it proceeded as a 'project proper', based on both its actual and potential achievements in providing 'primary care' initiatives for a group of 'disadvantaged' women and children.

#### Background

The focus of the project is a privately owned caravan park situated on the outskirts of Maitland. It provides cheap accommodation and is an integral part of the Department of Housing's strategy for emergency, temporary placement of its socioeconomically disadvantaged clients, who receive four weeks' rent allowance on application. It is geographically excluded from the township by a busy city by-pass, and its residents are further excluded by their social circumstances. The park houses approximately 200 residents within 80 on-site vans. Residents are predominantly female, most of whom head single-parent families. Almost universally they rely on social security benefits, lack family or community support networks and have poor levels of literacy. Many have been evicted from public housing and some arrive there from refuges. A significant number have been victims of domestic and/or sexual assault and some have a diagnosed mental health illness. There are a number of residents on registered methadone programs. There is no outstanding ethnicity bias, because of the owner's unique 'resident selection process', therefore there are only limited opportunities to attract specific project or service funding grants that might improve the facility.

**Table 1.** Current park demographics (2003 breakdown of residents)

Current population comprised of:
• 30 family groups with 35 pre-school aged children
• 30 youth aged between 12 and 25 years
• 8 young people who until recently were wards of the state
• 6 teenage mothers, the youngest of whom is aged 15 years
• 6 new babies and 4 pregnant women
• 8 caravans are occupied by elderly residents.

*NB: Approximately 20% of the caravan park population, at any one time, is transient.*

## Method

The plight of the park residents was first brought to the attention of the community nursing team in 2000, through the number of referrals from different service providers, such as the Department of Community Services (DOCS), Family Support Services, Australian Childhood Immunisation Register (ACIR) and the Maitland Hospital (especially maternity referrals) and in one instance, from a funeral director. The team allocated community nurses with appropriate childcare credentials to conduct early forays into the park. They revealed that the women residents failed to consistently access mainstream social and healthcare services for reasons that ranged from associated costs, transport and childcare dilemmas, to illiteracy, misunderstanding and mistrust of the 'systems' in place, therefore social and health issues were rarely permanently resolved.

After consultation with the park owner, in 2001 the team negotiated, within the Hunter Area Health Service, for the loan of the 'Aboriginal Health Van', to be taken on site for a four hour 'clinic' conducted each month, initially for a six-month period. Regular on-site contact led to gradual building of rapport between resident women and members of the team. The women themselves identified priorities for intervention. They reported high levels of stress and depression associated with their lifestyles and social circumstances, and some described their lives as, 'at times, chaotic'. This was endorsed by the park's owner who reported that resident women

were frequently victims of domestic violence and that an average weekly 'referral' was made to the police, usually in conjunction with domestic violence or a 'mental health' crisis. Further potentiating their 'at risk' status were the numbers of resident children aged under 10 years, who were frequently unsupervised within the grounds of the park.

Questionnaire revealed that 90 percent of adult female residents had not had a PAP smear for five years or more, and 53 percent had children whose immunisations were overdue. The team noted that the women failed to consistently access antenatal care and family planning services. Infants born to residents weighed lower than average birthweight and were unlikely to be breast fed.

## Planning and implementation:

Appointment, in 2001, of a permanent project team facilitated continuity of service and growth in trust between stakeholders. The team identified the aims of establishing an advocacy service and facilitating collaborative partnerships in care with existing, diverse service providers. This was considered the most effective means of achieving and sustaining specific objectives that included improving maternal and child health outcomes, as well as the broader objectives of potentiating healthier lifestyle choices, reducing social isolation, improving levels of literacy, increasing employment opportunities and opportunities to gain permanent housing. Subsequently, a number of established local services, social and healthcare, were identified, approached and engaged as 'collaborators in care'. 'Capacity Building', proven in other, similar environs, was chosen as the most suitable basis for service delivery model. (Littlejohns, Baugh and Thompson – 2001).

In 2001, frequency of on-site clinics increased to fortnightly, and the service was promoted through local news publications. Flyers were circulated to all key stakeholders. Clinic 'space' was augmented by the establishment of an on-site outdoor common area. Initial funding was from the Health Service, but has since been subsidised by other grants, culminating, in light of interim outcomes, in the allocation of funding from Women's Health Outcomes in June 2002, to support ongoing project activity.

Collaborating in 2001	Added in 2002	Added in 2003
• Department of Housing	• TAFE	• TMH Drug and Alcohol Services
• Department Community Services	• Family Action Group	• Maitland City Council
• Family Support	• Maitland Public School	• Families First
• ACIR	• HAHS Dental Services	• Mindaribba
• TMH Maternal and Child Health Services	• TMH Emergency Services	• Police Boys Association
• HAHS Aboriginal Liaison	• Maitland Domestic Violence Committee	• Attorney General's Department
		• School Counsellors
		• UNI Law Faculty

*Table 2. Collaborators in care – 2001/2003*

### Outcomes and evaluation:

After two years of intervention, there is growing evidence for positive evaluation. The list of 'collaborators in care' has grown, thus ensuring residents' access to diverse services.

More importantly, a number of key services have adjusted their service delivery model to better meet the needs of the residents.

For example.

- TAFE representatives regularly visit the site to assist residents already enrolled and to encourage ongoing enrolments of other residents in suitable courses. In 2003, 12 residents are attending courses as diverse as completion of Year 12, literacy, computer skills and assistant in nursing. A further five residents were due commence courses in the second semester of 2003.

There is also evidence of a developing supportive network within the park itself. Fine examples of resident driven, participative activity has seen:

- A group of obese residents meet weekly, in the early morning and walk to the local pool where they swim. There are associated achievements of weight loss and other fitness inroads. In light of commitment shown by residents in this endeavour, Maitland City Council now provides free pool admission passes. Responsibility for the organisation lies solely with the residents.
- Residents whose literacy has improved now offer assistance to new residents in completion of application forms for housing and other social services.

In fulfilling the 'advocacy' role, the team has substantially removed 'access' barriers associated with transport and childcare, so that residents are more likely to keep appointments, sustain treatment and pursue interactions, so that issues are more likely to be resolved. Examples of outstanding achievements in this regard include:

- One resident accessing and sustaining dental treatment after being on the waiting list for Area Health Dental Services for two years, and accessing the local hospital's Emergency Department for treatment of associated conditions 15 times within that period.

- Placement in permanent housing of a family of seven who were residents of the park for a record five years.
- Female resident victims of domestic violence are more likely to access legal services.

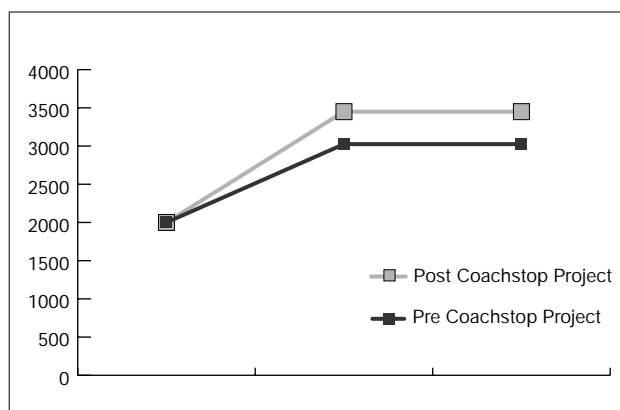
Commitment to lifestyle change by a number of residents is also evident and examples include:

- Three adult residents have completed a formal stress management course
- Two residents have commenced attending a community-based 'detox' program.
- One longterm resident couple who lost custody of their children to DOCS are attending 'Triple P' parenting course, as a prerequisite before reapplying for custody.
- Ten adult residents have gradually decreased their average daily coca cola intake from 16 litres to 2-3 litres, and in conjunction, decreased their shopping bills by \$100 per week.

Improved maternal and child health can also be demonstrated:

- Increase in numbers of mothers keeping antenatal care appointments and average birthweight of babies born to resident mothers improved.
- Female residents take the opportunity to have PAP Smears and keep appointments with Family Planning Services, persist with breastfeeding, and child immunisation.
- School attendance rates have improved. One 13-year-old girl resident, for instance, had 75 absent days during her first six months of high school in 2002. As the result of a partnership strategy, the girl was appointed a teacher 'mentor', and after school access to a study venue and a computer. Absent days, in second semester 2002, were reduced to two days and this improvement has been sustained. Three other teenaged residents, previously not attending school, have re-enrolled in 2003.
- 'Healthy breakfast' programs have been developed with local schools. Six long-term child residents are now attending family day care centres and four are attending pre-school. Two four-year-old residents, previously deemed 'at high risk' because of lack of supervision, are now attending both pre-school and ballet lessons.

**Figure 1.** Increase in babies 'birthweights during the course of the intervention



### Future scope

Opportunities to further influence park resident 'culture' abound. Improved literacy and development of interactive and personal skills of residents have already seen a record number of residents achieve employment in 2003. Statistics compiled by local schools show that resident children are more likely to attend school and be under appropriate adult supervision, both on and off the park grounds. Their mothers are more likely to interact with their teachers and attend school functions as a direct result of developed collaborative partnerships with local schools.

The park utilises a donated BBQ to enhance the residents' common outdoor area and funding is being sought for the building and development of a recreational and homework facility. Already computers, with software and maintenance support have been pledged and local Rotarians are actively involved in fund raising for and planning of a structure to house them.

Deliberate consideration of park 'culture' has seen the introduction of a 'needle and syringe exchange program' to the clinic and as another collaborative venture, art appreciation and creativity programs have been trialed on site, as an alternative to park 'vandalism' for filling 'leisure time'.

Another addition to the clinic program in 2003, is 'cooking' classes for resident mothers, focusing on how to provide tasty, satisfying, nutritional meals on a limited budget. These classes are conducted by a motivated male resident, a former chef, who charges

the mothers \$1.00 each, to cover cost of food that is prepared and cooked on-site, and consumed by the 'students'. And a strategic proposal to address men's health issues within the transient park environment is being planned in conjunction with another motivated male resident.

The collaborative partnership with Maitland Hospital has led to negotiation of group antenatal appointments so that travel and childcare can be more easily facilitated. The hospital's Emergency Department (ED) now has direct ties to the clinic, and a decrease in resident presentations to ED, from 14 to six per fortnight since 2001, evidences more appropriate use of local healthcare services.

Data in relation to ED presentations is under analysis and highlights the predominance of respiratory complaints. Analysis will be utilised to target specific health initiatives during future interventions, such as developing skills in self-management of asthma.

Finally, the clinic is attracting increasing interest, from other Health Services and from councils and governments, as a potential model for similar services to establish elsewhere. The project has also attracted attention of the Attorney General's Department as a potential means to launch a phase of the National Crime Prevention Program: 'Pathways to Prevention: development and early intervention to crime in Australia' Project.

