Multi-disciplinary approach to diabetes management for rural and remote areas

Bernard Denner, Centre for Rural and Regional Health Education and partnership of Mallee Track Health & Community Service

INTRODUCTION

The Mallee Track Health & Community Service (MTH&CS) Ouyen Victoria embarked upon a major diabetes project to identify and track diabetes suffers and those at possible risk of diabetes type 2 factors across the region. The project was funded under the Department of Health and Ageing, Rural Chronic Disease Initiative (RCDI) program to deal with this chronic disease across the remote Mallee Track. The Mallee Track is located 5hours north west of Melbourne and one hour south of Mildura, with a local district population of 2900. One of the health centres is a one-hour drive west being the furthest Victorian town from Melbourne.

Diabetes is one of the Top 10 health problems for people of all ages in the Mallee Region based on Victorian Burden of Disease data as well as highlighted in the top ten National Health Priorities for Australians. In Australia it is a hidden epidemic with research revealing that more than a million people have diabetes with over half being undiagnosed.

The "Diabetes Management along the Mallee Track" was a program of the Special Community Health Projects Team, headed by Bernard Denner with responsibility for a range of early intervention integrated health programs across the Mallee Track Community Health Service (MTH&CS).

The Team worked closely with local GPs at the Mallee Track Medical Centre (and externally with Dr Irina Kudriavceva at Manangatang Surgery), MTH&CS Allied Health and Community Health Nurses in developing better diabetes management outcomes for our project participants. The project partnership with Mallee Division of General Practice (MDGP) also provided resources, staff education and a dedicated Diabetes Educator, Lynnette Flavel once a month at the Ouyen Centre.

An Advisory Committee with local community representation from the Community Diabetes Support Group President, Mrs Pauleen Harrison, influenced the direction of the program.

The project also contracted the Community Point of Care Unit at Flinders University South Australia headed by Medical Scientist, Mr Mark Shephard. His unit supported the project with new Point of Care (POC) risk assessment technology for tracking and assessment for diabetes and maintenance of diabetics in the community. The project data collection, evaluation and professional development training for a range of staff were also overseen by Flinders University unit. This partnership continues beyond the life of the project continuing to provide the program and staff with significant new skills and learning strategy for future outcomes and tracking of results across the community.

PROJECT OBJECTIVES

The improved planning and co-ordinated care across the region for existing diabetics clients and those in the general community potentially at risk of type 2 diabetes with emphasis on self-management, staff training, resources and community education.

Project strategy

Firstly to provide diagnosed diabetics with an Integrated Health Service program that supported a multi-disciplinary approach to diabetes management

Secondly to provide an Early Intervention Risk assessment strategy in a settings approach for the general community across the Mallee Track using the latest point of care technology to assist with the identification of risk factors to diabetes.

Strategy interventions

These strategies used a range of interventions to achieve the project objective;

- Multi-disciplinary approach through a GP Practice based program with MTH&CS staff and Diabetes Educator providing an integrated model of care for the maintenance of diabetes.
- Education and training for a range of Community Health Nurses and staff to support this integrated approach across the Mallee Track region.
- Development of resources and processes to provide a pathway for diabetics to better health maintenance within a remote rural area.
- Further development of new Point of Care (POC) risk assessment technology that supported diabetics and community participants through trained staff to access results and the presence of risk factors that would impact on their condition. This process allowed the GPs, Diabetes Educator and Community Health Nurses to give advice and support to clients based on the data without delay or further travel.
- The appointment of Community Point of Care Unit, Flinders University South Australia, guaranteed our program with compliance to Quality Assurance (QA) for our risk assessment sessions. Flinders provided a program of professional development for staff around diabetes and the use of technology and 'tracking' clients to support their maintenance program. Beyond the project we will continue to use Flinders to provide a QA service as well as a workshop around the outcomes and findings of the project for both health professionals and diabetics. The Flinders University report provides Qualitative and Quantitative research that demonstrates the value early intervention and an integrated approach to health outcomes. Participants clearly reported through the MTH&CS evaluation process of feeling better and having a new confidence in dealing with their condition.
- The project also integrated into existing MTH&CS programs and supported a major community exercise strategy called "Walk Australia". This project has attracted over 250 participants across the Mallee Track representing over 15% of the population. In the first fifteen months locals walked over 95 000 kilometres. "Walk Australia" was not only a good exercise program but had significants impacts in well-being through socialisation. Two other programs included "Tennis for Blokes" attracting over 27 participants for two

seasons and another session targeting older participants with an exercise and well-being program called "Your Choice Good Health".

- To further support the program with a better outcome, it was developed through a "Settings Approach" (members of Country Fire Authority (CFA), local school teachers, diabetics at GP practice) strategy has allowed us to track and effectively support "Behavioural Changes" (Reducing risk based on actions taken by participant) for clients based on risk assessment screening results and a program that provided access to MTH&CS services every three to four months over the 12months project period.
- The project and the MTH&CS also supported the training of a Diabetes Educator from the nursing staff at the hospital therefore guaranteeing a sustainable and long-term commitment to providing a Diabetes Educator service to local diabetics. In the past this has been only an Outreach Service based around funding when available. diabetic clients now do not have to travel up to two hours or more to access Diabetes Educator services.

PROJECT OUTCOMES TO END 2004

General project achievements

- Forty (40) diabetics attended GP practice and MTH&CS integrated sessions co-ordinated care by 2/3 sessions.
- Six (6) nurses completed training and professional development sessions conducted by Flinders University.
- One nurse completed a Diabetes Educator course in Melbourne.
- Diabetes Educator conducted ten (10) diabetic sessions and two (2) staff education sessions.
- Resources were developed across a range of applications to support diabetes education and risk assessment.
- The new technology was further developed and staff further skilled in its operation.
- Integrated programs were developed within health service to support more sustainable outcomes for participants.
- The program was conducted in another remote location at Manangatang in support of their local GP with twenty-two (22) participants. The session will continue every 3 months in support of their diabetics. This demonstrated how adoptable and adaptable the program is in another area.
- Meetings were conducted with diabetes support group and will continue with workshops in the future.
- The project was filmed by Monash University for Federal Department Health and Ageing as a demonstration model.

Project outcomes for community

- Three hundred and forty-five (345) community participants attended risk assessment screening with over 150 attending multiple sessions.
- Three exercise and socialisation based community health programs were developed in partnership with RCDI Project to support the reduction of risk factors across the communities for cardiovascular disease and diabetes.

Community evaluated response … respondents are diagnosed diabetics

Awareness

- 73% of the respondents felt that the health screening sessions had provided them with a greater awareness of their health and their risks for diabetes

Diabetes Educator (DE)

- 68% visited a Diabetes Educator as a result of the program
- 68% indicated that the DE was responsive
- 68% indicated that they found their appointment with the DE valuable
- 64% indicated that their appointment assisted them with their diabetes management

Podiatrist

- 77% indicated that the Podiatrist was responsive
- 50% indicated that their appointment assisted them with their diabetes management

Reduction

- 23% of the respondents indicated that they have given up or reduced smoking
- 27% of the respondents indicated that they have given up or reduced their alcohol intake
- 82% of the respondents indicated that they have given up or reduced their fat intake
- 73% of the respondents indicated that they have given up or reduced their fast food intake

Lifestyle

- 68% of the respondents indicated that they shop for food items differently
- 82% of the respondents indicated that they now make healthy food choices
- 27% of the respondents indicated that they have increased their exercise levels or exercise differently
- 18% of the respondents indicated that they have joined the Walk Australia Program
- 55% of the respondents indicated that the screening program has had an impact on their general health
- 36% of the respondents indicated that the screening program has had an impact on their Fitness Levels

- 55% of the respondents indicated that the screening program has had an impact on their diabetes management
- 64% of the respondents indicated that the screening program has had an impact on their Diet and Food choices
- 59% of the respondents indicated that the screening program has had an impact on their approach to their health
- 59% of the respondents indicated that the screening program has had an impact on their approach to their GP
- 77% of the respondents felt that this program would benefit their health if conducted at least twice a year

Community evaluated response ... respondents are Country Fire Authority Members (CFA)

General statistics

- 65% of the respondents were males
- 20.5% of the respondents were females

Response to Health Risk Assessment Screening

- 100% of the respondents found the health screening valuable
- 90% of the respondents found the health screening increased their awareness of their health and risks for heart disease/diabetes
- 97.5% of the respondents found it helpful having an opportunity to have a health check and be able to speak to a health professional/GP
- 42.5% of the respondents will visit a GP or other health professional as a result of this screening
- 95.5% of the respondents felt that it was beneficial to have a risk assessment screening with the Cholestech machine and not have to wait for a result from a GP
- 17% of the respondents were referred to a GP as a result of the screening
- All indicated that they will go to the GP
- 54% of the respondents feel that they will make changes to improve their health

Response to the session

- 20.5% of the respondents felt that they were better informed after the session
- 44.5% of the respondents were happy with their results
- 15.5% of the respondents felt that they can make changes
- 9% of the respondents felt that they were wiser about CVD/diabetes
- 9% of the respondents felt no different

- 95.5% of the respondents felt that the screening process was excellent
- 86% of the respondents felt that the explanation of the screening result was excellent
- 78.5% of the respondents felt that the Information on CVD/diabetes was excellent
- 88.5% of the respondents felt that the session overall was excellent

CONCLUSION

The "Diabetes Management along the Mallee Track Project" has provided an integrated approach to the management of established diabetes and the assessment of diabetes risk in the general community. The introduction of POC technology (DCA 2000 and Cholestech LDX lipid analyser) for the on-site testing of key markers of diabetes management and risk (HbA1c, urine ACR and lipids) has proven a safe, reliable, robust and broadly accepted component of the new diabetes services for the region.

The co-ordinated, multi-disciplinary 'one-stop' approach to diabetes management, combining access to general practitioner and specialist support services with on-site POC testing and immediate result availability, has greatly improved the level of satisfaction with diabetes services among people with established diabetes. This group were unanimous that they wanted POC testing to continue for their personal diabetes management and that POC testing should be available for all people with diabetes throughout the region. Local doctors and health professionals conducting POC testing were confident with this mode of health service delivery.

As a result of community risk assessment sessions, there was a greater community understanding of diabetes and its associated risk factors. The risk assessment sessions provided an appropriate means for on-going surveillance of community risk.

Two key challenges for the program are (i) the ongoing maintenance of the Central Diabetes Register and the commitment to continue performing key POC pathology tests at the appropriate frequency recommended for best practice management and (ii) the attention to the care and follow-up of those people identified at greatest risk for diabetes from the risk assessment sessions.

The Mallee Track model, with its associated POC testing services, can be readily applied to many similar rural and remote health services in Australia, where community will and health professional commitment can work together for the common cause of reducing the prevalence and burden of diabetes.

"Diabetes Management Along the Mallee Track" project funding has supported the MTH&CS with an opportunity to further develop their primary and community health care skills using an Integrated Program that will now become part of the 'culture' of co-ordinated care and protocols of the MTH&CS and the local GP Practice.

It will provide both diabetics and the general community with the best possible outcome for diabetes and CVD in a remote rural area based on the further development of new technology, resources, staff training, access to quality best practice support and protocols, an integrated co-ordinated care with local GPs and a partnership with the local diabetes support group for this chronic disease.

The project was filmed by the Monash University Rural Health Unit Moe as part of the RCDI commitment to supporting other communities across rural Australia with ideas and health

practices that support their efforts to develop similar early intervention programs that address chronic disease. The lessons that have been learnt across the Mallee Track can be adopted by other communities committed to supporting the development of programs that support a 'healthier community'.

RECOMMENDATION

That the Federal Government through the Federal Department of Health and Ageing Rural Chronic Disease Program Unit, continue to assist and support remote rural communities with the opportunity to develop skills and provide resources that develop a better sustainable approach to community health initiatives that reduce rural chronic disease and support communities to adopt better lifestyles in the quest to reduce early mortality and morbidity.

ACKNOWLEDGMENTS

- Federal Department of Health and Ageing — Rural Chronic Disease Initiative Unit
- Mallee Division of General Practice
- General Practices at Ouyen and Manangatang
- MTH&CS Allied Health Team and visiting Diabetes Educator Lyn Flavel
- The MTH&CS Special Project Team
- The Point of Care Unit, Flinders University South Australia …Mark Shephard and Beryl Mazzachi
- The local community Diabetes Support Group managed by Pauleen Harrison
- Monash University Rural Health Unit, Moe

PRESENTER

Bernard Denner is a Health Educator and Founder of the Centre for Advancement of Men's Health (CAMH). He is renowned nationally and internationally for the "Man Model of Health Promotion" that has attracted thousands of men and communities to participate in learning about their health. His work has taken him to Canada and the United States and throughout rural and remote areas of Australia supporting communities and health workers to better engage in early intervention programs. Community programs developed by CAMH at the Mallee Track Health and Community Service, Ouyen, recognise and demonstrate the value of early intervention health.