

**Jennifer Reath**

MBBS, DipRACOG, FRACGP, MMed, is GP Manager, The RACGP Aboriginal and Torres Strait Islander Health Unit, South Melbourne, Victoria. jenny.reath@racgp.org.au

Marion Carey

MBBS, MPH, FAFPHM, FRIPH, is Senior Medical Advisor, Public Health Branch, Department of Human Services, Victoria.

Breast and cervical cancer in indigenous women

Overcoming barriers to early detection

Background

Aboriginal and Torres Strait Islander women have a higher incidence of cervical cancer and poorer outcomes for breast and cervical cancer than nonindigenous women. This article reports on a project that aimed to implement and evaluate strategies to improve general practitioner early detection of breast and cervical cancer in this group.

Method

In three sites a female indigenous worker and female GP developed and implemented local plans aimed to improve service coordination and access, GP knowledge, recall systems, and health promotion. Evaluation included analysis of qualitative and quantitative data from project reports and surveys.

Results

Project officers and partners identified collaboration between service providers, community participation in planning and delivery, an indigenous health worker raising awareness in both the women and GPs, and a female GP providing a holistic service as important factors in project success. Increased cervical screening was documented in one site and a trend toward increased breast and cervical screening in another.

Discussion

Partnerships involving community members planning and implementing evidence based strategies may improve participation of Aboriginal and Torres Strait Islander women in breast and cervical cancer screening.

■ **Cervical screening programs have been associated with a reduction in mortality from cervical cancer of about 56%.¹ While there has not been a similar reduction in breast cancer mortality since the introduction of mammographic screening in Australia, evidence suggests significant reductions are possible with high participation rates.^{2,3} These interventions have not had the same benefits for indigenous women as the wider female population.**

Cervical cancer incidence in indigenous women has been reported as 2–5 times that of nonindigenous women and mortality 8–12 times greater.^{4,5} Although Northern Territory mortality data indicate improvement, possibly resulting from increased screening,⁶ age standardised mortality rates from cervical cancer among indigenous women remain five times that of nonindigenous women.¹ Participation in cervical screening by indigenous women is suboptimal, with numbers never screened ranging from 20–64%.^{7,8}

Although the incidence of breast cancer in indigenous women is lower than that for nonindigenous women, survival outcomes are poorer.⁹ This may be partly due to lower participation in early detection programs as well as lack of access to appropriate services and reduced likelihood of receiving and completing treatment.⁵ The age standardised participation rate for indigenous women (36.2%) is significantly lower than the national participation rate for the target age range (56.9%).¹⁰

Organised population screening is an evidence based strategy to address poorer outcomes for breast and cervical cancer in Aboriginal and Torres Strait Islander women. General practitioners have a key role in improving screening rates. Barriers for GPs to improvement of early detection and management of breast and cervical cancer and strategies to overcome these⁵ are summarised in *Table 1*.

This project aimed to implement these strategies in three Aboriginal and Torres Strait Islander communities and evaluate short

term outcomes. (Evaluation of longer term outcomes were beyond the scope and resources of the project.) Project methodology and outcomes have been described in detail.¹¹

Method

Criteria for selection of pilot sites were agreed by a project steering committee including representation from indigenous and other organisations. A key criterion was partnership between the local division of general practice and Aboriginal Community Controlled Health Service (ACCHS). Following a call for expressions of interest, pilot sites were selected in three states including one regional centre with a substantial Torres Strait Islander community (A), one capital city (B), and one rural centre (C).

In each site, funding was provided for a part time indigenous worker and a female GP. These project personnel consulted with local organisations and stakeholders to develop and implement a plan, based on strategies identified in *Table 1*, to improve GP early detection of breast and cervical cancer in Aboriginal and Torres Strait

Islander women. In particular, flexible local agreements were planned to focus on four key areas identified in the literature:

- links between services to improve coordination and access
- GP continuing professional development (CPD) including cultural awareness and indigenous women's health
- improvements to recall and reminder systems, and
- health promotion.

Given the 15 month time frame it was not possible to evaluate long term outcomes so we focused on identifying changes in behaviour and awareness in the areas of activity described above. Postal questionnaires completed by project teams and leaders of local partner organisations¹¹ assessed satisfaction with processes and perceived impacts. Other data included qualitative and quantitative information from evaluation reports, needs assessments, meeting minutes, patient attendance records, evaluation of GP CPD activities, Breast Screen and Cervical Screening Program data, and area health service profiles. Content analysis identified themes that were categorised according to the four key areas of project activity.

Table 1. Barriers to and strategies in, GP early detection and management of breast and cervical cancer in Aboriginal and Torres Strait Islander women

	Barriers	Strategies
Provider knowledge	<ul style="list-style-type: none"> • Poor understanding of cultural needs • Lack of awareness of indigenous cancer data • Lack of appropriate health promotional resources • Poor identification of Aboriginality 	<ul style="list-style-type: none"> • Evidence based information for GPs* • Cross cultural training of staff* • Encouraging supportive environments* • Partnerships between services*
Patient knowledge	<ul style="list-style-type: none"> • Low priority of cancer screening and follow up • Lack of appropriate health information • Lack of awareness of existing services 	<ul style="list-style-type: none"> • Locally culturally appropriate health promotion activities and resources* • Aboriginal participation and employment*
Economic	<ul style="list-style-type: none"> • Cost of GP consult, travel, accommodation for patients and families • GP financial disincentives 	<ul style="list-style-type: none"> • Financial assistance for travel • Financial incentives for GPs
Logistic	<ul style="list-style-type: none"> • Distance to services • Poor access to transport • Few appropriate referral services • Poor coordination of services • GP and staff shortages and high turnover • Shortage of female GPs 	<ul style="list-style-type: none"> • Improved recruitment/support for female GPs in indigenous communities* • Support long term visiting services • Improved access to colposcopists • Explore newer technologies • Mobile outreach services* • Assistance with transport* • Flexible appointment times* • Improved recall/reminder systems* • Improved coordination of services*
Cultural	<ul style="list-style-type: none"> • Discomfort with some mainstream services • Language/literacy barriers • Importance of trusting relationship with female health care provider • History of distrust of government services • Need for holistic approach • 'Shame', fear of cancer 	<ul style="list-style-type: none"> • Aboriginal community involvement in program planning and delivery* • Gender sensitive service provision* • Holistic services integrated with primary health care (eg. Well Woman Program)* • Developing long term relationships of trust*
* Indicates strategies implemented in the project sites		

Table 2. Activities in the pilot sites

	Site A	Site B	Site C
Service linkages/ cooperation	<ul style="list-style-type: none"> • ACCHS • DGP • Women's Resource Centre • Individual practice • BreastScreen • Base hospital 	<ul style="list-style-type: none"> • ACCHS • DGP • GP Aboriginal health network • Hospitals • Cervical screening program BreastScreen 	<ul style="list-style-type: none"> • FPA Health • ACCHS Committee • DGP • Area health service • Royal Flying Doctor Service
GP continuing professional development	<ul style="list-style-type: none"> • Practice staff presentation • GP CPD meeting • DGP newsletter • GP survey • Local GP interest group established 	<ul style="list-style-type: none"> • CPD events • Promotion through Aboriginal health network 	<ul style="list-style-type: none"> • CPD event • Information in DGP newsletter
Review of Pap test recall/reminder system	<ul style="list-style-type: none"> • Identification of deficiencies 	<ul style="list-style-type: none"> • Identification of deficiencies • Confirmation through case audit • Formal plan for improvement 	<ul style="list-style-type: none"> • Improvement of existing system by employment of indigenous community liaison worker
Health promotion activities/resources	<ul style="list-style-type: none"> • Questionnaire developed by indigenous health workers to facilitate health promotion for indigenous women 	<ul style="list-style-type: none"> • Evaluation of resources 	<ul style="list-style-type: none"> • Culturally appropriate resources used in information sessions

ACCHS = Aboriginal Controlled Community Health Service, DGP = division of general practice

Ethics approval was sought and received from ethics committees including The Royal Australian College of General Practitioners National Research and Evaluation Ethics Committee, the Aboriginal Health and Medical Research Council Ethics Committee, and the Aboriginal Health Research Ethics Committee of South Australia. The steering committee approved and supported local plans and written consent was provided by ACCHSs at each site.

Results

All participating indigenous workers and GPs (9/9) and 14 of 18 project partners (78%) completed evaluation questionnaires. Key outcomes identified by project personnel included improved service collaboration and GP awareness, community participation, and increased screening participation. Factors seen to contribute to success were:

- good communication and cooperation between service providers
- community participation in planning and delivery, and
- partnership between an indigenous worker and the female GP.

The main barriers to effectiveness reported were the short time frame and limited resources. Project partner organisations identified similar outcomes and facilitators of success.

Project activities (*Table 2*) were consistent with strategies advocated to address barriers (*Table 1*). Project outcomes are described in *Table 3*.

Links between services

In all areas, improvement in service communication and cooperation was reported by project teams. In two sites, links between the division

of general practice and ACCHS were strengthened and new links established with other organisations and individual GPs. In one site with an ACCHS organising committee but not a functioning ACCHS or a female GP, collaborations resulted in FPA Health establishing a new clinical service for indigenous women for the duration of the project.

CPD and cultural awareness training for GPs

Continuing professional development activities included provision of information about indigenous women's health issues and cultural awareness training. Pre- and post-evaluation in two sites documented reported changes in awareness and knowledge.

Recall and reminder systems

Recall and reminder systems were evaluated in all sites. In site B, the local ACCHS planned a systems upgrade that could not be implemented within the project time frame. Audit at site A revealed shortcomings in the cervical screening register, and in site C, the indigenous worker worked on recall and follow up, improving communication with women and assisting with transport.

Health promotion

Two sites engaged in health promotion and both reported improved participation in screening. In one site where activities focused on cervical screening (since mammography participation rates for local Aboriginal women were satisfactory) 33 women attended for cervical screening during the 7 months of project activity compared with 11 women screened at the community health centre in the previous 2 years. In the other site, an increased number of women (114)

had cervical screening at the ACCHS during the 11 month project period compared with the same period in the previous year (92) and participation rates of Aboriginal and Torres Strait Islander women at the local BreastScreen service also increased during the same period.

Discussion

There is a need to move beyond documenting indigenous health problems to finding solutions.¹² Strategies for improving early detection and management of breast and cervical cancer in Aboriginal and Torres Strait Islander women have been described^{5,13–15} and recent reductions in cervical cancer mortality among this group in the Northern Territory support these.⁶

Outcomes varied between sites. This was likely related to the differences in approach and context, including the service and location, however the evaluation methodology did not permit more detailed analysis of these differences. Overall, project evaluation supports the potential effectiveness of the strategies implemented.

Indigenous people have a vital role in health promotion, advocacy, support and program delivery.^{9,16,17} Strategies such as Aboriginal community involvement in planning and delivery of programs, employment and training of indigenous people, and gender sensitive provision of culturally appropriate, holistic health services by GPs were shown to facilitate cervical and breast screening. Flexible appointments and transport assistance enhanced access to services.

Recruitment of a female GP in site C resulted in increased attendance of Aboriginal women at a cervical screening clinic during the project. Sustainability of such services is important, although this can be problematic in rural areas where access to GPs, particularly female GPs, is often suboptimal.

In two sites, indigenous health workers used locally appropriate health promotion resources in venues where women felt comfortable. GPs valued information about Aboriginal and Torres Strait Islander women's health and cultural issues.

Involving indigenous health workers resulted in an exchange of

Table 3. Project outcomes in the pilot sites

	Site A	Site B	Site C
Service linkages/ cooperation	<ul style="list-style-type: none"> Links between DGP and ACCHS strengthened including: <ul style="list-style-type: none"> – improved DGP awareness cultural issues/indigenous focus in planning – DGP providing teaching at ACCHS – antenatal clinic established at ACCHS and IHW attending hospital clinic – two GPs to employ IHWs in their practices – BreastScreen developing indigenous health promotion material 	<ul style="list-style-type: none"> State based screening and cancer organisations to produce indigenous health promotion resources Hospitals engaged in discussion about improving services for indigenous women 	<ul style="list-style-type: none"> Partnerships developed/maintained between DGP, ACCHS committee, area health service, FPA Health FPA Health established female GP service providing seven 1 monthly clinics Cervical screening of indigenous women at clinic increased from 11 in previous 2 years to 33 in 8 months
CPD for GPs	<ul style="list-style-type: none"> Improvement in practice staff awareness of indigenous cultural and health issues Network of interested GPs established 	<ul style="list-style-type: none"> Improvement in GP knowledge about services provided by ACCHS 	<ul style="list-style-type: none"> Evaluation of CPD not provided Presentation at Australian Divisions of General Practice forum
Review of Pap test recall/reminder system	<ul style="list-style-type: none"> Improvement and updating of ACCHS computerised recall system 	<ul style="list-style-type: none"> Plan developed for upgrade to computerised system at ACCHS Audit of 108 files Recommendations made for staff training and ACCHS policy 	<ul style="list-style-type: none"> Patients entered on FPA Health database and state recall Indigenous community liaison worker found to be most useful in recall and follow up
Health promotion activities/resources	<ul style="list-style-type: none"> Questionnaire developed as health promotion tool Increase in cervical screening at ACCHS Increase in attendance of indigenous women for mammography 	<ul style="list-style-type: none"> Evaluation of health promotion resources 	<ul style="list-style-type: none"> Discussions with local women identified barriers to screening Culturally appropriate resources used in information sessions

IHW = indigenous health worker, DGP = division of general practice

insights between indigenous and mainstream health services. One project manager reported: 'The project has been a resounding success building confidence and rapport between indigenous and mainstream medical services'.¹¹

Some have called for '... better understanding of cultural differences in attitudes to cancer and its treatment... (that) could translate into meaningful public health and clinical interventions to improve cancer survival in Indigenous Australians'.¹⁸ The approach we used sought such an understanding and provides some evidence of its success.

Implications for general practice

- Aboriginal and Torres Strait Islander women have a higher incidence of cervical cancer and poorer outcomes for breast and cervical cancer than nonindigenous women.
- GPs play a critical role in improving early detection and management of these conditions in Aboriginal and Torres Strait Islander women.
- Local partnership approaches which improve service collaboration, GP awareness, recall systems and health promotion can assist in improving participation of Aboriginal and Torres Strait Islander women in screening for breast and cervical cancer.

Conflict of interest: none declared.

Acknowledgments

The Sylvia and Charles Viertel Charitable Foundation, Australian Government Department of Health and Ageing and National Rural Faculty of the RACGP provided funding for this project. The School of Public Health and Tropical Medicine, James Cook University, and in particular Vicki Saunders, provided a report that informed the pilot phase of the project. The Project Reference Group including Donna Ah Chee, Noela Baigrie, Ngaire Brown, Claire Cupitt, Jenny Davis, Dulcie Flower, Lilly Gerraghty- Madsen, Tamara Mackean, Sarah Larkins, Liz Marles, Sarah Strasser, Sue Whicker, Gail Williams, Erin Wilson and Helen Zorbas provided invaluable guidance throughout the project. The success of the project was substantially due to local project personnel including Christine Read, Judy Trindall, Claudia Smith, Penny Silwood, Fiona Millard, Kim Barber and Karen Andrew. In the project sites active involvement of organisations including local Divisions of General Practice, Aboriginal Community Controlled Health Services and Area Health Services were critical to the success of the project.

References

1. Australian Institute of Health and Welfare. Cervical screening in Australia 2002–2003. Canberra: AIHW, 2005.
2. Zorbas H. Breast cancer screening. *Med J Aust* 2003;178:651–2.
3. Taylor R, Morrell S, Estoesta J, Brassil A. Mammographic screening and breast cancer mortality in New South Wales, Australia. *Cancer Causes Control* 2004;15:543.
4. O'Brien BD, Bailie RS, Jelfs PL. Cervical cancer mortality in Australia: contrasting risk by Aboriginality, age and rurality. *Int J Epidemiol* 2000;29:813–6.
5. School of Public Health and Tropical Medicine, James Cook University. Early detection and management of breast and cervical cancer in Aboriginal and Torres Strait Islander women: supporting the role of the general practitioner. Townsville: James Cook University, 2002.
6. Condon JR, Barnes T, Cunningham J, Armstrong BK. Long term trends in cancer mortality for Indigenous Australians in the Northern Territory. *Med J Aust* 2004;180:504–7.
7. Coory MD, Fagan PS, Muller JM, Dunn NAM. Participation rates in cervical cancer

screening by women in rural and remote Aboriginal and Torres Strait Islander communities in Queensland. *Med J Aust* 2002;177:544–7.

8. Hunt JM, Gless GL, Straton J. Pap smear at an urban Aboriginal health service: report of a practice audit and an evaluation of recruitment strategies. *Aust N Z J Public Health* 1998;22:722.
9. Condon JR, Armstrong BK, Barnes T, Zhao Y. Cancer incidence and survival for indigenous Australians in the Northern Territory. *Aust N Z J Public Health* 2005;29:123–8.
10. Australian Institute of Health and Welfare. *Breastscreen Australia Monitoring Report 2000–2001*. Canberra: AIHW, 2005. Available at www.aihw.gov.au/publications/index.cfm/title/10102 [Accessed March 2006].
11. Carey M. The RACGP Aboriginal and Torres Strait Islander Women's Health Project Evaluation Report January 2003. South Melbourne: The RACGP, 2003. Available at www.racgp.org.au/aboriginalhealthunit/previousprojects/9506.
12. Atkinson VJ, Graham J, Pettit G, Lewis L. Broadening the focus of research into the health of Indigenous Australians. *Med J Aust* 2002;177:288–7.
13. Hunt JM, Geia LK. Can we better meet the healthcare needs of Aboriginal and Torres Strait Islander women? *Med J Aust* 2002;177:533–4.
14. Aboriginal and Torres Strait Islander Women's Forum. *Principles of practice, standards and guidelines for providers of cervical screening services for indigenous women*. Canberra: AGPS, 2004.
15. Lowenthal RM, Grogan PB, Kerrins ET. Reducing the impact of cancer in Indigenous communities: ways forward. *Med J Aust* 2005;182:105–6.
16. O'Connor MC. Women's business. *Aust Fam Physician* 1994;23:40–4.
17. Read CM. Working with an Aboriginal community liaison worker. *ARHEN* 4 May 2006.
18. Valery PC, Coory M, Stirling J, Green A. Cancer diagnosis, treatment and survival in Indigenous and non-Indigenous Australians: a matched cohort study. *Lancet* 2006;367:1842–8.