Division of the Chief Health Officer

Strategic Directions for Cancer Prevention and Control

2009–2012

Toward Q2 Tomorrow's Queensland

Queensland Government

Strategic Directions for Cancer Prevention and Control 2009–2012 is part of a suite of planning and reporting documents which describe the work of the population health services within the Division of the Chief Health Officer.

The complete suite includes:

- *Population Health Year in Review 2008–2009*
- *Prevention, Promotion and Protection Plan for the Division of the Chief Health Officer 2009–2014*
- *Strategic Directions for Cancer Prevention and Control 2009–2012*
- *Strategic Directions for Chronic Disease Prevention 2009–2012*
- *Strategic Directions for Communicable Disease Prevention and Control 2009–2012*
- *Strategic Directions for Environmental Health 2009–2012*
- *Strategic Directions for HIV/AIDS, Hepatitis C and Sexual Health 2009–2012*
- *Strategic Directions for Injury Prevention and Safety Promotion 2009–2012*
- *Strategic Directions for Mental Health Promotion 2009–2012*
- *Strategic Directions for Quality Management 2009–2012*

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Division of the Chief Health Officer

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Message from the Chief Health Officer

Queenslanders are generally very healthy compared to people in other parts of Australia and the world. However, there is still a range of population health challenges that need to be addressed. The rate of chronic diseases (such as diabetes, heart disease and cancer) is growing, and substantial inequalities in health status for Aboriginal and Torres Strait Islander people, socioeconomically disadvantaged people and those living in rural and remote locations continue to be of concern.

The Division of the Chief Health Officer is the primary provider of prevention, promotion and protection services for Queensland Health. These services are known collectively as population health or public health services, and are provided by statewide branches and units and 17 population health units located throughout the state.

Population health services work toward achieving a positive and healthy future for all Queenslanders, including reducing the health status gap between the most advantaged and the least advantaged people in the community.

Responsibilities of Queensland Health's population health services include implementing health promotion interventions at the state and local level, undertaking health surveillance and disease control initiatives, developing and implementing public health legislation, and addressing environmental health hazards. Population health services are provided by a professional workforce comprising environmental health officers and scientists, health promotion officers, public health officers, epidemiologists, public health nurses, public health nutritionists, public health medical officers, immunisation nurses and physicists.

Population health staff work with a range of partners including local government, private industries, educational institutions, childcare providers, and other state government departments. These partners have an important role to play in creating physical and social environments which prevent illness and injury and promote health and wellbeing.

Our strategies contribute to Queensland Health's commitments under the National Partnership Agreement on Preventive Health, and the National Indigenous Reform Agreement. The Queensland Government's vision for 2020 has been described in *Toward Q2: Tomorrow's Queensland* in terms of five ambitions. One of these ambitions is 'making Queenslanders Australia's healthiest people'. Our work will contribute significantly to this aspiration.

The complete body of work that the Division's population health services will undertake over the next three years is identified in our eight strategic directions documents. These documents outline how we will contribute to the Q2 target. They also describe the current and proposed approach to manage health risks, and to prevent and/or respond to public health events. The arrival in Australia of Pandemic (H1N1) 2009 (Human Swine Influenza) acts as timely reminder of the need for meticulous health protection planning and response.

I trust that you find these strategic directions documents informative. For our staff, I hope these documents will enable us to work together to address priority issues over the next three years. For our stakeholders, I hope these documents give you an insight into our future directions to facilitate collaborative actions across a range of issues. I look forward to continuing to work with you all to promote and protect the health and wellbeing of Queenslanders.

Dr Jeannette Young
Chief Health Officer, Queensland Health

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for the early detection
of breast, bowel and cervical cancer,
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Introduction

The health burden caused by cancer is increasing as the population ages. Improved cancer control requires effective prevention strategies and early detection programs, including information campaigns and population-based screening programs[1].

Queensland Health's population-based cancer screening services are based on the understanding that the earlier in their development most cancers or their precursors are treated, the greater the likelihood of a better outcome. Population-based screening has been shown to be successful for detecting small breast cancers, and pre-cancerous changes due to cervical and bowel cancers. Population health services within the Division of the Chief Health Officer (the Division) rely on a systematic, organised approach to screen eligible, at-risk populations and make optimal use of effective and efficient treatment options. The services also share some common challenges, including tailoring services for, and gathering information about specific target groups (eg. women and men from Aboriginal and Torres Strait Islander communities and from culturally and linguistically diverse backgrounds).

Primary prevention is an option for cancers with known modifiable risk factors. The key risk factors are smoking, poor nutrition, misuse of alcohol, physical inactivity (SNAP), and exposure to occupational and environmental carcinogens including ultraviolet radiation. The Division's primary prevention activities in relation to SNAP are detailed in *Strategic Directions for Chronic Disease Prevention 2009–2012*. The primary prevention of skin cancer is undertaken through strategies to increase community awareness and to change the physical and social environment. The activities described in the strategic directions statements for chronic disease prevention and for cancer prevention and control are complementary, and together provide an integrated, evidence based and effective approach to cancer prevention and control at the population level.

Breast cancer

In 2006, breast cancer was the most common cancer diagnosed among women and the second most common cause of cancer death (after lung cancer) among Queensland women[2]. More than 75 per cent of breast cancers are diagnosed in women aged over 50 years. In 2006, there were 2491 new cases of breast cancer diagnosed in Queensland, representing 27 per cent of all new cancers in females. Based on age-specific rates for 2006, about 12 per cent of Queensland females (one in eight) will be diagnosed with breast cancer before the age of 75[2]. During 2006, there were 432 deaths from breast cancer among Queensland women, representing 15 per cent of all cancer deaths in women. Based on age-specific rates for 2006, the lifetime risk of a woman dying from breast cancer in Queensland was approximately one in 41[2]. The five year survival rate has increased from 72 per cent from 1982 to 1986, to 88 per cent from 1998 to 2004. There has been a 23 per cent reduction in breast cancer death rates from 2001 to 2006[3], which is attributed to screening and better treatment.

The causes of breast cancer are not known at this stage. Age is the best indicator of risk with 94 per cent of new cases diagnosed in women aged over 50 years. Both incidence and mortality rates increase with increasing age. The most effective proven method of intervention to reduce the mortality and morbidity from breast cancer is through regular screening of women at risk using screening mammography. The BreastScreen Queensland Program is part of the BreastScreen Australia program, established in 1991[4].

Bowel cancer

Queensland and Australia have one of the highest rates of bowel cancer in the world. In Queensland in 2006, 2741 people were diagnosed with bowel cancer, and 894 people died from this cancer[2]. Overall, bowel cancer is the second most common cause of cancer-related death for Queensland people after lung cancer. In Australia, the lifetime risk of developing bowel cancer before the age of 75 years is around one in 18 for men and one in 26 for women (2005 data). More than 90 per cent of new cases are diagnosed in males and females over 50 years. More than 75 per cent of people who develop bowel cancer do not have a family history. Lifestyle factors which may increase a person's risk of adenomas (pre-cancerous lesions) and bowel cancer include eating foods high in fat and low in fibre, smoking, drinking excessive amounts of alcohol, lack of regular exercise, obesity and poorly controlled diabetes[5].

The National Bowel Cancer Screening Program commenced in Queensland in August 2006 after a successful pilot undertaken between 2002 and 2004. The program is now in its second phase, and currently invites people turning 50, 55 or 65 years of age between 2008 and 2010 to be screened using a Faecal Occult Blood Test (FOBT) kit, followed by colonoscopy for those people with a positive FOBT result.

Cervical cancer

Cervical cancer was the thirteenth most common cancer among women in Queensland in 2006. There were 186 new cases of cervical cancer diagnosed in Queensland in 2006 and 60 women died from cancer of the cervix during the same period[2]. Incidence and mortality rates have decreased by 26 per cent and 24 per cent respectively over the ten year period between 1996 and 2006 in Queensland, which reflects similar decreases at a national level.

The Queensland Cervical Screening Program is part of the National Cervical Screening Program (NCSP) and supports the national policy of a coordinated approach to routine Pap smears every two years for asymptomatic women (aged 20 to 69 years). Approximately 90 per cent of the most common form of cervical cancer (squamous cell carcinoma) can be prevented at an acceptable cost by routine biennial screening within the context of an organised screening program[6].

It is now universally accepted that infection with high-risk human papillomavirus (HPV) is necessary for the development of cervical cancer[7]. In addition to the NCSP, the National HPV Vaccination Program commenced in 2007. Reductions in incidence and mortality in the vaccinated cohort are anticipated to lead to further reductions in incidence and mortality from cervical cancer in Australia, however this is not anticipated for at least a decade.

Skin cancer

Skin cancer is Australia's most common cancer, responsible for an estimated 80 per cent of all newly diagnosed cancers[8]. Queensland has the highest incidence of malignant melanoma and non-melanocytic (basal cell and squamous cell carcinomas) skin cancer in the world[9]. Queenslanders also record some of the highest levels of ultra violet (UV) radiation from sunlight in Australia, placing our population at greatest risk of developing skin cancer.

The cause of skin cancer is both known and preventable. Skin damage (including skin cancer) is the result of cumulative exposure to UV radiation generated through natural environment and artificial sources (eg. solaria[10]). Epidemiological evidence suggests that exposure to UV radiation from sunlight is the primary risk factor in the development of skin cancer[11,12]. Children are particularly vulnerable, as severe sunburn in childhood contributes to skin cancer and other forms of skin damage (eg. solar keratoses, blemishes and premature ageing)[13]. The primary focus of the Division's work in relation to skin cancer is prevention activities, including creating supportive environments and raising community awareness about unsafe sun exposure.

Strategic Directions for Cancer Prevention and Control 2009–2012 will contribute toward the goals and objectives in key national and state policies, strategies and plans including:

- *BreastScreen Australia Program/Policy*
- *National Bowel Cancer Screening Program Policy Framework*
- *National Cervical Screening Program/Policy*
- *National Cancer Prevention Policy 2007–2009 Cancer Council Australia*
- *Queensland Aboriginal and Torres Strait Islander Women's Cervical Screening Strategy 2006–2010*
- *Queensland Cancer Control Strategic Directions 2005–2010*
- *Queensland Cervical Screening Program State Plan Phase 4: 2007–2011*
- *BreastScreen Queensland State Plan 2008–2013* (under development)
- *Under the Queensland Sun: Queensland Skin Cancer Prevention Strategic Plan 2008–2013*[14]
- *Toward Q2: Tomorrow's Queensland*[15].

What are we seeking to achieve over the next three years?

This document identifies priority actions for cancer prevention and control over the next three years. Overall progress against these actions will be assessed using the measures outlined below. Performance will be assessed through qualitative reporting. Annual reporting will inform decisions about policy, practice and future investment.

What we are seeking to achieve	How will we know?
Increased participation by the target population in population cancer screening programs for bowel, breast and cervical cancer	■ Percentage of target population screened for bowel cancer reported by the following categories: – gender – geography – age – socioeconomic status ■ Percentage of target population screened for breast cancer by BreastScreen Queensland over two years, reported by the following categories: – geography – socioeconomic status ■ Percentage of target population screened for cervical cancer over two years, reported by the following categories: – age – geography – socioeconomic status
Increased participation by the target population in population cancer screening programs for bowel, breast and cervical cancer, particularly in relation to Aboriginal and Torres Strait Islander peoples and culturally and linguistically diverse (CALD) peoples	■ Percentage of target population screened for bowel cancer reported by the following categories: – Aboriginal and Torres Strait Islander peoples – CALD peoples ■ Percentage of target population screened for breast cancer by Breastscreen Queensland over two years, reported by the following categories: – Aboriginal and Torres Strait Islander women – CALD women ■ Percentage of Aboriginal and Torres Strait Islander women in discrete indigenous communities who participate in cervical screening over two years
Enhanced community awareness about skin cancer prevention and the establishment and maintenance of supportive environments	■ Percentage of Queensland population who self report the adoption of sun protective behaviours ■ Reduced percentage of Queensland population who self report sunburn ■ Number of organisations (including schools and not-for-profit early years settings) funded and/or supported to develop protective environments including shade structures and skin cancer prevention policies

Strategic agenda

1. Breast cancer

Queensland Health became part of the National Program for the Early Detection of Breast Cancer (known as BreastScreen Australia) through an agreement with the Commonwealth in 1991. Many achievements have been made since the BreastScreen Queensland Program began in 1991, following a report by the Australian Health Ministers' Advisory Council into breast cancer screening.

The BreastScreen Queensland Program has focused on establishing and maintaining a statewide network of services to increase the participation of women aged 50 to 69 years, improving quality management systems, establishing the BreastScreen Queensland Register, monitoring quality performance and outcomes, and enhancing the interface with multidisciplinary management and treatment services. These activities have enabled Queensland Health to achieve a continual reduction in illness and death from breast cancer.

The statewide BreastScreen Queensland participation rate for women in the target age group of 50 to 69 years was 56.6 per cent in 2006–07[16].

The key action areas for BreastScreen Queensland over the next three years include policy, coordination and planning, quality management, communication and education, workforce and training, data management, monitoring, evaluation and research, management and treatment. This will be a very exciting phase of the program because BreastScreen Queensland will transition from analogue mammography to digital mammography during this period. The national evaluation of the BreastScreen Australia program has been completed, and relevant recommended changes will be implemented. BreastScreen Queensland has also commenced a statewide social marketing campaign featuring media identity Jana Wendt, which aims to increase participation of women in the target age group of 50 to 69 years.

The BreastScreen Queensland Program provides high quality breast cancer screening services to more than 200 sites across the state. BreastScreen Queensland has a statewide network of 11 screening and assessment services which will include six mobiles, two relocatable and 18 satellite services when Stage 1 of the transition to digital technology is completed on time in August 2009. Digital mammography provides major benefits to Queensland women particularly in rural and remote areas as it allow breast images to be checked immediately on the mobile services. It also enables more women to be screened as there is no processing or need for women to have their mammogram repeated if there is a technical problem[17].

Stage 2 of the BreastScreen Queensland digital transition that will implement the Picture Archiving Communication System (PACS) is planned for completion in December 2010. In the longer term, this will support new models of care that will reduce the need for women to travel significant distances for the review of screen detected abnormalities, and have major workforce benefits in addressing regional shortages of radiologists.

What are we going to do over the next three years?

- Increase the capacity of BreastScreen Queensland services to meet the growing population of women in the target age group
- Implement the nationally agreed recommendations arising from the national evaluation of the BreastScreen Australia program, including key policy changes
- Complete the transition to digital technology for BreastScreen Queensland and implement the PACS, including integration with BreastScreen Queensland Registry known as BSQR2 to enable the interface with digital technology
- Undertake statewide strategic planning to ensure that the BreastScreen Queensland network of services (including mobile services) is appropriate for future population growth and geographical distribution of women in the target age group
- Develop and implement the coordinated reading hub and finalise the statewide coordinated reading model
- Develop, implement and evaluate the Radiographer Mobile Support Service (RMSS) and coordinate mobile services statewide
- Review and implement new service delivery models and develop innovative workforce solutions to provide the required level of screening capacity to meet the population growth for Queensland women in the target age group
- Advocate for, and participate in, research that contributes to better health outcomes for women affected by breast cancer
- Complete and evaluate the impact of the BreastScreen Queensland social marketing campaign and determine and implement future campaigns
- Develop and implement strategies that increase the participation of Aboriginal and Torres Strait Islander women, CALD women and disadvantaged groups in the community
- Review and revise the BreastScreen Queensland Policy and Protocols Manual to incorporate business process changes for digital technology and any policy changes arising from the national evaluation of BreastScreen Australia programs
- Improve the clinical management of identified high risk women attending BreastScreen Queensland services, incorporating emerging evidence and best practice guidelines, and monitor quality and health outcomes
- Investigate and develop new models of service delivery including providing co-located breast cancer diagnostic services and family history services
- Work collaboratively with the Centre for Healthcare Improvement to develop protocols to ensure women have timely access to treatment services.

2. Bowel cancer

The Australian Government's Department of Health and Ageing implemented the Bowel Cancer Screening Pilot Program in 2002–04. The program was designed to evaluate the feasibility, acceptability and cost effectiveness of population-based bowel cancer screening using Faecal Occult Blood Testing (FOBT) in the Australian context.

The pilot studies were undertaken in three sites that collectively represented a broad cross-section of the population: Mackay, parts of Melbourne and Adelaide. People aged 55 to 74 years were invited to participate in screening using the FOBT, followed by assessment colonoscopy or Double Contrast Barium Enema (DCBE). The pilot concluded in late 2004. The evaluation found that bowel cancer screening programs using FOBT and assessment colonoscopy were feasible, acceptable and cost-effective in the Australian context.

Phase 1 of the National Bowel Cancer Screening Program (NBCSP) commenced on 7 August 2006. This phase invited men and women who turned either 55 or 65 years of age between 1 May 2006 and 30 June 2008, and those people who were invited to participate in the pilot program, to be screened for bowel cancer with a FOBT. Invitations to participate in Phase 1 ceased on 30 June 2008.

Queensland was the first state to commit to implementing the NBCSP, and has made a significant investment in supporting infrastructure and high quality service delivery. The Queensland Bowel Cancer Screening Program (QBCSP) established a State Coordination Unit, a network of 12 Gastroenterology (GE) Nurse Coordinators and 11 Health Promotion Officers, and an authorised provider model that identified designated facilities and proceduralists as authorised colonoscopy service providers for the program. The QBCSP aims to provide high quality assessment colonoscopies in the public sector generated by the NBCSP. An evaluation of implementation of Phase 1 of the program in Queensland, particularly the authorised provider model, has recently been completed. The Queensland participation rate during Phase 1 (2006–2008) was 43.6 per cent. Women across all age groups generally had a five to 10 per cent higher participation than men[18].

The Australian Government announced Phase 2 of the NBCSP would cover the three year period 2008 to 2010. This phase includes expanding the eligibility for the program to include people turning 50, 55 or 65 during this time. However, this phase does not include re-screening of Phase 1 pilot participants.

Key focus areas for the program over the next three years include:

- an ongoing assessment of the capacity of colonoscopy services to meet the increasing demand generated by the program
- development and implementation of strategies to maximise participation in screening by eligible people
- implementation of an expanded care coordination function
- implementation of a national quality framework for colonoscopy services
- implementation of the Endoscopy Services Information System Solution (ESISS) in all Queensland Health endoscopy units.

What are we going to do over the next three years?

- Deliver the QBCSP – Phase 2 in 11 defined geographic catchments based on the expanded age cohorts of 50, 55 and 65 years
- Monitor colonoscopy capacity in the public and private sectors and advocate for consideration of policy and business process changes which would maximise use of available colonoscopy capacity
- Evaluate the implementation of Queensland Health policies for managing positive FOBT results, and develop strategies to improve priority access to public sector colonoscopies based on findings
- Implement recommendations arising from the report of the NBCSP Quality Working Group *Improving Colonoscopy Services in Australia*, in consultation with service providers
- Develop, implement and evaluate communication and recruitment activities to enhance participation in screening, particularly by men, Aboriginal and Torres Strait Islander peoples and people from diverse cultural, linguistic and socioeconomic backgrounds
- Monitor compliance with the QBCSP Policy and Protocol Manual for consistent and evidence based practice
- Establish infrastructure to support implementation of the QBCSP Quality Management Plan, including:
  - analysing and reporting on program performance at catchment and statewide levels through the regular provision of quality assurance data relating to colonoscopy services to catchments and individual authorised providers
  - establishing processes to undertake clinical audits as required
  - implementing the ESISS across Queensland Health endoscopy units
- Implement projects to improve the quality and efficiency of colonoscopy services, including training of colonoscopists and participation in collaborative research projects
- Implement and evaluate the Participant Follow-Up function to ensure NBCSP participants who have returned a positive FOBT proceed through the screening pathway to assessment colonoscopy or other appropriate test
- Support the development of a national five year strategic directions document for the NBCSP, in accordance with evidence.

3. Cervical cancer

The Organised Approach to Cancer of the Cervix (now known as the National Cervical Screening Program) was established as a joint initiative of the commonwealth, state and territory governments in 1991, following a report by the Australian Health Ministers' Advisory Council into cervical screening[19].

The Queensland Cervical Screening Program (QCSP) is part of the national policy of a coordinated approach to routine Pap smears every two years for asymptomatic women, aged 20 to 69 years. It supports the goal, aims and objectives of the National Cervical Screening Program (NCSP).

NCSP aims to:

- demonstrate an increase in the percentage of eligible women who have ever been screened
- establish more reliable and accessible services for collecting, interpreting and reporting Pap smears
- improve management of screen detected abnormalities
- monitor and evaluate these preventive efforts.

There are a number of emerging and evolving issues that will impact on the QCSP in the future. These include increasing participation in regular cervical screening and recent advancements in new technologies relating to the NCSP. Participation in cervical screening is the key to preventing cervical cancer and, as such, is the primary indicator used to monitor the success of the program. The statewide participation rate for the target age group of women aged 20 to 69 was 59.3 per cent in 2006–07, which is below the national average of 61.5 per cent[20]. Queensland's participation rates are affected by the geographical distribution of the state, rapid population increases and workforce issues (including the availability of female providers and bulk billing services), especially in rural and remote areas. Rapid population growth in Queensland and an ageing population will require further investment to increase screening activity and implement innovative approaches to enhancing the cervical screening workforce (eg. the role of registered nurses and Aboriginal and Torres Strait Islander women's health workers as Pap smear providers).

New evidence about the role of human papillomavirus (HPV) as a necessary but not sufficient cause of cervical cancer has led to advances in new HPV testing technologies and the implementation of the National HPV Immunisation Program. This presents challenges for the NCSP.

The QCSP will continue to monitor future developments in these areas and provide policy direction, information and advice to guide health professionals and women.

What are we going to do over the next three years?

- Participate in and contribute to the national renewal of the cervical screening program in consideration of the introduction of the HPV vaccine and technological advances
- Monitor access to and participation in cervical screening, and improve uptake through innovative service delivery models in areas/groups of need
- Address workforce issues to support the Mobile Women's Health Service and staff within the Healthy Women's Initiative
- Develop, implement and evaluate a range of health promotion strategies, including social marketing, to increase participation in regular screening
- Implement strategies to reduce the disproportionate burden of illness from cervical cancer experienced by Aboriginal and Torres Strait Islander women
- Continue to advocate for specific identifiers for Aboriginal and Torres Strait Islander women and women from CALD backgrounds to enable monitoring of participation data by ethnicity
- Develop strategies (based on the evaluation) to improve adherence to the revised National Health and Medical Research Council (NHMRC) guidelines for the management of asymptomatic women with screen detected abnormalities
- Investigate and identify quality issues within the QCSP and develop quality improvement strategies (as required).

4. Skin cancer

In *Toward Q2: Tomorrow's Queensland*, the Queensland Government has set an ambitious target to 'cut by one-third obesity, smoking, heavy drinking and unsafe sun exposure' by 2020. The inclusion of skin cancer in this target acknowledges the high rate of skin cancer in Queensland. A 2009–10 Target Delivery Plan has been developed by the Queensland Government, outlining the initial priority commitments towards addressing this target.

Queensland Health participates in and supports a range of national and state skin cancer prevention community education and awareness strategies. The accepted five ways to protect yourself in the sun (wear a broad brimmed hat, sunglasses and protective clothing, apply 30+ sunscreen regularly and seek shade when possible) have been integrated into current community education and awareness strategies in Queensland as part of an ongoing multi-strategy approach. Over the next three years, targeted social marketing programs for key at risk populations such as children, young adults and outdoor workers will continue to be developed, implemented and evaluated.

Significant gains can be made in reducing the incidence of skin cancers through increases in modifiable sun safety behaviours, as well as provision of sun safe environments. In 2005, 51 per cent of adult men and 28 per cent of women wore a hat, cap or visor if they spent more than 15 minutes outdoors between 10am and 3pm on a weekday. In this same period, 58 per cent of men and 63 per cent of women wore sunglasses, while only 22 per cent of men and 49 per cent of women wore sunscreen. Being sun safe is a result of multiple behaviours – yet only 8 per cent of men and 9 per cent of women undertook these three core behaviours at the time of day when the risk of skin cancer is highest[21].

Community education and awareness campaigns will be complemented by a range of strategies to make 'healthy choices easy choices'. Successful supportive environment approaches will strengthen cross-sector partnerships, develop healthy public policies, alter the physical environment and include specific interventions for at risk populations. Queensland Health will continue to work proactively and collaboratively through the Queensland Public Health Forum to progress *Under the Queensland Sun: Queensland Skin Cancer Prevention Strategic Plan 2008–2013*.

Applied research, monitoring and surveillance are key strategies to increase our understanding of emerging issues in skin cancer prevention. Our population health services will use these strategies to inform future directions and monitor changes in sun protective knowledge, attitudes and behaviours in the Queensland population.

What are we going to do over the next three years?

- Develop, implement and evaluate targeted social marketing community education and awareness programs to increase the adoption of skin cancer prevention behaviours for the general population and in the following at risk populations:
  - children from birth to 12 years
  - young people aged 12 to 24 years
  - outdoor workers
- Enhance the skin cancer prevention evidence base by reporting on changes in outcomes, attitudes, knowledge and behaviours using a recommended suite of indicators and disseminating best practice recommendations
- Strengthen supportive environments (including policy, education and shade creation) in schools and early childhood environments
- Lead the Q2 Chronic Disease Target Delivery Plan to progress action towards preventing skin cancer in Queensland through supportive physical and social environments.

Attachment A

Deliverables for 2009–2010*

What are we going to do? (three years)	Statewide unit responsibilities (12 months)	Population health unit responsibilities (12 months)
1. Breast cancer		
1.1 Increase the capacity of BreastScreen Queensland services to meet the growing population of women in the target age group	Complete Stage 1 of the digital technology transition in 11 BreastScreen Queensland services and update 53 existing machines to digital technology Introduce innovative workforce projects to attract and retain skilled radiographer and radiologist workforce	
1.2 Implement the agreed recommendations arising from the national evaluation of the BreastScreen Australia program, including key policy changes	Make agreed national changes to program and implement recommendations from national evaluation of BreastScreen Australia program	
1.3 Complete the transition to digital technology for BreastScreen Queensland and implement the PACS, including integration with BreastScreen Queensland Registry, known as BSQR2 to enable the interface with digital technology	Commence Stage 2 of the digital project and implement PACS in BreastScreen Queensland services Investigate new models of care including step down assessment	
1.4 Undertake statewide strategic planning to ensure the BreastScreen Queensland network of services (including mobile services) is appropriate for future population growth and geographical distribution of women in the target age group	Complete BreastScreen Queensland State Plan	

* This attachment includes deliverables against the reform agenda only. Ongoing work is described in Attachment B. All population health strategies are conducted in a collaborative manner. Lead agencies have been identified in the responsibilities columns.

What are we going to do? (three years)	Statewide unit responsibilities (12 months)	Population health unit responsibilities (12 months)
1. Breast cancer (continued)		
1.5 Develop and implement the coordinated reading hub and finalise the statewide coordinated reading model	Establish the coordinated reading hub Ensure PACS implementation and accompanying BSQR2 enhancement supports the establishment of the statewide coordinated reading model Establish new radiology agreements that reflect the PACS implementation and new reading model including statewide credentialing Undertake parallel process with BreastScreen Queensland medical officers that reflect the above	
1.6 Develop, implement and evaluate the Radiographer Mobile Support Service (RMSS) and coordinate mobile services statewide	Recruit a coordinator to establish and operate the RMSS and the radiographer locum service Recruit radiographers for the mobile service and the locum service	
1.7 Review and implement new service delivery models and develop innovative workforce solutions to provide the required level of screening capacity to meet the population growth for Queensland women in the target age group	Develop the mammography technician role and trial it within BreastScreen Queensland services Develop and implement the radiographer return to work strategy Continue the radiographer overseas recruitment strategy	
1.8 Advocate for, and participate in, research that contributes to better health outcomes for women affected by breast cancer	Identify research opportunities and collaborate with research organisations Facilitate appropriate access to BreastScreen Queensland clients and client data and ensure research complies with ethical standards	
1.9 Complete and evaluate the impact of the BreastScreen Queensland social marketing campaign and determine and implement future campaigns	Complete social marketing evaluation report following Computer Assisted Telephone Interview surveys and Queensland University of Technology research Develop future campaigns dependant on outcome of the evaluation	

What are we going to do? (three years)	Statewide unit responsibilities (12 months)	Population health unit responsibilities (12 months)
1. Breast cancer (continued)		
1.10 Develop and implement strategies that increase the participation of Aboriginal and Torres Strait Islander women, CALD women, and disadvantaged groups in the community	Implement a range of strategies to increase participation of Indigenous and CALD women in the BreastScreen Queensland program Consult with the Indigenous Reference Group in the design of the new 4WD Indigenous digital mobile vehicle and service Develop specific health promotion resources and activities to target Indigenous and CALD groups	
1.11 Review and revise the BreastScreen Queensland Policy and Protocols Manual to incorporate business process changes for digital technology and any policy changes arising from the national evaluation of BreastScreen Australia programs	Undertake a major review and rewrite of the BreastScreen Queensland Policy and Protocols Manual	
1.12 Improve the clinical management of identified high risk women attending BreastScreen Queensland services, incorporating emerging evidence and best practice guidelines, and monitor quality and health outcomes	Collaborate with Clinical Genetics Services, cancer services and diagnostic services to implement pathways for the clinical management of identified high risk women attending BreastScreen Queensland services Develop models of care based on national policy arising from evaluation of the BreastScreen Australia program Promote and support the Specialist Breast Care Nurse positions across Queensland	
1.13 Investigate and develop new models of service delivery including providing co-located breast cancer diagnostic services and family history services	Trial and evaluate co-located models of breast care services	
1.14 Work collaboratively with the Centre for Health Care Improvement to develop protocols to ensure women have timely access to treatment services	Collaborate with Centre for Health Care Improvement to advocate for women requiring an open diagnostic breast biopsy to be fast tracked through surgery outpatients Monitor and record time from BreastScreen Queensland services assessment to diagnostic open biopsy	

What are we going to do? (three years)	Statewide unit responsibilities (12 months)	Population health unit responsibilities (12 months)
2. Bowel cancer		
2.1 Deliver the QBCSP – Phase 2 in 11 defined geographic catchments based on the expanded age cohorts of 50, 55 and 65 years	Implement expanded age cohorts in all catchments	
2.2 Monitor colonoscopy capacity in the public and private sectors and advocate for consideration of policy and business process changes to maximise use of available colonoscopy capacity	Review colonoscopy activity and future projections every six months Work with endoscopy services and relevant sections of Queensland Health to identify opportunities for business process improvements to enhance capacity	
2.3 Evaluate the implementation of Queensland Health policies for managing positive FOBT results and develop strategies to improve priority access to public sector colonoscopies based on findings	Evaluate implementation of policies and procedures which support people with a positive FOBT result to receive category 1 priority for colonoscopy services	
2.4 Implement the recommendations arising from the report of the NBCSP Quality Working Group Improving Colonoscopy Services in Australia, in consultation with service providers	Participate in and initiate projects with key partners, which will support implementation of report recommendations	
2.5 Develop, implement and evaluate communication and recruitment activities to enhance participation in screening, particularly by men, Aboriginal and Torres Strait Islander peoples and people from diverse cultural, linguistic and socioeconomic backgrounds	Develop specific targeted strategies to increase participation in bowel cancer screening by men (eg. workplace strategies, targeting events popular with men) Evaluate the Aboriginal and Torres Strait Islander Strategy alternative service delivery pilot program and make recommendations to the Australian Government for further development/expansion in 2009–10	
2.6 Monitor compliance with the QBCSP Policy and Protocol Manual for consistent and evidence based practice	Undertake regular audits of compliance with the Policy and Protocol Manual and report back to stakeholders	

What are we going to do? (three years)	Statewide unit responsibilities (12 months)	Population health unit responsibilities (12 months)
2. Bowel cancer (continued)		
2.7 Establish infrastructure to support implementation of the QBCSP Quality Management Plan	Develop the QBCSP Quality Management Plan 2008–2011 Analyse and report on program performance at catchment and statewide levels through the regular provision of quality assurance data relating to colonoscopy services to catchments and individual authorised providers Establish processes to undertake quality assurance reviews (as required) Implement the ESISS across all Queensland Health endoscopy units	
2.8 Implement projects to improve the quality and efficiency of colonoscopy services including training of colonoscopists and participation in collaborative research projects	Develop and implement the National Colonoscopy Training Curriculum in conjunction with the Skills Development Centre (completion in December 2010)	
2.9 Implement and evaluate the Participant Follow-Up function to ensure NBCSP participants who have returned a positive FOBT proceed through the screening pathway to assessment colonoscopy or other appropriate test	Implement, monitor and evaluate the Participant Follow-Up function in collaboration with the Australian Government and other states/territories	
2.10 Support the development of a national five year strategic directions document for the NBCSP, in accordance with evidence	Attend national forums and actively contribute to the development of a strategic directions document	

What are we going to do? (three years)	Statewide unit responsibilities (12 months)	Population health unit responsibilities (12 months)
3. Cervical cancer		
3.1 Participate in and contribute to the national renewal of the cervical screening program, in consideration of the introduction of the HPV vaccine and technological advances	Actively contribute to projects for the NCSP Renewal Plan Provide data and input to inform the NCSP Renewal	
3.2 Monitor access to and participation in cervical screening, and improve uptake through innovative service delivery models in areas/ groups of need	Identify priority population groups least likely to participate in regular cervical screening Investigate access issues for women in areas with low participation and identify potential service models to address identified issues (as required) Conduct focus groups to inform future health promotion strategies	
3.3 Address workforce issues to support the Mobile Women's Health Service and staff within the Healthy Women's Initiative	Incorporate the health worker career structure and the authorisation of health workers as Pap smear providers in collaboration with workforce planners Review the scope of practice of the Mobile Women's Health Service nurses	
3.4 Develop, implement and evaluate a range of health promotion strategies, including social marketing, to increase participation in regular screening	Review and implement the QCSP social marketing campaign within budget constraints Evaluate the small grants strategy on completion of the 2008–09 trial Implement small grants strategy if positive outcomes identified in evaluation	
3.5 Implement strategies to reduce the disproportionate burden of illness from cervical cancer experienced by Aboriginal and Torres Strait Islander women	Expand Healthy Women's Initiative across Queensland Establish and maintain Certificate IV in Community Care (Women's Health) and professional network for Aboriginal and Torres Strait Islander women's health workers Disseminate culturally appropriate resources to promote Aboriginal and Torres Strait Islander women's participation in cervical screening	

What are we going to do? (three years)	Statewide unit responsibilities (12 months)	Population health unit responsibilities (12 months)
3. Cervical cancer (continued)		
3.6 Continue to advocate for specific identifiers for Aboriginal and Torres Strait Islander women and women from culturally and linguistically diverse backgrounds to enable monitoring of participation data by ethnicity	Participate in national initiatives for the development of identifiers on Pap smear registers	
3.7 Develop strategies (based on the evaluation) to improve adherence to the revised National Health and Medical Research Council (NHMRC) guidelines for the management of asymptomatic women with screen detected abnormalities	Develop and implement exception reports and provide feedback to relevant stakeholders	
3.8 Investigate and identify quality issues within the QCSP and develop quality improvement strategies (as required)	Work with Queensland Cancer Registry to identify and address cervical cancer data issues Monitor the quality of Pap smears and investigate strategies to address performance issues among identified Pap smear providers	

What are we going to do? (three years)	Statewide unit responsibilities (12 months)	Population health unit responsibilities (12 months)
4. Skin cancer		
4.1 Develop, implement and evaluate targeted social marketing community education and awareness programs to increase the adoption of skin cancer prevention behaviours for the general population and in the following at risk populations: – children from birth to 12 years – young people aged 12 to 24 years – outdoor workers	Based on evaluation findings, build upon and complement existing social marketing campaigns (eg. *The Dark Side of Tanning* campaign, winter ultraviolet radiation campaign) Develop social marketing materials and messages to support primary schools, early childhood settings, and outdoor workers to adopt skin cancer prevention behaviours	Develop and implement strategies to support local social marketing campaign
4.2 Enhance the skin cancer prevention evidence base by reporting on changes in outcomes, attitudes, knowledge and behaviours using a recommended suite of indicators, and disseminating best practice recommendations	Finalise skin cancer prevention indicators Develop recommendations for effective skin cancer prevention interventions and distribute, including the provision of professional development for population health staff	Develop business plan level indicators for skin cancer prevention
4.3 Strengthen supportive environments (policy, education and shade creation)	Develop a strategy for supporting local governments to positively influence sun protection in Queensland and provide opportunities to integrate with Healthy Communities Initiatives of the National Partnership Agreement	Support primary schools and early childhood settings to develop sun protective environments through the efficient implementation of SUNBusters and other evidence based skin cancer prevention initiatives, including the SunSmart initiative in partnership with Cancer Council Queensland

What are we going to do? (three years)	Statewide unit responsibilities (12 months)	Population health unit responsibilities (12 months)
4. Skin cancer (continued)		
4.4 Lead the Q2 Chronic Disease Target Delivery Plan to progress action towards preventing skin cancer in Queensland through supportive physical and social environments	Collaborate with Workplace Health and Safety Queensland, trade unions and industry to develop, implement and evaluate a set of evidence based skin cancer prevention interventions for outdoor workers based on the outcome of the Construction Work Health Initiative Support Sport and Recreation Services (Department of Communities) to include sun safety policy in outdoor sport and recreation funding agreements Develop guidelines for a whole-of-government approach to integrated sun safety policy, including workplaces Promote and support, with the education sectors, the implementation and evaluation of the endorsed sun safety interactive game, Falon's Quest	Work with partners to deliver professional development in relation to UV protective environments and policies to build the capacity of early childhood sectors to integrate skin cancer prevention policies [Central] Promote and deliver skin cancer prevention activities through Health Service District (HSD) Staff Wellness initiatives using existing HSD partnerships [Central] Market the sun safety interactive game through existing skin cancer initiatives for primary school

Attachment B

Ongoing work roles and responsibilities

Ongoing work area	Statewide unit responsibilities	Population health unit responsibilities
1. Breast cancer		
1.1 Monitor, review and implement evidence based policies, protocols and procedures	Develop and implement plans Monitor, review and implement policies, protocols and procedures Attend and contribute to key national, state and program forums Contribute to policy and protocol development through BreastScreen Queensland Program Quality Management Committee and multidisciplinary Q-Groups	
1.2 Maintain budget integrity and cost per woman screened at an effective and efficient level	Purchase, use and maintain equipment according to capital replacement plans Maintain funding levels at efficient and effective levels	
1.3 Make adequate infrastructure/ screening capacity available	Establish, enhance or relocate services according to the *Queensland Cancer Prevention and Control Strategic Directions 2005–2010*	
1.4 Continually improve the quality of BreastScreen Queensland services	Ensure that quality management and improvement activities including national accreditation, quality assurance and performance monitoring are in place Ensure that the BreastScreen Queensland Program Quality Management Committee and multidisciplinary Q-Groups function in accordance with endorsed terms of reference, to improve program quality Ensure all BreastScreen Queensland services are accredited Complete the quality assurance circle	

Ongoing work area	Statewide unit responsibilities	Population health unit responsibilities
1. Breast cancer (continued)		
1.5 Increase awareness and encourage participation in BreastScreen Queensland among eligible women, particularly those aged 50 to 69 years	Implement and evaluate effective marketing/education strategies for recruiting new women to the program Develop, disseminate and evaluate educational and information resources for women, general practitioners and health professionals Ensure that screening, re-screening and participation targets are reached Ensure that the Cancer Screening Consumer Reference Group operates in accordance with endorsed terms of reference to inform strategies to increase the target group's participation within the BreastScreen Queensland program	
1.6 Increase the proportion of women who return for re-screening, in accordance with national accreditation standards	Implement and evaluate effective re-screen strategies	
1.7 Develop and maintain a skilled BreastScreen Queensland workforce	Ensure the development and maintenance of a sufficient and highly skilled BreastScreen Queensland workforce Ensure that BreastScreen Queensland staff experience high job satisfaction and opportunities for career progression	

Ongoing work area	Statewide unit responsibilities	Population health unit responsibilities
1. Breast cancer (continued)		
1.8 Collect and analyse data to monitor the performance of the program, to evaluate its effectiveness and efficiency, and to provide the basis for future policy and program development decisions	Develop, print and disseminate statistical reports on an annual basis Aggregate, report and monitor national accreditation standards and data on a six monthly basis Monitor and evaluate emerging technology Promote high quality research Provide data in a timely manner to the Australian Government or its agents	
1.9 Promote the use of best practice models of care and clinical guidelines in the management and treatment of breast cancer	Ensure wider implementation of best practice, evidenced based models of multi-disciplinary care encompassing: – co-located screening and diagnostic services – specialist breast nurses – increased compliance with best practice, evidenced based guidelines, National Breast and Ovarian Cancer Centre/NHMRC Clinical Practice Guidelines for management and treatment of breast cancer	
1.10 Maintain and enhance the BreastScreen Queensland Register to support changes to policy and procedures (as required)	Incorporate changes to the Register in a timely manner	
1.11 Develop and maintain an effective, highly functional State Coordination Unit for BreastScreen Queensland	Ensure that: – staff roles, duties and responsibilities are clear – effective communication processes are in place – state coordination unit staff are productive and satisfied	

Ongoing work area	Statewide unit responsibilities	Population health unit responsibilities
2. Bowel cancer		
2.1 Undertake strategic planning for the expanded Queensland Bowel Cancer Screening Program (QBCSP)	Develop and implement annual work plans for the expanded program	
2.2 Develop, implement, monitor and review evidence based policies, protocols and procedures	Monitor and review compliance with QBCSP policies, protocols and procedures on an annual basis Attend and contribute advice to key national, state and program forums and planning processes	
2.3 Maintain budget integrity	Ensure resource allocation arrangements are at efficient and effective levels	
2.4 Make best use of available infrastructure/assessment colonoscopy capacity across Queensland to meet the needs of the program	Monitor program infrastructure and the authorised provider model for assessment colonoscopies in each catchment	
2.5 Continually improve the quality of QBCSP services	Ensure that quality improvement activities are in place, through the quality management plan, policy and protocol manual and monitoring of clinical quality data Ensure that the QBCSP Quality Management Committee, its working groups and the newly formed Quality Assurance Committee, function in accordance with endorsed terms of reference	
2.6 Increase awareness of QBCSP by engaging with relevant stakeholders (eg. health professionals)	Develop, disseminate and evaluate education/information resources for general practitioners and health professionals	

Ongoing work area	Statewide unit responsibilities	Population health unit responsibilities
2. Bowel cancer (continued)		
2.7 Encourage QBCSP participation by eligible people	Develop, disseminate and evaluate education/information resources for eligible people Provide consistent information regarding FOBT screening to non-eligible people Ensure that Queensland establishes baseline participation rates and records better data compliance than other jurisdictions Ensure that the Cancer Screening Consumer Reference Group operates in accordance with endorsed terms of reference to inform strategies to increase the target group's participation within the QBCSP	
2.8 Maintain a statewide workforce of Gastroenterology Nurse Coordinators (GENCs) and Health Promotion Officers (HPOs) to support implementation of the QBCSP	Maintain a highly skilled QBCSP workforce across the State Develop and implement professional development for GENCs and HPOs	
2.9 Support strategies to enhance training for professional groups involved in bowel cancer screening	Develop and implement strategies to enhance the colonoscopy workforce Develop and support strategies to support appropriate training for colonoscopists and gastroenterology nurses	
2.10 Collect and analyse data to monitor the performance of the program, to evaluate its effectiveness and efficiency, and to provide the basis for future policy and program development decisions	Collect and monitor activity data relating to public sector participants and disseminate (as appropriate) Develop, print and disseminate statistical reports Develop evaluation framework for Phase 2 of the QBCSP, and participate in national evaluation activities (as appropriate) Monitor and evaluate emerging technology and promote high quality research	

Ongoing work area	Statewide unit responsibilities	Population health unit responsibilities
3. Cervical cancer		
3.1 Undertake strategic and operational planning for the QCSP	Develop and implement the state plan and annual workplan Meet financial reporting requirements	
3.2 Participate in discussions relating to the NCSP including policy changes and new technologies	Provide advice to national meetings, workshops, focus groups and conferences that is timely, useful and evidence based	
3.3 Maintain partnerships with relevant stakeholders	Develop and maintain partnerships with key stakeholders Ensure that the Cancer Screening Consumer Reference Group operates in accordance with endorsed terms of reference to inform strategies to increase the target group's participation within the QCSP	
3.4 Promote quality in all aspects of the program	Ensure that: – QCSP Quality Management Committee functions in accordance with endorsed terms of reference – the authorisation process for Registered Nurse Pap Smear Providers is maintained and applications are processed in a timely manner – registered Nurse Pap Smear Providers demonstrate their competence every three years	
3.5 Develop and/or disseminate evidence based promotional and educational materials for service providers and women	Implement communication and recruitment strategies to increase participation rates	
3.6 Develop and implement statewide communication and recruitment strategies	Implement and evaluate social marketing campaign Develop and implement communication plans	

Ongoing work area	Statewide unit responsibilities	Population health unit responsibilities
3. Cervical cancer (continued)		
3.7 Identify high risk groups who are less likely to participate in cervical screening and develop recruitment strategies to promote their participation in regular cervical screening	Develop, implement and evaluate recruitment strategies targeting women less likely to participate in cervical screening Undertake communication activities for health care providers and consumers, in collaboration with other jurisdictions	
3.8 Maintain a skilled cervical screening workforce, in collaboration with key stakeholders	Maintain collaborative arrangements with Pap smear providers, professional bodies and training providers to progress workforce strategies Implement education strategies for medical and non-medical Pap smear providers Provide professional development and support for the Mobile Women's Health Service and Aboriginal and Torres Strait Islander health workers Establish and maintain an accredited women's health course and professional network for Aboriginal and Torres Strait Islander women's health workers	
3.9 Monitor workforce needs across the screening pathway	Identify and address workforce capacity issues in a timely manner	
3.10 Improve and maintain women's access to cervical screening and increase participation of priority population groups in cervical screening	Review the *Queensland Aboriginal Women and Torres Strait Islander Women's Cervical Screening Strategy 2006–2010* Implement the Healthy Women's Initiative Increase participation of Aboriginal women and Torres Strait Islander women in cervical screening and related follow-up Develop strategies to enhance underscreened women including women from CALD backgrounds and women from marginalised groups access to cervical screening service Maintain strategies to support rural and remote women's access to cervical screening services	

Ongoing work area	Statewide unit responsibilities	Population health unit responsibilities
3. Cervical cancer (continued)		
3.11 Maintain the Pap Smear Register (PSR) and provide women and Pap Smear Providers with a high quality service in accordance with relevant legislation	Ensure that: – PSR functions in accordance with relevant legislation – there is high client satisfaction with PSR services – pathology laboratory quality performance reports are provided to laboratories in a timely manner – data provided by laboratories to the PSR is of high quality	
3.12 Maintain and modify the PSR to incorporate new technologies and changes to policy and management guidelines (as required)	Incorporate changes to the PSR in a timely manner	
3.13 Monitor the program's performance and provide statistical information to key stakeholders	Ensure that: – statistical reports are produced and disseminated to service providers in a timely manner – data is provided for Queensland Health indicator reports in a timely manner – data is provided in a timely manner to the Australian Government or its agents	
3.14 Promote research to inform program policy and practice	Undertake and/or support appropriate research on emerging issues	
3.15 Coordinate and support the Mobile Women's Health Service and the Healthy Women's Initiative for Aboriginal and Torres Strait Islander women	Maintain strategies to support the Mobile Women's Health Service, in particular strategies to address workforce issues	

Ongoing work area	Statewide unit responsibilities	Population health unit responsibilities
4. Skin cancer		
4.1 Provide advice and information relating to skin cancer prevention.	Provide evidence based advice and governance in the areas of skin cancer, ultra violet radiation and skin cancer prevention Advocate for applied skin cancer prevention research to contribute to the evidence base and provide guidance in the development and implementation of statewide skin cancer prevention interventions Identify, develop and maintain partnerships with a diverse range of government and non-government agencies to advance skin cancer prevention activities in particular Cancer Council Queensland Maintain up-to-date and accurate skin cancer prevention information for the Queensland population through a variety of mediums including web-based and print materials	Maintain an up-to-date skin cancer prevention intranet site with links to web-based and print materials [Southern]
4.2 Establish and maintain supportive environments	Provide secretariat support and representation on the Queensland Public Health Forum Skin Cancer Prevention Working Group Develop and maintain partnerships with a range of government and non-government key stakeholders to advance skin cancer prevention initiatives including Education Queensland, Workplace Health and Safety Queensland, Suncorp, and Cancer Council Queensland	Advocate for and provide advice to key partners regarding evidence based skin cancer prevention, including in the review of local government plans and development proposals Promote skin cancer prevention information and advice via School Based Youth Health Nurse high school infrastructure

References

1. World Health Organization. 2002, *National Cancer Control Programmes: Policies and Managerial Guidelines, 2nd edition*, WHO, Geneva.

2. Queensland Cancer Registry. 2009, *Cancer in Queensland: Incidence and Mortality 1982–2006*, Queensland Cancer Registry, Cancer Council Queensland, Brisbane.

3. Australian Institute of Health and Welfare, Cancer Australia, & Australasian Association of Cancer Registries. 2008, *Cancer survival and prevalence in Australia: Cancers diagnosed from 1982 to 2004, Cancer Series no 42, Cat no. CAN 38*, AIHW, Canberra.

4. Australian Health Ministers' Advisory Council. 1990, Breast Cancer Screening Evaluation Committee 1990, *Breast Cancer Screening in Australia: Future Directions*, Australian Institute of Health, AGPS, Canberra.

5. National Health and Medical Research Council. 2008, *Clinical Practice Guidelines for the Prevention, Early Detection and Management of Colorectal Cancer*, The Cancer Council Australia and Australian Cancer Network and Cancer Network, Sydney.

6. Hakama, M., Miller, A. & Day, N. (Eds.). 1986, *Screening for Cancer of the Uterine Cervix*, International Agency for Research on Cancer, Lyon, France.

7. Walboomers, J., Jacobs, M., Manos, M., Bosch, F., Kummer, A., Shas, K., Snijders, P., Peto, J., Meijer, C. & Munoz, N. 1999, 'Human papillomavirus is a necessary cause of invasive cervical cancer worldwide', *Journal of Pathology*, vol. 189, pp. 12–19.

8. Australian Institute of Health and Welfare, Australasian Association of Cancer Registries (AACR) & National Cancer Strategies Group (NCSG). 2005, *Cancer Projections, Australia 2002 to 2011*. AIHW, AACR & NCSG, Canberra.

9. National Health and Medical Research Council. 1996, *Primary Prevention of Skin Cancer in Australia: Report of the Sun Protection Programs Working Party*, NHMRC, Canberra.

10. World Health Organization. 2003, *Artificial Tanning Sunbeds: Risks and Guidance*, Geneva.

11. Elwood, J.M. 2004, 'Who gets skin cancer – individual risk factors?' In Hill, D.J., Elwood, J.M. & English, D.R., (Eds) *Prevention of Skin Cancer*, Dordrecht, Kluwer.

12. Armstrong, B.K. & Kricker, A. 2001, 'The epidemiology of UV induced skin cancer', *Journal of Photochemistry and Photobiology*, vol. 63, no. 1-3, pp. 8-18.

13. National Health and Medical Research Council. 1997, *Primary Prevention of Skin Cancer in Australia*, NHMRC, Canberra.

14. Queensland Public Health Forum. 2008, *Under the Queensland Sun: Queensland Skin Cancer Prevention Strategic Plan 2008–2013*, Queensland Health, Brisbane.

15. Queensland Government. 2008, *Toward Q2: Tomorrow's Queensland*, Queensland Government, Brisbane.

16. Steering Committee for the Review of Government Service Provision. 2009, Report on Government Services 2009, Productivity Commission, Canberra

17. Youlden, D.R., Cramb, S.M. & Baade, P.D. 2009, *Current status of female breast cancer in Queensland 1982 to 2006*, Viertel Centre for Research in Cancer Control, Cancer Council Queensland, Brisbane.

18. Queensland Bowel Cancer Screening Program, *Participation data 8 August 2006 to 31 August 2008*, unpublished.

19. Australian Health Ministers' Advisory Council *Cervical Cancer Screening Evaluation Committee. 1991, Cervical Cancer* Screening in Australia: Options for Change, Australian Institute of Health, AGPS, Canberra.

20. Australian Institute of Health and Welfare. 2009, *Cervical Screening in Australia 2006–2007, Cancer Series No. 47. Cat. No. CAN 43*., AIHW, Canberra.

21. Queensland Health. 2008, *The health of Queenslanders 2008: Prevention of Chronic Disease, second report of the Chief Health Officer Queensland*, Queensland Health, Brisbane.

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