BOWEL CANCER SCREENING

Background

Cancer Council Australia reports that bowel cancer, also known as colorectal or large bowel cancer, is the second most common cause of death from cancer in Australians. In 2007, 14234 new cases of bowel cancer were reported – 7804 in men and 6430 in women. The projected incidence in 2011 is 20.383. (Cancer Incidence Projections 2002-2011. AIHW, 2005) There were 4047 deaths in Australia from bowel cancer in 2007 – 2191 in men and 1856 in women.

The New Zealand Ministry of Health reports that in 2008 there were 2801 new cases of bowel cancer diagnosed and 1280 people died from the disease. The Cancer Society of New Zealand notes that New Zealand has one of the highest rates of bowel cancer in the world.

In both countries Indigenous peoples have poorer outcomes when diagnosed with bowel cancer than non-Indigenous people.

Bowel cancer is the most expensive cancer to treat in Australia and the cost of its treatment is expected to reach more than $1 billion in 2011. This figure has risen from an estimated $235 million in 2000-01 due largely to the development of new high cost drugs for treating the cancer, resulting in an improved survival rate, and to the increased incidence of the cancer in line with the ageing of the population.

It is one of three cancers for which population-based screening is recommended as a way to detect early stage cancers in people without symptoms (along with breast cancer and cervical cancer, both of which have national screening programs). This is fundamental to efforts to reduce morbidity and mortality.

An article recently published in the International Medical Journal includes data which demonstrates the importance of early detection of bowel cancer. The five year case survival rates cited in the article vary dramatically, depending on the stage at which the cancer is detected:

- 84% for Stage 1 (Duke's A) – when the cancer is contained within the bowel wall;
- 77% for Stage 2 (Duke's B) – when the cancer has extended through the bowel wall, but with no lymph nodes affected;
- 64% for Stage 3 (Duke's C) – when the cancer is present in the lymph nodes; and
- 19% for Stage 4 (Duke's D) – when the cancer cannot be removed by surgery or has spread to other areas of the body.*

**A preliminary analysis of the cost-effectiveness of the National Bowel Cancer Screening Program – Demonstrating the potential value of comprehensive real world data.*
B Tran, CL Keating, SS Ananda, S Kosmider, I Jones, M Croxford, KM Field, RC Carter, P Gibbs
Intern Med J. 2011 Sep1

Cancer Council Australia estimates that a biennial screening program for all Australians aged between 50 and 74 would prevent up to 1000 deaths annually and could save up to $70 million annually in health system costs. The Council estimates the total cost of such a screening program would be $150 million per annum (gross).

Taking into account savings from cost offsets (estimated at between $53 million and $71 million) and current spending ($49 million), total additional investment required would be between $30 million and $48 million. Current investment in screening programs for breast cancer is $120 million (2006/07) and cervical cancer $140 million (2001). The estimated cost per life year gained (NBCSP) is $25000-$42000 (Breast Screen $7,897 and Cervical Cancer Screening $36,749).#

#*Costs and cost-effectiveness of full implementation of a biennial faecal occult blood test screening program for bowel cancer in Australia*.
Michael P Pignone, Kathy L Flitcroft, Kirsten Howard, Lyndal J Trevena, Glenn P Salkeld and D James B St John
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There are three screening tools available for the early detection of bowel cancer: faecal occult blood test (FOBT); sigmoidoscopy; and colonoscopy. Currently, FOBT is the preferred screening tool and is endorsed in Australia by the Cancer Council and the National Health and Medical Research Council. The FOBT is done by the person in their own home, with the samples sent away for analysis. Any positive result must then be followed up by a colonoscopy. FOBT's only major drawback is its relatively high rate of false-positive results.

This drawback notwithstanding, FOBT in the home has been chosen by both governments as the primary tool in their national screening programs.

Governments in both Australia and New Zealand have been slow to implement national screening for bowel cancer and the implementation has been at best measured, at worst haphazard.

In 2006 the Australian Government established the National Bowel Cancer Screening Program (NBCSP). In the first four years of its operation, testing was made available to people turning 50, 55 and 65 as a one-off test. This is less than optimal, with evidence suggesting screening should be available to all people aged 50 and over, every two years.

Reported results from the NBCSP reveal a participation of 40%, positivity rate 7% compliance 60% a cancer detection rate of 4.4% and an adenoma detection rate of 48% .

Implementation of the Australian NBCSP has had a measurable impact on CRC stage at diagnosis with a significant shift to earlier stage cancers (32% stage A (expected 20%), 6% stage D (expected 14%)). Survival improvement has been demonstrated in small 2 year follow up studies. The uptake rate shows variation according to tumour site, gender & socioeconomic status.

Between 1 January and 30 June 2011, no screening was done, with test kits only sent to those affected when the program was suspended for six months in 2009.

In May 2011 the Australian government announced a resumption of the NBCSP, providing funding of $138.7 million over four years to continue the program in its existing form. It announced that the funding would be recurrent and that those affected by the program's suspension in 2011 would receive priority.

After more than a decade of debate over the effectiveness of a bowel cancer screening program and the capability of New Zealand's health system to conduct one, the New Zealand government announced a pilot bowel cancer screening program in May 2010.

Waitemata District Health Board has been selected to run the four year bowel screening pilot, which will begin in late 2011. People aged 50 to 74 years who live in the DHB area will be eligible to take part in the screening program. The pilot will involve a sample population of between 60,000 and 130,000 people in the 50 to 74 year age band, including a minimum of 6000 Māori. A person with a positive result (where blood has been detected in their faeces) will be followed up and offered a diagnostic colonoscopy. A diagnostic colonoscopy will determine whether a person has cancer or polyps, which can develop into cancer. A person with a negative test will be recalled in two years for a repeat test.

The government's announcement stated:

> *"No decision will be made on implementing a national bowel screening programme until the pilot is completed in 2015 and all monitoring and evaluation data has been analysed. This will determine the level of participation, the number of cancers that were detected, the stage of the disease at diagnosis, the impact on health services and the costs involved."*

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The College has been advised by the New Zealand Association of General Surgeons (NZAGS) that some New Zealand hospitals are struggling to meet the demand for colonoscopies by patients presenting with symptoms. This is particularly disturbing given that those testing positive to an FOBT have a higher pre-test probability of neoplasia than patients with symptoms.

A failure by government to resource public hospitals appropriately is therefore threatening the health of its citizens. Such a situation is unacceptable; the New Zealand government should take immediate steps to ensure the testing of all people aged 50 and over every two years.

Position

The Royal Australasian College of Surgeons notes the prevalence of bowel cancer in the Australian and New Zealand communities and the compelling evidence that early detection of the disease significantly increases survival rates.

The College calls on the Australian government to act on evidence that bowel cancer screening would save more lives if FOBT testing were made available to all people 50 years of age and over once every two years and to extend the NBCSP accordingly.

The College also calls for greater cooperation between the federal and state and territory governments to ensure improved electronic data collection and more effective monitoring of the bowel cancer screening program.

The College calls on the New Zealand Government to ensure nationwide FOBT bowel cancer screening is made available to all people 50 years of age and over once every twoyears,

Upon the introduction of bowel cancer screening, the College calls on governments in both countries to ensure the ease and benefits of screening are widely and effectively publicised by way of an advertising campaign.

Approver: Director, Relationships & Advocacy
Authoriser: Council