Introduction

Breast and cervical cancers are two of a small group of cancers where there is evidence that morbidity and mortality can be reduced through population-based screening and effective follow-up treatment. Screening is the performance of tests on apparently well people in order to detect a medical condition at an earlier stage than would otherwise be the case. For screening to be of benefit, treatment of the screen-detected condition must result in a better prognosis than treatment of the same condition presenting clinically (AHMAC 1990).

In Australia breast cancer is the most common cancer in women (excluding the less life-threatening non-melanocytic skin cancer), and accounted for nearly 29% of new cases of cancer in women in 1996, and 17% of all female cancer-related deaths in 1996. This is equivalent to 9,846 new cases of breast cancer and 2,623 deaths in 1996. Given the current incidence the lifetime risk of a woman developing breast cancer before the age of 75 is one in 11. At present the cause(s) of breast cancer are not known, and therefore an effective preventative measure is not available. Breast cancer screening (by mammography), followed by appropriate treatment, has been shown to be the most effective population based intervention to reduce mortality from this disease (AHMAC 1990).

In 1995 cancer of the cervix accounted for 3% of new cases of cancer in women (947 new cases), and 2.3% of female cancer deaths in 1996. The lifetime risk of a woman developing cervical cancer is one in 101, and it is one of the few cancers where screening is able to detect pre-cancerous lesions, thereby rendering a large proportion of these cancers preventable.

The primary task of this report is to examine the role screening has in the detection of precursors to cervical cancer and small breast cancers, to provide background information to the screening programs, and to present national statistics on key outcome indicators for the programs.

Background

The Commonwealth, State and Territory governments place importance on minimising the impact of breast and cervical cancer in the community. The most effective method of combating these diseases is through early detection of precursor lesions (cervical cancer) or of the disease itself, and subsequent appropriate treatment. Screening programs for breast cancer (via mammography) and cervical cancer (via Pap smears) have been set in place as part of a public health initiative to meet this objective. The programs are called BreastScreen Australia and the National Cervical Screening Program.

In order to measure the effectiveness and coverage of these programs a performance monitoring system has been developed. To focus national attention on the screening programs a set of indicators covering essential aspects of the screening programs has been defined which draws on State and Territory data. The National Screening Information Advisory Group, in conjunction with the Australian Institute of Health and Welfare, State and Territory screening program and data managers and other experts in the field, and under the umbrella of the program's National Advisory Committees have guided this process.

Both BreastScreen and the National Cervical Screening Program are complex programs to deliver and monitor. Information is collected about process quality, costs and outcomes. To summarise the performance of these programs a set of indicators is needed to monitor progress towards the objectives set by the program. For the breast and cervical cancer screening programs the key outcome objectives are to reduce mortality and minimise morbidity from these cancers, and to maximise the efficiency of program delivery and its equity. In order to measure progress towards these objectives a wide range of indicators might have been chosen, however a number of existing conditions restrict the number and diversity of indicators that would be acceptable for implementation and effective use. These conditions relate to existing data collections, funding arrangements, precision of and commitment to new data collections, the need for timely information, and program resources. The development of the data monitoring system recognises the importance of ensuring the data behind the indicators are sustainable and comparable over time and between population groups.

Structure of this report

This report is divided into five major sections:

- an introduction and background to the national breast and cervical cancer screening project;

- an examination of breast cancer screening indicators for 1996 and 1997;

- an examination of cervical cancer screening indicators for 1996 and 1997;

- appendixes comprising information sources, methods and glossary; and

- references and related publications.