Executive summary

Health Council of the Netherlands. Annual report on screening for disease 2006. The Hague: Health Council of the Netherlands, 2006; publication no. 2006/10.

There used to be no clinics for multiphasic screening in the Netherlands and managers had to go the United States for a yearly check-up. Nowadays there are special health centres for women, men and the elderly, and there are screening centres and clinics for check-ups or total-body scans. Industry, insurance companies and alternative treatment centres add to the offer, and the number of tests freely available through the pharmacist, chemist and the internet are rising sharply. The amount of conditions for which there is a national screening programme is also increasing.

The expansion of screening activities can be attributed to rapid scientific and technical developments. The Health Council would like to provide current information about this topic as it is important for evidence-based policy in this area. The 2006 Annual Report on Screening for Disease will therefore focus on this area, as will successive reports which will be released yearly or biennially.

This Annual Report covers seventeen themes, divided into three sections. The first section describes developments in the area of ongoing screening programmes. Three urgent areas that require further study have been identified by the Committee, and the Minister for Health has been asked to put these questions to the Health Council. These are: screening for breast cancer in women under 50 years of age; vaccination against cervical cancer; and new, rapid forms of prenatal diagnosis (either alongside or replacing conventional karyotyping).

The second section deals with conditions under consideration for inclusion in population screening programmes. The Netherlands makes a key contribution to randomized studies of screening for prostate cancer, lung cancer and diabetes. The Committee advocates randomized trials of population screening for Chlamydia infections in large cities. Screening trials have not yet provided any decisive answers as to the long term effectiveness and cost effectiveness of screening for abdominal aortic aneurysm. The same applies to the efficacy of coronary calcification screening using computer tomography (as the incremental value over that associated with screening for conventional risk factors for cardiovascular diseases. The efficacy of the standard fecal occult blood test (FOBT) has been established abroad in four randomized controlled trials of biennial colorectal cancer screening. Now, feasibility studies are designed to investigate whether a national screening programme would be acceptable and feasible in the Netherlands, should the Minister decide to commission one. In these randomised controlled studies, the proven effective standard FOB test is compared with possibly better alternatives (an immunochemical FOBT variant, sigmoidoscopy and colonoscopy).

The third section discusses some new forms of early detection. These include tests for oesophageal cancer; a test for hereditary predisposition to celiac disease (gluten allergy); periodic health examination of employees; a test for impending burn-out syndrome in employees; the full-body scan; and cardiovascular pre-participation screening of young competitive athletes for prevention of sudden deaths. These tests are offered for a variety of reasons, however, scientific research has not produced any results that support offering tests and the claims that are associated.

It seems that screening is only useful for the detection of a relatively small number of conditions. There should be evidence from high quality randomized controlled trials that the screening programme is effective in reducing mortality or morbidity before screening for a condition is initiated. It is dangerous to rely on unsupported promises of health benefits, as research can subsequently show that screening does not provide any health benefits and actually causes harm. This has for example been proven (after decades of activities and millions of participants) in untargeted population screening for tuberculosis and for intensive programmes of breast self examination instruction. Critical separation of the wheat from the chaff can help avoid this trap. This has added importance because many people are blindly devoted to their annual check-up and other forms of screening, while insurers struggle to find a place for prevention.