

Screening for chronic diseases in South Africa



Screening for disease is one of the cornerstones of medicine and public health, used to help make a diagnosis in individuals presenting with suggestive clinical signs and symptoms, and to find early signs of disease in high-risk groups such as tuberculosis in miners and pre-eclampsia in pregnant women. In addition, community-based screening for chronic diseases is becoming a regular part of healthcare systems in middle- and high-income countries. This has been defined as 'the systematic application of a test or enquiry to identify individuals at sufficient risk of a specific disorder to benefit from further investigation or direct preventive action, among people who have not sought medical attention because of symptoms of that disorder.'^[1] The concepts and principles of screening have been well documented in the past, with criteria established for deciding on whether a population-wide screening service should be developed and some of the challenges related to this.^[2] In particular, the disease must be well defined, of known prevalence, and amenable to treatment or prevention. The test to be used should be simple and safe, and the distribution of test values in affected and unaffected individuals known. The screening service should be cost-effective and available to those who should be covered. The procedures following a positive result should be agreed on and acceptable to both those providing the service and those to be screened. There should be equity of access to the service, and it should form part of a comprehensive set of services aimed at preventing, treating and caring for those who have the disorder being screened for. Most of these services need to be embedded in primary healthcare settings.^[3]

A recent review of screening for chronic diseases in South Africa in an insured population, published in this issue of *SAMJ*, shows the magnitude of the challenge of developing an effective set of services for the country.^[4] Even in this relatively wealthy, well-served group uptake of services was low, and the outcome of the service as a whole is not known or available for review. Given this low uptake, and the likelihood that those least likely to benefit from the service are those most likely to use it, the impact of current services is probably small. In the majority of the population, who do not have private insurance but who probably have the biggest burden of diseases, coverage in most situations will probably be worse. As the country moves towards universal coverage of services under National Health Insurance, there are major questions to be resolved about the role that community-based screening for chronic diseases will play, and the priorities for services to be developed across the country.

South Africa will need to decide on what screening services are required and for who, based on its own pattern of disease burden, as has already started with routine HIV counselling and testing (HCT). However, there is value in looking at the experiences of other countries, both in terms of policies and the evidence behind them. For example, the US Preventive Services Task Force is an independent group that reviews the

evidence on screening and other preventive services and makes regular recommendations to government.^[5] These recommendations are then used to provide extensive guidance to care providers through groups such as the American Academy of Family Physicians.^[6] For example, this group recommends screening for alcohol misuse in adults in primary care settings, breast cancer in women over 50, cervical cancer in women aged 21 - 65, colorectal cancer in adults aged 50 - 75, hypertension in those 18 and above and adult obesity, but advises against screening for type 2 diabetes in asymptomatic adults with normal blood pressure, and for prostatic cancer using prostate-specific antigen (PSA). Similar agencies provide reviews and recommendations in the UK^[7] and Australia.^[8]

As in other parts of the world, chronic and non-communicable diseases are increasing in South Africa.^[9] The government is already building on the progress it has made with tobacco by further reducing the future burden through regulation of salt and trans-fatty acid content in food, and banning advertising of alcohol to children. These efforts to promote health and prevent ill health could in future be complemented by more systematic community-based screening. The successes in the HCT campaign provide a good starting point, and the inclusion of tests for some non-communicable diseases provides useful lessons for future national screening policies. As South Africa introduces National Health Insurance, guidance and recommendations will be required to guide national policy and the further development of screening services. There are a large number of options that could be developed, and an increasing number of commercially available screening tests. As in other countries, independent experts will be required to advise on priorities, screening tests, evaluations of screening coverage and outcomes, and to provide up-to-date guidance for service providers.

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