



NON-COMMUNICABLE DISEASES

– *A race against time*



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South Africa faces a race against time to reduce the risk factor profile and rapidly improve the detection and management of the NCDs in those who already have these conditions. With the exception of tobacco use, South African data shows that the pattern of risk factors for NCDs has deteriorated substantially during the last two decades, and that detection, management and outcomes of care for those with NCDs are still non-optimal.¹ The reduction in smoking can be ascribed to the effective comprehensive tobacco

legislation that has been promulgated and amended since the early 1990s,² while little attention has been focused on other risk factors associated with NCDs as well as improving management of NCDs.

South Africa needs to support the UN Summit on NCDs and take bold steps to prevent and control NCDs. A national policy and strategy must be developed incorporating population wide interventions. The health system must be strengthened to manage NCDs and their risk factors.

WHY IS THE UN HOLDING A SUMMIT ON NON-COMMUNICABLE DISEASE IN SEPTEMBER 2011?

Global health agencies have recognized the rising threat of non-communicable diseases (NCDs) as a major contributor to preventable disease and premature mortality in low and middle-income countries. They have emphasized that NCDs are not addressed in the Millennium Development Goals (MDG) and that they should be, if the objectives of the MDG are to be achieved. These activities have culminated in the United Nations (UN) resolution on the 13 May 2010 calling for a UN Head of State Summit on NCDs in September 2011.³ This special session will place NCDs firmly on the global development agenda, secure the commitment of Heads of State to focus governments' efforts to address the common risk factors and reverse the epidemic, mobilize the international community to take action, and send a clear message to donors and funders to significantly support funding for NCDs.

NON-COMMUNICABLE DISEASES

Non-communicable diseases (NCDs) are chronic medical conditions or diseases which are non-infectious. Common examples include stroke, heart attacks, diabetes, cancer, asthma and depression. Some of the major NCDs are preceded by unhealthy behaviours followed by the emergence of

metabolic risk factors and disease. The risk factors associated with NCDs are overweight and obesity, raised blood pressure, increased blood glucose levels and non-optimal blood cholesterol levels (particularly raised LDL cholesterol). Most of these risk factors are considered modifiable through changes in behaviours or medications. The key behaviours that would reduce risk factors for NCDs *are eating a healthy diet, participating in regular physical activity, not using tobacco, and avoiding harmful use of alcohol.*⁴

WHAT IS THE EXTENT OF NCDs IN SOUTH AFRICA?

South Africa is experiencing a quadruple burden of disease.⁵ Not only is there an AIDS pandemic that set in during the 1990's, and high rates of injury and other infectious diseases, but there is also a rising tide of NCDs affecting the quality of life and increasing health-care expenses both at a personal level and at a country level. NCDs affect large numbers of the working-age population, impacting on the workforce and productivity of the country. The major NCDs in South Africa are *cardiovascular diseases, diabetes, cancers, chronic respiratory diseases and mental illness.*¹ Moreover, national surveillance suggests that these patterns of unhealthy lifestyle are already present in our children and youth.^{5,6} These NCD risk factors must be addressed urgently to reduce the NCD burden.

ASTHMA AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

Asthma is the commonest chronic disease in children, affecting up to 13% before the age of 14 years and occurs in more than 7% of adults. Unlike asthma, in which modification of risk factors is difficult, COPD is a preventable disease resulting chiefly from exposure to tobacco smoke (both active and passive smoking), domestic and industrial atmospheric pollution, with the high rates of TB in South Africa playing a part. It is responsible for considerable disability and mortality in South Africa. There is an urgent need to increase public awareness about this disease and reduce risk factors.

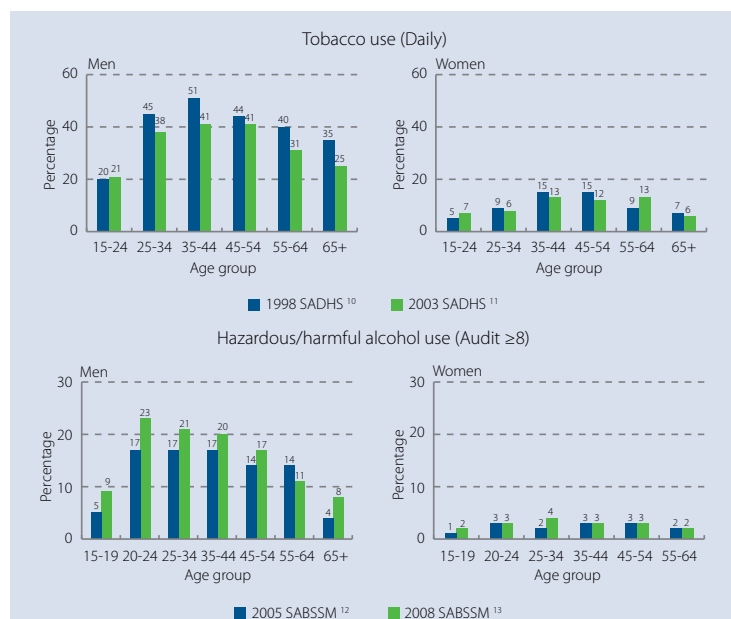
MENTAL ILLNESS

Internationally, 1 in 4 people suffer from a diagnosable mental disorder during the course of their lifetime. Mental illness, however, will not be considered by the up-coming UN Summit for NCDs as it is focussed on the common conditions which have shared risk factors.

The South African Stress and Health (SASH) survey found that 16.5% of South Africans reported having suffered from a common mental disorder in the last year.⁷ There is evidence that: depression can be effectively treated with low-cost antidepressants or psychotherapy; antipsychotic drugs are cost effective interventions for people with schizophrenia; hazardous and harmful alcohol use can be effectively dealt with by providing brief interventions by trained primary-care workers; and for adults and children with chronic mental disabilities, community-based rehabilitative models provide low-cost care.⁸

WHAT ARE THE PATTERNS OF TOBACCO AND HARMFUL ALCOHOL USE, DIET INTAKE AND PHYSICAL INACTIVITY?

South Africa has considerable information that can be used to track the prevalence of the behaviours and risk factors for NCDs among adults 15 years and older. These graphs show the information for the latest available year. They also contrast the prevalence to an earlier year for each age group. The prevalence for men and women are shown separately.

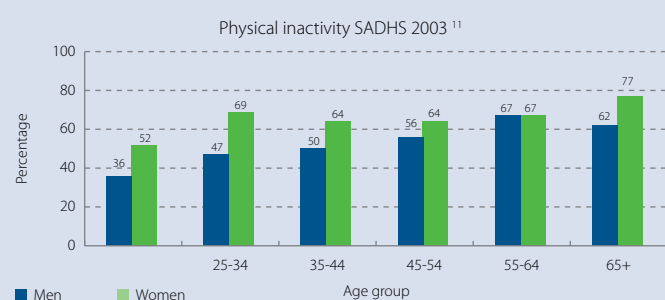
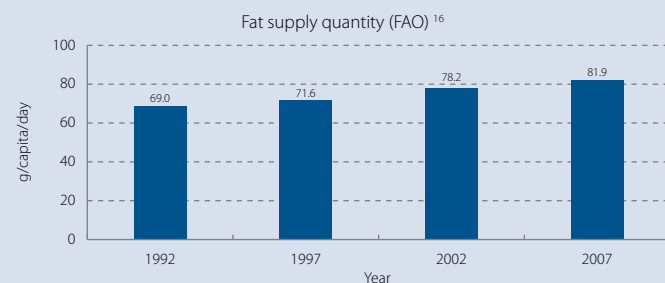


Tobacco use: About 35% of adult men and 10% of adult women smoke tobacco.¹¹ The promulgation of comprehensive tobacco control legislation has resulted in the reduction in tobacco use, particularly for men above 25 years. The Youth Risk Behaviour Survey (YRBS) found that 21% of grade 8-11 learners smoke tobacco with no change between 2002⁶ and 2008⁷ indicating that further efforts to reduce tobacco use in young people are needed.

Harmful alcohol use: About 16% of adult men report hazardous/harmful use of alcohol with an increase in recent years.^{12,13} Limited policy action (e.g. increasing excise tax on alcohol) has not yet resulted in any improvements and further actions are needed. These should include the promulgation of a comprehensive alcohol control strategy, including restrictions on advertising and decreasing availability.¹⁴

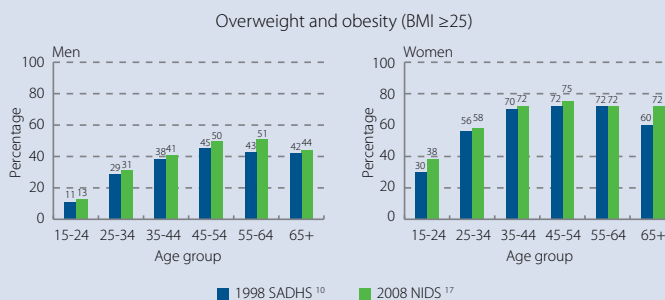


Unhealthy diet: South Africans are increasingly eating a typical Western diet comprising increased calorie intake, fat (particularly saturated fat), animal protein and sugar, but a lower intake of unrefined carbohydrate and fibre.¹⁵ There is low intake of fruit and vegetables and salt intake has also been increasing over this period.¹⁵ Data from the Food and Agriculture Organisation show a steady increase in the amount of fat supply in the country, indicative of this change.¹⁶



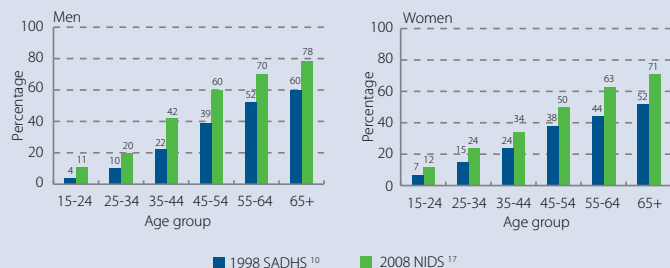
Physical inactivity: South Africa has high levels of physical inactivity – 48% of adult men and 63% of adult women were categorised as inactive.¹¹ Women have higher levels of physical inactivity than men. The YRBS observed that in the week before the survey, about 40% of school learners had participated in insufficient physical activity, with no change between 2002⁶ and 2008.⁷

WHAT ARE THE TRENDS IN MODIFIABLE NCD RISK FACTORS?



Overweight and obesity: South African women have extremely high levels of overweight and obesity. More than 70% of women above 35 years old are overweight or obese.¹⁷ In the past 10 years, there has been a significant increase among men and more than 45% of those above 35 years are overweight or obese.^{10,17} Body weight is considered normal when the body mass index (BMI, calculated by dividing weight by height squared) is between 18 and 25 kg/m². A BMI between 25 and 30 is considered overweight and that of 30 or above is obese. Obesity is associated with diabetes, hypertension and other metabolic abnormalities that predisposes to NCDs. An improved low calorie diet and regular physical activity is required to reverse this trend.

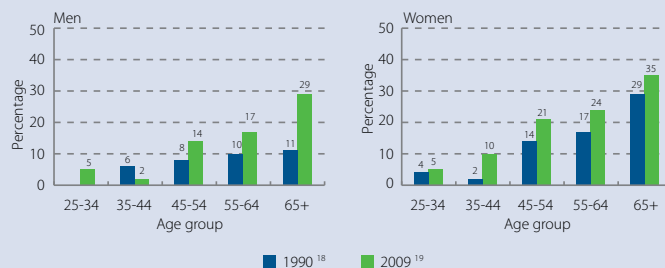
Hypertension (BP \geq 140/90 or BPrems)



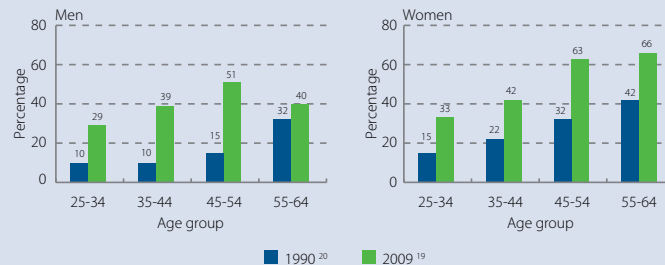
Hypertension: The significant increase in hypertension in the past ten years, as well as inadequate diagnosis and control of raised blood pressure (BP), predicts an increase in strokes and heart attacks in the years to come.^{10,17} Predisposing factors such as high salt intake and increasing levels of obesity must be addressed to reduce BP in the future. Furthermore, improved hypertension detection and treatment are needed.



Diabetes (>11.1 mmol/l) Cape Town Ekhasi (Township)



LDL blood cholesterol (>3 mmol/l) Cape Town Ekhasi (Township)



Diabetes and high blood cholesterol: Although there are no national data on the trends, there is evidence of increases in the prevalence of diabetes and raised LDL blood cholesterol among urban Africans in Cape Town.¹⁸⁻²⁰ The increasing predisposing factors of unhealthy diets, lack of regular physical activity resulting in overweight and obesity, inevitably contribute to the rising prevalence of diabetes and high blood cholesterol. Similarly to hypertension, these conditions are poorly diagnosed and inadequately treated. The diabetes trend data are based on 2-hour post oral glucose tolerance tests using a cut-off of 11.1 mmol/l.

THE HEALTH SECTOR RESPONSE TO NCDs

• Policy and programmes

South Africa has recognised the importance of NCDs and some progress has been made. In particular, South Africa has been a global leader in adopting legislation for tobacco control, with some signs of an effect. Since 1994, alcohol policy development has taken place in a piecemeal fashion, but progress has been made in several areas including reducing allowable blood alcohol levels in drivers, requiring warning levels on alcohol containers, increasing excise taxes on alcohol products and imposing greater controls on alcohol packaging.²¹ The Directorate for Chronic Diseases, Disability and Geriatrics Unit was instituted in 1996 and has produced and distributed several national guidelines for the prevention and control of NCDs. The Food-based Dietary guidelines developed in 2001, have been used for education purposes for prevention of chronic NCDs and food labelling regulations are currently being revised. However, the impact of these actions has been limited as seen from the deteriorating risk factor profile.

• Health Services

Primary health care is not well programmed to deliver preventive or treatment services for NCDs and South Africa has some way to go to provide integrated primary health care. Access to specialised procedures is not optimal. The cervical cancer screening programme was introduced in 2004 as part of the cancer control programme. However, there are indications that this programme does not reach all women.

• Human Resources

The general shortage of health-care professionals, particularly in rural areas, impacts across all aspects of health care. Effective management of NCDs particularly focusing on the four main risk factors for NCDs, i.e.

tobacco use, poor diet, lack of exercise and alcohol use, is required at primary care level. However, primary health-care nurses working at the clinics often lack the necessary skills to comprehensively deal with NCDs and little use is made of community health workers.

• Surveillance and Information Systems

The national NCD surveillance system, which is essential to inform strategic planning and policy, is currently rudimentary. There is a need to improve the completeness of death registration and the quality of the cause of death information. Morbidity data and quality of care information are not generally collected and risk factor monitoring through routine population-based surveys needs to be instituted at regular intervals.

• Financing

South Africa has a public and private sector resulting in considerable inequalities in access to health care. A National Health Insurance scheme is being planned to strengthen health-care services and improve equity. There is little information about the expenditure on the treatment or prevention of NCDs and inadequate funding to do research in this area.

A NATIONAL POLICY AND STRATEGY FOR NCDs

An effective NCD policy has two aspects, namely, population-wide interventions and health care interventions. Population-wide interventions that change behaviours of the whole population can be cost-effective, but these must be combined with cost-effective primary care interventions which target individuals who are at high risk.²² At the same time, efforts to reduce inequalities in income, employment and educational achievement have an important role to play in averting the NCD epidemic.

Continued overleaf

- **Population-wide interventions to promote healthy diet, physical activity, healthy environment and no smoking or harmful alcohol use**

- Strengthen tobacco control, particularly among young people and decrease passive smoke exposure of children in the home
- Support smoking quitting programmes
- Promote healthy eating patterns that are low in fat and sugar and high in fruit and vegetables, in part, by addressing access, through inter-sectoral programmes involving the agricultural sector
- Reduce salt in foods
- Reduce trans-fat in foods
- Restrict access to alcohol (through addressing physical availability and pricing) and extend alcohol control legislation (particularly in the areas of alcohol marketing, and drinking and driving)
- Promotion of physical activity in schools and workplaces, and through urban planning for active commuting and access to safe public green space
- Reduce exposure to biomass pollutants through electrification of households
- Control air pollution including review and enforcing legislation related to polluted places of work
- Media and communication strategies to prevent NCDs

- **Strengthen primary health care**

- Strengthen district-based primary health care by implementing the integrated World Health Organization chronic disease model of care
- Use the absolute risk approach to identify those at highest risk for NCDs
- Develop community-based care to support primary health-care centres and people with NCDs
- Introduce realistic guidelines for managing and treating NCDs and their risk factors
- Train health-care providers and managers in optimal NCD care
- Train health-care providers in patient-centred communication styles
- Implement appropriate referral systems
- Ensure constant supply of medications needed for NCDs and their risk factors
- Ensure cost-effective interventions are fully implemented
- Foster collaboration between public and private sector

- **Strengthen quality assurance**

- Develop an NCD surveillance system including information to monitor quality of care
- Develop evaluation capacity
- Develop capacity to review evidence and identify best-buy options
- Strengthen health research focused on identifying effective interventions for prevention and management of NCDs

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Investing in intensive NCD prevention and treatment programmes NOW will have tremendous payoffs for the future of our country

