

Smoking status, knowledge of health effects and attitudes towards tobacco control in South Africa

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Objective. To provide data on the South African adult population's smoking status, their knowledge of the health effects of tobacco and their attitudes towards tobacco control in South Africa.

Methodology. A national representative sample of 2 238 adult (> 18 years) South Africans was surveyed by means of an interviewer-administered questionnaire.

Results. Thirty-four per cent of adult South Africans smoke (52% male, 17% female). There were notable differences in gender smoking rates for Indians (61% of men and only 7% of women smoke) and blacks (53% of men and 10% of women smoke) but not for coloureds (58% of men and 59% of women smoke). Provinces with the highest smoking rates are the Northern Cape (55%), Western Cape (48%) and North-West (46%). Forty-eight per cent of respondents reported that at least one household member smoked. The majority of the respondents (87%) acknowledged the harmful effects of direct smoking. Fifty-eight per cent were aware that cancer is associated with smoking but only 36% associated heart disease with smoking. Sixty per cent of the respondents have tried to quit at least once for reasons such as the protection of their own health, the expense of tobacco products and because of a medical doctor's advice. Confusion existed with regard to the effects of the cigarette constituents described on cigarette packages. Forty-two per cent of adults incorrectly indicated that nicotine causes cancer while 28% correctly indicated that it causes addiction, and 44% correctly indicated that condensate causes cancer. There is substantial support for a total ban of tobacco advertising on radio (61%), for local authorities to regulate smoking in public places (78%), for government assistance to farmers for tobacco crop replacement (53%) and for an increase in tobacco excise tax if the money is used for health purposes (50%).

Conclusion. The extremely high proportion of both male and female coloured smokers is a cause for concern and requires prompt action. Knowledge of the specific effects of tobacco in respect of active and passive smoking needs to be improved and this could be a first step towards facilitating behaviour change. The public support that exists for stronger measures against tobacco use, promotion, pricing and growing provides many opportunities for health promotion action.

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At the 9th World Conference on Tobacco and Health in 1994, it was reported that tobacco had caused 3 million deaths in the previous year and it was projected that it would be causing 10 million deaths per annum by 2025. The conference reported a net loss to the global economy of US\$200 billion.¹ In South Africa, tobacco use is a major public health concern as it has severe consequences for smokers, non-smokers and the economy.² Already one in nine deaths nationally are related to tobacco use, making tobacco use a major preventable cause of death and disease. The limited resources for health care delivery in South Africa and the prediction that within a few decades tobacco use will become one of the most important causes of premature death suggest that there is an urgent need to develop multilevel interventions that target tobacco use and its effects, tobacco pricing, advertising and growing.

The aim of this study is to provide updated data on the South African adult population's smoking status, their knowledge of the health effects of active and passive smoking, and knowledge and attitudes towards tobacco control measures. This study preceded implementation of the Tobacco Products Control Act and has provided health authorities with information to support the development of health promotion strategies. It can further be expected that the data will provide some insight into the effectiveness of existing legislation and suggest guidelines for possible future legislation. Certain aspects of the study are comparable to a previously reported survey.³

Methodology

South African adults' smoking status, perceptions on the health effects of tobacco and attitudes towards tobacco control were investigated through an interviewer-administered questionnaire survey conducted by the Human Sciences Research Council in February 1995.

Sampling

The national study population comprised South African adults in all nine provinces aged 18 years and older. A multistage cluster sampling method was used to select 2 238 households. A randomly selected adult from each household was interviewed in a standardised manner by trained interviewers in the preferred language of the respondent. Most of the interviews took place after-hours in the homes of the respondents. The reliability of the interviewers' survey techniques was ensured by repeating 10% of the interviews either telephonically or in person.

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The sociodemographic characteristics of the sample were compared with the 1992 census data and weighted accordingly.

Analysis

The smoking status of the respondents was defined as follows. People were considered to be smokers if they smoked one or more cigarettes per day, ex-smokers if they had smoked at least once a day and had stopped for a period of 6 months, and non-smokers if they had never smoked or had smoked less than one cigarette. Reference to non-smokers in the text includes ex-smokers. Analysis based on descriptive statistics for the key variables used are presented.

Results

Sociodemographic data

The sociodemographic characteristics of the respondents according to the key variables used are shown in Table I.

Table I. Sociodemographic characteristics of the sample (N = 2 238)

| Characteristics | | % |
|-------------------|-------------------------------------|--------|
| Gender | Male | 43 |
| | Female | 57 |
| Race | Black | 65 |
| | Coloured | 11 |
| | Indian | 6 |
| | White | 19 |
| Age (yrs) | 18 - 24 | 20 |
| | 25 - 34 | 25 |
| | 35 - 44 | 25 |
| | 45 - 54 | 13 |
| | > 54 | 18 |
| Educational level | None | 9 |
| | Grade 1 - 2 | 2 |
| | Std 1 - 5 | 25 |
| | Std 6 - 8 | 28 |
| | Std 9 - 10 | 13 |
| | Std 10 + diploma Std 10 + degree | 7 7 |

Nearly half (45%) of the respondents were younger than 35 years. Only 9% had no education. Twenty-seven per cent had a primary education, 28% had reached a junior secondary level of schooling, while only 14% had some tertiary education.

Smoking status and exposure to smoking

The smoking status of the respondents in the nine provinces is shown by gender and race (Table II). The provinces with the highest smoking rates are the Northern Cape (55% of adults smoke) followed by the Western Cape (48% of adults smoke) and the North-West province (46% of adults smoke). The rural Northern Transvaal province has the lowest smoking rates where only 14% of adults smoke.

The coloured population has the highest smoking rates (59%) followed by Indians (36%), whites (35%) and lastly blacks, where 31% are smokers. Thirty-four per cent of all black South African adults smoke. The gender differences in smoking rates are greatest for Indians and blacks. The smallest gender difference is noted among the coloured population, where 59% of smokers are female and 58% are male. Fifty-two per cent of all adult South African men smoke while 17% of women do. Although not shown in Table II, most adult smokers (60%) have tried to quit smoking at least once. The main reasons offered were health (35%) and cost of tobacco products (17%). The majority (58%) of the people who tried to quit indicated that there was no help available.

Changes in smoking rates from a methodologically similar national survey in 1992³ to the present 1995 survey for the different population groups are shown in Fig. 1.

From Fig. 1 it can be seen that the smoking rate for the coloured population has increased from 53% to 59%. A smaller increase in smoking rates for whites and blacks is evident. The smoking rate of Indians has decreased by 1% (from 37% to 36%).

Exposure to cigarette smoke

Exposure of children and non-smokers to smoking is greatest in the coloured population, where 67% of respondents indicated that at least one household member smoked. However, 48% of all adults reported exposure to smoking by at least one household member who smoked,

Table II. Smoking rates (%) in South Africa by province, gender and race* (N = 2 238)

| Province | Men | | | | | Women | | | | | All | | | | |
|-------------------|-------|-------|----------|--------|-----|-------|-------|----------|--------|-----|-------|-------|----------|--------|-----|
| | Black | White | Coloured | Indian | All | Black | White | Coloured | Indian | All | Black | White | Coloured | Indian | All |
| Northern Cape | 62 | 56 | 86 | 27 | 72 | 31 | 15 | 45 | 59 | 33 | 50 | 32 | 68 | 38 | 55 |
| Western Cape | 38 | 45 | 57 | | 51 | 9 | 31 | 65 | | 45 | 23 | 37 | 61 | | 48 |
| North-West | 36 | 55 | 40 | | 62 | 29 | 52 | 50 | | 31 | 45 | 54 | 43 | | 46 |
| Free State | 60 | 46 | | | 56 | 19 | 10 | 70 | | 23 | 40 | 34 | 65 | | 40 |
| Gauteng | 55 | 43 | 71 | 18 | 51 | 10 | 32 | 66 | 7 | 20 | 35 | 38 | 70 | 12 | 37 |
| KwaZulu-Natal | 56 | 31 | 63 | 66 | 56 | 4 | 19 | 53 | 8 | 8 | 32 | 24 | 58 | 38 | 33 |
| Eastern Cape | 51 | 29 | 19 | | 48 | 10 | 19 | 32 | | 12 | 30 | 24 | 24 | | 29 |
| Mpumalanga | 45 | 20 | 4 | 83 | 43 | 4 | 27 | | | 7 | 23 | 23 | 43 | 56 | 23 |
| Northern Province | 38 | 100 | | | 35 | 21 | 17 | | | 3 | 13 | 40 | | | 14 |
| All | 53 | 43 | 58 | 48 | 52 | 10 | 27 | 59 | 7 | 17 | 31 | 35 | 59 | 36 | 34 |

* Race in South Africa refers to population division according to the former Population Registration Act imposed by the previous government in 1950. This dataset is based upon a nationally representative sample of 2 238 adults > 18 years old interviewed in February 1995.

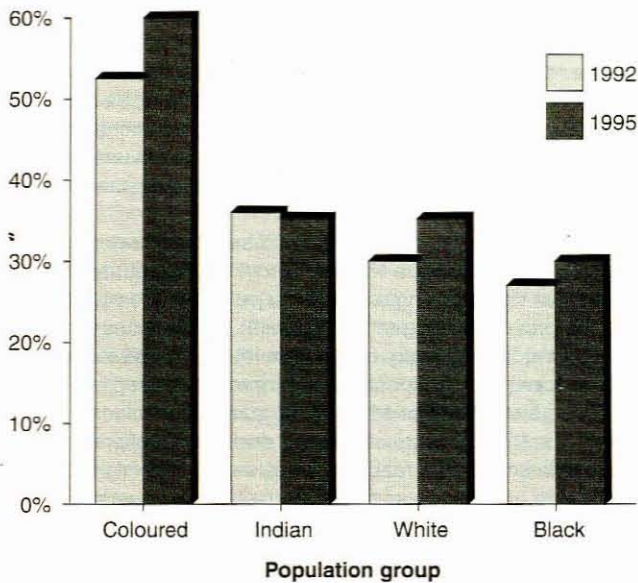


Fig. 1. Changes in smoking rates by race, 1992 - 1995.

and 61% of respondents indicated that some of their close friends smoke. For the coloured population this was the greatest, with 84% indicating that some of their close friends smoke.

Knowledge about the health effects of active and passive smoking

The respondents' knowledge about the health effects of active and passive smoking is shown in Table III in terms of race and gender. The majority of the adult respondents (87%) agreed that the health effects of smoking were serious or very serious. Eighty-five per cent of the respondents associated lung disease with smoking, while the association between cancer and smoking was known to 58% of the respondents; only 31% were aware that heart disease is associated with smoking. With regard to the health effects of passive smoking, 82% of the respondents believed that an unborn baby's health was affected by the mother's smoking and 71% thought that the health of non-smokers was affected by smokers in the household. The black population group's knowledge about the different health effects of active and passive smoking was lower than that of the other groups. Women's knowledge about the

effects of passive smoking was better than that of men. However, their knowledge about the diseases associated with smoking was less than that of men.

Knowledge of the health effects of constituents of tobacco products

With regard to the respondents' knowledge about the health effects of nicotine and condensate in tobacco products, 42% of the respondents incorrectly thought that nicotine causes cancer while only 28% were aware that it causes addiction. Only 44% were aware that the condensate causes cancer.

Knowledge and attitudes towards control measures

The majority of respondents (62%) believed that children under the age of 16 should be unable to buy cigarettes in future. The opinions of the respondents with regard to the banning of tobacco advertising in the different media are depicted in Table IV.

Table IV. Support for banning tobacco advertising in the media

| Media | Smokers % | Non-smokers % | Total % |
|---------------|-----------|---------------|---------|
| Radio | 46 | 69 | 61 |
| Cinema | 31 | 46 | 41 |
| TV | 44 | 58 | 53 |
| Printed media | 33 | 49 | 43 |
| Not be banned | 32 | 10 | 17 |

Most of the respondents (61%) supported a total ban of tobacco advertising on radio. Only 17% of respondents felt that tobacco advertising should not be banned at all.

The majority of respondents (78%) supported the local health department or local authority regulations on smoking in public places. This was supported by 83% of non-smokers and 70% of smokers. Of the people in favour of restrictions, 54% wanted smoking regulated in all public places. The opinion that local authorities should ban the sales of tobacco products from vending machines was supported by 53% of respondents. With regard to the respondents' views on tobacco crop replacement, over half of the respondents (53%) believed that the government should support farmers in the replacement of tobacco with other crops. This view was predominantly supported by a

Table III. Knowledge of the health effects of active and passive smoking (%)

| Questions about the health effects of smoking | Black | | Coloured | | Indian | | White | | All South Africans | | |
|--|-------|----|----------|----|--------|----|-------|----|--------------------|----|-------|
| | M | F | M | F | M | F | M | F | M | F | M + F |
| Health effects of smoking are serious or very serious | 84 | 89 | 90 | 87 | 89 | 99 | 88 | 95 | 85 | 90 | 87 |
| Lung diseases are associated with smoking | 59 | 67 | 75 | 63 | 67 | 84 | 92 | 81 | 67 | 58 | 67 |
| Cancer is associated with smoking | 57 | 52 | 65 | 64 | 71 | 70 | 82 | 85 | 61 | 58 | 58 |
| Heart diseases are associated with smoking | 23 | 18 | 40 | 41 | 59 | 49 | 66 | 75 | 34 | 30 | 31 |
| Babies' health is affected by mothers' smoking | 77 | 84 | 83 | 84 | 79 | 91 | 89 | 91 | 80 | 86 | 82 |
| Health of non-smokers is affected by smokers in the home | 62 | 71 | 83 | 77 | 77 | 74 | 82 | 85 | 68 | 74 | 71 |

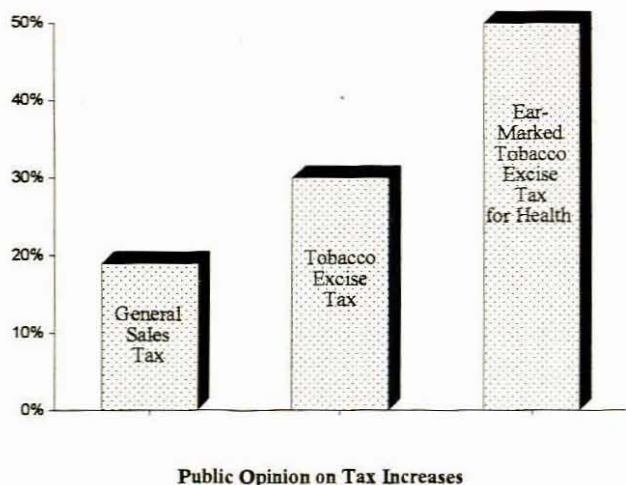


Fig. 2. Support for tax increases (N = 2 238).

majority of respondents in the rural provinces of the North-West, Northern Province and Eastern Cape. The least support for assistance with tobacco crop replacement came from respondents in the Free State.

The views of respondents on tax increases in respect of tobacco products are depicted in Fig. 2. While 19% of the respondents supported an increase in general sales tax and 30% supported an increase in excise tax on tobacco, this figure increased to 50% if the tobacco excise tax money were to be used for health. This view was supported by 33% of smokers and 67% of non-smokers.

Discussion

When data from a similar national survey are compared it is disturbing to note that the total number and percentage of smokers have increased by 1% per year since 1992.³ The Northern Cape, Western Cape and North-West demonstrated alarmingly high smoking rates. In the Western Cape the smoking rates have been unacceptably high for several decades and this is reflected in the highest incidence of tobacco-related deaths in the country: one in five deaths in the Western Cape is due to tobacco-related causes.⁴ The findings in respect of the high smoking rates in the Northern Cape and North-West are new and surprising and require urgent public health action. The high smoking rates in the Northern and Western Cape can possibly be ascribed to the rapid increase in the smoking rates of their coloured populations (from 52% in 1992 to 59% in 1995, resulting in their having the highest overall smoking rates when compared with the other population groups). The detrimental health implications of these high smoking rates are already reflected in the 100% increase in lung cancer mortality rates among coloured men and the 300% increase among coloured women over the past 2 decades in the Western Cape.⁵

The high tobacco consumption in the Northern Cape, in association with environmental exposure to asbestos,⁶ implies that lung cancer, other cancers and heart disease rates can be expected to increase rapidly over the next few decades in this province. The negative interactive effect

between asbestos exposure and tobacco consumption was reported to be an important cause of death in the Northern Cape.⁶ On the other hand, the high smoking rates in North-West could possibly be explained by the province's focus on gambling centres as a tourist attraction. International tourist centres often act as diffusion points for tobacco use into communities where comprehensive control measures are lacking.

Although no previous research on smoking prevalence has been carried out in the Northern Province, this study indicates that smoking should be a public health concern for all the provinces. Urgent public health interceptions are needed at local primary health care level and these need to be supported by national health promotion strategies.

Since almost half of all South African households contain smokers, the exposure of children and non-smokers to cigarette smoke has reached critical levels. The high exposure to tobacco smoke of household members in the Western Cape is of particular concern since this province has one of the highest low-birth-weight rates, and extremely high rates of acute respiratory infections and asthma in children.⁷ These illnesses are associated with passive or environmental tobacco smoke. These critical levels of current exposure to cigarette smoke could contribute to the increase of these conditions in children and other non-smokers countrywide. Additionally, the high proportion of coloured women smokers poses a significant risk not only to their own health (as already discussed), but also to the health of their children, especially if smoking occurs during pregnancy. The same applied to white women, whose increase in smoking rates resulted in a 100% increase in lung cancer over the last 2 decades.⁸ This stands in strong contrast to the evidence of a slowing down and peaking of the lung cancer epidemic among white men.⁹ The current low smoking rates among black and Indian women are noteworthy and public health efforts should provide support for them to maintain these low rates or reduce them even further.

While it seems that the majority of people are aware of the serious health effects of active and passive smoking, knowledge about the specific diseases associated with smoking is inadequate and needs to be improved. The confusion that exists about the effects of tobacco constituents such as condensate and nicotine (indicated on cigarette packs) clearly demonstrates that information on cigarette packs and other tobacco products is only useful if people are able to understand it. Only if information can be correctly interpreted will it be accessible for informed decision-making on smoking behaviour. Health education should provide people with the facts and skills that will enable them to protect themselves from the harmful effects of tobacco. Concurrently other health promotion activities such as legislation, taxation and control of tobacco promotion and growing should be implemented. A more comprehensive preventive approach is therefore needed.

Although it is reassuring to know that most adult smokers in South Africa have tried to quit at least once for reasons of health and the cost involved, the fact that they have been unsuccessful is a reason for action. These unsuccessful attempts could partly be a result of the addictive nature of tobacco products or the various psychosocial and environmental determinants of smoking behaviour.⁹ Health

promotion initiatives should be aimed at alleviating this crisis as the majority of smokers stated that there was no help available to them when they tried to stop smoking. The government-funded Quitline, which started in mid-1995, is a small step in the right direction for smokers with access to telephones. Accessible non-judgemental advice and support for smokers wanting to quit provides the PHC setting with opportunities for smoking cessation interventions in order to fulfil its preventive role. With consideration of the determinants of smoking behaviour, nurses and doctors will need support and training in the behaviour change process.

The urgent need for research on the psychosocial and contextual determinants of smoking behaviour should be stressed since current information is not yet comprehensive. The difficulties in bringing about a change in smoking behaviour demand a comprehensive approach. Even if preventive measures are put into effect now, the existing high smoking rates will continue to cause excess mortality, morbidity and misery well into the next century. Such an approach should address the addictive nature of tobacco products and the complex psychosocial and environmental determinants of smoking behaviour. Apart from information campaigns, efforts need to be directed at supporting and improving people's skills to stop or prevent smoking behaviour, and to establish a non-smoking social norm through community-based and policy interventions. This is only possible within a supportive environment.

The warnings on tobacco advertisements, which were implemented on 31 May 1995, are the beginning of a concerted effort to control tobacco advertising. It is noteworthy, however, that the majority of South Africans support a total ban of tobacco radio advertising. Similarly, at a time when South African tobacco leaf output has fallen due to severe drought and diseases, the public support that exists for government to invest in diversification is crucial. In contrast, the Department of Agriculture and the Agricultural Research Council in concert with tobacco manufacturers seem to encourage tobacco growing without consideration of the health and cost implications of tobacco use. The intersectoral approach to tobacco control suggested by the World Bank includes the discouragement of tobacco growing in conjunction with comprehensive public health awareness campaigns paving the way for a more comprehensive intersectoral approach to tobacco control. A similar approach in South Africa has not yet occurred.

In the absence of a nationwide media campaign aimed at increasing awareness, the high levels of public support for a wide range of control measures against tobacco use, promotion, pricing and growing augur well for a safer and supportive environment. Although the government initiative in the form of the Tobacco Products Control Act of 1993 (which makes it possible for local authorities to restrict smoking in all public places, ban cigarette sales from vending machines and ban sales of cigarettes to children under the age of 16 years) is encouraging, it is still unknown to most people and therefore not readily implemented. Further evidence of this comes from a recent MRC/greater Johannesburg study of 200 retail outlets. According to this study children (10 - 12-year-olds) were able to buy cigarettes nine out of ten times. Public support for tougher measures exists and measures taken are not sufficiently supported interdepartmentally.

Failure to introduce preventive strategies now will mean that as child survival rates improve, tobacco-related death, disease and misery will become an increasing burden on the health services and the country as a whole. Against this background the government urgently needs to consider stronger tobacco control measures. This will impact directly on budget expenditure, when considered as a crucial component of PHC. With the government looking for additional revenue to finance health promotion and primary health care, the public support that exists for the use of increased excise tobacco tax for health should be seen as an opportunity not to be missed. The concept of a Health Promotion Foundation funded in this way needs further exploration.

In conclusion, the commitment of an informed non-smoking majority, to demand their democratic right to an environment that will enable them to protect their own health and the health of their children, should be sought and encouraged.

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