MEDIA RELEASE NO. 7 **SOCIAL AND PSYCHOLOGICAL FACTORS OF TUBERCULOSIS (TB)**

Introduction

The **S**outh **A**frican **N**ational **H**ealth **A**nd **N**utrition **E**xamination **S**urvey (SANHANES-1) was established by the Human Sciences Research Council (HSRC) as a population health survey that will be repeated regularly to address the changing health needs in the country and to provide a broader and more comprehensive platform to study the health and nutritional status of the nation on a regular basis.

The study, compiled by a research consortium comprising the HSRC and the Medical Research Council (MRC), was financed by the national Department of Health, the UK Department for International Development (DFID) and the HSRC.

SANHANES-1 provides critical information to map the emerging epidemic of non-infectious or non-communicable diseases (NCDs) in South Africa and to analyse the underlying social, economic, behavioural and environmental factors that contribute to the population's state of health. Data on the magnitude of and trends in NCDs, as well as other existing or emerging health priorities, will be essential in developing national prevention and control programmes, assessing the impact of interventions, and evaluating the health status of the country.

Methods

SANHANES-1 included individuals of all ages living in South Africa, except those living in educational institutions, old-age homes, hospitals, homeless people, and uniformed-service barracks. The study was conducted during 2012; 25 532 individuals (92.6% interview response rate) completed a questionnaire-based interview; 12 025 participants had a physical examination completed by a medical doctor, and 8 078 participants provided a blood specimen for biomarker testing. A biomarker is a measurable characteristic that reflects the severity or presence of the state of some disease.

This first round of SANHANES will provide baseline data of a representative sample of the population for future analysis over long periods of time (longitudinal surveys).

Key findings

Social and psychological determinants of tuberculosis

The majority of respondents (91.4%) perceived TB to be a very serious disease; however, the majority of participants had a scant knowledge of signs and symptoms of TB. Only 3.3% of all participants identified six or more signs and symptoms of TB; 13.7% identified four or five signs and symptoms; 61.6% identified two or three signs and symptoms; and 21.4% identified only one sign or symptom. The majority of participants (83.0%) were only able to identify between one and three symptoms of TB.

The majority of participants (92.2%) knew that TB could be cured. About two thirds of respondents (67.3%) were not concerned that individuals with HIV may also have TB, and only 22.3% of respondents were concerned about the presence of TB in HIV-positive individuals. When asked if people with TB should be tested for HIV, a large proportion of the participants (81.0%) agreed, with no difference between males and females.

When grouped by age, those 65 years and older were found to have significantly lower levels of understanding about the need for HIV testing among individuals with TB (69.8%) compared to all other age groups. About 30% of respondents, 55 years and older, stated that they did not know whether individuals with TB should take an HIV test.

About three-fifths of respondents (63.2%) perceived themselves to be well-informed about TB, but their knowledge decreased with age. The majority of respondents (75.4%) expressed empathy towards individuals with TB. Relatively few respondents reported fear of people with TB, with 73% expressing that they wished to help the infected individuals.

Among the respondents 15 years and older, 5.9% self-reported that they have ever been diagnosed with TB, with the lowest prevalence among youth aged 15-24 years (1.9%) and the highest prevalence among coloured (8.6%) participants.

Notes

TB remains a major health problem in South Africa and worldwide. The WHO estimates that in 2001 the prevalence of TB in South Africa was 1.25 % (630 000 cases out of a population of 50.5 million). South Africa, however, accounts for about 25% of the global burden of TB/HIV co-infection. Given the high HIV and TB co-morbidity in South Africa, it is important to continue to focus on TB as a communicable disease due to the overall burden of disease.

The estimates of TB provided by reputable sources, such as the WHO and the National Department of Health in South Africa, is based on notified cases in all age groups during a specified time period, such as a one year period. It is estimated that about 1% of the South African population develops TB disease every year.

In this survey the self-reported life-time prevalence of TB in respondents 15 years and older, was found to be 5.9%. It is difficult to compare this prevalence figure with the notified case figures for TB on a year-to-year basis because SANHANES obtained a response from respondents about whether they were ever diagnosed with the disease in their life-time. Given the fact that case detection for all forms of TB in South Africa has increased from 148 164 in 2004 to 401 048 in 2010, the self-reported prevalence of 5.9% in this survey may be lower than an estimate based on bio-marker testing. Of note, however, is the highest life-time prevalence of TB among coloured respondents in this survey, which is consistent with the trend for prevalence of TB in this population group based on bio-marker testing.

In order to seek treatment it is important that individuals in South Africa are knowledgeable about the signs and symptoms of TB. In this study the majority of respondents were not able to identify at least four out of a possible 12 symptoms of TB such as a rash, cough, cough that lasts longer than three weeks, coughing up blood, loss of weight, and night sweats. This implies that these respondents are less likely to seek medical care because of their limited knowledge of the characteristics of the disease.

In terms of the perceptions about the co-morbidity between TB and HIV, the finding that only 22.3% of respondents were concerned about the presence of TB in HIV positive individuals, may be an indication that they do not fully understand the extent of TB and HIV co-infection.

In South Africa, being HIV positive increases one's susceptibility of becoming infected with TB. In addition, about 30% of respondents 55 years and older stated that they did not know whether individuals with TB

should take an HIV test. Once again this implies that the older participants are not fully aware of the extent of TB and HIV co-morbidity.

Overall, the perception of being well informed about TB decreases with age in this survey, with older respondents, especially those 65 years and older, having a lower level of perception of being well informed compared to the younger age groups. Given the findings of this survey, it is essential to assess an individual's knowledge about TB. Studies that have been conducted in other countries, such as India on the prevalence and knowledge of TB, demonstrated that misconceptions about TB still exist (all references appear in the SANHANES-I Report).

Recommendations

On the basis of the present findings, the SANHANES-1 Study encourages the Department of Health to:

- Implement a health-literacy campaign, focusing on TB and TB-HIV co-morbidity throughout the country to address the observation that while the majority of participants 15 years and older considered TB to be a very serious disease, only a small percentage of them were able to identify at least four signs and symptoms of the disease.
- Disseminate more detailed knowledge about the co-morbidity between TB and HIV through the campaign. Particular attention must be paid to older participants who should be the target group for a more intensive education drive about TB disease. This knowledge dissemination is aimed at encouraging individuals and members of their social network to seek treatment and care if needed.
- The health-literacy campaign should focus on encouraging testing for TB disease among HIV positive individuals and for HIV testing among individuals with TB. In essence, the key message of the campaign should be that TB and HIV are in fact two separate disease conditions but that there is a high co-morbidity between them.

The HSRC remains available to support the Department of Health in the implementation of these recommendations.

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