Public Health (2005) **119**, 87–96

ELSEVIER

PUBLIC HEALTH

JOURNAL OF THE ROYAL INSTITUTE OF PUBLIC HEALTH

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Common cancers in India: knowledge, attitudes and behaviours of urban slum dwellers in New Delhi

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Received 24 July 2003; received in revised form 2 April 2004; accepted 8 May 2004

KEYWORDS
Knowledge;
Attitude;
Common cancers;
Developing country;
Urban slum;
Behaviour

Summary *Research questions*: What is the level of knowledge and awareness of common cancers? What are the prevalent attitudes and behaviours relating to common cancers?

Objectives: To assess knowledge, attitudes and behaviours regarding common cancers amongst urban slum dwellers in New Delhi.

Study design: Field-based cross-sectional survey of an urban slum cluster.

Setting: Slum clusters along Pankha Road, West New Delhi.

Participants: Slum dwellers of selected slums.

Study variables: Independent variables were sociodemographic factors. Dependent variables were knowledge, attitudes and behaviours regarding preventive and curative aspects of common cancers.

Statistical analysis: Proportions, confidence intervals, tests of significance and multiple logistic regression.

Results: Only 13% (10.6–15.7%) of the study participants were aware of Pap smears, and only 2% (1.1–3.3%) were able to identify all the common signs of cancer. However, 87% (84.4–89.5%) of the study participants knew that tobacco is a risk factor for cancer. Overall, 51% (47.2–54.7%) had some knowledge pertaining to cancer.

Conclusion: A focused, concerted and effective information, education and communication drive is urgently needed for all aspects of common cancers in India.

Introduction

India is in an epidemiological transition phase and cancer is now one of the leading causes of

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doi:10.1016/j.puhe.2004.05.013

morbidity and mortality. There is high exposure to risk factors, especially tobacco, alcohol, harmful dietary factors, infectious agents and carcinogens in the workplace. However, primary prevention and early detection have been neglected in favour of treatment-oriented approaches, without much attention to their cost-effectiveness.[1]

According to the World Health Organization, the number of cases of cancer will double in developing countries by the year 2020. It is estimated that there are 2 million cancer patients in India with 0.7 million new cases each year. Cancer is the third greatest cause of death with 0.4 million deaths per annum, and is thus a major public health problem in India. More than 35% of cancer cases in men are related to the oral cavity, larynx and pharynx (all tobacco related), and about 40% and 30% of cancer cases in women are cervical and breast cancer, respectively, in India.[1] The cost of treatment is very high for an individual and this is also a financial burden to the nation.[2]

Many of these cases are preventable by simple, cost-effective measures focused on primary and secondary levels of prevention. Assessment of peoples' perceptions of cancer, implementation of an effective awareness programme, and early detection and screening are important components of preventive programmes.[2] Research in developing, as well as, developed countries has shown a strong association between increased knowledge and early reporting for detection and treatment in the community, thus leading to a better prognosis.[3] Late reporting to the hospital due to lack of awareness has been shown to be associated with poor treatment outcome.[4] Therefore, primary and secondary prevention activities will help to reduce the burden of cancer patients to the hospital and minimize human suffering.

Community based epidemiological studies are useful in the identification of environmental and human behavioural factors associated with cancer. An assessment of the present level of knowledge, attitudes and behaviours is necessary, and an appropriate information, education and communication (IEC) campaign based on these findings needs to be designed. The present study had the following objectives: to determine the proportion of the community which is aware of common cancers; to determine the perceptions of the community regarding various aspects of common cancers; to determine prevalent behaviours regarding common cancers; and to determine the sources of knowledge.

Methods

A population-based, cross-sectional study was conducted in the urban slum cluster of West New Delhi, India from March to August 2002. The total population of the area was approximately 25,000. This cluster of slums houses people from various parts of the country and of different religions, who migrated from their respective native places in recent years due to various factors leading to urbanization in India.

The area surveyed has public as well as private health facilities. The public health facilities are run by the Delhi administration, providing preventive and curative services by outpatient facilities and referrals. The private health facilities comprise both formal and informal health sectors. The main thrust of the private sector is on curative care except for certain newer immunizations that are not being provided by governmental health facilities in the universal immunization programme.

The total (reference) population on which results are intended to be generalized was defined as urban slums of Delhi as this slum cluster has very similar characteristics to other slum clusters in Delhi.

Sample size and sampling technique

Earlier studies conducted on individuals of similar communities in other countries indicated that approximately 50% of individuals had correct knowledge about the aetiology, prevention and treatment of common cancers. Keeping the approximate prevalence parameter as 50%, with a view to estimate the parameter within 95% confidence intervals and with a conventional error of 2.5%, the minimum sample size was calculated as 657. We aimed to interview 821 subjects, with an anticipated refusal rate of 20%. However, only 115 subjects refused to participate and thus 706 individuals were actually interviewed. The 115 non-participants (14% of the people approached) refused to participate in the study because of: lack of time [56 people (48%)], non-belief in the use of such studies [47 people (40%)], shyness [10 people (8%)], and because they had no knowledge of cancer [two people (1.7%)]; we believe that the latter patients simply did not want to participate in the survey. The distribution of gender, education level, socio-economic status and marital status was similar between the responders and the non-responders.

The sample size was adequate to capture the prevalent attitudes and behaviours. This sample