EMERGING STRATEGIES FOR CANCER CONTROL IN WOMEN OF INDIA

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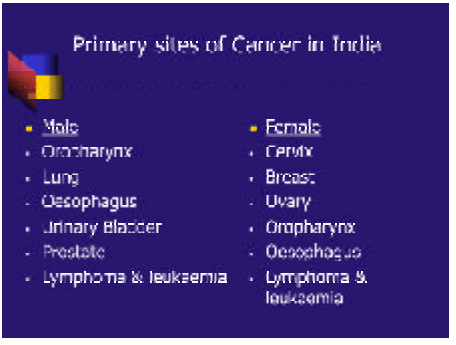
Non-communicable diseases are assuming increasing importance among the adult population in both the developed and developing countries. Cardio-vascular diseases and Cancer are at present the leading causes of death in developed countries accounting for approximately 70-75% of total deaths. The prevalence of these diseases is showing an upward trend in most of the countries and for several reason this trend is likely to increase. With increasing traffic and violence, injuries are taking a heavy toll. Life expectancy is increasing in most of the countries and a greater number of people are living up to older ages and are at present at risk of developing chronic diseases of various kinds. Further, the life-styles and behavioral patterns of people are changing rapidly, these being favourable to the onset of chronic diseases like Diabetes, CVD etc. The impact of chronic diseases on the lives of people is serious when measured in terms of loss of lives, disablement, and poverty and economic loss to the country. Developing countries are now warned to take appropriate steps to avoid the "epidemics" of non-communicable diseases likely to come with the social, economic and development problems.

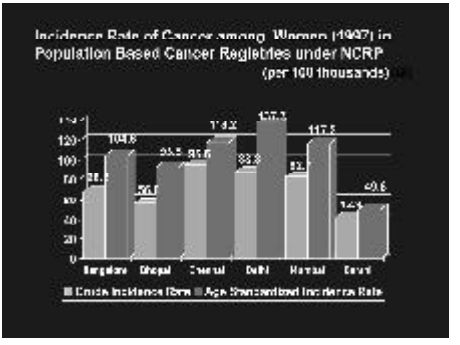
Six key sets of "risk factors" are responsible for a major share of adult non-communicable disease morbidity and premature mortality. These are - i) cigarette use and other forms of smoking as well as tobacco use in various forms e.g. chewing, snuff etc. ii) alcohol abuse iii) Failure or inability to obtain preventive health services (e.g. for hypertension control, cancer control, management of diabetes etc.), iv) life-style changes (easy dietary patterns, physical inactivity), v) environmental risk factors, e.g. air and water pollution, occupational hazards and possession of destructive weapons; and vi) stress factors.

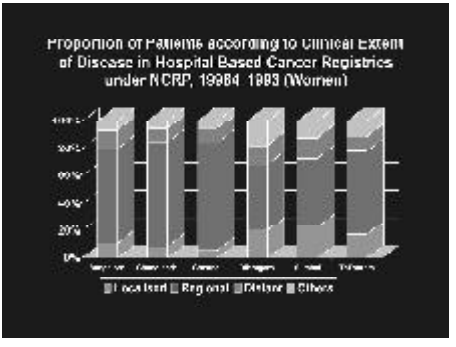
As per last cencus the total population of India as at 0:00 hours on 1st March 2001 stood at 1,027,015,247 persons (Females = 495,738,169). With this, India has become the second country in the world after China to cross the one billion mark. The population of the

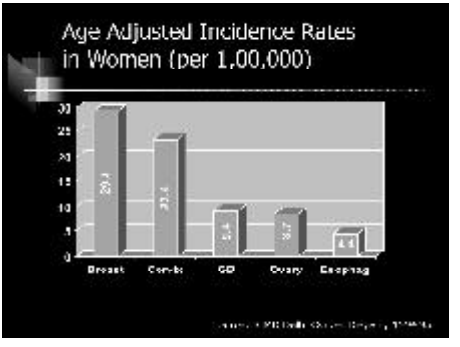
country increased by 21.34 % between 1991 - 2001. The sex ratio (i.e., number of females per thousand males) of population was 933, rising from 927 as at the 1991 Census. Total literacy rate was found as 65.38% (Female literacy = 54.16 %).

Cancer has become one of the ten leading causes of death in India. It is estimated that there are nearly 2 - 2.5 million cancer cases at any given point of time. Over 7 lakh new cases and 3 lakh deaths occur annually due to cancer. Nearly 15 lakh patients require facilities for diagnosis, treatment and follow up at a given time. Data from population-based registries under National Cancer Registry Programme indicate that the leading sites of cancer are oral cavity, lungs, oesophagus and stomach amongst men and cervix, breast and oral cavity amongst women. Cancers namely those of oral and lungs in males, and cervix and breast in females account for over 50% of all cancer deaths in India. Gall bladder in Delhi women is one of the highest (8.9 PER 1,00,000) in the world. (2)









National Cancer Control Programme was started in 1975-76. Its Goals & Objectives are: -

1. Primary prevention of cancers by health education regarding hazards of tobacco consumption and necessity of genital hygiene for prevention of cervical cancer.
2. Secondary prevention by early detection and diagnosis of cancers, for example, cancer of cervix, breast cancer and the oro-pharyngeal cancer by screening methods and patients' education on self examination methods.
3. Strengthening of existing cancer treatment facilities, which were inadequate.
4. Palliative care in terminal stage cancer.

Details of the National Cancer Control Programme are given in another article. This article describes cancer control strategies in woman.

National Cancer Awareness Day

Cancer awareness day is observed on 7th November. This happens to be birthday of Madame Curie (MARIE SKLODOWSKA CURIE), Nobel Prize laureate for the discovery of radium. For scientists and the public, her radium was a key to a basic change in our understanding of matter and energy. Her work not only influenced the development of fundamental science but also ushered in a new era in medical research and treatment

A commemorative stamp on Cancer and first day cover portraying Madame Curie was released on cancer awareness day in 2001. A newspaper advertisement on National Cancer Awareness Day was also released in prominent dailies across the country.

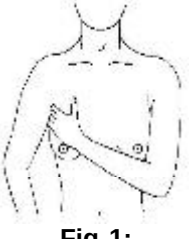


Fig 1:
Self Breast examination

Fig 2:
Stamp on SBE

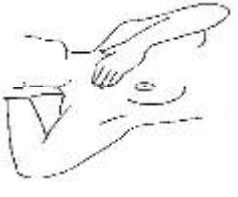


Fig3:
Self-Breast Examination

Activities for cancers in women

An amount of Rs. 285 Crores has been allocated for the NCCP under the tenth plan.

- Can Scan software package for early detection of breast cancer in women was supplied to 11 Regional cancer centres in 1999-2000. (USD 11,000)
- 1 lakh Pap Smear kits for early detection of cancer cervix in women were supplied to 12 Regional cancer centres under biennium 1998-99. (USD 75,000)
- Training of trainers programme regarding awareness, prevention, early detection & treatment in Breast and cervical cancers in women was held at Tata Memorial Hospital(TMH) Mumbai and CNCI (RCC) Kolkatta in 1999.
- Orientation training workshops for cytopathologists regarding quality assurance of Pap smear test (for early detection of cervical cancer in women) carried out at five RCCs namely KMIO Bangalore, GCRI Ahmedabad, RCC Gwalior, RCC Thiruvananthapuram, TMH Mumbai.
- Kalyani tele magazine of half an hour duration, which is once a week programme through Prasar Bharti in eight states, is providing health education for avoidence of tobacco and for prevention and early detection of cancer.
- Health Melas were held in various parts of country in last one year. Prevention and early detection of cancer was propagated and facilities were made available also.

Modified District Cancer Control Progamme (MDCCP)

The District Cancer Control Programme was launched in the year 1991 in selected districts to provide services for prevention and early detection of Cancer at the doorstep of the rural community and with the intention of involvement over a period of time, of more districts particularly in those areas and regions where adequate facilities for treatment of cancer are not presently available. In the selected districts under the programme the main emphasis was to create awareness amongst people regarding early symptoms of cancer, importance of

observation of personal hygiene and healthy life style, ill-effects of tobacco consumption etc. which can help in preventing cancer and also in educating the people to realise that many of the cancer cases, if detected at early stages can be cured fully without much expenses or difficulty. The district projects have five components: 1. Health Education 2. Early Detection 3. Training of Medical and Para-Medical Personnels 4. Palliative Treatment and pain relief 5.Coordination and monitoring. The Government of India is providing Central Assistance of Rs. 15 lakhs for each project district in the first year and Rs. 10 lakhs per year for four years. The district projects are to be linked up with the Regional Cancer Centres/Government Medical Colleges having reasonably good infrastructure for treatment of Cancer. There has been little enthusiasm among states to continue after the initial years of. It was therefore, proposed to reorient the scheme on a pilot basis as Modified District Cancer Control Program (MDCCP).

Objectives of the Modified District Cancer Control Program (MDCCP):

An important aspect of planning a strategy on any national level program is to collect authentic information about the ground realities and the extent of the problem in consideration. One of the primary objectives of the MDCCP is to collect data about the demographic profile of the women in the rural community and also about the following parameters:

- The level of awareness among the women about the common cancers, their early symptoms and primary prevention
- The level of awareness among the women about personal hygiene, common illnesses in the family and measures to be taken if somebody is affected by these diseases
- The availability of primary health care facilities and the quality of service rendered by them

The data has been collected from nearly 10,00,000 women that will make one of the largest database available till date in the country comprising of such information. The Pilot Project also aimed to achieve the following objectives:

- To make women aware of the primary prevention strategies, early symptoms of the common cancers and the importance of early detection of cancer
- To develop a work force in the community dedicated to cancer awareness activities for the first time.
- To integrate the cancer prevention and early detection activities with the existing primary health set up
- To find a cost effective strategy to create awareness about cancer in the community

Implementation of the Pilot Project:

The pilot project was started in the states of Bihar, Tamilnadu, Uttar Pradesh and West Bengal under the direct supervision of the state Regional Cancer Centers. Twenty rural blocks in each of the states of Bihar and Uttar Pradesh and ten rural blocks in each of the states of Tamilnadu and West Bengal were selected to implement the pilot project. For each block 20 female non-communicable disease (NCD) workers have been selected and these workers play a pivotal role to the success of the project. The workers had cleared their secondary level of education and are mostly from the villages or the localities where the project is being implemented. The survey questionnaire was designed and translated into the respective regional languages to collect demographic data and other information concerning the knowledge, attitude and practices about cancer and other common diseases. The questionnaire has been designed in such a way so as to get information about the accessibility of the population to primary health care and the quality of services rendered by these centers. The NCD workers have been making house to house visit, registering women within the age group of 20 to 65 years and filling up the questionnaire forms. They also discussed the early symptoms of the common cancers with the women and advise the symptomatic women to go for medical check up.

For the selected NCD workers 2-3 days of intensive training programs were organized in small groups by the respective supervising regional cancer centers. They were trained to fill up the questionnaire proforma, advise women about healthy life style and ill

effects of tobacco and to detect the early symptoms of common cancers as well as the symptoms of tuberculosis and blindness. Each worker was given a target of filling up 100 forms every month.

Guidelines for NCD workers (at the start of project)

- The NCD worker should be a lady (18-44 years) from the local village and acceptable in the local community. The NCD workers will be selected by a committee consisting of the Director, RCC, G.O.I. representative & Regional Director (H&FW).
- NCD worker being honorary workers, no formal certificate is prescribed for their employment.
- NCD workers will contact the household in her area and meet the women. She will distribute the pamphlet containing the questionnaire. She will talk about cancer and impart knowledge about cancer. She will teach self-breast examination. She will do the visual inspection of the mouth. After discussion if she suspects that some one suffers from cancer, she will refer or take the women (or other member) to the nearest health facility for further examination and investigations.
- She will get the questionnaire filled up and submit to the Dir. RCC every month.
- She will elicit the community support and participation in running the programme.
- She will maintain the records of the visits and forms submitted.
- There are 1200 NCD workers for nearly 12 lakh women. Therefore one NCD worker is supposed to meet 1000 women in her area. On the average she will get 100 forms filled up in a month, which will reflect the work carried out by her. Her honorarium would be released if the 100 forms are filled up in a month. It is understood that 5-10% of forms are required to be cross checked by the nodal officer (Dir. RCC)
- The minimum qualification will be matriculate and wherever such workers are not available then non-matriculate will be considered. Rs. 500 will be paid to each NCD worker per month for the duration of the project only.

For every 10 blocks, 5 medical officers and 1 consultant doctor have been recruited. Their responsibilities were to guide and supervise the NCD workers and to examine the women referred by the workers. They also scrutinize the filled up forms to ensure completeness of the forms and good quality of data. The regional cancer centers have set up early cancer detection clinics in the community either in their own peripheral extensions or in the primary health centers of the area where the Project is running. The medical officers make regular visits to these clinics to examine the suspected cases referred by the NCD workers based on the symptoms. This has given the Pilot Project an entirely new dimension by linking community-based awareness with early cancer detection facilities. Instead of running the cancer control program as a separate vertical health program it should ideally be integrated into the existing primary health care set up so as to make the program most cost effective. If the experimentation with the pilot project succeeds this may be the stepping-stone to the future development of a nationwide program.

Preliminary reports (from Tamil Nadu)

The report pertains to 47,811 respondents from Thiruchirapalli out of about 2-3 Lakh women in Tamil Nadu in 10 selected blocks.

- Most of the women interviewed were married (80%) in the age group 20-65.
- About 60% women get married before 19 years of age.
- About 33% women are illiterate.
- Nearly 50% women work, while 50% are housewives.
- More than 60% women get married before the age of 19 years.
- Monthly expenditure on health is not much. About 60% spend less than 100 rupees while 33% spend upto 500 rupees.
- About 10% women use pan chewing with tobacco (equally in all age groups)
- About 7-10% women have symptoms of diabetes.
- About 10% women cannot count the fingers at a distance of 3 metres using individual eye.

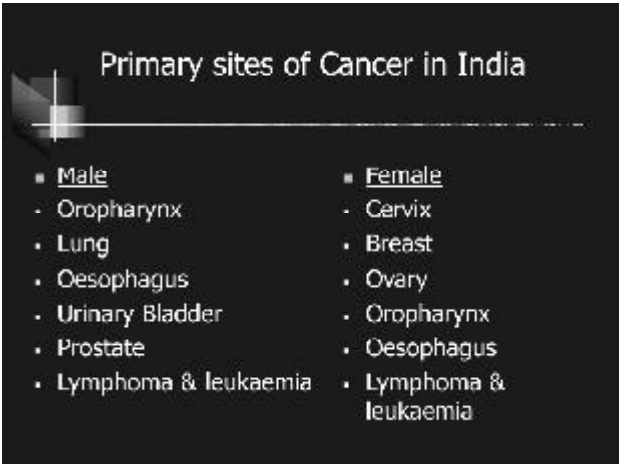
- About 90% women don't know that their area has been ever sprayed with insecticide.
- Only about 25% of women know about the prevention of Malaria.
- Only about 40% women know about the TB symptoms.
- About 70% women are not using any family planning method.
- Nearly 40% women are aware about cancer.
- About 75% women go to private doctor/institution if they fall ill.
- About 50% cases of TB in the family take the full treatment.
- Health facilities appear to be satisfactory in the region.
- Satisfaction from private clinic/facility is more than the Govt. sector
- About 40% women indicated that the toilet is available in the Govt. health facility.

Screening for cancer cervix

There are no organized or high-level opportunistic screening programmes for cervical cancer in any of the states of India. Data from population-based cancer registries in different regions indicate a slow, but steady, decline in the incidence of cervical cancer. However, the rates are still high, particularly in the rural areas, and the absolute number of cases is on the increase due to population growth. Efforts to improve awareness of the population have resulted in early detection of and improved survival from cervical cancer in a backward rural region in western India (3, 4).

The data from the Pap Smear done by 105 recognized centers in India by Deptt. of Family Welfare in Ministry of Health shows that 5% of 26420 normal women screened had early cancer cervix. This indicates the usefulness of the pap smear in the population.

New methodologies e.g. Visual inspection-based approaches to cervical cancer screening have been investigated in India. Unaided visual inspection (without acetic acid), has been done in several studies (5). VIA involves swabbing the cervix with a 3 to 5 percent acetic acid (vinegar) solution prior to visual examination. Differences



in precancerous cell structure and opacity make abnormal cells temporarily appear white when exposed to this solution. The health care provider performing the test determines whether the test result is positive or negative for possible precancerous lesions or cancer.

There are several ongoing, cross-sectional studies being carried out on other screening approaches such as visual inspection with acetic acid (VIA), VIA with magnification (VIAM), and visual inspection with lugol's iodine (VILI), as well as HPV testing as alternative screening approaches. Results from two reported studies indicate that the sensitivity of VIA to detect high-grade lesions was similar to or higher than that of conventional cytology but that its specificity was lower (6, 7). A recently held national workshop on control of cervical cancer in India reviewed the various methodologies for the early detection of cervical neoplasia and considered both good quality conventional cytology and VIA as suitable tests for early clinical diagnosis (8). In view of the inadequately developed cytology services, VIA was recommended as the immediate option for the introduction of cervical cancer control initiatives.

Conclusion:

Cancer of breast and cervix are main women cancers. Treatment facilities are available as for other cancer patients. Prevention and early detection requires focus on self breast examination and opportunistic screening by Pap Smear and visual inspection based approaches. Modified district cancer control project can be extended to more states and include other NCDs; some basic investigations can also be added as per STEP surveillance approach. Use of mass media and specific targetted strategies similar to MDCCP needs to be intensified further.

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