

How India is coping with 15% of cancers on Earth?

Dr Rajendra Badwe
Director
Tata Memorial Centre
Mumbai, India

Gauging the magnitude of problem

- National Cancer Registry Programme
- 100 / 100,000
 - 24 Cancer Registries (GoI & NGO)
 - Metropolitan : Breast, Lung, Oral, Cervix
 - Semi Urban
 - Rural : Oral, Cervix, Esophagus
 - Types and Trends of cancer
 - GB, naso-pharynx, Liver

Comprehensive Cancer Services in India

Trends in Cancer

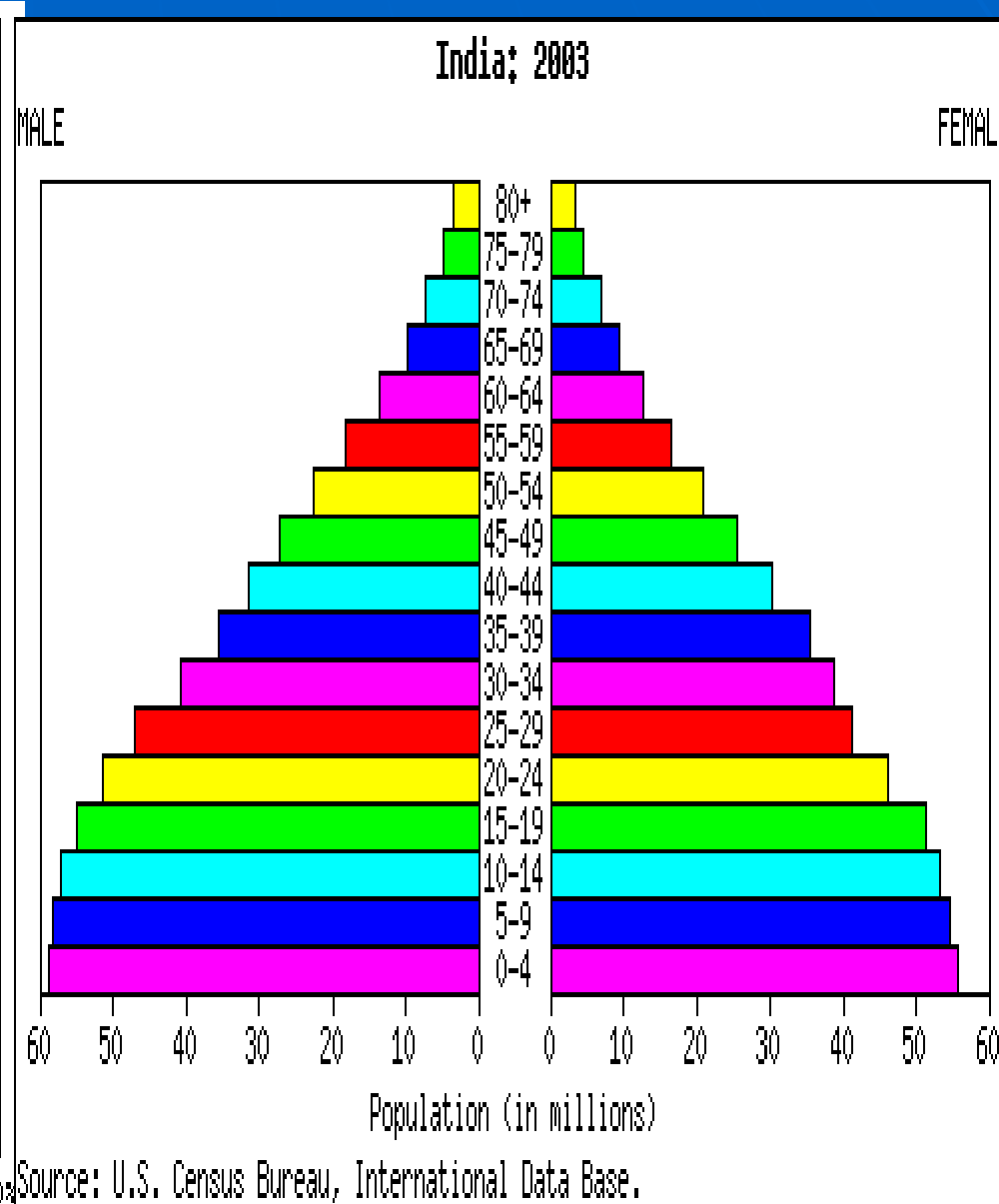
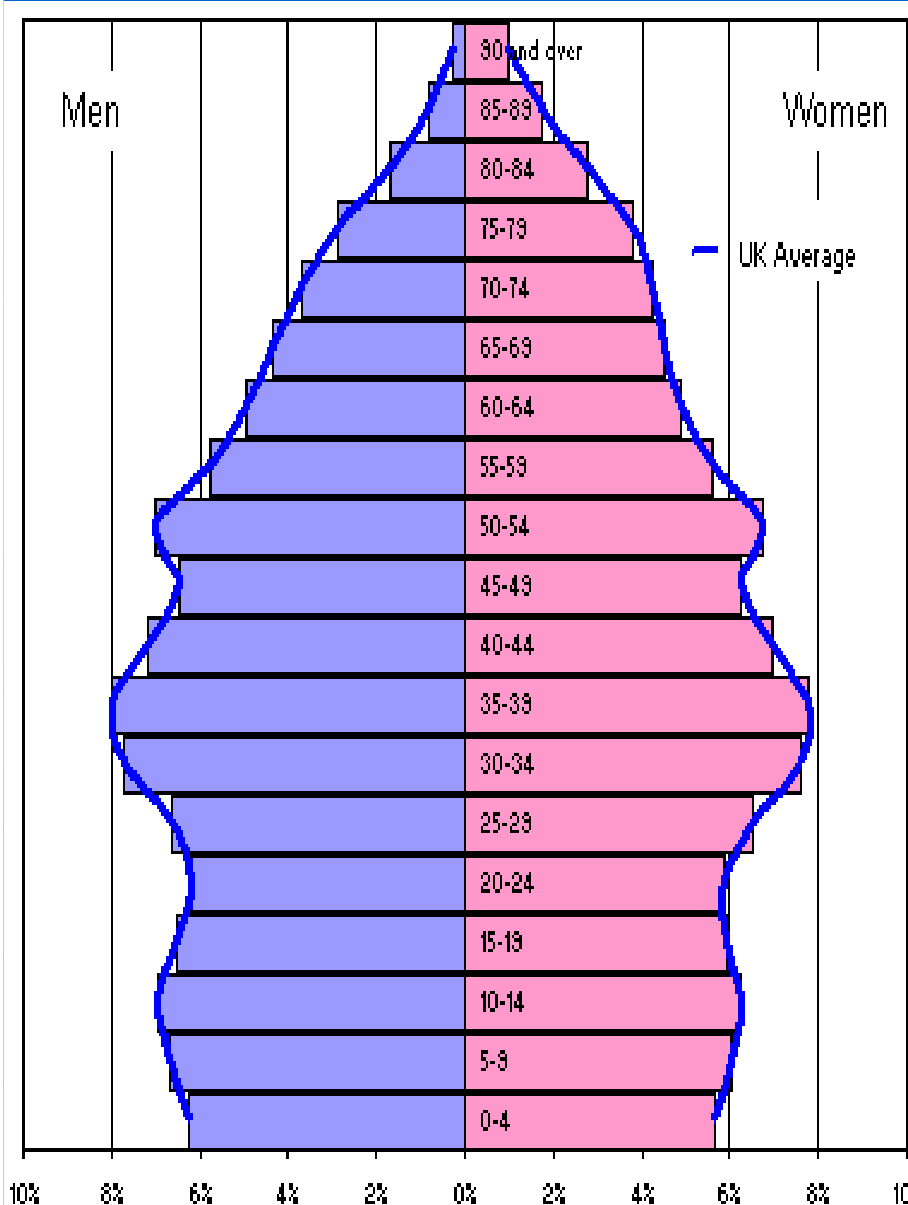
- Rising Lung cancer (N/S)
- Reducing Cervix, Stomach
- Breast, Ovary

ASR*	1976-80	1996-2000	EACP+
Breast	14.6	19.3	1.4 (1.2 - 1.7)
Cervical	15.2	11.4	-1.5 (1.7 - 1.2)
Ovarian	4.5	4.9	0.8 (0.3 - 1.3)

*Age adjusted incidence rates (30-64 years)

+ Estimated Annual Percent Change

Population Pyramids



Comprehensive Cancer Services in India (Patient Care)

Infrastructure to tame the problem

- **Regional Cancer Centres (RCC)**
 - New Oncology Institutes of excellence**
- **District Cancer Control programme (DCCP)**
 - Medical Colleges**
 - District General Hospital (DGH)**
- **Primary Health Centre**
 - **Awareness**
 - **Screening : Oral, Breast, Cervix Cancer**
 - **Palliative Care**
- **Telemedicine (National Knowledge Network)**
- **(GoI, NGO & PublicPrivatePartnership)**

Comprehensive Cancer Services in India (Patient Care)
Cost-effective Technology (Infra-structure)

- 16% reduction in intensity (6 vs 5 days) has 10% reduction in cure
- Monthly electricity bills \$ 2000 for Linac vs \$ 20 for Cobalt
- Cobalt can run on UPS during electricity failure
- MLC for Cobalt being developed by Dec 2010 (DAE & Industry)

Comprehensive Cancer Services in India (Education)

Implementing Quality Service

Uniform Care

Evidence Based Management movement (2002)

- Collated evidence being discussed for robustness and applicability
- Guidelines or new trials
- Applicability and Appropriateness

Human Resource (DAE, DoH&FW, Med
Inst, BHGI, IAEA, WHO & other Govt)

Comprehensive Cancer Services in India (Research)

Frugal Innovation

- Novelty
 - Indigenous medicine (Curcumin)
 - New Indications for existing drugs
 - Vit D3, metformin, anandamide, progesterone
 - New drugs
- Testing Technology
- (DAE, DST, DBT, IARC, NIH & Industry)

Rs 100 shot could save day for breast cancer patients

Injection to cut breast cancer death rates

EXPRESS NEWS SERVICE
DECEMBER 14

Ray Of Hope

- One in every 30 Mumbai women stands the risk of developing breast cancer in her lifetime
- In the next 10 years, the incidence in Mumbai will rise to 60 women in every 1,00,000 getting the disease every year
- Breast cancer, which has replaced cervical as the leading cancer among women living in urban centres, is increasingly being viewed as a lifestyle disease
- Twenty-year data from Mumbai, Delhi and Chennai shows incidence has more than doubled in this period. But the 5 year survival rate for the patients has increased

NOW | Tata Memorial Hospital doctors have worked out a new regimen over the last eight years



WHAT | One shot of progesterone injection for the patient
4-14 days before operation

WHO | **1,000** women were enrolled in the study

RESULT | It cuts down the chances of recurrences. It cuts down death rate by **30%**

SO | If one considers that 1.1 million breast cancer cases are diagnosed annually and about 4,00,000 die of this disease every year, a 30% relative reduction in deaths mean saving over 1,00,000 lives. These numbers for India would be 1,00,000 new cases diagnosed every year, 40 deaths and over 10,000 lives saved.

Now, female hormone fights breast cancer

Tata Memorial's treatment is cheaper and has no side effects

Jyoti Shelar

Progesterone hormone helps women fight breast cancer better and increases their life expectancy by several years.

Tata Memorial came to this conclusion after a five-year study on 1,000 women undergoing treatment for cancer. Dr RA Badwe, director of Tata Memorial Hospital & Cancer Research Institute, presented the reports of the study at San Antonio Breast Cancer Symposium in the US on Sunday.

The study is the first of its kind in the

world, according to Tata Memorial. If the findings are put to use, it will drastically bring down the treatment cost. Dr Indraneel Mitra of the hospital's oncology department said. "Compared to the costly treatment available for breast cancer, a hydroxy-progesterone injection costs approximately Rs100," he said. "This obviously increases its affordability. The best part is there are no side effects."

Badwe, who is also the head of breast service and surgical oncology at Tata Memorial, in 1991 studied several cases and concluded that progesterone might help in treating breast cancer. He found that women undergoing surgeries for breast cancer during the luteal phase of their menstrual cycle (when the presence of progesterone is higher) had higher survival rates.

Also, chances of a recurrence of tumour lessened considerably. "We used this hypothesis and carried out a full-fledged study by selecting 1,000 women who had breast cancer," Mitra said.

Of the 1,000 women, 500 were given hydroxy-progesterone injection 10 days before surgery, and the rest were operated upon without being given the injection. "At least 4% of the women whose disease was in the initial stage had reduction in recurrence of the tumour. Of those whose disease was in the advanced stage, 10% showed a reduction in recurrence of the tumour and 8% showed reduction in mortality," Mitra said. "Of the women who were at high risk, there was a 30% reduction in mortality. These women, who would have certainly died, survived."

THE NEW ENGLAND JOURNAL of MEDICINE

EDITORIALS



From India to the World — A Better Way to Prevent Cervical Cancer

Mark Schiffman, M.D., M.P.H., and Sholom Wacholder, Ph.D.

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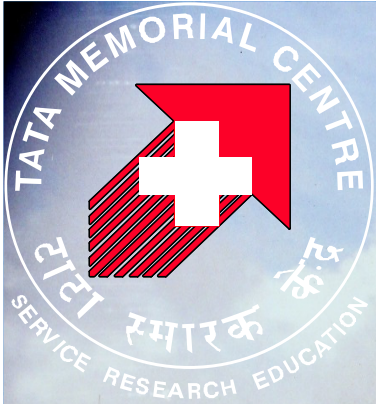
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HPV Screening for Cervical Cancer in Rural India

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