### **NCD Video**

### CANCER

#### Facilitator.

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### Introduction

- Cancer is a generic term for a large group of diseases that can affect any part of the body.
- Other terms used are malignant tumours and neoplasms.
- One defining feature of cancer is the rapid creation of abnormal cells that grow beyond their usual boundaries, and which can then invade adjoining parts of the body and spread to other organs (metastasis).
- Metastases are the major cause of death from cancer.

### Problem

- Cancer accounts for 7.6 million deaths worldwide (around 13% of all deaths) in 2008.
- About 70% of all cancer deaths occurred in low- and middle-income countries.
- Deaths from cancer worldwide are projected to continue to rise to over 13.1 million in 2030.

### Methods of estimation

#### Incidence:

Local incidence data: incidence rates were estimated as the weighted average of the local rates.

#### Mortality:

No data.

The number of cancer deaths was estimated from incidence estimates and site specific survival provided by neighbouring countries.

#### Prevalence:

Prevalence was estimated from incidence estimates and country specific observed survival by cancer and age group.

#### Age-standardised rate (W):

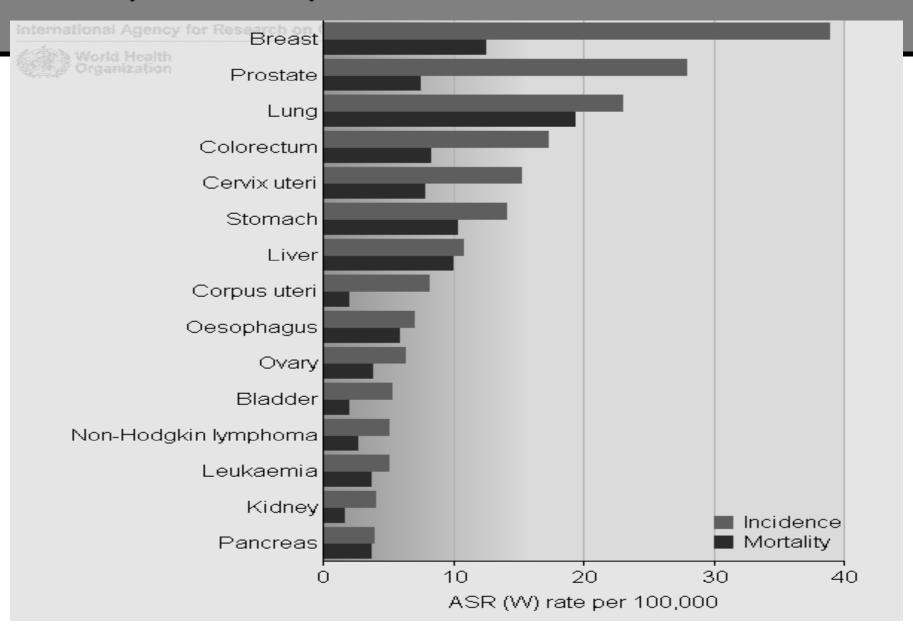
A rate is the number of new cases or deaths per 100 000 persons per year.

An age-standardised rate is the rate that a population would have if it had a standard age structure.

### Risk of getting or dying from the disease before age 75 (%):

It is expressed as the number of new born children (out of 100) who would be expected to develop/die from cancer before the age of 75 if they had cancer (in the absence of other causes of death).

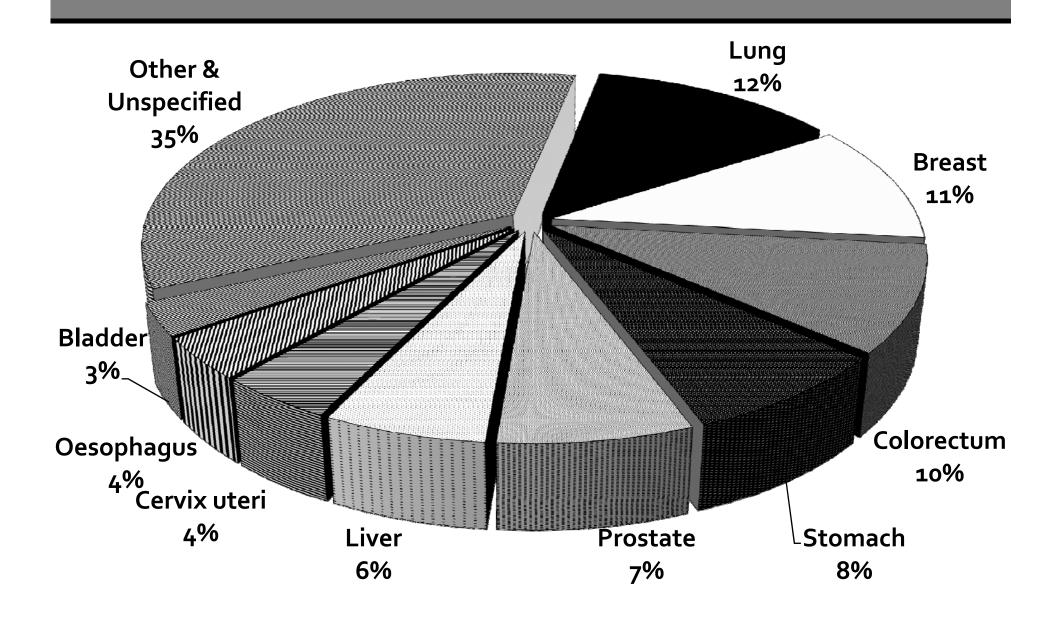
## Estimated age-standardised incidence and mortality rates (both sexes) : WORLD



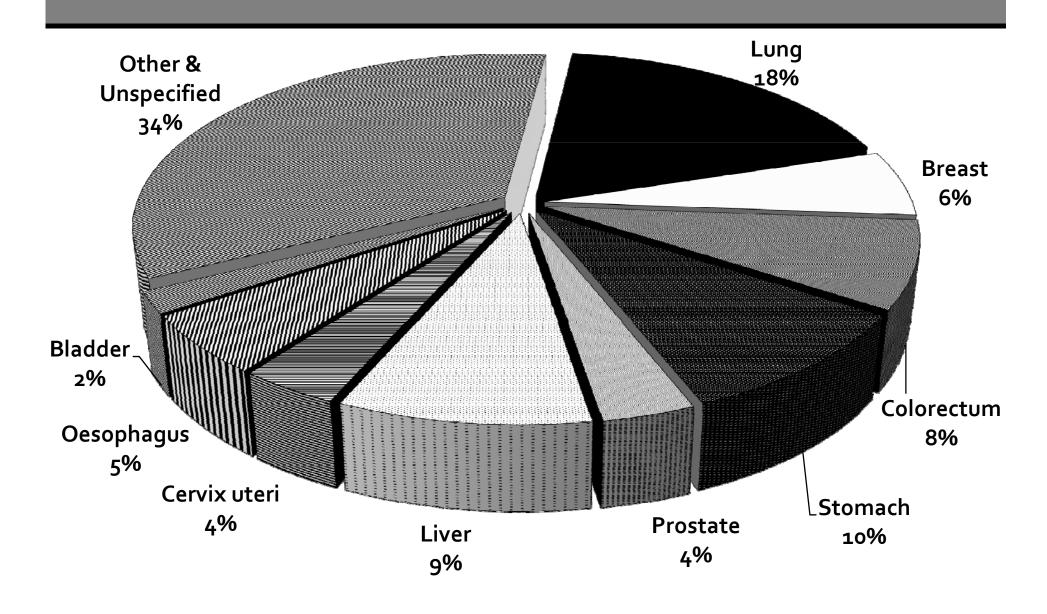
### Estimated incidence, mortality and 5-year prevalence: both sexes

Conson	Incidence			Mortality			5-year prevalence		
Cancer	Number	(%)	ASR (W)	Number	(%)	ASR (W)	Number	(%)	Prop
Lip, oral cavity	263020	2.1	3.8	127654	1.7	1.9	610656	2.1	12.4
Nasopharynx	84441	0.7	1.2	51609	0.7	0.8	222711	0.8	4.5
Other pharynx	136622	1.1	2.0	95550	1.3	1.4	288038	1.0	5.9
Oesophagus	481645	3.8	7.0	406533	5.4	5.8	482145	1.7	9.8
Stomach	988602	7.8	14.0	737419	9.7	10.3	1598440	5.5	32.5
Colorectum	1235108	9.8	17.2	609051	8.1	8.2	3260890	11.3	66.3
Liver	749744	5.9	10.8	695726	9.2	9.9	613213	2.1	12.5
Gallbladder	145203	1.1	2.0	109587	1.4	1.5	168458	0.6	
Pancreas	278684	2.2	3.9	266669	3.5	3.7	172492	0.6	3.5
Larynx	150677	1.2	2.2	81892	1.1	1.2	425697	1.5	8.7
Lung	1608055	12.7	22.9	1376579	18.2	19.3	1677416	5.8	34.1
Melanoma of skin	199627	1.6	2.8	46372	0.6	0.6	755878	2.6	15.4
Breast	1384155	10.9	38.9	458503	6.1	12.4	5189028	18.0	210.7
Cervix uteri	530232	4.2	15.2	275008	3.6	7.8	1555341	5.4	63.2
Corpus uteri	288387	2.3	8.2	73854	1.0	1.9	1097620	3.8	44.6
Ovary	224747	1.8	6.3	140163	1.9	3.8	549850	1.9	
Prostate	899102	7.1	27.9	258133	3.4	7.4	3200372	11.1	130.4
Testis	52322	0.4	1.5	9874	0.1	0.3	201562	0.7	8.2
Kidney	273518	2.2	4.0	116368	1.5	1.6	744190	2.6	15.1
Bladder	382660	3.0	5.3	150282	2.0	2.0	1172461	4.1	23.9
Brain, nervous system	237913	1.9	3.5	174880	2.3	2.5	317039	1.1	6.4
Thyroid	213179	1.7	3.1	35383	0.5	0.5	862474	3.0	17.5
Hodgkin lymphoma	67919	0.5	1.0	29902	0.4	0.4	196345	0.7	4.0
Non-Hodgkin lymphoma	356431	2.8	5.1	191599	2.5	2.7	772021	2.7	15.7
Multiple myeloma	102826	0.8	1.4	72453	1.0	1.0	210697	0.7	4.3
Leukaemia	350434	2.8	5.0	257161	3.4	3.6	499874	1.7	10.2
All cancers excl. non-melanoma skin cancer	12662554	100.0	180.8	7564802	100.0	105.6	28803166	100.0	585.8
Incidence and mortal ASR (W) and proport			ce for adult popula	tion only.	-	-		-	

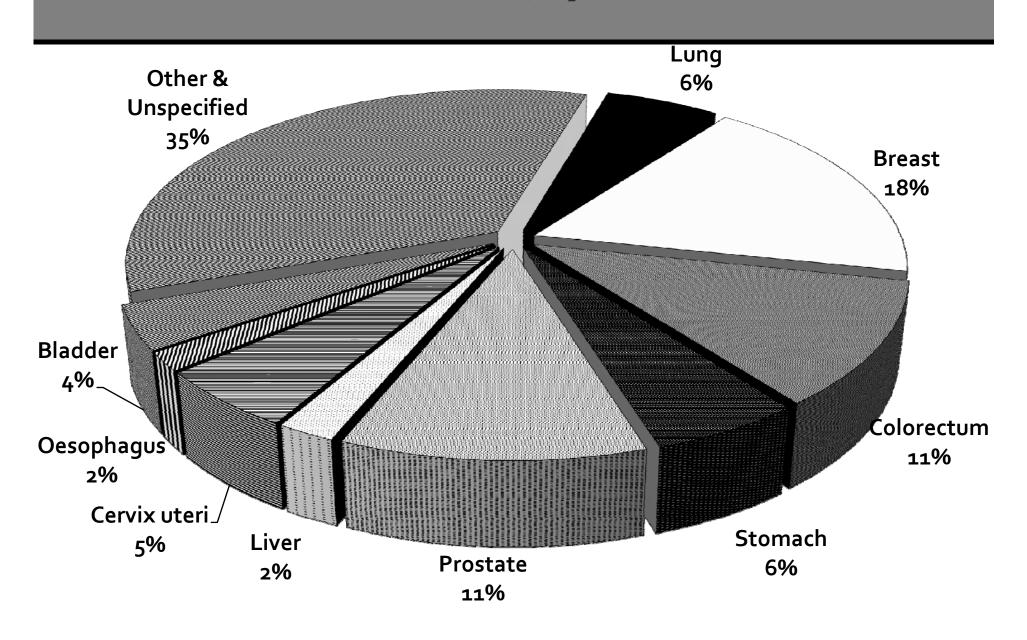
### **Estimated Global Incidence**



### **Estimated Global Mortality**



### Estimated Global 5-year Prevalence

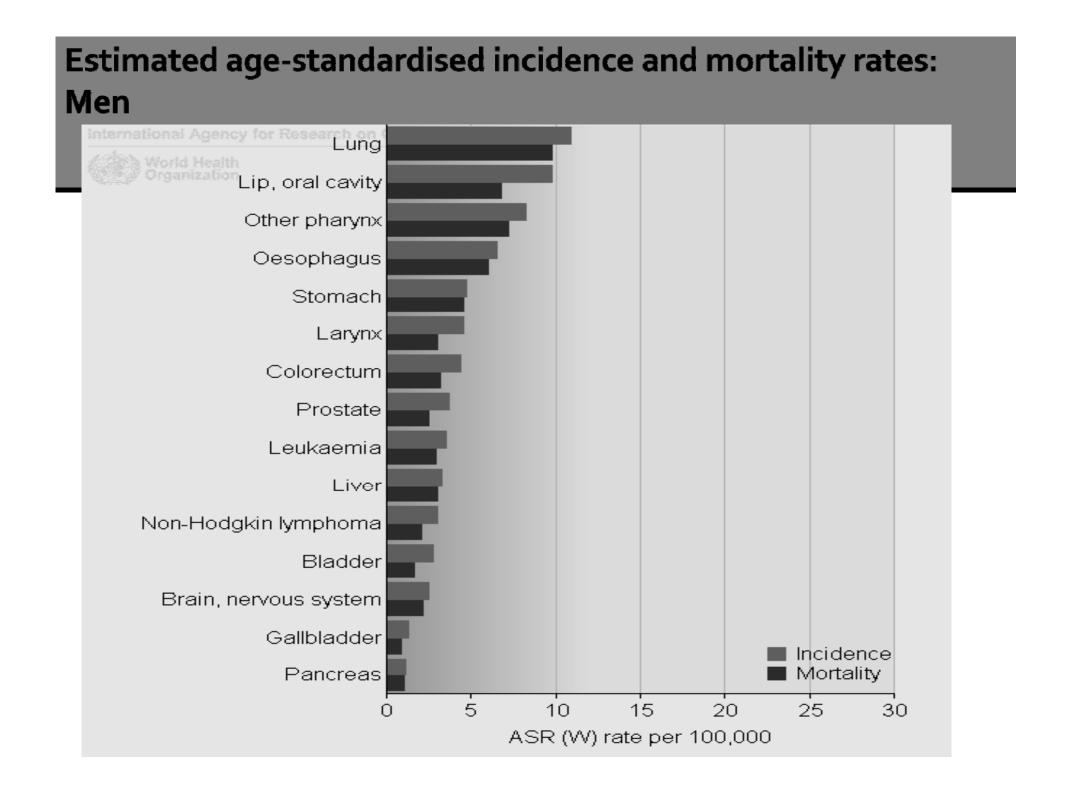


### Summary statistics (2008)

WORLD	Male	Female	Both sexes
Population (thousands)	3414566	3358715	6773281
Number of new cancer cases (thousands)	6617.8	6044.7	12662.6
Age-standardised rate (W)	202.8	164.4	180.8
Risk of getting cancer before age 75 (%)	21.1	16.5	18.6
Number of cancer deaths (thousands)			
Age-standardised rate (W)	127.9	87.2	105.6
Risk of dying from cancer before age 75 (%)	13.4	9.1	11.1
5-year prevalent cases (thousands)	13514.9	15288.3	28803.2
Proportion (per 100,000)	550.6	620.8	585.8
5 most frequent cancers	Lung	Breast	Lung
(ranking defined by total number of cases)	Prostate	Colorectum	Breast
	Colorectum	Cervix uteri	Colorectum
	Stomach	Lung	Stomach
	Liver	Stomach	Prostate

### INDIA (in 2008)

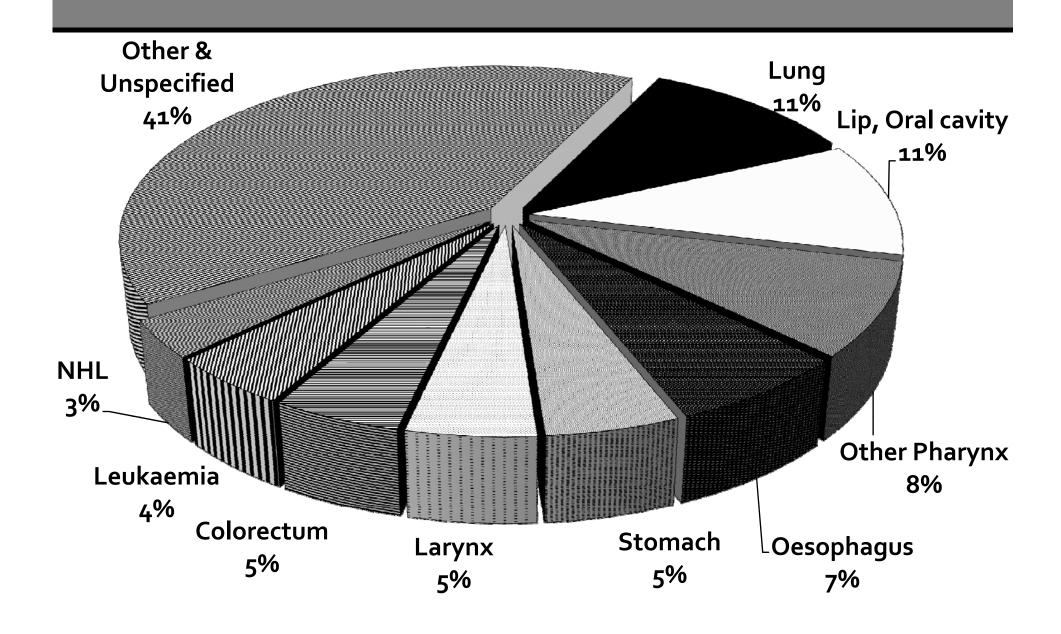
- New cancer cases: 9.4 lac
  - Female: 5.1 lac
  - Male: 4.3 lac
- Incidence rate: 98.5 per lac population
- Deaths due to cancer: 6.3 lac
  - Male: 3.21 lac
  - Female: 3.12 lac
- Mortality rate: 68 per lac



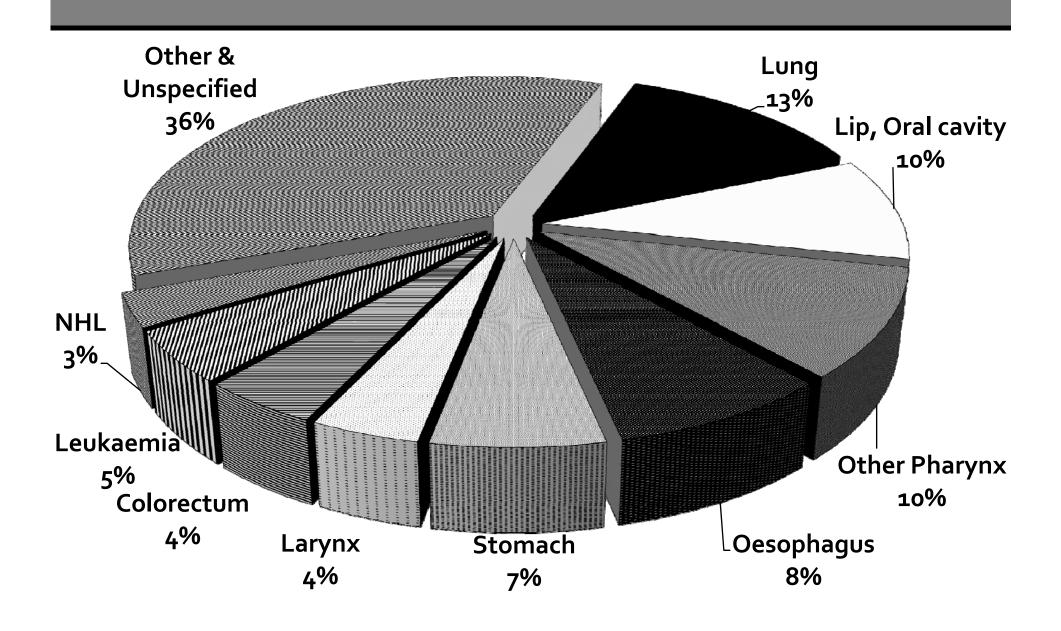
#### Estimated incidence, mortality and 5-year prevalence: men

0	Incidence				Mortality		5-year prevalence		
Cancer	Number	(%)	ASR (W)	Number	(%)	ASR (W)	Number	(%)	Prop.
Lip, oral cavity	45445	10.6	9.8	31102	9.7	6.8	70650	11.4	17.0
Nasopharynx	2460	0.6	0.5	1761	0.5	0.4	6229	1.0	1.5
Other pharynx	36731	8.5	8.3	32446	10.1	7.2	54107	8.7	13.0
Oesophagus	28809	6.7	6.5	26568	8.3	6.0	14873	2.4	3.6
Stomach	21077	4.9	4.7	20678	6.4	4.6	15085	2.4	3.6
Colorectum	20159	4.7	4.3	14134	4.4	3.2	27227	4.4	6.6
Liver	14516	3.4	3.2	12877	4.0	3.0	6993	1.1	1.7
Gallbladder	5928	1.4	1.3	3666	1.1	0.8	7210	1.2	1.7
Pancreas	5081	1.2	1.1	4501	1.4	1.0	2864	0.5	0.7
Larynx	20320	4.7	4.6	13010	4.0	3.0	40322	6.5	9.7
Lung	47010	10.9	10.9	41865	13.0		21413	3.5	5.2
Melanoma of skin	500	0.1	0.1	253	0.1	0.1	1233	0.2	0.3
Prostate	14630	3.4	3.7	10422	3.2	2.5	48892	7.9	11.8
Testis	3864	0.9	0.6	1665	0.5	0.3	12980	2.1	3.1
Kidney	5453	1.3	1.1	3543	1.1	0.8	11419	1.8	2.8
Bladder	11807	2.7	2.8	6632	2.1	1.6	26747	4.3	6.4
Brain, nervous system	13085	3.0	2.5	11035	3.4	2.1	19041	3.1	4.6
Thyroid	3719	0.9	0.7	840	0.3	0.2	14615	2.4	3.5
Hodgkin lymphoma	5245	1.2	0.9	2528	0.8	0.5	7853	1.3	1.9
Non-Hodgkin lymphoma	14708	3.4	3.0	10074	3.1	2.1	16633	2.7	4.0
Multiple myeloma	3775	0.9	0.9	3115	1.0	0.7	6446	1.0	1.5
Leukaemia	19491	4.5	3.5	15394	4.8	2.9	13864	2.2	3.3
All cancers excl. non-melanoma skin cancer	430096	100.0	92.9	321384	100.0	71.2	620161	100.0	149.4
Incidence and mon ASR (W) and propo			ence for adult popu	ılation only.					

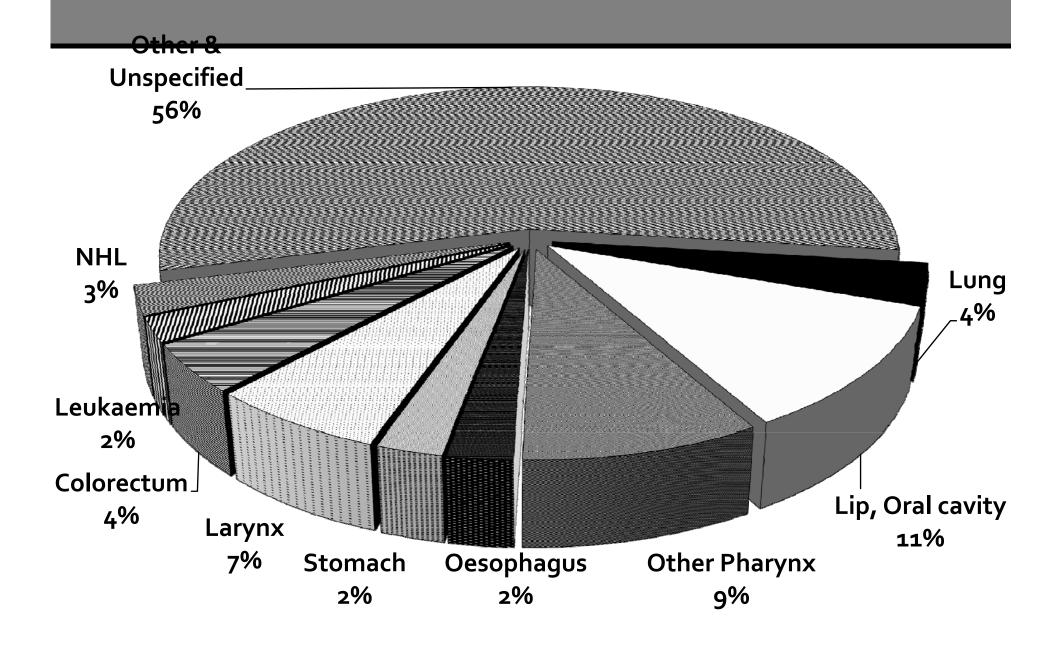
### **Estimated Incidence: Men**



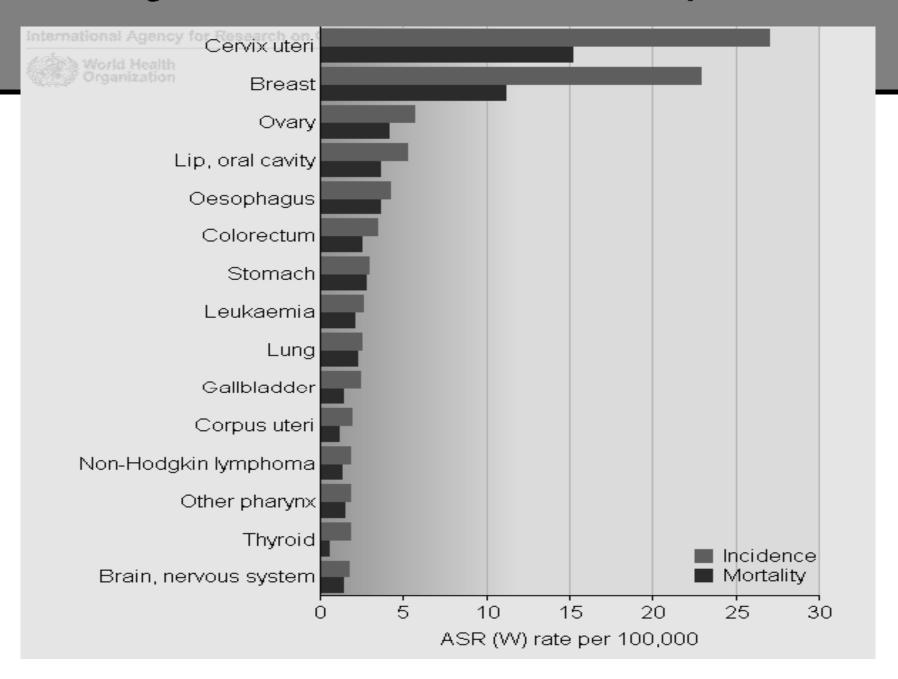
### **Estimated Mortality: Men**



### Estimated 5-year Prevalence: Men



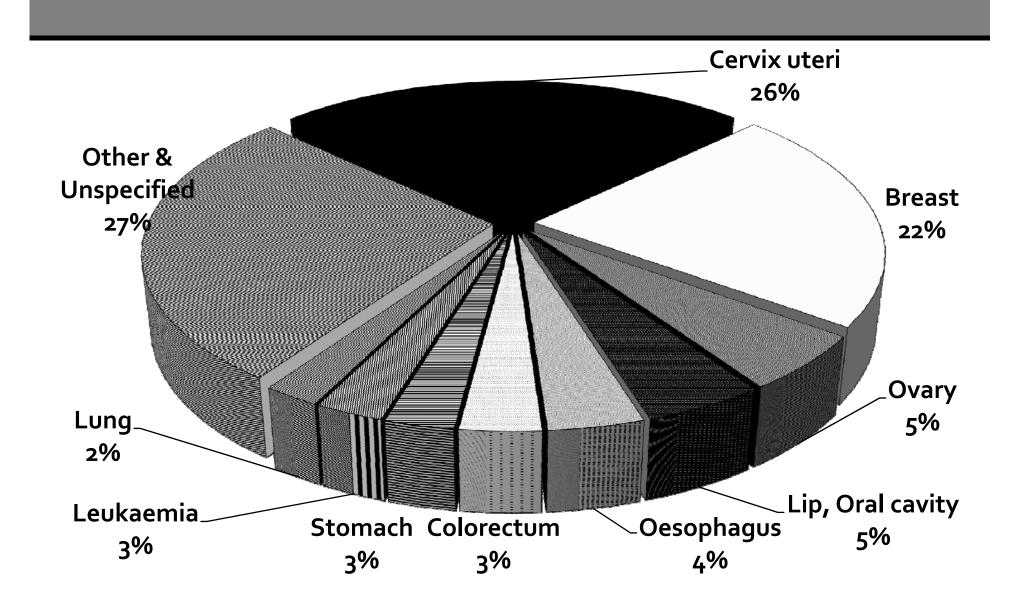
#### Estimated age-standardised incidence and mortality rates: Women



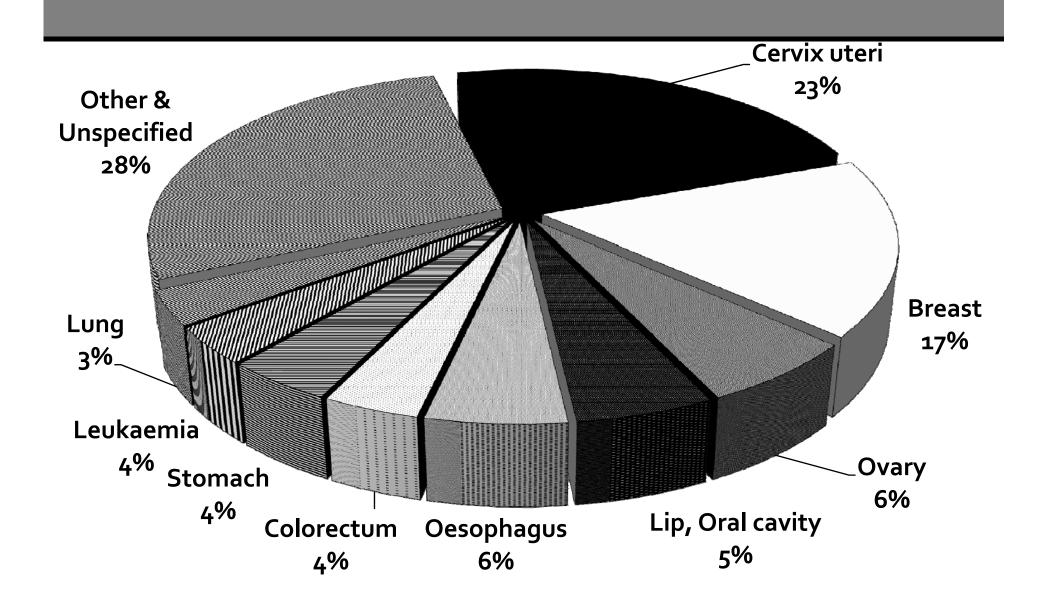
### Estimated incidence, mortality and 5-year prevalence: women

2	Incidence			Mortality			5-year prevalence		
Cancer	Number	(%)	ASR (W)	Number	(%)	ASR (W)	Number	(%)	Prop.
Lip, oral cavity	24375	4.7	5.2	16551	5.3	3.6	37040	3.4	9.5
Nasopharynx	873	0.2	0.2	651	0.2	0.1	2181	0.2	0.6
Other pharynx	8540	1.6	1.8	6900	2.2	1.5	12284	1.1	3.1
Oesophagus	19290	3.7	4.2	16783	5.4	3.6	10737	1.0	2.7
Stomach	13982	2.7	2.9	12886	4.1	2.7	10172	0.9	2.6
Colorectum	16317	3.1	3.5	11556	3.7	2.5	21895	2.0	5.6
Liver	5628	1.1	1.2	5166	1.7	1.1	2646	0.2	0.7
Gallbladder	11334	2.2	2.4	6613	2.1	1.4	13828	1.3	3.5
Pancreas	3879	0.7	0.8	3265	1.0	0.7	2188	0.2	0.6
Larynx	2738	0.5	0.6	1784	0.6	0.4	5431	0.5	1.4
Lung	11557	2.2	2.5	10404	3.3	2.3	5581	0.5	1.4
Melanoma of skin	445	0.1	0.1	230	0.1	0.0	1161	0.1	0.3
Breast	115251	22.2	22.9	53592	17.2	11.1	315679	29.1	80.6
Cervix uteri	134420	25.9	27.0	72825	23.3	15.2	338010	31.2	86.3
Corpus uteri	8772	1.7	1.9	4851	1.6	1.1	32013	3.0	8.2
Ovary	28080	5.4	5.7	19558	6.3	4.1	57796	5.3	14.8
Kidney	3447	0.7	0.7	2190	0.7	0.4	6937	0.6	1.8
Bladder	3005	0.6	0.6	1571	0.5	0.3	6843	0.6	1.8
Brain, nervous system	8750	1.7	1.7	6906	2.2	1.4	12740	1.2	3.3
Thyroid	9180	1.8	1.8	2189	0.7	0.5	36906	3.4	9.4
Hodgkin ymphoma	2126	0.4	0.4	1059	0.3	0.2	4046	0.4	1.0
Non-Hodgkin ymphoma	9010	1.7	1.8	6169	2.0	1.3	10398	1.0	2.7
Multiple myeloma	3014	0.6	0.7	2826	0.9	0.6	5156	0.5	1.3
Leukaemia	13816	2.7	2.6	10888	3.5	2.1	10794	1.0	2.8
All cancers excl. non-melanoma skin cancer	518762	100.0	105.5	312071	100.0	65.5	1084924	100.0	277.1

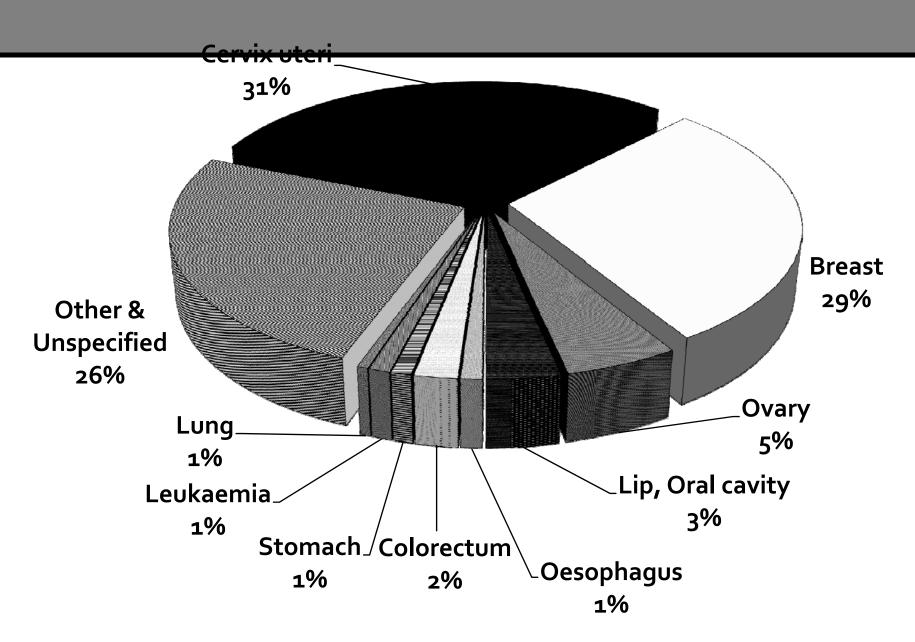
### **Estimated Incidence: Women**



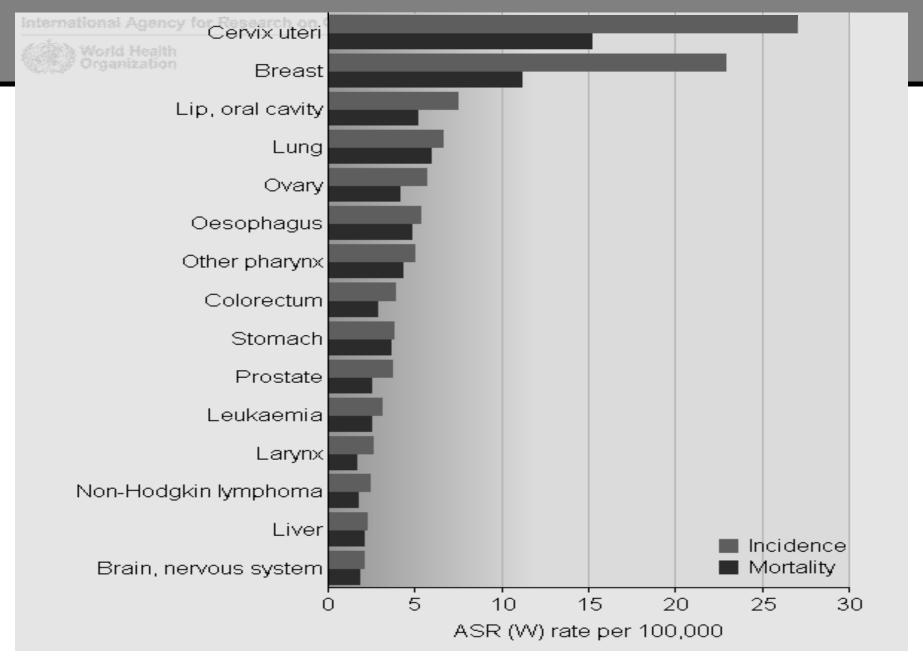
### **Estimated Mortality: Women**



## Estimated 5-year Prevalence: Women



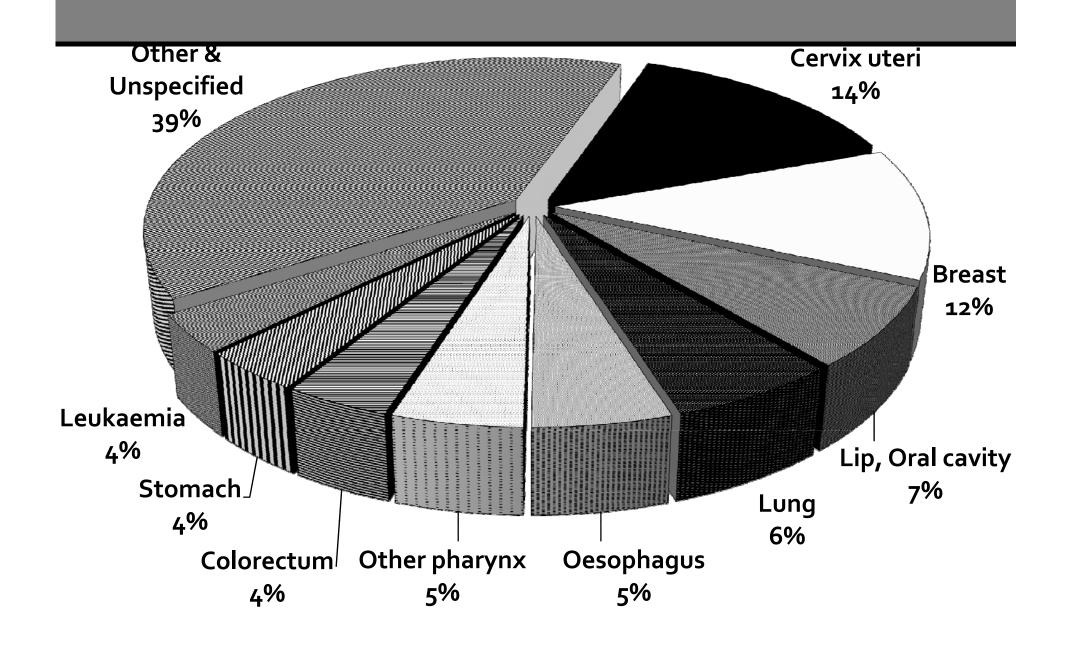
### Estimated age-standardised incidence and mortality rates: both sexes



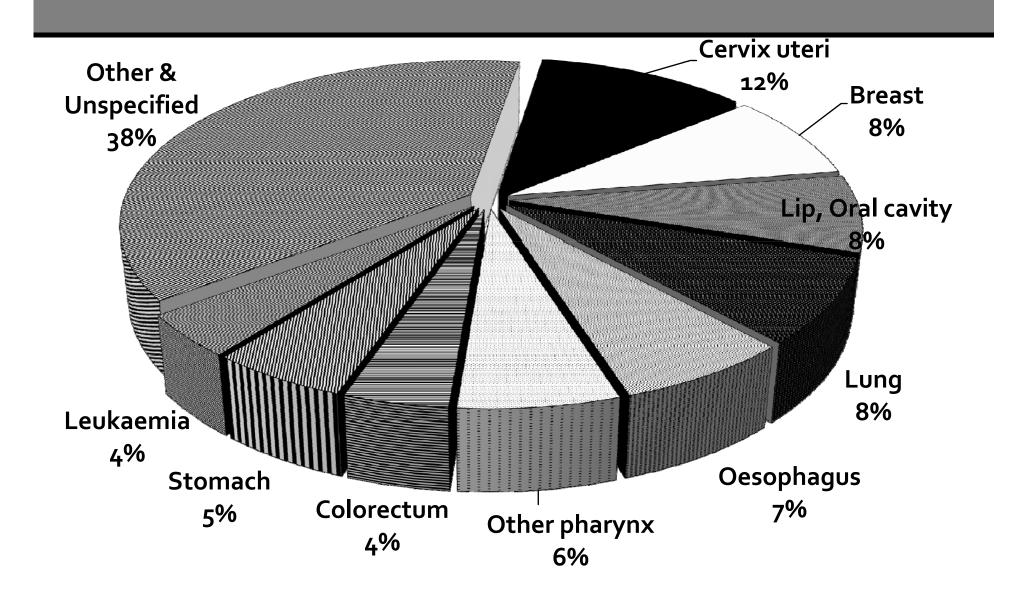
### Estimated incidence, mortality and 5-year prevalence: both sexes

Cancar	Incidence				Mortality			5-year prevalence	5-year prevalence		
Cancer	Number	(%)	ASR (W)	Number	(%)	ASR (W)	Number	(%)	Prop		
Lip, oral cavity	69820	7.4	7.5	47653	7.5	5.2	107690	6.3	13.4		
Nasopharynx	3333	0.4	0.3	2412	0.4	0.2	8410	0.5	1.0		
Other pharynx	45271	4.8	5.0	39346	6.2	4.3	66391	3.9	8.2		
Oesophagus	48099	5.1	5.3	43351	6.8	4.8	25610	1.5	3.2		
Stomach	35059	3.7	3.8	33564	5.3	3.6	25257	1.5	3.1		
Colorectum	36476	3.8	3.9	25690	4.1	2.8	49122	2.9	6.1		
Liver	20144	2.1	2.2	18043	2.8		9639	0.6	1.2		
Gallbladder	17262	1.8	1.9	10279	1.6		21038	1.2	2.6		
Pancreas	8960	0.9	1.0	7766	1.2	0.9	5052	0.3	0.6		
Larynx	23058	2.4	2.5	14794	2.3	1.7	45753	2.7	5.7		
Lung	58567	6.2	6.6	52269	8.3	5.9	26994	1.6	3.3		
Melanoma of skin	945	0.1	0.1	483	0.1	0.1	2394	0.1	0.3		
Breast	115251	12.1	22.9	53592	8.5	11.1	315679	18.5	80.6		
Cervix uteri	134420	14.2	27.0	72825	11.5		338010	19.8	86.3		
Corpus uteri	8772	0.9	1.9	4851	0.8	1.1	32013	1.9	8.2		
Ovary	28080	3.0	5.7	19558	3.1	4.1	57796	3.4	14.8		
Prostate	14630	1.5	3.7	10422	1.6	2.5	48892	2.9	11.8		
Testis	3864	0.4	0.6	1665	0.3	0.3	12980	0.8	3.1		
Kidney	8900	0.9	0.9	5733	0.9	0.6	18356	1.1	2.3		
Bladder	14812	1.6	1.7	8203	1.3	1.0	33590	2.0	4.2		
Brain, nervous system	21835	2.3	2.1	17941	2.8	1.8	31781	1.9	3.9		
Thyroid	12899	1.4	1.2	3029	0.5	0.3	51521	3.0	6.4		
Hodgkin lymphoma	7371	0.8	0.7	3587	0.6	0.4	11899	0.7	1.5		
Non-Hodgkin lymphoma	23718	2.5	2.4	16243	2.6	1.7	27031	1.6	3.3		
Multiple myeloma	6789	0.7	0.8	5941	0.9	0.7	11602	0.7	1.4		
Leukaemia	33307	3.5	3.0	26282	4.1	2.5	24658	1.4	3.1		
All cancers excl. non-melanoma skin cancer	948858	100.0	98.5	633455	100.0	68.0	1705085	100.0	211.4		

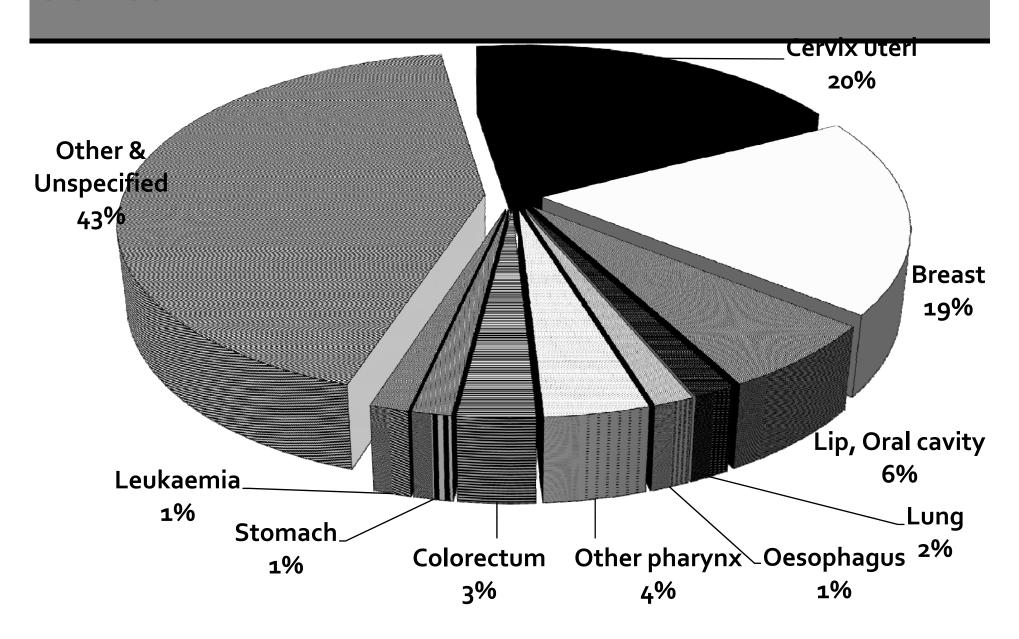
#### **Estimated Incidence: Both sexes**



### **Estimated Mortality: Both Sexes**



# Estimated 5-Year Prevalence: Both sexes



### Summary statistics (2008)

INDIA	Male	Female	Both sexes
Population (thousands)	610618	570793	1181411
Number of new cancer cases (thousands)	430.1	518.8	948.9
Age-standardised rate (W)	92.9	105.5	98.5
Risk of getting cancer before age 75 (%)	10.2	10.8	10.4
Number of cancer deaths (thousands)	321.4	312.1	633.5
Age-standardised rate (W)	71.2	65.5	68.0
Risk of dying from cancer before age 75 (%	8.0	7.1	7.5
5-year prevalent cases (thousands)	620.2	1084.9	1705.1
Proportion (per 100,000)	149.4	277.1	211.4
5 most frequent cancers (ranking defined	Lung	Cervix uteri	Cervix uteri
by total number of cases)	Lip, oral cavity	Breast	Breast
	Other pharynx	Ovary	Lip, oral cavity
	Oesophagus	Lip, oral cavity	Lung
	<u> </u>	<u> </u>	<u> </u>

### What causes cancer?

- The transformation from a normal cell into a tumour cell is a multistage process, typically a progression from a pre-cancerous lesion to malignant tumours.
- These changes are the result of the interaction

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- > Physical carcinogens;
- > Chemical carcinogens; and
- > Biological carcinogens.

### **Chemical** carcinogens,

e.g. asbestos, compo nents of tobacco smoke

#### **Biological** carcinogens,

e.g. infections from certain viruses, or parasites

#### **Physical** carcinogens,

e.g. ultraviolet and ionizing radiation

> Person's Genetic **Factors**

### **Risk factors for Cancer**

- Tobacco
- > Alcohol
- Dietary factors
- Occupational exposures
- > Infections: Viruses; Parasites
- > Customs, Habits & Life styles
- > Others

Tobacco use is the single most important risk factor for cancer causing 22% of global cancer deaths and 71% of global lung cancer deaths. In many low-income countries, up to 20% of cancer deaths are due to infection by HBV and HPV.

### **Control of Cancer**

- Primary prevention
   More than 30% of cancer deaths could be prevented by modifying or avoiding key risk factors.
- Secondary prevention
   Many cancers have a high chance of cure if detected early and treated adequately.

### **Primary Prevention**

- Control of tobacco and alcohol consumption
- Personal hygiene
- Radiation
- Occupational exposures
- Immunization
- Foods, drugs & cosmetics
- Legislation
- Cancer education

### Early warning signs (danger signals) of cancer

- A lump or hard area in the breast
- A change in a wart or mole
- A persistent change in digestive and bowel habits
- A persistent cough or hoarseness
- Excessive loss of the blood at the monthly period or loss of blood outside the usual dates
- Blood loss from any natural orifice
- A swelling or sore that does not get better
- Unexplained loss of weight

### Secondary prevention

- Cancer registration
  - Hospital based registries
  - Population based registries
- Early detection of cases
- Treatment.

Cancer diagnosis and treatment is complemented by psychological support.

### Palliative care

- Palliative care is treatment to relieve, rather than cure, symptoms caused by cancer.
- Palliative care can help people live more comfortably;
- It is particularly needed in places with a high proportion of patients in advanced stages where there is little chance of cure.
- Relief from physical, psychosocial and spiritual problems can be achieved in over 90% of advanced cancer patients through palliative care.

## Palliative care strategies

- Effective public health strategies, comprising of community- and home-based care are essential to provide pain relief and palliative care for patients and their families in low-resource settings.
- Improved access to oral morphine is mandatory for the treatment of moderate to severe cancer pain, suffered by over 80% of cancer patients in terminal phase.

## Cancer screening

- Malignant disease is preceded by a premalignant lesion.
- Most cancers begin as localized lesions.
- As much as 75% of all cancers occur in body sites that are accessible.

- Screening programmes are especially effective for frequent cancer types for which a cost effective, affordable, acceptable and accessible screening test is available to the majority of the population at risk.
- Examples of screening methods are:
- Visual inspection with acetic acid (VIA) for cervical cancer in low-resource settings;
- > PAP test for cervical cancer in middle- and high-income settings;
- Mammography screening for breast cancer in high-income settings.





## Thanks.

# Epidemiology of

# **Selected Cancers**

### ORAL CANCER

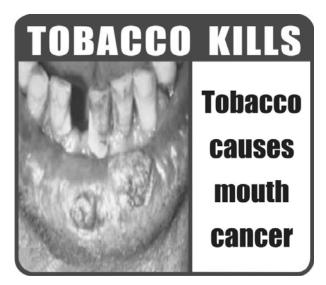
- One of the ten most common cancer
- New cancer cases: 2.6 lac
- Deaths due to oral cancer: 1.27 lac
- Mortality rate: 1.9 per lac

## **India**

- Incidence:
  - Males: 9.8 cases 1 lac
  - Females: 5.2 cases per 1 lac
- Mortality:
  - Males: 6.8 cases 1 lac
  - Females: 3.6 cases per 1 lac

## **Epidemiological features**

- Tobacco
- Alcohol
- Pre-cancerous stage
- High risk groups
- Cultural patterns





## Prevention

- Primary prevention
- Secondary prevention

### **Cancer Cervix**

- Cervical cancer is the third most common cancer in women, and the seventh overall.
- More than 85% of the global burden occurs in developing countries, where it accounts for 13% of all female cancers.
- No of new cases: 530000 cases
- No. of Deaths: 275000
- Incidence: Mortality ratio: 52%

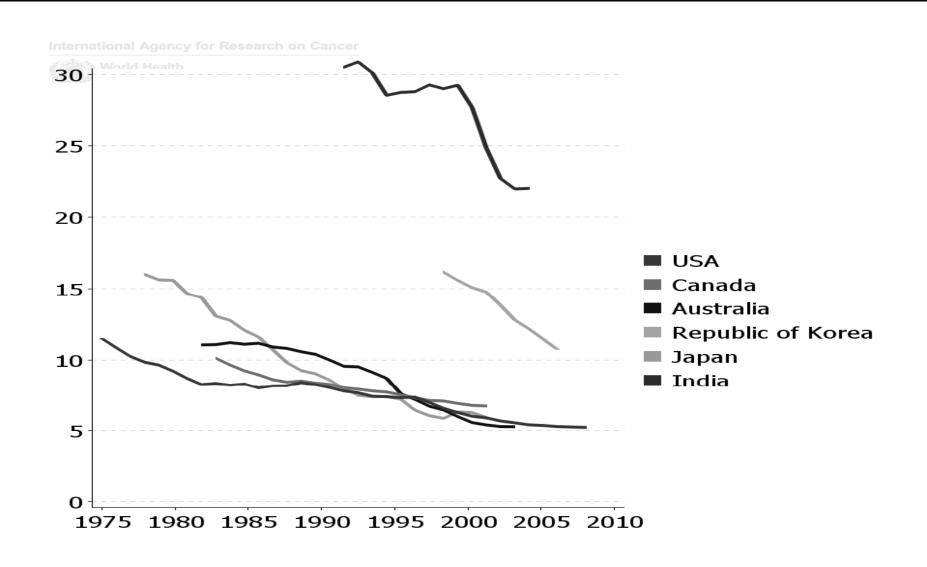
#### High-risk regions:

■ Eastern and Western Africa (ASR greater then 30 per 100,000), Southern Africa (26.8 per 100,000), South-Central Asia (24.6 per 100,000), South America and Middle Africa (ASRs 23.9 and 23.0 per 100,000 respectively).

#### Rates are lowest in:

- Western Asia, Northern America and Australia/New Zealand (ASRs less than 6 per 100,00).
- Cervical cancer remains the most common cancer in women only in Eastern Africa, South-Central Asia.

# Trends in Incidence of Cervical Cancer: ASR (W) per 100,000



## **India**

- Incidence: 27 per 1 lac
- Mortality: 15.2 per 1 lac
- 23.3% of all cancer deaths in women
- 11.4% of total cancer deaths

## **Risk factors**

- Age
- Genital warts
- Marital status
- Early marriage
- OCPs
- Socio-economic class

## Prevention

- Primary prevention
- Secondary prevention

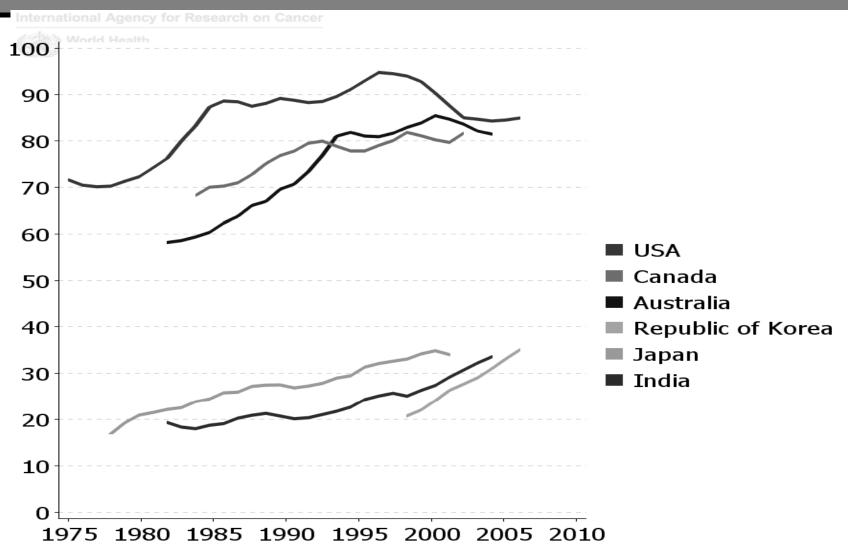
### **Breast Cancer**

- Breast cancer is by far the most frequent cancer among women
- An estimated 1.38 million new cancer cases diagnosed in 2008 (23% of all cancers), and
- Ranks second overall (10.9% of all cancers).

- Most common cancer both in developed and developing regions with around 690 000 new cases estimated in each region (population ratio 1:4).
- Incidence rates vary from 19.3 per 100,000 women in Eastern Africa to 89.7 per 100,000 women in Western Europe
  - high (greater than 80 per 100,000) in developed regions of the world (except Japan) and
  - low (less than 40 per 100,000) in most of the developing regions.

- The range of mortality rates is much less (approximately 6-19 per 100,000)
  - more favorable survival of breast cancer in (high-incidence) developed regions.
- As a result, breast cancer ranks as the fifth cause of death from cancer overall (458 ooo deaths), but it is still the most frequent cause of cancer death in women in both developing (269 ooo deaths, 12.7% of total) and developed regions, where the estimated 189 ooo deaths is almost equal to the estimated number of deaths from lung cancer (188 ooo deaths).

# Trends in Incidence of Breast Cancer: ASR (W) per 100,000



## **India**

- Incidence: 22.9 per lac
- Mortality: 11.1 per lac

## **Risk factors**

- Age
- Family history
- Parity
- Age at menarche and menopause
- Hormonal factors
- Prior breast biopsy
- Diet
- Socio-economic status
- Radiations
- OCPs

## Prevention

- Primary prevention
- Secondary prevention

## **Lung Cancer**

- Lung cancer has been the most common cancer in the world for several decades, and by 2008, there were an estimated 1.61 million new cases, representing 12.7% of all new cancers.
- It was also the most common cause of death from cancer, with 1.38 million deaths (18.2% of the total).

- The majority of the cases now occur in the developing countries (55%).
- Lung cancer is still the most common cancer in men worldwide (1.1 million cases, 16.5% of the total), with high rates in Central-Eastern and Southern Europe, Northern America and Eastern Asia.
- Very low rates are still estimated in Middle and Western Africa (ASRs 2.8 and 3.1 per 100,000 respectively).

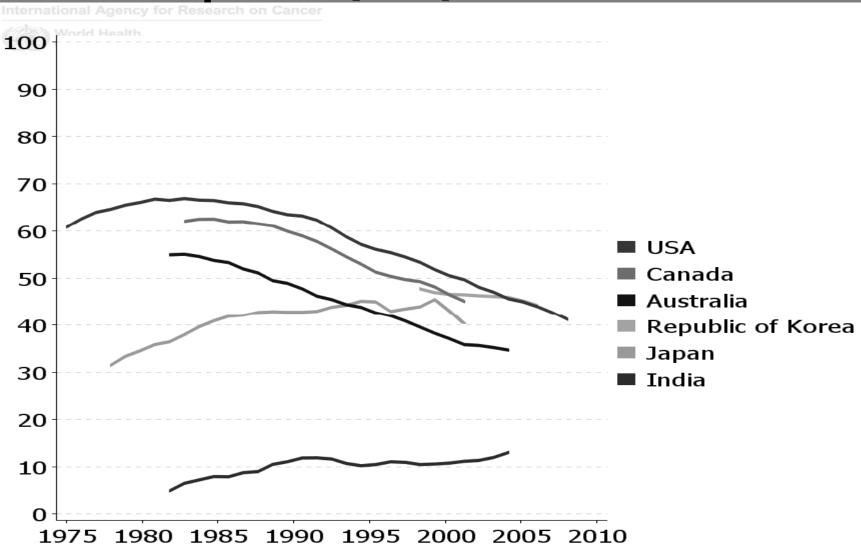
- In females, incidence rates are generally lower, but, worldwide, lung cancer is now the fourth most frequent cancer of women (516 000 cases, 8.5% of all cancers) and the second most common cause of death from cancer (427 000 deaths, 12.8% of the total).
- The highest incidence rate is observed in Northern America (where lung cancer it is now the second most frequent cancer in women), and the lowest in Middle Africa (15th most frequent cancer).

## **India**

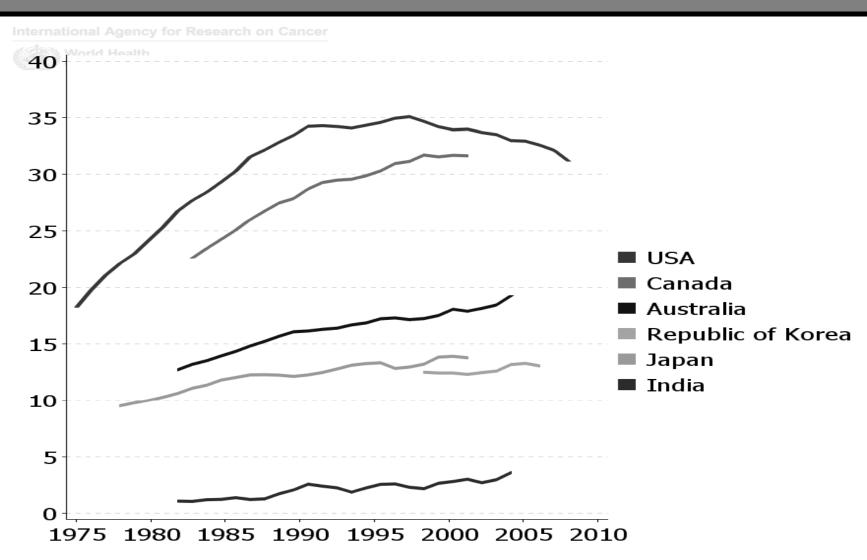
■ Incidence: 6.6 per lac

Mortality: 5.9 per lac

# Trends in incidence of lung cancer: ASR (W) per 100,000, men



# Trends in incidence of lung cancer: ASR (W) per 100,000, women



## **Epidemiological Features**

- Age
- Sex
- Smoking
- Others



### Prevention

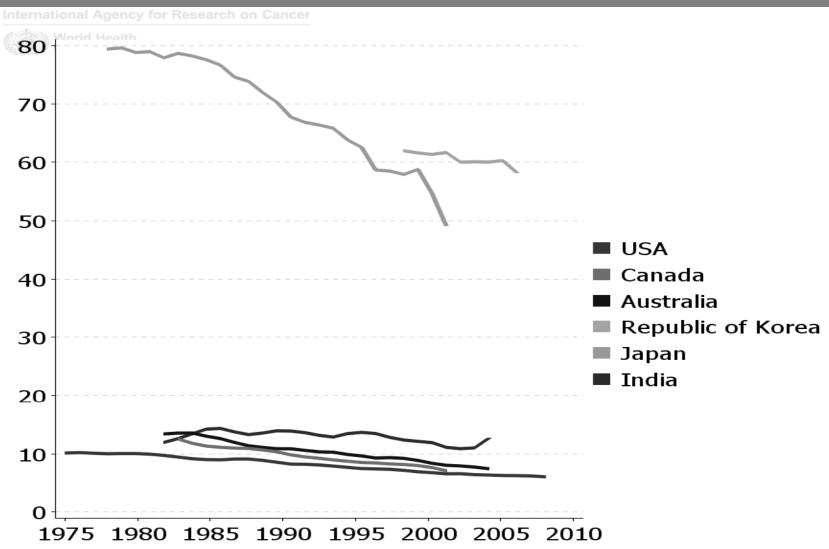
- Primary prevention
  - Public information & education
  - Legislative & restrictive measures
  - Smoking cessation activities
  - National & International coordination
- Secondary prevention

### **Stomach Cancer**

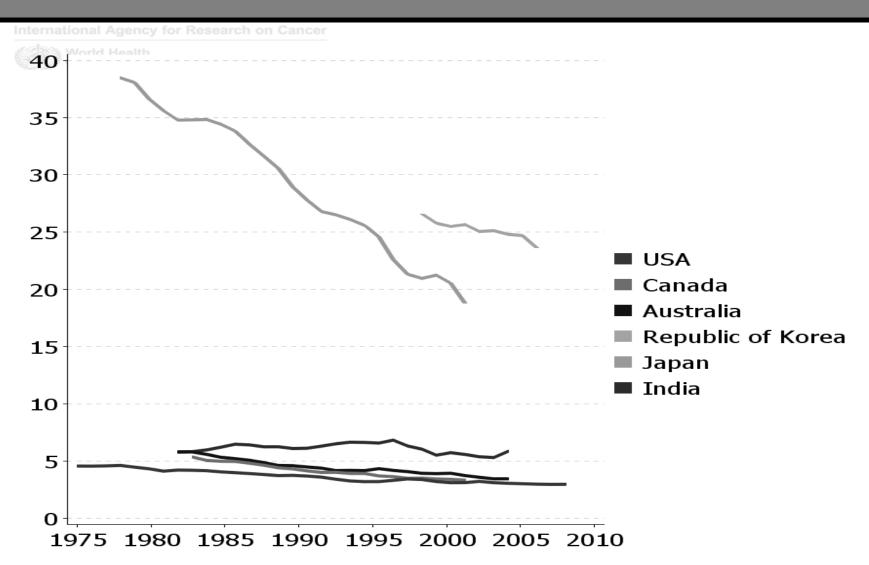
- About one million new cases of stomach cancer were estimated to have occured in 2008 (988 000 cases, 7.8% of the total), making it currently the fourth most common malignancy in the world, behind cancers of the lung, breast and colo-rectum.
- More than 70% of cases (713 000 cases) occur in developing countries (467 000 in men, 246 000 in women), and half the world total occurs in Eastern Asia (mainly in China).
- Age-standardised incidence rates are about twice as high in men as in women, ranging from 3.9 in Northern Africa to 42.4 in Eastern Asia for men, and from 2.2 in Southern Africa to 18.3 in Eastern Asia for women.

- Stomach cancer is the second leading cause of cancer death in both sexes worldwide (736 ooo deaths, 9.7% of the total).
- The highest mortality rates are estimated in Eastern Asia (28.1 per 100,000 in men, 13.0 per 100,000 in women), the lowest in Northern America (2.8 and 1.5 respectively).
- High mortality rates are also present in both sexes in Central and Eastern Europe, and in Central and South America

# Trends in incidence of stomach cancer: ASR (W) per 100,000, men



# Trends in incidence of stomach cancer: ASR (W) per 100,000, women



## Oesophageal cancer

- Oesophageal cancer is the eighth most common cancer worldwide, with 481 ooo new cases (3.8% of the total) estimated in 2008, and the sixth most common cause of death from cancer with 406 ooo deaths (5.4% of the total).
- More than 80% of the cases and of the deaths occur in developing countries.

- The incidence rates of oesophageal cancer vary internationally more than 15-fold in men (ASR 22.3 per 100,000 in Southern Africa compared to 1.4 in Western Africa), and almost 20-fold in women (ASR 11.7 per 100,000 in Southern Africa compared to 0.6 in Micronesia/Polynesia).
- Oesophageal cancer is two to four times more common among men than women.
- The highest mortality rates are found in both sexes in Eastern and Southern Africa, and in Eastern Asia.



THANKS.