

BURDEN OF CANCER IN MALAYSIA: TREND ANALYSIS FROM 2000 TO 2013



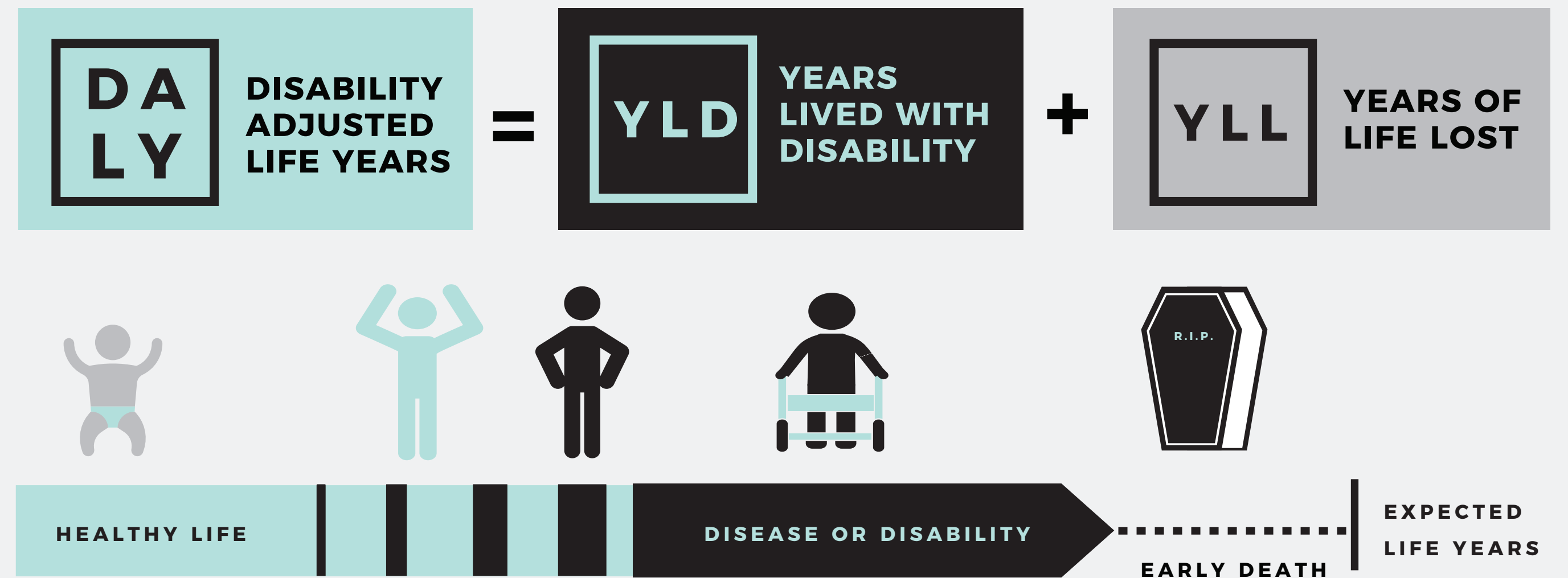
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INTRODUCTION



- In 2015, cancer caused over **8.7 million deaths** globally and was the second leading cause of death behind cardiovascular diseases¹.
- Despite substantial progress with regard to prevention and treatment for cancers, cancer burden is increasing owing to a growing risk factors such as smoking, obesity and dietary patterns².
- Accurate allocation of resources for prevention and control of cancer requires knowledge of local burden of cancer³.

MATERIALS AND METHODS



OBJECTIVE

The study was conducted to look at trends in burden of cancer in Malaysia for the years **2000, 2008 and 2013**.

The calculation of Burden of Disease in terms of Disability Adjusted Life Years (DALYs) (Figure 1) was done using the methodology used in the Global Burden of Disease Study⁴. DALYs is an indicator that combines the **mortality** (ie : Years of Life Lost) and **morbidity** (ie : Years Lived with Disability) components of the disease. Mortality data was provided by the Department of Statistic Malaysia and data on incidence of cancer were based on National Cancer Registry. World Health Organization standard population for 2000-2025 was used for age-standardization.

RESULTS

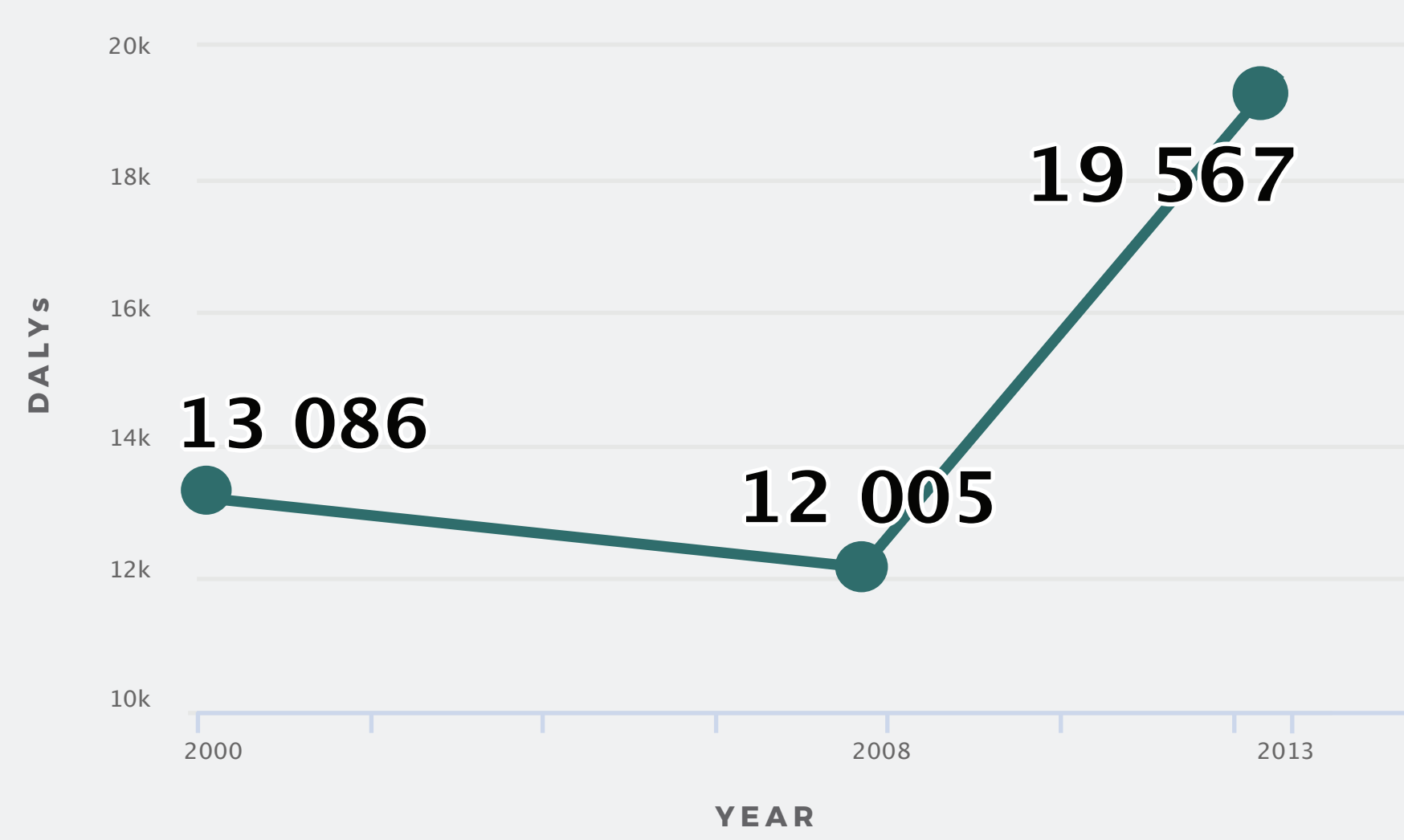


Figure 2 : Burden of cancer, 2000 – 2013, males

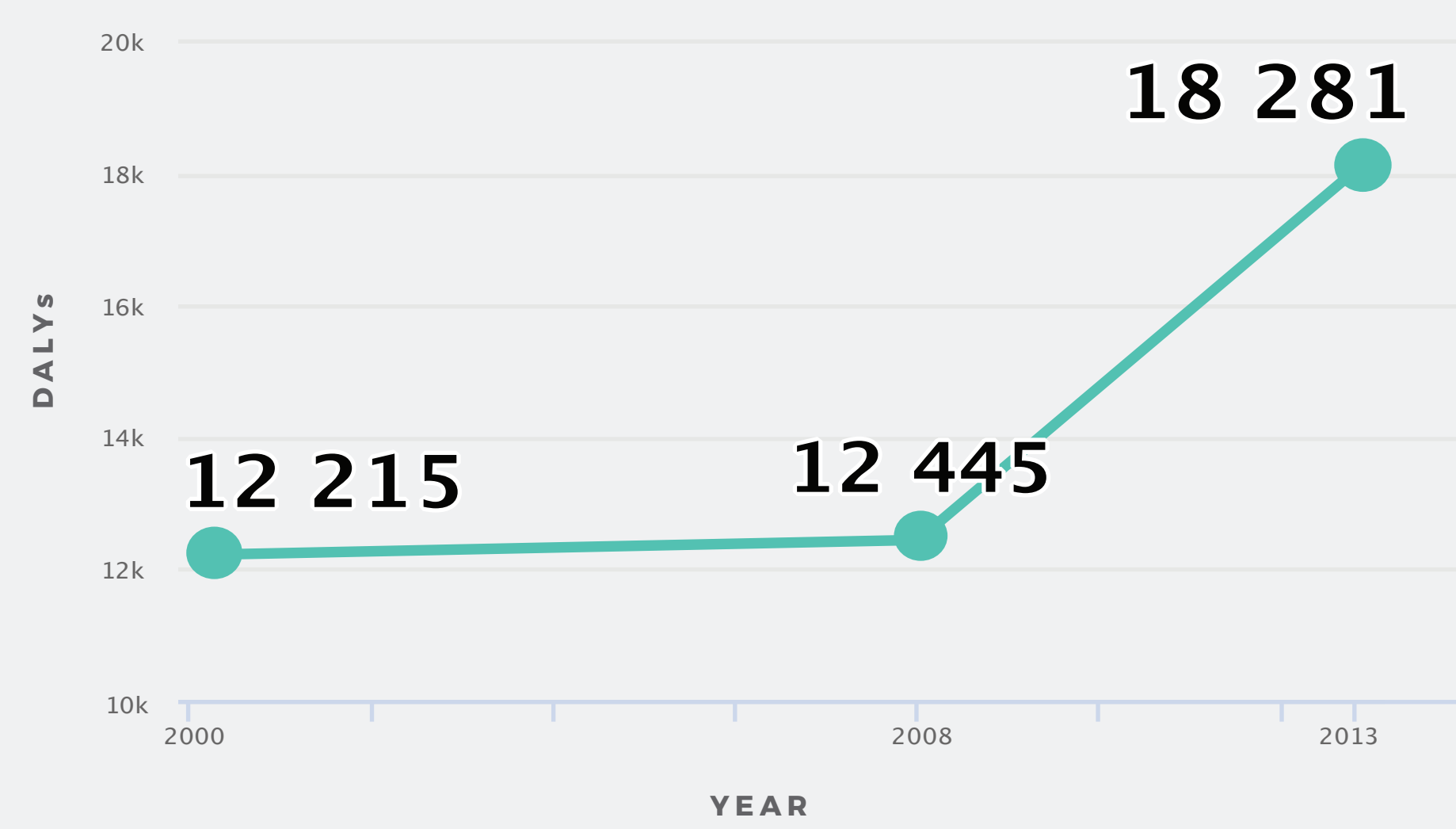


Figure 3 : Burden of cancer, 2000 – 2013, females

49.6%
There was an increment of 49.6% of burden of cancer from 2000 to 2013 with almost similar increment in males and females (49.5% vs 49.7%).

The mortality component contributed towards more than 95% of burden of cancers for all years studied.

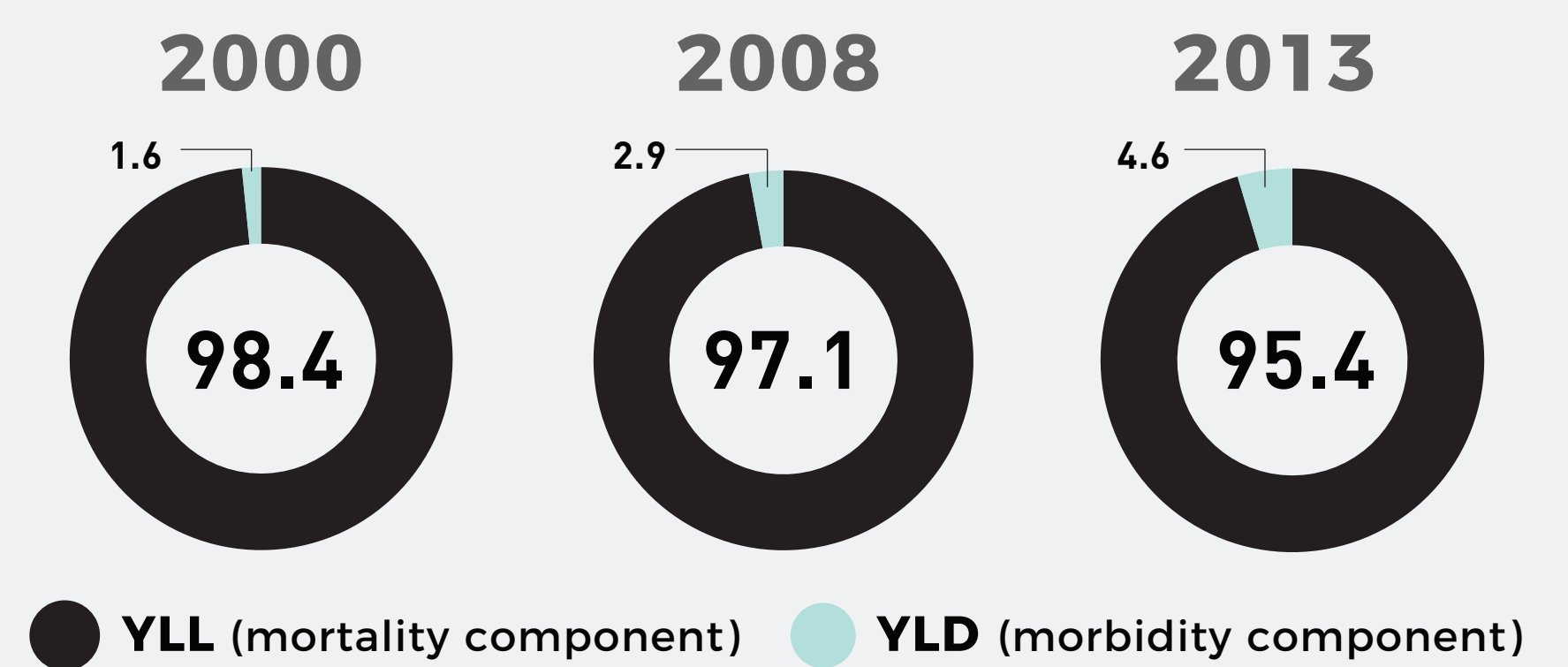


Figure 4 : Percentages of DALYs component by Year

2000		2008		2013	
Type of Cancer	%	Type of Cancer	%	Type of Cancer	%
1 Trachea, bronchus & lung cancer	22.1	Trachea, bronchus & lung cancer	25.1	Trachea, bronchus & lung cancer	21.2
2 Mouth & oropharynx cancer	16.4	Liver cancer	11.8	Colon & rectum cancer	14.0
3 Colon & rectum cancer	15.0	Colon & rectum cancer	11.1	Liver cancer	10.9
4 Stomach cancer	7.1	Mouth & oropharynx cancer	8.7	Leukaemia	8.1
5 Leukaemia	6.9	Leukaemia	7.1	Mouth & oropharynx cancer	5.9
6 Prostate cancer	6.7	Lymphoma	6.2	Prostate cancer	5.3
7 Liver cancer	5.6	Stomach cancer	4.9	Stomach cancer	4.5
8 Lymphoma	5.3	Pancreas cancer	3.9	Lymphoma	4.4
9 Oesophagus cancer	3.1	Prostate cancer	3.7	Brain and other CNS cancer	4.3
10 Pancreas cancer	1.9	Brain and other CNS cancer	2.7	Pancreas cancer	2.4

Table 1 : Top 10 Burden of Cancer, Males, 2000 - 2013

2000		2008		2013	
Type of Cancer	%	Type of Cancer	%	Type of Cancer	%
1 Breast cancer	21.3	Breast cancer	24.2	Breast cancer	21.9
2 Colon & rectum cancer	13.7	Trachea, bronchus & lung cancer	14.0	Trachea, bronchus & lung cancer	10.9
3 Trachea, bronchus & lung cancer	9.7	Colon & rectum cancer	10.3	Colon & rectum cancer	10.7
4 Cervix cancer	9.0	Ovary cancer	6.1	Cervix cancer	6.6
5 Mouth & oropharynx cancer	8.8	Leukaemia	5.9	Brain and other CNS cancer	5.5
6 Ovary cancer	7.2	Cervix cancer	5.3	Liver cancer	5.3
7 Stomach cancer	6.0	Stomach cancer	4.5	Leukaemia	4.6
8 Leukaemia	5.7	Liver cancer	4.4	Stomach cancer	3.5
9 Lymphoma	3.9	Lymphoma	4.1	Ovary cancer	3.5
10 Liver cancer	2.3	Mouth & oropharynx cancer	3.7	Lymphoma	3.0

Table 2 : Top 10 Burden of Cancer, Females, 2000 - 2013

DISCUSSION

- Trachea, bronchus and lung cancer were the leading causes of DALYs in males while in females, breast cancer was the leading cause of DALYs.
- These findings were similar to findings from the Global Burden of Disease Study⁵.
- The burden of cancer is increasing with time. This is worrisome as the incidence of cancer is expected to increase in the future⁵.
- Strategies for cancer prevention, early diagnosis, curative and palliative care should be given priority to reduce the burden of cancer particularly for trachea, lung and bronchus cancer in males and breast cancer among females.

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