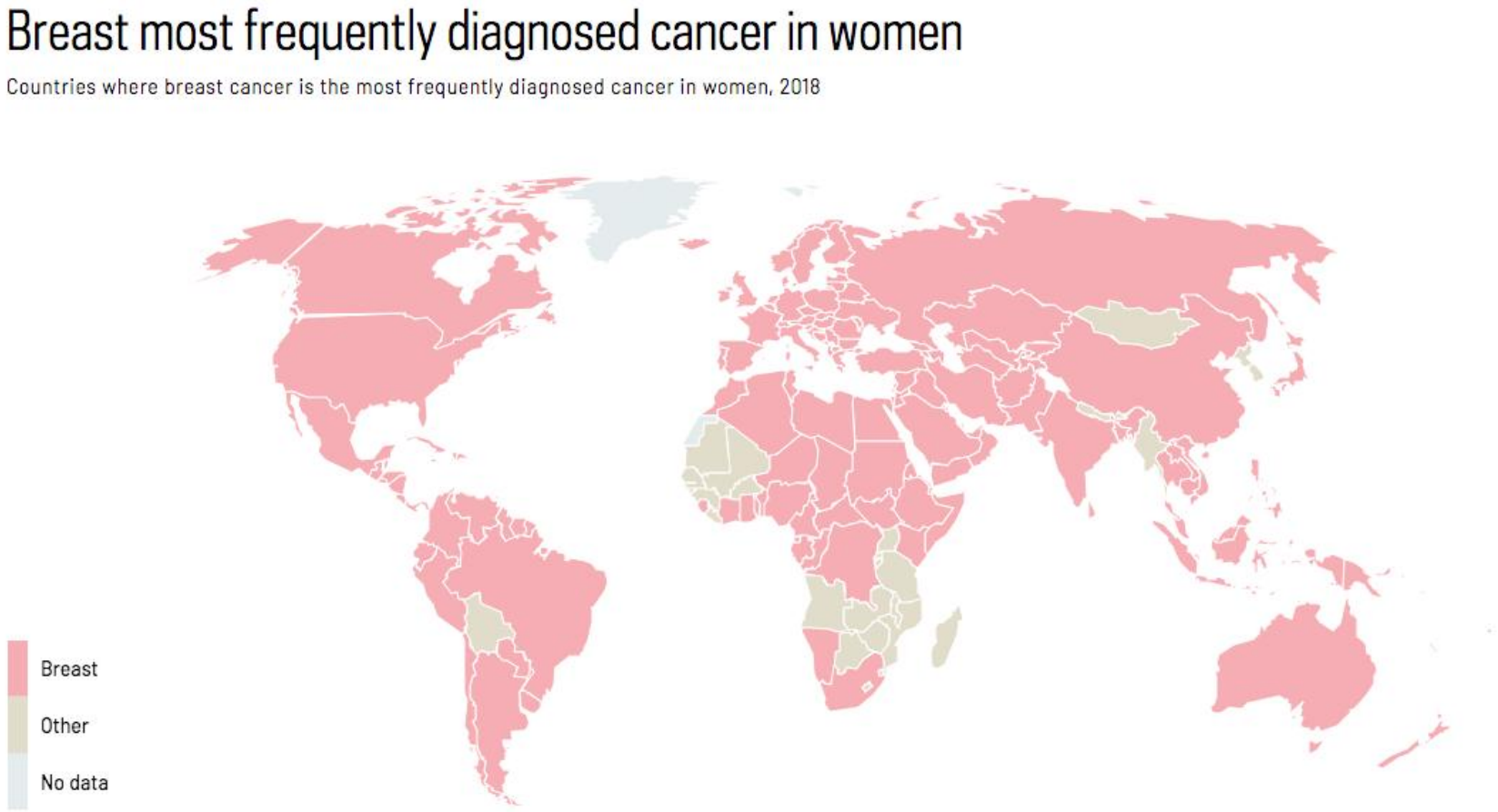
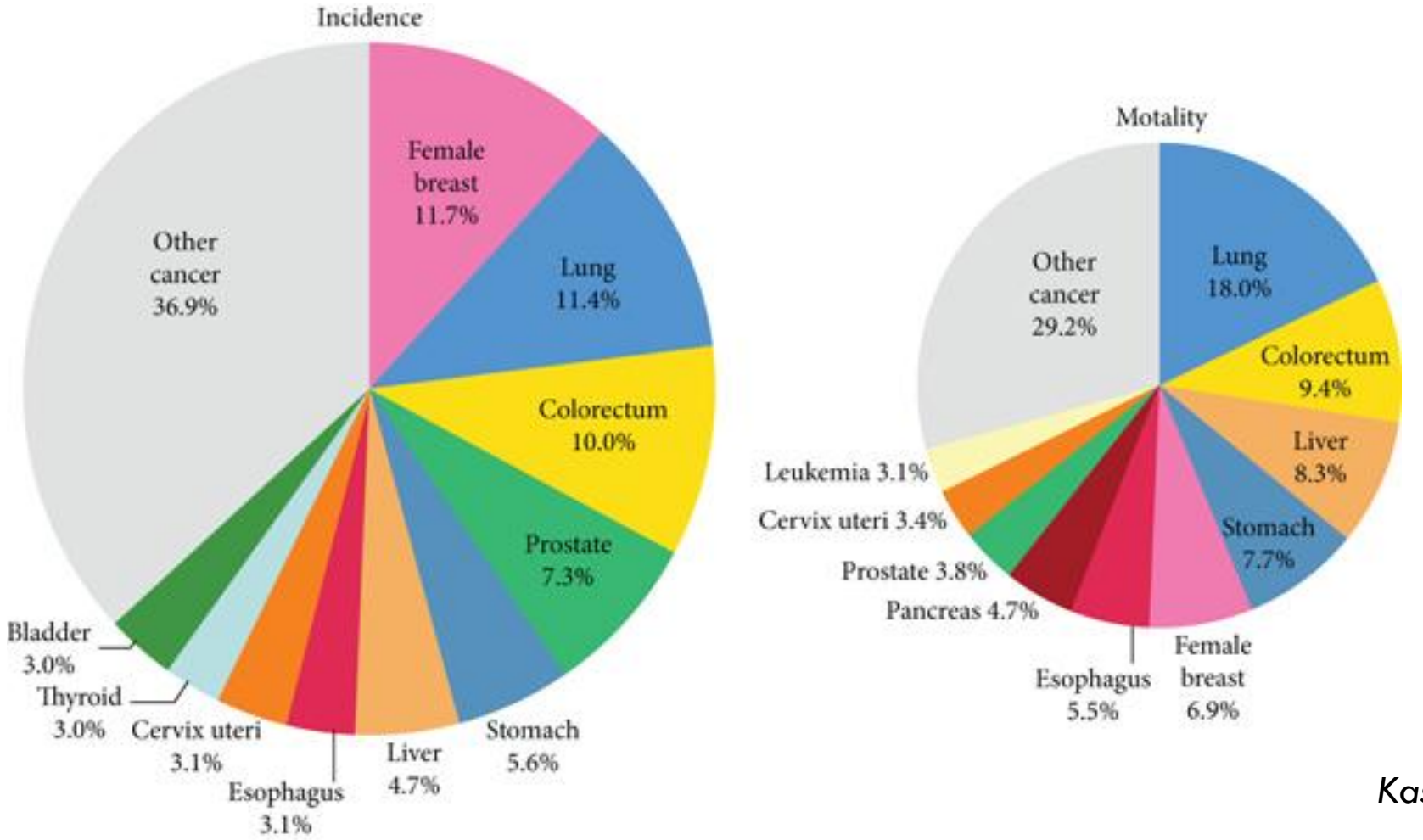
BREAST CANCER TRENDS IN INDIA OVER THE LAST 10 YEARS: A SYSTEMATIC REVIEW

INTRODUCTION: GLOBAL INCIDENCE OF BREAST CANCER



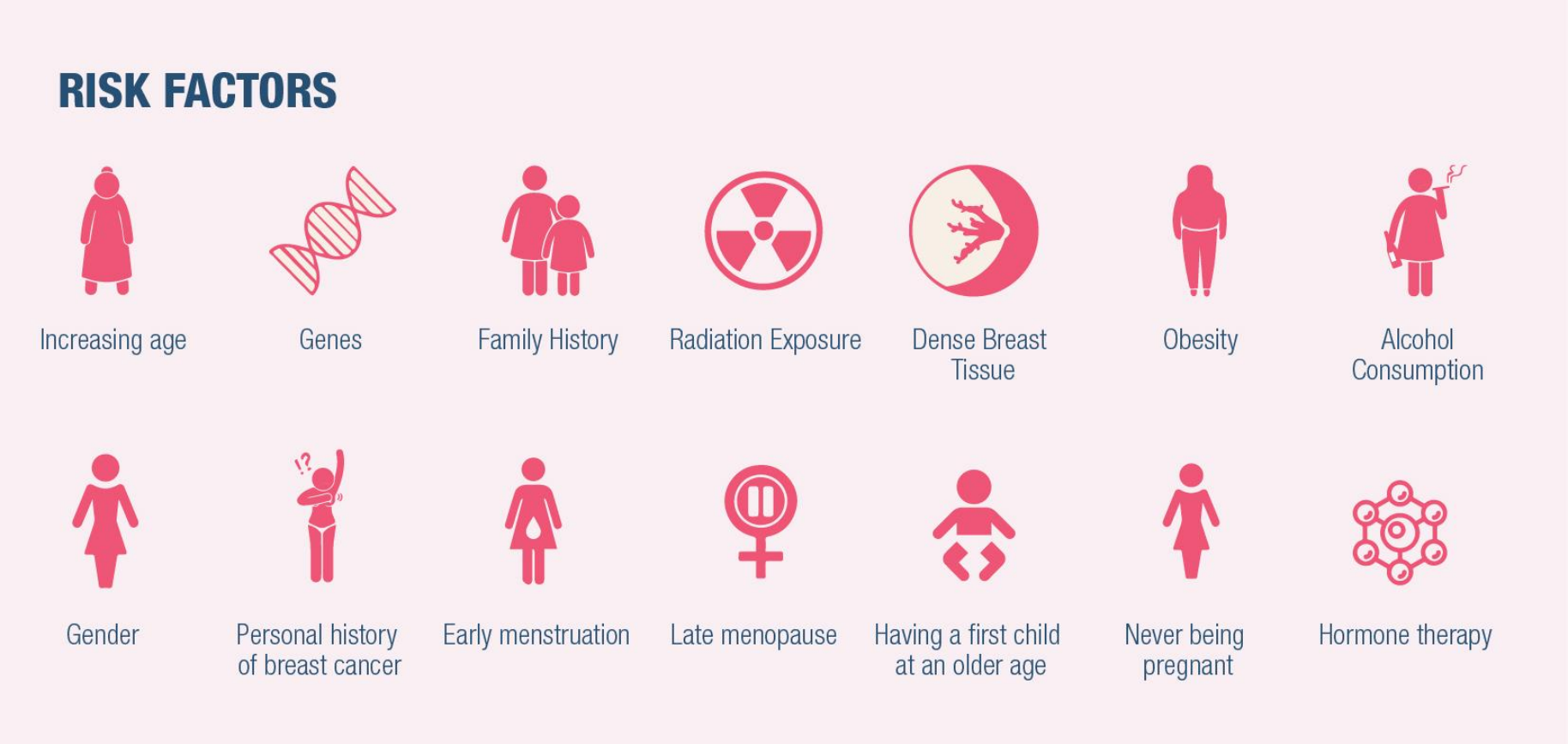
Ferlay et al., n.d.

INTRODUCTION: INCIDENCE AND MORTALITY OF BREAST CANCER



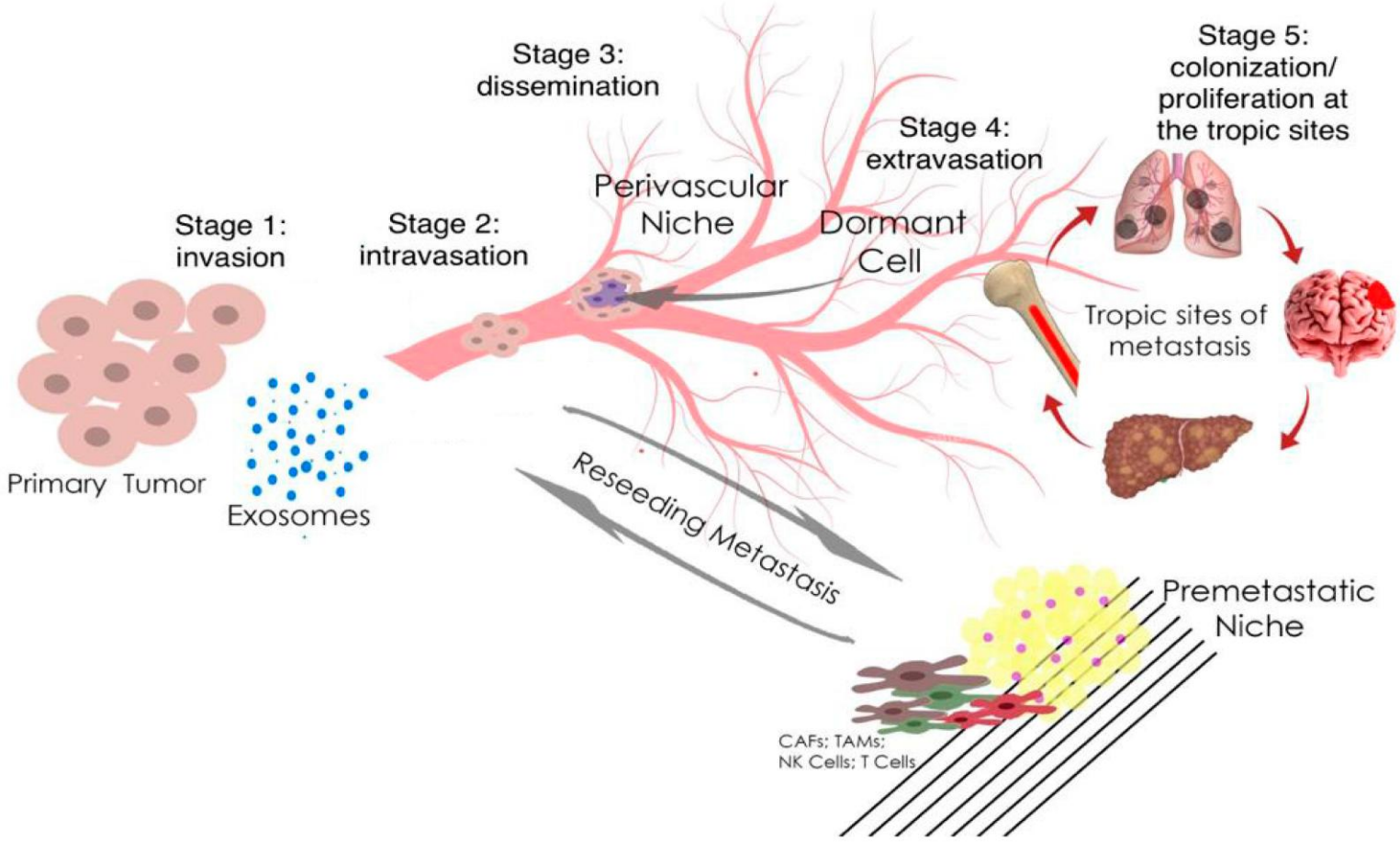
Kashyap et al., 2022

INTRODUCTION: RISK FACTORS OF BREAST CANCER



Smolarz et al., 2022

INTRODUCTION: PATHOGENESIS OF BREAST CANCER



Sidorova et al., 2023

OBJECTIVES OF THE STUDY

- To identify and report breast cancer statistics in India over the last 10 years
- To identify and report breast cancer statistics in different regions of India over the last 10 years
- To identify and report breast cancer statistics in different age-groups in India over the last 10 years
- To identify and report breast cancer statistics in males and females in India over the last 10 years

METHODS

Database search – PubMed, ScienceDirect, Springer using keywords – breast cancer, India, statistics

Inclusion criteria – reports on statistics of breast cancer in India based on age, gender, or geographic region between 2013 to 2023

Exclusion criteria – studies related to screening or treatment

Screening based on inclusion and exclusion criteria

Final selection of relevant studies

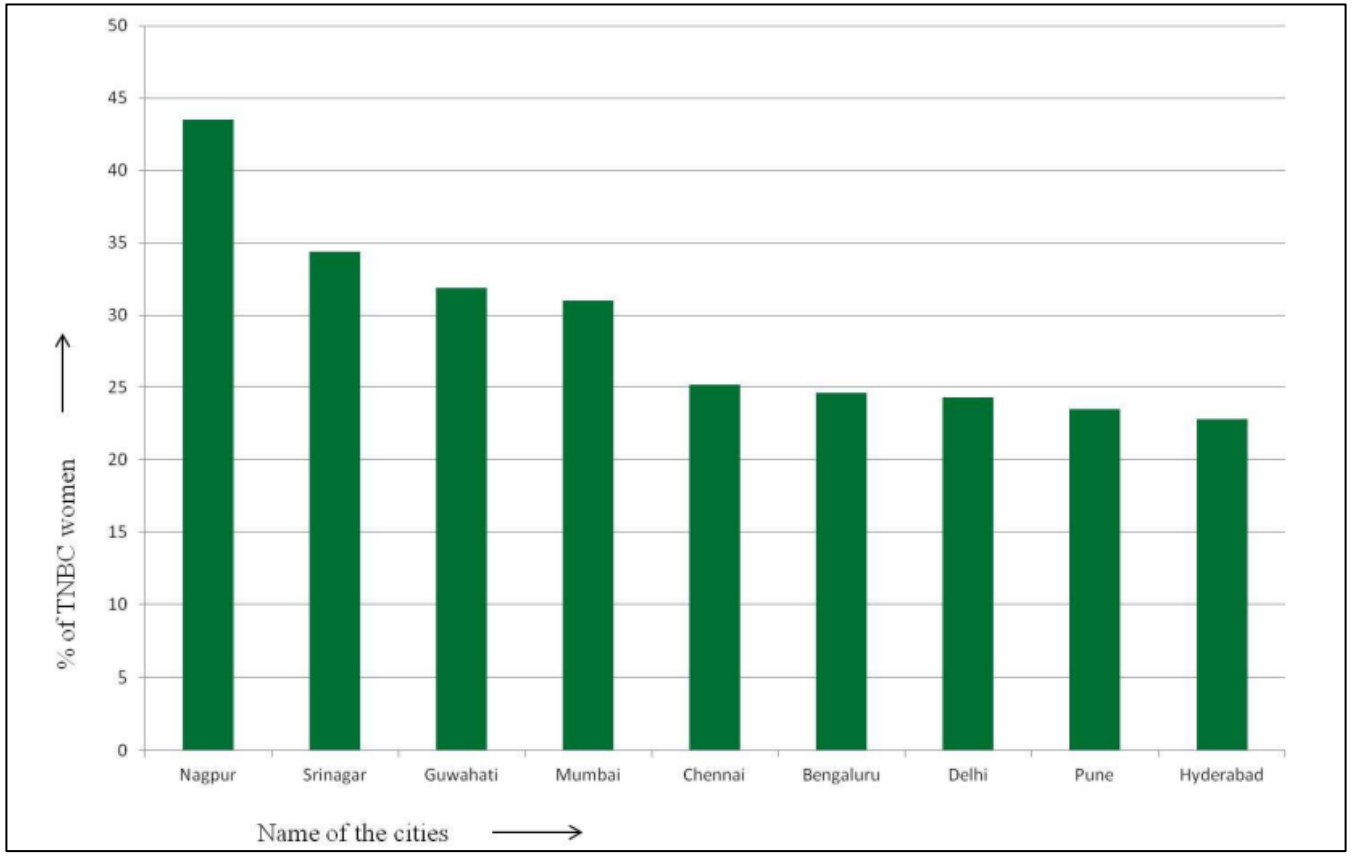
RESULTS: BREAST CANCER STATISTICS IN INDIA FROM 2012 TO 2020

Year	Incidence	Mortality	5-year prevalence	Source
2012	1,44,937	70,218	11,25,960	GLOBOCAN, 2012
2018	1,62,468 (15.46%)	87,090 (12.11%)	4,05,456	GLOBOCAN, 2018
2020	1,78,361 (13.5%)	90,408 (10.6%)	4,59,271	GLOBOCAN, 2020

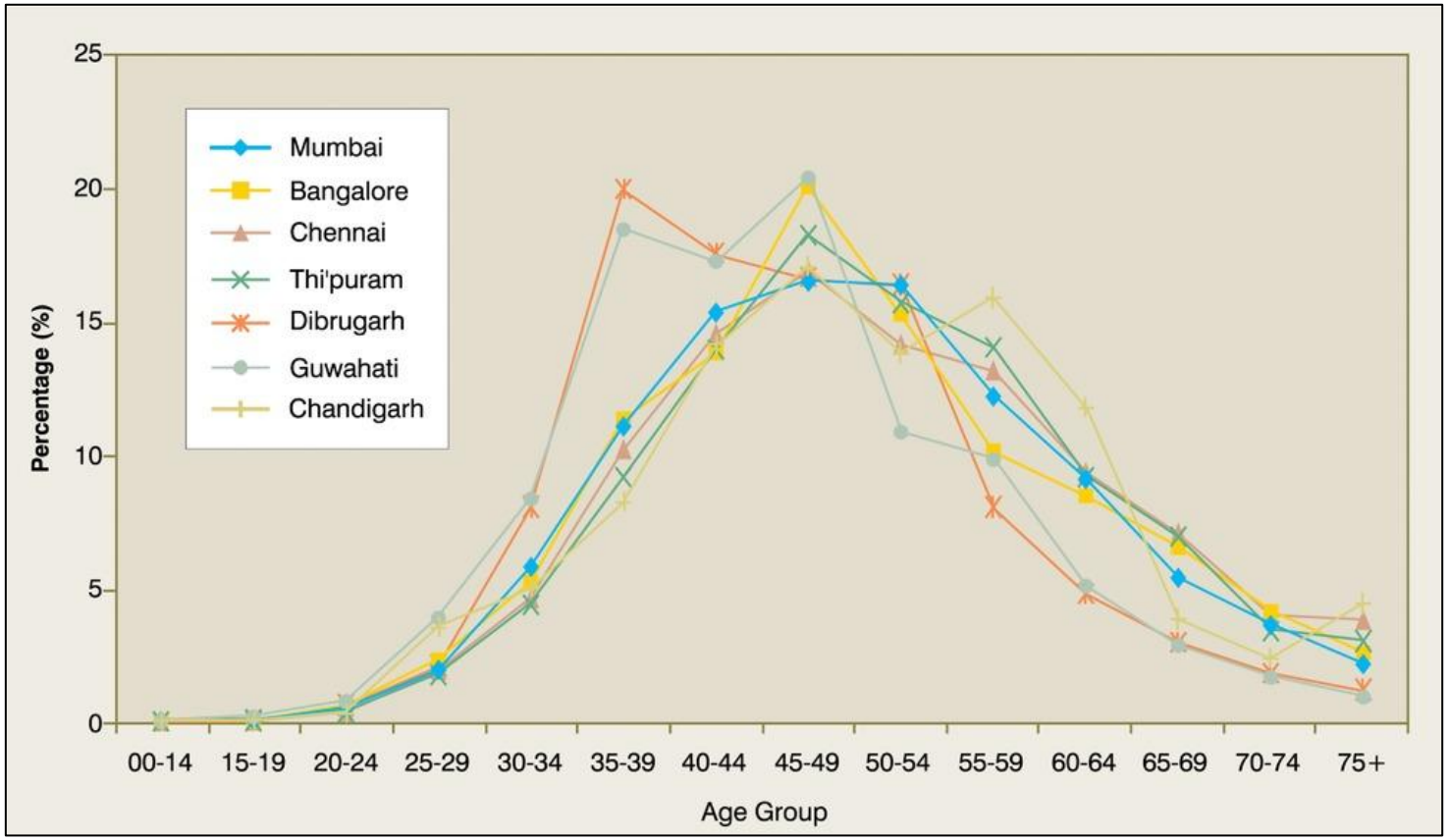
RESULTS: BREAST CANCER INCIDENCE BASED ON GEOGRAPHIC REGION

City	Relative proportion (%)	Rank	APC (%)	Crude rate (per 100,000)	Age-adjusted rate (per 100,000)
Ahmedabad	31.5	1			
Aurangabad	30.6	1	6.8		
Bangalore	27.5	1	3.1	29.3	34.4
Bhopal	31.2	1	2.1		
Chennai	30.7	1	2.6	40.6	37.9
Delhi	28.6	1	1.5	34.8	41
Dibrugarh	19.0	1	4.1	12.7	13.9
Imphal West			3.0		
Kamrup Urban			5.0		
Kolkata	25.4	1			
Kollam			2.7		
Mizoram			4.6		
Mumbai	28.8	1	1.4	33.6	33.6
Nagpur	31.9	1	0.4		
Pune	31.4	1	3.8		
Sikkim			5.8		
Thiruvananthapuram	28.5	1	3.3	43.9	33.7
Barshi Rural	20	2	0.5	13.2	12.4

RESULTS: DISTRIBUTION OF TNBC IN INDIAN WOMEN



RESULTS: DISTRIBUTION OF BREAST CANCER BASED ON AGE



SUMMARY

- Limited studies have focused specifically on breast cancer, despite it being the leading cancer affecting women in urban areas and the second most common in rural areas after cervical cancer.
- Breast cancer is highly prevalent in the North Eastern parts of India, possibly due to high tobacco consumption in the region. Metro and industrial cities such as Mumbai, Chennai, Delhi, Bangalore, and Dibrugarh also have high incidence and prevalence rates.
- Rural areas, such as Barshi rural, generally have lower prevalence rates compared to urban areas.
- Recent statistics indicate that breast cancer is becoming more common in the younger age group of 30 to 40 years, posing a concern due to the considerable population in this vulnerable age group.
- Breast cancer primarily affects females, being the leading cancer among women in urban areas and the second leading cancer among women in rural areas. It also affects males to a smaller extent.
- The study has limitations, including the limited range of studies available and the outdated data obtained, as most surveys were conducted between 2008 and 2018.
- Future studies should focus on extensive population-based investigations to understand age and region-related incidence and prevalence of breast cancer in India.

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