

Indian and Asian-Indian Immigrant Health Statistics

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Key Findings

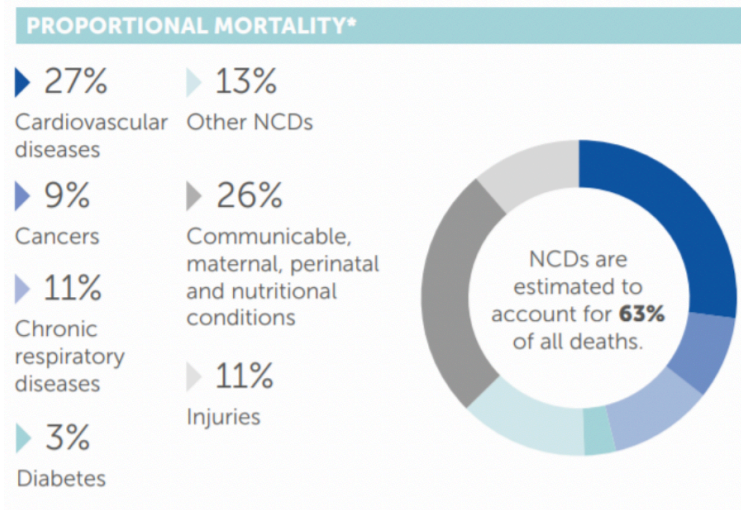
- Cardiovascular diseases (CVD) cause 25.8% of deaths in Asian-Indian immigrants and 27% of deaths in India. Heart diseases in Asian Indians occur 5-10 years earlier than other ethnicities.
- Chronic respiratory diseases account for 11% of deaths in India and are primarily caused by pollution and smoking.
- Asian-Indian immigrants have higher rates of diabetes, metabolic syndrome, and CVD compared to the general US population and other immigrant groups.
- Cancers are the second leading cause of death for Asian-Indian immigrants. In particular, the high incidence of oral/mouth cancers in both Indians and Asian-Indian immigrants may be due to the use of cigarettes and cultural smokeless tobacco products.

The leading causes of death in Asian Indian immigrants are cardiovascular disease (CVD - including strokes and heart disease), and cancers^{1,2}. Comparatively, the leading causes of death in India are CVD and chronic obstructive pulmonary disease (COPD)³. Lifestyle habits such as smoking, poor diet, a sedentary lifestyle and physical inactivity partially contribute to the prevalence of CVD, COPD, and cancers^{4,5,6}. The purpose of this report is to summarize the health outcomes Indians and Asian-Indian immigrants face.

Cardiovascular disease (CVD) causes the greatest number of deaths among Indians and Asian-Indian immigrants.^{1,3}

- Cardiovascular diseases accounts for 25.8% of deaths for Asian-Indian immigrants and 27% of deaths in India. Heart disease occurs in Asian Indians 5-10 years earlier than other ethnicities^{1,7}.
- In 2016, the number of individuals with CVD in India was estimated to be 54.5 million.⁷
- 1 in 4 deaths in Indians and Indian-Americans is caused by CVDs. Ischemic heart disease and stroke lead to >80% of CVD cases.⁸

Figure 1: Proportional Mortality Rates



Source: World Health Organization, Non-Communicable Disease Country Profiles: India

The second leading cause of mortality among Indians is respiratory diseases.⁹

- Although India contains one-sixth of the world population, 1 in 3 worldwide cases of respiratory diseases are in India.
- COPD accounts for almost 80% of the deaths from respiratory diseases in India.
- The leading risk factors for COPD are ambient air pollution, household air pollution, and smoking.
- The percentage of total deaths from respiratory diseases has increased since 1990 from 9.6% to 10.9%.

Figure 2: Respiratory Disease among Indians

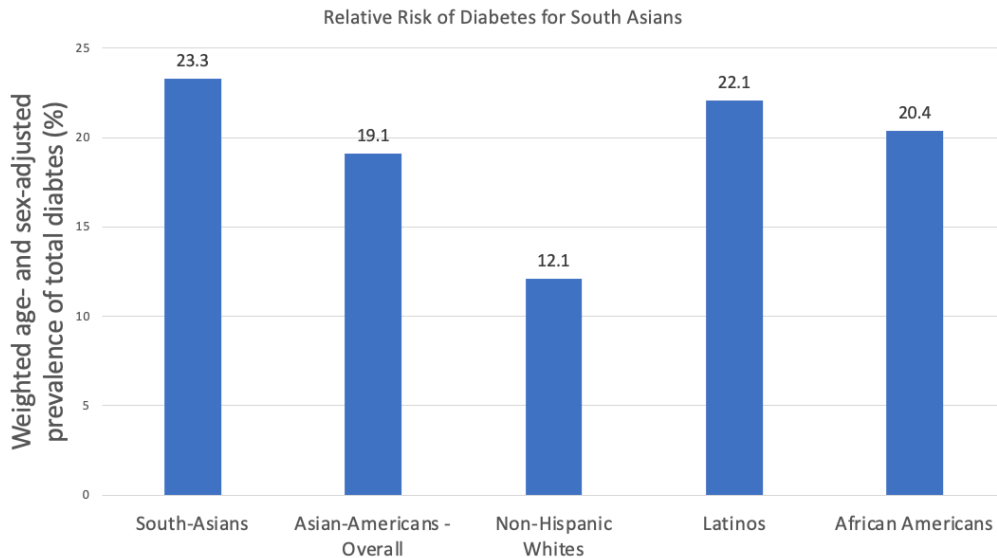
	Percentage of Total Deaths		
	Both Sexes	Male	Female
Chronic Respiratory Diseases Overall	10.9%	10.8%	11.1%
COPD	8.7%	8.7%	8.6%
Asthma	1.9%	1.6%	2.1%
Interstitial Lung Disease and Pulmonary Sarcoidosis	0.28%	0.27%	0.28%
Pneumoconiosis	0.04%	0.05%	0.01%
Other Chronic Respiratory Diseases	0.09%	0.12%	0.04%

Data from “The burden of chronic respiratory diseases and their heterogeneity across the states of India: the Global Burden of Disease Study 1990-2016” in The Lancet Global Health

Asian-Indian immigrants have higher rates of type 2 diabetes, metabolic syndrome, and CVD than the general US population and other immigrant groups.^{10,11}

- Despite a lower incidence of obesity as compared to Non-Hispanic Whites, Asian-Indian immigrants experience higher rates of diabetes and metabolic syndrome.
- 1 in 3 Asian-Indian immigrants have metabolic syndrome while approximately 1 in 6 have diabetes.¹²
- Asian-Indian immigrant men and women have the highest proportional mortality burden from coronary artery disease (CAD) as compared to other Asian subgroups and Non-Hispanic whites.¹¹

Figure 3: Increased risk of diabetes among South Asian Immigrants



Data from Y.J. Cheng et al. "Prevalence of Diabetes by Race and Ethnicity in the United States, 2011-2016" in JAMA

Cancers are the second leading cause of death for Indian-Americans.¹

- For Asian-Indian immigrant men, the cancers with the highest incidence are prostate, colorectal, and lung cancers. Comparatively, women experience a higher incidence of breast, colorectal, and corpus uteri cancers.¹⁴
- For men in India, the cancers with the highest incidence are lung cancers and oral/mouth cancers. Comparatively, for women the cancers with the highest incidence are cervical cancer, breast cancer, and cancer of the uterus.¹⁵

Figure 4: The Incidence of Different Cancers among Indians and Indian-Americans

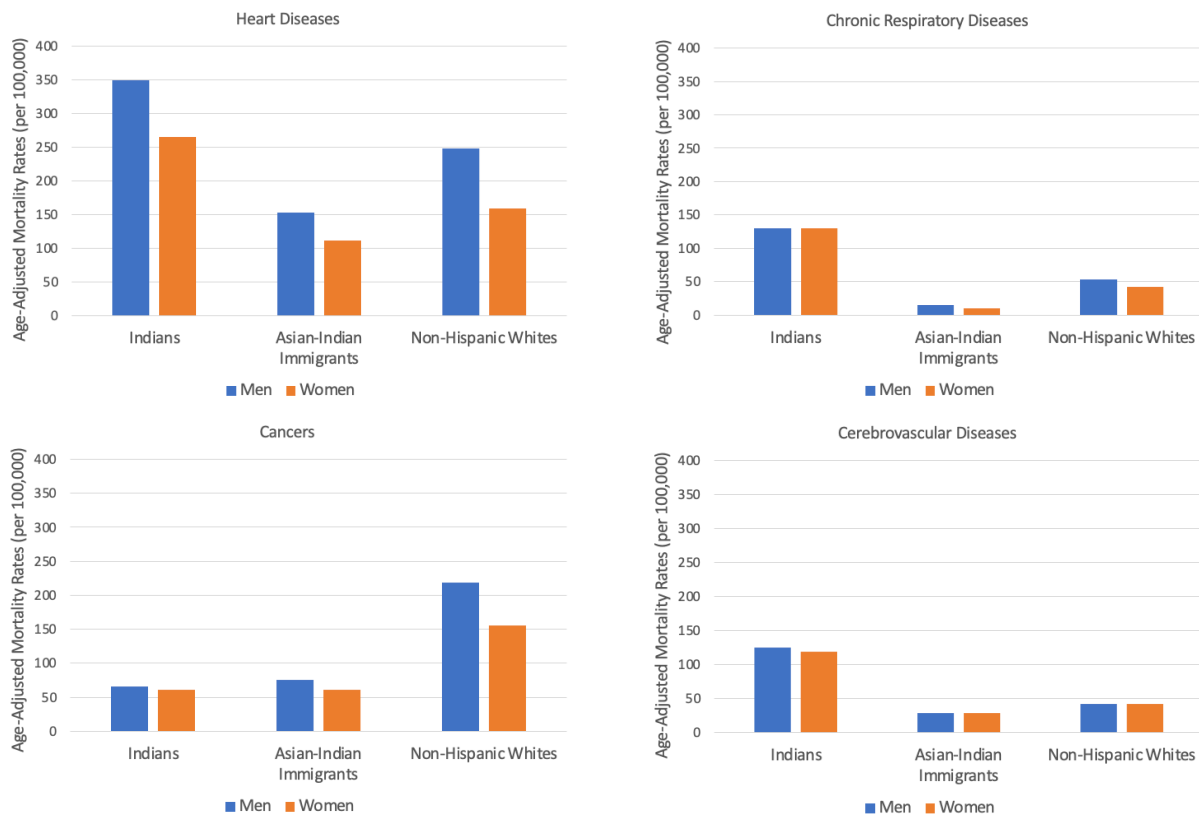
Asian Indians / Pakistanis (in America)	%	Indians (in India)	%
<u>Men</u>		<u>Men</u>	
Prostate	30	Oral Cavity	22
Lung/Bronchus	10	Lung	9
Colon/Rectum	9	Esophagus	7
<u>Women</u>		<u>Women</u>	
Breast	38	Cervical	30
Female Genital	15	Breast	19
Colon/Rectum	7	Oral Cavity	7

Data from Hossain Akm et al. "Cancer health disparities among Indian and Pakistani immigrants in the United States" In Cancer

Health habits such as poor diet, physical inactivity, and use of tobacco are risk factors for cardiometabolic disorders, cancers, and respiratory diseases in Indians and Indian-Americans.^{4,5}

- Poor diet due to increased consumption of carbohydrates (particularly refined carbohydrates) and unhealthy fats in the immigrant Asian Indian diet increases the risk of developing cardiometabolic disorders.³
- Leading a sedentary lifestyle doubles the risk of cardiovascular diseases and diabetes. It also increases the risk of colon cancer.⁶
- Chronic diseases caused by poor diet, physical inactivity, and the use of tobacco are now the leading causes of death in almost every country world wide.
- The use of cultural smokeless tobacco (CST) products such as paan, paan masala, and gutka, which may contribute to the high rates of CVD and oral cancers in this demographic.¹³

Figure 4: Cause-Specific Mortality for Indians and Asian Indian Immigrants vs. Non-Hispanic Whites



Data from Annals of Global Health, BMC Public Health, American Cancer Journal for Clinicians, Neurology India, and PLOS One

Figure 5: Cigarette and Smokeless Tobacco Use among Indians and Indian-Americans

Population	Asian Indians in California		Indians in India	
	Men	Women	Men	Women
Use of CST Products	14%	11.8%	29.6%	12.8%
Use of Cigarettes	8.7%	1.9%	19%	2%
Use of Bidis	0.1%	0.1%	9.9%	1.2%

Data from Arnab Mukherjee et al. "Moving toward a true depiction of tobacco behavior among Asian Indians in California: Prevalence and factors associated with cultural smokeless tobacco product use" in Cancer

Summary

This report details statistics regarding the diseases that lead to the most deaths amongst Indians and Asian-Indian immigrants. Cardiovascular diseases account for the most deaths among both demographics, followed by respiratory diseases like COPD for Indians and cancers for Asian-Indian immigrants. Cardiovascular diseases and diabetes, which have dramatically increased in prevalence among Asian-Indian immigrants, are responsible for the most deaths in this population. Diet, smoking and exposure to air pollution are some key contributors to mortality amongst Indians and Asian-Indian immigrants who have succumbed to cancer and cardiovascular and respiratory diseases. The prevalence of these diseases among Indians and Asian-Indian immigrants can hopefully be reduced if the consequences of poor diet, smoking, a sedentary lifestyle, and exposure to air pollution are publicized more often.

Numbering around 4 million, Indian Americans are one of the largest ethnic groups in the United States. Despite this fact, there are few reports documenting the common ailments of this population. By conducting more research, better and more focused treatment could be given to the population and potentially save lives.

Definitions

Cardiovascular Disease (CVD): A cluster of heart conditions involving narrowed, blocked or diseased blood vessels that can lead to chest pain, blood clots, stroke, or heart attack.

Respiratory Disease: A type of disease that affects the lungs and other organs involved in the respiratory system.

Chronic Obstructive Pulmonary Disease: Chronic obstructive pulmonary disease is a disease that makes it hard to breathe by blocking breathing passages with mucus.

Disability-Adjusted Life Years (DALYs): A measure of a disease's burden represented as the number of years lost due to poor health, disability, or early death.

Type 2 Diabetes: A disease in which blood glucose levels are too high.

Metabolic Syndrome: A disease in which blood glucose levels are high, but not enough to be considered diabetes.

Cultural Smokeless Tobacco (CST) Products: Products such as gutka, paan, and paan masala that contain tobacco but do not need to be smoked for consumption.

Cancer: A disease in which some body cells grow in an uncontrolled fashion and spread to other regions of the body.

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