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# Health & Population

Module 2 • i2P • Expedition India

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A crowd in India (source: [Ekta Parishad](#))

### Take Home Messages

- The world population has risen dramatically over the past century
- The rapid growth in population is stressing health care resources the world over.
- Population is growing fastest and health care tends to be even less available in developing nations.
- There are more older people, who typically have a greater need for health care.

“In the last 200 years the population of our planet has grown exponentially, at a rate of 1.9% per year. If it continued at this rate, with the population doubling every 40 years, by 2600 we would all be standing literally shoulder to shoulder.”

- Prof Stephen Hawking



### TOPIC

A discussion on how the world population explosion is straining health care resources and access.

### POPULATION & HEALTH

There are currently an estimated 6.97 billion people on the planet Earth. This number has risen dramatically from 1.65 billion in 1900; a rise of of 422 percent. The population of the world is expected to reach 10 billion by the end of this century.

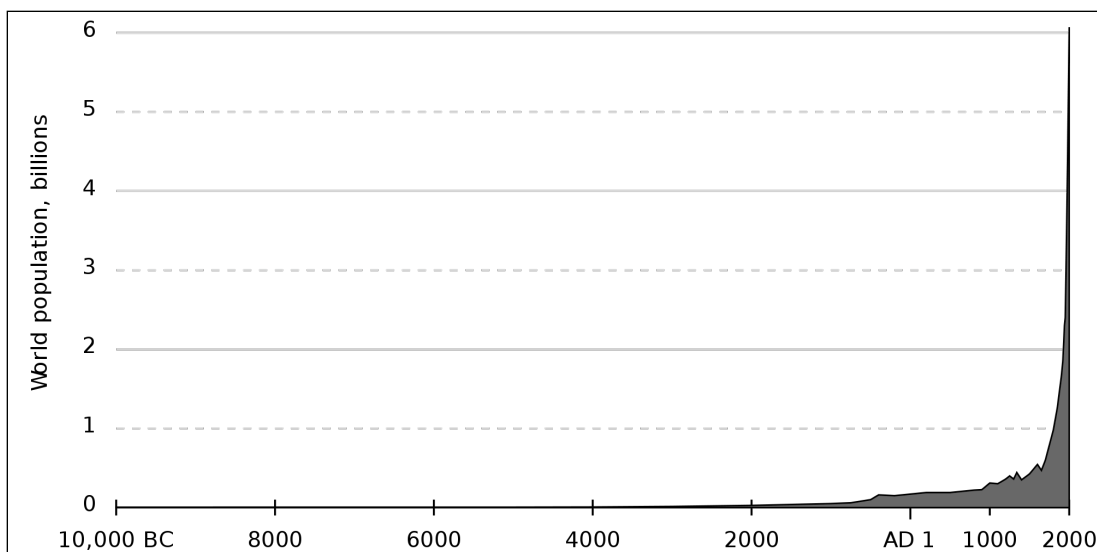


Figure1: World human population (est.) 10,000 BC–Present time (source: [ELI](#))



Figure 2: A seated, listless child, with [Kwashiorkor](#), a disease caused by severe dietary protein deficiency brought on by malnutrition. Feeding a growing world population is an ongoing challenge (source: [Lyle Conrad](#))

How does this steady rise in population effect the provision of health care? Let us begin by painting a picture. Consider a young couple about to give birth to their first child; what resources are required? A hospital delivery room requires doctors, nurses, beds and linen, medications, lights, running water. All of these resources require an investment of money to fund schools to train doctors and nurses, and to purchase medical equipment, supplies and medications, and that's just the beginning. Once the baby is born, to avoid getting sick it will require resources to live a healthy life; clean air, water, a reliable source of food and safe housing. If the baby does become ill, hospitals, doctors, nurses, lab and x-ray equipment, medications, surgical facilities may be needed; the list goes on.

If there are more babies born then there is greater need for all the resources

#### Did You Know?

##### Population & Environment

There has been a steady increase in the population in the Thar Desert region of India which i2P will be visiting. This is due in part to the Indira Gandhi Canal which provides water to over 6,500 square kilometers of Rajasthan, attracting farmers to land that has been rendered agriculturally productive. However the increased population and agricultural activity has resulted in degradation of the local environment and impacted biodiversity and ecosystem services.

This is an example of how the world population explosion can lead to habitat destruction and resources depletion, which creates unhealthy living environments for those same populations by damaging the ecosystems that support them: it's a 'double' problem in the sense that on one hand there are less resources for people to live a healthy life, and on the other there is less access to medicine for the resulting ailments.

required to prevent and treat illness. As the population of the world increases the demands upon the healthcare system are increasing, which is costing more money and resources. If the basic resources of life - water, food shelter and clothing - are not met, people are more likely to get sick, putting a greater burden on the healthcare resources.

#### School Exercise

Review the impact of population growth on healthcare in China, the most populous country in the world:

[Health care in China](#)

#### HEALTHCARE DEMAND

The demand on the healthcare system is not the same around the world. One reason for this is that population growth is greater in poorer (underdeveloped) nations. In wealthier developed nations (like Canada & the United States) there are more healthcare resources and less population growth. Thus more babies are being born in places with less resources to care for them, like India. India is the second most populous country in the world (China is number 1) with over a billion inhabitants (1.21 billion).

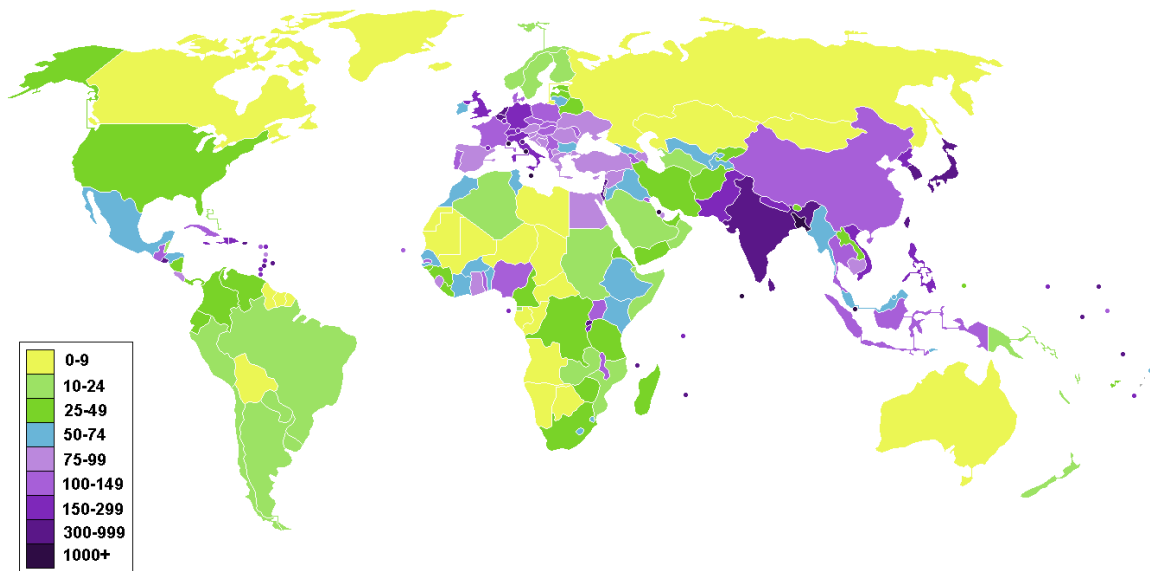


Figure 3: Countries of the world by population density in people per km<sup>2</sup>. India (dark purple) is among the most densely populated countries in the world. This has an impact on access to healthcare for the people of India (source: [Wikimedia Commons](#)).

Another manner in which the population influences demand in healthcare resources is in terms of the age of the population. The greatest need for healthcare comes in the last few years of a person's life. Elderly people tend to have far greater health care needs than young people. The 'baby boom' following World War II saw a huge jump in births in many nations between the years 1946 - 1964. Today the 'baby boomers' are all growing older, contributing to increased demands on the healthcare service. It means that today as the world continues to grow, there is a large portion of the population that is growing older. In addition in some of countries, like Canada and the United States the birth rate is dropping and now there fewer younger people to care for the aging baby boomers.



Figure 4: An 85-year old Ivatan woman sitting at her house's door (source: [Anne Jiminez](#))

Local population factors, such as where people choose to live also impacts the quality of and access to healthcare. The world over people are migrating to cities seeking employment and a better life, and consequently urban populations are growing. Not all cities are ready for this population growth, so the migration results in the creation of crowded slums. These are generally unhealthy places, with inadequate water and sanitation which has a negative impact on health. However, cities often provide greater

access to education or medical care both which are associated with better health of a population.



Figure 5: Overcrowding in the streets of Mumbai India . Difficulty finding clean water air and working sanitation impact people's health (source: [Kounosu](#)).