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National Council for
Geographic Education

Three for Three

Week 5 , Unit 2

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A SUPPLEMENT TO THE WEEKLY APHG BELL RINGERS SERIES

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If you want to post the pdf in your LMS without the “ideas for slides” page, you can use something like the Chrome extension *Smallpdf* to remove the pages you don’t want to post.

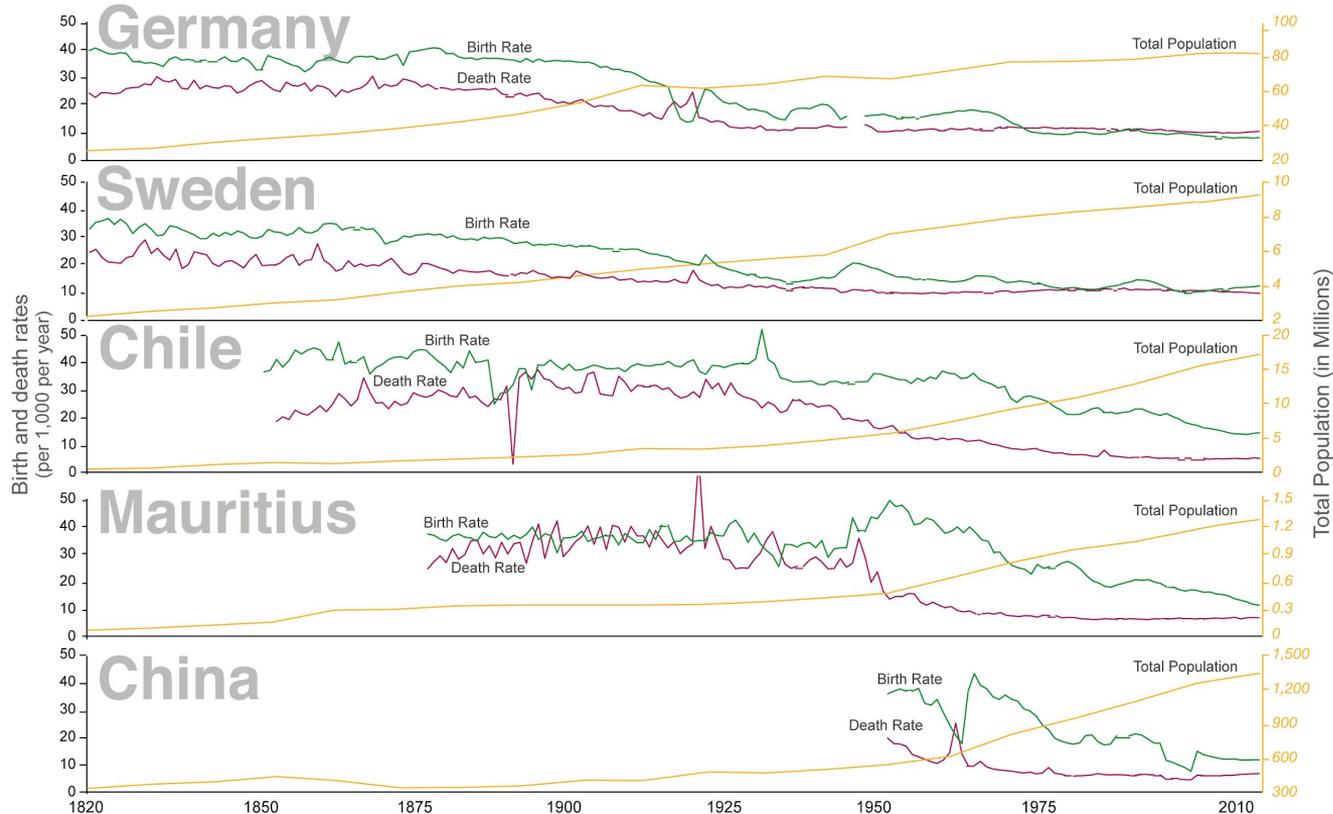
If you have any suggestions as to how I can make the Three for Threes more useful for you and your students, or if you have any questions, please feel free to email me at laura.kmetz@gmail.com.

2.5 The Demographic Transition Model

Our World
in Data

The Demographic Transition in 5 Countries

The Demographic Transition refers to the transition from high birth & death rates to low birth & death rates. It is shown here for five countries that achieved the transition one after the other.



1. Identify the country in the graph having the largest total population in 2010.

2. Explain which country may experience a decline in total population in the future based on information in the graph.

3. Explain which factor that changes population is not reflected in the demographic transition.

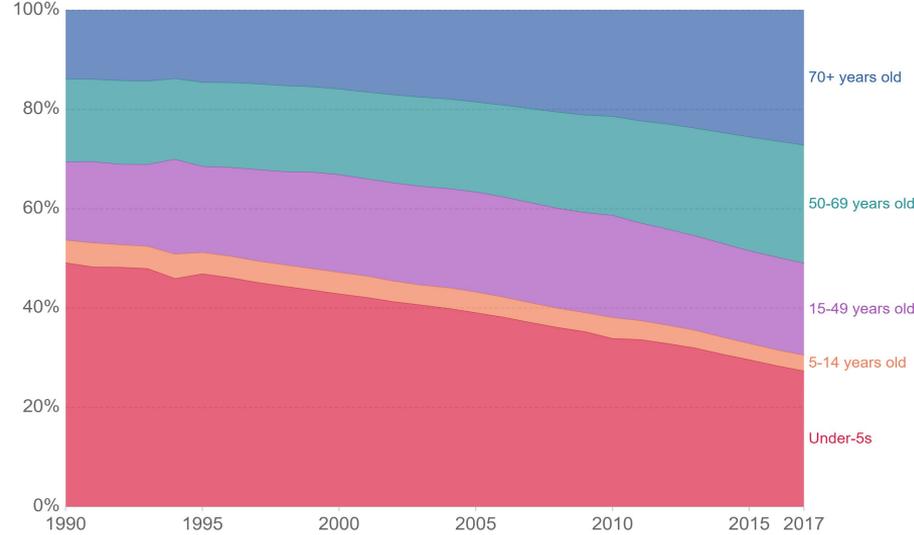
2.5 The Demographic Transition Model

Deaths by age, Low SDI, 1990 to 2017

Total annual number of deaths from all causes, broken down by broad age categories.

A

Our World
in Data

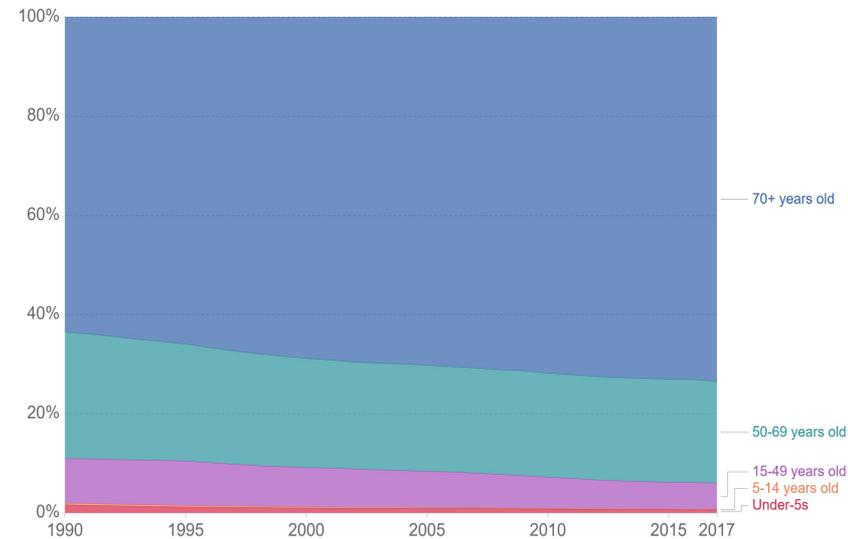


Deaths by age, High SDI, 1990 to 2017

Total annual number of deaths from all causes, broken down by broad age categories.

B

Our World
in Data



The Socio-Demographic Index, or SDI, classifies countries according to development by taking into account incomes per capita, average educational attainment, & fertility rate.

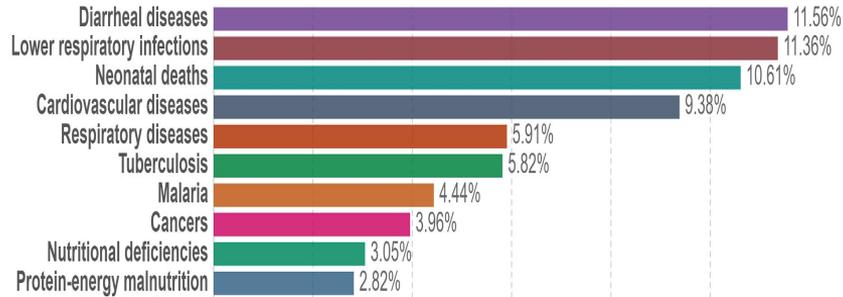
1. Compare the share of deaths in children under 5 in countries with low SDIs to the share of deaths of children under 5 in countries with high SDIs.
2. Explain why the share of deaths in people ages 70 and older is much higher in countries with high SDIs than in countries with low SDIs.
3. Explain how changing causes of death are illustrated in graph A.

2.5 The Demographic Transition Model

Share of deaths by cause, Low SDI, 1990 **GRAPH A**

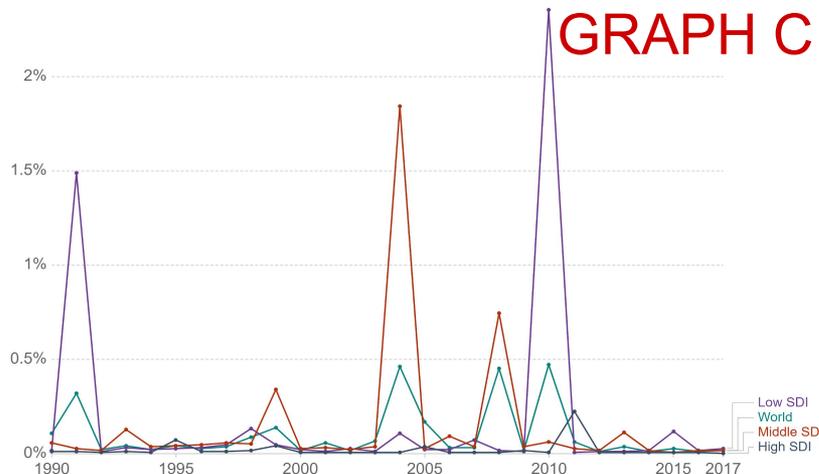
Our World in Data

Data refers to the specific cause of death, which is distinguished from risk factors for death, such as air pollution, diet and other lifestyle factors. This is shown by cause of death as the percentage of total deaths.



Deaths from natural disasters as a share of total deaths, 1990 to 2017

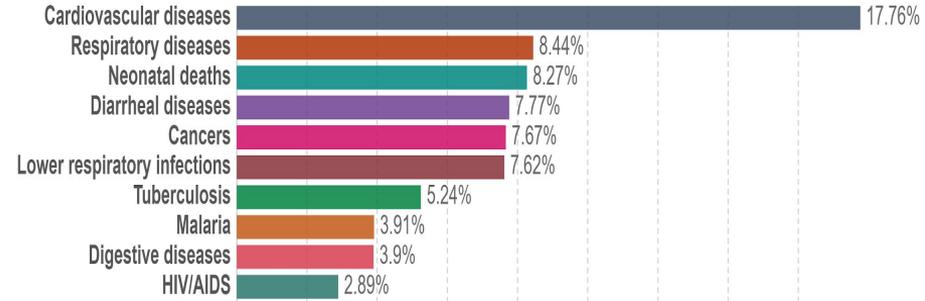
Our World in Data



Share of deaths by cause, Low SDI, 2017 **GRAPH B**

Our World in Data

Data refers to the specific cause of death, which is distinguished from risk factors for death, such as air pollution, diet and other lifestyle factors. This is shown by cause of death as the percentage of total deaths.



1. Identify the leading cause of death in countries having low SDIs in 1990.
2. Explain why cancer and cardiovascular disease caused a higher share of deaths in countries having low SDIs in 2017 than in 1990.
3. Explain why natural disasters as a share of deaths can vary more year to year than causes of death such as cancer and cardiovascular deaths.

TEACHING NOTES

PLEASE NOTE: In the interest of time, I didn't write most suggested answers in complete sentences. However, over the past four weeks, I have included detailed answers in order to model thorough, exact writing. Students must write their answers to FRQs in complete sentences, and the general consensus among readers is that we prefer answers to be labeled according to which part of the FRQ the student is answering (A, B, C, D, etc.). Labeling each part helps the student to check to make sure they've answered each part of the FRQ.

SLIDE 1: Use this slide to help teach IMP-2.B.1. *suggested answers:* 1) China; 2) Germany; death rates are higher than birth rates; over the long term, and in the absence of immigration, this could lead to a decrease in population; 3) migration can affect the size of the population; migration is not taken into account in the demographic transition

SLIDE 2: Use this slide to help teach essential knowledge related to the epidemiological transition (IMP-2.B.2). SDI is a measure of development used by Our World in Data and its sources; you can read about it here: <http://www.healthdata.org/taxonomy/glossary/socio-demographic-index-sdi>. I included this type of graph because when my students saw a similar one on a test question from AP Classroom, they had great difficulty reading it. *suggested answers:* 1) more deaths occur in children 5 in countries with low SDIs than in countries having high SDIs; in 2017, approximately 28% of deaths were in children under 5 in countries with low SDIs, whereas in the same year in countries having high SDIs, only about 2% of deaths were in children under 5

SLIDE 3: Use this slide to help teach essential knowledge related to the epidemiological transition (IMP-2.B.2). A great article on changing causes of death can be found here: <https://ourworldindata.org/what-does-the-world-die-from> *suggested answers* 1. diseases related to diarrhea, at almost 12%, were the most common cause; 2) As countries develop economically, causes of death change from infectious disease and malnutrition to diseases that are degenerative, or chronic in nature, developing over the long-term as a result of aging or obesity. As sanitation and medical improve, life expectancy is lengthened, and cancer and cardiovascular disease cause a larger share of deaths; 3) Natural disasters can high impact events, causing thousands of deaths in a single year and relatively few deaths in others. Most forms of cancer and cardiovascular disease develop gradually and only cause death after several years, or even decades, of treatment. (You might ask students to think about other high impact causes of death that can result in graphs similar to the one on the bottom of the slide; terrorism is a good example. You might also have them consider that, in general, it's high impact events that scare us and garner lots of media attention, but the older people get, the more likely it is that they will die of cancer or cardiovascular disease, not accidents or being a victim of crime or a natural disaster. Finally, you might ask students to explain why countries having low SDIs are impacted more by natural disasters than countries with high SDIs; in general, that difference can be attributed to the relative lack of preparedness and strong infrastructure.)

SOURCES: [Ourworldindata.org](https://ourworldindata.org)

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