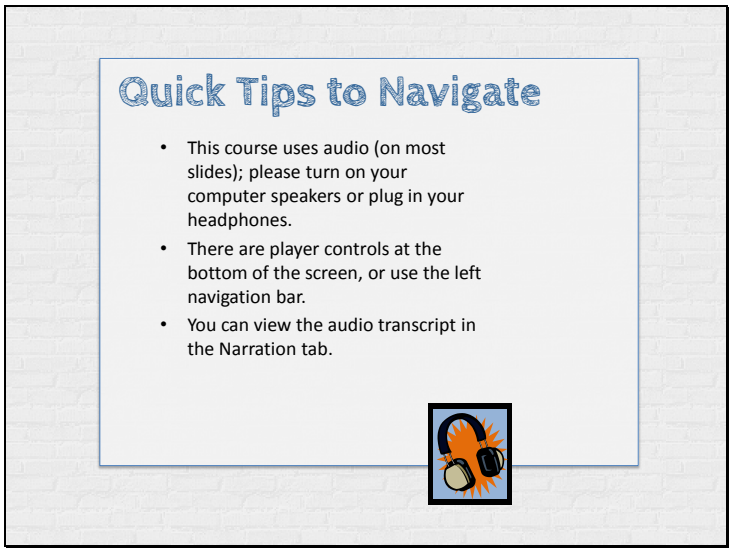
Slide 1

Welcome to Social Justice in Public Health.

This course is provided through a collaborative project called the Wisconsin Center for Public Health Education and Training, or "WiCPHET".

Slide 2



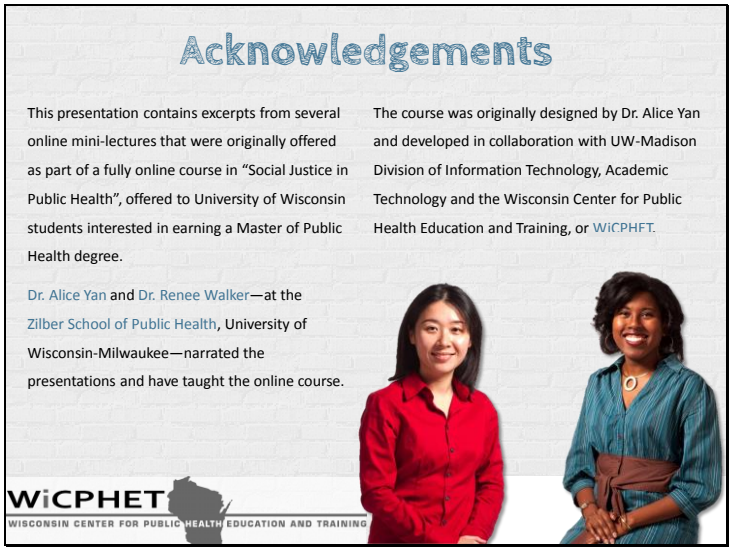
(No narration)

Slide 3

This course will mainly focus on the social determinants of health.

By the time you complete this course, you will be familiar with the major social variables, including socioeconomic status, race, poverty, income distribution, social network, social support, social capital, neighborhood and community environment, and psychosocial stress. These all affect public health.

Slide 4



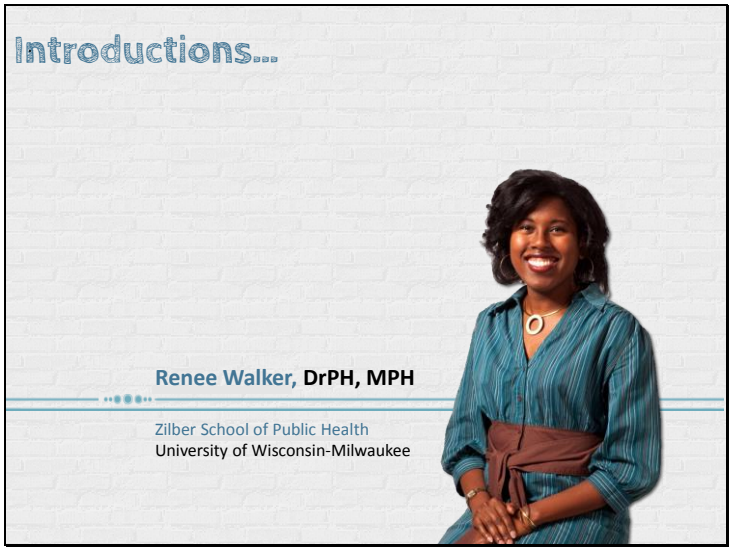
(No narration)

Slide 5

(Please go to http://uwm.edu/publichealth/people/yan-phd-alice-f/ to access her online biography.)

Dr. Yan's research focuses on eliminating health disparities in minority populations through Community Based Participatory Research (CBPR), public health surveillance, and applied translational research. Her research is characterized by two unique aspects:
Applying a multidisciplinary approach to investigating the interrelationships of social (e.g., income inequality and race/ethnicity) and environment factors on individual behaviors (e.g., physical activity, food/nutrition, substance abuse and sexual risk behaviors), and a variety of health outcomes (e.g., obesity, cardiovascular disease, diabetes, and cancer) in minority populations.
Using health informatics (i.e., GIS) and effective health communication strategies to develop public health surveillance systems and to design tailored health education and health promotion interventions

Slide 6



(Please go http://uwm.edu/publichealth/people/walker-drph-mph-renee/ to access her online biography.)

Dr. Walker's research focuses on disparities in obesity with a focus on the role of social determinants of health, including socioeconomic position, neighborhood deprivation, poverty, race/ethnicity and racial discrimination, and residential neighborhood contexts. Her recent research explores disparities in the neighborhood food environment and in access to healthy and nutritious foods. One particular interest of Dr. Walker's is in the types of food stores in neighborhoods, foods offered and affordability. She uses a method known as concept mapping, which allows participants to identify, list, and organize and rate the importance of barriers according to their perception, and then integrates those results to compare groups through multivariate analysis. Dr. Walker has used this methodology in studying food insecurity and low-income food deserts. Her research provides empirical data to determine whether low-income households sacrifice nutritional quality for the sake of cheaper, less nutritious foods, and assists in the development of scales and instruments to measure food preferences.

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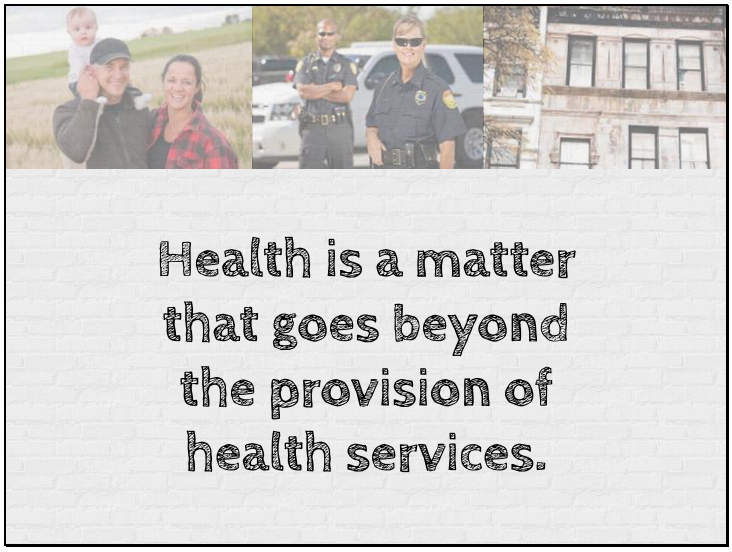


The health of a population is related to features of society, and its social and economic organization. Health is a matter that goes beyond the provision of health services.

Slide 8

This video compares a day in the life of two U.S. high school students on both sides of the education divide.

Think about how this story is related to social injustice. When you view the video, what differences do you expect to see, in terms of academic achievements for students in those two schools?

Slide 9

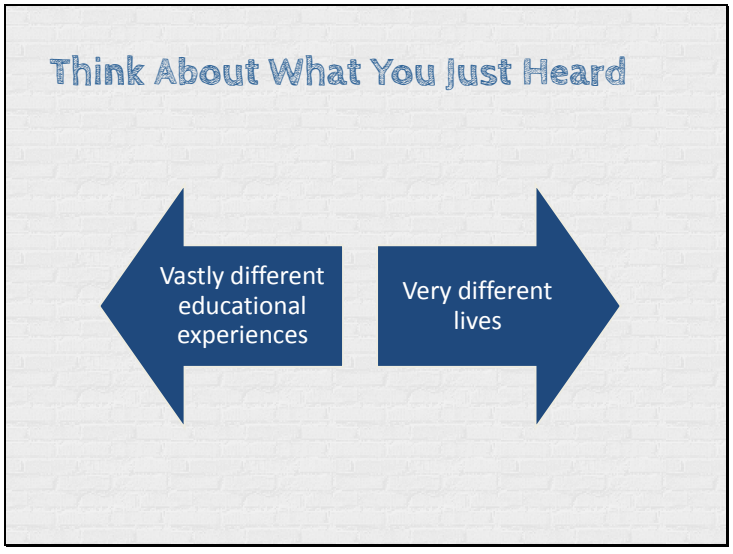
Click on the link to play the video. Here's their story in their own words.

VIDEO TRANSCRIPT

CEDRICK *(right)*: "My name is Cedrick Forte, and I'm a junior at Heritage High School 425."
JACKSON *(left)*: "My name is Jackson Langford, I'm an 18-year-old, and I'm a senior at McLean High School. For academic subjects, I'm in Advanced Placement Literature…"
CEDRICK: "English…"
JACKSON: "Advanced Placement U.S. Government…"
CEDRICK: "Biology…"
JACKSON: "…and Comparative Government."
CEDRICK: "Art…"
JACKSON: "Advanced Placement Music Theory…"
CEDRICK: "Health…"
JACKSON: "Geosystems for Science…"
CEDRICK: "And Algebra."
JACKSON: "Mens' course…"
CEDRICK: "That's it."
JACKSON: "Leadership, and Technical Theater. … I drive and I get here a half hour before school starts everyday, just for the fun of it. Trying to park here, if you come in at normal time, is really awful. You end up parking like half a mile away."
CEDRICK: "A lot of students who go to all the way across town have to catch two or three buses and the subway just to get to school, and I think that if we have to travel that far just to get an education, that we should be able to travel for free."
JACKSON: "The kids here are motivated in just about everything. They're motivated to even learn, which is scary to hear for a high school kid. They're motivated to succeed in sports, extra curriculars, anything."
CEDRICK: "I think they've lost the will to learn, a lot of them. They just don't find school interesting no more because they don't have the power to do anything, any say-so in the classrooms.

JACKSON: "This is our auditorium and theater. We have lights, standard lights, sound. It's not particularly high tech, but we have a nice system."
CEDRICK: "Here, we go through a metal detector. They use this to try to keep school safe, but obviously it doesn't work because even when someone walks through and it beeps, they don't even search them or anything. They just say, 'OK walk back through and empty your pockets.' That's all they do."
JACKSON: "This is our news studio. It's one of three high schools in the county who has it. … Hey, orchestra, can you start playing? … It's all kids, it's all run, it's all performed, it's all produced by kids."
CEDRICK: "Well, one thing that these walls really need to be repainted because of the graffiti. As you can see here, they tried to repaint it but it doesn't blend in. You can actually tell they really just gave up on repainting the walls. … Every teacher in this school buys their own school supplies. And it's actually very sad because the school system should have money to provide for those school supplies for students but they don't. Teachers have to come from their paychecks just to be able to support their students."
JACKSON: "That's our Observatory. It's a giant dome with a telescope, and you can see the entire sky from there. … If every school in the country can be like McLean, I think it's really going to increase standard of living, just going to make things a lot better."
CEDRICK: "Obviously it's not fair. I mean, we have not even half of what they have. We're all students, why shouldn't we receive the things that they have? We're all trying to learn. We all want to grow up to be something so why shouldn't we receive the same advantages they have? I don't understand that."

Slide 10



Think about what you just heard. These students have vastly different educational experiences, and very different lives.

You may want to think about how this story is related to social injustice and what will be the differences in terms of academic achievement for students in those two schools.

Slide 11

Social determinants of health are economic and social conditions that influence the health of people and communities.

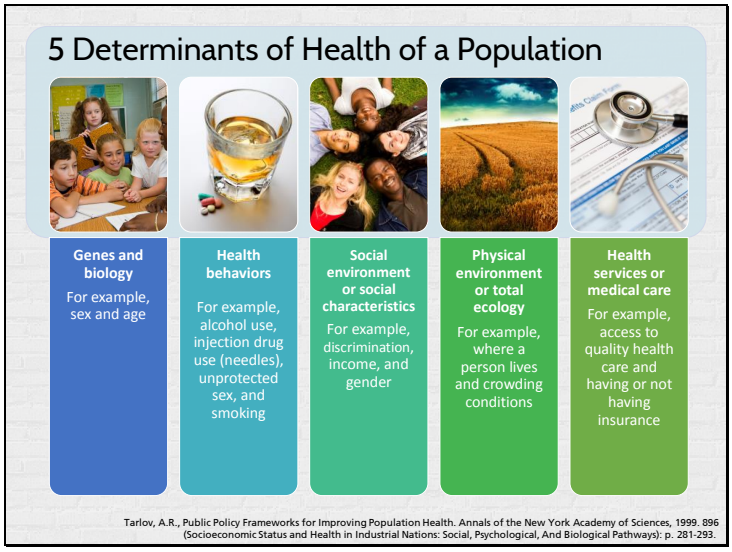
These conditions are shaped by the amount of money, power, and resources that people have, all of which are influenced by policy choices. Social determinants of health affect factors that are related to health outcomes.

Take a minute to review this list of social determinants of health.

Slide 12

Determinants of health are factors that contribute to a person's current state of health. These factors may be biological, socioeconomic, psychosocial, behavioral, or social in nature.

Slide 13



Scientists generally recognize five determinants of health of a population:

Genes and biology: for example, sex and age
Health behaviors: for example, alcohol use, using needles, unprotected sex, and smoking
Social environment or social characteristics: for example, discrimination, income, and gender
Physical environment or total ecology: for example, where a person lives and crowding conditions
Health services or medical care: for example, access to quality health care and having or not having insurance

Other factors that could be included are culture, social status, and healthy child development.

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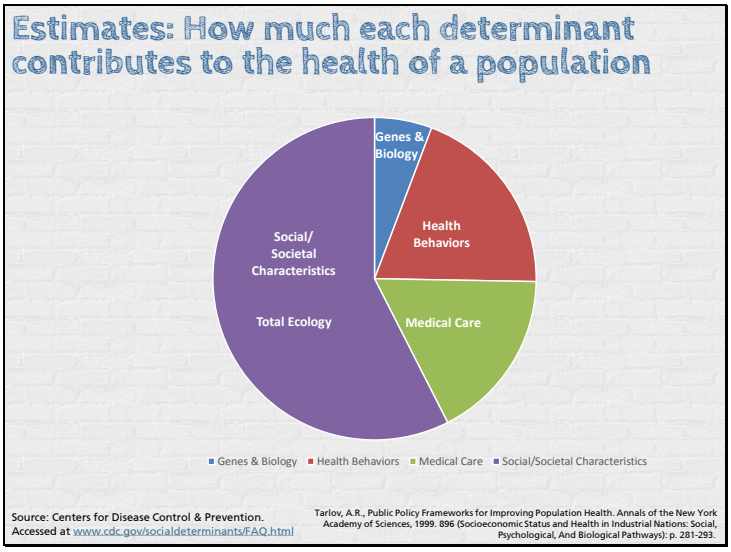

This figure represents rough estimates of how much each of the five determinants contributes to the health of a population. Scientists do not know the precise contributions of each determinant at this time.

As the figure shows, in theory, genes and biology and health behaviors together account for about 25% of population health.

Social determinants of health represent the remaining three categories of social environment, physical environment/total ecology, and health services/medical care. These social determinants of health also interact with and influence individual behaviors as well. More specifically, social determinants of health refer to the set of factors that contribute to the social patterning of health, disease, and illness.

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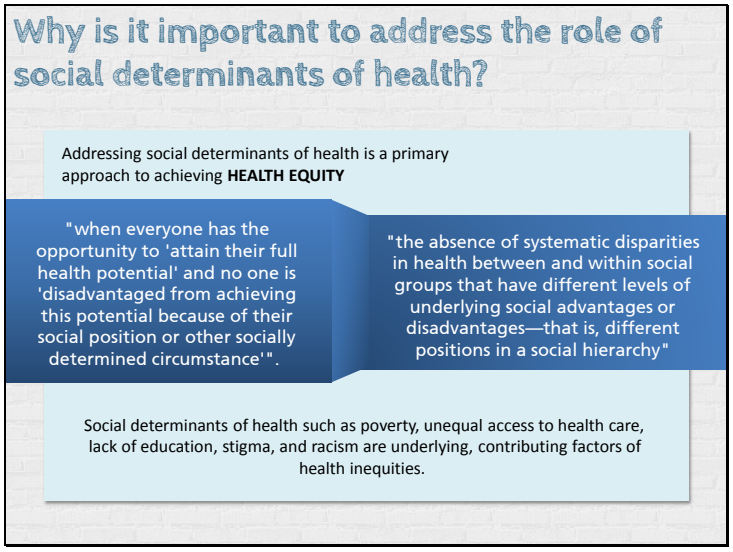


Addressing social determinants of health is a primary approach to achieving health equity.

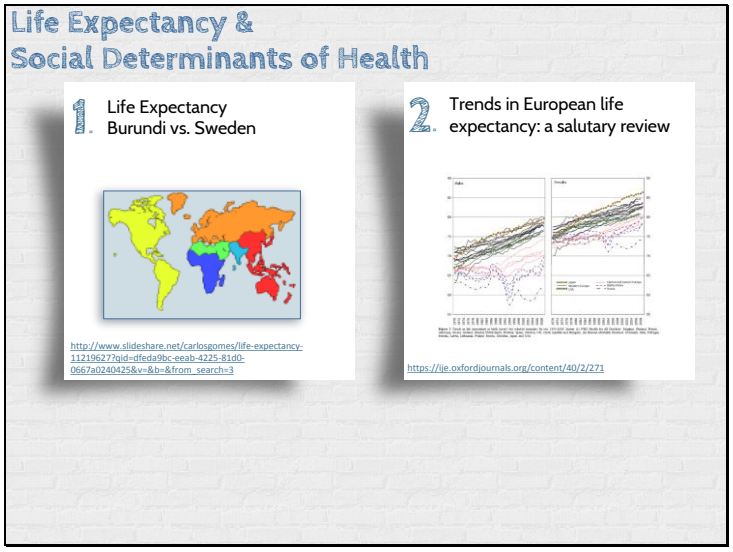
Health equity is "when everyone has the opportunity to 'attain their full health potential' and no one is 'disadvantaged from achieving this potential because of their social position or other socially determined circumstance'".

Health equity has also been defined as "the absence of systematic disparities in health between, and within social groups that have different levels of underlying social advantages or disadvantages—that is, different positions in a social hierarchy".

Social determinants of health such as poverty, unequal access to health care, lack of education, stigma, and racism are underlying, contributing factors of health inequities.

The Centers for Disease Control and Prevention (known as the CDC) is committed to achieving improvements in people's lives by reducing health inequities. Health organizations, institutions, and education programs are encouraged to look beyond behavioral factors and address underlying factors related to social determinants of health.

Slide 16



Now that you understand what social determinants of health are, let's look at a couple of examples.

These examples help to illustrate how life expectancies vary, under different social economic status or social changes.

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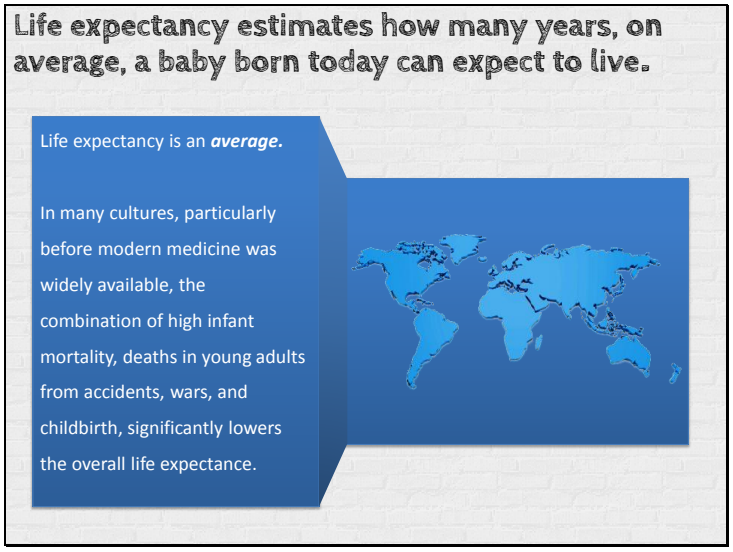

You already know that people living in the most deprived areas have a shorter life expectancy than those living in the most affluent areas. What is life expectancy and why are there geographical differences?

Life expectancy estimates how many years, on average, a baby born today can expect to live. Its important to note that life expectancy is an average.

In many cultures, the combination of high infant mortality, along with deaths in young adults from accidents, wars, and childbirth, significantly lowers the overall life expectancy. This was particularly true before modern medicine was widely available. But for someone who survived past these early hazards, living into their sixties or seventies would not be uncommon.

When life expectancy is low, this is mostly due to a very high child mortality.

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We'll look at data from 2007, and compare life expectancy, as well as several social determinants of health for Sweden and Burundi.

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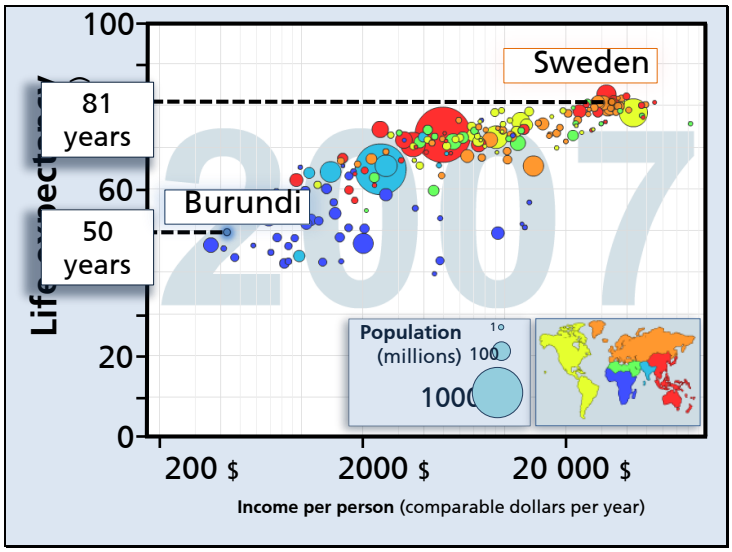

Take a minute to review the data presented here. The map is the color key for the countries – so you can see that Sweden is in the orange region on the map. Burundi is located in the blue part of Africa. The size of the circles reflects the size of the population in 2007.

Life expectancy increases from bottom to top – so you can see the orange circles are generally clustered much higher than the blue circles.

To illustrate the life expectancy differences, we will compare the expected life spans of 5 newborns in Burundi with those of 5 newborns in Sweden.

In general, based on 2007 data, people in Burundi have a life expectancy of 50 years and people in Sweden have a life expectancy of 81 years.

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Burundi, or as it's officially known, "the Republic of Burundi", is a landlocked country in the Great Lakes region of Eastern Africa. It has an estimated population of over 1 million.

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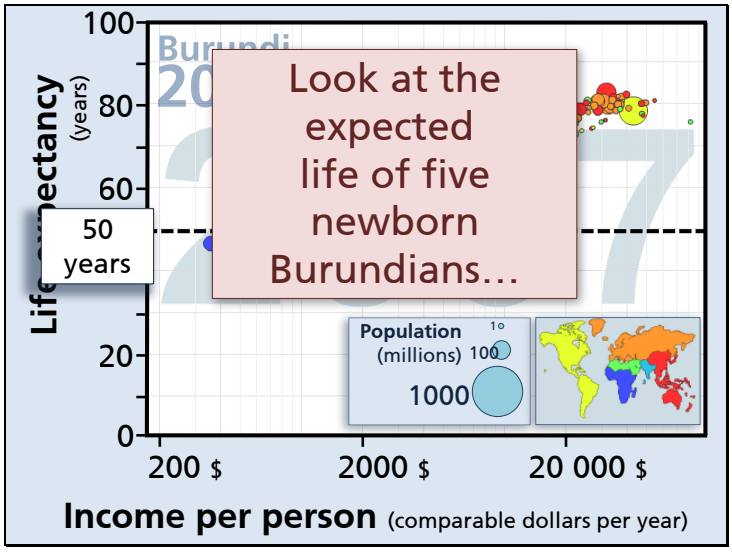
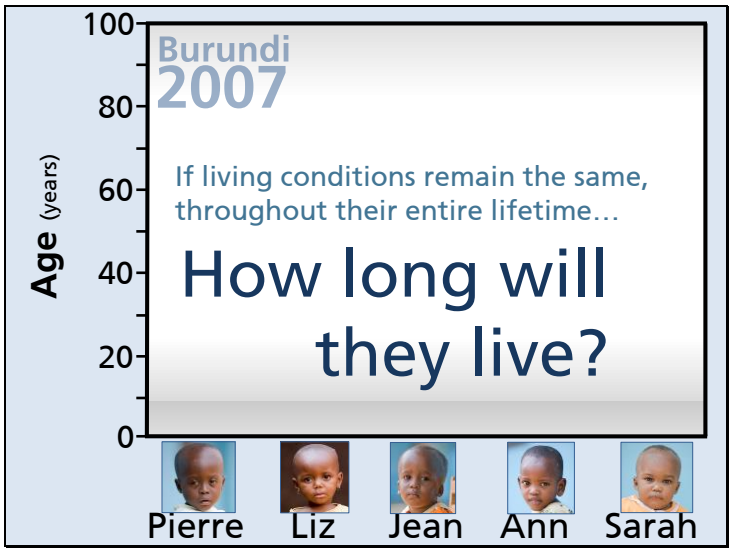
Burundi is one of the ten poorest countries in the world. It has one of the lowest per capita gross domestic product – or GDP - of any nation in the world. Burundi has a low GDP largely due to civil wars, corruption, poor access to education, and the effects of HIV/AIDS.

Slide 22



Let's look at the expected life of five newborn Burundians.

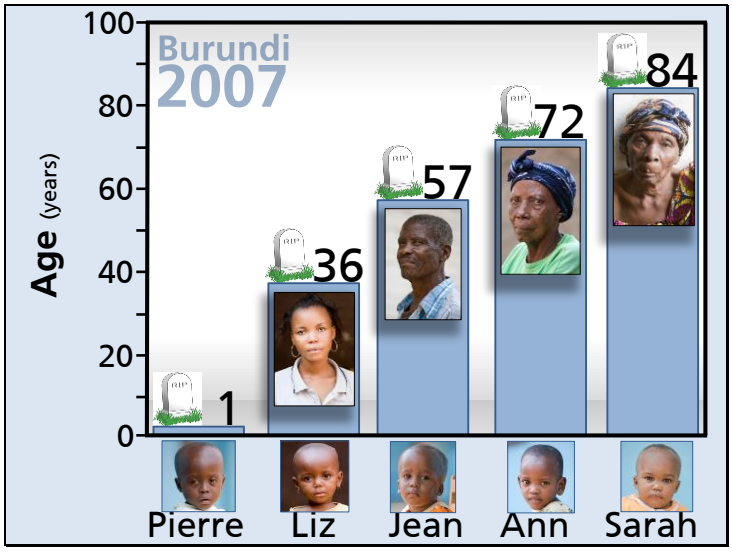
Slide 23



If the living conditions in Burundi in 2007 remain the same for these individuals, throughout their entire lifetime, how long will they live?

Take a look at what happens to Pierre, Liz, Jean, Ann, and Sarah…

Slide 24



Pierre unfortunately dies very young, at the age of one.

Liz dies when she is 36 years old, while Jean passes away at 57.

Ann and Sarah, fortunately, have longer lives and live to be 72 and 84.

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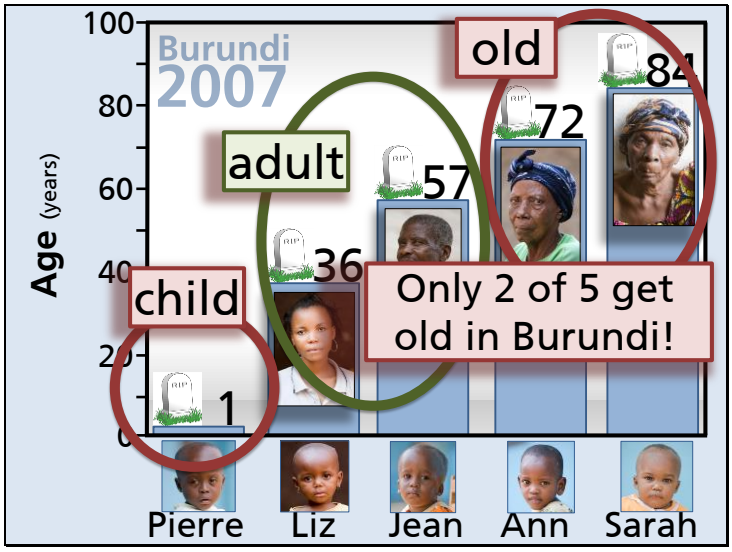
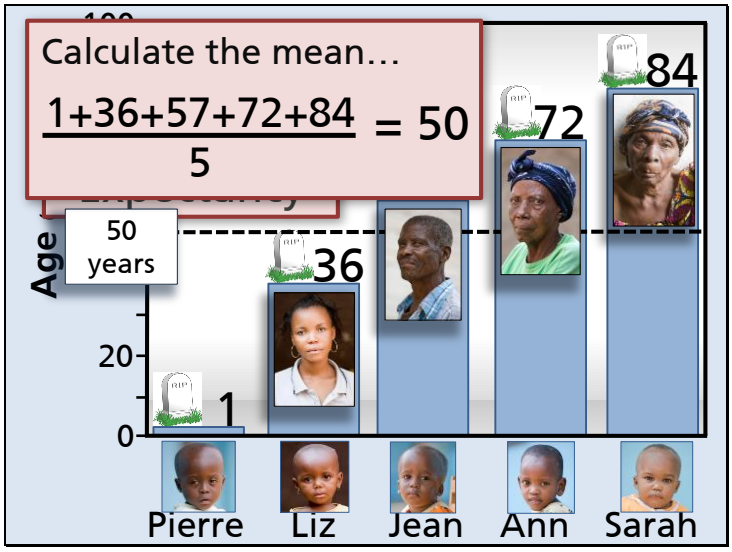


So out of the five newborns, one dies as a baby. Two die during adulthood and only two out of five live long enough to get old in Burundi.

Slide 26



So when you calculate the mean ages of these five individuals, that number is 50. So we can say, among the five Burundians, that life expectancy is 50 years.

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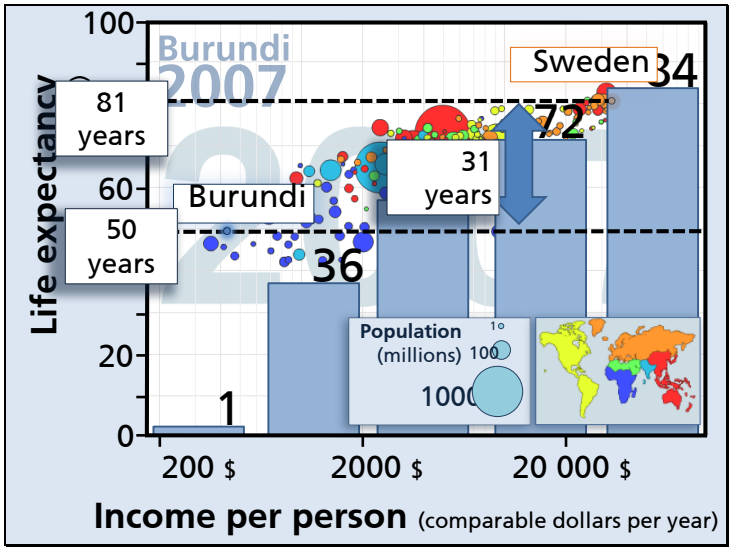

Let's look at another country – Sweden - which has a life expectancy of 81 years.

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Sweden is a Nordic country in Northern Europe. Sweden shares borders with Norway and Finland and is connected to Denmark. Sweden is the third largest country in the European Union by area, with a total population of about 9.4 million. About 85% of the population live in urban areas.

In 2010, it ranked fourth in the world in *The Economist*'s Democracy Index and ninth in the United Nations' Human Development Index. In 2010, the World Economic Forum ranked Sweden as the second most competitive country in the world, after Switzerland.

Do all Swedes live 31 years longer than the Burundians?
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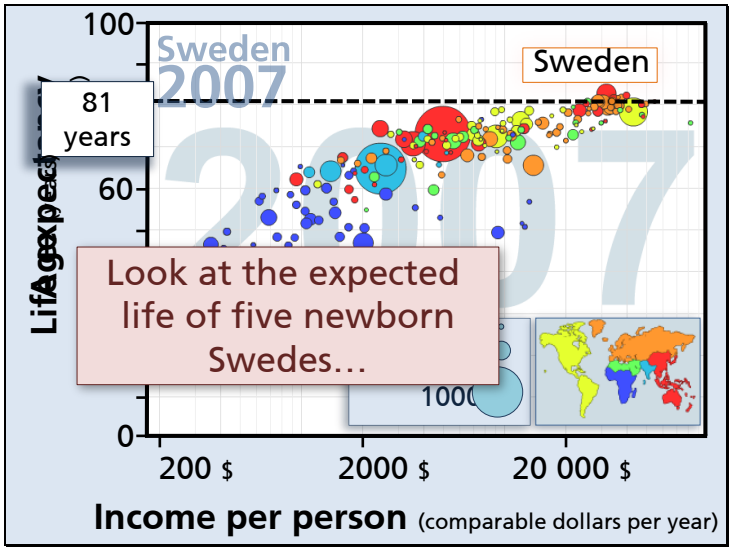

Let's look at the life expectancies of five newborn Swedes…

Slide 30

How long can they expect to live, if living conditions in 2007 in Sweden remain the same, throughout their whole lifetime?

Take a look at what happens to Per, Lisa, Jan, Anton and Sara…

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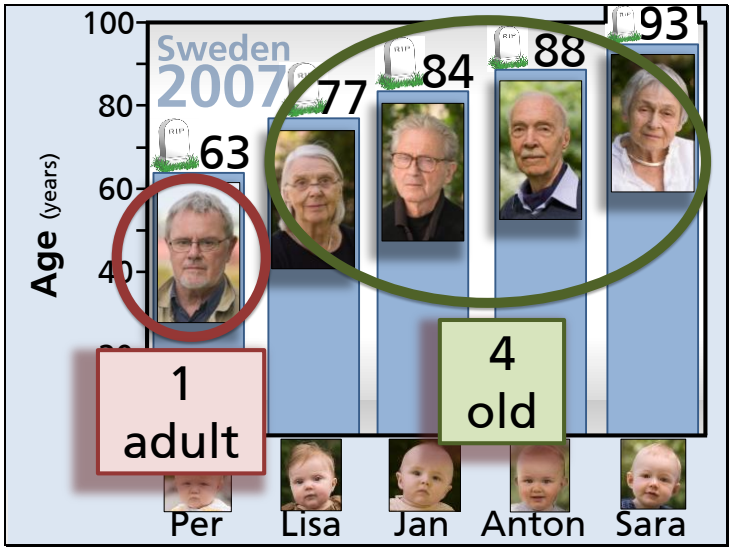

Per dies at 63; Lisa at 77; Jan at 84 and Anton at 88.

Sara is the grand dame and lives to be 93 years old.

Four out of five actually get old in Sweden.

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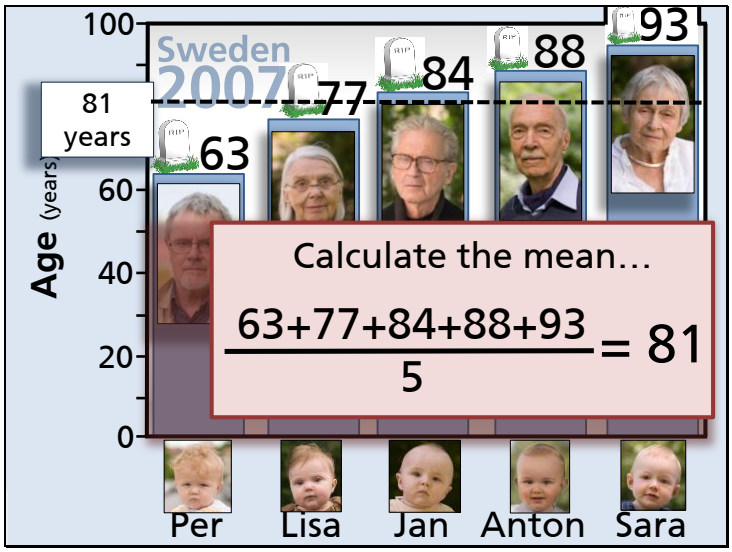
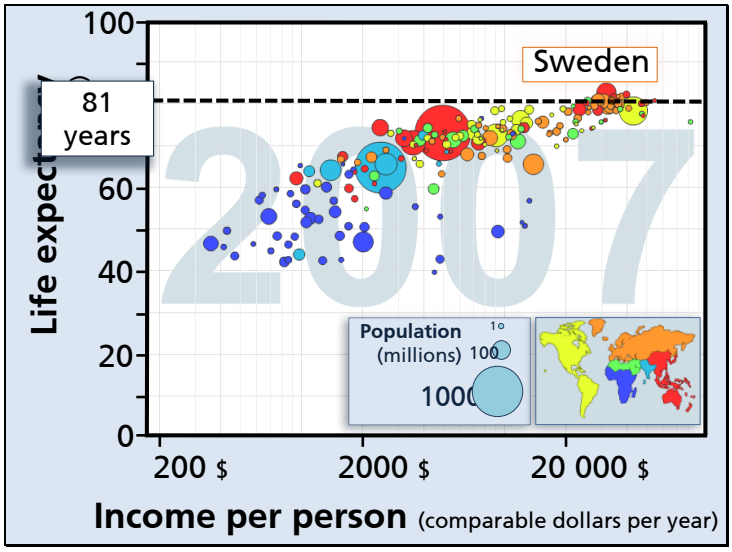


Once again let's calculate the mean age – we get the number of 81. This is the life expectancy for these 5 individuals in Sweden.

Slide 33



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Let's review what you just learned and compare the life expectancy differences between Sweden and Burundi. Why do you think there is such a difference?

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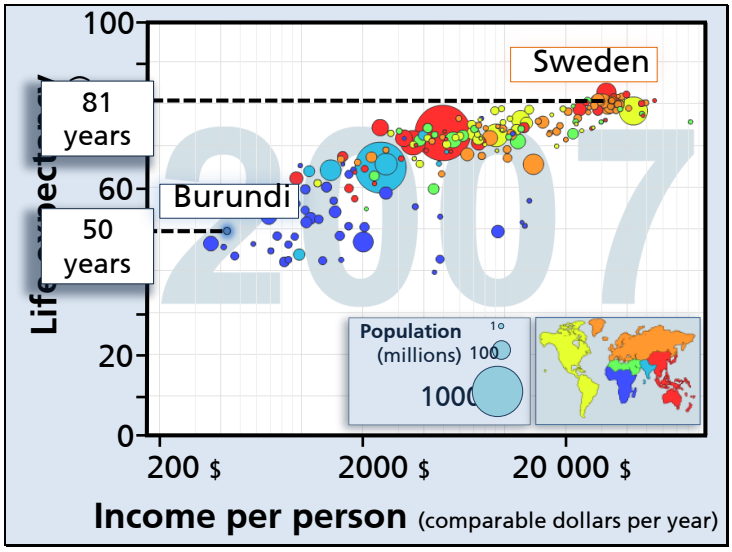
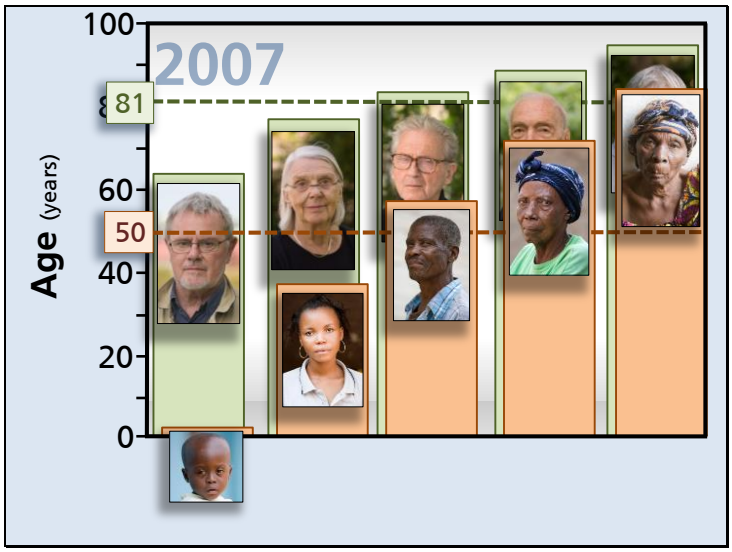


In 2007, Sweden has a life expectancy of 81 years while Burundi has a life expectancy of 50 years.

Slide 36



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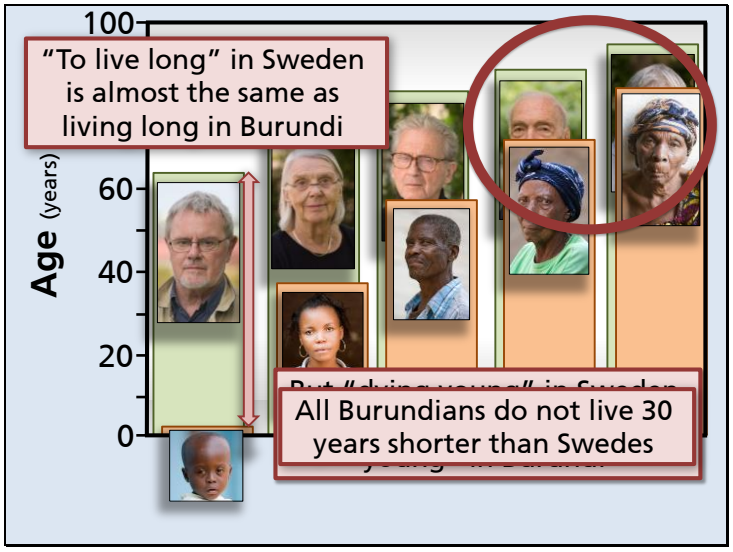
Slide 37



To live long in Sweden is almost the same as living long in Burundi.
But dying young in Sweden is very different from dying young in Burundi.
All Burundians do NOT live 30 years shorter than Swedes.

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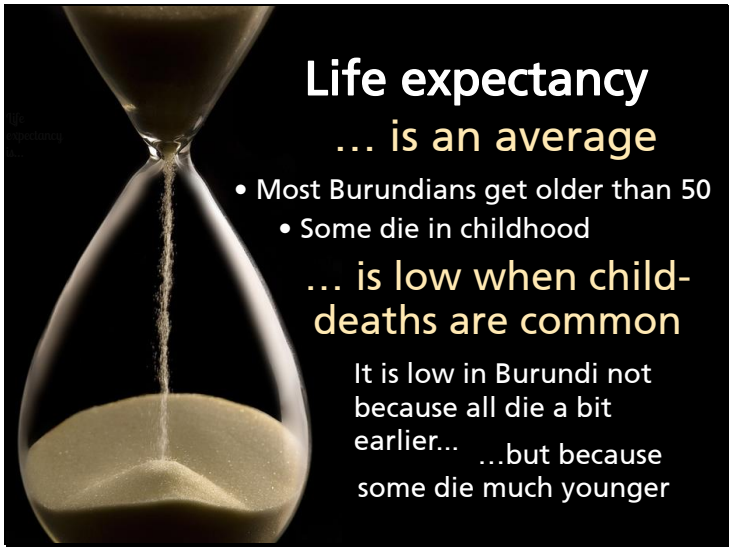

Life expectancy is an average. Most Burundians live longer than 50 years, but some die in childhood.

Having a lower life expectancy doesn't mean everyone dies sooner – for example most Burundians don't die at 50 years of age.

Life expectancy is low when childhood deaths are common. Life expectancy is low in Burundi because some die much younger.

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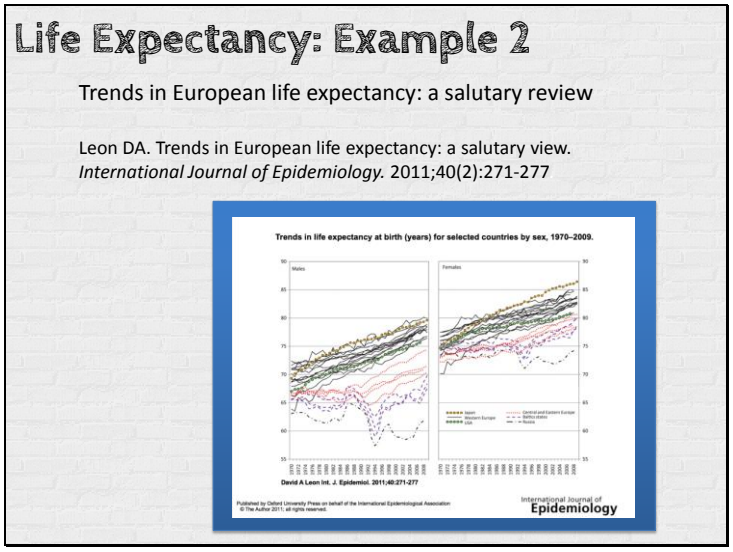

Making a difference to the health of populations, however small, is what most people in public health hope they are doing. Epidemiologists are no exception.

Often caught up in the minutiae of our day-to-day work, it is easy to lose sight of the bigger picture. Is health improving, mortality declining, are things moving in a positive direction?

Getting out and taking in the view (metaphorically as well as literally) can have a salutary effect. It broadens our perspectives and challenges our assumptions. Looking at recent trends in European life expectancy is a case in point.

Let's look at an article, "Trends in European life expectancy" by Leon which appeared in the International Journal Of Epidemiology in 2011.

Slide 40

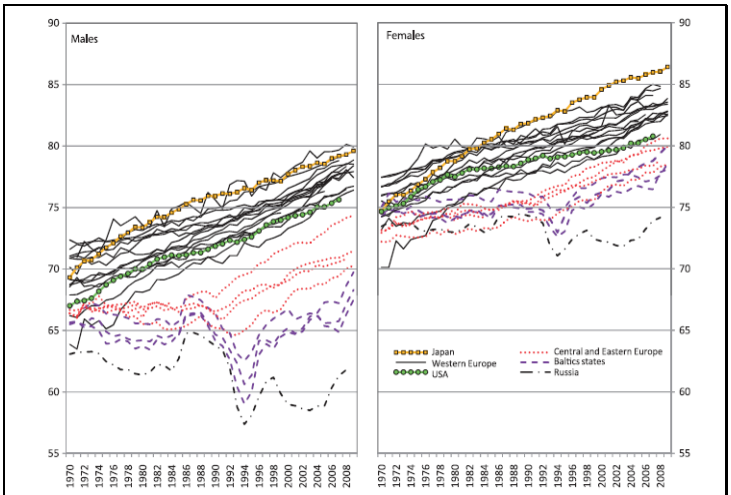

Figure 1. Trends in life expectancy at birth (years) for selected countries by sex, 1970-2009. Sources: (i) WHO Health for All Database: Belgium, Finland, France, Germany, Greece, Iceland, Netherlands, Norway, Spain, Sweden, UK, Czech Republic, and Hungary. (ii) Human Mortality Database: Denmark, Italy, Portugal, Estonia, Latvia, Lithuania, Poland, Slovakia, Japan, and USA

Take a few minutes and look at the information presented on this page. This data shows life expectancy for selected countries from 1970 through 2009, separated by gender.

While for the past 60 years all Western European countries have shown increases in life expectancy, the countries of Central and Eastern Europe, Russia and other parts of the former Soviet Union have had a very different, and altogether more negative experience.

It is important to notice that the trends shown in this Figure are overwhelmingly driven by changes in mortality in adult life, not in infancy or childhood.

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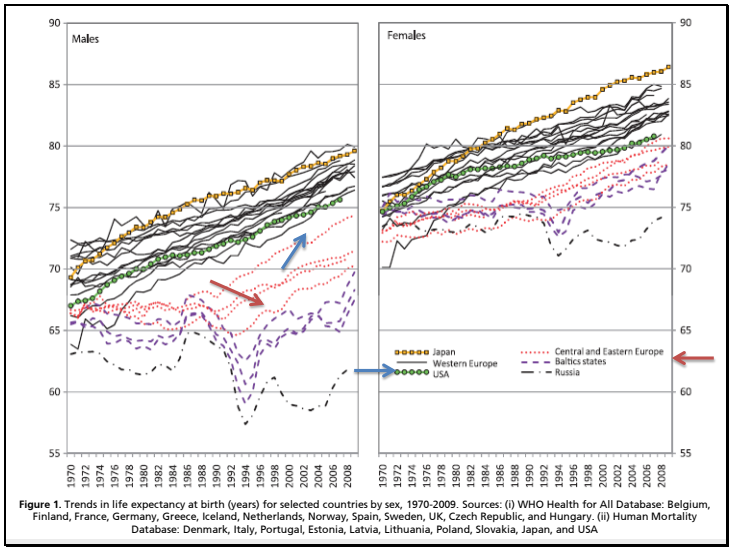

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Between 1970 and the end of the '80s, life expectancy at birth in the former communist countries of Central and Eastern Europe, as well as Russia and the Baltic States, stagnated or declined.

This led to an increasing gap between these countries and Western European countries as Western Europe steadily improved. However, within a few years of the collapse of the Berlin wall in 1989, life expectancy started to steadily increase in the countries of Central and Eastern Europe.

This vividly illustrates that mortality can decline rapidly in response to political, social and economic change. Interestingly, once it was underway, the post-1989 increase in life expectancy in these countries has continued at a steady rate that is very similar to Western Europe. These parallel trajectories mean that the East–West gap, measured in terms of absolute differences in years of life expectancy, is proving very difficult to eliminate, despite earnest hopes to the contrary.

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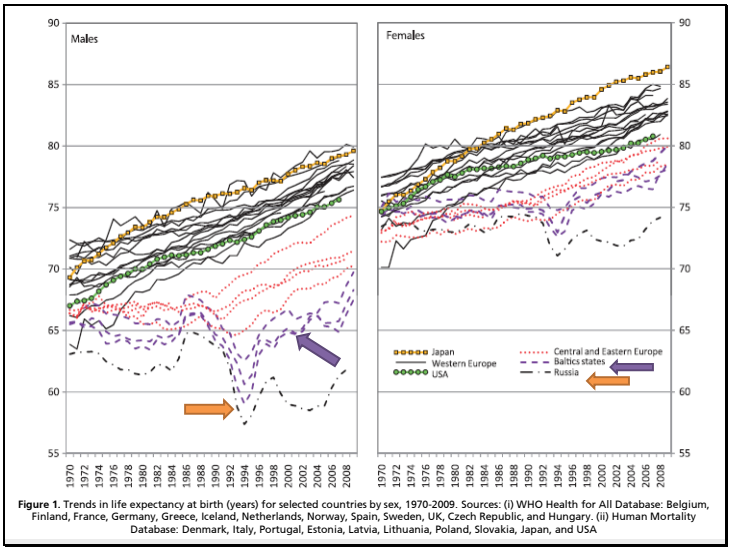

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The trajectories of Russia and other Soviet countries, including the three Baltic States in Figure 1, were strikingly different to those of the Central and Eastern European countries.

The last Soviet President, Mikhail Gorbachev, introduced an anti-alcohol campaign in 1985. This was accompanied by a brief increase in life expectancy. Soon afterwards in 1991, the collapse of the Soviet Union induced a decline in life expectancy. This was particularly dramatic in Russia: between 1990 and 1994 male life expectancy fell by 6 years, to a low of 57.

There was then a short-lived period of recovery until 1998, when Russia once more declined. The Baltic states at that time were independent countries looking west, for membership into the European Union. In those countries, life expectancy improvements flattened out, and for Lithuanian and Latvian men life expectancy was even reversed.

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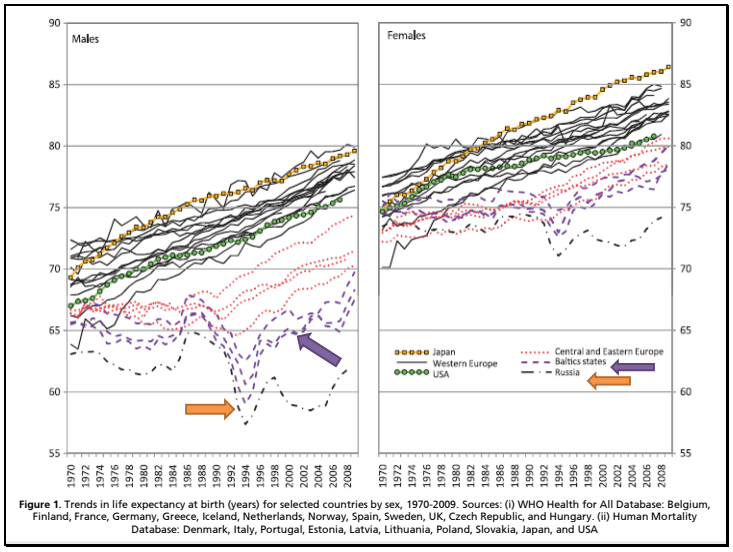

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In the most recent period, improvements have at last been seen in all the former Soviet countries of Europe, with the possible exception of Ukraine. But it will take a longer period of improvement to be convinced that Russia, Latvia and Lithuania have embarked upon a sustainable upward trajectory given their recent history.

Notwithstanding the different consequences of the collapse of communism in the Central and Eastern European countries, the post-Soviet experience shows that abrupt political, economic and social change can also have serious adverse effects on population health. The stress and chaos induced in Russia and other Soviet countries by the collapse of the Soviet Union and the transition from communism was very different to that in the Central and Eastern European countries. It brought in its wake a dramatic and relatively long-lasting decline in life expectancy.

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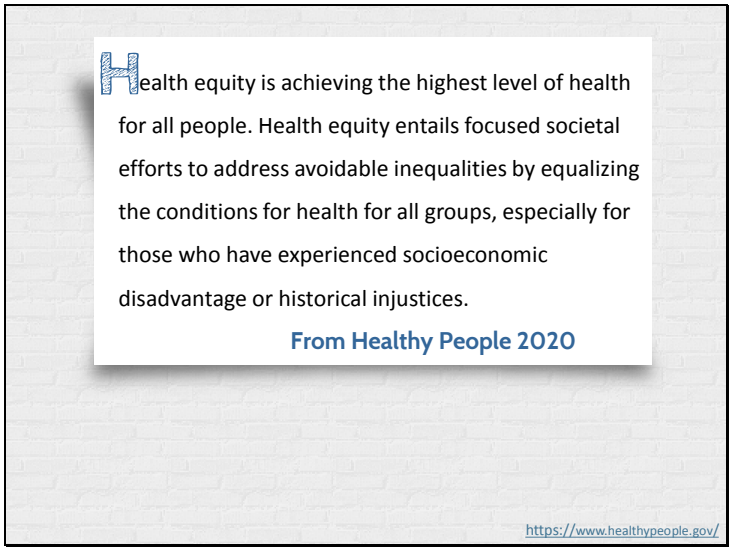

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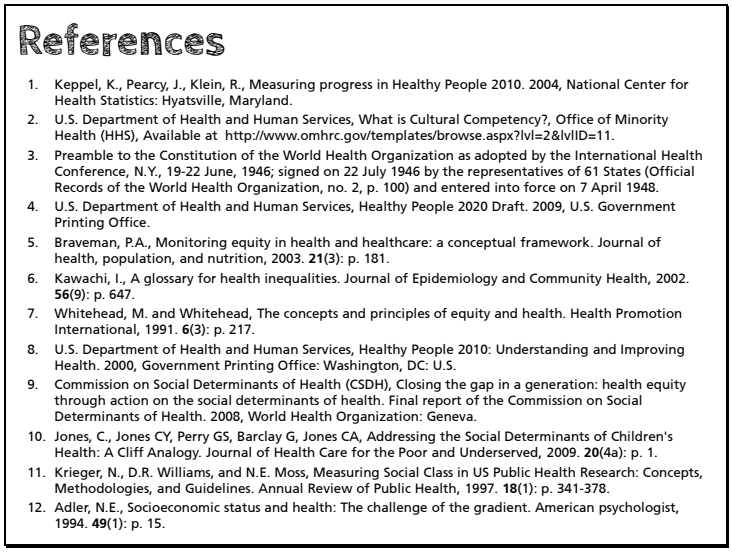

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