Population Health: Crash Course Sociology #43

Crash Course: Sociology
https://youtube.com/watch?v=D9SWRByzDSo
https://nerdfighteria.info/v/D9SWRByzDSo

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A person can be healthy, but can a country be healthy?

Population health indicators measure the distribution of health throughout a given population. These kind of indicators are what sociologists use to study patterns and health outcomes across different social groups, because, like all things sociological, we want to understand the wider patterns of health.

So if you're trying to figure your own risk for a disease, it might be useful to know the average number of people like you, who have contracted that disease. Or, if you're a policymaker trying to figure out which diseases to spend money and time on, you might want to know which disease has the highest mortality rates in your country. As we talked about last time, there are lots of factors that can affect your personal health, and those factors often vary by social groups.

So when we explore population health across social dimensions like age, gender or race, ethnicity, class or religious beliefs, we come up with differences in with health looks like for that group.

Let's start by talking about what some of the important indicators for population health are, and see what those indicators tell us about health in the United States.

When we talk about the importance of health, there's an underlying implication here: Humans don't want to die. The healthier you are, the more likely you are to put off a visit from the grim reaper, which is why we use the length of someone's life as one indicator of how healthy they are.

One crude indicator of a population's health is *life expectancy*: the average number of years an individual can be expected to live. You can use life expectancy to get a better understanding of what kind of person tends to live longer, which is a pretty good proxy for the overall health of a community.

For example, in the United States - and for that matter, almost every other country on the planet - women tend to outlive men. For men in the United States, the average life expectancy at birth is 76.3, and for women it's 81.2. And white Americans tend to live longer than black Americans. 79 is the life expectancy for white Americans, whereas for black Americans the number is quite a bit lower.

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75.5. In addition to helping us understand the overall health of the population or portions of it, life expectancy also tells us something about its future. Do we expect to have more elderly citizens in the future? If people live longer, what does that mean for the retirement age? This has implications for the structure of work and Leisure and helps when planning the cost of things like Social Security and Medicare.
Another important population statistic is the birth rate for different populations. Just as life expectancy helps us answer questions that go beyond health, the birth rate tells us about more than just the reproductive health of a population. There are a couple different ways to measure the number of kids being born. One is a straight birth rate: in a given year how many live births are there for every thousand people? But that might not be the right measure. After all, if people are living a lot longer there are going to be more people who are living past child-bearing age. This would make the birth rate go down even if the number of kids each generation has stays constant. Because of this we might use what's called a total fertility rate: the number of live births for every 1000 women between the ages of 15 and 44. Total fertility rates let us compare birth patterns across generations. A larger generation might have more kids - after all, more parents means more kids - but there might be fewer kids per person or vice-versa. The number of births per year in the US has been declining over the last 50 years. Some of that is because there are fewer women of childbearing age now than they were when the baby boomers were having kids. Even if we look at the fertility rate, that has also gone down, from 68.4 births per 1000 women of childbearing age in 1980, to 62.5 births per 1000 women of childbearing age in 2015. Now, if we split the population by race, we see big differences in the total fertility rate. It's highest for Hispanic women at 71.5 births per 1000 women, and lowest for non-Hispanic white Americans with the total fertility rate of 59.3. And even here you can see the influence of society on human procreation. Access to things like contraception and prenatal care and cultural traditions shape the number of children that are born. So birth rates tell us about the categories of people

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entering our Society, but we might also care about who is leaving us too. Mortality rates are death rates in a given population and they can tell us a lot about its overall health. For example, infant mortality rates are often a key indicator of a group's health. Because infants are especially vulnerable to disease and malnutrition, their mortality rate tells us something about broader issues, like poverty levels and availability of food, water and health services. For example, Black Americans are more than twice as white Americans to die in infancy, partially because these children are more likely to be born in lower income families. Lower economic standing generally means less access to healthcare and there is clear evidence of black Americans are much less likely to have access to Quality prenatal care than other racial and ethnic groups. Overall, mortality rates can also help us understand the pace of deaths in the community. In a given year, how many people in that group have died as a fraction of that population? Mortality rates tend to be higher for men than women and higher for black Americans than white Americans which might not be too surprising given what we learnt about life expectancy for those groups earlier. In the US, the leading cause of mortality for both men and women of all races are heart disease and cancer. But what kills men and what kills women differs a bit as we get further down the list of leading causes of death. men are mch more likely to die from an unintentional injury or accident than women are and also have much higher suicide rates than women. There are mortality differences by race as well, with black men more likely to die from homicide than other groups. Drilling down into this data a little more, we can also understand population health by looking at the types of diseases that different groups are susceptible to. Morbidity refers to the presence of disease, while morbidity rates tell us something about the frequency of disease within a given population. Diseases can also be co-morbid diseases meaning that two diseases coexist in a person at the same time. Comorbidity rate tell us how common it is for people in a population to have any two diseases at one time. One thing to note here: incidence of a disease is not the same thing as prevalence of a disease. Incidence refers to the number of new cases reported in a given time frame, whereas prevalence refers to the number of existing cases in the population

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So, put another way, incidence tells you how likely you are to contract a disease. Prevalence tells you how many people already have it. And I'm sure it won't surprise you to hear that morbidity rates within a society can vary a lot across demographic groups for a number of reasons, like the racial make-up of a society or the age profile of those people.
Different subpopulations may have different genetic makeups that can influence health. For example, Ashkenazi Jewish ancestry is

associated with higher rates of brca-1 mutations, which is a genetic risk factor for breast canxer. Different populations may also be exposed to health risks resulting from their pysical environments, like the neigbourhood they live in. For example, Black children in the US have higher asthma rates relatoice to white children, partly becuse of higher exposure to environmental toxins in their homes and neighbourhood. But it can be hard to separate the effects of something like pollution from other aspects of where a person lives that might also affect their health. People who live in poorer neighborhoods are more likely to be exposed to more pollution - so is it the pollution or the poverty that leads to worse health outcomes? Let's go to the thought bubble to look at this question more closely. 3 American economists, Janet Currie, Michael Greenstone and Enrico Moretti figured out a way to separae out the effects of pollution on kids' health by looking at what happened when the government cleaned up toxic waste sites. All across the united States there are places known as superfund sites - areas that the government has deemed so polluted that it requires an expensive, government funded cleanup to make the place habitable. As of 2015 the EPA found that 53 million Americans lived within 3 miles of a supefund site, including about 18% of children under the age of 5. Currie, Greenstone and Moretti compared health outcomes for children who are born near a super fund site either before or after it was cleaned up and found that kids born after the clean up were 20% less likely to be born with a congenital anomaly, like heart murmurs. Since the only thing that had changed with the clean up was the level of pollution this study tells us something you might have already guessed: being exposed to toxic chemicals at a young age can be really damaging to your health. thanks thought bubble. There are lots of environmental risks that can be damaging to your health -

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houses with lead paint, second-hand smoke, smog. Because these risk factors tend to be more common in low income areas, they disproportionately affect less educated and minority Americans. And low income Americans are also more likely to experience social environments that pose health risks. For example, the amount of stress a person is under can have a big effect on both their mental and physical well-being. And these groups are more likely to live or work in high stress environments like neighbourhoods with higher crime rates or unfulfilling jobs with long hours. Another social factor that affects health? Racism and discrimination. Sociologist David Williams has connected this unique psychosocial stressor to increased rates of stress-related disease morbidity among African Americans. Like heart disease that may contribute to higher risk of early mortality. All of these factors - the individual risk factors, environmental risk factors, social risk factors and psychological risk factors - combine to help explain the health disparities we see across different social groups in the US. Today, we learned about some of the indicators that help us measure health for different populations, including life expectancy, birth rates, mortalilty rates and morbidity rates. Then, we talked about three contributors to health disparities: individual factors like genetics, physical factors like pollution and social factors like stress. Crash Course Sociology is filmed in the DR. Cheryl C. Kinney Studio in Missoula, Montana, and it's made with the help of all of these nice people. Our animation team is Thought cafe and Crash Course is made with Adobe Creative Cloud. If you'd like to keep Crash Course free for everyone forever you can support the series at patreon, a crowdfunding platform that allows you to supoort the content you love. Thank you to all of our patrons for making Crashcourse possible with their continued support.