

TRANSCRIPT

HOST: We're joined today by Dr. Robert Anderson, the Chief of Mortality Statistics at CDC's National Center for Health Statistics.

HOST: You touched on provisional data - could you walk us through what provisional death data is and then also explain when the data are final?

ROBERT ANDERSON: So the provisional data allows us to see a picture - an incomplete picture - of the situation with regard to mortality in a much more timely fashion. So when we provide data that are incomplete we will call it provisional because it will change over time as more information comes in. We generally have to wait nearly a year after the end of the data year to have final data ready. Now in contrast, we've already been releasing provisional data for 2020 but those data are incomplete and subject to change but they do allow us to see a picture, albeit incomplete, of the situation with regard to mortality.

HOST: So then the final data are basically when 100% of the death certificates have been recorded and analyzed - is that correct?

ROBERT ANDERSON: Yeah that's correct - those data have been thoroughly checked and we've made any corrections that are needed and we feel comfortable that these can form the basis for official mortality statistics.

HOST: So what explains the lag time in the data and the different times each year the data are released? Some years it comes out earlier and other years not as early.

ROBERT ANDERSON: At the national level we're only as fast as our slowest state so we have to wait to get this information in from the states because we want to have all deaths represented from all states. And there's quite a bit of variation in timeliness by state and in cases where lengthy death investigations may be needed and the jurisdictions may be strapped for resources, it may take several months to get the cause of death information. Some states - there are a few states that don't have electronic systems and so they tend to be slower as well. And so we really have to wait to get all of the information in and if we have one really slow state, that may slow us down a bit. In addition, if we find significant problems with the data, the data file, that may take some time as well so normally we go back and forth with the state to make sure that we understand what the problems are and that they are corrected to the extent that we can correct them. And so if we identify significant problems - and this does happen sometimes, particularly as states are implementing electronic systems or maybe implementing new electronic systems, there tend to be bugs in the system and we find issues and those really have to be corrected because we want the data to be as accurate as possible. So when those things arise, that may cause us to adjust the release date for the file data. We don't have a sort of "static release date" where we release on the same day every year - it really depends on how long it takes to make sure that the data are as accurate as we as they can be.

HOST: So as far as NCHS's analysis on death certificate data... NCHS does not go into all areas of analysis - sometimes there's outside research done. Is there untapped information on the death certificate that that could be useful for the public health community - what's your thoughts on that?

ROBERT ANDERSON: Well I mean you're right that we don't we don't publish on every item on the death certificate in our standard reports. There are some information there that we don't publish on. We do make the data file available and the data is a public use data file but has some limited information. And then there are some other files that require a research proposal and a data usage agreement that have additional information. Those are made available to researchers and researchers can do that but one thing in particular that I'll mention that doesn't get a whole lot of attention but should is what we call multiple cause data. Now I talked about underlying cause information before and the basic official national statistics are based on underlying cause. But multiple cause information is important. We record all of the causes that are reported on the death certificate. So we record that entire causal sequence that's reported and we also record any contributing conditions as well. And so there's a lot I think of good information in those multiple cause fields that can be used and one thing that we've just begun to start looking at in the last several years is specific drug information which is gleaned from that, from those multiple cause fields. The underlying cause may be due to overdose due to heroin or whatever but there may be multiple drugs reported or there may be some other information in there that can be useful in those multiple cause fields. So that's something that we don't typically publish on – it's quite complicated to present a statistical picture based on multiple cause but that could be very useful I think from a research standpoint.

HOST: Join us next week for part four of our discussion with Dr. Robert Anderson on death certificate data in the United States

HOST: What happens in the instance if the certifiers cut corners or fill out the death certificate quickly and maybe leave out certain things...how does that impact the data?

ROBERT ANDERSON: Well there are really two issues that we see with cause of death certification, two main issues. Sometimes certifiers leave out the underlying cause and sometimes that they will provide an underlying cause but not provide sufficient details. So for example we see sometimes acute kidney failure as the cause of death. There would be a lot of other causes of death that would be applicable here but acute kidney failures is I think illustrative. In most cases this is probably not incorrect – the decedent may very well have died from acute kidney failure but it's not really enough information. Acute kidney failure is typically caused by something else and we need to know what that underlying cause was. Was it diabetes? An infection? High blood pressure? Or some specific disease affecting the kidney? There are bunch of things that can cause acute kidney failure. We need to know that information. We didn't know what that underlying cause was because that's what we want to focus on from the public health standpoint.

HOST: Is there anything that can be done when this sort of thing turns up? I mean, is there any follow up or once its complete basically that's what we have to deal with?

ROBERT ANDERSON: Well unfortunately once it's complete that's generally what we have to deal with. In an ideal world, all death certificates get reviewed by an expert and information is correct or added as appropriate. Unfortunately, resources are such that that's not a practical solution. So very often we just have to deal with what's given to us. Yeah, we also deal with this issue where the underlying cause may be provided we don't get sufficient detail and drug overdoses provide a good example of where the lack sufficient detail is a problem. In these cases, sometimes we'll simply see just "drug overdose" or "multi drug toxicity" reported on the death certificate. And again, while this is probably not incorrect, we really need to know which drugs were involved. If all we get is "drug overdose" we don't know - was it a heroin overdose? Was it a fentanyl overdose? And knowing which drugs were involved helps us to better understand the nature of the public health problem that we're dealing with.

HOST: Usually, when you have a high profile person dying of an overdose there's often a long period where they're waiting for the toxicology report. Does that restrict certifiers getting details like that for the death certificate?

ROBERT ANDERSON: It really doesn't. In most instances when a death investigation is required it's going to take more than a few days. The cause of death can be certified pending investigation. And so that's typically the way these are handled - the medical examiner or coroner who deal with the drug overdose deaths, they will file the death certificate with the cause and manner of death pending investigation. And then, so we will get actually that fact of death with pending cause in a very timely manner. Then once the death investigation is done, the medical examiner or coroner can go into the system and update the cause of death - that's actually the way they're supposed to do it, they go in, they amend the certificate with the new cause of death information and then that information is transmitted to us. So, while we may get the fact of death in a very timely fashion for drug overdose deaths, we very often don't get cause of death until maybe three to six months later.

HOST: So the data that NCHS ultimately publishes - that's coming from all the death certificates in the country that are recorded. It's not just a sample of death certificates like we would get with a survey sample for example, is that right?

ROBERT ANDERSON: That's right. Yeah, we don't do, we're not sampling data here. All deaths are required to be registered and we collect all of these from the states for the national statistics. Now, that doesn't mean that when we publish information that we necessarily have all of them in that moment. We do publish some provisional data that are incomplete. Our final statistics are based on all deaths registered and sent to us by the states.

HOST: Before we get to the provisional vs. final topic, can you - I know the number changes each year - but how many death certificates are we talking about roughly each year?

ROBERT ANDERSON: We're talking about in the most recent years about 2.8 million - 2.8 million deaths in a year.

HOST: Right. And so as the population grows you're going to see more of a volume to go through.

ROBERT ANDERSON: Yeah that's certainly what we've seen. I mean not only has the population been growing but the population has been aging somewhat and of course an aging population means more deaths as well because older people are more likely to die. So yes we have been seeing increases in the total number of deaths over time even though in most instances the death rate has come down.

HOST: Right. And the death rate is the number of deaths per a certain number of population is that right?

ROBERT ANDERSON: That's correct. Yeah, usually .for mortality we characterize it as deaths per 100,000.

HOST: Join us next week for part three of our discussion with doctor Robert Anderson on death certificate data in the United States.

HOST: Now let's turn to this week's releases from NCHS. A new report out on Wednesday presents body measurement data for Americans, using data from the 2015-2018 National Health and Nutrition Examination Survey. The data showed that an average man in the United States stands 5 foot 9 inches tall and weighs around 200 pounds while the average woman is 5 foot 3 ½ and weighs about 171 pounds. This anthropometric reference report includes data on height weight body mass index and other measurements by gender and by age.

Also on Wednesday, the latest monthly provisional data on drug overdose deaths in America was released. This release covers the one-year period ending in June of 2020, and the impact of the pandemic on drug abuse in the country is reflected in the new numbers. An estimated 83,335 Americans died from drug overdoses in the 12 month period ending in June of 2020 - a staggering 21.3% increase from the year before. Increases were observed in all states but four: Idaho, Nevada, New Hampshire, and North Carolina. Opioid deaths top 60,000 during this period, with fentanyl and other synthetic opioids accounting for two-thirds of those opioid deaths. Methamphetamine and other psychostimulants accounted for over 20,000 drug overdose deaths, and cocaine deaths topped 19,000 for this period. Keep in mind that many overdose deaths involve a combination of these and other drugs or alcohol.

On Thursday, NCHS released its latest provisional quarterly data on death rates in the United States, through June of 2020. The overall death rate in the U.S. increased in the 12 months ending in June 2020

to nearly 754 deaths per 100,000 - up from 714 per 100,000 the year before. The increase in the overall death rate reflects the arrival of the pandemic in the U.S., and the release features the first estimated death rate for COVID-19, in Quarter 2 of 2020. The Quarter 2 death rate for COVID-19 was nearly 109 deaths per 100,000 population. To put that into context, the Quarter 2 death rate for cancer, which is the 2nd leading cause of death in the U.S., was a little over 139 deaths per 100,000. This latest release contains several new features, including data by age gender and state.

