

## TRANSCRIPT

**HOST:** Death certificates serve a very important legal purpose in the United States. The death certificate is the only legal proof that a person has died, and the State uses it to stop social security payments, pensions, and other benefits. Families use the death certificate to settle their affairs. Reporting of death began back at the dawn of the 20<sup>th</sup> century – in 1900 – and the information required on death certificates has helped monitor and reflect how society is changing. But there is also a vital role that death certificate information plays in public health as well.

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

**HOST:** So data from the death certificate has guided public health policy for now over a century. Can you touch on a few historical examples of how these data has informed and guided public health over the years?

**ROBERT ANDERSON:** They've been used to surveil influenza mortality for quite a long time and also to document and track deaths due to epidemics including HIV, drug overdoses, and most recently COVID-19.

**HOST:** This goes back to the beginning of the 20th century - so how is the information that's required on the death certificate, how has that changed over the years?

**ROBERT ANDERSON:** Well every so often the U.S. standard certificate of death is revised, and this is a guidance document that is produced in collaboration with state vital registration offices to sort of standardize the information on the death certificate and there have been changes over time. The cause of death section was revised some 60, 70 years ago to elicit a more useful underlying cause of death. We've had additions to information on race and Hispanic origin that have been added over time. Most of the other demographic information has pretty well stayed the same from the beginning. What the overall content of the death certificate has shifted slightly over time to give us an additional information that's useful to us from a public health standpoint. And of course we've been better able to retain information as we moved into the electronic age as storage of data has improved and gotten cheaper. We've been able to retain more information than bring to in the past.

**HOST:** So for those who aren't familiar with the process, could you sort of walk through that, from the moment a person dies to the endpoint when NCHS actually publishes analysis of the death certificate data? Could you sort of walk us through what happens?

**ROBERT ANDERSON:** Yeah when a person dies, state laws require that a death certificate be completed and registered. And then typically, the funeral director starts the record and provides personal and demographic information about the decedent. Then a physician, medical examiner, coroner -- depending on the circumstances -- provides the cause of death information. Now, in most cases, these days this is done electronically using electronic death registration system. Most states have these electronic systems and in those states most of the records are filed and registered electronically. Now once the death is registered with the state, the statistical information from the death certificate is then sent to NCHS which incorporates it into the national data file. National Statistics have been generated from that data file and then the data and statistical reports are released to the public when they're all ready to go.

**HOST:** So the people who actually fill out the death certificates -- these are doctors, medical examiners, coroners -- they're trained to follow certain steps when they fill out the certs. Can you explain a little bit about the steps they're supposed to follow?

**ROBERT ANDERSON:** Sure, yeah you know the physicians, medical examiners, and coroners they're the ones that provide the cause of death information, so the funeral directors typically provide the demographic information and that's generally straightforward. The cause of death, however, is not as straightforward. The death certificate is really designed to elicit an underlying cause of death and the underlying cause of death is defined as the disease or injury that started the chain of events leading to death. And this is considered to be most useful information from a public health standpoint. The idea is that if we can prevent the underlying cause, then we can stop that chain of events from happening altogether. So the physician, medical examiner, and coroner -- and the physicians will typically certify the cause of death when that cause is natural, the medical examiners and coroners typically handle injury-related deaths, suspicious deaths or deaths where the decedent wasn't attended by a physician. So these folks are instructed to report a causal sequence beginning with the immediate cause and then working back to an underlying cause. So for example, we might see a chain of events such as acute respiratory distress due to chronic obstructive pulmonary disease. So acute respiratory distress would be the immediate cause of death and then the COPD - the chronic obstructive pulmonary disease - would be the underlying cause of death. The idea is that the COPD caused the acute respiratory distress, which caused death and so the main focus is going to be on that COPD, rather than the acute respiratory distress, because we want to get at that underlying cause. The certifiers are also asked to include any other conditions and diseases that may have contributed to death but were part of that causal sequence.

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

**HOST:** Now it's time to take a look at new data released this week by NCHS. A new report on Tuesday shows that one out of 10 emergency department visits in the United States involves some form of respiratory illness. The report uses comparable years of data from the National Hospital Care Survey and the National Hospital Ambulatory Medical Care Survey. Also on Wednesday, the latest data from the Household Pulse Survey was released, documenting that nearly 40% of adults delayed or did not receive needed medical care in the last four weeks because of the ongoing pandemic. The data were collected from December 9th through the 21st and represent an increase from data collected in October. Over 42% of adults experienced symptoms of anxiety or depressive disorder, or both, in the last week. Over 56% of adults ages 18 to 29 have experienced these symptoms. And over 12% of adults say that they needed mental health counseling or therapy but did not get it in the past four weeks.