

**HOST:** We're joined today by Merianne Spencer, the author of a new [study](#) on accidental drowning deaths among children in the United States.

**HOST:** So briefly describe to us the scope of the problem.

**MERIANNE SPENCER:** Sure. So unintentional drowning deaths are the second leading cause of injury death among children, those aged zero to 17, and is also the leading cause of unintentional injury deaths for those ages one to four, so for this study we wanted to look at national trends from 1999 to 2019 by demographic characteristics and also by urban-rural status to see what the patterns were over the past two decades among children.

**HOST:** So you say that drowning deaths are the second leading cause of unintentional death among kids - what was the leading cause of unintentional injury deaths in that age group?

**MERIANNE SPENCER:** The leading cause of death for unintentional injuries is motor vehicle traffic deaths, followed by drowning and then poisoning and then suffocation. But it's important to note that motor vehicle traffic deaths are much higher. In 2019, there were almost 2000 deaths whereas for drowning there were pretty much half the amount. Motor vehicle traffic deaths is much higher.

**HOST:** How has this problem changed over time?

**MERIANNE SPENCER:** So over the past two decades drowning deaths have decreased - roughly a 38 percent decline over the past two decades.

**HOST:** Do we have any idea why drowning deaths have declined over the past two decades? Are there any CDC programs that are targeting this problem?

**MERIANNE SPENCER:** Looking at prevention programs, the National Center for Injury Prevention and Control - they provide a lot of information about the prevention of drowning, including pool safety, swimming safety tips and other considerations for water safety within the home. I would also look to prevention resources such as "Safe Kids Worldwide" and the "World Safety USA Network" but there are various programs that have been looking at improving safety for drowning among children and targeting that public health issue.

**HOST:** Now one would assume that drowning deaths tend to spike during the summer months - is that an accurate assumption? What did the data tell us about seasonality?

**MERIANNE SPENCER:** There's definitely a seasonality with respect to driving death. So typically, the number of unintentional drowning deaths are lowest during colder months such as January or December, as well as in the Fall. The number of deaths tend to rise sometime in April and they peak around June and July and decrease as it goes towards September. So yes, it is an accurate assumption that there is a spike in around the warmer months when children might be swimming or going to the pool.

**HOST:** So which groups are more at risk for drowning deaths?

**MERIANNE SPENCER:** Our study found that males are definitely at greater risk for unintentional drownings - they had higher rates of unintentional drowning deaths over the past two decades compared to females. We also saw that those aged one to four had the highest rates of drowning compared to other age groups. So much higher among those aged one to four years of age. We also saw that rates were higher among non-Hispanic black children compared to non-Hispanic white children and Hispanics over the study period. And also we saw children were at higher risk for unintentional drownings in rural areas compared to urban areas.

**HOST:** And what did the data tell us about places that are most risky for kids in terms of being a potential drowning risk?

**MERIANNE SPENCER:** Our study found that death varied by age groups. So those that were less than a year of age had a higher percentage that died in a bathtub, whereas those that at age 1 to four or five to 13 had the greatest percentage of deaths in swimming pools and those aged 14 to 17 were more likely to die in natural water such as lakes, rivers, streams, or oceans. So there is definitely a difference by age group in the places where drowning deaths occurred.

**HOST:** Are there any plans for further studies on this topic?

**MERIANNE SPENCER:** We are interested in looking at those places of drowning by looking at the literal text or the written information on the death certificate records to see if we can get a little bit more information. Currently the study is focused on using the ICD-10 codes to look at places of drowning but maybe we can get some more insight about this finding in a future study.

**HOST:** You mentioned the literal text - that's the same kind of technique that's been used on some studies looking at the types of drugs involved in overdose deaths is that correct?

**MERIANNE SPENCER:** Yes that's correct. So by looking at the written information by medical examiners and coroners we might be able to tease out some information beyond the coding on ICD-10 codes or get more specificity on the place of drowning or some context around the drowning deaths so that's something we might be looking into for a future study for this topic.

## MUSICAL BRIDGE

**HOST:** This week, NCHS released the first, [full-year provisional data](#) from 2020 on drug overdose deaths in America. The new release shows a nearly 30% increase in deaths, from over 72,000 estimated deaths in 2019 to more than 93,000 deaths in 2020.

Three-quarters of all overdose deaths involve opioids – or nearly 70,000 deaths. Much of the 2020 spike was the result of increases in deaths from synthetic opioids, primarily fentanyl. Deaths from psychostimulants such as methamphetamine also continued to increase in 2020, as did deaths from cocaine and from natural and semi-synthetic opioids such as prescription pain medication.

The first 2021 data on overdose deaths will be released in August of this year.