

HOST: Drug abuse in the United States has taken a devastating toll on society. Nearly 92,000 Americans died of a drug overdose in the one-year period ending in October 2020, according to recent provisional data. Over 823,000 Americans have died of an overdose since the year 2000. Along the way, there's been a great deal of collateral damage from drug abuse as well. One topic that researchers have been exploring is the impact of the drug epidemic on fertility in the country, and this week NCHS released a [study](#) on drug-related infant deaths over a three-year period.

Joining us today is the author of that new report, Danielle Ely, from the NCHS Reproductive Statistics Branch.

HOST: In your report, how did you define drug-involved infant deaths?

DANIELLE ELY: For our report, we used a pretty standard definition of drug involvement. Drug-involved infant deaths are those deaths that were due to drug involvement as either the underlying or a contributing cause of death. So for infants, this means the death could occur due to accidental or unintentional ingestion of select prescription, illicit, or non-medical use of drugs. It could also include death due to maternal use of drugs, and it could include other cases where drugs were indicated with the death.

HOST: How common are drug-related infant deaths?

DANIELLE ELY: Well thankfully, these drug related infant deaths are relatively uncommon. So in our study - and granted we were only looking at a select type of prescription, illicit or non-medical use drugs -- but less than 1% of infant deaths from 2015 through 2017 were drug-related.

HOST: You looked at three years of data - is there any sense of whether this has increased or declined over time?

DANIELLE ELY: One of the reasons we were interested in doing this research is because nearly all of the research on drug deaths focuses on adults. And so to our knowledge, this is the first report that really identifies drug involved infant deaths. Because of that we can't really say if there's been an increase or decrease - the numbers are so small, even for those three years. But what we do know is that drug overdose deaths for adults tripled from 1999 to 2017 so it's very possible that over time infant drug involved deaths would have a similar pattern of increase, but we don't have the data or the research completed to be able to say that for sure.

HOST: So which drugs are most likely to be involved in these deaths?

DANIELLE ELY: The drugs that were most frequently mentioned on the death certificate literal fields that we reviewed were methamphetamine, opioids, opioid treatment drugs like methadone or naloxone, as well as cocaine and cannabis or cannabinoids.

HOST: Is that exclusively those drugs or could they be in combination with one or more drugs?

DANIELLE ELY: There were many records that had multiple drugs mentioned - and those aren't the only drugs that were involved with the infant drug-related deaths. However, those were just the most frequently mentioned. There were also cases of, I believe it was benzodiazepines and hallucinogens - a few others I believe - but different stimulants.

HOST: What complications in these infants most often lead to death?

DANIELLE ELY: It's really hard to say if there are specific complications that lead to death. However, one of the things that we did look at in the report were those drug-involved deaths that we consider drugs as the underlying cause of death and those that we consider drugs of contributing cause of death. So the most common cause of death for infants with drug involvement as an underlying cause of death would have been the newborn was affected by maternal use of drugs of addiction. And for that there were just under 90 instances - infants that died with that as the underlying cause of death. So for those cases where drugs were considered a contributing cause of death, "newborn affected by other forms of placental separation and hemorrhage" was the most common cause of death. And for that there were 43 infants that died with that underlying cause of death.

HOST: What type of characteristics are most common among mothers in these deaths?

DANIELLE ELY: Compared with mothers of infants who died from all other causes, compared with the infants who died from drug-involved causes, their mothers were more likely to be non-Hispanic white, mothers were also more likely to be age 35 to 39, have lower educational attainment so they might have a high school degree or less, the mothers whose infants died of drug-involved causes were also more likely to use Medicaid as the source payment for delivery, and they were less likely to receive prenatal care, so they received late or no prenatal care at all compared with the mothers of infants who died from all other causes.

HOST: And what about geography, in particular the urban-rural breakdown. Do we have any sense of what any sort of geographic differences there are?

DANIELLE ELY: We didn't look at rural-urban differences, largely because there were so few infant deaths to begin with it didn't necessarily lend itself to looking at a range of rural-urban areas.

HOST: Are there any data to determine how many of the mothers were addicted to drugs versus those who just use drugs recreationally?

DANIELLE ELY: That's very complicated. I know I mentioned before the most common cause of death being the newborn affected by maternal use of drugs of addiction. We don't have the data that has information on the type of drug use of the mother, so we don't know how many of these mothers may have been addicted drugs or those who use recreationally or on occasion.

HOST: I think it's important to at least introduce that just so people don't run in one direction or another. Are there any other data on adverse effects among infants mothers who use drugs during pregnancy but who survive?

DANIELLE ELY: A few states do collect data on “neonatal abstinence syndrome” and neonatal abstinence syndrome is a range of effects of drug withdrawal, and particularly that from opioids for infants after birth, but there really is no national data that I am aware of on all of the potential adverse effects for infants of mothers who use drugs during pregnancy or for all drugs or the outcomes.

HOST: And in any case you didn't tackle that in this report.

DANIELLE ELY: Certainly not - that is beyond the scope of our data.

HOST: What can be done to reduce or prevent this type of tragedy?

DANIELLE ELY: Really, the first step in reduction or prevention of any type of infant death is to identify a potential problem and the risk factors that might also be related to that problem. Really, that's what we were trying to do with this report. As I mentioned before, nearly all research has been focused around drug deaths for adults rather than infants, so we were really trying to find if there is a problem here, and if there are cases, which we found, which infants might be more likely to be impacted or rather to say which mothers or families might be in circumstances where this could be a potential problem.

HOST: I guess I'll ask you then - is there anything about your report, any findings in your report that we didn't talk about that you'd like to mention?

DANIELLE ELY: I think the biggest thing to take away from this would be that there are drug-involved infant deaths, but thankfully it is a relatively small number and we know that while some states have programs to help mothers who might have addiction or be using drugs, that not all mothers are able to necessarily get help during their pregnancy or after. So those who have expertise with drug use, and maternal drug use in particular, might be able to take some of this to determine appropriate policies or interventions.

HOST: Our thanks to Danielle Ely for joining us on this edition of “Statcast.”