Keeping Kids Alive in Virginia

Poisoning Deaths in Virginia Infants and Young Children: A Preliminary Overview from the State Child Fatality Review Team February 2016

Since 2000, the rate of deaths from drug overdoses in the United States has increased 137%.[1] In Virginia, the number of drug overdose deaths increased 14.7%—a statistically significant change—from 2013 to 2014.[2] This alarming trend led Virginia's State Child Fatality Review Team to question how children are being affected by this public health epidemic.

Team members reviewed all 41 child deaths due to poisoning from 2009-2013 in Virginia to identify risk factors and develop ideas for prevention and intervention. While the majority of the decedents were teenagers, 15 of those decedents (37%) were infants or young children. This report highlights preliminary findings from the review of those 15 deaths to children aged 0-6 years old.[3] The Team determined that **80%** of these deaths were **preventable** and identified five key themes in its review of infant and young child deaths.

After teens, children most at risk of poisoning deaths are infants and toddlers, particularly those in homes where a parent or caregiver has a history of substance abuse.

- Most of the 15 children who died were infants or toddlers: 2 were infants (<1 year old), 4 were one year old, 4 were two years old, and 3 were three years old. One child was five years old and 1 was six years old.
- 47% of these children were white, 47% were black, and 7% were Asian.
- A slight majority (60%) of the decedents were male.
- The decedent child's caregiver(s) had a substance abuse problem in 8 cases, or 53%. In 2 of these cases, the caregiver(s) had received treatment for their problem.

Circumstances of infant and toddler poisoning deaths are often poorly understood.

- While the cause of death in all 15 cases was related to poisoning, the manner is often less clear.
- Nearly half (47%) of these poisoning deaths were ruled undetermined[4] by the Office of the Chief Medical Examiner. 40% were ruled accidental and 13% were homicides.

Infant and toddler deaths occur in homes where parents and caregivers are using prescription drugs.

- The majority of these infants and children (9, or 60%), died after ingesting prescription medication. Prescription medications included narcotics, analgesics, anti-anxiety medications, antidepressants, anti-psychotics, muscle relaxants, stimulants, and anti-emetics.
- Prescription medications were prescribed to a family or household member in 4 cases, and came from a friend of the family or a dealer in 3 cases.

[1]Rudd, R.A., Aleshire, N., Zibbell, J.E., & Gladden, M. (2016). Increases in drug and opioid overdose deaths—United States, 2000-2014. MMWR January 1, 2016. 64 (50); 1378-82. Retrieved from: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6450a3.htm.

[2]Ibid.

[3]The State Child Fatality Review Team's preliminary report on adolescent overdoses, released in May 2015, can be found at: http://www.vdh.virginia.gov/medExam/pdf/Adolescent%20Overdose%20Deaths%20Preliminary%20Report.pdf

[4]Undetermined manner means that the death investigation suggested no definitive circumstances to clearly distinguish between an accidental poisoning and a homicide. At the same time, poor supervision by parents and caregivers is also likely a factor in declaring these deaths undetermined in manner.

- Over-the-counter medications included acetaminophen and diphenhydramine, which caused one death and contributed to the death of another. Other fatal substances included massage oil, fluoride from toothpaste, and carbon monoxide from car exhaust.
- In all 15 cases, the child died from a poison that originated in his or her home.

Most infants and toddlers who die from poisoning have recently seen their pediatrician and almost half are known to Child Protective Services prior to their deaths.

- Thirteen of the 15 children had visited their pediatrician at least once in the past year. Pediatric charts noted red flags about parent/caregiver substance use or misuse in 2 cases.
- Six of the children who died and each of their 6 caregivers were known to Child Protective Services. This reflects 40% of the families in this review.
- Of these 6 children, 5 had been the subject of prior family assessments. One caregiver had been the subject of a family assessment for a different child. The number of family assessments totaled 20 over 6 cases and varied from 1 to 9 per case.
- In 2 cases, the decedent had been the subject of a prior CPS investigation, and both of these prior investigations were founded for child abuse or neglect. In 3 cases, a prior CPS investigation resulted in an unfounded disposition.

The State Child Fatality Review Team determined that two primary keys to prevention are supervision of infants and young children by their parents and caregivers, and safe storage and administration of medications and potentially lethal household products.

- The Team determined that 13 (87%) infants and young children were not adequately supervised by a parent or caregiver at the time of the fatal ingestion of poison.
- Three medications were stored in an open area such as on a counter or in an unlocked closet, 2 were being kept in a purse out in the open, and 1 was in a container kept under a pillow. In one case, the decedent child drank from a container in which the poison had dissolved. This container had been left out in the open.
- Investigation of the deaths by local law enforcement, Child Protective Services, or by the medical examiner revealed that the child had found, accessed, and taken the poison on his or her own in 7 cases (47%). A parent or legal guardian administered the substances in 5 other cases. How the child got access to the poison was not known in 3 cases.
- In 6 cases, parents/caregivers knowingly administered a medication not prescribed to the child, an incorrect dosage of a prescribed medication, or medication not intended for children of that age to the decedent and/or to other children in the home. Four parents/caregivers had a history of doing this and, in 2 cases, others knew about these actions.
- Death investigation revealed that parents/caregivers administered these medications to get children to sleep or to manage their behavior.

Prepared on behalf of the Virginia State Child Fatality Review Team by
Emily Womble, Child Fatality Review Coordinator
http://www.vdh.virginia.gov/medExam/ChildFatality.htm