



Unintentional Poisoning and Prescription Drug Overdose Prevention

Issue

In Oklahoma, unintentional poisoning (UP) is the leading cause of injury death, surpassing motor vehicle crashes. Of the more than 5,300 UP deaths in Oklahoma from 2007 to 2014, 77% involved at least one prescription drug. Prescription painkillers are the most common class of drugs involved in overdose deaths (86% of prescription drug-related deaths, with 427 opioid-involved deaths in 2014). The most common medications involved in UP deaths are oxycodone, hydrocodone, alprazolam, methadone, and morphine. More UP deaths involve hydrocodone or oxycodone than alcohol and all illicit drugs combined. Adults aged 35 to 54 years have the highest death rate of any age group for both prescription and non-prescription-related overdoses. However, adults aged 55 and older had the largest increase in unintentional prescription drug overdose (PDO) death from 2007 to 2014. Although males had higher rates of UP death overall, females aged 45 years and older had higher unintentional PDO-related mortality rates than males in this age group. Mortality rates decreased for teens and adults less than 45 years of age from 2007 to 2014, but more than doubled for adults aged 55 and older. Additionally, counties with the highest death rates were located in rural areas of the state.

Intervention

The Injury Prevention Service (IPS) focused on reducing the rate of UP deaths by: 1) increasing awareness of UP; 2) enhancing data and knowledge about poison exposures and circumstances of the events; 3) capitalizing on partnerships formed in the Prescription Drug Planning Workgroup commissioned by the Oklahoma Prevention Leadership Collaborative to strengthen prevention efforts; 4) increasing the use of evidence-based injury prevention interventions statewide; and 5) maintaining a naloxone distribution program for emergency medical services (EMS) personnel. (Naloxone is an opioid antagonist that almost immediately reverses the effects of an opioid overdose.)

Impact

The IPS maintained one naloxone distribution program for EMS personnel; identified 20 opportunities to disseminate information on UP deaths due to PDO; collected and disseminated data obtained from medical examiner reports on UP deaths; provided technical assistance to organizations and communities on prescription drug abuse/overdose prevention; and collaborated with partners to update the state plan, *Reducing Prescription Drug Abuse in Oklahoma*. Additionally, the IPS reconvened the Opioid Prescribing Guidelines for Oklahoma Workgroup to update Oklahoma's opioid prescribing guidelines.

Quotes

The naloxone trainings have had a positive response, especially among rural agencies. One first responder noted, "We are a basic service and have a large rural area we cover, with time from scene to the emergency room being 45 minutes or longer." Equipping first responders with this life-saving medication is a great step toward reducing overdose deaths for all Oklahomans. As another first responder noted, "This is an epidemic that every healthcare and public servant should be trained to handle."

Naloxone Case Studies

A toddler was at home with their parents and ingested oxycodone, a prescription painkiller, that was sitting on a coffee table. The toddler started becoming unresponsive and the parents called 911. Upon arrival of EMS, the toddler was barely breathing and turning blue. Emergency medical personnel administered naloxone. In less than one minute the toddler was regaining color and breathing normally.

A middle-aged man went to the dentist for a procedure and was given tramadol for pain control. He was in significant pain and took more pills than were prescribed; 911 was called when he experienced problems. Upon arrival at the scene, first responders found the patient turning blue and going in and out of consciousness. First responders administered naloxone, and within two minutes, the patient was responsive and alert.

An older adult female had undergone back surgery the day before and was sent home with hydromorphone, an opioid painkiller. A family member found her lying on the sofa and not breathing well. An empty pill bottle was also found lying nearby. EMS was called and administered naloxone upon arrival. Within two minutes, the woman was responsive and breathing again.