

# Public Health Practice Stories from the Field



## North Carolina Examines Methadone Deaths within the Medicaid Population

**33%**

of people who died from overdose in 2007 in the state were enrolled in Medicaid

**33%**

of overdose deaths among Medicaid patients were associated with methadone

**27%**

had a legitimate Medicaid-paid prescription or administration at a methadone clinic one year prior to death

**6x higher**

incidence of drug dependence among methadone-related deaths compared to the general Medicaid population

Medication overdose has become one of the leading causes of unintentional injury-related deaths in the United States over the last decade. In North Carolina, unintentional overdose death rates have consistently exceeded the national average and more than doubled from 2000 to 2007, increasing from 4.8 to 9.9 per 100,000 population. In 2007, the majority of North Carolina's overdose deaths were caused by narcotic pain relievers (i.e., opioid analgesics), with methadone accounting for 34.1% of deaths.

The North Carolina State Center for Health Statistics collaborated with the state's Division of Medical Assistance, which administers Medicaid services, to examine medical and prescription drug claims among persons on Medicaid in North Carolina. The Medicaid population was selected for this study because of 1) the availability of medical claim data and 2) the higher prevalence of prescription painkiller use among lower income and Medicaid populations. The study's objective was to gain a better understanding of unintentional overdoses and the role methadone played in these deaths.

Results from the study can be used to guide Medicaid pharmacy policy to help reduce the chances of overdose among Medicaid recipients.

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### What We Did

The study examined prevalence, population characteristics, prescription trends, and medical care services associated with unintentional overdoses and methadone deaths. An analyst from the State Center for Health Statistics examined data from North Carolina's 2007 electronic death certificate file, identifying 901 persons who died of unintentional overdoses. Of those, one-third had been enrolled in Medicaid. Methadone was a contributing cause of death for 98 (33%) of those Medicaid patients.

The analyst retrieved and examined all claims associated with those enrollees using sets of drug codes supplied by the Clinical Policy and Programs Section of the North Carolina Division of Medical Assistance. In addition, a clinical policy analyst checked for methadone prescriptions from cash payments, as well as providers other than Medicaid, using the North Carolina Controlled Substance Reporting System. Results were compared with a random sample of the Medicaid population.

### What We Accomplished

The study provided key insights into the dynamics of methadone abuse and overdose in North Carolina, with important implications for policy. The study revealed that

- Medicaid patients were at a higher risk for methadone overdose than the general population.
- Only 27% of Medicaid patients who had died of methadone overdose had obtained methadone through Medicaid in the year before their death.
- Approximately 38% of decedents had received a prescription for oxycodone with acetaminophen (15% in the comparison sample) in the year before their death.
- About 48% of the decedents had medical claims for a mental health disorder in the year before their death (21% in the comparison sample), and 24% had a primary diagnosis for drug dependence (4% in the comparison sample).

### What We Learned

This study provided North Carolina with a greater awareness of the problems and issues associated with methadone overdose deaths. Although much attention has been given to methadone overdoses among people with legitimate prescriptions, one unexpected finding was that only one in four persons who died of methadone-related causes had a Medicaid-paid prescription for methadone or receive Medicaid-paid methadone clinic services. This finding suggests that a large proportion of the methadone deaths in North Carolina occurred as a result of taking methadone that was unauthorized or purchased illegally.

Given the proportion of decedents with a history of substance abuse or mental health disorders, the findings also suggest that some methadone deaths might be more closely associated with those problems than with routine medical care for pain management.

As a result, policy makers now have a stronger understanding of the dynamics of this complex epidemic and how it affects vulnerable Medicaid patients.

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