Results

• The total number of unintentional drug poisoning deaths rose from 238 to 1,000 from 1999-2009.
• The age-adjusted unintentional drug poisoning death rate increased from 2.4 to 10.0 per 100,000 population in Michigan between 1999 and 2009.
• From 1999 to 2009, the unintentional drug poisoning death rate increased across all demographic categories (Table 1).
• In 2009, the unintentional drug poisoning death rate was almost two times higher among men (13.2 per 100,000) than women (6.8 per 100,000).
• Although the unintentional death rate in 2009 was higher among blacks than whites, the rate change during 1999-2009 was largest among whites.
• Adults aged 45 to 54 years had the highest death rate in 2009, however the greatest rate change occurred among adolescents and young adults aged 15 to 24 years during 1999-2009.
• The unintentional drug poisoning death rate for opioid analgesics increased 734.6% during 1999-2009, while the death rate for heroin and cocaine increased by 487.8% and 203.9%, respectively (Figure 1).
• Unintentional drug poisoning death rates increased over the past decade in Michigan, similar to national reports 4.
• Unintentional drug poisoning death rates varied across the state, with the southeast portion of the metropolitan Detroit area having the highest rate (12.9) and Mid-Michigan having the lowest rate (6.3) in 2009 (Figure 2).

Table 1. Unintentional drug poisoning death rates by demographics, Michigan residents, 1999-2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Overall</th>
<th>Sex</th>
<th>Rate Change 99-09</th>
</tr>
</thead>
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<td>3.4</td>
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<tr>
<td>2000</td>
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<td>6.3</td>
<td></td>
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<tr>
<td>2001</td>
<td>10.0</td>
<td>13.2</td>
<td></td>
</tr>
<tr>
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<td>6.8</td>
<td>6.8</td>
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<tr>
<td>2003</td>
<td>4.7</td>
<td>4.7</td>
<td></td>
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<tr>
<td>2004</td>
<td>11.3</td>
<td>2.4</td>
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</table>

1. Rate per 100,000 population age-adjusted to the 2000 U.S. standard population.

Discussion

• Unintentional drug poisoning death rates increased over the past decade in Michigan, similar to national reports 4.
• The rate of unintentional drug poisoning deaths due to opioid analgesics increased more than heroin and cocaine.
• The increase in unintentional drug poisoning deaths closely paralleled the increased availability of opioid analgesics statewide 2.
• Michigan does not have a centralized statewide medical examiner system, thus a limitation of the findings is that drug testing varies based on county.
• Prevention and treatment providers should be aware of the increasing risk of unintentional drug poisoning among 15-24 year olds and implement targeted interventions such as education and awareness of proper use of prescription drugs.

References