Appendix 14: Obtaining Data on Opioid Poisoning

Obtaining Hospital Data on Nonfatal Opioid Poisoning

Data on the number of nonfatal opioid overdoses can often be obtained from hospitals serving your community. Forming relationships with hospital administrators is an important first step in determining how to gain access to these records.

There are three sources of data on nonfatal acute care hospital discharges associated with opioid poisoning:

- Mass. Inpatient Database
- Mass. Outpatient Observation Stay Database
- Mass. Emergency Department Discharge Databases operated by the Mass. Division of Health Care Finance and Policy

These hospital discharge records document information on the nature of case based on International Classification of Disease (ICD) codes. Working in collaboration with hospital administrators and database staff, you can obtain more current data on nonfatal opioid poisonings than are available at the state level (due to time lags in aggregating these data at the state level).

The three databases capture billing, demographic, and discharge diagnosis data on all discharges at all Massachusetts acute care hospitals (excluding Federal, psychiatric, or rehabilitation hospitals). These data include all discharges from an inpatient, observation stay unit, or emergency department at all Massachusetts acute care hospitals that were associated with a discharge diagnosis of opioid poisoning.

The following ICD-9 diagnostic codes can be used to identify cases of nonfatal opioid poisoning:

- 965.0: Poisoning by opiates and related narcotics
- 965.00: Poisoning by opium (alkaloids), unspecified
- 965.01: Poisoning by heroin
- 965.02: Poisoning by methadone
- 965.09: Poisoning by opiates and related narcotics, other

The diagnostic codes do not, however, address the issue of intent (i.e., unintentional vs. intentional). Cases without an accompanying external cause of injury code (E-code) (meaning missing intent), those with E-codes in the range of E980.x through E989.x (meaning that it’s undetermined whether the injury was accidentally or purposefully inflicted), and cases with E-codes in the following ranges should all be included in the count of unintentional nonfatal opioid overdoses:

- E800–E807: Railway accidents
- E810–E819: Motor vehicle traffic accidents
- E820–E825: Motor vehicle nontraffic accidents
- E826–E829: Other road vehicle accidents
- E830–E838: Water transport accidents
- E840–E845: Air and space transport accidents
- E846–E849: Vehicle accidents, not elsewhere classifiable
- E850–E858: Accidental poisoning by drugs, medicinal substances, and biologicals
- E860–E869: Accidental poisoning by other solid and liquid substances, gases, and vapors
- E880–E888: Accidental falls
- E890–E899: Accidents caused by fire and flames
- E900–E909: Accidents due to natural and environmental factors
- E910–E915: Accidents caused by submersion, suffocation, and foreign bodies
- E916–E928: Other accidents
- E929–E929: Late effects of accidental injury

Special note: Cases with the following E-codes are included in the count regardless of diagnostic code:
- E850.0: Accidental poisoning by heroin
- E850.1: Accidental poisoning by methadone
- E850.2: Accidental poisoning by other opiates and related narcotics

**Obtaining Data on Opioid-Related Poisoning Deaths**

The source of data for opioid-related positioning deaths is the Massachusetts Registry of Vital Records and Statistics (MA-RVRS). The electronic death file maintained by the MA-RVRS contains death certificate data on all deaths that occur in the state. Included in this file are ICD codes on the underlying and associated causes of these deaths, which are generated from text on the death certificate.

A manual review of local death certificates can provide information on deaths for which overdose was a contributing or primary factor based on the text provided on the death certificate. In most communities, these records are housed with the Town Clerk or Registrar of Vital Records.

Although there is a time lag, data on deaths among Massachusetts residents due to poisonings (including drug overdoses) that were associated with an opioid, either alone or in combination with another agent, can be obtained. Begin with the following ICD-10 mortality codes, which can identify cases of accidental or undetermined fatal poisoning:
- X40–X49: Accidental poisoning by and exposure to noxious substances
- Y10–Y19: Event of undetermined intent
Since these codes are not specific to opioids, one or more of the following T-codes must also appear in the associated cause-of-death fields:

- T40.0: Opium
- T40.1: Heroin
- T40.2: Other opioids (Codeine, Morphine)
- T40.3: Methadone
- T40.4: Other synthetic narcotics (Pethidine)
- T40.6: Other and unspecified narcotics

As described above, more timely information can be obtained at the local level based on a manual audit of death certificates.
Introduction to ICD-9-CM and ICD-10 Codes Related to Poisoning and Pain

This guide provides a list of the International Classification of Disease (ICD) version 10 (ICD-10) and the ICD version 9 Clinical Modification (ICD-9-CM) codes for poisoning and pain. This list can be used to query databases featuring either morbidity (ICD-9-CM) or mortality (ICD-10) data.

This information is organized by type of poison and intent. For ICD-10, both underlying and contributing cause of death codes are given. For ICD-9-CM, both the diagnosis and external (E) cause of injury codes are provided. For value labels or definitions of each code, please download the complete matrices from the National Center for Health Statistics at [http://www.cdc.gov/nchs/icd.htm](http://www.cdc.gov/nchs/icd.htm)

Note that the Safe States Alliance’s Report, “Consensus Recommendations for National and State Poisoning Surveillance,” includes poisoning definitions broader than those used in the traditional ICD system, including codes for conditions commonly associated with chronic drug abuse. The ICD-9-CM and ICD-10 codes that correspond to those broader definitions can be found in the appendices of that report.

Please note that the ICD-9-CM codes for conditions causing pain included here were selected by the CDC Injury Center for research with insurance claims information. The codes have not been validated in any way. They should not be considered a recommendation for or a standard definition of conditions causing pain. NCIPC offers them for use by others with that understanding.

### Table 1: All Poisoning

<table>
<thead>
<tr>
<th>Category</th>
<th>Underlying Cause</th>
<th>Contributing Cause</th>
<th>Diagnosis</th>
<th>External Cause of Injury</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Poisoning</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All intents</strong></td>
<td>U01.6 U01.7 X40 X41 X42 X43 X44 X45 X46 X47 X48 X49 X60 X61 X62 X63 X64 X65 X66 X67 X68 X69 X85 X86 X87 X88 X89 X90 Y10 Y11 Y12 Y13 Y14 Y15 Y16 Y17 Y18 Y19 Y35.2 Y35.5 Y36.6 Y36.7</td>
<td>T36 T37 T38 T39 T40 T41 T42 T43 T44 T45 T46 T47 T48 T49 T50 T51 T52 T53 T54 T55 T56 T57 T58 T59 T60 T61 T62 T63 T64 T65</td>
<td>960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989</td>
<td>E850 E851 E852 E853 E854 E855 E856 E857 E858 E860 E861 E862 E863 E864 E865 E866 E867 E868 E869 E950 E951 E952 E962 E972 E975 E976 E980 E981 E982</td>
</tr>
<tr>
<td><strong>All Poisoning</strong></td>
<td>X40 X41 X42 X43 X44 X45 X46 X47 X48 X49</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unintentional</strong></td>
<td></td>
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</tr>
</tbody>
</table>

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### Table 2: All Drug Poisoning

<table>
<thead>
<tr>
<th>Category</th>
<th>Intent</th>
<th>Underlying Cause</th>
<th>Contributing Cause</th>
<th>Diagnosis</th>
<th>External Cause of Injury</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Poisoning</strong></td>
<td>Self-harm/Suicide</td>
<td>X60 X61 X62 X63 X64 X65 X66 X67 X68 X69</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Assault/ Homicide</td>
<td>X85 X86 X87 X88 X89 X90</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Legal intervention or operation of war</td>
<td>U01.6 U01.7 Y35.2 Y35.5 Y36.6 Y36.7</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Undetermined Intent</td>
<td>Y10 Y11 Y12 Y13 Y14 Y15 Y16 Y17 Y18 Y19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. For ICD-10, the death must have an underlying cause code among those shown. Contributing cause codes can then be used to indicate the specific poison involved, but they do not specify intent.

2. For ICD-9-CM, the event can have either an N code listed in the Diagnosis column OR an E code listed in the External Cause of Injury column. Only E codes specify intent.

3. The ICD-10 codes for “All Poisoning” underlying cause are those used by CDC WISQARS.
### Table 3: Sub-Categories of Drug Poisoning

<table>
<thead>
<tr>
<th>Category</th>
<th>ICD-10 Codes</th>
<th>ICD-9-CM Codes</th>
<th>Diagnosis</th>
<th>External Cause of Injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illicit drug poisoning</td>
<td>X40 X41 X42 X43 X44 X60 X61 X62 X63 X64 X85 Y10 Y11 Y12 Y13 Y14</td>
<td>T40.1 T40.5 T40.7 T40.8 T40.9 T43.6</td>
<td>Can’t be defined[^3]</td>
<td>Can’t be defined[^3]</td>
</tr>
<tr>
<td>Pharmaceutical poisoning[^4]</td>
<td>X40 X41 X42 X43 X44 X60 X61 X62 X63 X64 X85 Y10 Y11 Y12 Y13 Y14</td>
<td>T36 T37 T38 T39 T40.2 T40.3 T40.4 T41 T42 T43 T43.0 T43.1 T43.2 T43.3 T43.4 T43.5 T43.8 T43.9 T44 T45 T46 T47 T48 T49 T50.0 T50.1 T50.2 T50.3 T50.4 T50.5 T50.6 T50.7 T50.8</td>
<td>960 961 962 963 964 965.00 965.02 965.09 965.1 965.4 965.5 965.6 965.7 965.8 965.9 966 967 968.0 968.1 968.2 968.3 968.4 968.5 968.6 968.7 968.9 969.0 969.1 969.2 969.3 969.4 969.5 969.6 969.7 969.8 970.0 970.1 970.2 970.3 970.4 970.5 970.6 970.7 970.8</td>
<td>E850.1 E850.2 E850.3 E850.4 E850.5 E850.6 E850.7 E850.8 E850.9 E851 E852 E853 E854.0 E854.3 E854.8 E855.0 E855.1 E855.3 E855.4 E855.5 E855.6 E855.8 E855.9 E856 E857 E858.0 E858.1 E858.2 E858.3 E858.4 E858.5 E858.6 E859.0 E950.1 E950.2 E950.3 E980.0 E980.1 E980.2 E980.3</td>
</tr>
<tr>
<td>Prescription opioid poisoning</td>
<td>X40 X41 X42 X43 X44 X60 X61 X62 X63 X64 X85 Y10 Y11 Y12 Y13 Y14</td>
<td>T40.2 T40.3 T40.4</td>
<td>965.00 965.02 965.09</td>
<td>E850.1 E850.2</td>
</tr>
</tbody>
</table>
| Other pharmaceutical poisoning  | X40 X41 X42 X43 X44 X60 X61 X62 X63 X64 X85 Y10 Y11 Y12 Y13 Y14 | T36 T37 T38 T39 T40.2 T40.3 T40.4 T42 T43.0 T43.1 T43.2 T43.3 T43.4 T43.5 T43.8 T43.9 T44 T45 T46 T47 T48 T49 T50.0 T50.1 T50.2 T50.3 T50.4 T50.5 T50.6 T50.7 T50.8 | 960 961 962 963 964 965.1 965.4 965.5 965.6 965.7 965.8 965.9 966 967 968.0 968.1 968.2 968.3 968.4 968.5 968.6 968.7 968.9 969.0 969.1 969.2 969.3 969.4 969.5 969.6 969.7 969.8 970.0 970.1 970.2 970.3 970.4 970.5 970.6 970.7 970.8 | E850.1 E850.2 E850.3 E850.4 E850.5 E850.6 E850.7 E850.8 E850.9 E851 E852 E853 E854.0 E854.3 E854.8 E855.0 E855.1 E855.3 E855.4 E855.5 E855.6 E855.8 E855.9 E856 E857 E858.0 E858.1 E858.2 E858.3 E858.4 E858.5 E858.6 E859.0 E950.1 E950.2 E950.3 E980.0 E980.1 E980.2

[^1]: For ICD-10, the death must have an underlying cause code from among those shown. Contributing cause codes can then be used to indicate the specific type(s) of drug involved but do not specify intent.

[^2]: For ICD-9-CM, the event can have either an N code listed in the Diagnosis column OR an E code listed in the External Cause of Injury column. Only E codes specify intent.

[^3]: Can’t be defined
Illicit opioid poisoning (opium and heroin)
<table>
<thead>
<tr>
<th>Category: Illicit opioid poisoning (opium and heroin)</th>
<th>ICD-10 Codes</th>
<th>ICD-9 Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>X40 X41 X42 X43 X44 X60 X61 X62 X63 X64 X85 Y10 Y11 Y12 Y13 Y14</td>
<td>T40.0 T40.1</td>
<td>965.01 E850.0</td>
</tr>
</tbody>
</table>

All opioid poisoning (illicit and prescription)
<table>
<thead>
<tr>
<th>Category: All opioid poisoning (illicit and prescription)</th>
<th>ICD-10 Codes</th>
<th>ICD-9 Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>X40 X41 X42 X43 X44 X60 X61 X62 X63 X64 X85 Y10 Y11 Y12 Y13 Y14</td>
<td>T40.0 T40.1 T40.2 T40.3 T40.4</td>
<td>965.00 965.01 965.02 965.09 E850.0 E850.1 E850.2</td>
</tr>
</tbody>
</table>

1 For ICD-10, the death must have an underlying cause code from among those shown. Contributing cause codes can then indicate the specific type of drug involved, but they do not specify intent.

2 For ICD-9-CM, the event can have either an N code listed in the Diagnosis column OR an E code listed in the External Cause of Injury column. Only E codes specify intent.

3 Illicit drugs as a group are included in several ICD-9-CM codes that also contain pharmaceuticals, so they are difficult to isolate. Such codes have been omitted from the pharmaceutical codes. Their absence is not likely to have a large effect on overall rates of pharmaceutical poisoning.

4 “Pharmaceutical” is used as opposed to “prescription” drugs because a small number of codes include both prescription and over-the-counter drugs.

Table 4: Conditions Causing Pain

<table>
<thead>
<tr>
<th>Category:</th>
<th>ICD-10 Codes</th>
<th>ICD-9 Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intent</td>
<td>Underlying Cause</td>
<td>Contributing Cause</td>
</tr>
</tbody>
</table>

Appendix 14
140
| Chronic Pain | - | - | 338.21 338.22 338.28 338.29 338.4 346.0 346.1 346.2 346.3 346.4 346.5 346.6 346.7 346.8 346.9 307.81 710 711 712 713 714 715 | - |
| Back Pain, either acute or chronic | 716 717 718 719 720 721 722 723 724 725 726 727 728 729 | 307.89 721.2 721.3 724.2 724.4 724.5 724.6 724.7 724.8 846.846.0 846.1 846.2 846.3 846.8 846.9 847 847.2 847.4 847.9 |

1 For ICD-9-CM, the event can have either an N code listed in the Diagnosis column OR an E code listed in the External Cause of Injury column.

## Appendix 15: Key Stakeholder Interviews

This appendix provides information on how to conduct stakeholder interviews. An interview guide and summary sheet are also included.

### Tips for Conducting Key Stakeholder Interviews

**Pre-Interview Planning Process**

**Send a Letter of Introduction**

Once you have identified the key stakeholders in your community, send an official letter of introduction. The letter should include information about your coalition, provide background information on the NMUPD initiative, briefly describe the needs and assets assessment that is being conducted, describe how key stakeholders were identified, briefly highlight what sort of information you will request during the interview and how the information will be used, and inform them that they will be contacted by phone in the near future to set up the interview.

**Call to Set Up the Interview**

After a reasonable amount of time has passed, call each key stakeholder to set up the interview. Introduce yourself and briefly review the information in your letter of introduction. Make an appointment to interview the stakeholder at a time and place that is convenient for him or her.

**Send the Questions Ahead of Time**

Once the interview has been scheduled, send each key stakeholder a copy of the questions that you will ask. This allows respondents adequate time to prepare their thoughts and to identify any relevant materials ahead of time.