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The following report(s) provides findings from an FDA-initiated query using Sentinel. While Sentinel queries may be undertaken to assess potential medical product safety risks, they may also be initiated for various other reasons. Some examples include determining a rate or count of an identified health outcome of interest, examining medical product use, exploring the feasibility of future, more detailed analyses within Sentinel, and seeking to better understand Sentinel capabilities.

Data obtained through Sentinel are intended to complement other types of evidence such as preclinical studies, clinical trials, postmarket studies, and adverse event reports, all of which are used by FDA to inform regulatory decisions regarding medical product safety. The information contained in this report is provided as part of FDA's commitment to place knowledge acquired from Sentinel in the public domain as soon as possible. Any public health actions taken by FDA regarding products involved in Sentinel queries will continue to be communicated through existing channels.

FDA wants to emphasize that the fact that FDA has initiated a query involving a medical product and is reporting findings related to that query does not mean that FDA is suggesting health care practitioners should change their prescribing practices for the medical product or that patients taking the medical product should stop using it. Patients who have questions about the use of an identified medical product should contact their health care practitioners.

The following report contains a description of the request, request specifications, and results from the modular program run(s).

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#### Overview for Request to16\_cap\_mpl1r\_wp035\_nsdp\_v01

Request ID: to16\_cap\_mpl1r\_wp035\_nsdp\_v01

**Report Description:** FDA has requested execution of the Cohort Identification and Descriptive Analysis (CIDA) Tool, version 2.0.8, to investigate the estimated numbers of extended-release and long-acting (ER/LA) opioid analgesics users.

<u>Data Source:</u> Data from January 1, 2009 to December 31, 2013, from 15 Data Partners contributing to the Mini-Sentinel Distributed Database (MSDD), were included in this report.

<u>Study Design:</u> This request was designed to calculate background rates. The number of qualifying users with the exposure, number of eligible members, and member days were calculated overall and were stratified by age group, sex, and year.

Exposure of Interest: The exposures of interest were ER/LA opioid analgesics, including Butrans, Duragesic, generic fentanyl patch, Hysingla ER, Zohydro ER, Exalgo ER, generic ER/LA hydromorphone, Palladone, Avinza, Kadian, generic ER/LA morphine, MS Contin, Oramorph SR, Embeda, generic ER/LA oxycodone, OxyContin, Opana ER, generic ER/LA oxymorphone, Nucynta ER, Dolophine, generic methadone (5-10 mg tablets), generic methadone (40 mg soluble tablets), and generic methadone (liquid formulations). All ER/LA opioid analgesics were defined using National Drug Codes (NDCs).

<u>Cohort Eligibility Criteria:</u> Those included in the cohort were required to be continuously enrolled in plans with both medical and drug coverage for at least six months (183 days) before their dispensing date, during which gaps in coverage of up to 45 days were allowed. Individuals were also required to have no evidence of any ER/LA opioid in the six months (183 days) prior to the dispensing of the drug of interest.

A sensitivity analysis was run to examine a less strict definition of cohort eligibility, in which individuals were required to be continuously enrolled in plans with both medical and drug coverage for at least three months (90 days) before their dispensing date, during which gaps in coverage of up to 45 days were allowed. Individuals were also required to have no evidence of any ER/LA opioid in the three months (90 days) prior to the dispensing of the drug of interest.

Please see Appendix B for the specifications of parameters used in the analyses for this request.

Limitations: Algorithms to define exposures are imperfect and, therefore, may be misclassified.

**Notes:** Please contact the Sentinel Operations Center Query Fulfillment Team (qf@sentinelsystem.org) for questions and to provide comments/suggestions for future enhancements to this document.



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# Glossary of Terms for Analyses Using Cohort Identification and Descriptive Analysis (CIDA) Tool\*

**Amount Supplied** - number of units (pills, tablets, vials) dispensed. Net amount per NDC per dispensing. This is equivalent to the **Blackout Period** - number of days at the beginning of a treatment episode that events are to be ignored. If an event occurs during the blackout period, the episode is excluded.

Care Setting - type of medical encounter or facility where the exposure, event, or condition code was recorded. Possible care settings include: Inpatient Hospital Stay (IP), Non-Acute Institutional Stay (IS), Emergency Department (ED), Ambulatory Visit (AV), and Other Ambulatory Visit (OA). For laboratory results, possible care settings include: Emergency department (E), Home (H), Inpatient (I), Outpatient (O), or Unknown or Missing (U). Along with the Principal Diagnosis Indicator, forms the Care Setting/PDX Cohort Definition (drug/exposure) - indicates how the cohort will be defined: (1) Cohort includes only the first valid incident treatment episode during the query period; (2) Cohort includes all valid incident treatment episodes during the query period; (3) Cohort includes all valid incident treatment episodes during the query period until an event occurs.

Days Supplied - number of days supplied for all dispensings in qualifying treatment episodes.

**Enrollment Gap** - number of days allowed between two consecutive enrollment periods without breaking a "continuously **Episode Gap** - number of days allowed between two (or more) consecutive exposures (dispensings/procedures) to be considered **Episodes** - treatment episodes; length of episode is determined by days supplied in one dispensing or consecutive dispensings **Event Deduplication** - specifies how events are counted by the MP algorithm: (0) Counts all occurrences of an HOI during an exposure episode; (1) de-duplicates occurrences of the same HOI code and code type on the same day; (2) de-duplicates occurrences of the same HOI group on the same day (e.g., de-duplicates at the group level).

Exposure Episode Length - number of days after exposure initiation that is considered "exposed time."

**Exposure Extension Period** - number of days post treatment period in which the outcomes/events are counted for a treatment **Lookback Period (pre-existing condition)** - number of days wherein a member is required to have evidence of pre-existing condition (diagnosis/procedure/drug dispensing).

**Minimum Days Supplied** - specifies a minimum number of days in length of the days supplied for the episode to be considered.

Minimum Episode Duration - specifies a minimum number of days in length of the episode for it to be considered.

**Principal Diagnosis (PDX)** - diagnosis or condition established to be chiefly responsible for admission of the patient to the hospital. 'P' = principal diagnosis, 'S' = secondary diagnosis, 'X' = unspecified diagnosis, '.' = blank. Along with the Care Setting values, forms the

Query Period - period in which the modular program looks for exposures and outcomes of interest.

**Treatment Episode Truncation Indicator** - indicates whether observation of the incident query code during follow-up requires truncation of valid treatment episodes. A value of Y indicates that the treatment episodes should be truncated at the first occurrence of an incident query code. A value of N indicates that the treatment episodes should not be truncated at the occurrence of the incident query code.

**Users** - number of members with exposure during the query period. Member must have no evidence of exposure(s) of interest (defined by incidence criteria) in the prior washout period. A user may only be counted once in a query period.

**Washout Period (drug/exposure)\*\*** - number of days a user is required to have no evidence of prior exposure (drug dispensing/procedure) and continuous drug and medical coverage prior to an incident treatment episode.

Washout Period (event/outcome)\*\* - number of days a user is required to have no evidence of a prior event (procedure/diagnosis) and continuous drug and medical coverage prior to an incident treatment episode.

Years at Risk - number of days supplied plus any episode gaps and exposure extension periods all divided by 365.25.

<sup>\*</sup>all terms may not be used in this report

<sup>\*\*</sup>incident treatment episodes must be incident to both the exposure and the event



Table 1: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure and Washout/Enrollment Requirement

| Requirement                            | New<br>Users | New<br>Episodes | Days<br>Supplied | Amount<br>Supplied | Eligible<br>Members | Member-Years  | New<br>Users/100K<br>Eligible<br>Members | Days<br>Supplied/Episode |
|--|--------------|-----------------|------------------|--------------------|---------------------|---------------|--|--------------------------|
| Butrans                                |              |                 |                  |                    |                     |               |  |                          |
| 183-Day Washout/Enrollment Requirement | 17,095       | 17,362          | 477,334          | 68,619             | 74,713,198          | 152,256,262.3 | 22.88                                    | 27.49                    |
| 90-Day Washout/Enrollment Requirement  | 19,474       | 20,211          | 556,035          | 79,941             | 81,057,299          | 164,986,575.7 | 24.02                                    | 27.51                    |
| Duragesic                              |              |                 |                  |                    |                     |               |  |                          |
| 183-Day Washout/Enrollment Requirement | 1,591        | 1,612           | 41,910           | 15,003             | 74,713,198          | 152,256,262.3 | 2.13                                     | 26.00                    |
| 90-Day Washout/Enrollment Requirement  | 1,987        | 2,058           | 54,427           | 19,838             | 81,057,299          | 164,986,575.7 | 2.45                                     | 26.45                    |
| Generic fentanyl patch                 |              |                 |                  |                    |                     |               |  |                          |
| 183-Day Washout/Enrollment Requirement | 81,174       | 84,107          | 2,122,498        | 737,128            | 74,713,198          | 152,256,262.3 | 108.65                                   | 25.24                    |
| 90-Day Washout/Enrollment Requirement  | 93,417       | 100,334         | 2,561,903        | 896,011            | 81,057,299          | 164,986,575.7 | 115.25                                   | 25.53                    |
| Hysingla ER                            |              |                 |                  |                    |                     |               |  |                          |
| 183-Day Washout/Enrollment Requirement | 0            | 0               | 0                | 0                  | 74,713,198          | 152,256,262.3 | 0.00                                     |                          |
| 90-Day Washout/Enrollment Requirement  | 0            | 0               | 0                | 0                  | 81,057,299          | 164,986,575.7 | 0.00                                     |                          |
| Zohydro ER                             |              |                 |                  |                    |                     |               |  |                          |
| 183-Day Washout/Enrollment Requirement | 0            | 0               | 0                | 0                  | 74,713,198          | 152,256,262.3 | 0.00                                     |                          |
| 90-Day Washout/Enrollment Requirement  | 0            | 0               | 0                | 0                  | 81,057,299          | 164,986,575.7 | 0.00                                     |                          |
| Exalgo ER                              |              |                 |                  |                    |                     |               |  |                          |
| 183-Day Washout/Enrollment Requirement | 2,695        | 2,732           | 73,143           | 87,373             | 74,713,198          | 152,256,262.3 | 3.61                                     | 26.77                    |
| 90-Day Washout/Enrollment Requirement  | 3,376        | 3,479           | 93,174           | 111,897            | 81,057,299          | 164,986,575.7 | 4.16                                     | 26.78                    |
| Generic ER/LA hydromorphone            |              | •               |                  |                    |                     |               |  |                          |
| 183-Day Washout/Enrollment Requirement | 0            | 0               | 0                | 0                  | 74,713,198          | 152,256,262.3 | 0.00                                     |                          |
| 90-Day Washout/Enrollment Requirement  | 0            | 0               | 0                | 0                  | 81,057,299          | 164,986,575.7 | 0.00                                     |                          |
| Palladone                              |              |                 |                  |                    | , ,                 | , ,           |  |                          |
| 183-Day Washout/Enrollment Requirement | 0            | 0               | 0                | 0                  | 74,713,198          | 152,256,262.3 | 0.00                                     |                          |
| 90-Day Washout/Enrollment Requirement  | 0            | 0               | 0                | 0                  | 81,057,299          | 164,986,575.7 | 0.00                                     |                          |
| Avinza                                 |              |                 |                  |                    | , ,                 | , ,           |  |                          |
| 183-Day Washout/Enrollment Requirement | 3,458        | 3,548           | 96,368           | 109,304            | 74,713,198          | 152,256,262.3 | 4.63                                     | 27.16                    |
| 90-Day Washout/Enrollment Requirement  | 4,251        | 4,534           | 125,008          |                    | 81,057,299          | 164,986,575.7 | 5.24                                     | 27.57                    |
| Kadian                                 | ·            | ·               | ·                | ,                  | , ,                 | , ,           |  |                          |
| 183-Day Washout/Enrollment Requirement | 5,693        | 5,816           | 149,988          | 255,916            | 74,713,198          | 152,256,262.3 | 7.62                                     | 25.79                    |
| 90-Day Washout/Enrollment Requirement  | 6,832        | 7,195           | 188,013          |                    | 81,057,299          | 164,986,575.7 | 8.43                                     | 26.13                    |
| Generic ER/LA morphine                 | ·            | •               |                  |                    |                     |               |  |                          |
| 183-Day Washout/Enrollment Requirement | 126,969      | 133,461         | 3,171,111        | 6,903,068          | 74,713,198          | 152,256,262.3 | 169.94                                   | 23.76                    |
| 90-Day Washout/Enrollment Requirement  |              |                 |                  |                    | 81,057,299          | 164,986,575.7 | 178.43                                   | 24.21                    |
| MS Contin                              |              |                 |                  |                    |                     |               |  |                          |
| 183-Day Washout/Enrollment Requirement | 168          | 173             | 4,165            | 9,999              | 74,713,198          | 152,256,262.3 | 0.22                                     | 24.08                    |
| 90-Day Washout/Enrollment Requirement  | 199          | 216             | 5,395            | 13,547             | 81,057,299          | 164,986,575.7 | 0.25                                     | 24.98                    |
| Oramorph SR                            |              |                 |                  |                    |                     |               |  |                          |
| 183-Day Washout/Enrollment Requirement | 203          | 203             | 2,929            | 6,621              | 74,713,198          | 152,256,262.3 | 0.27                                     | 14.43                    |
| 90-Day Washout/Enrollment Requirement  | 242          | 244             | 3,888            | 8,905              | 81,057,299          | 164,986,575.7 | 0.30                                     | 15.93                    |
| Embeda                                 |              |                 |                  |                    |                     |               |  |                          |
| 183-Day Washout/Enrollment Requirement | 2,202        | 2,209           | 57,999           | 98,637             | 74,713,198          | 152,256,262.3 | 2.95                                     | 26.26                    |
| 90-Day Washout/Enrollment Requirement  | 2,568        | 2,590           | 68,106           |                    | 81,057,299          | 164,986,575.7 | 3.17                                     | 26.30                    |
| Generic ER/LA Oxycodone                |              |                 |                  |                    |                     |               |  |                          |
| 183-Day Washout/Enrollment Requirement | 26,073       | 26,280          | 454,299          | 994,491            | 74,713,198          | 152,256,262.3 | 34.90                                    | 17.29                    |
| 90-Day Washout/Enrollment Requirement  | 30,036       | 30,667          |                  |                    | 81,057,299          | 164,986,575.7 | 37.06                                    | 17.88                    |
| OxyContin                              |              |                 |                  |                    |                     |               |  |                          |
| 183-Day Washout/Enrollment Requirement | 175,993      | 183,898         | 3,233,057        | 7,024,033          | 74,713,198          | 152,256,262.3 | 235.56                                   | 17.58                    |
| 90-Day Washout/Enrollment Requirement  |              |                 |                  |                    | 81,057,299          | 164,986,575.7 | 242.43                                   | 18.11                    |



Table 1: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure and Washout/Enrollment Requirement

| ·   |        |          |           |           |            |               | New<br>Users/100K |                  |
|---|--------|----------|-----------|-----------|------------|---------------|-------------------|------------------|
|   | New    | New      | Days      | Amount    | Eligible   |               | Eligible          | Days             |
|   | Users  | Episodes | Supplied  | Supplied  | Members    | Member-Years  | Members           | Supplied/Episode |
| Opana ER                                  |        |          |           |           |            |               |                   |                  |
| 183-Day Washout/Enrollment Requirement    | 21,652 | 22,367   | 577,650   | 1,170,865 | 74,713,198 | 152,256,262.3 | 28.98             | 25.83            |
| 90-Day Washout/Enrollment Requirement     | 25,867 | 27,664   | 720,415   | 1,471,546 | 81,057,299 | 164,986,575.7 | 31.91             | 26.04            |
| Generic ER/LA Oxymorphone                 |        |          |           |           |            |               |                   |                  |
| 183-Day Washout/Enrollment Requirement    | 661    | 663      | 17,944    | 37,279    | 74,713,198 | 152,256,262.3 | 0.88              | 27.06            |
| 90-Day Washout/Enrollment Requirement     | 864    | 873      | 23,689    | 49,643    | 81,057,299 | 164,986,575.7 | 1.07              | 27.14            |
| Nucynta ER                                |        |          |           |           |            |               |                   |                  |
| 183-Day Washout/Enrollment Requirement    | 6,477  | 6,588    | 168,490   | 332,963   | 74,713,198 | 152,256,262.3 | 8.67              | 25.58            |
| 90-Day Washout/Enrollment Requirement     | 7,394  | 7,705    | 198,036   | 391,811   | 81,057,299 | 164,986,575.7 | 9.12              | 25.70            |
| Dolophine                                 |        |          |           |           |            |               |                   |                  |
| 183-Day Washout/Enrollment Requirement    | 0      | 0        | 0         | 0         | 74,713,198 | 152,256,262.3 | 0.00              |                  |
| 90-Day Washout/Enrollment Requirement     | 1      | 1        | 30        | 270       | 81,057,299 | 164,986,575.7 | 0.00              | 30.00            |
| Generic Methadone (5-10 mg tablets)       |        |          |           |           |            |               |                   |                  |
| 183-Day Washout/Enrollment Requirement    | 26,636 | 27,935   | 710,504   | 2,209,679 | 74,713,198 | 152,256,262.3 | 35.65             | 25.43            |
| 90-Day Washout/Enrollment Requirement     | 34,313 | 38,712   | 1,017,308 | 3,409,748 | 81,057,299 | 164,986,575.7 | 42.33             | 26.28            |
| Generic Methadone (40 mg soluble tablets) |        |          |           |           |            |               |                   |                  |
| 183-Day Washout/Enrollment Requirement    | 28     | 28       | 596       | 2,561     | 74,713,198 | 152,256,262.3 | 0.04              | 21.29            |
| 90-Day Washout/Enrollment Requirement     | 33     | 34       | 745       | 2,997     | 81,057,299 | 164,986,575.7 | 0.04              | 21.91            |
| Generic Methadone (liquid formulations)   |        |          |           |           |            |               |                   |                  |
| 183-Day Washout/Enrollment Requirement    | 1,291  | 1,319    | 23,788    | 212,515   | 74,713,198 | 152,256,262.3 | 1.73              | 18.03            |
| 90-Day Washout/Enrollment Requirement     | 1,619  | 1,693    | 30,669    | 258,000   | 81,057,299 | 164,986,575.7 | 2.00              | 18.12            |



Table 2: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Age Group

|                         | New        | New                | Days     | Amount   | Eligible   | Mambar Vacus | New Users/100K<br>Eligible Members | Davis Summlied /Friends |
|-------------------------|------------|--------------------|----------|----------|------------|--------------|------------------------------------|-------------------------|
| Butrans                 | Users      | Episodes           | Supplied | Supplied | Members    | Member-Years | Eligible Members                   | Days Supplied/Episode   |
| 183-Day Washout/Enrollr | ment Reau  | irement            |          |          |            |              |                                    |                         |
|                         | nem negu   | <i>ii</i> ciiiciit |          |          |            |              |                                    |                         |
| 00-11 Years             | 1          | 1                  | 28       | 4        | 13,243,618 | 23,653,754.0 | 0.01                               | 28.00                   |
| 12-17 Years             | 35         | 36                 | 991      | 145      | 8,633,823  | 13,935,646.3 | 0.41                               | 27.53                   |
| 18-24 Years             | 574        | 581                | 15,649   | 2,260    | 10,899,829 | 15,585,775.5 | 5.27                               | 26.93                   |
| 25-34 Years             | 2,335      | 2,356              | 64,091   | 9,199    | 15,396,777 | 22,357,997.7 | 15.17                              | 27.20                   |
| 35-44 Years             | 4,003      | 4,047              | 111,476  | 16,012   | 14,962,986 | 25,375,108.5 | 26.75                              | 27.55                   |
| 45-54 Years             | 5,604      | 5,691              | 156,547  | 22,492   | 15,343,471 | 28,416,164.8 | 36.52                              | 27.51                   |
| 55-64 Years             | 4,567      | 4,650              | 128,552  | 18,507   | 11,560,076 | 22,931,815.6 | 39.51                              | 27.65                   |
| 90-Day Washout/Enrollm  | ent Requir | ement              |          |          |            |              |                                    |                         |
| 00-11 Years             | 1          | 1                  | 28       | 4        | 14,544,740 | 25,993,984.2 | 0.01                               | 28.00                   |
| 12-17 Years             | 37         | 39                 | 1,077    | 157      | 9,218,653  | 14,903,602.1 | 0.40                               | 27.62                   |
| 18-24 Years             | 665        | 681                | 18,315   | 2,646    | 12,220,104 | 17,230,343.5 | 5.44                               | 26.89                   |
| 25-34 Years             | 2,746      | 2,823              | 76,934   | 11,051   | 17,149,837 | 24,891,976.4 | 16.01                              | 27.25                   |
| 35-44 Years             | 4,635      | 4,775              | 131,548  | 18,887   | 16,167,837 | 27,444,834.0 | 28.67                              | 27.55                   |
| 45-54 Years             | 6,396      | 6,623              | 182,497  | 26,209   | 16,302,066 | 30,336,625.6 | 39.23                              | 27.56                   |
| 55-64 Years             | 5,041      | 5,269              | 145,636  | 20,986   | 12,075,572 | 24,185,210.0 | 41.75                              | 27.64                   |
| Duragesic               |            |                    |          |          |            |              |                                    |                         |
| 183-Day Washout/Enrollr | nent Requ  | irement            |          |          |            |              |                                    |                         |
| 00-11 Years             | 5          | 5                  | 138      | 46       | 13,243,618 | 23,653,754.0 | 0.04                               | 27.60                   |
| 12-17 Years             | 9          | 9                  | 131      | 44       | 8,633,823  | 13,935,646.3 | 0.10                               | 14.56                   |
| 18-24 Years             | 26         | 26                 | 621      | 210      | 10,899,829 | 15,585,775.5 | 0.24                               | 23.88                   |
| 25-34 Years             | 128        | 129                | 3,306    | 1,165    | 15,396,777 | 22,357,997.7 | 0.83                               | 25.63                   |
| 35-44 Years             | 280        | 281                | 7,138    | 2,558    | 14,962,986 | 25,375,108.5 | 1.87                               | 25.40                   |
| 45-54 Years             | 592        | 603                | 15,733   | 5,654    | 15,343,471 | 28,416,164.8 | 3.86                               | 26.09                   |
| 55-64 Years             | 552        | 559                | 14,843   | 5,325    | 11,560,076 | 22,931,815.6 | 4.78                               | 26.55                   |
| 90-Day Washout/Enrollm  | ent Requir | ement              |          |          |            |              |                                    |                         |
| 00-11 Years             | 6          | 6                  | 168      | 106      | 14,544,740 | 25,993,984.2 | 0.04                               | 28.00                   |
| 12-17 Years             | 11         | 11                 | 191      | 64       | 9,218,653  | 14,903,602.1 | 0.12                               | 17.36                   |
| 18-24 Years             | 33         | 33                 | 785      | 265      | 12,220,104 | 17,230,343.5 | 0.27                               | 23.79                   |
| 25-34 Years             | 163        | 164                | 4,214    | 1,492    | 17,149,837 | 24,891,976.4 | 0.95                               | 25.70                   |
| 35-44 Years             | 369        | 376                | 9,639    | 3,510    | 16,167,837 | 27,444,834.0 | 2.28                               | 25.64                   |
| 45-54 Years             | 732        | 760                | 20,193   | 7,361    | 16,302,066 | 30,336,625.6 | 4.49                               | 26.57                   |
| 55-64 Years             | 675        | 708                | 19,237   | 7,039    | 12,075,572 | 24,185,210.0 | 5.59                               | 27.17                   |
| Generic fentanyl patch  |            |                    |          |          |            |              |                                    |                         |
| 183-Day Washout/Enrollr | nent Requ  | irement            |          |          |            |              |                                    |                         |
| 00-11 Years             | 139        | 141                | 3,086    | 1,079    | 13,243,618 | 23,653,754.0 | 1.05                               | 21.89                   |
| 12-17 Years             | 359        | 361                | 7,471    | 2,664    | 8,633,823  | 13,935,646.3 | 4.16                               | 20.70                   |
| 18-24 Years             | 1,847      | 1,899              | 43,354   | 15,249   | 10,899,829 | 15,585,775.5 | 16.95                              | 22.83                   |
| 25-34 Years             | 6,109      | 6,267              | 150,850  | 52,718   | 15,396,777 | 22,357,997.7 | 39.68                              | 24.07                   |
| 35-44 Years             | 13,112     | 13,488             | 334,619  | 117,038  | 14,962,986 | 25,375,108.5 | 87.63                              | 24.81                   |
| 45-54 Years             | 26,049     | 26,900             | 685,212  | 238,150  | 15,343,471 | 28,416,164.8 | 169.77                             | 25.47                   |
| 55-64 Years             | 33,931     | 35,051             | 897,906  | 310,230  | 11,560,076 | 22,931,815.6 | 293.52                             | 25.62                   |



Table 2: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Age Group

|                     | New             | New      | Days      | Amount   | Eligible   |              | New Users/100K   |                       |
|---------------------|-----------------|----------|-----------|----------|------------|--------------|------------------|-----------------------|
|                     | Users           | Episodes | Supplied  | Supplied | Members    | Member-Years | Eligible Members | Days Supplied/Episode |
| 90-Day Washout/Enr  | ollment Require | ement    |           |          |            |              | _                |                       |
| 00-11 Years         | 151             | 158      | 3,501     | 1,246    | 14,544,740 | 25,993,984.2 | 1.04             | 22.16                 |
| 12-17 Years         | 394             | 402      | 8,525     | 3,073    | 9,218,653  | 14,903,602.1 | 4.27             | 21.21                 |
| 18-24 Years         | 2,142           | 2,252    | 51,637    | 18,237   | 12,220,104 | 17,230,343.5 | 17.53            | 22.93                 |
| 25-34 Years         | 7,340           | 7,706    | 186,347   | 65,488   | 17,149,837 | 24,891,976.4 | 42.80            | 24.18                 |
| 35-44 Years         | 15,424          | 16,391   | 410,782   | 144,553  | 16,167,837 | 27,444,834.0 | 95.40            | 25.06                 |
| 45-54 Years         | 30,251          | 32,393   | 835,166   | 292,681  | 16,302,066 | 30,336,625.6 | 185.57           | 25.78                 |
| 55-64 Years         | 38,337          | 41,032   | 1,065,945 | 370,732  | 12,075,572 | 24,185,210.0 | 317.48           | 25.98                 |
| Hysingla ER         |                 |          |           |          |            |              |                  |                       |
| 183-Day Washout/En  | rollment Requi  | irement  |           |          |            |              |                  |                       |
| 00-11 Years         | 0               | 0        | 0         | 0        | 13,243,618 | 23,653,754.0 | 0.00             |                       |
| 12-17 Years         | 0               | 0        | 0         | 0        | 8,633,823  | 13,935,646.3 | 0.00             |                       |
| 18-24 Years         | 0               | 0        | 0         | 0        | 10,899,829 | 15,585,775.5 | 0.00             |                       |
| 25-34 Years         | 0               | 0        | 0         | 0        | 15,396,777 | 22,357,997.7 | 0.00             |                       |
| 35-44 Years         | 0               | 0        | 0         | 0        | 14,962,986 | 25,375,108.5 | 0.00             |                       |
| 45-54 Years         | 0               | 0        | 0         | 0        | 15,343,471 | 28,416,164.8 | 0.00             |                       |
| 55-64 Years         | 0               | 0        | 0         | 0        | 11,560,076 | 22,931,815.6 | 0.00             |                       |
| 90-Day Washout/Enro | ollment Require | ement    |           |          |            |              |                  |                       |
| 00-11 Years         | 0               | 0        | 0         | 0        | 14,544,740 | 25,993,984.2 | 0.00             |                       |
| 12-17 Years         | 0               | 0        | 0         | 0        | 9,218,653  | 14,903,602.1 | 0.00             |                       |
| 18-24 Years         | 0               | 0        | 0         | 0        | 12,220,104 | 17,230,343.5 | 0.00             |                       |
| 25-34 Years         | 0               | 0        | 0         | 0        | 17,149,837 | 24,891,976.4 | 0.00             |                       |
| 35-44 Years         | 0               | 0        | 0         | 0        | 16,167,837 | 27,444,834.0 | 0.00             |                       |
| 45-54 Years         | 0               | 0        | 0         | 0        | 16,302,066 | 30,336,625.6 | 0.00             |                       |
| 55-64 Years         | 0               | 0        | 0         | 0        | 12,075,572 | 24,185,210.0 | 0.00             |                       |
| Zohydro ER          |                 |          |           |          |            |              |                  |                       |
| 183-Day Washout/En  | rollment Requi  | irement  |           |          |            |              |                  |                       |
| 00-11 Years         | 0               | 0        | 0         | 0        | 13,243,618 | 23,653,754.0 | 0.00             |                       |
| 12-17 Years         | 0               | 0        | 0         | 0        | 8,633,823  | 13,935,646.3 | 0.00             |                       |
| 18-24 Years         | 0               | 0        | 0         | 0        | 10,899,829 | 15,585,775.5 | 0.00             |                       |
| 25-34 Years         | 0               | 0        | 0         | 0        | 15,396,777 | 22,357,997.7 | 0.00             |                       |
| 35-44 Years         | 0               | 0        | 0         | 0        | 14,962,986 | 25,375,108.5 | 0.00             |                       |
| 45-54 Years         | 0               | 0        | 0         | 0        | 15,343,471 | 28,416,164.8 | 0.00             |                       |
| 55-64 Years         | 0               | 0        | 0         | 0        | 11,560,076 | 22,931,815.6 | 0.00             |                       |
| 90-Day Washout/Enr  | ollment Requir  |          |           |          |            |              |                  |                       |
| 00-11 Years         | 0               | 0        | 0         | 0        | 14,544,740 | 25,993,984.2 | 0.00             |                       |
| 12-17 Years         | 0               | 0        | 0         | 0        | 9,218,653  | 14,903,602.1 | 0.00             |                       |
| 18-24 Years         | 0               | 0        | 0         | 0        | 12,220,104 | 17,230,343.5 | 0.00             |                       |
| 25-34 Years         | 0               | 0        | 0         | 0        | 17,149,837 | 24,891,976.4 | 0.00             |                       |
| 35-44 Years         | 0               | 0        | 0         | 0        | 16,167,837 | 27,444,834.0 | 0.00             |                       |
| 45-54 Years         | 0               | 0        | 0         | 0        | 16,302,066 | 30,336,625.6 | 0.00             |                       |
| 55-64 Years         | 0               | 0        | 0         | 0        | 12,075,572 | 24,185,210.0 | 0.00             |                       |



Table 2: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Age Group

|                       | New<br>Users        | New<br>Episodes | Days<br>Supplied | Amount<br>Supplied | Eligible<br>Members      | Member-Years   | New Users/100K<br>Eligible Members | Days Supplied/Episode |
|-----------------------|---------------------|-----------------|------------------|--------------------|--------------------------|----------------|------------------------------------|-----------------------|
| Exalgo ER             | Users               | Episodes        | Jupplieu         | Jupplieu           | Weilibers                | Weiliber-rears | Eligible Wellbers                  | Days Supplied/Episode |
| 183-Day Washout/Enr   | allment Reau        | irement         |                  |                    |                          |                |                                    |                       |
| 00-11 Years           | 1                   | 1               | 30               | 30                 | 13,243,618               | 23,653,754.0   | 0.01                               | 30.00                 |
| 12-17 Years           | 5                   | 5               | 150              | 180                | 8,633,823                | 13,935,646.3   | 0.06                               | 30.00                 |
| 18-24 Years           | 5<br>57             | 58              | 1,507            | 1,941              | 10,899,829               | 15,585,775.5   | 0.52                               | 25.98                 |
| 25-34 Years           | 307                 | 308             | 7,985            | 9,645              | 15,396,777               | 22,357,997.7   | 1.99                               | 25.93                 |
| 35-44 Years           | 625                 | 630             | 16,696           | 19,605             | 14,962,986               | 25,375,108.5   | 4.18                               | 26.50                 |
| 45-54 Years           | 938                 | 950             | 25,363           | 30,572             |                          | 28,416,164.8   | 6.11                               | 26.70                 |
| 55-64 Years           | 956<br>767          | 780             |                  | 25,400             | 15,343,471<br>11,560,076 | 22,931,815.6   | 6.63                               | 27.45                 |
| 90-Day Washout/Enro   |                     |                 | 21,412           | 25,400             | 11,360,076               | 22,951,615.0   | 0.03                               | 27.45                 |
| 00-11 Years           | ılıment keyalı<br>1 |                 | 30               | 30                 | 14,544,740               | 25,993,984.2   | 0.01                               | 30.00                 |
| 12-17 Years           | 5                   | 1               |                  | 180                |                          |                | 0.01                               | 30.00                 |
|                       | 5<br>79             | 5               | 150              |                    | 9,218,653                | 14,903,602.1   |                                    |                       |
| 18-24 Years           | _                   | 84              | 2,203            | 2,757              | 12,220,104               | 17,230,343.5   | 0.65                               | 26.23                 |
| 25-34 Years           | 412                 | 418             | 10,928           | 12,937             | 17,149,837               | 24,891,976.4   | 2.40                               | 26.14                 |
| 35-44 Years           | 777                 | 793             | 20,917           | 24,570             | 16,167,837               | 27,444,834.0   | 4.81                               | 26.38                 |
| 45-54 Years           | 1,168               | 1,207           | 32,425           | 39,682             | 16,302,066               | 30,336,625.6   | 7.16                               | 26.86                 |
| 55-64 Years           | 944                 | 971             | 26,521           | 31,741             | 12,075,572               | 24,185,210.0   | 7.82                               | 27.31                 |
| Generic ER/LA hydromo | •                   |                 |                  |                    |                          |                |                                    |                       |
| 183-Day Washout/Enr   | -                   |                 | 0                | 0                  | 12 242 640               | 22 652 754 0   | 0.00                               |                       |
| 00-11 Years           | 0                   | 0               | 0                | 0                  | 13,243,618               | 23,653,754.0   | 0.00                               |                       |
| 12-17 Years           | 0                   | 0               | 0                | 0                  | 8,633,823                | 13,935,646.3   | 0.00                               |                       |
| 18-24 Years           | 0                   | 0               | 0                | 0                  | 10,899,829               | 15,585,775.5   | 0.00                               |                       |
| 25-34 Years           | 0                   | 0               | 0                | 0                  | 15,396,777               | 22,357,997.7   | 0.00                               |                       |
| 35-44 Years           | 0                   | 0               | 0                | 0                  | 14,962,986               | 25,375,108.5   | 0.00                               |                       |
| 45-54 Years           | 0                   | 0               | 0                | 0                  | 15,343,471               | 28,416,164.8   | 0.00                               |                       |
| 55-64 Years           | 0                   | 0               | 0                | 0                  | 11,560,076               | 22,931,815.6   | 0.00                               |                       |
| 90-Day Washout/Enro   | -                   |                 |                  |                    |                          |                |                                    |                       |
| 00-11 Years           | 0                   | 0               | 0                | 0                  | 14,544,740               | 25,993,984.2   | 0.00                               |                       |
| 12-17 Years           | 0                   | 0               | 0                | 0                  | 9,218,653                | 14,903,602.1   | 0.00                               |                       |
| 18-24 Years           | 0                   | 0               | 0                | 0                  | 12,220,104               | 17,230,343.5   | 0.00                               |                       |
| 25-34 Years           | 0                   | 0               | 0                | 0                  | 17,149,837               | 24,891,976.4   | 0.00                               |                       |
| 35-44 Years           | 0                   | 0               | 0                | 0                  | 16,167,837               | 27,444,834.0   | 0.00                               |                       |
| 45-54 Years           | 0                   | 0               | 0                | 0                  | 16,302,066               | 30,336,625.6   | 0.00                               |                       |
| 55-64 Years           | 0                   | 0               | 0                | 0                  | 12,075,572               | 24,185,210.0   | 0.00                               |                       |
| Palladone             |                     |                 |                  |                    |                          |                |                                    |                       |
| 183-Day Washout/Enr   | ollment Requ        |                 |                  |                    |                          |                |                                    |                       |
| 00-11 Years           | 0                   | 0               | 0                | 0                  | 13,243,618               | 23,653,754.0   | 0.00                               |                       |
| 12-17 Years           | 0                   | 0               | 0                | 0                  | 8,633,823                | 13,935,646.3   | 0.00                               |                       |
| 18-24 Years           | 0                   | 0               | 0                | 0                  | 10,899,829               | 15,585,775.5   | 0.00                               |                       |
| 25-34 Years           | 0                   | 0               | 0                | 0                  | 15,396,777               | 22,357,997.7   | 0.00                               |                       |
| 35-44 Years           | 0                   | 0               | 0                | 0                  | 14,962,986               | 25,375,108.5   | 0.00                               |                       |
| 45-54 Years           | 0                   | 0               | 0                | 0                  | 15,343,471               | 28,416,164.8   | 0.00                               |                       |
| 55-64 Years           | 0                   | 0               | 0                | 0                  | 11,560,076               | 22,931,815.6   | 0.00                               |                       |



Table 2: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Age Group

|                     | New            | New      | Days     | Amount   | Eligible   |              | New Users/100K   |                       |
|---------------------|----------------|----------|----------|----------|------------|--------------|------------------|-----------------------|
|                     | Users          | Episodes | Supplied | Supplied | Members    | Member-Years | Eligible Members | Days Supplied/Episode |
| 90-Day Washout/Enro | ollment Requir | ement    |          |          |            |              | _                |                       |
| 00-11 Years         | 0              | 0        | 0        | 0        | 14,544,740 | 25,993,984.2 | 0.00             |                       |
| 12-17 Years         | 0              | 0        | 0        | 0        | 9,218,653  | 14,903,602.1 | 0.00             |                       |
| 18-24 Years         | 0              | 0        | 0        | 0        | 12,220,104 | 17,230,343.5 | 0.00             |                       |
| 25-34 Years         | 0              | 0        | 0        | 0        | 17,149,837 | 24,891,976.4 | 0.00             |                       |
| 35-44 Years         | 0              | 0        | 0        | 0        | 16,167,837 | 27,444,834.0 | 0.00             |                       |
| 45-54 Years         | 0              | 0        | 0        | 0        | 16,302,066 | 30,336,625.6 | 0.00             |                       |
| 55-64 Years         | 0              | 0        | 0        | 0        | 12,075,572 | 24,185,210.0 | 0.00             |                       |
| Avinza              |                |          |          |          |            |              |                  |                       |
| 183-Day Washout/En  | rollment Requi | irement  |          |          |            |              |                  |                       |
| 00-11 Years         | 1              | 1        | 30       | 30       | 13,243,618 | 23,653,754.0 | 0.01             | 30.00                 |
| 12-17 Years         | 10             | 10       | 209      | 279      | 8,633,823  | 13,935,646.3 | 0.12             | 20.90                 |
| 18-24 Years         | 86             | 87       | 2,273    | 2,646    | 10,899,829 | 15,585,775.5 | 0.79             | 26.13                 |
| 25-34 Years         | 394            | 396      | 10,426   | 11,591   | 15,396,777 | 22,357,997.7 | 2.56             | 26.33                 |
| 35-44 Years         | 816            | 837      | 22,368   | 24,932   | 14,962,986 | 25,375,108.5 | 5.45             | 26.72                 |
| 45-54 Years         | 1,236          | 1,258    | 34,490   | 39,529   | 15,343,471 | 28,416,164.8 | 8.06             | 27.42                 |
| 55-64 Years         | 930            | 959      | 26,572   | 30,297   | 11,560,076 | 22,931,815.6 | 8.04             | 27.71                 |
| 90-Day Washout/Enro | ollment Requir | ement    |          |          |            |              |                  |                       |
| 00-11 Years         | 1              | 1        | 30       | 30       | 14,544,740 | 25,993,984.2 | 0.01             | 30.00                 |
| 12-17 Years         | 12             | 12       | 217      | 287      | 9,218,653  | 14,903,602.1 | 0.13             | 18.08                 |
| 18-24 Years         | 102            | 104      | 2,706    | 3,184    | 12,220,104 | 17,230,343.5 | 0.83             | 26.02                 |
| 25-34 Years         | 475            | 481      | 12,700   | 14,191   | 17,149,837 | 24,891,976.4 | 2.77             | 26.40                 |
| 35-44 Years         | 1,013          | 1,071    | 29,227   | 32,973   | 16,167,837 | 27,444,834.0 | 6.27             | 27.29                 |
| 45-54 Years         | 1,511          | 1,619    | 44,892   | 53,419   | 16,302,066 | 30,336,625.6 | 9.27             | 27.73                 |
| 55-64 Years         | 1,169          | 1,246    | 35,236   | 41,202   | 12,075,572 | 24,185,210.0 | 9.68             | 28.28                 |
| Kadian              |                |          |          |          |            |              |                  |                       |
| 183-Day Washout/En  | rollment Requi | irement  |          |          |            |              |                  |                       |
| 00-11 Years         | 15             | 15       | 130      | 228      | 13,243,618 | 23,653,754.0 | 0.11             | 8.67                  |
| 12-17 Years         | 57             | 63       | 832      | 1,395    | 8,633,823  | 13,935,646.3 | 0.66             | 13.21                 |
| 18-24 Years         | 171            | 173      | 4,165    | 6,979    | 10,899,829 | 15,585,775.5 | 1.57             | 24.08                 |
| 25-34 Years         | 825            | 840      | 21,539   | 36,330   | 15,396,777 | 22,357,997.7 | 5.36             | 25.64                 |
| 35-44 Years         | 1,358          | 1,380    | 35,904   | 62,008   | 14,962,986 | 25,375,108.5 | 9.08             | 26.02                 |
| 45-54 Years         | 1,815          | 1,846    | 48,130   | 82,620   | 15,343,471 | 28,416,164.8 | 11.83            | 26.07                 |
| 55-64 Years         | 1,465          | 1,499    | 39,288   | 66,356   | 11,560,076 | 22,931,815.6 | 12.67            | 26.21                 |
| 90-Day Washout/Enro | ollment Requir | ement    |          |          |            |              |                  |                       |
| 00-11 Years         | 16             | 20       | 196      | 360      | 14,544,740 | 25,993,984.2 | 0.11             | 9.80                  |
| 12-17 Years         | 63             | 71       | 950      | 1,631    | 9,218,653  | 14,903,602.1 | 0.68             | 13.38                 |
| 18-24 Years         | 197            | 201      | 4,821    | 8,252    | 12,220,104 | 17,230,343.5 | 1.61             | 23.99                 |
| 25-34 Years         | 990            | 1,025    | 26,388   | 44,781   | 17,149,837 | 24,891,976.4 | 5.77             | 25.74                 |
| 35-44 Years         | 1,614          | 1,673    | 43,883   | 75,967   | 16,167,837 | 27,444,834.0 | 9.98             | 26.23                 |
| 45-54 Years         | 2,234          | 2,348    | 62,393   | 109,252  | 16,302,066 | 30,336,625.6 | 13.70            | 26.57                 |
| 55-64 Years         | 1,748          | 1,857    | 49,382   | 84,542   | 12,075,572 | 24,185,210.0 | 14.48            | 26.59                 |



Table 2: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Age Group

|                        | New<br>Users  | New<br>Episodes | Days<br>Supplied | Amount<br>Supplied | Eligible<br>Members | Member-Years | New Users/100K<br>Eligible Members | Days Supplied/Episode |
|------------------------|---------------|-----------------|------------------|--------------------|---------------------|--------------|------------------------------------|-----------------------|
| Generic ER/LA morphine | е             |                 |                  |                    |                     |              |                                    |                       |
| 183-Day Washout/Enr    | ollment Requ  | irement         |                  |                    |                     |              |                                    |                       |
| 00-11 Years            | 141           | 156             | 2,221            | 4,924              | 13,243,618          | 23,653,754.0 | 1.06                               | 14.24                 |
| 12-17 Years            | 1,089         | 1,160           | 13,928           | 32,422             | 8,633,823           | 13,935,646.3 | 12.61                              | 12.01                 |
| 18-24 Years            | 4,311         | 4,447           | 80,607           | 180,595            | 10,899,829          | 15,585,775.5 | 39.55                              | 18.13                 |
| 25-34 Years            | 13,289        | 13,727          | 308,888          | 657,035            | 15,396,777          | 22,357,997.7 | 86.31                              | 22.50                 |
| 35-44 Years            | 23,266        | 24,160          | 570,653          | 1,227,002          | 14,962,986          | 25,375,108.5 | 155.49                             | 23.62                 |
| 45-54 Years            | 40,292        | 42,106          | 1,022,401        | 2,235,624          | 15,343,471          | 28,416,164.8 | 262.60                             | 24.28                 |
| 55-64 Years            | 45,460        | 47,705          | 1,172,413        | 2,565,466          | 11,560,076          | 22,931,815.6 | 393.25                             | 24.58                 |
| 90-Day Washout/Enro    | llment Requir | ement           |                  |                    |                     |              |                                    |                       |
| 00-11 Years            | 147           | 167             | 2,370            | 5,383              | 14,544,740          | 25,993,984.2 | 1.01                               | 14.19                 |
| 12-17 Years            | 1,164         | 1,304           | 15,803           | 36,983             | 9,218,653           | 14,903,602.1 | 12.63                              | 12.12                 |
| 18-24 Years            | 4,843         | 5,127           | 94,507           | 212,519            | 12,220,104          | 17,230,343.5 | 39.63                              | 18.43                 |
| 25-34 Years            | 15,451        | 16,453          | 373,284          | 800,916            | 17,149,837          | 24,891,976.4 | 90.09                              | 22.69                 |
| 35-44 Years            | 27,028        | 29,104          | 695,161          | 1,511,971          | 16,167,837          | 27,444,834.0 | 167.17                             | 23.89                 |
| 45-54 Years            | 46,232        | 50,575          | 1,249,430        | 2,780,455          | 16,302,066          | 30,336,625.6 | 283.60                             | 24.70                 |
| 55-64 Years            | 51,209        | 56,536          | 1,425,558        | 3,184,133          | 12,075,572          | 24,185,210.0 | 424.07                             | 25.22                 |
| MS Contin              |               |                 |                  |                    |                     |              |                                    |                       |
| 183-Day Washout/Enr    | ollment Requ  | irement         |                  |                    |                     |              |                                    |                       |
| 00-11 Years            | 0             | 0               | 0                | 0                  | 13,243,618          | 23,653,754.0 | 0.00                               |                       |
| 12-17 Years            | 4             | 4               | 31               | 67                 | 8,633,823           | 13,935,646.3 | 0.05                               | 7.75                  |
| 18-24 Years            | 5             | 5               | 110              | 220                | 10,899,829          | 15,585,775.5 | 0.05                               | 22.00                 |
| 25-34 Years            | 15            | 15              | 265              | 723                | 15,396,777          | 22,357,997.7 | 0.10                               | 17.67                 |
| 35-44 Years            | 23            | 23              | 535              | 1,090              | 14,962,986          | 25,375,108.5 | 0.15                               | 23.26                 |
| 45-54 Years            | 69            | 72              | 1,759            | 4,391              | 15,343,471          | 28,416,164.8 | 0.45                               | 24.43                 |
| 55-64 Years            | 52            | 54              | 1,465            | 3,508              | 11,560,076          | 22,931,815.6 | 0.45                               | 27.13                 |
| 90-Day Washout/Enro    | llment Requir | ement           |                  |                    |                     |              |                                    |                       |
| 00-11 Years            | 0             | 0               | 0                | 0                  | 14,544,740          | 25,993,984.2 | 0.00                               |                       |
| 12-17 Years            | 4             | 4               | 31               | 67                 | 9,218,653           | 14,903,602.1 | 0.04                               | 7.75                  |
| 18-24 Years            | 5             | 6               | 140              | 235                | 12,220,104          | 17,230,343.5 | 0.04                               | 23.33                 |
| 25-34 Years            | 19            | 19              | 376              | 1,095              | 17,149,837          | 24,891,976.4 | 0.11                               | 19.79                 |
| 35-44 Years            | 24            | 24              | 565              | 1,150              | 16,167,837          | 27,444,834.0 | 0.15                               | 23.54                 |
| 45-54 Years            | 83            | 93              | 2,308            | 6,262              | 16,302,066          | 30,336,625.6 | 0.51                               | 24.82                 |
| 55-64 Years            | 64            | 70              | 1,975            | 4,738              | 12,075,572          | 24,185,210.0 | 0.53                               | 28.21                 |
| Oramorph SR            |               |                 |                  |                    |                     |              |                                    |                       |
| 183-Day Washout/Enr    | ollment Requ  | irement         |                  |                    |                     |              |                                    |                       |
| 00-11 Years            | 1             | 1               | 3                | 6                  | 13,243,618          | 23,653,754.0 | 0.01                               | 3.00                  |
| 12-17 Years            | 11            | 11              | 72               | 190                | 8,633,823           | 13,935,646.3 | 0.13                               | 6.55                  |
| 18-24 Years            | 8             | 8               | 77               | 198                | 10,899,829          | 15,585,775.5 | 0.07                               | 9.63                  |
| 25-34 Years            | 20            | 20              | 266              | 545                | 15,396,777          | 22,357,997.7 | 0.13                               | 13.30                 |
| 35-44 Years            | 57            | 57              | 751              | 1,708              | 14,962,986          | 25,375,108.5 | 0.38                               | 13.18                 |
| 45-54 Years            | 59            | 59              | 938              | 2,091              | 15,343,471          | 28,416,164.8 | 0.38                               | 15.90                 |
| 55-64 Years            | 47            | 47              | 822              | 1,883              | 11,560,076          | 22,931,815.6 | 0.41                               | 17.49                 |



Table 2: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Age Group

|                       | New             | New      | Days     | Amount   | Eligible   |              | New Users/100K   |                       |
|-----------------------|-----------------|----------|----------|----------|------------|--------------|------------------|-----------------------|
|                       | Users           | Episodes | Supplied | Supplied | Members    | Member-Years | Eligible Members | Days Supplied/Episode |
| 90-Day Washout/Enro   | ollment Require | ement    |          |          |            |              |                  |                       |
| 00-11 Years           | 1               | 1        | 3        | 6        | 14,544,740 | 25,993,984.2 | 0.01             | 3.00                  |
| 12-17 Years           | 11              | 11       | 72       | 190      | 9,218,653  | 14,903,602.1 | 0.12             | 6.55                  |
| 18-24 Years           | 10              | 11       | 142      | 398      | 12,220,104 | 17,230,343.5 | 0.08             | 12.91                 |
| 25-34 Years           | 23              | 23       | 309      | 701      | 17,149,837 | 24,891,976.4 | 0.13             | 13.43                 |
| 35-44 Years           | 66              | 66       | 964      | 2,164    | 16,167,837 | 27,444,834.0 | 0.41             | 14.61                 |
| 45-54 Years           | 72              | 73       | 1,287    | 3,043    | 16,302,066 | 30,336,625.6 | 0.44             | 17.63                 |
| 55-64 Years           | 59              | 59       | 1,111    | 2,403    | 12,075,572 | 24,185,210.0 | 0.49             | 18.83                 |
| Embeda                |                 |          |          |          |            |              |                  |                       |
| 183-Day Washout/En    | rollment Requi  | irement  |          |          |            |              |                  |                       |
| 00-11 Years           | 0               | 0        | 0        | 0        | 13,243,618 | 23,653,754.0 | 0.00             |                       |
| 12-17 Years           | 3               | 3        | 67       | 141      | 8,633,823  | 13,935,646.3 | 0.03             | 22.33                 |
| 18-24 Years           | 64              | 64       | 1,588    | 2,629    | 10,899,829 | 15,585,775.5 | 0.59             | 24.81                 |
| 25-34 Years           | 330             | 333      | 8,467    | 14,468   | 15,396,777 | 22,357,997.7 | 2.14             | 25.43                 |
| 35-44 Years           | 549             | 551      | 14,125   | 24,144   | 14,962,986 | 25,375,108.5 | 3.67             | 25.64                 |
| 45-54 Years           | 800             | 801      | 21,362   | 36,406   | 15,343,471 | 28,416,164.8 | 5.21             | 26.67                 |
| 55-64 Years           | 456             | 457      | 12,390   | 20,849   | 11,560,076 | 22,931,815.6 | 3.94             | 27.11                 |
| 90-Day Washout/Enro   | ollment Require | ement    |          |          |            |              |                  |                       |
| 00-11 Years           | 0               | 0        | 0        | 0        | 14,544,740 | 25,993,984.2 | 0.00             |                       |
| 12-17 Years           | 3               | 3        | 67       | 141      | 9,218,653  | 14,903,602.1 | 0.03             | 22.33                 |
| 18-24 Years           | 76              | 76       | 1,878    | 3,089    | 12,220,104 | 17,230,343.5 | 0.62             | 24.71                 |
| 25-34 Years           | 397             | 401      | 10,120   | 17,209   | 17,149,837 | 24,891,976.4 | 2.31             | 25.24                 |
| 35-44 Years           | 653             | 656      | 17,034   | 28,986   | 16,167,837 | 27,444,834.0 | 4.04             | 25.97                 |
| 45-54 Years           | 927             | 935      | 24,865   | 42,316   | 16,302,066 | 30,336,625.6 | 5.69             | 26.59                 |
| 55-64 Years           | 512             | 519      | 14,142   | 24,020   | 12,075,572 | 24,185,210.0 | 4.24             | 27.25                 |
| Generic ER/LA Oxycodo |                 |          |          |          |            |              |                  |                       |
| 183-Day Washout/En    | rollment Requi  | irement  |          |          |            |              |                  |                       |
| 00-11 Years           | 23              | 23       | 366      | 777      | 13,243,618 | 23,653,754.0 | 0.17             | 15.91                 |
| 12-17 Years           | 493             | 495      | 4,755    | 10,320   | 8,633,823  | 13,935,646.3 | 5.71             | 9.61                  |
| 18-24 Years           | 1,230           | 1,235    | 16,967   | 38,056   | 10,899,829 | 15,585,775.5 | 11.28            | 13.74                 |
| 25-34 Years           | 2,846           | 2,864    | 47,441   | 106,347  | 15,396,777 | 22,357,997.7 | 18.48            | 16.56                 |
| 35-44 Years           | 4,911           | 4,939    | 84,982   | 188,318  | 14,962,986 | 25,375,108.5 | 32.82            | 17.21                 |
| 45-54 Years           | 8,251           | 8,306    | 148,558  | 324,678  | 15,343,471 | 28,416,164.8 | 53.78            | 17.89                 |
| 55-64 Years           | 8,341           | 8,418    | 151,230  | 325,994  | 11,560,076 | 22,931,815.6 | 72.15            | 17.97                 |
| 90-Day Washout/Enro   | ollment Require | ement    |          |          |            |              |                  |                       |
| 00-11 Years           | 25              | 26       | 407      | 853      | 14,544,740 | 25,993,984.2 | 0.17             | 15.65                 |
| 12-17 Years           | 538             | 543      | 5,213    | 11,314   | 9,218,653  | 14,903,602.1 | 5.84             | 9.60                  |
| 18-24 Years           | 1,431           | 1,444    | 20,069   | 45,293   | 12,220,104 | 17,230,343.5 | 11.71            | 13.90                 |
| 25-34 Years           | 3,407           | 3,457    | 59,090   | 133,057  | 17,149,837 | 24,891,976.4 | 19.87            | 17.09                 |
| 35-44 Years           | 5,760           | 5,842    | 103,866  | 231,589  | 16,167,837 | 27,444,834.0 | 35.63            | 17.78                 |
| 45-54 Years           | 9,484           | 9,689    | 179,316  | 397,246  | 16,302,066 | 30,336,625.6 | 58.18            | 18.51                 |
| 55-64 Years           | 9,440           | 9,666    | 180,248  | 390,954  | 12,075,572 | 24,185,210.0 | 78.17            | 18.65                 |



Table 2: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Age Group

|                       | New           | New      | Days      | Amount    | Eligible   |              | New Users/100K   |                       |
|-----------------------|---------------|----------|-----------|-----------|------------|--------------|------------------|-----------------------|
|                       | Users         | Episodes | Supplied  | Supplied  | Members    | Member-Years | Eligible Members | Days Supplied/Episode |
| OxyContin             |               |          |           |           |            |              |                  |                       |
| 183-Day Washout/Enr   | -             |          |           |           |            |              |                  |                       |
| 00-11 Years           | 139           | 144      | 2,245     | 5,010     | 13,243,618 | 23,653,754.0 | 1.05             | 15.59                 |
| 12-17 Years           | 3,657         | 3,749    | 38,710    | 84,912    | 8,633,823  | 13,935,646.3 | 42.36            | 10.33                 |
| 18-24 Years           | 9,578         | 9,869    | 133,519   | 300,172   | 10,899,829 | 15,585,775.5 | 87.87            | 13.53                 |
| 25-34 Years           | 19,349        | 19,870   | 337,911   | 750,520   | 15,396,777 | 22,357,997.7 | 125.67           | 17.01                 |
| 35-44 Years           | 31,071        | 32,142   | 571,716   | 1,251,069 | 14,962,986 | 25,375,108.5 | 207.65           | 17.79                 |
| 45-54 Years           | 53,699        | 55,903   | 1,018,969 | 2,212,625 | 15,343,471 | 28,416,164.8 | 349.98           | 18.23                 |
| 55-64 Years           | 59,491        | 62,221   | 1,129,987 | 2,419,725 | 11,560,076 | 22,931,815.6 | 514.62           | 18.16                 |
| 90-Day Washout/Enro   | llment Requir | ement    |           |           |            |              |                  |                       |
| 00-11 Years           | 149           | 155      | 2,387     | 5,342     | 14,544,740 | 25,993,984.2 | 1.02             | 15.40                 |
| 12-17 Years           | 3,926         | 4,091    | 42,348    | 93,521    | 9,218,653  | 14,903,602.1 | 42.59            | 10.35                 |
| 18-24 Years           | 10,785        | 11,285   | 156,557   | 352,979   | 12,220,104 | 17,230,343.5 | 88.26            | 13.87                 |
| 25-34 Years           | 22,571        | 23,731   | 413,624   | 923,521   | 17,149,837 | 24,891,976.4 | 131.61           | 17.43                 |
| 35-44 Years           | 35,318        | 37,633   | 690,337   | 1,520,378 | 16,167,837 | 27,444,834.0 | 218.45           | 18.34                 |
| 45-54 Years           | 60,216        | 64,814   | 1,219,692 | 2,669,328 | 16,302,066 | 30,336,625.6 | 369.38           | 18.82                 |
| 55-64 Years           | 65,016        | 70,379   | 1,315,359 | 2,845,228 | 12,075,572 | 24,185,210.0 | 538.41           | 18.69                 |
| Opana ER              |               |          |           |           |            |              |                  |                       |
| 183-Day Washout/Enr   | ollment Requi | irement  |           |           |            |              |                  |                       |
| 00-11 Years           | 4             | 4        | 104       | 208       | 13,243,618 | 23,653,754.0 | 0.03             | 26.00                 |
| 12-17 Years           | 55            | 57       | 973       | 1,917     | 8,633,823  | 13,935,646.3 | 0.64             | 17.07                 |
| 18-24 Years           | 787           | 801      | 19,445    | 39,812    | 10,899,829 | 15,585,775.5 | 7.22             | 24.28                 |
| 25-34 Years           | 3,295         | 3,370    | 87,286    | 175,913   | 15,396,777 | 22,357,997.7 | 21.40            | 25.90                 |
| 35-44 Years           | 5,229         | 5,356    | 140,484   | 281,093   | 14,962,986 | 25,375,108.5 | 34.95            | 26.23                 |
| 45-54 Years           | 7,037         | 7,251    | 189,018   | 385,549   | 15,343,471 | 28,416,164.8 | 45.86            | 26.07                 |
| 55-64 Years           | 5,322         | 5,528    | 140,340   | 286,373   | 11,560,076 | 22,931,815.6 | 46.04            | 25.39                 |
| 90-Day Washout/Enro   | llment Requir | ement    |           |           |            |              |                  |                       |
| 00-11 Years           | 4             | 4        | 104       | 208       | 14,544,740 | 25,993,984.2 | 0.03             | 26.00                 |
| 12-17 Years           | 62            | 65       | 1,143     | 2,287     | 9,218,653  | 14,903,602.1 | 0.67             | 17.58                 |
| 18-24 Years           | 934           | 983      | 23,893    | 48,794    | 12,220,104 | 17,230,343.5 | 7.64             | 24.31                 |
| 25-34 Years           | 4,050         | 4,242    | 109,931   | 221,854   | 17,149,837 | 24,891,976.4 | 23.62            | 25.91                 |
| 35-44 Years           | 6,324         | 6,675    | 175,393   | 355,199   | 16,167,837 | 27,444,834.0 | 39.11            | 26.28                 |
| 45-54 Years           | 8,385         | 8,942    | 235,613   | 484,062   | 16,302,066 | 30,336,625.6 | 51.44            | 26.35                 |
| 55-64 Years           | 6,270         | 6,753    | 174,338   | 359,142   | 12,075,572 | 24,185,210.0 | 51.92            | 25.82                 |
| Generic ER/LA Oxymorp | hone          |          |           | <u> </u>  |            |              |                  |                       |
| 183-Day Washout/Enr   |               | irement  |           |           |            |              |                  |                       |
| 00-11 Years           | 0             | 0        | 0         | 0         | 13,243,618 | 23,653,754.0 | 0.00             |                       |
| 12-17 Years           | 0             | 0        | 0         | 0         | 8,633,823  | 13,935,646.3 | 0.00             |                       |
| 18-24 Years           | 26            | 26       | 650       | 1,338     | 10,899,829 | 15,585,775.5 | 0.24             | 25.00                 |
| 25-34 Years           | 112           | 112      | 2,941     | 5,897     | 15,396,777 | 22,357,997.7 | 0.73             | 26.26                 |
| 35-44 Years           | 155           | 155      | 4,061     | 8,365     | 14,962,986 | 25,375,108.5 | 1.04             | 26.20                 |
| 45-54 Years           | 207           | 207      | 5,809     | 12,161    | 15,343,471 | 28,416,164.8 | 1.35             | 28.06                 |
| 55-64 Years           | 161           | 163      | 4,483     | 9,518     | 11,560,076 | 22,931,815.6 | 1.39             | 27.50                 |



Table 2: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Age Group

|                     | New            | New      | Days     | Amount   | Eligible   |              | New Users/100K   |                       |
|---------------------|----------------|----------|----------|----------|------------|--------------|------------------|-----------------------|
|                     | Users          | Episodes | Supplied | Supplied | Members    | Member-Years | Eligible Members | Days Supplied/Episode |
| 90-Day Washout/Enro | ollment Requir | ement    |          |          |            |              |                  |                       |
| 00-11 Years         | 0              | 0        | 0        | 0        | 14,544,740 | 25,993,984.2 | 0.00             |                       |
| 12-17 Years         | 0              | 0        | 0        | 0        | 9,218,653  | 14,903,602.1 | 0.00             |                       |
| 18-24 Years         | 30             | 30       | 768      | 1,634    | 12,220,104 | 17,230,343.5 | 0.25             | 25.60                 |
| 25-34 Years         | 149            | 151      | 4,000    | 8,236    | 17,149,837 | 24,891,976.4 | 0.87             | 26.49                 |
| 35-44 Years         | 207            | 207      | 5,482    | 11,300   | 16,167,837 | 27,444,834.0 | 1.28             | 26.48                 |
| 45-54 Years         | 276            | 278      | 7,828    | 16,517   | 16,302,066 | 30,336,625.6 | 1.69             | 28.16                 |
| 55-64 Years         | 205            | 207      | 5,611    | 11,956   | 12,075,572 | 24,185,210.0 | 1.70             | 27.11                 |
| Nucynta ER          |                |          |          |          |            |              |                  |                       |
| 183-Day Washout/Eni | rollment Requ  | irement  |          |          |            |              |                  |                       |
| 00-11 Years         | 1              | 1        | 15       | 30       | 13,243,618 | 23,653,754.0 | 0.01             | 15.00                 |
| 12-17 Years         | 26             | 27       | 553      | 1,133    | 8,633,823  | 13,935,646.3 | 0.30             | 20.48                 |
| 18-24 Years         | 197            | 201      | 4,844    | 9,599    | 10,899,829 | 15,585,775.5 | 1.81             | 24.10                 |
| 25-34 Years         | 813            | 821      | 20,922   | 40,895   | 15,396,777 | 22,357,997.7 | 5.28             | 25.48                 |
| 35-44 Years         | 1,521          | 1,545    | 39,158   | 77,640   | 14,962,986 | 25,375,108.5 | 10.17            | 25.34                 |
| 45-54 Years         | 2,205          | 2,243    | 57,668   | 113,868  | 15,343,471 | 28,416,164.8 | 14.37            | 25.71                 |
| 55-64 Years         | 1,723          | 1,750    | 45,330   | 89,798   | 11,560,076 | 22,931,815.6 | 14.90            | 25.90                 |
| 90-Day Washout/Enro | ollment Requir | ement    |          |          |            |              |                  |                       |
| 00-11 Years         | 1              | 1        | 15       | 30       | 14,544,740 | 25,993,984.2 | 0.01             | 15.00                 |
| 12-17 Years         | 28             | 29       | 568      | 1,183    | 9,218,653  | 14,903,602.1 | 0.30             | 19.59                 |
| 18-24 Years         | 222            | 229      | 5,542    | 11,015   | 12,220,104 | 17,230,343.5 | 1.82             | 24.20                 |
| 25-34 Years         | 956            | 981      | 24,925   | 49,004   | 17,149,837 | 24,891,976.4 | 5.57             | 25.41                 |
| 35-44 Years         | 1,772          | 1,836    | 46,768   | 92,967   | 16,167,837 | 27,444,834.0 | 10.96            | 25.47                 |
| 45-54 Years         | 2,502          | 2,614    | 67,642   | 133,381  | 16,302,066 | 30,336,625.6 | 15.35            | 25.88                 |
| 55-64 Years         | 1,933          | 2,015    | 52,576   | 104,231  | 12,075,572 | 24,185,210.0 | 16.01            | 26.09                 |
| Dolophine           |                |          |          |          |            |              |                  |                       |
| 183-Day Washout/En  | rollment Requ  | irement  |          |          |            |              |                  |                       |
| 00-11 Years         | 0              | 0        | 0        | 0        | 13,243,618 | 23,653,754.0 | 0.00             |                       |
| 12-17 Years         | 0              | 0        | 0        | 0        | 8,633,823  | 13,935,646.3 | 0.00             |                       |
| 18-24 Years         | 0              | 0        | 0        | 0        | 10,899,829 | 15,585,775.5 | 0.00             |                       |
| 25-34 Years         | 0              | 0        | 0        | 0        | 15,396,777 | 22,357,997.7 | 0.00             |                       |
| 35-44 Years         | 0              | 0        | 0        | 0        | 14,962,986 | 25,375,108.5 | 0.00             |                       |
| 45-54 Years         | 0              | 0        | 0        | 0        | 15,343,471 | 28,416,164.8 | 0.00             |                       |
| 55-64 Years         | 0              | 0        | 0        | 0        | 11,560,076 | 22,931,815.6 | 0.00             |                       |
| 90-Day Washout/Enro | ollment Requir | ement    |          |          |            |              |                  |                       |
| 00-11 Years         | 0              | 0        | 0        | 0        | 14,544,740 | 25,993,984.2 | 0.00             |                       |
| 12-17 Years         | 0              | 0        | 0        | 0        | 9,218,653  | 14,903,602.1 | 0.00             |                       |
| 18-24 Years         | 0              | 0        | 0        | 0        | 12,220,104 | 17,230,343.5 | 0.00             |                       |
| 25-34 Years         | 0              | 0        | 0        | 0        | 17,149,837 | 24,891,976.4 | 0.00             |                       |
| 35-44 Years         | 1              | 1        | 30       | 270      | 16,167,837 | 27,444,834.0 | 0.01             | 30.00                 |
| 45-54 Years         | 0              | 0        | 0        | 0        | 16,302,066 | 30,336,625.6 | 0.00             |                       |
| 55-64 Years         | 0              | 0        | 0        | 0        | 12,075,572 | 24,185,210.0 | 0.00             |                       |



Table 2: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Age Group

|                         | New            | New      | Days     | Amount    | Eligible   |              | New Users/100K          |                       |
|-------------------------|----------------|----------|----------|-----------|------------|--------------|-------------------------|-----------------------|
|                         | Users          | Episodes | Supplied | Supplied  | Members    | Member-Years | <b>Eligible Members</b> | Days Supplied/Episode |
| Generic Methadone (5-1  | 0 mg tablets)  |          |          |           |            |              |                         |                       |
| 183-Day Washout/Enro    | ollment Requi  | rement   |          |           |            |              |                         |                       |
| 00-11 Years             | 72             | 74       | 1,759    | 3,904     | 13,243,618 | 23,653,754.0 | 0.54                    | 23.77                 |
| 12-17 Years             | 281            | 284      | 5,716    | 14,272    | 8,633,823  | 13,935,646.3 | 3.25                    | 20.13                 |
| 18-24 Years             | 1,390          | 1,424    | 28,461   | 95,786    | 10,899,829 | 15,585,775.5 | 12.75                   | 19.99                 |
| 25-34 Years             | 3,674          | 3,784    | 87,071   | 285,344   | 15,396,777 | 22,357,997.7 | 23.86                   | 23.01                 |
| 35-44 Years             | 5,353          | 5,542    | 138,903  | 439,815   | 14,962,986 | 25,375,108.5 | 35.77                   | 25.06                 |
| 45-54 Years             | 8,451          | 8,835    | 233,212  | 726,662   | 15,343,471 | 28,416,164.8 | 55.08                   | 26.40                 |
| 55-64 Years             | 7,591          | 7,992    | 215,382  | 643,895   | 11,560,076 | 22,931,815.6 | 65.67                   | 26.95                 |
| 90-Day Washout/Enro     | llment Requir  | ement    |          |           |            |              |                         |                       |
| 00-11 Years             | 83             | 94       | 2,264    | 5,123     | 14,544,740 | 25,993,984.2 | 0.57                    | 24.09                 |
| 12-17 Years             | 316            | 334      | 6,761    | 17,670    | 9,218,653  | 14,903,602.1 | 3.43                    | 20.24                 |
| 18-24 Years             | 1,663          | 1,774    | 36,077   | 125,037   | 12,220,104 | 17,230,343.5 | 13.61                   | 20.34                 |
| 25-34 Years             | 4,740          | 5,110    | 119,122  | 411,445   | 17,149,837 | 24,891,976.4 | 27.64                   | 23.31                 |
| 35-44 Years             | 7,036          | 7,670    | 196,063  | 661,636   | 16,167,837 | 27,444,834.0 | 43.52                   | 25.56                 |
| 45-54 Years             | 10,978         | 12,333   | 335,522  | 1,129,258 | 16,302,066 | 30,336,625.6 | 67.34                   | 27.21                 |
| 55-64 Years             | 9,878          | 11,397   | 321,499  | 1,059,579 | 12,075,572 | 24,185,210.0 | 81.80                   | 28.21                 |
| Generic Methadone (40 i | mg soluble tal | olets)   |          |           |            |              |                         |                       |
| 183-Day Washout/Enro    | ollment Requi  | rement   |          |           |            |              |                         |                       |
| 00-11 Years             | 0              | 0        | 0        | 0         | 13,243,618 | 23,653,754.0 | 0.00                    |                       |
| 12-17 Years             | 0              | 0        | 0        | 0         | 8,633,823  | 13,935,646.3 | 0.00                    |                       |
| 18-24 Years             | 4              | 4        | 16       | 24        | 10,899,829 | 15,585,775.5 | 0.04                    | 4.00                  |
| 25-34 Years             | 4              | 4        | 72       | 184       | 15,396,777 | 22,357,997.7 | 0.03                    | 18.00                 |
| 35-44 Years             | 9              | 9        | 312      | 1,978     | 14,962,986 | 25,375,108.5 | 0.06                    | 34.67                 |
| 45-54 Years             | 5              | 5        | 82       | 145       | 15,343,471 | 28,416,164.8 | 0.03                    | 16.40                 |
| 55-64 Years             | 6              | 6        | 114      | 230       | 11,560,076 | 22,931,815.6 | 0.05                    | 19.00                 |
| 90-Day Washout/Enro     | llment Require | ement    |          |           |            |              |                         |                       |
| 00-11 Years             | 0              | 0        | 0        | 0         | 14,544,740 | 25,993,984.2 | 0.00                    |                       |
| 12-17 Years             | 0              | 0        | 0        | 0         | 9,218,653  | 14,903,602.1 | 0.00                    |                       |
| 18-24 Years             | 4              | 4        | 16       | 24        | 12,220,104 | 17,230,343.5 | 0.03                    | 4.00                  |
| 25-34 Years             | 4              | 4        | 72       | 184       | 17,149,837 | 24,891,976.4 | 0.02                    | 18.00                 |
| 35-44 Years             | 11             | 12       | 426      | 2,303     | 16,167,837 | 27,444,834.0 | 0.07                    | 35.50                 |
| 45-54 Years             | 7              | 7        | 101      | 206       | 16,302,066 | 30,336,625.6 | 0.04                    | 14.43                 |
| 55-64 Years             | 7              | 7        | 130      | 280       | 12,075,572 | 24,185,210.0 | 0.06                    | 18.57                 |
| Generic Methadone (liqu | iid formulatio | ns)      |          |           |            |              |                         |                       |
| 183-Day Washout/Enr     | ollment Requi  | rement   |          |           |            |              |                         |                       |
| 00-11 Years             | 606            | 617      | 9,307    | 36,115    | 13,243,618 | 23,653,754.0 | 4.58                    | 15.08                 |
| 12-17 Years             | 141            | 143      | 2,127    | 14,863    | 8,633,823  | 13,935,646.3 | 1.63                    | 14.87                 |
| 18-24 Years             | 54             | 57       | 1,031    | 17,274    | 10,899,829 | 15,585,775.5 | 0.50                    | 18.09                 |
| 25-34 Years             | 93             | 94       | 1,781    | 53,487    | 15,396,777 | 22,357,997.7 | 0.60                    | 18.95                 |
| 35-44 Years             | 69             | 71       | 1,463    | 21,201    | 14,962,986 | 25,375,108.5 | 0.46                    | 20.61                 |
| 45-54 Years             | 137            | 139      | 3,251    | 31,264    | 15,343,471 | 28,416,164.8 | 0.89                    | 23.39                 |
| 55-64 Years             | 193            | 198      | 4,828    | 38,311    | 11,560,076 | 22,931,815.6 | 1.67                    | 24.38                 |



Table 2: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Age Group

|                     | New           | New             | Days     | Amount   | Eligible   |              | New Users/100K          |                       |
|---------------------|---------------|-----------------|----------|----------|------------|--------------|-------------------------|-----------------------|
|                     | Users         | <b>Episodes</b> | Supplied | Supplied | Members    | Member-Years | <b>Eligible Members</b> | Days Supplied/Episode |
| 90-Day Washout/Enro | ollment Requi | rement          |          |          |            |              |                         |                       |
| 00-11 Years         | 808           | 835             | 12,303   | 43,328   | 14,544,740 | 25,993,984.2 | 5.56                    | 14.73                 |
| 12-17 Years         | 146           | 151             | 2,326    | 16,698   | 9,218,653  | 14,903,602.1 | 1.58                    | 15.40                 |
| 18-24 Years         | 68            | 72              | 1,286    | 19,792   | 12,220,104 | 17,230,343.5 | 0.56                    | 17.86                 |
| 25-34 Years         | 116           | 118             | 2,287    | 59,934   | 17,149,837 | 24,891,976.4 | 0.68                    | 19.38                 |
| 35-44 Years         | 87            | 93              | 2,000    | 25,842   | 16,167,837 | 27,444,834.0 | 0.54                    | 21.51                 |
| 45-54 Years         | 171           | 181             | 4,686    | 39,911   | 16,302,066 | 30,336,625.6 | 1.05                    | 25.89                 |
| 55-64 Years         | 228           | 243             | 5,781    | 52,494   | 12,075,572 | 24,185,210.0 | 1.89                    | 23.79                 |



Table 3: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Sex

|                        | New               | New      | Days      | Amount   | Eligible                              |              | New Users/100K   | Days             |
|------------------------|-------------------|----------|-----------|----------|---------------------------------------|--------------|------------------|------------------|
|                        | Users             | Episodes | Supplied  | Supplied | Members                               | Member-Years | Eligible Members | Supplied/Episode |
| Butrans                |                   |          |           |          |                                       |              |                  |                  |
| 183-Day Washout/En     | rollment Requi    | irement  |           |          |                                       |              |                  |                  |
| Female                 | 10,843            | 11,021   | 303,639   | 43,685   | 37,698,806                            | 77,381,205.3 | 28.76            | 27.55            |
| Male                   | 6,248             | 6,337    | 173,583   | 24,918   | 37,011,226                            | 74,869,411.5 | 16.88            | 27.39            |
| Unknown                | 4                 | 4        | 112       | 16       | 3,166                                 | 5,645.5      | 126.34           | 28.00            |
| 90-Day Washout/Enro    | ollment Requir    | ement    |           |          |                                       |              |                  |                  |
| Female                 | 12,325            | 12,816   | 353,506   | 50,865   | 40,827,691                            | 83,763,342.8 | 30.19            | 27.58            |
| Male                   | 7,145             | 7,390    | 202,389   | 29,052   | 40,225,959                            | 81,217,041.1 | 17.76            | 27.39            |
| Unknown                | 4                 | 5        | 140       | 24       | 3,649                                 | 6,191.8      | 109.62           | 28.00            |
| Duragesic              |                   |          |           |          |                                       |              |                  |                  |
| 183-Day Washout/En     | rollment Requ     | irement  |           |          |                                       |              |                  |                  |
| Female                 | 918               | 933      | 24,308    | 8,704    | 37,698,806                            | 77,381,205.3 | 2.44             | 26.05            |
| Male                   | 673               | 679      | 17,602    | 6,299    | 37,011,226                            | 74,869,411.5 | 1.82             | 25.92            |
| Unknown                | 0                 | 0        | 0         | 0        | 3,166                                 | 5,645.5      | 0.00             |                  |
| 90-Day Washout/Enro    | ollment Requir    | ement    |           |          | · · · · · · · · · · · · · · · · · · · |              |                  |                  |
| Female                 | 1,162             | 1,213    | 32,359    | 11,818   | 40,827,691                            | 83,763,342.8 | 2.85             | 26.68            |
| Male                   | ,<br>825          | 845      | 22,068    | 8,019    | 40,225,959                            | 81,217,041.1 | 2.05             | 26.12            |
| Unknown                | 0                 | 0        | 0         | 0        | 3,649                                 | 6,191.8      | 0.00             |                  |
| Generic fentanyl patch |                   |          |           |          |                                       |              |                  |                  |
| 183-Day Washout/En     | rollment Reau     | irement  |           |          |                                       |              |                  |                  |
| Female                 | 47,314            | 49,216   | 1,245,854 | 432,539  | 37,698,806                            | 77,381,205.3 | 125.51           | 25.31            |
| Male                   | 33.856            | 34,887   | 876,575   | 304,566  | 37,011,226                            | 74,869,411.5 | 91.47            | 25.13            |
| Unknown                | 4                 | 4        | 69        | 23       | 3,166                                 | 5,645.5      | 126.34           | 17.25            |
| 90-Day Washout/Enro    |                   |          |           |          | 5,255                                 | 2,2 1212     |                  |                  |
| Female                 | 54,634            | 59,127   | 1,515,698 | 530,245  | 40,827,691                            | 83,763,342.8 | 133.82           | 25.63            |
| Male                   | 38,779            | 41,203   | 1,046,136 | 365,743  | 40,225,959                            | 81,217,041.1 | 96.40            | 25.39            |
| Unknown                | 4                 | 4        | 69        | 23       | 3,649                                 | 6,191.8      | 109.62           | 17.25            |
| Hysingla ER            |                   |          |           |          | 3,0.3                                 | 0,131.0      | 203.02           | 17.120           |
| 183-Day Washout/En     | rollment Reau     | irement  |           |          |                                       |              |                  |                  |
| Female                 | 0                 | 0        | 0         | 0        | 37,698,806                            | 77,381,205.3 | 0.00             |                  |
| Male                   | 0                 | 0        | 0         | 0        | 37,011,226                            | 74,869,411.5 | 0.00             |                  |
| Unknown                | 0                 | 0        | 0         | 0        | 3,166                                 | 5,645.5      | 0.00             |                  |
| 90-Day Washout/Enro    |                   |          | •         |          | 3,200                                 | 3,0 .3.3     | 0.00             |                  |
| Female                 | 0                 | 0        | 0         | 0        | 40,827,691                            | 83,763,342.8 | 0.00             |                  |
| Male                   | 0                 | 0        | 0         | 0        | 40,225,959                            | 81,217,041.1 | 0.00             |                  |
| Unknown                | 0                 | 0        | 0         | 0        | 3,649                                 | 6,191.8      | 0.00             |                  |
| Zohydro ER             |                   | <u> </u> | <u> </u>  |          | 3,043                                 | 0,131.0      | 0.00             |                  |
| 183-Day Washout/En     | rollment Requi    | irement  |           |          |                                       |              |                  |                  |
| Female                 | 0                 | 0        | 0         | 0        | 37,698,806                            | 77,381,205.3 | 0.00             |                  |
| Male                   | 0                 | 0        | 0         | 0        | 37,038,800                            | 74,869,411.5 | 0.00             |                  |
| Unknown                | 0                 | 0        | 0         | 0        | 3,166                                 | 5,645.5      | 0.00             |                  |
| 90-Day Washout/Enro    |                   |          | 0         | J        | 3,100                                 | 3,043.3      | 0.00             |                  |
| Female                 | onnent kegun<br>0 | 0        | 0         | 0        | 40,827,691                            | 83,763,342.8 | 0.00             |                  |
| Male                   | 0                 | 0        | 0         | 0        | 40,827,691                            | 81,217,041.1 | 0.00             |                  |
|                        | 0                 | 0        | 0         | 0        |                                       |              |                  |                  |
| Unknown                | U                 | U        | U         | U        | 3,649                                 | 6,191.8      | 0.00             |                  |



Table 3: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Sex

|                       | New            | New        | Days     | Amount   | Eligible   |              | New Users/100K   | Days             |
|-----------------------|----------------|------------|----------|----------|------------|--------------|------------------|------------------|
| -                     | Users          | Episodes   | Supplied | Supplied | Members    | Member-Years | Eligible Members | Supplied/Episode |
| Exalgo ER             |                |            |          |          |            |              |                  |                  |
| 183-Day Washout/En    | rollment Requ  |            |          |          |            |              |                  |                  |
| Female                | 1,552          | 1,575      | 42,478   | 50,791   | 37,698,806 | 77,381,205.3 | 4.12             | 26.97            |
| Male                  | 1,143          | 1,157      | 30,665   | 36,582   | 37,011,226 | 74,869,411.5 | 3.09             | 26.50            |
| Unknown               | 0              | 0          | 0        | 0        | 3,166      | 5,645.5      | 0.00             |                  |
| 90-Day Washout/Enr    | ollment Requir | rement     |          |          |            |              |                  |                  |
| Female                | 1,939          | 1,998      | 53,742   | 64,684   | 40,827,691 | 83,763,342.8 | 4.75             | 26.90            |
| Male                  | 1,437          | 1,481      | 39,432   | 47,213   | 40,225,959 | 81,217,041.1 | 3.57             | 26.63            |
| Unknown               | 0              | 0          | 0        | 0        | 3,649      | 6,191.8      | 0.00             |                  |
| Generic ER/LA hydrome | orphone        |            |          |          |            |              |                  |                  |
| 183-Day Washout/En    | rollment Requ  | irement    |          |          |            |              |                  |                  |
| Female                | 0              | 0          | 0        | 0        | 37,698,806 | 77,381,205.3 | 0.00             |                  |
| Male                  | 0              | 0          | 0        | 0        | 37,011,226 | 74,869,411.5 | 0.00             |                  |
| Unknown               | 0              | 0          | 0        | 0        | 3,166      | 5,645.5      | 0.00             |                  |
| 90-Day Washout/Enr    | ollment Requir | ement      |          |          |            |              |                  |                  |
| Female                | 0              | 0          | 0        | 0        | 40,827,691 | 83,763,342.8 | 0.00             |                  |
| Male                  | 0              | 0          | 0        | 0        | 40,225,959 | 81,217,041.1 | 0.00             |                  |
| Unknown               | 0              | 0          | 0        | 0        | 3,649      | 6,191.8      | 0.00             |                  |
| Palladone             |                |            |          |          |            | -, -         |                  |                  |
| 183-Day Washout/En    | rollment Regu  | irement    |          |          |            |              |                  |                  |
| Female                | 0              | 0          | 0        | 0        | 37,698,806 | 77,381,205.3 | 0.00             |                  |
| Male                  | 0              | 0          | 0        | 0        | 37,011,226 | 74,869,411.5 | 0.00             |                  |
| Unknown               | 0              | 0          | 0        | 0        | 3,166      | 5,645.5      | 0.00             |                  |
| 90-Day Washout/Enr    | ollment Reauir | ement      |          |          | -,         | -,           |                  |                  |
| Female                | 0              | 0          | 0        | 0        | 40,827,691 | 83,763,342.8 | 0.00             |                  |
| Male                  | 0              | 0          | 0        | 0        | 40,225,959 | 81,217,041.1 | 0.00             |                  |
| Unknown               | 0              | 0          | 0        | 0        | 3,649      | 6,191.8      | 0.00             |                  |
| Avinza                |                | -          | -        | •        | 3,0 .3     | 0,131.0      | 0.00             |                  |
| 183-Day Washout/En    | rollment Reau  | irement    |          |          |            |              |                  |                  |
| Female                | 1,830          | 1,883      | 51,482   | 58,580   | 37,698,806 | 77,381,205.3 | 4.85             | 27.34            |
| Male                  | 1,628          | 1,665      | 44,886   | 50,724   | 37,011,226 | 74,869,411.5 | 4.40             | 26.96            |
| Unknown               | 0              | 0          | 0        | 0        | 3,166      | 5,645.5      | 0.00             |                  |
| 90-Day Washout/Enr    |                |            |          |          | 3,100      | 3,0 13.3     | 0.00             |                  |
| Female                | 2,281          | 2,450      | 68,136   | 80,266   | 40,827,691 | 83,763,342.8 | 5.59             | 27.81            |
| Male                  | 1,970          | 2,084      | 56,872   | 65,019   | 40,225,959 | 81,217,041.1 | 4.90             | 27.29            |
| Unknown               | 0              | 0          | 0        | 0        | 3,649      | 6,191.8      | 0.00             |                  |
| Kadian                |                | 0          | -        |          | 3,043      | 0,131.0      | 0.00             |                  |
| 183-Day Washout/En    | rollment Peru  | iromont    |          |          |            |              |                  |                  |
| Female                | 3,286          | 3,359      | 86,536   | 146,859  | 37,698,806 | 77,381,205.3 | 8.72             | 25.76            |
| Male                  | 2,406          | 2,456      | 63,432   | 109,038  | 37,098,800 |              | 6.50             | 25.83            |
|                       |                | 2,430<br>1 | 20       | 20       |            | 74,869,411.5 |                  |                  |
| Unknown               | 1              |            | 20       | 20       | 3,166      | 5,645.5      | 31.59            | 20.00            |
| 90-Day Washout/Enr    | •              |            | 100 017  | 107 440  | 40 027 004 | 02 762 242 0 | 0.67             | 26.42            |
| Female                | 3,946          | 4,170      | 108,917  | 187,449  | 40,827,691 | 83,763,342.8 | 9.67             | 26.12            |
| Male                  | 2,885          | 3,024      | 79,076   | 137,316  | 40,225,959 | 81,217,041.1 | 7.17             | 26.15            |
| Unknown               | 1              | 1          | 20       | 20       | 3,649      | 6,191.8      | 27.40            | 20.00            |



Table 3: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Sex

|   | New          | New         | Days      | Amount        | Eligible   |                              | New Users/100K   | Days             |
|---|--------------|-------------|-----------|---------------|------------|------------------------------|------------------|------------------|
| Canaria FR/I A marrhina                     | Users        | Episodes    | Supplied  | Supplied      | Members    | Member-Years                 | Eligible Members | Supplied/Episode |
| Generic ER/LA morphine 183-Day Washout/Enro | Ilmont Poqui | iromont     |           |               |            |                              |                  |                  |
| Female                                      | 65,786       | 69,303      | 1,656,915 | 3,579,133     | 37,698,806 | 77 201 205 2                 | 174.50           | 23.91            |
| Male  |              |             |           |               |            | 77,381,205.3                 |                  | 23.60            |
|   | 61,178       | 64,153      | 1,514,083 | 3,323,738     | 37,011,226 | 74,869,411.5                 | 165.30           |                  |
| Unknown                                     | 5            | 5           | 113       | 198           | 3,166      | 5,645.5                      | 157.93           | 22.60            |
| 90-Day Washout/Enroll                       | -            |             | 2.040.005 | 4 4 4 2 4 4 7 | 40.027.604 | 02 762 242 0                 | 402.44           | 24.20            |
| Female                                      | 74,894       | 82,803      | 2,018,665 | 4,443,447     | 40,827,691 | 83,763,342.8                 | 183.44           | 24.38            |
| Male  | 69,735       | 76,458<br>- | 1,837,335 | 4,088,715     | 40,225,959 | 81,217,041.1                 | 173.36           | 24.03            |
| Unknown                                     | 5            | 5           | 113       | 198           | 3,649      | 6,191.8                      | 137.02           | 22.60            |
| MS Contin                                   |              |             |           |               |            |                              |                  |                  |
| 183-Day Washout/Enro                        |              |             |           |               |            |                              |                  |                  |
| Female                                      | 95           | 99          | 2,419     | 6,139         | 37,698,806 | 77,381,205.3                 | 0.25             | 24.43            |
| Male  | 73           | 74          | 1,746     | 3,860         | 37,011,226 | 74,869,411.5                 | 0.20             | 23.59            |
| Unknown                                     | 0            | 0           | 0         | 0             | 3,166      | 5,645.5                      | 0.00             |                  |
| 90-Day Washout/Enroll                       | lment Requir | ement       |           |               |            |                              |                  |                  |
| Female                                      | 108          | 119         | 3,003     | 8,095         | 40,827,691 | 83,763,342.8                 | 0.26             | 25.24            |
| Male  | 91           | 97          | 2,392     | 5,452         | 40,225,959 | 81,217,041.1                 | 0.23             | 24.66            |
| Unknown                                     | 0            | 0           | 0         | 0             | 3,649      | 6,191.8                      | 0.00             |                  |
| Oramorph SR                                 |              |             |           |               |            |                              |                  |                  |
| 183-Day Washout/Enro                        | llment Requi | irement     |           |               |            |                              |                  |                  |
| Female                                      | 96           | 96          | 1,455     | 3,422         | 37,698,806 | 77,381,205.3                 | 0.25             | 15.16            |
| Male  | 107          | 107         | 1,474     | 3,199         | 37,011,226 | 74,869,411.5                 | 0.29             | 13.78            |
| Unknown                                     | 0            | 0           | 0         | 0             | 3,166      | 5,645.5                      | 0.00             |                  |
| 90-Day Washout/Enroll                       | lment Requir | ement       |           |               |            |                              |                  |                  |
| Female                                      | 116          | 117         | 1,980     | 4,722         | 40,827,691 | 83,763,342.8                 | 0.28             | 16.92            |
| Male  | 126          | 127         | 1,908     | 4,183         | 40,225,959 | 81,217,041.1                 | 0.31             | 15.02            |
| Unknown                                     | 0            | 0           | 0         | 0             | 3,649      | 6,191.8                      | 0.00             |                  |
| Embeda                                      |              |             |           |               |            |                              |                  |                  |
| 183-Day Washout/Enro                        | llment Requi | irement     |           |               |            |                              |                  |                  |
| Female                                      | 1,176        | 1,181       | 31,283    | 52,715        | 37,698,806 | 77,381,205.3                 | 3.12             | 26.49            |
| Male  | 1,025        | 1,027       | 26,686    | 45,862        | 37,011,226 | 74,869,411.5                 | 2.77             | 25.98            |
| Unknown                                     | 1            | 1           | 30        | 60            | 3,166      | 5,645.5                      | 31.59            | 30.00            |
| 90-Day Washout/Enroll                       | lment Requir | ement       |           |               | -,         | -,                           |                  |                  |
| Female                                      | 1,362        | 1,374       | 36,360    | 61,210        | 40,827,691 | 83,763,342.8                 | 3.34             | 26.46            |
| Male  | 1,205        | 1,215       | 31,716    | 54,491        | 40,225,959 | 81,217,041.1                 | 3.00             | 26.10            |
| Unknown                                     | 1            | 1           | 30        | 60            | 3,649      | 6,191.8                      | 27.40            | 30.00            |
| Generic ER/LA Oxycodone                     |              | _           |           |               | 3,013      | 0,131.0                      | 27.10            | 30.00            |
| 183-Day Washout/Enro                        |              | irement     |           |               |            |                              |                  |                  |
| Female                                      | 12,697       | 12,796      | 221,592   | 485,169       | 37,698,806 | 77,381,205.3                 | 33.68            | 17.32            |
| Male  | 13,374       | 13,482      | 232,647   | 509,232       | 37,030,000 | 74,869,411.5                 | 36.13            | 17.26            |
| Unknown                                     | 2            | 2           | 60        | 90            | 3,166      | 5,645.5                      | 63.17            | 30.00            |
| 90-Day Washout/Enroll                       |              |             | 00        | 20            | 3,100      | 3,043.3                      | 03.17            | 30.00            |
| Female                                      | -            | 14,870      | 266,820   | 588,834       | 40,827,691 | 02 762 242 0                 | 35.70            | 17.94            |
|   | 14,574       |             | ,         |               |            | 83,763,342.8<br>81,217,041.1 |                  |                  |
| Male  | 15,460       | 15,795<br>2 | 281,329   | 621,383       | 40,225,959 |                              | 38.43            | 17.81            |
| Unknown                                     | 2            | 2           | 60        | 90            | 3,649      | 6,191.8                      | 54.81            | 30.00            |



Table 3: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Sex

| 226.67<br>244.59<br>442.20<br>233.45 | 17.62<br>17.55       |
|--------------------------------------|----------------------|
| 244.59<br>442.20                     |                      |
| 244.59<br>442.20                     |                      |
| 442.20                               | 17 55                |
|                                      | 17.55                |
| 233.45                               | 13.64                |
| 233.45                               |                      |
|                                      | 18.15                |
| 251.53                               | 18.07                |
| 383.67                               | 14.73                |
|                                      |                      |
|                                      |                      |
| 30.88                                | 26.21                |
| 27.04                                | 25.39                |
| 31.59                                | 30.00                |
|                                      |                      |
| 34.00                                | 26.41                |
| 29.79                                | 25.61                |
| 54.81                                | 30.00                |
|                                      |                      |
|                                      |                      |
| 0.88                                 | 27.17                |
| 0.89                                 | 26.96                |
| 0.00                                 |                      |
|                                      |                      |
| 1.08                                 | 26.93                |
| 1.06                                 | 27.35                |
| 0.00                                 |                      |
|                                      |                      |
|                                      |                      |
| 10.12                                | 25.53                |
| 7.19                                 | 25.64                |
| 0.00                                 |                      |
|                                      |                      |
| 10.65                                | 25.69                |
| 7.57                                 | 25.71                |
| 0.00                                 |                      |
|                                      |                      |
|                                      |                      |
| 0.00                                 |                      |
|                                      |                      |
| 0.00                                 |                      |
|                                      |                      |
| 0.00                                 |                      |
|                                      | 30.00                |
| 0.00                                 |                      |
|                                      | 0.00<br>0.00<br>0.00 |



Table 3: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Sex

|                             | New         | New      | Days     | Amount    | Eligible   | Marshau Vasus | New Users/100K   | Days             |
|-----------------------------|-------------|----------|----------|-----------|------------|---------------|------------------|------------------|
| Canadia Mathadana (F. 10 m  | Users       | Episodes | Supplied | Supplied  | Members    | Member-Years  | Eligible Members | Supplied/Episode |
| Generic Methadone (5-10 m   | •           |          |          |           |            |               |                  |                  |
| 183-Day Washout/Enrolln     | -           |          | 252.026  | 4 040 570 |            |               | 0.4.60           |                  |
| Female                      | 13,078      | 13,712   | 352,036  | 1,018,579 | 37,698,806 | 77,381,205.3  | 34.69            | 25.67            |
| Male                        | 13,557      | 14,222   | 358,438  | 1,191,039 | 37,011,226 | 74,869,411.5  | 36.63            | 25.20            |
| Unknown                     | 1           | 1        | 30       | 60        | 3,166      | 5,645.5       | 31.59            | 30.00            |
| 90-Day Washout/Enrollme     | ent Requir  | ement    |          |           |            |               |                  |                  |
| Female                      | 17,067      | 19,371   | 517,548  | 1,664,853 | 40,827,691 | 83,763,342.8  | 41.80            | 26.72            |
| Male                        | 17,245      | 19,338   | 499,680  | 1,744,685 | 40,225,959 | 81,217,041.1  | 42.87            | 25.84            |
| Unknown                     | 1           | 3        | 80       | 210       | 3,649      | 6,191.8       | 27.40            | 26.67            |
| Generic Methadone (40 mg    | soluble tal | blets)   |          |           |            |               |                  |                  |
| 183-Day Washout/Enrollm     | nent Requi  | irement  |          |           |            |               |                  |                  |
| Female                      | 9           | 9        | 196      | 496       | 37,698,806 | 77,381,205.3  | 0.02             | 21.78            |
| Male                        | 19          | 19       | 400      | 2,065     | 37,011,226 | 74,869,411.5  | 0.05             | 21.05            |
| Unknown                     | 0           | 0        | 0        | 0         | 3,166      | 5,645.5       | 0.00             |                  |
| 90-Day Washout/Enrollme     | ent Requir  | ement    |          |           |            |               |                  |                  |
| Female                      | 11          | 11       | 207      | 526       | 40,827,691 | 83,763,342.8  | 0.03             | 18.82            |
| Male                        | 22          | 23       | 538      | 2,471     | 40,225,959 | 81,217,041.1  | 0.05             | 23.39            |
| Unknown                     | 0           | 0        | 0        | 0         | 3,649      | 6,191.8       | 0.00             |                  |
| Generic Methadone (liquid f | ormulatio   | ns)      |          |           |            |               |                  |                  |
| 183-Day Washout/Enrollm     | nent Requi  | irement  |          |           |            |               |                  |                  |
| Female                      | 625         | 639      | 11,703   | 122,154   | 37,698,806 | 77,381,205.3  | 1.66             | 18.31            |
| Male                        | 666         | 680      | 12,085   | 90,362    | 37,011,226 | 74,869,411.5  | 1.80             | 17.77            |
| Unknown                     | 0           | 0        | 0        | 0         | 3,166      | 5,645.5       | 0.00             |                  |
| 90-Day Washout/Enrollme     | ent Requir  | ement    |          |           |            |               |                  |                  |
| Female                      | 790         | 827      | 15,390   | 149,360   | 40,827,691 | 83,763,342.8  | 1.93             | 18.61            |
| Male                        | 829         | 866      | 15,279   | 108,640   | 40,225,959 | 81,217,041.1  | 2.06             | 17.64            |
| Unknown                     | 0           | 0        | 0        | 0         | 3,649      | 6,191.8       | 0.00             |                  |



Table 4: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Year

|                        | New<br>Users   | New<br>Episodes | Days<br>Supplied | Amount<br>Supplied | Eligible<br>Members | Member-Years | New Users/100K<br>Eligible Members | Days<br>Supplied/Episode |
|------------------------|----------------|-----------------|------------------|--------------------|---------------------|--------------|------------------------------------|--------------------------|
| Butrans                |                |                 |                  |                    |                     |              |                                    |                          |
| 183-Day Washout/En     | rollment Requ  | irement         |                  |                    |                     |              |                                    |                          |
| 2009                   | 0              | 0               | 0                | 0                  | 42,570,274          | 32,833,913.4 | 0.00                               |                          |
| 2010                   | 0              | 0               | 0                | 0                  | 40,361,536          | 31,323,326.9 | 0.00                               |                          |
| 2011                   | 5,986          | 5,995           | 163,984          | 23,704             | 38,902,982          | 30,404,304.0 | 15.39                              | 27.35                    |
| 2012                   | 5,713          | 5,718           | 157,853          | 22,660             | 37,646,762          | 29,525,134.4 | 15.18                              | 27.61                    |
| 2013                   | 5,642          | 5,649           | 155,497          | 22,255             | 36,291,223          | 28,169,583.6 | 15.55                              | 27.53                    |
| 90-Day Washout/Enro    | ollment Requir |                 |                  |                    |                     |              |                                    |                          |
| 2009                   | 0              | 0               | 0                | 0                  | 45,859,022          | 35,655,399.1 | 0.00                               |                          |
| 2010                   | 0              | 0               | 0                | 0                  | 43,603,075          | 33,918,464.7 | 0.00                               |                          |
| 2011                   | 6,813          | 6,891           | 188,436          | 27,254             | 42,081,122          | 32,920,647.2 | 16.19                              | 27.35                    |
| 2012                   | 6,596          | 6,681           | 184,703          | 26,513             | 40,745,292          | 31,921,086.6 | 16.19                              | 27.65                    |
| 2013                   | 6,572          | 6,639           | 182,896          | 26,174             | 39,269,898          | 30,570,978.1 | 16.74                              | 27.55                    |
| Duragesic              |                |                 |                  |                    |                     |              |                                    |                          |
| 183-Day Washout/En     | -              |                 |                  |                    |                     |              |                                    |                          |
| 2009                   | 239            | 239             | 6,419            | 2,308              | 42,570,274          | 32,833,913.4 | 0.56                               | 26.86                    |
| 2010                   | 147            | 147             | 3,767            | 1,431              | 40,361,536          | 31,323,326.9 | 0.36                               | 25.63                    |
| 2011                   | 320            | 320             | 7,943            | 2,947              | 38,902,982          | 30,404,304.0 | 0.82                               | 24.82                    |
| 2012                   | 499            | 501             | 13,175           | 4,626              | 37,646,762          | 29,525,134.4 | 1.33                               | 26.30                    |
| 2013                   | 405            | 405             | 10,606           | 3,690              | 36,291,223          | 28,169,583.6 | 1.12                               | 26.19                    |
| 90-Day Washout/Enro    | ollment Requir | ement           |                  |                    |                     |              |                                    |                          |
| 2009                   | 316            | 322             | 8,740            | 3,272              | 45,859,022          | 35,655,399.1 | 0.69                               | 27.14                    |
| 2010                   | 192            | 194             | 4,917            | 1,926              | 43,603,075          | 33,918,464.7 | 0.44                               | 25.35                    |
| 2011                   | 391            | 392             | 10,067           | 3,765              | 42,081,122          | 32,920,647.2 | 0.93                               | 25.68                    |
| 2012                   | 631            | 640             | 17,063           | 6,076              | 40,745,292          | 31,921,086.6 | 1.55                               | 26.66                    |
| 2013                   | 505            | 510             | 13,640           | 4,799              | 39,269,898          | 30,570,978.1 | 1.29                               | 26.75                    |
| Generic fentanyl patch |                |                 |                  |                    |                     |              |                                    |                          |
| 183-Day Washout/En     | -              |                 |                  |                    |                     |              |                                    |                          |
| 2009                   | 20,138         | 20,195          | 508,668          | 176,904            | 42,570,274          | 32,833,913.4 | 47.31                              | 25.19                    |
| 2010                   | 18,201         | 18,256          | 458,858          | 160,055            | 40,361,536          | 31,323,326.9 | 45.09                              | 25.13                    |
| 2011                   | 16,594         | 16,637          | 418,831          | 145,697            | 38,902,982          | 30,404,304.0 | 42.65                              | 25.17                    |
| 2012                   | 15,070         | 15,123          | 382,839          | 132,769            | 37,646,762          | 29,525,134.4 | 40.03                              | 25.32                    |
| 2013                   | 13,855         | 13,896          | 353,302          | 121,702            | 36,291,223          | 28,169,583.6 | 38.18                              | 25.42                    |
| 90-Day Washout/Enro    | -              |                 |                  |                    |                     |              |                                    |                          |
| 2009                   | 23,571         | 23,988          | 610,818          | 213,868            | 45,859,022          | 35,655,399.1 | 51.40                              | 25.46                    |
| 2010                   | 21,300         | 21,698          | 551,403          | 193,642            | 43,603,075          | 33,918,464.7 | 48.85                              | 25.41                    |
| 2011                   | 19,469         | 19,795          | 504,343          | 176,424            | 42,081,122          | 32,920,647.2 | 46.27                              | 25.48                    |
| 2012                   | 17,865         | 18,183          | 465,749          | 162,961            | 40,745,292          | 31,921,086.6 | 43.85                              | 25.61                    |
| 2013                   | 16,409         | 16,670          | 429,590          | 149,116            | 39,269,898          | 30,570,978.1 | 41.79                              | 25.77                    |
| Hysingla ER            |                |                 |                  |                    |                     |              |                                    |                          |
| 183-Day Washout/En     | -              |                 |                  |                    |                     |              |                                    |                          |
| 2009                   | 0              | 0               | 0                | 0                  | 42,570,274          | 32,833,913.4 | 0.00                               |                          |
| 2010                   | 0              | 0               | 0                | 0                  | 40,361,536          | 31,323,326.9 | 0.00                               |                          |
| 2011                   | 0              | 0               | 0                | 0                  | 38,902,982          | 30,404,304.0 | 0.00                               |                          |
| 2012                   | 0              | 0               | 0                | 0                  | 37,646,762          | 29,525,134.4 | 0.00                               |                          |
| 2013                   | 0              | 0               | 0                | 0                  | 36,291,223          | 28,169,583.6 | 0.00                               |                          |



Table 4: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Year

|                           | New        | New      | Days     | Amount   | Eligible   |              | New Users/100K   | Days             |
|---------------------------|------------|----------|----------|----------|------------|--------------|------------------|------------------|
|                           | Users      | Episodes | Supplied | Supplied | Members    | Member-Years | Eligible Members | Supplied/Episode |
| 90-Day Washout/Enrollme   | •          |          |          |          |            |              |                  |                  |
| 2009                      | 0          | 0        | 0        | 0        | 45,859,022 | 35,655,399.1 | 0.00             |                  |
| 2010                      | 0          | 0        | 0        | 0        | 43,603,075 | 33,918,464.7 | 0.00             |                  |
| 2011                      | 0          | 0        | 0        | 0        | 42,081,122 | 32,920,647.2 | 0.00             |                  |
| 2012                      | 0          | 0        | 0        | 0        | 40,745,292 | 31,921,086.6 | 0.00             |                  |
| 2013                      | 0          | 0        | 0        | 0        | 39,269,898 | 30,570,978.1 | 0.00             |                  |
| Zohydro ER                |            |          |          |          |            |              |                  |                  |
| 183-Day Washout/Enrolln   | -          |          |          |          |            |              |                  |                  |
| 2009                      | 0          | 0        | 0        | 0        | 42,570,274 | 32,833,913.4 | 0.00             |                  |
| 2010                      | 0          | 0        | 0        | 0        | 40,361,536 | 31,323,326.9 | 0.00             |                  |
| 2011                      | 0          | 0        | 0        | 0        | 38,902,982 | 30,404,304.0 | 0.00             |                  |
| 2012                      | 0          | 0        | 0        | 0        | 37,646,762 | 29,525,134.4 | 0.00             |                  |
| 2013                      | 0          | 0        | 0        | 0        | 36,291,223 | 28,169,583.6 | 0.00             |                  |
| 90-Day Washout/Enrollme   | ent Requir | ement    |          |          |            |              |                  |                  |
| 2009                      | 0          | 0        | 0        | 0        | 45,859,022 | 35,655,399.1 | 0.00             |                  |
| 2010                      | 0          | 0        | 0        | 0        | 43,603,075 | 33,918,464.7 | 0.00             |                  |
| 2011                      | 0          | 0        | 0        | 0        | 42,081,122 | 32,920,647.2 | 0.00             |                  |
| 2012                      | 0          | 0        | 0        | 0        | 40,745,292 | 31,921,086.6 | 0.00             |                  |
| 2013                      | 0          | 0        | 0        | 0        | 39,269,898 | 30,570,978.1 | 0.00             |                  |
| Exalgo ER                 |            |          |          |          |            |              |                  |                  |
| 183-Day Washout/Enrolln   | nent Requ  | irement  |          |          |            |              |                  |                  |
| 2009                      | 0          | 0        | 0        | 0        | 42,570,274 | 32,833,913.4 | 0.00             |                  |
| 2010                      | 232        | 232      | 6,111    | 7,350    | 40,361,536 | 31,323,326.9 | 0.57             | 26.34            |
| 2011                      | 589        | 590      | 15,884   | 19,863   | 38,902,982 | 30,404,304.0 | 1.51             | 26.92            |
| 2012                      | 912        | 914      | 24,602   | 29,578   | 37,646,762 | 29,525,134.4 | 2.42             | 26.92            |
| 2013                      | 995        | 996      | 26,546   | 30,582   | 36,291,223 | 28,169,583.6 | 2.74             | 26.65            |
| 90-Day Washout/Enrollme   | ent Requir | ement    |          |          |            |              |                  |                  |
| 2009                      | 0          | 0        | 0        | 0        | 45,859,022 | 35,655,399.1 | 0.00             |                  |
| 2010                      | 278        | 279      | 7,272    | 8,939    | 43,603,075 | 33,918,464.7 | 0.64             | 26.06            |
| 2011                      | 745        | 753      | 20,273   | 25,373   | 42,081,122 | 32,920,647.2 | 1.77             | 26.92            |
| 2012                      | 1,132      | 1,141    | 30,661   | 37,283   | 40,745,292 | 31,921,086.6 | 2.78             | 26.87            |
| 2013                      | 1,292      | 1,306    | 34,968   | 40,302   | 39,269,898 | 30,570,978.1 | 3.29             | 26.77            |
| Generic ER/LA hydromorpho | one        |          |          |          |            |              |                  |                  |
| 183-Day Washout/Enrolln   |            | irement  |          |          |            |              |                  |                  |
| 2009                      | 0          | 0        | 0        | 0        | 42,570,274 | 32,833,913.4 | 0.00             |                  |
| 2010                      | 0          | 0        | 0        | 0        | 40,361,536 | 31,323,326.9 | 0.00             |                  |
| 2011                      | 0          | 0        | 0        | 0        | 38,902,982 | 30,404,304.0 | 0.00             |                  |
| 2012                      | 0          | 0        | 0        | 0        | 37,646,762 | 29,525,134.4 | 0.00             |                  |
| 2013                      | 0          | 0        | 0        | 0        | 36,291,223 | 28,169,583.6 | 0.00             |                  |
| 90-Day Washout/Enrollme   |            | ement    |          |          | , , -      | , .,         |                  |                  |
| 2009                      | 0          | 0        | 0        | 0        | 45,859,022 | 35,655,399.1 | 0.00             |                  |
| 2010                      | 0          | 0        | 0        | 0        | 43,603,075 | 33,918,464.7 | 0.00             |                  |
| 2011                      | 0          | 0        | 0        | 0        | 42,081,122 | 32,920,647.2 | 0.00             |                  |
| 2012                      | 0          | 0        | 0        | 0        | 40,745,292 | 31,921,086.6 | 0.00             |                  |
| 2013                      | 0          | 0        | 0        | 0        | 39,269,898 | 30,570,978.1 | 0.00             |                  |



Table 4: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Year

|                       | New<br>Users   | New<br>Episodes | Days<br>Supplied | Amount<br>Supplied | Eligible<br>Members | Member-Years | New Users/100K<br>Eligible Members | Days<br>Supplied/Episode |
|-----------------------|----------------|-----------------|------------------|--------------------|---------------------|--------------|------------------------------------|--------------------------|
| Palladone             |                |                 |                  |                    |                     |              |                                    |                          |
| 183-Day Washout/En    | rollment Requ  | irement         |                  |                    |                     |              |                                    |                          |
| 2009                  | 0              | 0               | 0                | 0                  | 42,570,274          | 32,833,913.4 | 0.00                               |                          |
| 2010                  | 0              | 0               | 0                | 0                  | 40,361,536          | 31,323,326.9 | 0.00                               |                          |
| 2011                  | 0              | 0               | 0                | 0                  | 38,902,982          | 30,404,304.0 | 0.00                               |                          |
| 2012                  | 0              | 0               | 0                | 0                  | 37,646,762          | 29,525,134.4 | 0.00                               |                          |
| 2013                  | 0              | 0               | 0                | 0                  | 36,291,223          | 28,169,583.6 | 0.00                               |                          |
| 90-Day Washout/Enro   | ollment Requir | ement           |                  |                    |                     |              |                                    |                          |
| 2009                  | 0              | 0               | 0                | 0                  | 45,859,022          | 35,655,399.1 | 0.00                               |                          |
| 2010                  | 0              | 0               | 0                | 0                  | 43,603,075          | 33,918,464.7 | 0.00                               |                          |
| 2011                  | 0              | 0               | 0                | 0                  | 42,081,122          | 32,920,647.2 | 0.00                               |                          |
| 2012                  | 0              | 0               | 0                | 0                  | 40,745,292          | 31,921,086.6 | 0.00                               |                          |
| 2013                  | 0              | 0               | 0                | 0                  | 39,269,898          | 30,570,978.1 | 0.00                               |                          |
| Avinza                |                |                 |                  |                    |                     |              |                                    |                          |
| 183-Day Washout/En    | rollment Requ  | irement         |                  |                    |                     |              |                                    |                          |
| 2009                  | 2,025          | 2,028           | 55,204           | 61,794             | 42,570,274          | 32,833,913.4 | 4.76                               | 27.22                    |
| 2010                  | 649            | 650             | 17,317           | 19,985             | 40,361,536          | 31,323,326.9 | 1.61                               | 26.64                    |
| 2011                  | 410            | 410             | 11,278           | 12,547             | 38,902,982          | 30,404,304.0 | 1.05                               | 27.51                    |
| 2012                  | 281            | 283             | 7,633            | 8,890              | 37,646,762          | 29,525,134.4 | 0.75                               | 26.97                    |
| 2013                  | 177            | 177             | 4,936            | 6,088              | 36,291,223          | 28,169,583.6 | 0.49                               | 27.89                    |
| 90-Day Washout/Enro   | ollment Requir | ement           |                  |                    |                     |              |                                    |                          |
| 2009                  | 2,479          | 2,519           | 68,927           | 78,303             | 45,859,022          | 35,655,399.1 | 5.41                               | 27.36                    |
| 2010                  | 851            | 867             | 23,569           | 28,166             | 43,603,075          | 33,918,464.7 | 1.95                               | 27.18                    |
| 2011                  | 513            | 524             | 14,616           | 16,923             | 42,081,122          | 32,920,647.2 | 1.22                               | 27.89                    |
| 2012                  | 371            | 383             | 10,936           | 13,331             | 40,745,292          | 31,921,086.6 | 0.91                               | 28.55                    |
| 2013                  | 235            | 241             | 6,960            | 8,562              | 39,269,898          | 30,570,978.1 | 0.60                               | 28.88                    |
| Kadian                |                |                 |                  |                    |                     |              |                                    |                          |
| 183-Day Washout/En    | rollment Requ  | irement         |                  |                    |                     |              |                                    |                          |
| 2009                  | 2,043          | 2,049           | 52,344           | 89,411             | 42,570,274          | 32,833,913.4 | 4.80                               | 25.55                    |
| 2010                  | 1,593          | 1,596           | 41,130           | 70,746             | 40,361,536          | 31,323,326.9 | 3.95                               | 25.77                    |
| 2011                  | 1,276          | 1,280           | 33,607           | 57,907             | 38,902,982          | 30,404,304.0 | 3.28                               | 26.26                    |
| 2012                  | 792            | 796             | 20,502           | 33,661             | 37,646,762          | 29,525,134.4 | 2.10                               | 25.76                    |
| 2013                  | 95             | 95              | 2,405            | 4,191              | 36,291,223          | 28,169,583.6 | 0.26                               | 25.32                    |
| 90-Day Washout/Enro   | ollment Requir | ement           |                  |                    |                     |              |                                    |                          |
| 2009                  | 2,487          | 2,530           | 65,724           | 113,708            | 45,859,022          | 35,655,399.1 | 5.42                               | 25.98                    |
| 2010                  | 1,947          | 1,978           | 51,856           | 89,682             | 43,603,075          | 33,918,464.7 | 4.47                               | 26.22                    |
| 2011                  | 1,583          | 1,604           | 42,606           | 74,809             | 42,081,122          | 32,920,647.2 | 3.76                               | 26.56                    |
| 2012                  | 935            | 951             | 24,452           | 40,719             | 40,745,292          | 31,921,086.6 | 2.29                               | 25.71                    |
| 2013                  | 131            | 132             | 3,375            | 5,867              | 39,269,898          | 30,570,978.1 | 0.33                               | 25.57                    |
| Generic ER/LA morphin | ie             |                 |                  |                    |                     |              |                                    |                          |
| 183-Day Washout/En    |                | irement         |                  |                    |                     |              |                                    |                          |
| 2009                  | 25,712         | 25,825          | 619,336          | 1,376,806          | 42,570,274          | 32,833,913.4 | 60.40                              | 23.98                    |
| 2010                  | 26,307         | 26,424          | 636,751          | 1,389,159          | 40,361,536          | 31,323,326.9 | 65.18                              | 24.10                    |
| 2011                  | 27,999         | 28,112          | 673,320          | 1,468,234          | 38,902,982          | 30,404,304.0 | 71.97                              | 23.95                    |
| 2012                  | 29,298         | 29,430          | 704,137          | 1,507,977          | 37,646,762          | 29,525,134.4 | 77.82                              | 23.93                    |
| 2013                  | 23,578         | 23,670          | 537,567          | 1,160,894          | 36,291,223          | 28,169,583.6 | 64.97                              | 22.71                    |



Table 4: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Year

|                         | New       | New      | Days     | Amount    | Eligible   |              | New Users/100K   | Days             |
|-------------------------|-----------|----------|----------|-----------|------------|--------------|------------------|------------------|
|                         | Users     | Episodes | Supplied | Supplied  | Members    | Member-Years | Eligible Members | Supplied/Episode |
| 90-Day Washout/Enrollme | -         |          |          |           |            |              |                  |                  |
| 2009                    | 30,029    | 30,772   | 750,942  | 1,700,809 | 45,859,022 | 35,655,399.1 | 65.48            | 24.40            |
| 2010                    | 30,691    | 31,421   | 769,676  | 1,712,297 | 43,603,075 | 33,918,464.7 | 70.39            | 24.50            |
| 2011                    | 32,772    | 33,562   | 819,418  | 1,812,586 | 42,081,122 | 32,920,647.2 | 77.88            | 24.42            |
| 2012                    | 34,217    | 35,039   | 852,550  | 1,856,471 | 40,745,292 | 31,921,086.6 | 83.98            | 24.33            |
| 2013                    | 27,827    | 28,472   | 663,527  | 1,450,197 | 39,269,898 | 30,570,978.1 | 70.86            | 23.30            |
| MS Contin               |           |          |          |           |            |              |                  |                  |
| 183-Day Washout/Enrollm | ent Requ  | irement  |          |           |            |              |                  |                  |
| 2009                    | 71        | 71       | 1,665    | 3,849     | 42,570,274 | 32,833,913.4 | 0.17             | 23.45            |
| 2010                    | 42        | 43       | 1,011    | 2,661     | 40,361,536 | 31,323,326.9 | 0.10             | 23.51            |
| 2011                    | 26        | 26       | 772      | 1,794     | 38,902,982 | 30,404,304.0 | 0.07             | 29.69            |
| 2012                    | 16        | 16       | 374      | 934       | 37,646,762 | 29,525,134.4 | 0.04             | 23.38            |
| 2013                    | 17        | 17       | 343      | 761       | 36,291,223 | 28,169,583.6 | 0.05             | 20.18            |
| 90-Day Washout/Enrollme | nt Requir | ement    |          |           |            |              |                  |                  |
| 2009                    | 85        | 90       | 2,217    | 5,608     | 45,859,022 | 35,655,399.1 | 0.19             | 24.63            |
| 2010                    | 48        | 50       | 1,177    | 3,186     | 43,603,075 | 33,918,464.7 | 0.11             | 23.54            |
| 2011                    | 32        | 33       | 1,012    | 2,364     | 42,081,122 | 32,920,647.2 | 0.08             | 30.67            |
| 2012                    | 23        | 23       | 594      | 1,524     | 40,745,292 | 31,921,086.6 | 0.06             | 25.83            |
| 2013                    | 20        | 20       | 395      | 865       | 39,269,898 | 30,570,978.1 | 0.05             | 19.75            |
| Oramorph SR             |           |          |          |           |            |              |                  |                  |
| 183-Day Washout/Enrollm | ent Requ  | irement  |          |           |            |              |                  |                  |
| 2009                    | 130       | 130      | 1,996    | 4,437     | 42,570,274 | 32,833,913.4 | 0.31             | 15.35            |
| 2010                    | 51        | 51       | 658      | 1,438     | 40,361,536 | 31,323,326.9 | 0.13             | 12.90            |
| 2011                    | 21        | 21       | 245      | 506       | 38,902,982 | 30,404,304.0 | 0.05             | 11.67            |
| 2012                    | 1         | 1        | 30       | 240       | 37,646,762 | 29,525,134.4 | 0.00             | 30.00            |
| 2013                    | 0         | 0        | 0        | 0         | 36,291,223 | 28,169,583.6 | 0.00             |                  |
| 90-Day Washout/Enrollme | nt Requir | ement    |          |           |            |              |                  |                  |
| 2009                    | 154       | 154      | 2,597    | 5,997     | 45,859,022 | 35,655,399.1 | 0.34             | 16.86            |
| 2010                    | 61        | 61       | 849      | 1,822     | 43,603,075 | 33,918,464.7 | 0.14             | 13.92            |
| 2011                    | 28        | 28       | 412      | 846       | 42,081,122 | 32,920,647.2 | 0.07             | 14.71            |
| 2012                    | 1         | 1        | 30       | 240       | 40,745,292 | 31,921,086.6 | 0.00             | 30.00            |
| 2013                    | 0         | 0        | 0        | 0         | 39,269,898 | 30,570,978.1 | 0.00             |                  |
| Embeda                  |           |          |          |           |            |              |                  |                  |
| 183-Day Washout/Enrollm | ent Requ  | irement  |          |           |            |              |                  |                  |
| 2009                    | 316       | 316      | 8,353    | 14,281    | 42,570,274 | 32,833,913.4 | 0.74             | 26.43            |
| 2010                    | 1,625     | 1,626    | 42,661   | 71,952    | 40,361,536 | 31,323,326.9 | 4.03             | 26.24            |
| 2011                    | 267       | 267      | 6,985    | 12,404    | 38,902,982 | 30,404,304.0 | 0.69             | 26.16            |
| 2012                    | 0         | 0        | 0        | 0         | 37,646,762 | 29,525,134.4 | 0.00             |                  |
| 2013                    | 0         | 0        | 0        | 0         | 36,291,223 | 28,169,583.6 | 0.00             |                  |
| 90-Day Washout/Enrollme |           | ement    |          |           | , , -      | , .,         |                  |                  |
| 2009                    | 363       | 363      | 9,587    | 16,430    | 45,859,022 | 35,655,399.1 | 0.79             | 26.41            |
| 2010                    | 1,905     | 1,912    | 50,299   | 84,893    | 43,603,075 | 33,918,464.7 | 4.37             | 26.31            |
| 2011                    | 315       | 315      | 8,220    | 14,438    | 42,081,122 | 32,920,647.2 | 0.75             | 26.10            |
| 2012                    | 0         | 0        | 0        | 0         | 40,745,292 | 31,921,086.6 | 0.00             |                  |
| 2013                    | 0         | 0        | 0        | 0         | 39,269,898 | 30,570,978.1 | 0.00             |                  |



Table 4: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Year

|                           | New<br>Users | New<br>Episodes | Days<br>Supplied | Amount<br>Supplied | Eligible<br>Members | Member-Years | New Users/100K<br>Eligible Members | Days<br>Supplied/Episode |
|---------------------------|--------------|-----------------|------------------|--------------------|---------------------|--------------|------------------------------------|--------------------------|
| Generic ER/LA Oxycodone   |              | ·               |                  |                    |                     |              |                                    |                          |
| 183-Day Washout/Enrollm   | ent Requ     | irement         |                  |                    |                     |              |                                    |                          |
| 2009                      | 12,485       | 12,506          | 222,367          | 489,168            | 42,570,274          | 32,833,913.4 | 29.33                              | 17.78                    |
| 2010                      | 12,517       | 12,547          | 214,720          | 468,564            | 40,361,536          | 31,323,326.9 | 31.01                              | 17.11                    |
| 2011                      | 1,056        | 1,056           | 15,222           | 32,618             | 38,902,982          | 30,404,304.0 | 2.71                               | 14.41                    |
| 2012                      | 170          | 170             | 1,960            | 4,081              | 37,646,762          | 29,525,134.4 | 0.45                               | 11.53                    |
| 2013                      | 1            | 1               | 30               | 60                 | 36,291,223          | 28,169,583.6 | 0.00                               | 30.00                    |
| 90-Day Washout/Enrollme   | nt Requir    | ement           |                  |                    |                     |              |                                    |                          |
| 2009                      | 14,623       | 14,755          | 272,368          | 605,092            | 45,859,022          | 35,655,399.1 | 31.89                              | 18.46                    |
| 2010                      | 14,343       | 14,502          | 255,086          | 559,480            | 43,603,075          | 33,918,464.7 | 32.89                              | 17.59                    |
| 2011                      | 1,223        | 1,229           | 18,631           | 41,247             | 42,081,122          | 32,920,647.2 | 2.91                               | 15.16                    |
| 2012                      | 180          | 180             | 2,094            | 4,428              | 40,745,292          | 31,921,086.6 | 0.44                               | 11.63                    |
| 2013                      | 1            | 1               | 30               | 60                 | 39,269,898          | 30,570,978.1 | 0.00                               | 30.00                    |
| OxyContin                 |              |                 |                  |                    |                     |              |                                    |                          |
| 183-Day Washout/Enrollm   | ent Requ     | irement         |                  |                    |                     |              |                                    | _                        |
| 2009                      | 39,511       | 39,683          | 737,863          | 1,653,804          | 42,570,274          | 32,833,913.4 | 92.81                              | 18.59                    |
| 2010                      | 34,881       | 35,032          | 639,857          | 1,413,814          | 40,361,536          | 31,323,326.9 | 86.42                              | 18.26                    |
| 2011                      | 38,619       | 38,832          | 669,252          | 1,452,293          | 38,902,982          | 30,404,304.0 | 99.27                              | 17.23                    |
| 2012                      | 36,256       | 36,452          | 619,410          | 1,327,914          | 37,646,762          | 29,525,134.4 | 96.31                              | 16.99                    |
| 2013                      | 33,685       | 33,899          | 566,675          | 1,176,207          | 36,291,223          | 28,169,583.6 | 92.82                              | 16.72                    |
| 90-Day Washout/Enrollme   | nt Requir    | ement           |                  |                    |                     |              |                                    | _                        |
| 2009                      | 45,277       | 46,150          | 882,564          | 1,998,439          | 45,859,022          | 35,655,399.1 | 98.73                              | 19.12                    |
| 2010                      | 39,816       | 40,593          | 765,376          | 1,708,816          | 43,603,075          | 33,918,464.7 | 91.31                              | 18.85                    |
| 2011                      | 43,700       | 44,692          | 793,204          | 1,732,982          | 42,081,122          | 32,920,647.2 | 103.85                             | 17.75                    |
| 2012                      | 40,907       | 41,823          | 731,940          | 1,579,689          | 40,745,292          | 31,921,086.6 | 100.40                             | 17.50                    |
| 2013                      | 37,980       | 38,830          | 667,220          | 1,390,372          | 39,269,898          | 30,570,978.1 | 96.72                              | 17.18                    |
| Opana ER                  |              |                 |                  |                    |                     |              |                                    |                          |
| 183-Day Washout/Enrollm   | ent Requ     | irement         |                  |                    |                     |              |                                    | _                        |
| 2009                      | 5,184        | 5,196           | 136,107          | 274,540            | 42,570,274          | 32,833,913.4 | 12.18                              | 26.19                    |
| 2010                      | 5,741        | 5,755           | 151,413          | 302,638            | 40,361,536          | 31,323,326.9 | 14.22                              | 26.31                    |
| 2011                      | 5,120        | 5,140           | 132,744          | 272,719            | 38,902,982          | 30,404,304.0 | 13.16                              | 25.83                    |
| 2012                      | 3,647        | 3,657           | 92,746           | 189,785            | 37,646,762          | 29,525,134.4 | 9.69                               | 25.36                    |
| 2013                      | 2,611        | 2,619           | 64,640           | 131,184            | 36,291,223          | 28,169,583.6 | 7.19                               | 24.68                    |
| 90-Day Washout/Enrollme   | nt Requir    | ement           |                  |                    |                     |              |                                    | _                        |
| 2009                      | 6,188        | 6,278           | 165,148          | 335,708            | 45,859,022          | 35,655,399.1 | 13.49                              | 26.31                    |
| 2010                      | 6,852        | 6,950           | 184,083          | 371,151            | 43,603,075          | 33,918,464.7 | 15.71                              | 26.49                    |
| 2011                      | 6,310        | 6,437           | 167,903          | 348,041            | 42,081,122          | 32,920,647.2 | 14.99                              | 26.08                    |
| 2012                      | 4,563        | 4,637           | 118,921          | 244,463            | 40,745,292          | 31,921,086.6 | 11.20                              | 25.65                    |
| 2013                      | 3,310        | 3,362           | 84,360           | 172,183            | 39,269,898          | 30,570,978.1 | 8.43                               | 25.09                    |
| Generic ER/LA Oxymorphone |              |                 |                  |                    |                     |              |                                    |                          |
| 183-Day Washout/Enrollm   | ent Requ     | irement         |                  |                    |                     |              |                                    |                          |
| 2009                      | 0            | 0               | 0                | 0                  | 42,570,274          | 32,833,913.4 | 0.00                               |                          |
| 2010                      | 0            | 0               | 0                | 0                  | 40,361,536          | 31,323,326.9 | 0.00                               |                          |
| 2011                      | 67           | 67              | 1,766            | 3,849              | 38,902,982          | 30,404,304.0 | 0.17                               | 26.36                    |
| 2012                      | 214          | 214             | 5,956            | 12,247             | 37,646,762          | 29,525,134.4 | 0.57                               | 27.83                    |
| 2013                      | 382          | 382             | 10,222           | 21,183             | 36,291,223          | 28,169,583.6 | 1.05                               | 26.76                    |



Table 4: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Year

| Po-Day Washout/Enrollment Requirement   2009   | d/Episode 6.72 7.68 6.89 6.30 5.37           |
|--|--|
| 2009   | <br>6.72<br>7.68<br>6.89<br><br>6.30<br>5.37 |
| 2010 0 0 0 0 0 43,603,075 33,918,464.7 0.00 2011 75 75 2,004 4,325 42,081,122 32,920,647.2 0.18 2 2012 283 285 7,890 16,098 40,745,292 31,921,086.6 0.69 22 2013 511 513 13,795 29,220 39,269,898 30,570,978.1 1.30 2  ***********************************   | <br>6.72<br>7.68<br>6.89<br><br>6.30<br>5.37 |
| 2011   | 7.68<br>6.89<br><br>6.30<br>5.37             |
| 2012 283 285 7,890 16,098 40,745,292 31,921,086.6 0.69 2 20103 511 513 13,795 29,220 39,269,898 30,570,978.1 1.30 2  ***Ucyrta ER***  ********************************   | 7.68<br>6.89<br><br>6.30<br>5.37             |
| 2013         511         513         13,795         29,220         39,269,898         30,570,978.1         1.30         2           Useysta ER           2009         0         0         0         42,570,274         32,833,913.4         0.00           2010         0         0         0         40,361,536         31,323,326.9         0.00           2011         850         850         22,356         44,047         38,902,982         30,404,304.0         2.18         2           2012         3,722         3,732         94,669         187,166         37,646,762         29,525,134.4         9.89         2           2013         2,001         2,006         51,465         101,750         36,291,223         28,169,583.6         5.51         2           90-Day Washout/Enrollment Requirement           2009         0         0         0         45,859,022         35,655,399.1         0.00           2010         0         0         0         45,859,022         35,655,399.1         0.00           2011         939         939         24,712         48,784         42,081,122         32,920,647.2         2.23         2   | 6.89<br><br>6.30<br>5.37                     |
| 183-Day Washout/Enrollment Requirement   2009  | <br><br>6.30<br>5.37                         |
| 183-Day Washout/Enrollment Requirement   2009  | 5.37   |
| 2009   | 5.37   |
| 2010   0   | 5.37   |
| 2011   850   850   22,356   44,047   38,902,982   30,404,304.0   2.18   2   2012   3,722   3,732   94,669   187,166   37,646,762   29,525,134.4   9.89   2   2013   2,001   2,006   51,465   101,750   36,291,223   28,169,583.6   5.51   2   2   290-Day Washout/Enrollment Requirement   2009   0   0   0   0   0   45,859,022   35,655,399.1   0.00   0   2010   0   0   0   0   0   43,603,075   33,918,464.7   0.00   2011   939   939   24,712   48,784   42,081,122   32,920,647.2   2.23   2   2012   4,278   4,332   110,458   218,985   40,745,292   31,921,086.6   10.50   2   2013   2,396   2,434   62,866   124,042   39,269,898   30,570,978.1   6.10   2   2019    | 5.37   |
| 2012         3,722         3,732         94,669         187,166         37,646,762         29,525,134.4         9.89         2           90-Day Washout/Enrollment Requirement           2009         0         0         0         45,859,022         35,655,399.1         0.00           2010         0         0         0         45,859,022         35,655,399.1         0.00           2010         0         0         0         43,603,075         33,918,464.7         0.00           2011         939         939         24,712         48,784         42,081,122         32,920,647.2         2.23         2           2012         4,278         4,332         110,458         218,985         40,745,292         31,921,086.6         10.50         2           2012         4,278         4,332         110,458         218,985         40,745,292         31,921,086.6         10.50         2           2012         2,396         2,434         62,866         124,042         39,269,898         30,570,978.1         6.10         0           2019         0         0         0         42,570,274         32,833,913.4         0.00         0         0         0         0  | 5.37   |
| 2013   2,001   2,006   51,465   101,750   36,291,223   28,169,583.6   5.51   28   90-Day Washout/Enrollment Requirement   2009   0   0   0   0   0   45,859,022   35,655,399.1   0.00   0   0.00   0   0   0   0   0   |  |
| 2013   2,001   2,006   51,465   101,750   36,291,223   28,169,583.6   5.51   28   90-Day Washout/Enrollment Requirement   2009   0   0   0   0   0   45,859,022   35,655,399.1   0.00  |  |
| Po-Day Washout/Enrollment Requirement   2009   0   0   0   0   0   45,859,022   35,655,399.1   0.00   0.0 | 5.66   |
| 2009         0         0         0         0         45,859,022         35,655,399.1         0.00           2010         0         0         0         43,603,075         33,918,464.7         0.00           2011         939         939         24,712         48,784         42,081,122         32,920,647.2         2.23         2           2012         4,278         4,332         110,458         218,985         40,745,292         31,921,086.6         10.50         2           2013         2,396         2,434         62,866         124,042         39,269,898         30,570,978.1         6.10         2           183-Day Washout/Enrollment Requirement           2009         0         0         0         42,570,274         32,833,913.4         0.00           2010         0         0         0         40,361,536         31,323,326.9         0.00           2011         0         0         0         38,902,982         30,404,304.0         0.00           2012         0         0         0         36,291,223         28,169,583.6         0.00           90-Day Washout/Enrollment Requirement           2009         1         1         3  |  |
| 2010         0         0         0         43,603,075         33,918,464.7         0.00           2011         939         939         24,712         48,784         42,081,122         32,920,647.2         2.23         2           2012         4,278         4,332         110,458         218,985         40,745,292         31,921,086.6         10.50         2           2013         2,396         2,434         62,866         124,042         39,269,898         30,570,978.1         6.10         2           colophine           183-Day Washout/Enrollment Requirement           2009         0         0         0         42,570,274         32,833,913.4         0.00           2010         0         0         0         40,361,536         31,323,326.9         0.00           2011         0         0         0         38,902,982         30,404,304.0         0.00           2012         0         0         0         36,291,223         28,169,583.6         0.00           90-Day Washout/Enrollment Requirement           2009         1         1         30         270         45,859,022         35,655,399.1         0.00         3  |  |
| 2011 939 939 24,712 48,784 42,081,122 32,920,647.2 2.23 2 2012 4,278 4,332 110,458 218,985 40,745,292 31,921,086.6 10.50 2 2013 2,396 2,434 62,866 124,042 39,269,898 30,570,978.1 6.10 2  colophine  183-Day Washout/Enrollment Requirement  2009 0 0 0 0 0 42,570,274 32,833,913.4 0.00 2010 0 0 0 0 40,361,536 31,323,326.9 0.00 2011 0 0 0 0 0 0 38,902,982 30,404,304.0 0.00 2012 0 0 0 0 0 37,646,762 29,525,134.4 0.00 2013 0 0 0 0 0 37,646,762 29,525,134.4 0.00 2013 0 0 0 0 40,361,536 31,323,36.9 0.00  90-Day Washout/Enrollment Requirement  2009 1 1 30 270 45,859,022 35,655,399.1 0.00 300 0 0 43,603,075 33,918,464.7 0.00 2011 0 0 0 0 0 42,081,122 32,920,647.2 0.00 2011 0 0 0 0 0 40,745,292 31,921,086.6 0.00 2012 0 0 0 0 0 40,745,292 31,921,086.6 0.00 2013 0 0 0 0 0 40,745,292 31,921,086.6 0.00 2013 0 0 0 0 0 0 39,269,898 30,570,978.1 0.00   |  |
| 2012 4,278 4,332 110,458 218,985 40,745,292 31,921,086.6 10.50 2 2013 2,396 2,434 62,866 124,042 39,269,898 30,570,978.1 6.10 2  colophine  183-Day Washout/Enrollment Requirement 2009 0 0 0 0 0 42,570,274 32,833,913.4 0.00 2010 0 0 0 0 40,361,536 31,323,326.9 0.00 2011 0 0 0 0 0 0 38,902,982 30,404,304.0 0.00 2012 0 0 0 0 0 37,646,762 29,525,134.4 0.00 2013 0 0 0 0 0 36,291,223 28,169,583.6 0.00  90-Day Washout/Enrollment Requirement 2009 1 1 1 30 270 45,859,022 35,655,399.1 0.00 3 2010 0 0 0 0 43,603,075 33,918,464.7 0.00 2011 0 0 0 0 42,081,122 32,920,647.2 0.00 2011 0 0 0 0 0 0 40,745,292 31,921,086.6 0.00 2012 0 0 0 0 0 39,269,898 30,570,978.1 0.00   | 6.32   |
| 2013         2,396         2,434         62,866         124,042         39,269,898         30,570,978.1         6.10         2           clophine           183-Day Washout/Enrollment Requirement           2009         0         0         0         42,570,274         32,833,913.4         0.00           2010         0         0         0         40,361,536         31,323,326.9         0.00           2011         0         0         0         38,902,982         30,404,304.0         0.00           2012         0         0         0         37,646,762         29,525,134.4         0.00           2013         0         0         0         36,291,223         28,169,583.6         0.00           90-Day Washout/Enrollment Requirement           2009         1         1         30         270         45,859,022         35,655,399.1         0.00         3           2010         0         0         0         43,603,075         33,918,464.7         0.00           2011         0         0         0         42,081,122         32,920,647.2         0.00           2012         0         0         0         40,745,292 <td>5.50</td>  | 5.50   |
| 183-Day Washout/Enrollment Requirement   2009   0   0   0   0   0   42,570,274   32,833,913.4   0.00   0. | 5.83   |
| 183-Day Washout/Enrollment Requirement         2009       0       0       0       42,570,274       32,833,913.4       0.00         2010       0       0       0       40,361,536       31,323,326.9       0.00         2011       0       0       0       38,902,982       30,404,304.0       0.00         2012       0       0       0       37,646,762       29,525,134.4       0.00         2013       0       0       0       36,291,223       28,169,583.6       0.00         90-Day Washout/Enrollment Requirement         2009       1       1       30       270       45,859,022       35,655,399.1       0.00       3         2010       0       0       0       43,603,075       33,918,464.7       0.00         2011       0       0       0       42,081,122       32,920,647.2       0.00         2012       0       0       0       40,745,292       31,921,086.6       0.00         2013       0       0       0       39,269,898       30,570,978.1       0.00  | 5.05   |
| 2009       0       0       0       42,570,274       32,833,913.4       0.00         2010       0       0       0       40,361,536       31,323,326.9       0.00         2011       0       0       0       38,902,982       30,404,304.0       0.00         2012       0       0       0       37,646,762       29,525,134.4       0.00         2013       0       0       0       36,291,223       28,169,583.6       0.00         90-Day Washout/Enrollment Requirement         2009       1       1       30       270       45,859,022       35,655,399.1       0.00       3         2010       0       0       0       43,603,075       33,918,464.7       0.00         2011       0       0       0       42,081,122       32,920,647.2       0.00         2012       0       0       0       40,745,292       31,921,086.6       0.00         2013       0       0       0       39,269,898       30,570,978.1       0.00   |  |
| 2010       0       0       0       40,361,536       31,323,326.9       0.00         2011       0       0       0       0       38,902,982       30,404,304.0       0.00         2012       0       0       0       0       37,646,762       29,525,134.4       0.00         2013       0       0       0       0       36,291,223       28,169,583.6       0.00         90-Day Washout/Enrollment Requirement         2009       1       1       30       270       45,859,022       35,655,399.1       0.00       3         2010       0       0       0       43,603,075       33,918,464.7       0.00         2011       0       0       0       42,081,122       32,920,647.2       0.00         2012       0       0       0       40,745,292       31,921,086.6       0.00         2013       0       0       0       39,269,898       30,570,978.1       0.00   |  |
| 2011       0       0       0       38,902,982       30,404,304.0       0.00         2012       0       0       0       37,646,762       29,525,134.4       0.00         2013       0       0       0       0       36,291,223       28,169,583.6       0.00         90-Day Washout/Enrollment Requirement         2009       1       1       30       270       45,859,022       35,655,399.1       0.00       3         2010       0       0       0       43,603,075       33,918,464.7       0.00         2011       0       0       0       42,081,122       32,920,647.2       0.00         2012       0       0       0       40,745,292       31,921,086.6       0.00         2013       0       0       0       39,269,898       30,570,978.1       0.00   |  |
| 2012       0       0       0       37,646,762       29,525,134.4       0.00         2013       0       0       0       36,291,223       28,169,583.6       0.00         90-Day Washout/Enrollment Requirement         2009       1       1       30       270       45,859,022       35,655,399.1       0.00       3         2010       0       0       0       43,603,075       33,918,464.7       0.00         2011       0       0       0       42,081,122       32,920,647.2       0.00         2012       0       0       0       40,745,292       31,921,086.6       0.00         2013       0       0       0       39,269,898       30,570,978.1       0.00   |  |
| 2013         0         0         0         0         36,291,223         28,169,583.6         0.00           90-Day Washout/Enrollment Requirement           2009         1         1         30         270         45,859,022         35,655,399.1         0.00         3           2010         0         0         0         43,603,075         33,918,464.7         0.00           2011         0         0         0         42,081,122         32,920,647.2         0.00           2012         0         0         0         40,745,292         31,921,086.6         0.00           2013         0         0         0         39,269,898         30,570,978.1         0.00   |  |
| 90-Day Washout/Enrollment Requirement         2009       1       1       30       270       45,859,022       35,655,399.1       0.00       3         2010       0       0       0       43,603,075       33,918,464.7       0.00         2011       0       0       0       42,081,122       32,920,647.2       0.00         2012       0       0       0       40,745,292       31,921,086.6       0.00         2013       0       0       0       39,269,898       30,570,978.1       0.00   |  |
| 2009       1       1       30       270       45,859,022       35,655,399.1       0.00       3         2010       0       0       0       43,603,075       33,918,464.7       0.00         2011       0       0       0       42,081,122       32,920,647.2       0.00         2012       0       0       0       40,745,292       31,921,086.6       0.00         2013       0       0       0       39,269,898       30,570,978.1       0.00   |  |
| 2010       0       0       0       43,603,075       33,918,464.7       0.00         2011       0       0       0       42,081,122       32,920,647.2       0.00         2012       0       0       0       40,745,292       31,921,086.6       0.00         2013       0       0       0       39,269,898       30,570,978.1       0.00  |  |
| 2011       0       0       0       42,081,122       32,920,647.2       0.00         2012       0       0       0       40,745,292       31,921,086.6       0.00         2013       0       0       0       39,269,898       30,570,978.1       0.00  | 0.00   |
| 2012       0       0       0       0       40,745,292       31,921,086.6       0.00         2013       0       0       0       39,269,898       30,570,978.1       0.00  |  |
| 2013 0 0 0 0 39,269,898 30,570,978.1 0.00  |  |
| <u> </u>   |  |
|  |  |
| eneric Methadone (5-10 mg tablets)   |  |
| 183-Day Washout/Enrollment Requirement   |  |
| 2009 7,193 7,228 187,423 580,806 42,570,274 32,833,913.4 16.90 2   | 5.93   |
| 2010 6,018 6,041 152,466 476,821 40,361,536 31,323,326.9 14.91 2   | 5.24   |
|  | 5.46   |
|  | 5.36   |
|  | 4.89   |
| 90-Day Washout/Enrollment Requirement  |  |
| ,  |  |
|  | 6.62   |
|  | 6.62<br>6.31                                 |
|  | 6.31   |
| 2012 6,644 6,868 180,231 604,887 40,743,292 51,921,086.6 16.51 2   |  |



Table 4: Summary of Incident Extended-Release and Long-Acting (ER/LA) Opioid Analgesics use in the Mini-Sentinel Distributed Database (MSDD) between January 1, 2009 and December 31, 2013, by Exposure, Washout/Enrollment Requirement, and Year

|                              | New<br>Users                          | New<br>Episodes | Days<br>Supplied | Amount<br>Supplied | Eligible<br>Members | Member-Years | New Users/100K<br>Eligible Members | Days<br>Supplied/Episode |
|------------------------------|---------------------------------------|-----------------|------------------|--------------------|---------------------|--------------|------------------------------------|--------------------------|
| Generic Methadone (40 mg so  |                                       |                 |                  | опринош            |                     |              | g                                  | сарриса, присас          |
| 183-Day Washout/Enrollme     | ent Requ                              | irement         |                  |                    |                     |              |                                    |                          |
| 2009                         | 16                                    | 16              | 290              | 1,756              | 42,570,274          | 32,833,913.4 | 0.04                               | 18.13                    |
| 2010                         | 4                                     | 4               | 62               | 197                | 40,361,536          | 31,323,326.9 | 0.01                               | 15.50                    |
| 2011                         | 5                                     | 5               | 191              | 492                | 38,902,982          | 30,404,304.0 | 0.01                               | 38.20                    |
| 2012                         | 3                                     | 3               | 53               | 117                | 37,646,762          | 29,525,134.4 | 0.01                               | 17.67                    |
| 2013                         | 0                                     | 0               | 0                | 0                  | 36,291,223          | 28,169,583.6 | 0.00                               |                          |
| 90-Day Washout/Enrollmen     | nt Requir                             | ement           |                  |                    |                     |              |                                    |                          |
| 2009                         | 19                                    | 19              | 316              | 1,828              | 45,859,022          | 35,655,399.1 | 0.04                               | 16.63                    |
| 2010                         | 5                                     | 5               | 78               | 247                | 43,603,075          | 33,918,464.7 | 0.01                               | 15.60                    |
| 2011                         | 6                                     | 7               | 298              | 806                | 42,081,122          | 32,920,647.2 | 0.01                               | 42.57                    |
| 2012                         | 3                                     | 3               | 53               | 117                | 40,745,292          | 31,921,086.6 | 0.01                               | 17.67                    |
| 2013                         | 0                                     | 0               | 0                | 0                  | 39,269,898          | 30,570,978.1 | 0.00                               |                          |
| Generic Methadone (liquid fo | rmulatio                              | ns)             |                  |                    |                     |              |                                    |                          |
| 183-Day Washout/Enrollme     | ent Requ                              | irement         |                  |                    |                     |              |                                    |                          |
| 2009                         | 294                                   | 294             | 5,286            | 42,938             | 42,570,274          | 32,833,913.4 | 0.69                               | 17.98                    |
| 2010                         | 272                                   | 273             | 5,203            | 39,281             | 40,361,536          | 31,323,326.9 | 0.67                               | 19.06                    |
| 2011                         | 269                                   | 272             | 4,665            | 33,769             | 38,902,982          | 30,404,304.0 | 0.69                               | 17.15                    |
| 2012                         | 255                                   | 255             | 4,839            | 67,531             | 37,646,762          | 29,525,134.4 | 0.68                               | 18.98                    |
| 2013                         | 225                                   | 225             | 3,795            | 28,997             | 36,291,223          | 28,169,583.6 | 0.62                               | 16.87                    |
| 90-Day Washout/Enrollmer     | 90-Day Washout/Enrollment Requirement |                 |                  |                    |                     |              |                                    |                          |
| 2009                         | 369                                   | 370             | 6,529            | 49,325             | 45,859,022          | 35,655,399.1 | 0.80                               | 17.65                    |
| 2010                         | 360                                   | 368             | 6,879            | 52,725             | 43,603,075          | 33,918,464.7 | 0.83                               | 18.69                    |
| 2011                         | 330                                   | 335             | 6,052            | 40,624             | 42,081,122          | 32,920,647.2 | 0.78                               | 18.07                    |
| 2012                         | 317                                   | 321             | 6,118            | 76,012             | 40,745,292          | 31,921,086.6 | 0.78                               | 19.06                    |
| 2013                         | 293                                   | 299             | 5,091            | 39,313             | 39,269,898          | 30,570,978.1 | 0.75                               | 17.03                    |



## **Appendix A: Generic and Brand Names**

| Generic Name           | Brand Name    | Route       | Form                            | Strength | Unit   |
|------------------------|---------------|-------------|---------------------------------|----------|--------|
| Butrans                |               |             |                                 |          |        |
| BUPRENORPHINE          | Butrans       | transdermal | patch weekly                    | 5        | mcg/hr |
| BUPRENORPHINE          | Butrans       | transdermal | patch weekly                    | 7.5      | mcg/hr |
| BUPRENORPHINE          | Butrans       | transdermal | patch weekly                    | 10       | mcg/hr |
| BUPRENORPHINE          | Butrans       | transdermal | patch weekly                    | 15       | mcg/hr |
| BUPRENORPHINE          | Butrans       | transdermal | patch weekly                    | 20       | mcg/hr |
| Duragesic              |               |             |                                 |          |        |
| FENTANYL               | Duragesic     | transdermal | patch 72 hour                   | 12       | mcg/hr |
| FENTANYL               | Duragesic     | transdermal | patch 72 hour                   | 25       | mcg/hr |
| FENTANYL               | Duragesic     | transdermal | patch 72 hour                   | 50       | mcg/hr |
| FENTANYL               | Duragesic     | transdermal | patch 72 hour                   | 75       | mcg/hr |
| FENTANYL               | Duragesic     | transdermal | patch 72 hour                   | 100      | mcg/hr |
| Fentanyl               |               |             |                                 |          |        |
| FENTANYL               | Fentanyl      | transdermal | patch 72 hour                   | 12       | mcg/hr |
| FENTANYL               | Fentanyl      | transdermal | patch 72 hour                   | 25       | mcg/hr |
| FENTANYL               | Fentanyl      | transdermal | patch 72 hour                   | 50       | mcg/hr |
| FENTANYL               | Fentanyl      | transdermal | patch 72 hour                   | 75       | mcg/hr |
| FENTANYL               | Fentanyl      | transdermal | patch 72 hour                   | 100      | mcg/hr |
| Hysingla ER            |               |             |                                 |          |        |
| HYDROCODONE BITARTRATE | Hysingla ER   | oral        | tablet,oral only,ext.rel.24 hr  | 20       | mg     |
| HYDROCODONE BITARTRATE | Hysingla ER   | oral        | tablet,oral only,ext.rel.24 hr  | 30       | mg     |
| HYDROCODONE BITARTRATE | Hysingla ER   | oral        | tablet,oral only,ext.rel.24 hr  | 40       | mg     |
| HYDROCODONE BITARTRATE | Hysingla ER   | oral        | tablet,oral only,ext.rel.24 hr  | 60       | mg     |
| HYDROCODONE BITARTRATE | Hysingla ER   | oral        | tablet,oral only,ext.rel.24 hr  | 80       | mg     |
| HYDROCODONE BITARTRATE | Hysingla ER   | oral        | tablet,oral only,ext.rel.24 hr  | 100      | mg     |
| HYDROCODONE BITARTRATE | Hysingla ER   | oral        | tablet,oral only,ext.rel.24 hr  | 120      | mg     |
| Zohydro ER             |               |             |                                 |          |        |
| HYDROCODONE BITARTRATE | Zohydro ER    | oral        | capsule, extended release 12 hr | 10       | mg     |
| HYDROCODONE BITARTRATE | Zohydro ER    | oral        | capsule, extended release 12 hr | 15       | mg     |
| HYDROCODONE BITARTRATE | Zohydro ER    | oral        | capsule, extended release 12 hr | 20       | mg     |
| HYDROCODONE BITARTRATE | Zohydro ER    | oral        | capsule, extended release 12 hr | 30       | mg     |
| HYDROCODONE BITARTRATE | Zohydro ER    | oral        | capsule, extended release 12 hr | 40       | mg     |
| HYDROCODONE BITARTRATE | Zohydro ER    | oral        | capsule,extended release 12 hr  | 50       | mg     |
| Exalgo ER              |               |             |                                 |          |        |
| HYDROMORPHONE HCL      | Exalgo ER     | oral        | tablet extended release 24 hr   | 8        | mg     |
| HYDROMORPHONE HCL      | Exalgo ER     | oral        | tablet extended release 24 hr   | 12       | mg     |
| HYDROMORPHONE HCL      | Exalgo ER     | oral        | tablet extended release 24 hr   | 16       | mg     |
| HYDROMORPHONE HCL      | Exalgo ER     | oral        | tablet extended release 24 hr   | 32       | mg     |
| Hydromorphone          |               |             |                                 |          |        |
| HYDROMORPHONE HCL      | Hydromorphone | oral        | tablet extended release 24 hr   | 8        | mg     |
| HYDROMORPHONE HCL      | Hydromorphone | oral        | tablet extended release 24 hr   | 12       | mg     |
| HYDROMORPHONE HCL      | Hydromorphone | oral        | tablet extended release 24 hr   | 16       | mg     |
| HYDROMORPHONE HCL      | Hydromorphone | oral        | tablet extended release 24 hr   | 32       | mg     |



| Palladone         |           |      |                                  |     |    |
|-------------------|-----------|------|----------------------------------|-----|----|
| HYDROMORPHONE HCL | Palladone | oral | capsule,ext rel. pellets 24 hr   | 12  | mg |
| HYDROMORPHONE HCL | Palladone | oral | capsule,ext rel. pellets 24 hr   | 16  | mg |
| HYDROMORPHONE HCL | Palladone | oral | capsule,ext rel. pellets 24 hr   | 24  | mg |
| HYDROMORPHONE HCL | Palladone | oral | capsule,ext rel. pellets 24 hr   | 32  | mg |
| Avinza            |           |      |                                  |     |    |
| MORPHINE SULFATE  | Avinza    | oral | capsule, ER multiphase 24 hr     | 30  | mg |
| MORPHINE SULFATE  | Avinza    | oral | capsule, ER multiphase 24 hr     | 45  | mg |
| MORPHINE SULFATE  | Avinza    | oral | capsule, ER multiphase 24 hr     | 60  | mg |
| MORPHINE SULFATE  | Avinza    | oral | capsule, ER multiphase 24 hr     | 75  | mg |
| MORPHINE SULFATE  | Avinza    | oral | capsule, ER multiphase 24 hr     | 90  | mg |
| MORPHINE SULFATE  | Avinza    | oral | capsule, ER multiphase 24 hr     | 120 | mg |
| Kadian            |           |      |                                  |     |    |
| MORPHINE SULFATE  | Kadian    | oral | capsule, extend. release pellets | 10  | mg |
| MORPHINE SULFATE  | Kadian    | oral | capsule, extend. release pellets | 20  | mg |
| MORPHINE SULFATE  | Kadian    | oral | capsule,extend.release pellets   | 30  | mg |
| MORPHINE SULFATE  | Kadian    | oral | capsule,extend.release pellets   | 40  | mg |
| MORPHINE SULFATE  | Kadian    | oral | capsule,extend.release pellets   | 50  | mg |
| MORPHINE SULFATE  | Kadian    | oral | capsule, extend release pellets  | 60  | mg |
| MORPHINE SULFATE  | Kadian    | oral | capsule, extend release pellets  | 70  | mg |
| MORPHINE SULFATE  | Kadian    | oral | capsule, extend release pellets  | 80  | mg |
| MORPHINE SULFATE  | Kadian    | oral | capsule, extend release pellets  | 100 | mg |
| MORPHINE SULFATE  | Kadian    | oral | capsule, extend release pellets  | 130 | mg |
| MORPHINE SULFATE  | Kadian    | oral | capsule,extend.release pellets   | 200 | mg |
| Morphine          |           |      |                                  |     | _  |
| MORPHINE SULFATE  | Morphine  | oral | tablet extended release          | 15  | mg |
| MORPHINE SULFATE  | Morphine  | oral | tablet extended release          | 30  | mg |
| MORPHINE SULFATE  | Morphine  | oral | tablet extended release          | 60  | mg |
| MORPHINE SULFATE  | Morphine  | oral | tablet extended release          | 100 | mg |
| MORPHINE SULFATE  | Morphine  | oral | tablet extended release          | 200 | mg |
| MORPHINE SULFATE  | Morphine  | oral | capsule, extend. release pellets | 10  | mg |
| MORPHINE SULFATE  | Morphine  | oral | capsule, extend. release pellets | 15  | mg |
| MORPHINE SULFATE  | Morphine  | oral | capsule, extend. release pellets | 20  | mg |
| MORPHINE SULFATE  | Morphine  | oral | capsule, extend. release pellets | 30  | mg |
| MORPHINE SULFATE  | Morphine  | oral | capsule, extend. release pellets | 50  | mg |
| MORPHINE SULFATE  | Morphine  | oral | capsule, extend. release pellets | 60  | mg |
| MORPHINE SULFATE  | Morphine  | oral | capsule, extend. release pellets | 80  | mg |
| MORPHINE SULFATE  | Morphine  | oral | capsule, extend. release pellets | 100 | mg |
| MORPHINE SULFATE  | Morphine  | oral | capsule, ER multiphase 24 hr     | 30  | mg |
| MORPHINE SULFATE  | Morphine  | oral | capsule, ER multiphase 24 hr     | 45  | mg |
| MORPHINE SULFATE  | Morphine  | oral | capsule, ER multiphase 24 hr     | 60  | mg |
| MORPHINE SULFATE  | Morphine  | oral | capsule, ER multiphase 24 hr     | 75  | mg |
| MORPHINE SULFATE  | Morphine  | oral | capsule, ER multiphase 24 hr     | 90  | mg |
| MORPHINE SULFATE  | Morphine  | oral | capsule, ER multiphase 24 hr     | 120 | mg |
| MS Contin         |           |      |                                  |     |    |
| MORPHINE SULFATE  | MS Contin | oral | tablet extended release          | 15  | mg |
|                   |           |      |                                  |     |    |
| MORPHINE SULFATE  | MS Contin | oral | tablet extended release          | 30  | mg |

| Mini-Sentinel |  |
|---------------|--|

| NORPHINE SULFATE Oramorph SR oral tablet extended release 15 mg MORPHINE SULFATE Oramorph SR oral tablet extended release 30 mg mg MORPHINE SULFATE Oramorph SR oral tablet extended release 30 mg mg MORPHINE SULFATE Oramorph SR oral tablet extended release 30 mg mg MORPHINE SULFATE Oramorph SR oral tablet extended release 60 mg mg MORPHINE SULFATE Oramorph SR oral tablet extended release 100 mg mg MORPHINE SULFATE Oramorph SR oral tablet extended release 100 mg mg MORPHINE SULFATE Oramorph SR oral tablet extended release 100 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 30-1.2 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 30-1.2 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 40-1.2 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 60-2.4 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 60-2.4 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 60-2.4 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 60-2.4 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 50-2.4 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 60-2.4 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release 12 hr 100 mg MXCCODONE HCL OxyCodone oral tablet extended release 12 hr 20 mg MXCCODONE HCL OxyCodone oral tablet extended release 12 hr 40 mg MXCCODONE HCL OxyCodone oral tablet extended release 12 hr 40 mg MXCCODONE HCL OxyCodone oral tablet extended release 12 hr 50 mg MXCCODONE HCL OxyCodone oral tablet extended release 12 hr 50 mg MXCCODONE HCL OxyCodone oral tablet extended release 12 hr 50 mg MXCCODONE HCL OxyCodone oral tablet extended release 12 hr 50 mg MXCCODONE HCL OxyCodone oral tablet extended release 12 hr 50 mg MXCCODONE HCL OxyCodone oral tablet extended release 12 hr 100 mg MXCCODONE HCL OxyCodone oral tablet extended release 12 hr 10  | MORPHINE SULFATE                      | MS Contin   | oral | tablet extended release          | 100    | mg |
|--|---------------------------------------|-------------|------|----------------------------------|--------|----|
| Oramorph SR   Oramorph SR   Oral   tablet extended release   15   mg   MORPHINE SULFATE   Oramorph SR   oral   tablet extended release   30   mg   MORPHINE SULFATE   Oramorph SR   oral   tablet extended release   30   mg   MORPHINE SULFATE   Oramorph SR   oral   tablet extended release   30   mg   MORPHINE SULFATE   Oramorph SR   oral   tablet extended release   100   mg   MORPHINE SULFATE   Oramorph SR   oral   tablet extended release   100   mg   MORPHINE SULFATE   Oramorph SR   oral   tablet extended release   100   mg   MORPHINE SULFATE/NALTREXONE HCL   Embeda   oral   capsule, extend. release pellets   30-1.2   mg   MORPHINE SULFATE/NALTREXONE HCL   Embeda   oral   capsule, extend. release pellets   30-1.2   mg   MORPHINE SULFATE/NALTREXONE HCL   Embeda   oral   capsule, extend. release pellets   30-1.2   mg   MORPHINE SULFATE/NALTREXONE HCL   Embeda   oral   capsule, extend. release pellets   30-1.2   mg   MORPHINE SULFATE/NALTREXONE HCL   Embeda   oral   capsule, extend. release pellets   30-1.2   mg   MORPHINE SULFATE/NALTREXONE HCL   Embeda   oral   capsule, extend. release pellets   30-1.2   mg   MORPHINE SULFATE/NALTREXONE HCL   embeda   oral   capsule, extend. release pellets   30-1.2   mg   MORPHINE SULFATE/NALTREXONE HCL   embeda   oral   capsule, extend. release pellets   30-1.2   mg   MORPHINE SULFATE/NALTREXONE HCL   embeda   oral   capsule, extend. release pellets   30-1.2   mg   MORPHINE SULFATE/NALTREXONE HCL   embeda   oral   capsule, extend. release pellets   30-1.2   mg   MORPHINE SULFATE/NALTREXONE HCL   embeda   oral   capsule, extend. release pellets   30-1.2   mg   MORPHINE SULFATE/NALTREXONE HCL   embeda   oral   capsule, extend. release pellets   30-1.2   mg   MORPHINE SULFATE/NALTREXONE HCL   embeda   oral   tablet extended release 12 hr   0   mg   MORPHINE SULFATE/NALTREXONE HCL   oxycodone   oral   tablet extended release 12 hr   0   mg   OXYCODONE HCL   OxyContin   oral   tablet extended release 12 hr   10   mg   OXYCODONE HCL   OxyContin   oral   tablet extended release 12 hr   | MORPHINE SULFATE                      | MS Contin   | oral | tablet extended release          | 200    | mg |
| MORPHINE SULFATE Oramorph SR oral tablet extended release 60 mg MORPHINE SULFATE Oramorph SR oral tablet extended release 100 mg mg moRPHINE SULFATE 0ramorph SR oral tablet extended release 100 mg mg mg moRPHINE SULFATE 0ramorph SR oral tablet extended release 100 mg mg mg moRPHINE SULFATE NALTREXONE HCL Embeda oral capsule, extend. release pellets 30-1.2 mg mGRPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 30-1.2 mg mORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 30-1.2 mg mORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 60-2.4 mg mGRPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 60-2.4 mg mGRPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 60-2.4 mg mg mGRPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 100-4 mg mg mGRPHINE SULFATE/NALTREXONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg mGYCCODONE HCL Oxycodone oral tablet extended release 12 hr 100 mg | Oramorph SR                           |             |      |                                  |        | _  |
| MORPHINE SULFATE   Oramorph SR   oral   tablet extended release   100 mg   mg   MORPHINE SULFATE   Oramorph SR   oral   tablet extended release   100 mg   mg   mg   MORPHINE SULFATE   Oramorph SR   oral   tablet extended release   100 mg   mg   MORPHINE SULFATE   Oramorph SR   oral   tablet extended release   100 mg   mg   MORPHINE SULFATE/NALTREXONE HCL   Embeda   oral   Capsule, extend. release pellets   30-1.2 mg   MORPHINE SULFATE/NALTREXONE HCL   Embeda   oral   Capsule, extend. release pellets   30-1.2 mg   MORPHINE SULFATE/NALTREXONE HCL   Embeda   oral   Capsule, extend. release pellets   60-2.4 mg   MORPHINE SULFATE/NALTREXONE HCL   Embeda   oral   Capsule, extend. release pellets   60-2.4 mg   MORPHINE SULFATE/NALTREXONE HCL   Embeda   oral   Capsule, extend. release pellets   60-2.4 mg   MORPHINE SULFATE/NALTREXONE HCL   Embeda   oral   Capsule, extend. release pellets   60-2.4 mg   MORPHINE SULFATE/NALTREXONE HCL   Oxycodone   oral   tablet extended release 12 hr   10 mg   Oxycodone   Oxycodone   Oral   tablet extended release 12 hr   10 mg   Oxycodone   Oxycodone   Oral   tablet extended release 12 hr   40 mg   Oxycodone   Oxycodone   Oral   tablet extended release 12 hr   40 mg   Oxycodone   Oxy   | MORPHINE SULFATE                      | Oramorph SR | oral | tablet extended release          | 15     | mg |
| MORPHINE SULFATE Oramorph SR oral tablet extended release 60 mg MORPHINE SULFATE Oramorph SR oral tablet extended release 100 mg mg MORPHINE SULFATE/MALTREXONE HCL Embeda oral capsule_extend_release pellets 30-1.2 mg MORPHINE SULFATE/MALTREXONE HCL Embeda oral capsule_extend_release pellets 30-1.2 mg MORPHINE SULFATE/MALTREXONE HCL Embeda oral capsule_extend_release pellets 30-1.2 mg MORPHINE SULFATE/MALTREXONE HCL Embeda oral capsule_extend_release pellets 60-2.4 mg MORPHINE SULFATE/MALTREXONE HCL Embeda oral capsule_extend_release pellets 100-4 mg MORPHINE SULFATE/MALTREXONE HCL Embeda oral capsule_extend_release pellets 100-4 mg MORPHINE SULFATE/MALTREXONE HCL Embeda oral capsule_extend_release pellets 100-4 mg MORPHINE SULFATE/MALTREXONE HCL Embeda oral tablet extended release 12 hr 10 mg MORPHINE SULFATE/MALTREXONE HCL Oxycodone oral tablet extended release 12 hr 20 mg MORPHINE SULFATE/MALTREXONE HCL Oxycodone oral tablet extended release 12 hr 20 mg MORPHINE SULFATE/MALTREXONE HCL Oxycodone oral tablet extended release 12 hr 80 mg MORPHINE SULFATE/MALTREXONE HCL Oxycodone oral tablet extended release 12 hr 80 mg MCYCODONE HCL Oxycodone oral tablet extended release 12 hr 80 mg MCYCODONE HCL Oxycodone oral tablet extended release 12 hr 80 mg MCYCODONE HCL Oxycodone oral tablet extended release 12 hr 15 mg MCYCODONE HCL Oxycodone oral tablet extended release 12 hr 15 mg MCYCODONE HCL Oxycodone oral tablet extended release 12 hr 15 mg MCYCODONE HCL Oxycodone oral tablet extended release 12 hr 15 mg MCYCODONE HCL Oxycodone oral tablet extended release 12 hr 160 mg MCYCODONE HCL Oxycodone oral tablet extended release 12 hr 15 mg MCYCODONE HCL Oxycodone oral tablet extended release 12 hr 160 mg MCYCODONE HCL Oxycodone oral tablet extended release 12 hr 160 mg MCYCODONE HCL Oxycodone oral tablet extended release 12 hr 160 mg MCYCODONE HCL Oxycodone oral tablet extended release 12 hr 160 mg MCYCODONE HCL Oxycodone oral tablet extended release 12 hr 150 mg MCYCODONE HCL OxydoRPHONE HCL OxydoRPHONE HCL OxydoRPHONE H | MORPHINE SULFATE                      | Oramorph SR | oral | tablet extended release          | 30     |    |
| MORPHINE SULFATE   Commorph SR   oral   tablet extended release   100   mg   | MORPHINE SULFATE                      | · ·         | oral | tablet extended release          | 60     |    |
| Embeda   MORPHINE SULFATE/NALTREXONE HCL    Embeda   | MORPHINE SULFATE                      | · ·         | oral | tablet extended release          | 100    |    |
| MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 30-1.2 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 30-1.2 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 30-1.2 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 100-4 mg Oxycodone  Oxycodone  Oxycodone  OXYCODONE HCL Oxycodone oral tablet extended release 12 hr 20 mg OXYCODONE HCL Oxycodone oral tablet extended release 12 hr 40 mg OXYCODONE HCL Oxycodone oral tablet extended release 12 hr 40 mg OXYCODONE HCL Oxycodone oral tablet extended release 12 hr 40 mg OXYCODONE HCL Oxycodone oral tablet extended release 12 hr 50 mg OXYCODONE HCL Oxycodone oral tablet extended release 12 hr 50 mg OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 50 mg OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 50 mg OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 50 mg OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 50 mg OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 60 mg OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 60 mg OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 60 mg OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 60 mg OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 60 mg OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 60 mg OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 60 mg OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 60 mg OXYMORPHONE HCL Oxycontin oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Oxycontin oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Oxycontin oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Oxycontin oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Oxycontin oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Oxycontin oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Oxycontin oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Oxyc | Embeda                                | ·           |      |                                  |        |    |
| MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 30-1.2 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 30-1.2 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 60-2.4 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 100-4 mg  Oxycodone  VIVIDADINA SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 100-4 mg  Oxycodone  VIVIDADINA SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 100-4 mg  Oxycodone  VIVIDADINA SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release pellets 100-4 mg  Oxycodone  VIVIDADINA SULFATE/NALTREXONE HCL Embeda oral capsule, extend. release 12 hr 10 mg  Oxycodone HCL Oxycodone oral tablet extended release 12 hr 20 mg  OXYCODONE HCL Oxycodone oral tablet extended release 12 hr 30 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 15 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 15 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 15 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 20 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 30 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 40 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 60 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 60 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 60 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 7.5 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 60 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 7.5 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 7.5 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 7.5 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 7.5 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 7.5 mg  OXYCODONE HCL OxyContin oral tablet extended release 12 hr 7.5 mg  OXYMORPHONE HCL OxyContin oral tablet exte | MORPHINE SULFATE/NALTREXONE HCL       | Embeda      | oral | capsule, extend. release pellets | 20-0.8 | mg |
| MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule,extend.release pellets 60-2.4 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule,extend.release pellets 60-2.4 mg MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule,extend.release pellets 100-4 mg Capsule,extend.release 12 hr 10 mg Capsule,exte | MORPHINE SULFATE/NALTREXONE HCL       | Embeda      | oral |                                  | 30-1.2 |    |
| MORPHINE SULFATE/NALTREXONE HCL Embeda oral capsule, extend, release pellets 100-4 mg  Oxycodone  OXYCODONE HCL oxycodone oral tablet extended release 12 hr 20 mg  OXYCODONE HCL oxycodone oral tablet extended release 12 hr 40 mg  OXYCODONE HCL oxycodone oral tablet extended release 12 hr 40 mg  OXYCODONE HCL oxycodone oral tablet extended release 12 hr 40 mg  OXYCODONE HCL oxycodone oral tablet extended release 12 hr 40 mg  OXYCODONE HCL oxycodone oral tablet extended release 12 hr 40 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 50 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 10 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 15 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 15 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 20 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 30 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 30 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 80 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 80 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 80 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 80 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 80 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 80 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 80 mg  OXYCODONE HCL Oxycontin oral tablet extended release 12 hr 55 mg  OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 75 mg  OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 10 mg  OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 10 mg  OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 10 mg  OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg  OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 10 mg  OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 10 mg  OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 10 mg  OXYMORPHONE HC | MORPHINE SULFATE/NALTREXONE HCL       | Embeda      | oral |                                  | 30-1.2 |    |
| MORPHINE SULFATE/NALTREXONE HCL   Embeda   oral   capsule,extend.release pellets   100-4   mg  | MORPHINE SULFATE/NALTREXONE HCL       | Embeda      | oral |                                  | 60-2.4 |    |
| Oxycodone         Oxycodone         oral         tablet extended release 12 hr         10         mg           OXYCODONE HCL         oxycodone         oral         tablet extended release 12 hr         20         mg           OXYCODONE HCL         oxycodone         oral         tablet extended release 12 hr         40         mg           OXYCODONE HCL         oxycodone         oral         tablet extended release 12 hr         80         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         10         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         15         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         20         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         30         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         40         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         40         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         60         mg   | · · · · · · · · · · · · · · · · · · · | Embeda      | oral |                                  |        |    |
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| OXYCODONE HCL OX | OXYCODONE HCL                         | oxycodone   | oral | tablet extended release 12 hr    | 10     | mg |
| OXYCODONE HCL OxyCodone oral tablet extended release 12 hr 80 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 10 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 15 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 15 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 15 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 20 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 30 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 40 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 40 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 40 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 40 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 40 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 40 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 50 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 50 mg OXYCODONE HCL OxyContin oral tablet extended release 12 hr 50 mg OXYMORPHONE HCL OxyContin oral tablet extended release 12 hr 50 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 10 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 20 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 30 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 10 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 1 | OXYCODONE HCL                         |             | oral | tablet extended release 12 hr    | 20     |    |
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| OxyContin         Oral         tablet extended release 12 hr         10         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         15         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         20         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         30         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         40         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         80         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         80         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         80         mg           OXYCODONE HCL         OxyContin         oral         tablet extended release 12 hr         80         mg           OXYMORPHONE HCL         OxyContin         oral         tablet extended release 12 hr         5         mg           OXYMORPHONE HCL         Opana ER         oral         tablet extended release 12 hr         7.5         mg           OXYMO  | OXYCODONE HCL                         | oxycodone   | oral | tablet extended release 12 hr    | 80     |    |
| OXYCODONE HCL OXYCONTIN OXYCODONE HCL OXYCODONE HCL OXYCODONE HCL OXYCONTIN OXYCODONE HCL OXYMORPHONE HCL OXYMORPH | OxyContin                             |             |      |                                  |        | _  |
| OXYCODONE HCL OXYCONTIN Oral tablet extended release 12 hr 30 mg OXYCODONE HCL OXYCONTIN OYAL tablet extended release 12 hr 40 mg OXYCODONE HCL OXYCONTIN OYAL tablet extended release 12 hr 40 mg OXYCODONE HCL OXYCONTIN OYAL tablet extended release 12 hr 40 mg OXYCODONE HCL OXYCONTIN OYAL tablet extended release 12 hr 60 mg OXYCODONE HCL OXYCONTIN OYAL tablet extended release 12 hr 80 mg OXYCODONE HCL OXYCONTIN OYAL tablet extended release 12 hr 160 mg OXYCODONE HCL OXYCONTIN OYAL tablet extended release 12 hr 160 mg OXYMORPHONE HCL OYAL OPANAER OYAL TABLET TO THE | OXYCODONE HCL                         | OxyContin   | oral | tablet extended release 12 hr    | 10     | mg |
| OXYCODONE HCL OXYCONTIN OXYCODONE HCL OXYCODONE HCL OXYMORPHONE HCL OX | OXYCODONE HCL                         | OxyContin   | oral | tablet extended release 12 hr    | 15     | mg |
| OXYCODONE HCL OXYCONTIN OXYCODONE HCL OXYCONTIN OXYCODONE HCL OXYCONTIN OXYCODONE HCL OXYCONTIN OXI tablet extended release 12 hr OXYCODONE HCL OXYCONTIN OXI tablet extended release 12 hr OXYCODONE HCL OXYCONTIN OXI tablet extended release 12 hr OXYCODONE HCL OXYCONTIN OXI tablet extended release 12 hr OXYMORPHONE HCL OXYMORPHONE HC | OXYCODONE HCL                         | OxyContin   | oral | tablet extended release 12 hr    | 20     | mg |
| OXYCODONE HCL OXYCONTIN OYAL tablet extended release 12 hr OXYCODONE HCL OXYCOTIN OYAL tablet extended release 12 hr OXYCODONE HCL OXYCODONE HCL OXYCOTIN OYAL tablet extended release 12 hr OXYCODONE HCL OXYCODONE HCL OXYCOTIN OYAL tablet extended release 12 hr OXYMORPHONE HCL OYANA ER OYAL TABLET EXTENDED HAVE OXYMORPHONE HCL OYANA ER OXYMORPHONE HCL OXYMORPH | OXYCODONE HCL                         | OxyContin   | oral | tablet extended release 12 hr    | 30     | mg |
| OXYCODONE HCL OXYCONTIN OXI tablet extended release 12 hr OXYCODONE HCL OXYCODONE HCL OXYCONTIN OXI tablet extended release 12 hr OXYMORPHONE HCL ODANA ER OXI tablet extended release 12 hr To mg OXYMORPHONE HCL ODANA ER OXI tablet extended release 12 hr To mg OXYMORPHONE HCL ODANA ER OXI tablet extended release 12 hr To mg OXYMORPHONE HCL ODANA ER OXI tablet extended release 12 hr To mg OXYMORPHONE HCL ODANA ER OXI tablet extended release 12 hr To mg OXYMORPHONE HCL ODANA ER OXI tablet extended release 12 hr To mg OXYMORPHONE HCL ODANA ER OXYMORPHONE HCL OXYMORP | OXYCODONE HCL                         | OxyContin   | oral | tablet extended release 12 hr    | 40     | mg |
| OXYCODONE HCL OxyContin oral tablet extended release 12 hr 160 mg  Opana ER  OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 7.5 mg  OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 7.5 mg  OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 10 mg  OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 15 mg  OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 15 mg  OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 20 mg  OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 30 mg  OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 40 mg  OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 40 mg  OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 5 mg  OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 7.5 mg  OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 7.5 mg  OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 10 mg  OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 10 mg  OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg  OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg  OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 20 mg  OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 40 mg  OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 40 mg  Nucynta ER  TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 50 mg  TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 100 mg   | OXYCODONE HCL                         | OxyContin   | oral | tablet extended release 12 hr    | 60     | mg |
| Opana ER OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr Oxymorphone OXYMORPHONE HCL OXYMORPHONE HCL OXYMORPHONE OXYMO | OXYCODONE HCL                         | OxyContin   | oral | tablet extended release 12 hr    | 80     | mg |
| OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 10 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 20 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 30 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 40 mg OXYMORPHONE HCL Oxymorphone OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr OXYMORPHONE HCL OXYMORPHONE HCL OXYMORPHONE HCL OXYMORPHONE | OXYCODONE HCL                         | OxyContin   | oral | tablet extended release 12 hr    | 160    | mg |
| OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 10 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 20 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 30 mg OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 40 mg  OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr 40 mg  OXYMORPHONE HCL Oxymorphone OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 10 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 20 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 30 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 40 mg  Nucynta ER  TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 50 mg TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 100 mg  | Opana ER                              |             |      |                                  |        |    |
| OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr OXYMORPHONE HCL Oxymorphone OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr OXYMORPHONE HCL OXY | OXYMORPHONE HCL                       | Opana ER    | oral | tablet extended release 12 hr    | 5      | mg |
| OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr 20 mg OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr 30 mg OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr 40 mg  OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr 5 mg  OXYMORPHONE HCL Oxymorphone OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 10 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 20 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 30 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 30 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 40 mg  Nucynta ER  TAPENTADOL HCL Nucynta ER Oral tablet extended release 12 hr 50 mg TAPENTADOL HCL Nucynta ER  | OXYMORPHONE HCL                       | Opana ER    | oral | tablet extended release 12 hr    | 7.5    | mg |
| OXYMORPHONE HCL Opana ER Oral tablet extended release 12 hr Oymorphone HCL Opana ER Oral tablet extended release 12 hr Opana ER Oxymorphone Oxymorphone Oxymorphone Oxymorphone Oral tablet extended release 12 hr Oxymorphone | OXYMORPHONE HCL                       | Opana ER    | oral | tablet extended release 12 hr    | 10     | mg |
| OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr Oxymorphone OXYMORPHONE HCL Oxymorphone OXYMORPHONE HCL Oxymorphone OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr oxymorphone OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr oxymorphone oral oxymorphone oral tablet extended release 12 hr oxymorphone oxid tablet  | OXYMORPHONE HCL                       | Opana ER    | oral | tablet extended release 12 hr    | 15     | mg |
| OXYMORPHONE HCL Opana ER oral tablet extended release 12 hr Oxymorphone OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr The standard release 12 hr The standard release 12 hr Tapentadol HCL Oxymorphone Oxy | OXYMORPHONE HCL                       | Opana ER    | oral | tablet extended release 12 hr    | 20     | mg |
| OXYMORPHONE HCL Oxymorphone OX | OXYMORPHONE HCL                       | Opana ER    | oral | tablet extended release 12 hr    | 30     | mg |
| OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 5 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 10 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 20 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 30 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 40 mg  Nucynta ER  TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 50 mg TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 100 mg TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 150 mg   | OXYMORPHONE HCL                       | Opana ER    | oral | tablet extended release 12 hr    | 40     | mg |
| OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 7.5 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 10 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 20 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 30 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 40 mg  Nucynta ER  TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 50 mg TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 100 mg TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 150 mg   | Oxymorphone                           |             |      |                                  |        |    |
| OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 10 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 15 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 20 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 30 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 40 mg  Nucynta ER  TAPENTADOL HCL Nucynta ER Oral tablet extended release 12 hr 50 mg TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 100 mg TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 100 mg TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 150 mg   | OXYMORPHONE HCL                       | Oxymorphone | oral | tablet extended release 12 hr    | 5      | mg |
| OXYMORPHONE HCL OXYMORPHONE HC | OXYMORPHONE HCL                       | Oxymorphone | oral | tablet extended release 12 hr    | 7.5    | mg |
| OXYMORPHONE HCL OXYMORPHONE HC | OXYMORPHONE HCL                       | Oxymorphone | oral | tablet extended release 12 hr    | 10     | mg |
| OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 30 mg OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 40 mg  Nucynta ER  TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 50 mg TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 100 mg TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 150 mg  | OXYMORPHONE HCL                       | Oxymorphone | oral | tablet extended release 12 hr    | 15     | mg |
| OXYMORPHONE HCL Oxymorphone oral tablet extended release 12 hr 40 mg  Nucynta ER  TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 50 mg  TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 100 mg  TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 150 mg   | OXYMORPHONE HCL                       | Oxymorphone | oral | tablet extended release 12 hr    | 20     | mg |
| Nucynta ER       TAPENTADOL HCL     Nucynta ER     oral     tablet extended release 12 hr     50     mg       TAPENTADOL HCL     Nucynta ER     oral     tablet extended release 12 hr     100     mg       TAPENTADOL HCL     Nucynta ER     oral     tablet extended release 12 hr     150     mg  | OXYMORPHONE HCL                       | Oxymorphone | oral | tablet extended release 12 hr    | 30     | mg |
| TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 50 mg TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 100 mg TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 150 mg   | OXYMORPHONE HCL                       | Oxymorphone | oral | tablet extended release 12 hr    | 40     | mg |
| TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 100 mg TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 150 mg  | Nucynta ER                            |             |      |                                  |        |    |
| TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 150 mg  | TAPENTADOL HCL                        | Nucynta ER  | oral | tablet extended release 12 hr    | 50     | mg |
| ·  | TAPENTADOL HCL                        | Nucynta ER  | oral | tablet extended release 12 hr    | 100    | mg |
| TAPENTADOL HCL Nucynta ER oral tablet extended release 12 hr 200 mg  | TAPENTADOL HCL                        | Nucynta ER  | oral | tablet extended release 12 hr    | 150    | mg |
|  | TAPENTADOL HCL                        | Nucynta ER  | oral | tablet extended release 12 hr    | 200    | mg |



| TAPENTADOL HCL      | Nucynta ER | oral | tablet extended release 12 hr | 250 | mg |
|---------------------|------------|------|-------------------------------|-----|----|
| Dolophine           |            |      |                               |     |    |
| METHADONE HCL       | Dolophine  | oral | tablet                        | 5   | mg |
| METHADONE HCL       | Dolophine  | oral | tablet                        | 10  | mg |
| Methadone/Methadose |            |      |                               |     |    |
| METHADONE HCL       | Methadone  | oral | tablet                        | 5   | mg |
| METHADONE HCL       | Methadone  | oral | tablet                        | 10  | mg |
| METHADONE HCL       | Methadone  | oral | tablet, soluble               | 40  | mg |
| METHADONE HCL       | Methadone  | oral | concentrate                   | 10  | mg |
| METHADONE HCL       | Methadone  | oral | solution                      | 5   | mg |
| METHADONE HCL       | Methadone  | oral | solution                      | 10  | mg |
| METHADONE HCL       | Methadone  | oral | syringe                       | 5   | mg |
| METHADONE HCL       | Methadone  | oral | syringe                       | 10  | mg |
| METHADONE HCL       | Methadose  | oral | tablet                        | 5   | mg |
| METHADONE HCL       | Methadose  | oral | tablet, soluble               | 40  | mg |
| METHADONE HCL       | Methadose  | oral | concentrate                   | 10  | mg |
|                     |            |      |                               |     |    |



## Appendix B: Modular Program Specifications for to16\_cap\_mpl1r\_wp035\_nsdp\_v01

The Opioid Analgesics Prescribing Trends Workgroup has requested the use of the Cohort Identification and Descriptive Analysis (CIDA) Tool, version 2.0.8, to quantify incident Extended-Release and Long-Acting (ER/LA) opioid analgesics use in the Mini-Sentinel Distributed Database (MSDD). In total, 46 different scenarios were examined in this report.

Enrollment Gap: 45 days Query Period: 1/1/2009 - 12/31/2013

Age Groups:, 12-17, 18-24, 25-34, 35-44, 45-54, 55-64 Coverage Requirement: Drug and Medical Coverage

|          | Pre-exposure<br>Enrollment |  | Drug/Exposure                  |                |                   |
|----------|----------------------------|--|--------------------------------|----------------|-------------------|
| Scenario | Requirement                | Incident exposure                        | Incident w/ respect to:        | Washout (days) | Cohort Definition |
| 1        | 183                        | Butrans                                  | All ER/LA opioid analgesics    | 183            | 02                |
| 2        | 90                         | Butrans                                  | All ER/LA opioid analgesics    | 90             | 02                |
| 3        | 183                        | Duragesic                                | All ER/LA opioid analgesics    | 183            | 02                |
| 4        | 90                         | Duragesic                                | All ER/LA opioid analgesics    | 90             | 02                |
| 5        | 183                        | Generic fentanyl patch                   | All ER/LA opioid analgesics    | 183            | 02                |
| 6        | 90                         | Generic fentanyl patch                   | All ER/LA opioid analgesics    | 90             | 02                |
| 7        | 183                        | Hysingla ER                              | All ER/LA opioid analgesics    | 183            | 02                |
| 8        | 90                         | Hysingla ER                              | All ER/LA opioid analgesics    | 90             | 02                |
| 9        | 183                        | Zohydro ER                               | All ER/LA opioid analgesics    | 183            | 02                |
| 10       | 90                         | Zohydro ER                               | All ER/LA opioid analgesics    | 90             | 02                |
| 11       | 183                        | Exalgo ER                                | All ER/LA opioid analgesics    | 183            | 02                |
| 12       | 90                         | Exalgo ER                                | All ER/LA opioid analgesics    | 90             | 02                |
| 13       | 183                        | Generic ER/LA hydromorphone              | All ER/LA opioid analgesics    | 183            | 02                |
| 14       | 90                         | Generic ER/LA hydromorphone              | All ER/LA opioid analgesics    | 90             | 02                |
| 15       | 183                        | Palladone                                | All ER/LA opioid analgesics    | 183            | 02                |
| 16       | 90                         | Palladone                                | All ER/LA opioid analgesics    | 90             | 02                |
| 17       | 183                        | Avinza                                   | All ER/LA opioid analgesics    | 183            | 02                |
| 18       | 90                         | Avinza                                   | All ER/LA opioid analgesics    | 90             | 02                |
| 19       | 183                        | Kadian                                   | All ER/LA opioid analgesics    | 183            | 02                |
| 20       | 90                         | Kadian                                   | All ER/LA opioid analgesics    | 90             | 02                |
| 21       | 183                        | Generic ER/LA morphine                   | All ER/LA opioid analgesics    | 183            | 02                |
| 22       | 90                         | Generic ER/LA morphine                   | All ER/LA opioid analgesics    | 90             | 02                |
| 23       | 183                        | MS Contin                                | All ER/LA opioid analgesics    | 183            | 02                |
| 24       | 90                         | MS Contin                                | All ER/LA opioid analgesics    | 90             | 02                |
| 25       | 183                        | Oramorph SR                              | All ER/LA opioid analgesics    | 183            | 02                |
| 26       | 90                         | Oramorph SR                              | All ER/LA opioid analgesics    | 90             | 02                |
| 27       | 183                        | Embeda                                   | All ER/LA opioid analgesics    | 183            | 02                |
| 28       | 90                         | Embeda                                   | All ER/LA opioid analgesics    | 90             | 02                |
| 29       | 183                        | Generic ER/LA Oxycodone                  | All ER/LA opioid analgesics    | 183            | 02                |
| 30       | 90                         | Generic ER/LA Oxycodone                  | All ER/LA opioid analgesics    | 90             | 02                |
| 31       | 183                        | OxyContin                                | All ER/LA opioid analgesics    | 183            | 02                |
| 32       | 90                         | OxyContin                                | All ER/LA opioid analgesics    | 90             | 02                |
| 33       | 183                        | Opana ER                                 | All ER/LA opioid analgesics    | 183            | 02                |
| 34       | 90                         | Opana ER                                 | All ER/LA opioid analgesics    | 90             | 02                |
| 35       | 183                        | Generic ER/LA Oxymorphone                | All ER/LA opioid analgesics    | 183            | 02                |
| 36       | 90                         | Generic ER/LA Oxymorphone                | All ER/LA opioid analgesics    | 90             | 02                |
| 37       | 183                        | Nucynta ER                               | All ER/LA opioid analgesics    | 183            | 02                |
| 38       | 90                         | Nucynta ER                               | All ER/LA opioid analgesics    | 90             | 02                |
| 39       | 183                        | Dolophine                                | All ER/LA opioid analgesics    | 183            | 02                |
| 40       | 90                         | Dolophine                                | All ER/LA opioid analgesics    | 90             | 02                |
| 41       | 183                        | Generic Methadone (5-10 mg tablets)      | All ER/LA opioid analgesics    | 183            | 02                |
| 42       | 90                         | Generic Methadone (5-10 mg tablets)      | All ER/LA opioid analgesics    | 90             | 02                |
| 43       | 183                        | Generic Methadone (40 mg soluble tablets | All ER/LA opioid analgesics    | 183            | 02                |
| 44       | 90                         | Generic Methadone (40 mg soluble tablets | All ER/LA opioid analgesics    | 90             | 02                |
| 45       | 183                        | Generic Methadone (Hould formulations)   | All ER/LA opioid analgesics    | 183            | 02                |
| 46       | 90                         | Generic Methadone (liquid formulations)  | All ER/LA opioid analgesics    | 90             | 02                |
| 40       | 30                         | Generic Methadone (liquid formulations)  | All Lity LA opiola allaigesics | 30             | UZ                |



International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM) diagnosis and procedure codes checked against "Ingenix 2012 ICD-9-CM Data File" provided by OptumInsight

Healthcare Common Procedure Coding System (HCPCS) codes checked against "Optum 2012 HCPCS Level II Data File" provided by OptumInsight Current Procedural Terminology (CPT) codes checked against "Optum 2012 Current Procedure Codes & Relative Values Data File" provided by OptumInsight



# Appendix C: Latest Date of Available Data for Each Data Partner up to Request Send Date (July 29, 2015)

| DP ID  | Start Date | End Date   |
|--------|------------|------------|
| DP0001 | 1/1/2009   | 12/31/2013 |
| DP0002 | 1/1/2009   | 12/31/2013 |
| DP0003 | 1/1/2009   | 12/31/2013 |
| DP0004 | 1/1/2009   | 12/31/2013 |
| DP0005 | 1/1/2009   | 12/31/2013 |
| DP0006 | 1/1/2009   | 12/31/2013 |
| DP0007 | 1/1/2009   | 12/31/2012 |
| DP0008 | 1/1/2009   | 12/31/2013 |
| DP0009 | 1/1/2009   | 12/31/2013 |
| DP0010 | 1/1/2009   | 12/31/2013 |
| DP0011 | 1/1/2009   | 12/31/2013 |
| DP0012 | 1/1/2009   | 12/31/2013 |
| DP0013 | 1/1/2009   | 6/30/2012  |
| DP0014 | 1/1/2009   | 12/31/2013 |
| DP0015 | 1/1/2009   | 12/31/2013 |