

BMJ Open Research outcomes of linked prescription drug monitoring program data: a scoping review protocol

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ABSTRACT

Introduction The objective of this scoping review is to describe the extent and nature of research studies based on linked prescription drug monitoring program (PDMP) data; defined as PDMP data linked to other clinical, administrative or public health data sets. The population is prescribed and dispensed controlled substances. The concept is analysis of linked PDMP data to other clinical, administrative or public health data sets. The context is the USA.

Methods and analysis The scoping review will be conducted with guidance from the latest version of the JBI Manual for Evidence Synthesis, using the framework as outlined by Arksey and O'Malley. Search strategies will be peer-reviewed according to the Peer Review of Electronic Search Strategies (PRESS) guidelines. For transparency and reproducibility, we will adhere to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews reporting guidelines in reporting results. Two reviewers will independently review full text to select papers or studies for inclusion. When consensus cannot be reached with discussion, a third reviewer will resolve the conflicts. From our included studies, we will extract variables describing aspects of population, concept and context (USA).

Ethics and dissemination Ethical approval was not required for this review. This scoping review entails analysis of previously published, peer-reviewed research. We intend to publish findings in a peer-reviewed journal.

INTRODUCTION

The rationale of this scoping study is to understand the impacts of linked data from prescription drug monitoring programs (PDMP) on the epidemic of opioid misuse and overdose deaths in the USA. Every state, with the exception of Missouri, currently has a PDMP.

Prescribed controlled substances are commonly abused in the USA. Over the past 20 years, the USA has experienced an epidemic of controlled substance misuse and abuse, and a corresponding increase in overdose deaths.¹ In fact, most overdose deaths in the USA are caused by controlled substances, including opioids, benzodiazepines and

Strengths and limitations of this study

- We will conduct the scoping review according to the JBI Manual for Evidence Synthesis to enhance rigour, transparency and reproducibility.
- The methods entail a comprehensive, peer-reviewed search of databases and potential sources of unindexed evidence, to ensure high recall of relevant studies.
- The review may not include relevant studies currently in progress, or those with unreported findings.
- We will analyse the results quantitatively and qualitatively.

antidepressants.² To address the epidemic of controlled substance misuse and overdose deaths, nearly all states and some territories of the USA have established PDMPs, databases that track the prescribing and dispensing of controlled substances.² The information contained within PDMPs is invaluable to prescribing providers who wish to ensure patients receive appropriate pain management, avoid safety issues or identify drug-seeking behaviour. In fact, many states require providers to check the PDMP before prescribing a controlled substance to a patient. Most PDMPs participate in data sharing via a national network, the National Association of Boards of Pharmacy's Prescription Monitoring Programme InterConnect system, in order to obtain more complete information on a patient's prescribing history.³

In addition to its considerable clinical value, PDMP data are important for surveillance and research. PDMP data have been used to conduct varied research related to prescribed controlled substances, including topics in epidemiology, addiction and health services research. However, the use of PDMP data for research is tightly controlled due to privacy-related concerns.⁴ Highly summarised and aggregated, deidentified data pose lower risks related to privacy and confidentiality. However, more complex analyses that require



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the linkage of PDMP data to other meaningful sources of data, such as electronic health records, claims data or death records, requires the use of patient identifiers, and so poses higher risks related to breach of privacy and confidentiality. Although these risks can be mitigated through robust data security practices and systems of oversight, some states severely restrict these types of analyses.⁴

The purpose of our review is to describe the extent and nature of research studies based on linked PDMP data to other large clinical, public health and administrative data sets. With an overarching goal of assessing the scope of research based on PDMP data linked to other sources of relevant clinical and administrative data, the focus of this scoping review is to describe the extent and nature of published research based on linked PDMP data (eg, PDMP data linked to other clinical, public health and administrative data sets). The population is prescribed and dispensed controlled substances. The concept is analysis of linked PDMP data to other clinical, administrative or public health data sets. The context is the USA.

We searched eight sources for existing protocols or reviews and did not find any publication with our proposed focus. Sources searched on 7 June 2021 included PROSPERO (www.crd.york.ac.uk/PROSPERO), PubMed (pubmed.gov), Epistemonikos (www.epistemonikos.org), Cochrane Library (www.cochranelibrary.com), CINAHL Complete (Ebscohost), JBI Evidence Synthesis journals (lww.com/jbisrir), International Journal of evidence-based health, JBI (onlinelibrary.wiley.com/journal/17441609), Trip (tripdatabase.com).

METHODS

We will conduct our scoping review with guidance from the latest version of the *JBI Manual for Evidence Synthesis*.⁵ Using the framework as outlined by Arksey and O'Malley, we will conduct our scoping review with Arksey's five stages: (1) identifying the research question, (2) identifying relevant studies, (3) study selection, (4) charting the data and (5) collating, summarising and reporting the results.⁶ For transparency and reproducibility, we will adhere to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews reporting guidelines in reporting results.^{7,8} We will use Covidence (Veritas Health Innovation,) an online systematic reviewing platform to screen and select studies. Citation management and duplicate detection and removal will be accomplished with EndNote (Clarivate Analytics). We will use Microsoft Excel with version tracking, stored on a protected cloud server, to document data extraction.

Literature searching

An information specialist (MMM) will develop and translate search strategies for the online databases using a combination of keywords and controlled subject headings unique to each database. Peer review of the strategies will be conducted by library colleagues using the Peer Review of Electronic Search Strategies (PRESS) guidelines.⁹

Electronic databases will include Medline (Ovid) 1946–2021, Embase (embase.com) 1974–2021, CINAHL Complete (Ebscohost) 1937–2021, APA PsycINFO (Ebscohost) 1872–2021, International Pharmaceutical Abstracts (Ovid) 1970–2021, Scopus (scopus.com) 1970–2021 and Web of Science Core Collection (Clarivate Analytics) 1900–2021. References of included studies will be checked for additional publications. No preprint servers will be searched. We will specifically examine conference proceedings from meetings of the following professional organisations:

- ▶ American Public Health Association <https://www.apha.org/>.
- ▶ Society of Behavioural Medicine <https://www.sbm.org/>.
- ▶ American Society of Addiction Medicine <https://www.asam.org/>.
- ▶ American Psychiatric Association <https://www.psychiatry.org/>.

We will also examine materials found on the following federal and organisational web sites:

- ▶ Centers for Disease Control and Prevention <https://www.cdc.gov/drugoverdose/pubs/index.html>.
- ▶ Substance Abuse and Mental Health Services Administration <https://www.samhsa.gov/>.
- ▶ National Institute on Drug Abuse <https://www.drugabuse.gov/drug-topics/publications>.
- ▶ Prescription Drug Monitoring Program Training and Technical Assistance Center <https://www.pdmpassist.org/>.
- ▶ PDMP Works <https://pdmpworks.org/>.
- ▶ National Association of Boards of Pharmacy (NABP) Prescription Monitoring Program (PMP) Interconnect <https://nabp.pharmacy/members/pmp-interconnect/>.

The full search protocol for both the biomedical and grey literature are available online supplemental files 1 and 2.

Study selection (eligibility criteria)

Two reviewers (CT and MC) will independently screen titles and abstracts, then independently review full text to select papers or studies for inclusion. When consensus cannot be reached with discussion, a third reviewer (CS) will resolve the conflicts.

Inclusion criteria

The review will include studies of any topic based on retrospective, joint individual-level analysis of PDMP data and data from other clinical, public health and administrative data sets. Any type of study whether observational or interventional is eligible, and the focus of the study can be at the individual, group, or system level. Examples of databases to which the PDMP include but should not be limited to the following:

- ▶ Birth and death registries.
- ▶ Social services databases (child care subsidies, Women Infants and Children).

Table 1 Data extraction variables with analysis method

| Variable | Analysis |
|--|--|
| Title | N/A |
| Authors | N/A |
| Year of publication | Frequency analysis |
| Study population/sample size | Descriptive statistics (range, mean, median) |
| Prescription Drug Monitoring Program (PDMP) | Frequency analysis |
| PDMP variables of interest | Frequency analysis |
| Other data sets/sources (ODS) | Frequency analysis |
| ODS variables of interest | Frequency analysis |
| Specific controlled substances (if applicable) | Frequency analysis |
| Method of linkage (if described) | Frequency analysis |
| Identifiers used for linkage (if described) | Frequency analysis |
| Study-specific or existing linkage? | Frequency analysis |
| Aim or purpose | Inductive thematic analysis |
| Research Question addressed using linked data | Inductive thematic analysis |
| Study design/methodology | Inductive thematic analysis |
| Individual level, population level or other? | Frequency analysis |
| Geographical location of study | Frequency analysis |

N/A, not available.

- ▶ Public health databases (immunisations, newborn hearing, developmental, cancer registry, violence and injury).
- ▶ Claims Databases, including private pay, third party and Centers for Medicare & Medicaid Services (CMS).
- ▶ Professional licensing databases.
- ▶ Electronic health records.

Exclusion criteria

Given the focus on US PDMPs, which grew substantially in number during the years 2000–2010, this review will be limited to English language publications after the year 2000. It will be limited to primary studies and exclude reviews or meta-analyses.

Quality assessment

In compliance with scoping review methodology, no formal quality assessment of included studies will be conducted as our goal is to rapidly map the literature.

Data extraction: charting the data

From our included studies, we (MC and CT) will extract variables (see [table 1](#)) describing aspects of population (prescribed and controlled substances), concept (analysis of linked PDMP data) and context

(USA). We selected these variables in order to facilitate article tracking and discern the elements of PDMP data linked to other large clinical, public health and administrative data sets. If we identify a need to modify the variables after data extraction has begun, the proposed revision will be reviewed by an analysis team (MC, CT and CS) and adopted only if consensus is reached.

Analysis of evidence

We will conduct an initial manual data review with the analysis team (MC, CT and CS) to identify and resolve any needs for categorisation or standardisation of nomenclature. We will conduct frequency analysis to describe the type and distribution of variables as indicated in [table 1](#), as well as a summary list of articles and their characteristics. We will convene one to three sessions of inductive thematic analysis to characterise the research topics, research questions and to discuss relative strength of evidence of the topics and questions.

Presentation of results

First and foremost, we will present the results of the study selection procedure as a figure that depicts the process, overlaid with numbers. We will present characteristics of included studies in a table. We will use graphs and a table to present the results of frequency analyses and strength of evidence. We will present the results of inductive thematic analysis through narrative text.

ETHICS AND DISSEMINATION

Ethical approval was not required for this review. This scoping review entails analysis of previously published, peer-reviewed research. We intend to publish findings in a peer-reviewed journal. Patients or the public were not involved in the design, conduct, or reporting, or dissemination plans of our research. We do not plan to involve patients or the public.

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Contributors All authors (MC, CS, CT and MMM) contributed to the conception of the work, drafting and final approval of the manuscript, and agree to be accountable for all aspects of the work. MMM, a librarian and information specialist, led the design of the search protocol with input from all other authors.

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Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

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Search strategies Scoping Review PDMP linked data

Medline, Embase, CINAHL Complete, APA PsycINFO, International Pharmaceutical Abstracts, Scopus and Web of Science. Date limits: 2001 – 2021

All 6 database searches, except primary database, Medline have methodology filters added.

- Included limit: English language
- Excluded publication type: Review articles, Editorials, Conference Abstracts

Search Concepts Table

| Concepts | Medline statement # |
|---|---------------------|
| Prescription Drug Monitoring Program (PDMP) or Prescription Drug Monitoring | #6 |
| Narcotics, Controlled Substances or Opioids or Opioid Use Disorder | #15 |
| Drug Prescriptions, Prescription Drug Misuse | #16 |
| Drug Utilization | #17 |
| Prescriber Patterns | #20 |
| Public Data, Administrative Data, Registries, etc. | #34 |

Ovid MEDLINE(R)

Search Strategy: August 5, 2021

-
- 1 Prescription Drug Monitoring Programs/ or ("prescription drug monitoring" or "drug monitoring program*").ti,ab,kf,kw,hw. [Subject or Keyword terms] (842)
 - 2 ("PDMP data*" or "PDMP report*" or "PDMP utilization").ti,ab,kf,kw. [Keyword terms] (84)
 - 3 ((prescriber* or prescription*) adj2 (database* or monitor* or surveillanc*).ti,ab,kf,kw. [Keyword terms] (3088)
 - 4 ((prescribe* or prescript*) adj2 (drug* or medication* or substance*) adj6 (database* or monitor* or program* or surveillanc*).ti,ab,kf,kw. [Keyword terms] (1880)
 - 5 Drug Monitoring/ or (((drug* or medication* or prescription*) adj2 (monitor* or surveillanc*)) or pharmacovigilanc* or pharmaco-vigilanc*).ti,ab,kf,kw. [Subject or Keyword terms- drug monitoring] (43715)
 - 6 or/1-5 [PDMP set] (46075)
 - 7 (("controlled substance*" or drug or narcotic* or opioid* or opiate*) adj2 (monitor* or surveillanc*).ti,ab,kf,kw. [Keyword terms - Narcotics +monitor/surveillance set] (18182)
 - 8 Controlled Substances/ or exp Narcotics/ or exp analgesics, opioid/ or alfentanil/ or alphaprodine/ or buprenorphine/ or buprenorphine, naloxone drug combination/ or butorphanol/ or codeine/ or dextromoramide/ or dextropropoxyphene/ or dihydromorphine/ or diphenoxylate/ or endorphins/ or enkephalins/ or "enkephalin, ala(2)-mephe(4)-gly(5)-"/ or "enkephalin, d-penicillamine (2,5)-"/ or ethylketocyclazocine/ or ethylmorphine/ or etorphine/ or fentanyl/ or heroin/ or hydrocodone/ or hydromorphone/ or levorphanol/ or meperidine/ or meptazinol/ or methadone/ or methadyl acetate/ or morphine/ or nalbuphine/ or opiate alkaloids/ or opium/ or oxycodone/ or oxymorphone/ or

Papaver/ or pentazocine/ or phenazocine/ or phenoperidine/ or piritramide/ or promedol/ or Remifentanil/ or sufentanil/ or tilidine/ or tramadol/ [Mesh terms for controlled substances, narcotics, or opioid analgesics] (144418)

9 ("controlled substance*" or narcotic* or stupeficient* or acetorphine or acetylcodeine or acetylmethadol or Alfentanil or alphacetylmethadol or alphaprodine or anileridine or apadoline or azidomorphine or benzhydrocodone or bezitramide or bremazocine or brorphine or buprenorphine or Butorphanol or carfentanil or ciramadol or codeine or codydramol or conorfone or crotonylfentanyl or cyclopropylfentanyl or dermorphin or desomorphine or dextromoramide or dextropropoxyphene or dextrorphan or dezocine or diamorphine or diconal or dihydrocodeine or dihydroetorphine or dihydromorphine or Diphenoxylate or dipipanone or drotebanol or Dsuvia or ecgonine or enadoline or "endomorphin 1" or "endomorphin 2" or eseroline or ethylketazocine or ethylmorphine or etonitazene or etorphine or etoxeridine or (fentanyl or alfentanil or "beta hydroxymefentanyl" or brifentanil or carfentanil or hypnorm or lofentanil or mefentanyl or mirfentanil or ofentanil or remifentanil or sufentanil or trefentanil) or furethidine or Heroin or hydrocodone or hydromorphone or isomethadone or ketazocine or ketobemidone or ketogan or kytorphin or lefetamine or levacetylmethadol or levomethadone or levopropoxyphene or levorphanol or lofentanil or Meperidine or Meptazinol or metazocine or "Methadyl Acetate" or methadone or morphine or "morphinomimetic agent*" or morphinone or nalbuphine or nicocodine or nicomorphine or nocistatin or norbuprenorphine or nordextropropoxyphene or normethadone or normorphine or norpethidine or norpropoxyphene or Opiate* or Opium or oripavine or oxycodone or Oxymorphone or paracymethadol or paregoric or Pentazocine or pethidine or phenadoxone or phencyclidine Phenazocine or phenoperidine or piconadol or piminodine or piritramide or profadol or Promedol or propiram or protopine or Remifentanil or Sufentanil or tapentadol or thebaine or tilidine or Tramadol).ti,ab,kf,kw. [Keywords for controlled substances or narcotics] (155891)

10 ("6029 m" or 6029m or acemethadone or acetylmethadol or adolonta or alfenta or Alfentanil or alfentanil or algopan or alphacetylmethadol or Alphaprodine or amadol or amidone or amidolacetate or "apo-butorphanol" or apobutorphanol or ardinex or "bc 2627" or "bc-2627" or bc2627 or beforal or beta-casomorphin* or "beta casomorphin*" or biodalgic or biodone or biokanol or biopon or Buprenorphine or buprenex or buprex or Butorphanol or carfentanil or cetobemidon or Codein* or codinovo or cofapon or contramal or dago or dagol or damge or damgo or Darvon or Darvocet or demerol or dermorphin or desomorphine or Dextromoramide or Dextropropoxyphene or dezocine or diacetylmorphine or diagesil or diamorf or diamorphine or dicodid or dihydrocodeinone or dihydrocodeine or dihydrohydroxycodone or dihydrone or Dihydromorphine or dihydromorphinone or dilaudid or dimepheptanol or dimethylmeperidine or dinarkon or dionine or dionin or Diphenoxylate or dipidolor or dipydolor or "d moramide" or "d-moramide" or dolantin or dolargan or dolcontral or dolin or dolophine or dolorex or dolosal or dolsin or dpdpe or dplpe or dropizol or duragesic or duramorph or durogesic or "en 2234a" or "en-2234a" or en2234a or endomorphin or endorphin* or Enkephalin* or eseroline or ethylketazocine or Ethylketocyclazocine or Ethylmorphine or Etorphine or ethorphine or eucodal or fanaxal or fenoperidine or fentanest or Fentanyl or fentanil or fentora or fortral or "go 1261" or "go-1261" or go1261 or Heroin or hycodan or hycon or hydrocodeinonebitartrate or hydrocodon or Hydrocodone or hydromorphon or Hydromorphone or isocodeine or isonipecain or isopromedol or jutadol or "k 315" or "k-315" or k315 or ketobemidone or laam or laudacon or laudanon or laudanum or laudopan or "l dromoran" or "l-dromoran" or lealgin or leukendorphin* or levoacetylmethadol or levomethadyl or "levo dromoran" or "levo-dromoran" or levodromoran or

levodroman or levorphan or Levorphanol or lexicr or lidol or limifen or lofentanil or lydol or m99 or Meperidine or Meptazinol or meptid or metadol or metasedin or methaddict or methadol or methadyl or "Methadyl Acetate" or methylmorphin* or Methadone or methadose or methex or moradol or Morphine or morphines or morphia or "ms contin" or "mtw tramadol" or "mtw-tramadol" or "mtwtramadol" or Nalbuphine or narcotic* or narphen or nepenthe or nisentil or "n methylmorphine" or "n-methylmorphine" or nobligan or nocistatin or normethadone or nubain or numorphan or omnopon or opana or operidine or opial or opioid* or opioid* or opiate* or Opium* or opon or oposal or oramorph or orlaam or oxiconum or oxycodone or Oxycodone or Oxymorphone or oxycone or oxycontin or palfium or palladone or pancodine or papaveretum or pantopon* or paramorfan or paramorphan or pavon or papaver or Pentazocine or pethidine or phenadone or Phenazocine or phenbenzorphane or phenethylazocine or Phenoperidine or phentanyl or phymet or physeptone or pinadone or Pirinitramide or piritramid or piritramide or prefin or prodine or propoxyphene or Promedol or prontofort or protopine or pyrrolamidol or pyrolamidol or "r 1406" or "r-1406" or r1406 or "r 30730" or "r-30730" or r30730 or "r 39209" or "r-39209" or r39209 or "r 4263" or "r-4263" or r2463 or "ranitidin 1a pharma" or rapifen or remifentanil or robidone or "rx 6029 m" or rx6029m or "rx 783006" or "rx-783006" or "SDZ 202-250" or "SDZ202-250" or stadol or sublimaze or suboxone or Subutex or sufenta or Sufentanil or sufentanilhameln or sufentanilratiopharm or sulfentanil or sulfentanyl or symoron or talwin or takadol or temgesic or tetrapon or theocodin or theradol or tilidate or tilidin or Tilidine or tiral or topalgic or torbugesic or trachyl or tradol or tradolpuren or tradonal or tralgiol or "trama 1a pharma" or "trama abz" or "trama dorsch" or "trama kd" or "trama-dorsch" or tramadorsch or tramabeta or tramadin or tramadoc or Tramadol or tramadololdgit or tramadolhameln or tramadololor or tramadolratiopharm or tramadura or tramagetic or tramagit or tramake or tramal or tramex or tramundin or trasedal or trimeperidine or ultram or valerone or valoron or "win 35197 2" or "win-35197-2" or win351972 or "wy 22811" or "wy-22811" or wy22811 or "xymel 50" or zamudol or zumalgic or zydol or zytram).ti,ab,kf,kw.

[keywords for opioids]

(225480)

11 Opiate Alkaloids/ or morphinans/ or benzomorphans/ or pentazocine/ or phenazocine/ or buprenorphine/ or buprenorphine, naloxone drug combination/ or butorphanol/ or dextromethorphan/ or dextrorphan/ or diprenorphine/ or etorphine/ or levallorphan/ or levorphanol/ or morphine derivatives/ or codeine/ or dihydromorphine/ or ethylmorphine/ or heroin/ or hydrocodone/ or hydromorphone/ or morphine/ or Morphine Derivatives/ or oxycodone/ or oxymorphone/ or thebaine/ or nalbuphine/ or nalorphine/ or naloxone/ or naltrexone/ or noscapine/ or papaverine/ or pilocarpine/ [Mesh terms for opiates] (95806)

12 ("Opiate Alkaloids" or Morphin* or Benzomorphan* or Pentazocine or fortal or lexicr or talwin or Phenazocine or

narphen or phenbenzorphane or phenethylazocine or Buprenorphine or "6029 m" or 6029m or buprenex or buprex or prefin or "rx 6029 m" or rx6029m or temgesic or suboxone or Butorphanol or "apo-butorphanol" or "bc 2627" or "bc-2627" or bc2627 or beforal or dolorex or moradol or stadol or torbugesic or Dextromethorphan or delsym or levomethorphan or racemethorphan or "d-methorphan" or "l-methorphan" or Dextrorphan or methylmorphinan or Diprenorphine or revivon or Etorphine or ethorphine or m99 or Levallorphan or lorfan or naloxiphan or Levorphanol or "l dromoran" or "l-dromoran" or "levo dromoran" or "levo-dromoran" or levodromoran or levodroman or levorphan or Codeine or ardinex or isocodeine or "n methylmorphine" or "n-methylmorphine" or Hydrocodone or

robidone or hydrocon or codinovo or dicodid or dihydrocodeinone or hycodan or hycon or hydrocodeinonebitartrate or hydrocodon or Oxycodone or dihydrohydroxycodone or dihydron or dinarkon or eucodal or oxiconum or oxycodone or oxycone or oxycontin or pancodine or theocodin or Dihydromorphine or paramorfan or paramorphan or Ethylmorphine or dionine or ethomorphine or ethylmorphine or Heroin or diacetylmorphine or diagesil or diamorf or diamorphine or Hydromorphone or dihydromorphinone or dilaudid or hydromorphon or hydromorphone or laudacon or palladone or morphia or "ms contin" or duramorph or Oxymorphone or numorphan or opana or Thebaine or Nalbuphine or "en 2234a" or "en-2234a" or en2234a or nubain or Nalorphine or allylnormorphine or lethidrone or Naloxone or Nalone or Naloxon or Narcan or Narcanti or "mrz 2593" or "mrz 2593 br" or "mrz 2593-br" or "mrz 2593br" or "mrz-2593"

or "mrz2593" or Naltrexone or antaxone or celupan or "en 1639a" or "en-1639a" or en1639a or nalorex or nemexin or revia or trexan or Noscapine or capval or "librochin prikkelhoest" or narcotine or noscapect or tuscalman or Papaverine or cerespan or pavabid or pavatym or pilocarpine or isopilocarpine or isoptocarpine or ocusert or salagen).ti,ab,kf,kw.

[keyword terms for opiates] (121295)

13 opioid-related disorders/ or heroin dependence/ or morphine dependence/ or opiate overdose/ or opium dependence/ or narcotic-related disorders/ or ((heroin or morphine or narcotic* or opiate* or opioid* or opium) adj2 (addic* or abuse* or abusing* or dependen* or misuse* or mis-use* or "mis use*" or overdose* or over-dose* or "over dose*" or overuse* or over-use* or "over use*")).ti,ab,kf,kw.

[Subject or Keyword terms - opioid use disorders] (40853)

14 substance-related disorders/ or drug overdose/ or ((substance or drug) adj2 (addic* or abuse* or abusing* or dependen* or misuse* or mis-use* or "mis use*" or overdose* or over-dose* or "over dose*" or overuse* or over-use* or "over use*")).ti,ab,kf,kw. [Subject or Keyword terms - Substance abuse disorders] (155084)

15 or/8-14 [Narcotics, controlled substances or opioids set] (405424)

16 Drug Prescriptions/ or Prescription Drug Misuse/ or (((("drug prescription*" or "prescription drug*" or "prescription medicine*") adj2 (misuse* or "mis use" or "non-medical use*")) or NMUPD).ti,ab,kf,kw.

[Subject or Keyword terms] (31612)

17 Drug Utilization/ [Mesh term] (21169)

18 Practice Patterns, Physicians/ [Mesh term] (63646)

19 (exp Nurse Practitioners/ or exp Physicians/ or exp Physician Assistants/ or (physician* or doctor* or "medical practitioner*" or "nurse practitioner*" or prescriber*).ti,ab,kf,kw.) and pattern*.ti,ab,kf,kw.

[Subject or Keyword terms] (24359)

20 or/18-19 [prescriber patterns set] (83918)

21 Routinely Collected Health Data/ or Public Reporting of Healthcare Data/ [Mesh terms] (87)

22 ("routinely collected data" or (data adj1 (collection or identification or pubic* or record or records)) or (("public reporting" or "public* reported") and data) or dataset* or data-set* or "data set*").ti,ab,kf,kw. [Keyword terms] (333483)

23 ("administrative data" or (administrative adj2 data*) or register or registers or registry or registries).ti,ab,kf,kw. [Keyword terms] (235410)

24 registries/ or disease notification/ or records/ or birth certificates/ or death certificates/ [Subject terms] (114174)

- 25 ("disease registry" or "disease registries" or "cancer registry" or "cancer registries" or "cancer register*" or "cancer registration*" or CDC-NPCR or "National Program of Cancer Registries" or NPCR or "SEER program*").ti,ab,kf,kw. [Keyword terms] (27001)
- 26 ("routinely collected data" or (data adj1 (record or records or collection or identification)) or dataset* or data-set* or "data set*").ti,ab,kf,kw. [Keyword terms] (332406)
- 27 public health surveillance/ or sentinel surveillance/ [Subject terms] (11209)
- 28 (("community health" or "public health") adj3 (data or data-set* or registr* or register* or report or reports or survey*)).ti,ab,kf,kw. [Keyword terms] (11192)
- 29 vital statistics/ or life expectancy/ or life tables/ or morbidity/ or basic reproduction number/ or incidence/ or prevalence/ or mortality/ or "cause of death"/ or child mortality/ or fatal outcome/ or fetal mortality/ or hospital mortality/ or infant mortality/ or perinatal mortality/ or maternal mortality/ or mortality, premature/ or survival rate/ or pregnancy rate/ or birth rate/ [Subject terms] (995292)
- Annotation: Exploded MeSH term
- 30 records/ or birth certificates/ or death certificates/ or dental records/ or hospital records/ or exp medical records/ or nursing records/ or registries/ or health surveys/ or behavioral risk factor surveillance system/ or dental health surveys/ or dental plaque index/ or dmf index/ or "index of orthodontic treatment need"/ or oral hygiene index/ or periodontal index/ or health status indicators/ or apache/ or chronic disease indicators/ or patient acuity/ or "severity of illness index"/ or sickness impact profile/ or mass screening/ or anonymous testing/ or mass chest x-ray/ or multiphasic screening/ or neonatal screening/ or vision screening/ or population surveillance/ or public health surveillance/ or sentinel surveillance/ or nutrition surveys/ or diet surveys/ or patient health questionnaire/ or disease notification/ or epidemiological monitoring/ [Subject terms] (845624)
- 31 (((("all payer claims" or "animal health" or (antibiotic* adj2 (resistance or stewardship)) or "behavioral risk factor*" or "behavioural risk factor*" or BRFSS or "birth defects" or "blood lead" or cancer or claims or "communicable disease*" or death or "early hearing" or "emergency department*" or epidemiolog* or "health care" or healthcare or "healthcare-associated infection*" or "health care statistics" or "hospital discharge*" or immigrant* or immunization* or injury or injuries or Medicaid or "medical cannabis" or mortality or "national health and nutrition examination" or NHANES or "national toxic substance*" or "newborn blood" or "newborn hearing" or "newborn heart" or "pregnancy risk" or "prehospital emergency" or "public health" or refugee* or "risk assessment" or "sexually transmitted disease*" or syndromic or trauma or tuberculosis or violence or vaccin* or "vital statistics" or "women, infants, and children" or WIC) adj2 (data* or registr* or report or reports or screening or surveillanc* or survey* or system or systems)) or "medical record*" or "electronic health record*").ti,ab,kf,kw. [Keyword terms] (508610)
- 32 State Government/ or Governing Board/ [Subject terms] (18602)
- 33 exp united states public health service/ or "national center for health statistics, u.s."/ or "national institute for occupational safety and health, u.s."/ or "national program of cancer registries"/ or "national center for health care technology, u.s."/ or exp "national institutes of health (u.s.)"/ or "national institute on alcohol abuse and alcoholism (u.s.)"/ or "national institute on drug abuse (u.s.)"/ or "united states health resources and services administration"/ or "national health planning information center, u.s."/ or "united states substance abuse and mental health services administration"/ [Subject terms] (70183)
- 34 or/21-33 [public data set] (2486109)
- 35 ("public* data*" or "public health" or "public use*").ti,ab,kf,kw. [keyword terms] (315523)

36 ("33863865" or "33752831" or "24118974").ui. [exemplars] (3)
 37 ((and/6,15) or 7) and (or/34-35) [PDMP+Narcotics/narcotics monitor + public/public health data] (3145)
 38 (((and/6,15) or 7) and 20) not 37 [PDMP+Narcotics/narcotics monitor + prescriber patterns] (388)
 39 (and/15-17,20) not (or/37-38) [narcotics + prescription drugs + drug utilization + prescriber patterns] (112)
 40 (((and/6,15) or 7) and 17) not (or/37-39) [PDMP+Narcotics/narcotics monitor + drug utilization] (172)
 41 or/37-40 [final set before limits] (3817)
 42 limit 41 to yr="2001 - 2021" **(3270) [Final set]**
 43 or/36,42 [final set finds exemplars] (3270)
 44 remove duplicates from 43 **(3266)**

Embase (embase.com)

August 5, 2021

#45 #43 NOT ('chapter'/it OR 'conference abstract'/it OR 'conference review'/it OR 'editorial'/it OR 'review'/it) AND [english]/lim 2578
 #44 #43 NOT ('chapter'/it OR 'conference abstract'/it OR 'conference review'/it OR 'editorial'/it OR 'review'/it) 2709
 #43 #40 OR #41 OR #42 4402
 #42 #39 AND (#17 OR #18) NOT (#40 OR #41) 907
 #41 #39 AND #38 NOT #40 2883
 #4 0#39 AND #21 612
 #39 #6 AND #16 8061
 #38 #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 8376234
 #37 'public* data*':ti,ab,kw OR (('public health' NEAR/3 (data* OR registr* OR report OR reports OR screening OR surveillanc* OR survey* OR system OR systems)):ti,ab,kw) OR 'public use*':ti,ab,kw 35710
 #36 'public health service'/exp OR 'national health organization'/de OR 'food and drug administration'/de OR 'health care organization'/mj 240724
 #35 'government'/exp 157788
 #34 'all payer claims':ti,ab,kw OR ((antibiotic* NEAR/2 (resistance OR stewardship)):ti,ab,kw) OR 'behavioral risk factor*':ti,ab,kw OR 'behavioural risk factor*':ti,ab,kw OR brfss:ti,ab,kw OR 'birth defects':ti,ab,kw OR 'blood lead':ti,ab,kw OR cancer:ti,ab,kw OR claims:ti,ab,kw OR 'communicable disease*':ti,ab,kw OR death:ti,ab,kw OR 'early hearing':ti,ab,kw OR 'emergency department*':ti,ab,kw OR epidemiolog*:ti,ab,kw OR 'health care':ti,ab,kw OR healthcare:ti,ab,kw OR 'healthcare-associated infection*':ti,ab,kw OR 'health care statistics':ti,ab,kw OR 'hospital discharge*':ti,ab,kw OR immigrant*:ti,ab,kw OR immunization*:ti,ab,kw OR injury:ti,ab,kw OR injuries:ti,ab,kw OR medicaid:ti,ab,kw OR 'medical cannabis':ti,ab,kw OR mortality:ti,ab,kw OR (((('national health and nutrition examination' OR nhanes OR 'national toxic substance*' OR 'newborn blood' OR 'newborn hearing' OR 'newborn heart' OR 'pregnancy risk' OR 'prehospital emergency' OR 'public health' OR refugee* OR 'risk assessment' OR 'sexually transmitted disease*' OR syndromic OR trauma OR tuberculosis OR violence OR vaccin* OR 'vital statistics' OR 'women, infants, and children' OR wic) NEAR/2 (data*

- OR registr* OR report OR reports OR screening OR surveillanc* OR survey* OR system OR systems)):ti,ab,kw) OR 'medical record*':ti,ab,kw OR 'electronic health record*':ti,ab,kw 7026574
- #33 'health survey'/de OR 'health status indicator'/exp 240686
- #32 'information processing'/de 249032
- #31 'cause of death'/exp OR 'death registry'/exp OR 'death'/de 393749
- #30 'epidemiological data'/exp/mj 489229
- #29 'vital statistics'/de OR 'health statistics'/de OR 'population statistics'/de 10860
- #28 (('community health' OR 'public health') NEAR/3 (data OR 'data set*' OR registr* OR register* OR report OR reports OR survey*)):ti,ab,kw 10222
- #27 'public health surveillance'/de OR 'disease surveillance'/de OR 'epidemiological monitoring'/de OR 'epidemiological surveillance'/de OR 'sentinel surveillance'/de OR 'active surveillance'/de 37417
- #26 'disease registry':ti,ab,kw OR 'disease registries':ti,ab,kw OR 'cancer registry':ti,ab,kw OR 'cancer registries':ti,ab,kw OR 'cancer register*':ti,ab,kw OR 'cancer registration*':ti,ab,kw OR 'cdc npcr':ti,ab,kw OR 'national program of cancer registries':ti,ab,kw OR npcr:ti,ab,kw OR 'seer program*':ti,ab,kw 41544
- #25 'register'/exp OR 'registration'/de OR 'birth certificate'/de OR 'death certificate'/de OR 'disease notification'/de 210180
- #24 'administrative data':ti,ab,kw OR ((administrative NEAR/2 data*)):ti,ab,kw) OR register:ti,ab,kw OR registers:ti,ab,kw OR registry:ti,ab,kw OR registries:ti,ab,kw 362053
- #23 'routinely collected data':ti,ab,kw OR ((data NEAR/1 (collection OR identification OR pubic* OR record OR records)):ti,ab,kw) OR (('public reporting':ti,ab,kw OR 'public* reported':ti,ab,kw) AND data:ti,ab,kw) OR dataset*:ti,ab,kw OR 'data set*':ti,ab,kw 433442
- #22 'routinely collected health data'/exp OR 'health data'/de OR 'administrative health data'/de OR 'medical record'/exp OR 'administrative data'/de 278933
- #21 #19 OR #20 370820
- #20 ('physician'/exp OR 'physician assistant'/de OR 'advanced practice provider'/de OR 'advanced practice nurse'/exp OR physician*:ti,ab,kw OR doctor*:ti,ab,kw OR 'medical practitioner*':ti,ab,kw OR 'nurse practitioner*':ti,ab,kw OR prescriber*:ti,ab,kw) AND pattern*:ti,ab,kw 59306
- #19 'clinical practice'/exp OR 'nursing practice'/exp OR 'pharmacy practice'/de 316530
- #18 'drug utilization review'/de OR 'drug utilization'/de 21938
- #17 'prescription'/de OR 'prescription drug misuse'/exp OR (((('drug prescription*' OR 'prescription drug*' OR 'prescription medicine*') NEAR/2 (misuse* OR 'mis use' OR 'non-medical use*')):ti,ab,kw) OR nmupd:ti,ab,kw 220081
- #16 #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 769949
- #15 ((substance OR drug) NEAR/2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR 'mis use*' OR 'mis use*' OR overdose* OR 'over dose*' OR 'over dose*' OR overuse* OR 'over use*' OR 'over use*')):ti,ab,kw 109307
- #14 'drug dependence'/exp OR 'drug overdose'/exp 292924
- #13 ((heroin OR morphine OR narcotic* OR opiate* OR opioid* OR oropium) NEAR/2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR 'mis use*' OR 'mis use*' OR overdose* OR 'over dose*' OR 'over dose*' OR overuse* OR 'over use*' OR 'over use*')):ti,ab,kw 33985

- #12 'opiate addiction'/de OR 'narcotic dependence'/exp 36805
- #11 'opiate alkaloids':ti,ab,kw,tn OR morphin*:ti,ab,kw,tn OR benzomorphan*:ti,ab,kw,tn OR pentazocine:ti,ab,kw,tn OR fortal:ti,ab,kw,tn OR lexir:ti,ab,kw,tn OR talwin:ti,ab,kw,tn OR phenazocine:ti,ab,kw,tn OR narphen:ti,ab,kw,tn OR phenbenzorphran:ti,ab,kw,tn OR phenethylazocine:ti,ab,kw,tn OR buprenorphine:ti,ab,kw,tn OR '6029 m':ti,ab,kw,tn OR 6029m:ti,ab,kw,tn OR buprenex:ti,ab,kw,tn OR buprex:ti,ab,kw,tn OR prefin:ti,ab,kw,tn OR 'rx 6029 m':ti,ab,kw,tn OR rx6029m:ti,ab,kw,tn OR temgesic:ti,ab,kw,tn OR suboxone:ti,ab,kw,tn OR butorphanol:ti,ab,kw,tn OR 'apo-butorphanol':ti,ab,kw,tn OR 'bc 2627':ti,ab,kw,tn OR 'bc-2627':ti,ab,kw,tn OR bc2627:ti,ab,kw,tn OR beforal:ti,ab,kw,tn OR dolorex:ti,ab,kw,tn OR moradol:ti,ab,kw,tn OR stadol:ti,ab,kw,tn OR torbugesic:ti,ab,kw,tn OR dextromethorphan:ti,ab,kw,tn OR delsym:ti,ab,kw,tn OR levomethorphan:ti,ab,kw,tn OR racemethorphan:ti,ab,kw,tn OR 'd-methorphan':ti,ab,kw,tn OR 'l-methorphan':ti,ab,kw,tn OR dextrorphan:ti,ab,kw,tn OR methylmorphinan:ti,ab,kw,tn OR diprenorphine:ti,ab,kw,tn OR revivon:ti,ab,kw,tn OR etorphine:ti,ab,kw,tn OR ethorphine:ti,ab,kw,tn OR m99:ti,ab,kw,tn OR levallorphan:ti,ab,kw,tn OR lorfan:ti,ab,kw,tn OR naloxiphan:ti,ab,kw,tn OR levorphanol:ti,ab,kw,tn OR 'l dromoran':ti,ab,kw,tn OR 'l-dromoran':ti,ab,kw,tn OR 'levo dromoran':ti,ab,kw,tn OR 'levo-dromoran':ti,ab,kw,tn OR levodromoran:ti,ab,kw,tn OR levodroman:ti,ab,kw,tn OR levorphan:ti,ab,kw,tn OR codeine:ti,ab,kw,tn OR ardinex:ti,ab,kw,tn OR isocodeine:ti,ab,kw,tn OR 'n methylmorphine':ti,ab,kw,tn OR 'n-methylmorphine':ti,ab,kw,tn OR hydrocodone:ti,ab,kw,tn OR robidone:ti,ab,kw,tn OR hydrocon:ti,ab,kw,tn OR codinovo:ti,ab,kw,tn OR dicodid:ti,ab,kw,tn OR dihydrocodeinone:ti,ab,kw,tn OR hycodan:ti,ab,kw,tn OR hycon:ti,ab,kw,tn OR hydrocodeinonebitartrate:ti,ab,kw,tn OR hydrocodon:ti,ab,kw,tn OR oxycodone:ti,ab,kw,tn OR dihydrohydroxycodone:ti,ab,kw,tn OR dihydron:ti,ab,kw,tn OR dinarkon:ti,ab,kw,tn OR eucodal:ti,ab,kw,tn OR oxiconum:ti,ab,kw,tn OR oxycodone:ti,ab,kw,tn OR oxycone:ti,ab,kw,tn OR oxycontin:ti,ab,kw,tn OR pancodine:ti,ab,kw,tn OR theocodin:ti,ab,kw,tn OR dihydromorphine:ti,ab,kw,tn OR paramorfan:ti,ab,kw,tn OR paramorphan:ti,ab,kw,tn OR dionine:ti,ab,kw,tn OR ethomorphine:ti,ab,kw,tn OR ethylmorphine:ti,ab,kw,tn OR heroin:ti,ab,kw,tn OR diacetylmorphine:ti,ab,kw,tn OR diagesil:ti,ab,kw,tn OR diamorf:ti,ab,kw,tn OR diamorphine:ti,ab,kw,tn OR dihydromorphinone:ti,ab,kw,tn OR dilaudid:ti,ab,kw,tn OR hydromorphon:ti,ab,kw,tn OR hydromorphone:ti,ab,kw,tn OR laudacon:ti,ab,kw,tn OR palladone:ti,ab,kw,tn OR morphia:ti,ab,kw,tn OR 'ms contin':ti,ab,kw,tn OR duramorph:ti,ab,kw,tn OR oxymorphone:ti,ab,kw,tn OR numorphan:ti,ab,kw,tn OR opana:ti,ab,kw,tn OR thebaine:ti,ab,kw,tn OR nalbuphine:ti,ab,kw,tn OR 'en 2234a':ti,ab,kw,tn OR 'en-2234a':ti,ab,kw,tn OR en2234a:ti,ab,kw,tn OR nubain:ti,ab,kw,tn OR nalorphine:ti,ab,kw,tn OR allylnormorphine:ti,ab,kw,tn OR lethidrone:ti,ab,kw,tn OR naloxone:ti,ab,kw,tn OR nalone:ti,ab,kw,tn OR naloxon:ti,ab,kw,tn OR narcan:ti,ab,kw,tn OR narcanti:ti,ab,kw,tn OR 'mrz 2593':ti,ab,kw,tn OR 'mrz 2593 br':ti,ab,kw,tn OR 'mrz 2593-br':ti,ab,kw,tn OR 'mrz 2593br':ti,ab,kw,tn OR 'mrz-2593':ti,ab,kw,tn OR 'mrz2593':ti,ab,kw,tn OR naltrexone:ti,ab,kw,tn OR antaxone:ti,ab,kw,tn OR celupan:ti,ab,kw,tn OR 'en 1639a':ti,ab,kw,tn OR 'en-1639a':ti,ab,kw,tn OR en1639a:ti,ab,kw,tn OR nalorex:ti,ab,kw,tn OR nemexin:ti,ab,kw,tn OR revia:ti,ab,kw,tn OR trexan:ti,ab,kw,tn OR noscapine:ti,ab,kw,tn OR capval:ti,ab,kw,tn OR 'librochin prikelhoest':ti,ab,kw,tn OR narcotine:ti,ab,kw,tn OR noscaped:ti,ab,kw,tn OR tuscalman:ti,ab,kw,tn OR papaverine:ti,ab,kw,tn OR

cerespan:ti,ab,kw,tn OR pavabid:ti,ab,kw,tn OR pavatym:ti,ab,kw,tn OR pilocarpine:ti,ab,kw,tn
OR isopilocarpine:ti,ab,kw,tn OR isoptocarpine:ti,ab,kw,tn OR ocusert:ti,ab,kw,tn OR
salagen:ti,ab,kw,tn 165240
#10 'opiate'/de 94876
#9 '6029 m':ti,ab,kw,tn OR 6029m:ti,ab,kw,tn OR acemethadone:ti,ab,kw,tn OR
acetylmethadol:ti,ab,kw,tn OR adolonta:ti,ab,kw,tn OR alfenta:ti,ab,kw,tn OR
alfentanil:ti,ab,kw,tn OR alfentanyl:ti,ab,kw,tn OR algopan:ti,ab,kw,tn OR
alphacetylmethadol:ti,ab,kw,tn OR alphaprodine:ti,ab,kw,tn OR amadol:ti,ab,kw,tn OR
amidone:ti,ab,kw,tn OR amidolacetate:ti,ab,kw,tn OR 'apo-butorphanol':ti,ab,kw,tn OR
apobutorphanol:ti,ab,kw,tn OR ardinex:ti,ab,kw,tn OR 'bc 2627':ti,ab,kw,tn OR 'bc-
2627':ti,ab,kw,tn OR bc2627:ti,ab,kw,tn OR beforal:ti,ab,kw,tn OR 'beta
casomorphin*':ti,ab,kw,tn OR bionalgic:ti,ab,kw,tn OR biodone:ti,ab,kw,tn OR
biokanol:ti,ab,kw,tn OR biopon:ti,ab,kw,tn OR buprenorphine:ti,ab,kw,tn OR
buprenex:ti,ab,kw,tn OR buprex:ti,ab,kw,tn OR butorphanol:ti,ab,kw,tn OR
carfentanil:ti,ab,kw,tn OR cetobemidon:ti,ab,kw,tn OR codein*:ti,ab,kw,tn OR
codinovo:ti,ab,kw,tn OR cofapon:ti,ab,kw,tn OR contramal:ti,ab,kw,tn OR dago:ti,ab,kw,tn OR
dagol:ti,ab,kw,tn OR damge:ti,ab,kw,tn OR damgo:ti,ab,kw,tn OR darvon:ti,ab,kw,tn OR
darvocet:ti,ab,kw,tn OR demerol:ti,ab,kw,tn OR dermorphin:ti,ab,kw,tn OR
desomorphine:ti,ab,kw,tn OR dextromoramide:ti,ab,kw,tn OR dextropropoxyphene:ti,ab,kw,tn
OR dezocine:ti,ab,kw,tn OR diacetylmorphine:ti,ab,kw,tn OR diagesil:ti,ab,kw,tn OR
diamorf:ti,ab,kw,tn OR diamorphine:ti,ab,kw,tn OR dicodid:ti,ab,kw,tn OR
dihydrocodeinone:ti,ab,kw,tn OR dihydrocodeine:ti,ab,kw,tn OR
dihydrohydroxycodeinone:ti,ab,kw,tn OR dihydrone:ti,ab,kw,tn OR dihydromorphine:ti,ab,kw,tn
OR dihydromorphinone:ti,ab,kw,tn OR dilaudid:ti,ab,kw,tn OR dimepheptanol:ti,ab,kw,tn OR
dimethylmeperidine:ti,ab,kw,tn OR dinarkon:ti,ab,kw,tn OR dionine:ti,ab,kw,tn OR
dionin:ti,ab,kw,tn OR diphenoxylate:ti,ab,kw,tn OR dipidolor:ti,ab,kw,tn OR
dipydolor:ti,ab,kw,tn OR 'd moramide':ti,ab,kw,tn OR 'd-moramide':ti,ab,kw,tn OR
dolantin:ti,ab,kw,tn OR dolargan:ti,ab,kw,tn OR dolcontral:ti,ab,kw,tn OR dolin:ti,ab,kw,tn OR
dolophine:ti,ab,kw,tn OR dolorex:ti,ab,kw,tn OR dolosal:ti,ab,kw,tn OR dolsin:ti,ab,kw,tn OR
dplpe:ti,ab,kw,tn OR dplpe:ti,ab,kw,tn OR dropizol:ti,ab,kw,tn OR duragesic:ti,ab,kw,tn OR
duramorph:ti,ab,kw,tn OR durogesic:ti,ab,kw,tn OR 'en 2234a':ti,ab,kw,tn OR 'en-
2234a':ti,ab,kw,tn OR en2234a:ti,ab,kw,tn OR endomorphin:ti,ab,kw,tn OR
endorphin*:ti,ab,kw,tn OR enkephalin*:ti,ab,kw,tn OR eseroline:ti,ab,kw,tn OR
ethylketazocine:ti,ab,kw,tn OR ethylketocyclazocine:ti,ab,kw,tn OR ethylmorphine:ti,ab,kw,tn
OR etorphine:ti,ab,kw,tn OR ethorphine:ti,ab,kw,tn OR eucodal:ti,ab,kw,tn OR
fanaxal:ti,ab,kw,tn OR fenoperidine:ti,ab,kw,tn OR fentanest:ti,ab,kw,tn OR fentanyl:ti,ab,kw,tn
OR fentanil:ti,ab,kw,tn OR fentora:ti,ab,kw,tn OR fortral:ti,ab,kw,tn OR 'go 1261':ti,ab,kw,tn OR
'go-1261':ti,ab,kw,tn OR go1261:ti,ab,kw,tn OR heroin:ti,ab,kw,tn OR hycodan:ti,ab,kw,tn OR
hycon:ti,ab,kw,tn OR hydrocodeinonebitartrate:ti,ab,kw,tn OR hydrocodon:ti,ab,kw,tn OR
hydrocodone:ti,ab,kw,tn OR hydromorphon:ti,ab,kw,tn OR hydromorphone:ti,ab,kw,tn OR
isocodeine:ti,ab,kw,tn OR isonipocain:ti,ab,kw,tn OR isopromedol:ti,ab,kw,tn OR
jutadol:ti,ab,kw,tn OR 'k 315':ti,ab,kw,tn OR 'k-315':ti,ab,kw,tn OR k315:ti,ab,kw,tn OR
ketobemidone:ti,ab,kw,tn OR laam:ti,ab,kw,tn OR laudacon:ti,ab,kw,tn OR laudanon:ti,ab,kw,tn
OR laudanum:ti,ab,kw,tn OR laudopan:ti,ab,kw,tn OR 'l dromoran':ti,ab,kw,tn OR 'l-

dromoran':ti,ab,kw,tn OR lealgin:ti,ab,kw,tn OR leukendorphin*:ti,ab,kw,tn OR
levoacetylmethadol:ti,ab,kw,tn OR levomethadyl:ti,ab,kw,tn OR 'levo dromoran':ti,ab,kw,tn OR
'levo-dromoran':ti,ab,kw,tn OR levodromoran:ti,ab,kw,tn OR levodroman:ti,ab,kw,tn OR
levorphan:ti,ab,kw,tn OR levorphanol:ti,ab,kw,tn OR lexir:ti,ab,kw,tn OR lidol:ti,ab,kw,tn OR
limifen:ti,ab,kw,tn OR lofentanil:ti,ab,kw,tn OR lydol:ti,ab,kw,tn OR m99:ti,ab,kw,tn OR
meperidine:ti,ab,kw,tn OR meptazinol:ti,ab,kw,tn OR meptid:ti,ab,kw,tn OR metadol:ti,ab,kw,tn
OR metasedin:ti,ab,kw,tn OR methaddict:ti,ab,kw,tn OR methadol:ti,ab,kw,tn OR
methadyl:ti,ab,kw,tn OR 'methadyl acetate':ti,ab,kw,tn OR methylmorphin*:ti,ab,kw,tn OR
methadone:ti,ab,kw,tn OR methadose:ti,ab,kw,tn OR methex:ti,ab,kw,tn OR moradol:ti,ab,kw,tn
OR morphine:ti,ab,kw,tn OR morphines:ti,ab,kw,tn OR morphia:ti,ab,kw,tn OR 'ms
contin':ti,ab,kw,tn OR 'mtw tramadol':ti,ab,kw,tn OR 'mtw-tramadol':ti,ab,kw,tn OR
'mtwtramadol':ti,ab,kw,tn OR nalbuphine:ti,ab,kw,tn OR narcotic*:ti,ab,kw,tn OR
narphen:ti,ab,kw,tn OR nepenthe:ti,ab,kw,tn OR nisentil:ti,ab,kw,tn OR 'n
methylmorphine':ti,ab,kw,tn OR 'n-methylmorphine':ti,ab,kw,tn OR nobligan:ti,ab,kw,tn OR
nocistatin:ti,ab,kw,tn OR normethadone:ti,ab,kw,tn OR nubain:ti,ab,kw,tn OR
numorphan:ti,ab,kw,tn OR omnopon:ti,ab,kw,tn OR opana:ti,ab,kw,tn OR operidine:ti,ab,kw,tn
OR opial:ti,ab,kw,tn OR opioid*:ti,ab,kw,tn OR opiod*:ti,ab,kw,tn OR opiate*:ti,ab,kw,tn OR
opium*:ti,ab,kw,tn OR opon:ti,ab,kw,tn OR oposal:ti,ab,kw,tn OR oramorph:ti,ab,kw,tn OR
orlaam:ti,ab,kw,tn OR oxiconum:ti,ab,kw,tn OR oxycodineon:ti,ab,kw,tn OR
oxycodone:ti,ab,kw,tn OR oxymorphone:ti,ab,kw,tn OR oxycone:ti,ab,kw,tn OR
oxycontin:ti,ab,kw,tn OR palfium:ti,ab,kw,tn OR palladone:ti,ab,kw,tn OR pancodine:ti,ab,kw,tn
OR papaveretum:ti,ab,kw,tn OR pantopon*:ti,ab,kw,tn OR paramorfan:ti,ab,kw,tn OR
paramorphan:ti,ab,kw,tn OR pavon:ti,ab,kw,tn OR papaver:ti,ab,kw,tn OR
pentazocine:ti,ab,kw,tn OR pethidine:ti,ab,kw,tn OR phenadone:ti,ab,kw,tn OR
phenazocine:ti,ab,kw,tn OR phenbenzorphane:ti,ab,kw,tn OR phenethylazocine:ti,ab,kw,tn OR
phenoperidine:ti,ab,kw,tn OR phentanyl:ti,ab,kw,tn OR phymet:ti,ab,kw,tn OR
physeptone:ti,ab,kw,tn OR pinadone:ti,ab,kw,tn OR pirinitramide:ti,ab,kw,tn OR
piritramid:ti,ab,kw,tn OR piritramide:ti,ab,kw,tn OR prefin:ti,ab,kw,tn OR prodine:ti,ab,kw,tn OR
propoxyphene:ti,ab,kw,tn OR promedol:ti,ab,kw,tn OR prontofort:ti,ab,kw,tn OR
protopine:ti,ab,kw,tn OR pyrrolamidol:ti,ab,kw,tn OR pyrolamidol:ti,ab,kw,tn OR 'r
1406':ti,ab,kw,tn OR 'r-1406':ti,ab,kw,tn OR r1406:ti,ab,kw,tn OR 'r 30730':ti,ab,kw,tn OR 'r-
30730':ti,ab,kw,tn OR r30730:ti,ab,kw,tn OR 'r 39209':ti,ab,kw,tn OR 'r-39209':ti,ab,kw,tn OR
r39209:ti,ab,kw,tn OR 'r 4263':ti,ab,kw,tn OR 'r-4263':ti,ab,kw,tn OR r2463:ti,ab,kw,tn OR
'ranitidin 1a pharma':ti,ab,kw,tn OR rapifen:ti,ab,kw,tn OR remifentanil:ti,ab,kw,tn OR
robidone:ti,ab,kw,tn OR 'rx 6029 m':ti,ab,kw,tn OR rx6029m:ti,ab,kw,tn OR 'rx
783006':ti,ab,kw,tn OR 'rx-783006':ti,ab,kw,tn OR 'sdz 202-250':ti,ab,kw,tn OR 'sdz202-
250':ti,ab,kw,tn OR stadol:ti,ab,kw,tn OR sublimaze:ti,ab,kw,tn OR suboxone:ti,ab,kw,tn OR
subutex:ti,ab,kw,tn OR sufenta:ti,ab,kw,tn OR sufentanil:ti,ab,kw,tn OR
sufentanilhameln:ti,ab,kw,tn OR sufentanilratiopharm:ti,ab,kw,tn OR sulfentanil:ti,ab,kw,tn OR
sulfentanyl:ti,ab,kw,tn OR symoron:ti,ab,kw,tn OR talwin:ti,ab,kw,tn OR takadol:ti,ab,kw,tn OR
temgesic:ti,ab,kw,tn OR tetraon:ti,ab,kw,tn OR theocodin:ti,ab,kw,tn OR theradol:ti,ab,kw,tn
OR tilidate:ti,ab,kw,tn OR tilidin:ti,ab,kw,tn OR tilidine:ti,ab,kw,tn OR tiral:ti,ab,kw,tn OR
topalgic:ti,ab,kw,tn OR torbugesic:ti,ab,kw,tn OR trachyl:ti,ab,kw,tn OR tradol:ti,ab,kw,tn OR
tradolpuren:ti,ab,kw,tn OR tradonal:ti,ab,kw,tn OR tralgiol:ti,ab,kw,tn OR 'trama 1a

pharma':ti,ab,kw,tn OR 'trama abz':ti,ab,kw,tn OR 'trama dorsch':ti,ab,kw,tn OR 'trama
kd':ti,ab,kw,tn OR 'trama-dorsch':ti,ab,kw,tn OR tramadorsch:ti,ab,kw,tn OR
tramabeta:ti,ab,kw,tn OR tramadin:ti,ab,kw,tn OR tramadoc:ti,ab,kw,tn OR tramadol:ti,ab,kw,tn
OR tramadoldolgit:ti,ab,kw,tn OR tramadolhameln:ti,ab,kw,tn OR tramadolor:ti,ab,kw,tn OR
tramadolratiopharm:ti,ab,kw,tn OR tramadura:ti,ab,kw,tn OR tramagetic:ti,ab,kw,tn OR
tramagit:ti,ab,kw,tn OR tramake:ti,ab,kw,tn OR tramal:ti,ab,kw,tn OR tramex:ti,ab,kw,tn OR
tramundin:ti,ab,kw,tn OR trasedal:ti,ab,kw,tn OR trimeperidine:ti,ab,kw,tn OR
ultram:ti,ab,kw,tn OR valerone:ti,ab,kw,tn OR valoron:ti,ab,kw,tn OR 'win 35197 2':ti,ab,kw,tn
OR 'win-35197-2':ti,ab,kw,tn OR win351972:ti,ab,kw,tn OR 'wy 22811':ti,ab,kw,tn OR 'wy-
22811':ti,ab,kw,tn OR wy22811:ti,ab,kw,tn OR 'xymel 50':ti,ab,kw,tn OR zamudol:ti,ab,kw,tn OR
zumalgic:ti,ab,kw,tn OR zydol:ti,ab,kw,tn OR zytram:ti,ab,kw,tn 311906
#8 ('controlled substance*':ti,ab,kw,tn OR narcotic*:ti,ab,kw,tn OR stupefacient*:ti,ab,kw,tn OR
acetorphine:ti,ab,kw,tn OR acetylcodeine:ti,ab,kw,tn OR acetylmethadol:ti,ab,kw,tn OR
alphacetylmethadol:ti,ab,kw,tn OR alphaprodine:ti,ab,kw,tn OR anileridine:ti,ab,kw,tn OR
apadoline:ti,ab,kw,tn OR azidomorphine:ti,ab,kw,tn OR benzhydrocodone:ti,ab,kw,tn OR
bezitramide:ti,ab,kw,tn OR bremazocine:ti,ab,kw,tn OR brorphine:ti,ab,kw,tn OR
buprenorphine:ti,ab,kw,tn OR butorphanol:ti,ab,kw,tn OR ciramadol:ti,ab,kw,tn OR
codeine:ti,ab,kw,tn OR codydramol:ti,ab,kw,tn OR conorfone:ti,ab,kw,tn OR
crotylfentanyl:ti,ab,kw,tn OR cyclopropylfentanyl:ti,ab,kw,tn OR dermorphin:ti,ab,kw,tn OR
desomorphine:ti,ab,kw,tn OR dextromoramide:ti,ab,kw,tn OR dextropropoxyphene:ti,ab,kw,tn
OR dextrorphan:ti,ab,kw,tn OR dezocine:ti,ab,kw,tn OR diamorphine:ti,ab,kw,tn OR
diconal:ti,ab,kw,tn OR dihydrocodeine:ti,ab,kw,tn OR dihydroetorphine:ti,ab,kw,tn OR
dihydromorphine:ti,ab,kw,tn OR diphenoxylate:ti,ab,kw,tn OR dipipanone:ti,ab,kw,tn OR
drotebanol:ti,ab,kw,tn OR dsuvia:ti,ab,kw,tn OR ecgonine:ti,ab,kw,tn OR enadoline:ti,ab,kw,tn
OR 'endomorphin 1':ti,ab,kw,tn OR 'endomorphin 2':ti,ab,kw,tn OR eseroline:ti,ab,kw,tn OR
ethylketazocine:ti,ab,kw,tn OR ethylmorphine:ti,ab,kw,tn OR etonitazene:ti,ab,kw,tn OR
etorphine:ti,ab,kw,tn OR etoxeridine:ti,ab,kw,tn OR fentanyl:ti,ab,kw,tn OR
alfentanil:ti,ab,kw,tn OR 'beta hydroxymefentanyl':ti,ab,kw,tn OR brifentanil:ti,ab,kw,tn OR
carfentanil:ti,ab,kw,tn OR hypnorm:ti,ab,kw,tn OR mefentanyl:ti,ab,kw,tn OR
mirfentanil:ti,ab,kw,tn OR ocfentanil:ti,ab,kw,tn OR remifentanil:ti,ab,kw,tn OR
sufentanil:ti,ab,kw,tn OR trefentanil:ti,ab,kw,tn OR furethidine:ti,ab,kw,tn OR heroin:ti,ab,kw,tn
OR hydrocodone:ti,ab,kw,tn OR hydromorphone:ti,ab,kw,tn OR isomethadone:ti,ab,kw,tn OR
ketazocine:ti,ab,kw,tn OR ketobemidone:ti,ab,kw,tn OR ketogan:ti,ab,kw,tn OR
kytorphin:ti,ab,kw,tn OR lefetamine:ti,ab,kw,tn OR levacetylmethadol:ti,ab,kw,tn OR
levomethadone:ti,ab,kw,tn OR levopropoxyphene:ti,ab,kw,tn OR levorphanol:ti,ab,kw,tn OR
lofentanil:ti,ab,kw,tn OR meperidine:ti,ab,kw,tn OR meptazinol:ti,ab,kw,tn OR
metazocine:ti,ab,kw,tn OR 'methadyl acetate':ti,ab,kw,tn OR methadone:ti,ab,kw,tn OR
morphine:ti,ab,kw,tn OR 'morphinomimetic agent*':ti,ab,kw,tn OR morphinone:ti,ab,kw,tn OR
nalbuphine:ti,ab,kw,tn OR nicocodine:ti,ab,kw,tn OR nicomorphine:ti,ab,kw,tn OR
nocistatin:ti,ab,kw,tn OR norbuprenorphine:ti,ab,kw,tn OR nordextropropoxyphene:ti,ab,kw,tn
OR normethadone:ti,ab,kw,tn OR normorphine:ti,ab,kw,tn OR norpethidine:ti,ab,kw,tn OR
norpropoxyphene:ti,ab,kw,tn OR opiate*:ti,ab,kw,tn OR opium:ti,ab,kw,tn OR
oripavine:ti,ab,kw,tn OR oxycodone:ti,ab,kw,tn OR oxymorphone:ti,ab,kw,tn OR
paracymethadol:ti,ab,kw,tn OR paregoric:ti,ab,kw,tn OR pentazocine:ti,ab,kw,tn OR

pethidine:ti,ab,kw,tn OR phenadoxone:ti,ab,kw,tn OR phencyclidine:ti,ab,kw,tn) AND
 phenazocine:ti,ab,kw,tn OR phenoperidine:ti,ab,kw,tn OR piconadol:ti,ab,kw,tn OR
 piminodine:ti,ab,kw,tn OR piritramide:ti,ab,kw,tn OR profadol:ti,ab,kw,tn OR
 promedol:ti,ab,kw,tn OR propiram:ti,ab,kw,tn OR protopine:ti,ab,kw,tn OR
 remifentanyl:ti,ab,kw,tn OR sufentanyl:ti,ab,kw,tn OR tapentadol:ti,ab,kw,tn OR
 thebaine:ti,ab,kw,tn OR tilidine:ti,ab,kw,tn OR tramadol:ti,ab,kw,tn 23390
 #7 'controlled substance'/de OR 'narcotic agent'/exp OR 'narcotic analgesic agent'/exp 375301
 #6 #1 OR #2 OR #3 OR #4 OR #5 88697
 #5 'drug monitoring'/de OR (((drug* OR medication* OR prescription*) NEAR/2 (monitor* OR
 surveillanc*)):ti,ab,kw) OR pharmacovigilanc*:ti,ab,kw OR 'pharmaco vigilanc*':ti,ab,kw 84883
 #4 ((prescribe* OR prescript*) NEAR/2 (drug* OR medication* OR substance*) NEAR/6 (database*
 OR monitor* OR program* OR surveillanc*)):ti,ab,kw 3130
 #3 ((prescriber* OR prescription*) NEAR/2 (database* OR monitor* OR surveillanc*)):ti,ab,kw
 4960
 #2 'pdmp data*':ti,ab,kw OR 'pdmp report*':ti,ab,kw OR 'pdmp utilization':ti,ab,kw 144
 #1 'prescription drug monitoring program'/de OR 'prescription drug monitoring':ti,ab,kw OR 'drug
 monitoring program*':ti,ab,kw 1309

CINAHL Complete (Ebscohost)

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S38 S37 Limiters - Published Date: 20000101-20211231 490
 S37 S35 NOT S36 493
 S36 S35 Limiters - Publication Type: Book, Book Chapter, Book Review, Doctoral Dissertation,
 Editorial, Meta Analysis, Meta Synthesis, Practice Guidelines, Review, Systematic Review
 67
 S35 S32 OR S33 OR S34 Limiters - English Language 560
 S34 (S31 AND S17) NOT (S32 OR S33) 19
 S33 (S31 AND S30) NOT S32 142
 S32 S31 AND (S18 OR S19) 404
 S31 S6 AND S15 1,294
 S30 (S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29) 548,076
 S29 (MH "Government") OR (MH "Federal Government") OR (MH "Local Government") OR (MH
 "State Government") OR (MH "Governing Board") 25,819
 S28 TI ((((("all payer claims" or "animal health" or (antibiotic* N2 (resistance or stewardship)) or
 "behavioral risk factor*" or "behavioural risk factor*" or BRFSS or "birth defects" or "blood lead" or
 cancer or claims or "communicable disease*" or death or "early hearing" or "emergency department*" or
 epidemiolog* or "health care" or healthcare or "healthcare-associated infection*" or "health care
 statistics" or "hospital discharge*" or immigrant* or immunization* or injury or injuries or Medicaid or
 "medical cannabis" or mortality or "national health and nutrition examination" or NHANES or "national
 toxic substance*" or "newborn blood" or "newborn hearing" or "newborn heart" or "pregnancy risk" or
 "prehospital emergency" or "public health" or refugee* or "risk assessment" or "sexually transmitted
 disease*" or syndromic or trauma or tuberculosis or violence or vaccin* or "vital statistics" or "women,
 infants, and children" or WIC) N2 (data* or registr* or report or reports or screening or surveillanc* or

- survey* or system or systems)) or "medical record*" or "electronic health record*")) OR AB ((((("all payer claims" or "animal health" or (antibiotic* N2 (resistance or stewardship)) or "behavioral risk factor*" or "behavioural risk factor*" or BRFSS or "birth defects" or "blood lead" or cancer or claims or "communicable disease*" or death or "early hearing" or "emergency department*" or epidemiolog* or "health care" or healthcare or "healthcare-associated infection*" or "health care statistics" or "hospital discharge*" or immigrant* or immunization* or injury or injuries or Medicaid or "medical cannabis" or mortality or "national health and nutrition examination" or NHANES or "national toxic substance*" or "newborn blood" or "newborn hearing" or "newborn heart" or "pregnancy risk" or "prehospital emergency" or "public health" or refugee* or "risk assessment" or "sexually transmitted disease*" or syndromic or trauma or tuberculosis or violence or vaccin* or "vital statistics" or "women, infants, and children" or WIC) N2 (data* or registr* or report or reports or screening or surveillanc* or survey* or system or systems)) or "medical record*" or "electronic health record*")) 224,936
- S27 TI (("community health" or "public health") N3 (data or data-set* or registr* or register* or report or reports or survey*))) OR AB (("community health" or "public health") N3 (data or data-set* or registr* or register* or report or reports or survey*))) 4,872
- S26 MH "Medical Records+" 110,386
- S25 (MH "Population Surveillance") OR (MH "Biosurveillance") OR (MH "Disease Surveillance") 27,223
- S24 (MH "Documentation") OR (MH "Death Certificates") OR (MH "Birth Certificates") 36,202
- S23 TI (("disease registry" or "disease registries" or "cancer registry" or "cancer registries" or "cancer register*" or "cancer registration*" or CDC-NPCR or "National Program of Cancer Registries" or NPCR or "SEER program*")) OR AB (("disease registry" or "disease registries" or "cancer registry" or "cancer registries" or "cancer register*" or "cancer registration*" or CDC-NPCR or "National Program of Cancer Registries" or NPCR or "SEER program*")) 6,911
- S22 (MH "Registries, Disease+") OR (MH "Registries, Trauma") 11,430
- S21 TI (("administrative data" or (administrative N2 data*) or register or registers or registry or registries)) OR AB (("administrative data" or (administrative N2 data*) or register or registers or registry or registries)) 86,289
- S20 ((MH "Routinely Collected Health Data") OR (MH "Public Reporting of Healthcare Data")) OR (("routinely collected data" or (data N1 (collection or identification or pubic* or record or records)) or (("public reporting" or "public* reported") and data) or dataset* or data-set* or "data set*")) OR (("routinely collected data" or (data N1 (collection or identification or pubic* or record or records)) or (("public reporting" or "public* reported") and data) or dataset* or data-set* or "data set*")) 134,237
- S19 ((MH "Nurse Practitioners+") OR (MH "Physicians+") OR (MH "Physician Assistants")) OR TI ((physician* or doctor* or "medical practitioner*" or "nurse practitioner*" or prescriber*)) OR ((physician* or doctor* or "medical practitioner*" or "nurse practitioner*" or prescriber*)) 363,292
- S18 (MH "Practice Patterns") OR (MH "Prescribing Patterns") 21,011
- S17 (MH "Drug Utilization") 8,577
- S16 (MH "Prescriptions, Drug") OR TI ((((("drug prescription*" or "prescription drug*" or "prescription medicine*") N2 (misuse* or "mis use" or "non-medical use*")) or NMUPD)) OR AB

- ((((("drug prescription*" or "prescription drug*" or "prescription medicine*") N2 (misuse* or "mis use" or "non-medical use*")) or NMUPD)) 13,596
- S15 S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 114,561
- S14 TI (((substance OR drug) N2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR 'mis use*' OR 'mis use*' OR overdose* OR 'over dose*' OR 'over dose*' OR overuse* OR 'over use*' OR 'over use*'))) OR AB (((substance OR drug) N2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR 'mis use*' OR 'mis use*' OR overdose* OR 'over dose*' OR 'over dose*' OR overuse* OR 'over use*' OR 'over use*'))) 34,680
- S13 (MH "Substance Dependence") 10,303
- S12 TI ((heroin OR morphine OR narcotic* OR opiate* OR opioid* OR oropium) N2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR 'mis use*' OR 'mis use*' OR overdose* OR 'over dose*' OR 'over dose*' OR overuse* OR 'over use*' OR 'over use*'))) OR AB ((heroin OR morphine OR narcotic* OR opiate* OR opioid* OR oropium) N2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR 'mis use*' OR 'mis use*' OR overdose* OR 'over dose*' OR 'over dose*' OR overuse* OR 'over use*' OR 'over use*'))) 10,984
- S11 (MH "Opioid Epidemic") OR (MH "Opiate Overdose") 369
- S10 TI ('opiate alkaloids' OR morphin* OR benzomorphan* OR pentazocine OR fortal OR lexis OR talwin OR phenazocine OR narphen OR phenbenzomorphan OR phenethylazocine OR buprenorphine OR '6029 m' OR 6029m OR buprenex OR buprex OR prefin OR 'rx 6029 m' OR rx6029m OR temgesic OR suboxone OR butorphanol OR 'apo-butorphanol' OR 'bc 2627' OR 'bc-2627' OR bc2627 OR beforal OR dolorex OR moradol OR stadol OR torbugesic OR dextromethorphan OR delysym OR levomethorphan OR racemethorphan OR 'd-methorphan' OR 'l-methorphan' OR dextrophan OR methylmorphinan OR diprenorphine OR revivon OR etorphine OR ethorphine OR m99 OR levallorphan OR lorfan OR naloxiphan OR levorphanol OR 'l-dromoran' OR 'l-dromoran' OR 'levo dromoran' OR 'levo-dromoran' OR levodromoran OR levodroman OR levorphan OR codeine OR ardinex OR isocodeine OR 'n methylmorphine' OR 'n-methylmorphine' OR hydrocodone OR robidone OR hydrocon OR codinovo OR dicodid OR dihydrocodeinone OR hycodan OR hycon OR hydrocodeinonebitartrate OR hydrocodon OR oxycodone OR dihydrohydroxycodone OR dihydron OR dinarkon OR eucodal OR oxiconum OR oxycodone OR oxycone OR oxycontin OR pancodine OR theocodin OR dihydromorphine OR paramorfan OR paramorphan OR dionine OR ethomorphine OR ethylmorphine OR heroin OR diacetylmorphine OR diagesil OR diamorf OR diamorphine OR dihydromorphinone OR dilaudid OR hydromorphan OR hydromorphone OR laudacon OR palladone OR morphia OR 'ms contin' OR duramorph OR oxymorphone OR numorphan OR opana OR thebaine OR nalbuphine OR 'en 2234a' OR 'en-2234a' OR en2234a OR nubain OR nalorphine OR allylnormorphine OR lethidrone OR naloxone OR nalone OR naloxon OR narkan OR narcanti OR 'mrz 2593' OR 'mrz 2593 br' OR 'mrz 2593-br' OR 'mrz 2593br' OR 'mrz-2593' OR 'mrz2593' OR naltrexone OR antaxone OR celupan OR 'en 1639a' OR 'en-1639a' OR en1639a OR nalorex OR nemexin OR revia OR trexan OR noscapine OR capval OR 'librochin prikkelhoest' OR narcotine OR noscaped OR tuscalman OR papaverine OR cerespan OR pavabid OR pavatym OR pilocarpine OR isopilocarpine OR isoptocarpine OR ocusert OR salagen) OR AB ('opiate alkaloids' OR morphin* OR benzomorphan* OR pentazocine OR fortal OR lexis OR talwin OR phenazocine OR narphen OR phenbenzomorphan OR phenethylazocine OR buprenorphine OR '6029 m' OR 6029m OR buprenex OR buprex OR prefin OR 'rx 6029 m' OR rx6029m OR temgesic OR suboxone OR butorphanol OR

'apo-butorphanol' OR 'bc 2627' OR 'bc-2627' OR bc2627 OR beforal OR dolorex OR moradol OR stadol OR torbugesic OR dextromethorphan OR delsym OR levomethorphan OR racemethorphan OR 'd-methorphan' OR 'l-methorphan' OR dextrorphan OR methylmorphinan OR diprenorphine OR revivon OR etorphine OR ethorphine OR m99 OR levallorphan OR lorfan OR naloxiphan OR levorphanol OR 'l dromoran' OR 'l-dromoran' OR 'levo dromoran' OR 'levo-dromoran' OR levodromoran OR levodroman OR levorphan OR codeine OR ardinex OR isocodeine OR 'n methylmorphine' OR 'n-methylmorphine' OR hydrocodone OR robidone OR hydrocon OR codinovo OR dicodid OR dihydrocodeinone OR hycodan OR hycon OR hydrocodeinonebitartrate OR hydrocodon OR oxycodone OR dihydrohydroxycodone OR dihydron OR dinarkon OR eucodal OR oxiconum OR oxycodone OR oxycone OR oxycontin OR pancodine OR theocodin OR dihydromorphine OR paramorfan OR paramorphan OR dionine OR ethomorphine OR ethylmorphine OR heroin OR diacetylmorphine OR diagesil OR diamorf OR diamorphine OR dihydromorphinone OR dilaudid OR hydromorphon OR hydromorphone OR laudacon OR palladone OR morphia OR 'ms contin' OR duramorph OR oxymorphine OR numorphan OR opana OR thebaine OR nalbuphine OR 'en 2234a' OR 'en-2234a' OR en2234a OR nubain OR nalorphine OR allylnormorphine OR lethidrone OR naloxone OR nalone OR naloxon OR narcan OR narcanti OR 'mrz 2593' OR 'mrz 2593 br' OR 'mrz 2593-br' OR 'mrz 2593br' OR 'mrz-2593' OR 'mrz2593' OR naltrexone OR antaxone OR celupan OR 'en 1639a' OR 'en-1639a' OR en1639a OR nalorex OR nemexin OR revia OR trexan OR noscapine OR capval OR 'librochin prikkelhoest' OR narcotine OR noscaped OR tuscalman OR papaverine OR cerespan OR pavabid OR pavatym OR pilocarpine OR isopilocarpine OR isoptocarpine OR ocusert OR salagen) 25,807

S9 TI (6029 m' OR 6029m OR acemethadone OR acetylmethadol OR adolonta OR alfenta OR alfentanil OR alfentanyl OR algopan OR alphacetylmethadol OR alphaprodine OR amadol OR amidone OR amidolacetate OR 'apo-butorphanol' OR apobutorphanol OR ardinex OR 'bc 2627' OR 'bc-2627' OR bc2627 OR beforal OR 'beta casomorphin*' OR biodalgic OR biodone OR biokanol OR biopon OR buprenorphine OR buprenex OR buprex OR butorphanol OR carfentanil OR cetobemidon OR codein* OR codinovo OR cofapon OR contramal OR dago OR dagol OR damge OR damgo OR darvon OR darvocet OR demerol OR dermorphin OR desomorphine OR dextromoramide OR dextropropoxyphene OR dezocine OR diacetylmorphine OR diagesil OR diamorf OR diamorphine OR dicodid OR dihydrocodeinone OR dihydrocodeine OR dihydrohydroxycodone OR dihydron OR dihydromorphine OR dihydromorphinone OR dilaudid OR dimepheptanol OR dimethylmeperidine OR dinarkon OR dionine OR dionin OR diphenoxylate OR dipidolor OR dipydolor OR 'd moramide' OR 'd-moramide' OR dolantin OR dolargan OR dolcontral OR dolin OR dolophine OR dolorex OR dolosal OR dolsin OR dpdp OR dplpe OR dropizol OR duragesic OR duramorph OR durogesic OR 'en 2234a' OR 'en-2234a' OR en2234a OR endomorphin OR endorphin* OR enkephalin* OR eseroline OR ethylketazocine OR ethylketocyclazocine OR ethylmorphine OR etorphine OR ethorphine OR eucodal OR fanaxal OR fenoperidine OR fentanest OR fentanyl OR fentanil OR fentora OR fortral OR 'go 1261' OR 'go-1261' OR go1261 OR heroin OR hycodan OR hycon OR hydrocodeinonebitartrate OR hydrocodon OR hydrocodone OR hydromorphon OR hydromorphone OR isocodeine OR isonipecain OR isopromedol OR jutadol OR 'k 315' OR 'k-315' OR k315 OR ketobemidone OR laam OR laudacon OR laudanon OR laudanum OR laudopan OR 'l dromoran' OR 'l-dromoran' OR lealgin OR leukendorphin* OR levoacetylmethadol OR levomethadyl OR 'levo dromoran' OR 'levo-dromoran' OR levodromoran OR levodroman OR levorphan OR levorphanol OR lexir OR lidol OR

limifen OR lofentanil OR lydol OR m99 OR meperidine OR meptazinol OR meptid OR metadol OR metasedin OR methaddict OR methadol OR methadyl OR 'methadyl acetate' OR methylmorphin* OR methadone OR methadose OR methex OR moradol OR morphine OR morphines OR morphia OR 'ms contin' OR 'mtw tramadol' OR 'mtw-tramadol' OR 'mtwtramadol' OR nalbuphine OR narcotic* OR narphen OR nepenthe OR nisentil OR 'n methylmorphine' OR 'n-methylmorphine' OR nobligan OR nocistatin OR normethadone OR nubain OR numorphan OR omnopon OR opana OR operidine OR opial OR opioid* OR opiod* OR opiate* OR opium* OR opon OR oposal OR oramorph OR orlaam OR oxiconum OR oxycodone OR oxycodone OR oxymorphone OR oxycone OR oxycontin OR palfium OR palladone OR pancodine OR papaveretum OR pantopon* OR paramorfan OR paramorphan OR pavon OR papaver OR pentazocine OR pethidine OR phenadone OR phenazocine OR phenbenzorphin OR phenethylazocine OR phenoperidine OR phentanyl OR phymet OR physeptone OR pinadone OR piritramide OR piritramid OR piritramide OR prefin OR prodine OR propoxyphene OR promedol OR prontofort OR protopine OR pyrrolamidol OR pyrolamidol OR 'r 1406' OR 'r-1406' OR r1406 OR 'r 30730' OR 'r-30730' OR r30730 OR 'r 39209' OR 'r-39209' OR r39209 OR 'r 4263' OR 'r-4263' OR r2463 OR 'ranitidin 1a pharma' OR rapifen OR remifentanil OR robidone OR 'rx 6029 m' OR rx6029m OR 'rx 783006' OR 'rx-783006' OR 'sdz 202-250' OR 'sdz202-250' OR stadol OR sublimaze OR suboxone OR subutex OR sufenta OR sufentanil OR sufentanilhameln OR sufentanilratiopharm OR sulfentanil OR sulfentanil OR symoron OR talwin OR takadol OR temgesic OR tetrapon OR theocodin OR theradol OR tilidate OR tilidin OR tilidine OR tiral OR topalgic OR torbugesic OR trachyl OR tradol OR tradolpuren OR tradonal OR tralgiol OR 'trama 1a pharma' OR 'trama abz' OR 'trama dorsch' OR 'trama kd' OR 'trama-dorsch' OR tramadorsch OR tramabeta OR tramadin OR tramadoc OR tramadol OR tramadoldolgit OR tramadolhameln OR tramadolor OR tramadolratiopharm OR tramadura OR tramagetic OR tramagit OR tramake OR tramal OR tramex OR tramundin OR trasedal OR trimeperidine OR ultram OR valerone OR valoron OR 'win 35197 2' OR 'win-35197-2' OR win351972 OR 'wy 22811' OR 'wy-22811' OR wy22811 OR 'xymel 50' OR zamudol OR zumalgic OR zydol OR zytram) OR AB (6029 m' OR 6029m OR acemethadone OR acetylmethadol OR adolonta OR alfenta OR alfentanil OR alfentanil OR algopan OR alphacetylmethadol OR alphaprodine OR amadol OR amidone OR amidolacetate OR 'apo-butorphanol' OR apobutorphanol OR ardinex OR 'bc 2627' OR 'bc-2627' OR bc2627 OR beforal OR 'beta casomorphin*' OR biodalgic OR biodone OR biokanol OR biopon OR buprenorphine OR buprenex OR buprex OR butorphanol OR carfentanil OR cetobemidon OR codein* OR codinovo OR cofapon OR contramal OR dago OR dagol OR damge OR damgo OR darvon OR darvocet OR demerol OR dermorphin OR desomorphine OR dextromoramide OR dextropropoxyphene OR dezocine OR diacetylmorphine OR diagesil OR diamorf OR diamorphine OR dicodid OR dihydrocodeinone OR dihydrocodeine OR dihydrohydroxycodone OR dihydron OR dihydromorphine OR dihydromorphinone OR dilaudid OR dimepheptanol OR dimethylmeperidine OR dinarkon OR dionine OR dionin OR diphenoxylate OR dipidolor OR dipydolor OR 'd moramide' OR 'd-moramide' OR dolantin OR dolargan OR dolcontral OR dolin OR dolophine OR dolorex OR dolosal OR dolsin OR dpdpe OR dplpe OR dropizol OR duragesic OR duramorph OR durogesic OR 'en 2234a' OR 'en-2234a' OR en2234a OR endomorphin OR endorphin* OR enkephalin* OR eseroline OR ethylketazocine OR ethylketocyclazocine OR ethylmorphine OR etorphine OR ethorphine OR eucodal OR fanaxal OR fenoperidine OR fentanest OR fentanyl OR fentanil OR fentora OR fortral OR 'go 1261' OR 'go-1261' OR go1261

OR heroin OR hycodan OR hycon OR hydrocodeinonebitartrate OR hydrocodon OR hydrocodone OR hydromorphon OR hydromorphone OR isocodeine OR isonipecain OR isopromedol OR jutadol OR 'k 315' OR 'k-315' OR k315 OR ketobemidone OR laam OR laudacon OR laudanon OR laudanum OR laudopan OR 'l dromoran' OR 'l-dromoran' OR lealgin OR leukendorphin* OR levoacetylmethadol OR levomethadyl OR 'levo dromoran' OR 'levo-dromoran' OR levodromoran OR levodroman OR levorphan OR levorphanol OR lexic OR lidol OR limifen OR lofentanil OR lydol OR m99 OR meperidine OR meptazinol OR meptid OR metadol OR metasedin OR methaddict OR methadol OR methadyl OR 'methadyl acetate' OR methylmorphin* OR methadone OR methadose OR methex OR moradol OR morphine OR morphines OR morphia OR 'ms contin' OR 'mtw tramadol' OR 'mtw-tramadol' OR 'mtwtramadol' OR nalbuphine OR narcotic* OR narphen OR nepenthe OR nisentil OR 'n methylmorphine' OR 'n-methylmorphine' OR nobligan OR nocistatin OR normethadone OR nubain OR numorphan OR omnopon OR opana OR operidine OR opial OR opioid* OR opiod* OR opiate* OR opium* OR opon OR oposal OR oramorph OR orlaam OR oxiconum OR oxycodone OR oxycodone OR oxymorphone OR oxycone OR oxycontin OR palfium OR palladone OR pancodine OR papaveretum OR pantopon* OR paramorfan OR paramorphan OR pavon OR papaver OR pentazocine OR pethidine OR phenadone OR phenazocine OR phenbenzorphin OR phenethylazocine OR phenoperidine OR phentanyl OR phymet OR physeptone OR pinadone OR pirinitramide OR piritramid OR piritramide OR prefin OR prodine OR propoxyphene OR promedol OR prontofort OR protopine OR pyrrolamidol OR pyrolamidol OR 'r 1406' OR 'r-1406' OR r1406 OR 'r 30730' OR 'r-30730' OR r30730 OR 'r 39209' OR 'r-39209' OR r39209 OR 'r 4263' OR 'r-4263' OR r2463 OR 'ranitidin 1a pharma' OR rapifen OR remifentanil OR robidone OR 'rx 6029 m' OR rx6029m OR 'rx 783006' OR 'rx-783006' OR 'sdz 202-250' OR 'sdz202-250' OR stadol OR sublimaze OR suboxone OR subutex OR sufenta OR sufentanil OR sufentanilhameln OR sufentanilratiopharm OR sulfentanil OR sulfentanyl OR symoron OR talwin OR takadol OR temgesic OR tetrapon OR thecodin OR theradol OR tilidate OR tilidin OR tilidine OR tiral OR topalgic OR torbugesic OR trachyl OR tradol OR tradolpuren OR tradonal OR tralgiol OR 'trama 1a pharma' OR 'trama abz' OR 'trama dorsch' OR 'trama kd' OR 'trama-dorsch' OR tramadorsch OR tramabeta OR tramadin OR tramadoc OR tramadol OR tramadoldolgit OR tramadolhameln OR tramadolor OR tramadolratiopharm OR tramadura OR tramagetic OR tramagit OR tramake OR tramal OR tramex OR tramundin OR trasedal OR trimeperidine OR ultram OR valerone OR valoron OR 'win 35197 2' OR 'win-35197-2' OR win351972 OR 'wy 22811' OR 'wy-22811' OR wy22811 OR 'xymel 50' OR zamudol OR zumalgic OR zydol OR zytram)

63,228

- S8 TI (('controlled substance*' OR narcotic* OR stupefacient* OR acetorphone OR acetylcodeine OR acetylmethadol OR alphacetylmethadol OR alphaprodine OR anileridine OR apadoline OR azidomorphine OR benzhydrocodone OR bezitramide OR bremazocine OR bromphine OR buprenorphine OR butorphanol OR ciramadol OR codeine OR codydramol OR conorfone OR crotonylfentanyl OR cyclopropylfentanyl OR dermorphin OR desomorphine OR dextromoramide OR dextropropoxyphene OR dextrorphan OR dezocine OR diamorphine OR diconal OR dihydrocodeine OR dihydroetorphine OR dihydromorphine OR diphenoxylate OR dipipanone OR droxibanol OR dsuvia OR ecgonine OR enadoline OR 'endomorphin 1' OR 'endomorphin 2' OR eseroline OR ethylketazocine OR ethylmorphine OR etonitazene OR etorphine OR etoxeridine OR fentanyl OR alfentanil OR 'beta hydroxymefentanyl' OR brifentanil OR carfentanil OR

hypnorm OR mefentanyl OR mirfentanil OR ocfentanil OR remifentanil OR sufentanil OR trefentanil OR furethidine OR heroin OR hydrocodone OR hydromorphone OR isomethadone OR ketazocine OR ketobemidone OR ketogan OR kytorphin OR lefetamine OR levacetylmethadol OR levomethadone OR levopropoxyphene OR levorphanol OR lofentanil OR meperidine OR meptazinol OR metazocine OR 'methadyl acetate' OR methadone OR morphine OR 'morphinomimetic agent*' OR morphinone OR nalbuphine OR nicocodine OR nicomorphine OR nocistatin OR norbuprenorphine OR nordextropropoxyphene OR normethadone OR normorphine OR norpethidine OR norpropoxyphene OR opiate* OR opium OR oripavine OR oxycodone OR oxymorphone OR paracymethadol OR paregoric OR pentazocine OR pethidine OR phenadoxone OR phencyclidine) AND phenazocine OR phenoperidine OR piconadol OR piminodine OR piritramide OR profadol OR promedol OR propiram OR protopine OR remifentanil OR sufentanil OR tapentadol OR thebaine OR tilidine OR tramadol) OR AB (('controlled substance*' OR narcotic* OR stupefacient* OR acetorphine OR acetylcodeine OR acetylmethadol OR alphacetylmethadol OR alphaprodine OR anileridine OR apadoline OR azidomorphine OR benzhydrocodone OR bezitramide OR bremazocine OR bromphine OR buprenorphine OR butorphanol OR ciramadol OR codeine OR codydramol OR conorphone OR crotonylfentanyl OR cyclopropylfentanyl OR dermorphin OR desomorphine OR dextromoramide OR dextropropoxyphene OR dextrophan OR dezocine OR diamorphine OR diconal OR dihydrocodeine OR dihydroetorphine OR dihydromorphine OR diphenoxylate OR dipipanone OR droxibanol OR dsuvia OR ecgonine OR enadoline OR 'endomorphin 1' OR 'endomorphin 2' OR eseroline OR ethylketazocine OR ethylmorphine OR etonitazene OR etorphine OR etoxeridine OR fentanyl OR alfentanil OR 'beta hydroxymefentanyl' OR brifentanil OR carfentanil OR hypnorm OR mefentanyl OR mirfentanil OR ocfentanil OR remifentanil OR sufentanil OR trefentanil OR furethidine OR heroin OR hydrocodone OR hydromorphone OR isomethadone OR ketazocine OR ketobemidone OR ketogan OR kytorphin OR lefetamine OR levacetylmethadol OR levomethadone OR levopropoxyphene OR levorphanol OR lofentanil OR meperidine OR meptazinol OR metazocine OR 'methadyl acetate' OR methadone OR morphine OR 'morphinomimetic agent*' OR morphinone OR nalbuphine OR nicocodine OR nicomorphine OR nocistatin OR norbuprenorphine OR nordextropropoxyphene OR normethadone OR normorphine OR norpethidine OR norpropoxyphene OR opiate* OR opium OR oripavine OR oxycodone OR oxymorphone OR paracymethadol OR paregoric OR pentazocine OR pethidine OR phenadoxone OR phencyclidine) AND phenazocine OR phenoperidine OR piconadol OR piminodine OR piritramide OR profadol OR promedol OR propiram OR protopine OR remifentanil OR sufentanil OR tapentadol OR thebaine OR tilidine OR tramadol) 4,383

S7 (MH "Controlled Substances") OR (MH "Narcotics+") OR (MH "Analgesics, Opioid+") 53,090

S6 S1 OR S2 OR S3 OR S4 OR S5 10,385

S5 (MH "Drug Monitoring") 8,193

S4 TI ((((drug* OR medication* OR prescription*) N/2 (monitor* OR surveillanc*))) OR pharmacovigilanc* OR 'pharmaco vigilanc*') OR AB ((((drug* OR medication* OR prescription*) N/2 (monitor* OR surveillanc*))) OR pharmacovigilanc* OR 'pharmaco vigilanc*') 1,603

S3 TI (((prescribe* OR prescript*) N2 (drug* OR medication* OR substance*) N9 (database* OR monitor* OR program* OR surveillanc*))) OR AB (((prescribe* OR prescript*) N2 (drug* OR medication* OR substance*) N9 (database* OR monitor* OR program* OR surveillanc*))) 0

- S2 TI ('pdmp data*' OR 'pdmp report*' OR 'pdmp utilization') OR AB ('pdmp data*' OR 'pdmp report*' OR 'pdmp utilization') 122
- S1 (MH "Prescription Drug Monitoring Programs") OR TI ('prescription drug monitoring' OR 'drug monitoring program*') OR AB ('prescription drug monitoring' OR 'drug monitoring program*') 829

APA PsycINFO (Ebscohost)

August 10, 2021 4

- S45 S43 NOT S44 Limiters - Publication Year: 2000-2021 362 (380 before date limit)
- S44 S43 Limiters - Publication Type: All Books, Authored Book, Edited Book, Encyclopedia, Dissertation Abstract; Document Type: Chapter, Column/Opinion, Dissertation, Editorial, Encyclopedia Entry, Obituary, Review-Any, Review-Book, Review-Media, Review-Software & Other 47
- S43 S40 OR S41 OR S42 Limiters - English 427
- S42 S7 AND S17 AND S39 179
- S41 S7 AND S17 AND (S20 OR S21 or S22 or S23) 266
- S40 S7 AND S17 AND (S24 OR S25) 194
- S39 S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34 OR S35 OR S36 OR S37 OR S38 265,045
- S38 (DE "Government" OR DE "Government Programs") Expanders - Apply related words; Apply equivalent subjects 12,944
- S37 DE "Epidemics" OR DE "Pandemics" OR DE "Population Health" OR DE "Population (Statistics)" 9,390
- S36 TI ((((("all payer claims" or "animal health" or (antibiotic* N2 (resistance or stewardship)) or "behavioral risk factor*" or "behavioural risk factor*" or BRFSS or "birth defects" or "blood lead" or cancer or claims or "communicable disease*" or death or "early hearing" or "emergency department*" or epidemiolog* or "health care" or healthcare or "healthcare-associated infection*" or "health care statistics" or "hospital discharge*" or immigrant* or immunization* or injury or injuries or Medicaid or "medical cannabis" or mortality or "national health and nutrition examination" or NHANES or "national toxic substance*" or "newborn blood" or "newborn hearing" or "newborn heart" or "pregnancy risk" or "prehospital emergency" or "public health" or refugee* or "risk assessment" or "sexually transmitted disease*" or syndromic or trauma or tuberculosis or violence or vaccin* or "vital statistics" or "women, infants, and children" or WIC) N2 (data* or registr* or report or reports or screening or surveillanc* or survey* or system or systems)) or "medical record*" or "electronic health record*")) OR AB ((((("all payer claims" or "animal health" or (antibiotic* N2 (resistance or stewardship)) or "behavioral risk factor*" or "behavioural risk factor*" or BRFSS or "birth defects" or "blood lead" or cancer or claims or "communicable disease*" or death or "early hearing" or "emergency department*" or epidemiolog* or "health care" or healthcare or "healthcare-associated infection*" or "health care statistics" or "hospital discharge*" or immigrant* or immunization* or injury or injuries or Medicaid or "medical cannabis" or mortality or "national health and nutrition examination" or NHANES or "national toxic substance*" or "newborn blood" or "newborn hearing" or "newborn heart" or "pregnancy risk" or "prehospital emergency" or

- "public health" or refugee* or "risk assessment" or "sexually transmitted disease*" or syndromic or trauma or tuberculosis or violence or vaccin* or "vital statistics" or "women, infants, and children" or WIC) N2 (data* or registr* or report or reports or screening or surveillanc* or survey* or system or systems)) or "medical record*" or "electronic health record*")) 112,229
- S35 TI (("community health" or "public health") N3 (data or data-set* or registr* or register* or report or reports or survey*))) OR AB (("community health" or "public health") N3 (data or data-set* or registr* or register* or report or reports or survey*)) 2,164
- S34 DE "Medical Records" OR DE "Electronic Health Records" 6,381
- S33 DE "Public Health" OR DE "Disease Surveillance" 25,853
- S32 TI (("disease registry" or "disease registries" or "cancer registry" or "cancer registries" or "cancer register*" or "cancer registration*" or CDC-NPCR or "National Program of Cancer Registries" or NPCR or "SEER program*")) OR AB (("disease registry" or "disease registries" or "cancer registry" or "cancer registries" or "cancer register*" or "cancer registration*" or CDC-NPCR or "National Program of Cancer Registries" or NPCR or "SEER program*")) 965
- S31 TI (("administrative data" or (administrative N2 data*) or register or registers or registry or registries)) OR AB (("administrative data" or (administrative N2 data*) or register or registers or registry or registries)) 25,252
- S30 (("routinely collected data" or (data N1 (collection or identification or pubic* or record or records)) or (("public reporting" or "public* reported") and data) or dataset* or data-set* or "data set*")) OR (("routinely collected data" or (data N1 (collection or identification or pubic* or record or records)) or (("public reporting" or "public* reported") and data) or dataset* or data-set* or "data set*")) 94,488
- S29 DE "Public Health" OR DE "Disease Surveillance" 25,853
- S28 DE "Data Sets" OR DE "Big Data" OR DE "Open Data" 3,938
- S27 (S24 OR S25) AND (S21 OR S22 OR S23 OR S24 OR S26) 178,118
- S26 S24 OR S25 178,118
- S25 OR TI ((physician* or doctor* or "medical practitioner*" or "nurse practitioner*" or prescriber*)) OR ((physician* or doctor* or "medical practitioner*" or "nurse practitioner*" or prescriber*)) 136,144
- S24 DE "Clinical Practice" OR DE "Clinicians")) OR (DE "Physicians" OR DE "Family Physicians" OR DE "General Practitioners" OR DE "Gynecologists" OR DE "Internists" OR DE "Neurologists" OR DE "Obstetricians" OR DE "Pathologists" OR DE "Pediatricians" OR DE "Psychiatrists" OR DE "Surgeons") 77,030
- S23 TI ((((("drug prescription*" or "prescription drug*" or "prescription medicine*") N2 (misuse* or "mis use" or "non-medical use*")) or NMUPD)) OR AB ((((("drug prescription*" or "prescription drug*" or "prescription medicine*") N2 (misuse* or "mis use" or "non-medical use*")) or NMUPD)) 478
- S22 DE "Prescribing (Drugs)" OR DE "Prescription Privileges" 3,963
- S21 ((DE "Drug Usage" OR DE "Prescription Drug Misuse")) OR (TI ((((("drug prescription*" or "prescription drug*" or "prescription medicine*") N2 (misuse* or "mis use" or "non-medical use*")) or NMUPD)) OR AB ((((("drug prescription*" or "prescription drug*" or "prescription medicine*") N2 (misuse* or "mis use" or "non-medical use*")) or NMUPD))) 21,210
- S20 (DE "Drug Usage" OR DE "Prescription Drug Misuse") 20,948

- S19 S14 OR S15 OR S16 115,265
- S18 S8 OR S9 OR S10 OR S11 OR S12 OR S13 56,556
- S17 S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 151,906
- S16 TI (((substance OR drug) N2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR 'mis use*' OR 'mis use*' OR overdose* OR 'over dose*' OR 'over dose*' OR overuse* OR 'over use*' OR 'over use*'))) OR AB (((substance OR drug) N2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR 'mis use*' OR 'mis use*' OR overdose* OR 'over dose*' OR 'over dose*' OR overuse* OR 'over use*' OR 'over use*'))) 75,043
- S15 (DE "Drug Dependency" OR DE "Drug Addiction" OR DE "Drug Withdrawal" OR DE "Drug Abuse" OR DE "Inhalant Abuse" OR DE "Polydrug Abuse") 73,940
- S14 (DE "Substance Use Disorder" OR DE "Substance Related and Addictive Disorders" OR DE "Substance Abuse and Addiction Measures") 8,833
- S13 TI ((heroin OR morphine OR narcotic* OR opiate* OR opioid* OR oropium) N2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR 'mis use*' OR 'mis use*' OR overdose* OR 'over dose*' OR 'over dose*' OR overuse* OR 'over use*' OR 'over use*'))) OR AB ((heroin OR morphine OR narcotic* OR opiate* OR opioid* OR oropium) N2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR 'mis use*' OR 'mis use*' OR overdose* OR 'over dose*' OR 'over dose*' OR overuse* OR 'over use*' OR 'over use*'))) 14,040
- S12 (DE "Opioid Use Disorder" OR DE "Heroin Addiction" OR DE "Morphine Dependence") 4,774
- S11 TI ('opiate alkaloids' OR morphin* OR benzomorphan* OR pentazocine OR fortal OR lexis OR talwin OR phenazocine OR narphen OR phenbenzomorphan OR phenethylazocine OR buprenorphine OR '6029 m' OR 6029m OR buprenex OR buprex OR prefin OR 'rx 6029 m' OR rx6029m OR temgesic OR suboxone OR butorphanol OR 'apo-butorphanol' OR 'bc 2627' OR 'bc-2627' OR bc2627 OR beforal OR dolorex OR moradol OR stadol OR torbugesic OR dextromethorphan OR delysym OR levomethorphan OR racemethorphan OR 'd-methorphan' OR 'l-methorphan' OR dextrorphan OR methylmorphinan OR diprenorphine OR revivon OR etorphine OR ethorphine OR m99 OR levallorphan OR lorfan OR naloxiphan OR levorphanol OR 'l-dromoran' OR 'l-dromoran' OR 'levo dromoran' OR 'levo-dromoran' OR levodromoran OR levodroman OR levorphan OR codeine OR ardinex OR isocodeine OR 'n methylmorphine' OR 'n-methylmorphine' OR hydrocodone OR robidone OR hydrocon OR codinovo OR dicodid OR dihydrocodeinone OR hycodan OR hycon OR hydrocodeinonebitartrate OR hydrocodon OR oxycodone OR dihydrohydroxycodone OR dihydrone OR dinarkon OR eucodal OR oxiconum OR oxycodone OR oxycone OR oxycontin OR pancodine OR theocodin OR dihydromorphine OR paramorfan OR paramorphan OR dionine OR ethomorphine OR ethylmorphine OR heroin OR diacetylmorphine OR diagesil OR diamorf OR diamorphine OR dihydromorphinone OR dilaudid OR hydromorphon OR hydromorphone OR laudacon OR palladone OR morphia OR 'ms contin' OR duramorph OR oxymorphone OR numorphan OR opana OR thebaine OR nalbuphine OR 'en 2234a' OR 'en-2234a' OR en2234a OR nubain OR nalorphine OR allylnormorphine OR lethidrone OR naloxone OR nalone OR naloxon OR narkan OR narcanti OR 'mrz 2593' OR 'mrz 2593 br' OR 'mrz 2593-br' OR 'mrz 2593br' OR 'mrz-2593' OR 'mrz2593' OR naltrexone OR antaxone OR celupan OR 'en 1639a' OR 'en-1639a' OR en1639a OR nalorex OR nemexin OR revia OR trexan OR noscapine OR capval OR 'librochin prikkelhoest' OR narcotine OR noscapect OR tuscalman OR papaverine OR cerespan OR pavabid OR pavatym OR pilocarpine OR isopilocarpine OR

isoptocarpine OR ocusert OR salagen) OR AB ('opiate alkaloids' OR morphin* OR benzomorphan* OR pentazocine OR fortal OR lexis OR talwin OR phenazocine OR narphen OR phenbenzomorphan OR phenethylazocine OR buprenorphine OR '6029 m' OR 6029m OR buprenex OR buprex OR prefin OR 'rx 6029 m' OR rx6029m OR temgesic OR suboxone OR butorphanol OR 'apo-butorphanol' OR 'bc 2627' OR 'bc-2627' OR bc2627 OR beforal OR dolorex OR moradol OR stadol OR torbugesic OR dextromethorphan OR delsym OR levomethorphan OR racemethorphan OR 'd-methorphan' OR 'l-methorphan' OR dextrorphan OR methylmorphinan OR diprenorphine OR revivon OR etorphine OR ethorphine OR m99 OR levallorphan OR lorfan OR naloxiphan OR levorphanol OR 'l dromoran' OR 'l-dromoran' OR 'levo dromoran' OR 'levo-dromoran' OR levodromoran OR levodroman OR levorphan OR codeine OR ardinex OR isocodeine OR 'n methylmorphine' OR 'n-methylmorphine' OR hydrocodone OR robidone OR hydrocon OR codinovo OR dicodid OR dihydrocodeinone OR hycodan OR hycon OR hydrocodeinonebitartrate OR hydrocodon OR oxycodone OR dihydrohydroxycodone OR dihydron OR dinarkon OR eucodal OR oxiconum OR oxycodone OR oxycone OR oxycontin OR pancodine OR theocodin OR dihydromorphine OR paramorfan OR paramorphan OR dionine OR ethomorphine OR ethylmorphine OR heroin OR diacetylmorphine OR diagesil OR diamorf OR diamorphine OR dihydromorphinone OR dilaudid OR hydromorphon OR hydromorphone OR laudacon OR palladone OR morphia OR 'ms contin' OR duramorph OR oxymorphone OR numorphan OR opana OR thebaine OR nalbuphine OR 'en 2234a' OR 'en-2234a' OR en2234a OR nubain OR nalorphine OR allylnormorphine OR lethidrone OR naloxone OR nalone OR naloxon OR narcan OR narcanti OR 'mrz 2593' OR 'mrz 2593 br' OR 'mrz 2593-br' OR 'mrz 2593br' OR 'mrz-2593' OR 'mrz2593' OR naltrexone OR antaxone OR celupan OR 'en 1639a' OR 'en-1639a' OR en1639a OR nalorex OR nemexin OR revia OR trexan OR noscapine OR capval OR 'librochin prikelhoest' OR narcotine OR noscaped OR tuscalman OR papaverine OR cerespan OR pavabid OR pavatym OR pilocarpine OR isopilocarpine OR isoptocarpine OR ocusert OR salagen) 30,454

- S10 TI (6029 m' OR 6029m OR acemethadone OR acetylmethadol OR adolonta OR alfenta OR alfentanil OR alfentanyl OR algopan OR alphacetylmethadol OR alphaprodine OR amadol OR amidone OR amidolacetate OR 'apo-butorphanol' OR apobutorphanol OR ardinex OR 'bc 2627' OR 'bc-2627' OR bc2627 OR beforal OR 'beta casomorphin*' OR biodalgic OR biodone OR biokanol OR biopon OR buprenorphine OR buprenex OR buprex OR butorphanol OR carfentanil OR cetobemidon OR codein* OR codinovo OR cofapon OR contramal OR dago OR dagol OR damge OR damgo OR darvon OR darvocet OR demerol OR dermorphin OR desomorphine OR dextromoramide OR dextropropoxyphene OR dezocine OR diacetylmorphine OR diagesil OR diamorf OR diamorphine OR dicodid OR dihydrocodeinone OR dihydrocodeine OR dihydrohydroxycodone OR dihydron OR dihydromorphine OR dihydromorphinone OR dilaudid OR dimepheptanol OR dimethylmeperidine OR dinarkon OR dionine OR dionin OR diphenoxylate OR dipidolor OR dipydolor OR 'd moramide' OR 'd-moramide' OR dolantin OR dolargan OR dolcontral OR dolin OR dolophine OR dolorex OR dolosal OR dolsin OR dpdpe OR dplpe OR dropizol OR duragesic OR duramorph OR durogesic OR 'en 2234a' OR 'en-2234a' OR en2234a OR endomorphin OR endorphin* OR enkephalin* OR eseroline OR ethylketazocine OR ethylketocyclazocine OR ethylmorphine OR etorphine OR ethorphine OR eucodal OR fanaxal OR fenoperidine OR fentanest OR fentanyl OR fentanil OR fentora OR fortal OR 'go 1261' OR 'go-1261' OR go1261 OR heroin OR hycodan OR hycon OR hydrocodeinonebitartrate OR hydrocodon

OR hydrocodone OR hydromorphon OR hydromorphone OR isocodeine OR isonipecain OR isopromedol OR jutadol OR 'k 315' OR 'k-315' OR k315 OR ketobemidone OR laam OR laudacon OR laudanum OR laudanum OR laudopan OR 'l dromoran' OR 'l-dromoran' OR lealgin OR leukendorphin* OR levoacetylmethadol OR levomethadyl OR 'levo dromoran' OR 'levo-dromoran' OR levodromoran OR levodroman OR levorphan OR levorphanol OR lexir OR lidol OR limifen OR lofentanil OR lydol OR m99 OR meperidine OR meptazinol OR meptid OR metadol OR metasedin OR methaddict OR methadol OR methadyl OR 'methadyl acetate' OR methylmorphin* OR methadone OR methadose OR methex OR moradol OR morphine OR morphines OR morphia OR 'ms contin' OR 'mtw tramadol' OR 'mtw-tramadol' OR 'mtwtramadol' OR nalbuphine OR narcotic* OR narphen OR nepenthe OR nisentil OR 'n methylmorphine' OR 'n-methylmorphine' OR nobligan OR nocistatin OR normethadone OR nubain OR numorphan OR omnopon OR opana OR operidine OR opial OR opioid* OR opiod* OR opiate* OR opium* OR opon OR oposal OR oramorph OR orlaam OR oxiconum OR oxycodone OR oxycodone OR oxymorphone OR oxycone OR oxycontin OR palfium OR palladone OR pancodine OR papaveretum OR pantopon* OR paramorfan OR paramorphan OR pavon OR papaver OR pentazocine OR pethidine OR phenadone OR phenazocine OR phenbenzorphane OR phenethylazocine OR phenoperidine OR phentanyl OR phymet OR physeptone OR pinadone OR pirinitramide OR piritramid OR piritramide OR prefin OR prodine OR propoxyphene OR promedol OR prontofort OR protopine OR pyrrolamidol OR pyrrolamidol OR 'r 1406' OR 'r-1406' OR r1406 OR 'r 30730' OR 'r-30730' OR r30730 OR 'r 39209' OR 'r-39209' OR r39209 OR 'r 4263' OR 'r-4263' OR r2463 OR 'ranitidin 1a pharma' OR rapifen OR remifentanil OR robidone OR 'rx 6029 m' OR rx6029m OR 'rx 783006' OR 'rx-783006' OR 'sdz 202-250' OR 'sdz202-250' OR stadol OR sublimaze OR suboxone OR subutex OR sufenta OR sufentanil OR sufentanilhameln OR sufentanilratiopharm OR sulfentanil OR sulfentanyl OR symoron OR talwin OR takadol OR temgesic OR tetrapon OR theocodin OR theradol OR tilidate OR tilidin OR tilidine OR tiral OR topalgic OR torbugesic OR trachyl OR tradol OR tradolpuren OR tradonal OR tralgiol OR 'trama 1a pharma' OR 'trama abz' OR 'trama dorsch' OR 'trama kd' OR 'trama-dorsch' OR tramadorsch OR tramabeta OR tramadin OR tramadoc OR tramadol OR tramadoldolgit OR tramadolhameln OR tramadolor OR tramadolratiopharm OR tramadura OR tramagetic OR tramagit OR tramake OR tramal OR tramex OR tramundin OR trasedal OR trimeperidine OR ultram OR valerone OR valoron OR 'win 35197 2' OR 'win-35197-2' OR win351972 OR 'wy 22811' OR 'wy-22811' OR wy22811 OR 'xymel 50' OR zamudol OR zumalgic OR zydol OR zytram) OR AB (6029 m' OR 6029m OR acemethadone OR acetylmethadol OR adolonta OR alfenta OR alfentanil OR alfentanyl OR algopan OR alphacetylmethadol OR alphaprodine OR amadol OR amidone OR amidolacetate OR 'apo-butorphanol' OR apobutorphanol OR ardinex OR 'bc 2627' OR 'bc-2627' OR bc2627 OR beforal OR 'beta casomorphin*' OR biodalgic OR biodone OR biokanol OR biopon OR buprenorphine OR buprenex OR buprex OR butorphanol OR carfentanil OR cetobemidon OR codein* OR codinovo OR cofapon OR contramal OR dago OR dagol OR damge OR damgo OR darvon OR darvocet OR demerol OR dermorphin OR desomorphine OR dextromoramide OR dextropropoxyphene OR dezocine OR diacetylmorphine OR diagesil OR diamorf OR diamorphine OR dicodid OR dihydrocodeinone OR dihydrocodeine OR dihydrohydroxycodone OR dihydron OR dihydromorphine OR dihydromorphinone OR dilaudid OR dimepheptanol OR dimethylmeperidine OR dinarkon OR dionine OR dionin OR diphenoxylate OR dipidolor OR dipydolor OR 'd moramide' OR 'd-moramide' OR dolantin OR dolargan OR dolcontral OR dolin

OR dolophine OR dolorex OR dolosal OR dolsin OR dpdpe OR dplpe OR dropizol OR duragesic OR duramorph OR durogesic OR 'en 2234a' OR 'en-2234a' OR en2234a OR endomorphin OR endorphin* OR enkephalin* OR eseroline OR ethylketazocine OR ethylketocyclazocine OR ethylmorphine OR etorphine OR ethorphine OR eucodal OR fanaxal OR fenoperidine OR fentanest OR fentanyl OR fentanil OR fentora OR fortral OR 'go 1261' OR 'go-1261' OR go1261 OR heroin OR hycodan OR hycon OR hydrocodeinonebitartrate OR hydrocodon OR hydrocodone OR hydromorphon OR hydromorphone OR isocodeine OR isonipecaïn OR isopromedol OR jutadol OR 'k 315' OR 'k-315' OR k315 OR ketobemidone OR laam OR laudacon OR laudanon OR laudanum OR laudopan OR 'l dromoran' OR 'l-dromoran' OR lealgin OR leukendorphin* OR levoacetylmethadol OR levomethadyl OR 'levo dromoran' OR 'levo-dromoran' OR levodromoran OR levodroman OR levorphan OR levorphanol OR lexis OR lidol OR limifen OR lofentanil OR lydol OR m99 OR meperidine OR meptazinol OR meptid OR metadol OR metasedin OR methaddict OR methadol OR methadyl OR 'methadyl acetate' OR methylmorphin* OR methadone OR methadose OR methex OR moradol OR morphine OR morphines OR morphia OR 'ms contin' OR 'mtw tramadol' OR 'mtw-tramadol' OR 'mtwtramadol' OR nalbuphine OR narcotic* OR narphen OR nepenthe OR nisentil OR 'n methylmorphine' OR 'n-methylmorphine' OR nobligan OR nocistatin OR normethadone OR nubain OR numorphan OR omnopon OR opana OR operidine OR opial OR opioid* OR opiod* OR opiate* OR opium* OR opon OR oposal OR oramorph OR orlaam OR oxiconum OR oxycodone OR oxycodone OR oxymorphone OR oxycone OR oxycontin OR palfium OR palladone OR pancodine OR papaveretum OR pantopon* OR paramorfan OR paramorphan OR pavon OR papaver OR pentazocine OR pethidine OR phenadone OR phenazocine OR phenbenzorphin OR phenethylazocine OR phenoperidine OR phentanyl OR phymet OR physeptone OR pinadone OR pirinitramide OR piritramid OR piritramide OR prefin OR prodine OR propoxyphene OR promedol OR prontofort OR protopine OR pyrrolamidol OR pyrolamidol OR 'r 1406' OR 'r-1406' OR r1406 OR 'r 30730' OR 'r-30730' OR r30730 OR 'r 39209' OR 'r-39209' OR r39209 OR 'r 4263' OR 'r-4263' OR r2463 OR 'ranitidin 1a pharma' OR rapifen OR remifentanil OR robidone OR 'rx 6029 m' OR rx6029m OR 'rx 783006' OR 'rx-783006' OR 'sdz 202-250' OR 'sdz202-250' OR stadol OR sublimaze OR suboxone OR subutex OR sufenta OR sufentanil OR sufentanilhameln OR sufentanilratiopharm OR sulfentanil OR sulfentanil OR symoron OR talwin OR takadol OR temgesic OR tetrapon OR thecodin OR theradol OR tilidate OR tilidin OR tilidine OR tiral OR topalgic OR torbugesic OR trachyl OR tradol OR tradolpuren OR tradonal OR tralgiol OR 'trama 1a pharma' OR 'trama abz' OR 'trama dorsch' OR 'trama kd' OR 'trama-dorsch' OR tramadorsch OR tramabeta OR tramadin OR tramadoc OR tramadol OR tramadoldolgit OR tramadolhameln OR tramadololor OR tramadolratiopharm OR tramadura OR tramagetic OR tramagit OR tramake OR tramal OR tramex OR tramundin OR trasedal OR trimeperidine OR ultram OR valerone OR valoron OR 'win 35197 2' OR 'win-35197-2' OR win351972 OR 'wy 22811' OR 'wy-22811' OR wy22811 OR 'xymel 50' OR zamudol OR zumalgic OR zydol OR zytram) 51,598

S9 TI (('controlled substance*' OR narcotic* OR stupefacient* OR acetorphine OR acetylcodeine OR acetylmethadol OR alphacetylmethadol OR alphaprodine OR anileridine OR apadoline OR azidomorphine OR benzhydrocodone OR bezitramide OR bremazocine OR brorphine OR buprenorphine OR butorphanol OR ciramadol OR codeine OR codydramol OR conorfone OR crotylfentanyl OR cyclopropylfentanyl OR dermorphin OR desomorphine OR dextromoramide OR dextropropoxyphene OR dextrophan OR dezocine OR diamorphine OR diconal OR

- dihydrocodeine OR dihydroetorphine OR dihydromorphine OR diphenoxylate OR dipipanone OR drotebanol OR dsuvia OR ecgonine OR enadoline OR 'endomorphin 1' OR 'endomorphin 2' OR eseroline OR ethylketazocine OR ethylmorphine OR etonitazene OR etorphine OR etoxeridine OR fentanyl OR alfentanil OR 'beta hydroxymefentanyl' OR brifentanil OR carfentanil OR hypnorm OR mefentanyl OR mirfentanil OR ocfentanil OR remifentanil OR sufentanil OR trefentanil OR furethidine OR heroin OR hydrocodone OR hydromorphone OR isomethadone OR ketazocine OR ketobemidone OR ketogan OR kytorphin OR lefetamine OR levacetylmethadol OR levomethadone OR levopropoxyphene OR levorphanol OR lofentanil OR meperidine OR meptazinol OR metazocine OR 'methadyl acetate' OR methadone OR morphine OR 'morphinomimetic agent*' OR morphinone OR nalbuphine OR nicocodine OR nicomorphine OR nocistatin OR norbuprenorphine OR nordextropropoxyphene OR normethadone OR normorphine OR norpethidine OR norpropoxyphene OR opiate* OR opium OR oripavine OR oxycodone OR oxymorphone OR paracymethadol OR paregoric OR pentazocine OR pethidine OR phenadoxone OR phencyclidine) AND phenazocine OR phenoperidine OR piconadol OR piminodine OR piritramide OR profadol OR promedol OR propiram OR protopine OR remifentanil OR sufentanil OR tapentadol OR thebaine OR tilidine OR tramadol) OR AB (('controlled substance*' OR narcotic* OR stupefacient* OR acetorphine OR acetylcodeine OR acetylmethadol OR alphacetylmethadol OR alphaprodine OR anileridine OR apadoline OR azidomorphine OR benzhydrocodone OR bezitramide OR bremazocine OR bromphine OR buprenorphine OR butorphanol OR ciramadol OR codeine OR codydramol OR conorfone OR crotonylfentanyl OR cyclopropylfentanyl OR dermorphin OR desomorphine OR dextromoramide OR dextropropoxyphene OR dextrophan OR dezocine OR diamorphine OR diconal OR dihydrocodeine OR dihydroetorphine OR dihydromorphine OR diphenoxylate OR dipipanone OR drotebanol OR dsuvia OR ecgonine OR enadoline OR 'endomorphin 1' OR 'endomorphin 2' OR eseroline OR ethylketazocine OR ethylmorphine OR etonitazene OR etorphine OR etoxeridine OR fentanyl OR alfentanil OR 'beta hydroxymefentanyl' OR brifentanil OR carfentanil OR hypnorm OR mefentanyl OR mirfentanil OR ocfentanil OR remifentanil OR sufentanil OR trefentanil OR furethidine OR heroin OR hydrocodone OR hydromorphone OR isomethadone OR ketazocine OR ketobemidone OR ketogan OR kytorphin OR lefetamine OR levacetylmethadol OR levomethadone OR levopropoxyphene OR levorphanol OR lofentanil OR meperidine OR meptazinol OR metazocine OR 'methadyl acetate' OR methadone OR morphine OR 'morphinomimetic agent*' OR morphinone OR nalbuphine OR nicocodine OR nicomorphine OR nocistatin OR norbuprenorphine OR nordextropropoxyphene OR normethadone OR normorphine OR norpethidine OR norpropoxyphene OR opiate* OR opium OR oripavine OR oxycodone OR oxymorphone OR paracymethadol OR paregoric OR pentazocine OR pethidine OR phenadoxone OR phencyclidine) AND phenazocine OR phenoperidine OR piconadol OR piminodine OR piritramide OR profadol OR promedol OR propiram OR protopine OR remifentanil OR sufentanil OR tapentadol OR thebaine OR tilidine OR tramadol) 1,028
- S8 (DE "Narcotic Drugs" OR DE "Narcotic Agonists" OR DE "Narcotic Antagonists" OR DE "Opiates" OR DE "Opioid Analgesics" OR DE "Opiates" OR DE "Codeine" OR DE "Endogenous Opiates" OR DE "Heroin" OR DE "Morphine" OR DE "Papaverine" OR DE "Opioid Analgesics" OR DE "Buprenorphine" OR DE "Fentanyl" OR DE "Meperidine" OR DE "Methadone" OR DE "Oxycodone" OR DE "Pentazocine") 32,852
- S7 S1 OR S2 OR S3 OR S4 OR S5 OR S6 1,663

- S6 ((DE "Drug Usage" OR DE "Prescription Drug Misuse")) AND DE "Monitoring" 106
- S5 (DE "Prescription Drug Misuse" OR DE "Prescription Drugs") AND DE "Monitoring" 132
- S4 TI ((((drug* OR medication* OR prescription*) N/2 (monitor* OR surveillanc*))) OR pharmacovigilanc* OR 'pharmaco vigilanc*) OR AB ((((drug* OR medication* OR prescription*) N/2 (monitor* OR surveillanc*))) OR pharmacovigilanc* OR 'pharmaco vigilanc*) 261
- S3 TI (((prescribe* OR prescript*) N2 (drug* OR medication* OR substance*) N6 (database* OR monitor* OR program* OR surveillanc*))) OR AB (((prescribe* OR prescript*) N2 (drug* OR medication* OR substance*) N6 (database* OR monitor* OR program* OR surveillanc*))) 1,171
- S2 ('pdmp data*' OR 'pdmp report*' OR 'pdmp utilization') OR AB ('pdmp data*' OR 'pdmp report*' OR 'pdmp utilization') 70
- S1 TI ('prescription drug monitoring' OR 'drug monitoring program*') OR AB ('prescription drug monitoring' OR 'drug monitoring program*') 355

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- 1 ("prescription drug monitoring" or "drug monitoring program*").ti,ab,hw. (164)
- 2 ("PDMP data*" or "PDMP report*" or "PDMP utilization").ti,ab,hw. (15)
- 3 ((prescriber* or prescription*) adj2 (database* or monitor* or surveillanc*).ti,ab,hw. (676)
- 4 ((prescribe* or prescript*) adj2 (drug* or medication* or substance*) adj6 (database* or monitor* or program* or surveillanc*).ti,ab,hw. (541)
- 5 or/1-4 [PDMP set 1] (1161)
- 6 (((drug* or medication* or prescription*) adj2 (monitor* or surveillanc*)) or pharmacovigilanc* or pharmaco-vigilanc*).ti,ab,hw. (6900)
- 7 (("controlled substance*" or narcotic* or opioid* or opiate*) adj2 (monitor* or surveillanc*).ti,ab,hw. (61)
- 8 ("controlled substance*" or narcotic* or stupefacient* or acetorphine or acetylcodeine or acetylmethadol or Alfentanil or alphacetylmethadol or alphaprodine or anileridine or apadoline or azidomorphine or benzhydrocodone or bezitramide or bremazocine or brorphine or buprenorphine or Butorphanol or carfentanil or ciramadol or codeine or codydramol or conorfone or crotonylfentanyl or cyclopropylfentanyl or dermorphin or desomorphine or dextromoramide or dextropropoxyphene or dextrorphan or dezocine or diamorphine or diconal or dihydrocodeine or dihydroetorphine or dihydromorphine or Diphenoxylate or dipipanone or drotebanol or Dsuvia or ecgonine or enadoline or "endomorphin 1" or "endomorphin 2" or eseroline or ethylketazocine or ethylmorphine or etonitazene or etorphine or etoxeridine or (fentanyl or alfentanil or "beta hydroxymefentanyl" or brifentanil or carfentanil or hypnorm or lofentanil or mefentanyl or mirfentanil or ocfentanil or remifentanil or sufentanil or trefentanil) or furethidine or Heroin or hydrocodone or hydromorphone or isomethadone or ketazocine or ketobemidone or ketogan or kyotorphin or lefetamine or levacetylmethadol or levomethadone or levopropoxyphene or levorphanol or lofentanil or Meperidine or Meptazinol or metazocine or "Methadyl Acetate" or methadone or morphine or "morphinomimetic agent*" or

morphinone or nalbuphine or nicocodine or nicomorphine or nocistatin or norbuprenorphine or nordextropropoxyphene or normethadone or normorphine or norpethidine or norpropoxyphene or Opiate* or Opium or oripavine or oxycodone or Oxymorphone or paracymethadol or paregoric or Pentazocine or pethidine or phenadoxone or phencyclidine Phenazocine or phenoperidine or picenadol or piminodine or piritramide or profadol or Promedol or propiram or protopine or Remifentanyl or Sufentanyl or tapentadol or thebaine or tilidine or Tramadol).ti,ab,hw,rw,tn. (16953)

9 ("6029 m" or 6029m or acemethadone or acetylmethadol or adolonta or alfenta or Alfentanyl or alfentanyl or algopan or alphacetylmethadol or Alphaprodine or amadol or amidone or amidolacetate or "apo-butorphanol" or apobutorphanol or ardinex or "bc 2627" or "bc-2627" or bc2627 or beforal or beta-casomorphin* or "beta casomorphin*" or biodalgi or biodone or biokanol or biopon or Buprenorphine or buprenex or buprex or Butorphanol or carfentanyl or cetobemidon or Codein* or codinovo or cofapon or contramal or dago or dagol or damge or damgo or Darvon or Darvocet or demerol or dermorphin or desomorphine or Dextromoramide or Dextropropoxyphene or dezocine or diacetylmorphine or diagesil or diamorf or diamorphine or dicodid or dihydrocodeinone or dihydrocodeine or dihydrohydroxycodone or dihydrone or Dihydromorphine or dihydromorphinone or dilaudid or dimepheptanol or dimethylmeperidine or dinarkon or dionine or dionin or Diphenoxylate or dipidolor or dipydolor or "d moramide" or "d-moramide" or dolantin or dolargan or dolcontral or dolin or dolophine or dolorex or dolosal or dolsin or dpdpe or dplpe or dropizol or duragesic or duramorph or durogesic or "en 2234a" or "en-2234a" or en2234a or endomorphin or endorphin* or Enkephalin* or eseroline or ethylketazocine or Ethylketocyclazocine or Ethylmorphine or Etorphine or ethorphine or eucodal or fanaxal or fenoperidine or fentanest or Fentanyl or fentanil or fentora or fortral or "go 1261" or "go-1261" or go1261 or Heroin or hycodan or hycon or hydrocodeinonebitartrate or hydrocodon or Hydrocodone or hydromorphon or Hydromorphone or isocodeine or isonipecain or isopromedol or jutadol or "k 315" or "k-315" or k315 or ketobemidone or laam or laudacon or laudanon or laudanum or laudopan or "l dromoran" or "l-dromoran" or lealgin or leukendorphin* or levoacetylmethadol or levomethadyl or "levo dromoran" or "levo-dromoran" or levodromoran or levodroman or levorphan or Levorphanol or lexir or lidol or limifen or lofentanyl or lydol or m99 or Meperidine or Meptazinol or meptid or metadol or metasedin or methaddict or methadol or methadyl or "Methadyl Acetate" or methylmorphin* or Methadone or methadose or methex or moradol or Morphine or morphines or morphia or "ms contin" or "mtw tramadol" or "mtw-tramadol" or "mtwtramadol" or Nalbuphine or narcotic* or narphen or nepenthe or nisental or "n methylmorphine" or "n-methylmorphine" or nobligan or nocistatin or normethadone or nubain or numorphan or omnopon or opana or operidine or opial or opioid* or opioid* or opiate* or Opium* or opon or oposal or oramorph or orlaam or oxiconum or oxycodone or Oxycodone or Oxymorphone or oxycone or oxycontin or palfium or palladone or pancodine or papaveretum or pantopon* or paramorfan or paramorphan or pavon or papaver or Pentazocine or pethidine or phenadone or Phenazocine or phenbenzorphane or phenethylazocine or Phenoperidine or phentanyl or phymet or physeptone or pinadone or Pirinitramide or piritramid or piritramide or prefin or prodine or propoxyphene or Promedol or prontosfort or protopine or pyrrolamidol or pyrolamidol or "r 1406" or "r-1406" or r1406 or "r 30730" or "r-30730" or r30730 or "r 39209" or "r-39209" or r39209 or "r 4263" or "r-4263" or r2463 or "ranitidin 1a pharma" or rapifen or remifentanyl or robidone or "rx 6029 m" or rx6029m or "rx 783006" or "rx-783006" or "SDZ 202-250" or "SDZ202-250" or stadol or sublimaze or suboxone or Subutex or sufenta or Sufentanyl or

sufentanilhameln or sufentanilratiopharm or sulfentanil or sulfentanyl or symoron or talwin or takadol or temgesic or tetrapon or theocodin or theradol or tilidate or tilidin or Tilidine or tiral or topalgic or torbugesic or trachyl or tradol or tradolpuren or tradonal or tralgiol or "trama 1a pharma" or "trama abz" or "trama dorsch" or "trama kd" or "trama-dorsch" or tramadorsch or tramabeta or tramadin or tramadoc or Tramadol or tramadoldolgit or tramadolhameln or tramadolor or tramadolratiopharm or tramadura or tramagetic or tramagit or tramake or tramal or tramex or tramundin or trasedal or trimeperidine or ultram or valerone or valoron or "win 35197 2" or "win-35197-2" or win351972 or "wy 22811" or "wy-22811" or wy22811 or "xymel 50" or zamudol or zumalgic or zydol or zytram).ti,ab,hw,rw,tn. (17497)

10 ("Opiate Alkaloids" or Morphin* or Benzomorphan* or Pentazocine or fortal or lexis or talwin or Phenazocine or narphen or phenbenzomorphan or phenethylazocine or Buprenorphine or "6029 m" or 6029m or buprenex or buprex or prefin or "rx 6029 m" or rx6029m or temgesic or suboxone or Butorphanol or "apo-butorphanol" or "bc 2627" or "bc-2627" or bc2627 or beforal or dolorex or moradol or stadol or torbugesic or Dextromethorphan or delsym or levomethorphan or racemethorphan or "d-methorphan" or "l-methorphan" or Dextrorphan or methylmorphinan or Diprenorphine or revivon or Etorphine or ethorphine or m99 or Levallorphan or lorfan or naloxiphan or Levorphanol or "l dromoran" or "l-dromoran" or "levo dromoran" or "levo-dromoran" or levodromoran or levodroman or levorphan or Codeine or ardinex or isocodeine or "n methylmorphine" or "n-methylmorphine" or Hydrocodone or robidone or hydrocon or codinovo or dicodid or dihydrocodeinone or hycodan or hycon or hydrocodeinonebitartrate or hydrocodon or Oxycodone or dihydrohydroxycodone or dihydron or dinarkon or eucodal or oxiconum or oxycodone or oxycone or oxycontin or pancodine or theocodin or Dihydromorphine or paramorfan or paramorphan or Ethylmorphine or dionine or ethomorphine or ethylmorphine or Heroin or diacetylmorphine or diagesil or diamorf or diamorphine or Hydromorphone or dihydromorphinone or dilaudid or hydromorphon or hydromorphone or laudacon or palladone or morphia or "ms contin" or duramorph or Oxymorphone or numorphan or opana or Thebaine or Nalbuphine or "en 2234a" or "en-2234a" or en2234a or nubain or Nalorphine or allylnormorphine or lethidrone or Naloxone or Nalone or Naloxon or Narcan or Narcanti or "mrz 2593" or "mrz 2593 br" or "mrz 2593-br" or "mrz 2593br" or "mrz-2593" or "mrz2593" or Naltrexone or antaxone or celupan or "en 1639a" or "en-1639a" or en1639a or nalorex or nemexin or revia or trexan or Noscapine or capval or "librochin prikkelhoest" or narcotine or noscaped or tuscalman or Papaverine or cerespan or pavabid or pavatym or pilocarpine or isopilocarpine or isoptocarpine or ocusert or salagen).ti,ab,hw,rw,tn.

(10486)

11 ((heroin or morphine or narcotic* or opiate* or opioid* or oropium) adj2 (addic* or abuse* or abusing* or

dependen* or misuse* or mis-use* or "mis use*" or overdose* or over-dose* or "over dose*" or overuse* or over-use* or "over use*")).ti,ab,hw. (2332)

12 ((substance or drug) adj2 (addic* or abuse* or abusing* or dependen* or misuse* or mis-use* or "mis use*" or

overdose* or over-dose* or "over dose*" or overuse* or over-use* or "over use*")).ti,ab,hw. (9121)

13 or/7-12 [Narcotics, controlled substances, opioids set] (26180)

14 and/5,13 [PDMP + Narcotics, controlled substances, opioids set 2] (166)

15 and/6,13 [Drug monitor/surveillance + Narcotics, controlled substances, opioids set] (346)

16 ((physician* or doctor* or "medical practitioner*" or "nurse practitioner*" or prescriber*) and pattern*).ti,ab,hw. (1612)

17 ("routinely collected data" or (data adj1 (collection or identification or pubic* or record or records)) or ("public reporting" or "public* reported") and data) or dataset* or data-set* or "data set*").ti,ab,hw. (16222)

18 ("administrative data" or (administrative adj2 data*) or register or registers or registry or registries).ti,ab,hw. (5005)

19 ("disease registry" or "disease registries" or "cancer registry" or "cancer registries" or "cancer register*" or "cancer registration*" or CDC-NPCR or "National Program of Cancer Registries" or NPCR or "SEER program*").ti,ab,hw. (231)

20 (("community health" or "public health") adj3 (data or data-set* or registr* or register* or report or reports or survey*)).ti,ab,hw. (98)

21 (((("all payer claims" or "animal health" or (antibiotic* adj2 (resistance or stewardship)) or "behavioral risk factor*" or "behavioural risk factor*" or BRFSS or "birth defects" or "blood lead" or cancer or claims or "communicable disease*" or death or "early hearing" or "emergency department*" or epidemiolog* or "health care" or healthcare or "healthcare-associated infection*" or "health care statistics" or "hospital discharge*" or immigrant* or immunization* or injury or injuries or Medicaid or "medical cannabis" or mortality or "national health and nutrition examination" or NHANES or "national toxic substance*" or "newborn blood" or "newborn hearing" or "newborn heart" or "pregnancy risk" or "prehospital emergency" or "public health" or refugee* or "risk assessment" or "sexually transmitted disease*" or syndromic or trauma or tuberculosis or violence or vaccin* or "vital statistics" or "women, infants, and children" or WIC) adj2 (data* or registr* or report or reports or screening or surveillanc* or survey* or system or systems)) or "medical record*" or "electronic health record*").ti,ab,hw. (14576)

22 ("public* data*" or "public health" or "public use*").ti,ab,hw. (6859)

23 or/17-22 [public data set] (38655)

24 and/14,16 [PDMP + Narcotics, controlled substances, opioids set + practice patterns] (13)

25 (and/14,23) not 24 [PDMP + Narcotics, controlled substances, opioids set + public data set] (55)

26 or/24-25 (68)

27 limit 26 to english language (67)

28 limit 27 to ("abstracts of meeting presentations" or communications or editorials or reviews) (3)

29 27 not 28 [final set 1] (64)

Annotation: PMDP

30 (and/15-16) not 26 [Drug monitor/surveillance + Narcotics, controlled substances, opioids set + practice patterns] (3)

31 (and/15,23) not (or/26,30) [Drug monitor/surveillance + Narcotics, controlled substances, opioids set + public data set] (34)

32 or/30-31 (37)
33 limit 32 to english language (34)
34 limit 33 to ("abstracts of meeting presentations" or communications or editorials or reviews) (6)
35 33 not 34 [final set 2] (28)
Annotation: Drug monitor/surveillance
36 or/29,35 [Final set] (92)
37 limit 36 to yr="2000 - 2021" 89

Scopus (scopus.com) August 10, 2021

((((TITLE-ABS-KEY ('prescription AND drug AND monitoring' OR 'drug AND monitoring AND program*') OR TITLE-ABS-KEY ('pdmp AND data*' OR 'pdmp AND report*' OR 'pdmp AND utilization') OR TITLE-ABS-KEY (((prescriber* OR prescription*) W/2 (database* OR monitor* OR surveillanc*))) OR TITLE-ABS-KEY (((prescribe* OR prescript*) W/2 (medication* OR substance*) W/6 (database* OR monitor* OR program* OR surveillanc*))) OR TITLE-ABS-KEY ((((drug* OR medication* OR prescription*) W/2 (monitor* OR surveillanc*))) OR pharmacovigilanc* OR 'pharmaco AND vigilanc*'))) AND ((TITLE-ABS-KEY (('controlled AND substance*' OR narcotic* OR stupefacent* OR acetorphine OR acetylcodeine OR acetylmethadol OR alphacetylmethadol OR alphaprodine OR anileridine OR apadoline OR azidomorphine OR benzhydrocodone OR bezitramide OR bremazocine OR bromphine OR buprenorphine OR butorphanol OR ciramadol OR codeine OR codydramol OR conorfone OR crotonylfentanyl OR cyclopropylfentanyl OR dermorphin OR desomorphine OR dextromoramide OR dextropropoxyphene OR dextrorphan OR dezocine OR diamorphine OR diconal OR dihydrocodeine OR dihydroetorphine OR dihydromorphine OR diphenoxylate OR dipipanone OR drotebanol OR dsuvia OR ecgonine OR enadoline OR 'endomorphin AND 1' OR 'endomorphin AND 2' OR eseroline OR ethylketazocine OR ethylmorphine OR etonitazene OR etorphine OR etoxeridine OR fentanyl OR alfentanil OR 'beta AND hydroxymefentanyl' OR brifentanil OR carfentanil OR hypnorm OR mefentanyl OR mirfentanil OR ocfentanil OR remifentanil OR sufentanil OR trefentanil OR furethidine OR heroin OR hydrocodone OR hydromorphone OR isomethadone OR ketazocine OR ketobemidone OR ketogan OR kyotorphin OR lefetamine OR levacetylmethadol OR levomethadone OR levopropoxyphene OR levorphanol OR lofentanil OR meperidine OR meptazinol OR metazocine OR 'methadyl AND acetate' OR methadone OR morphine OR 'morphinomimetic AND agent*' OR morphinone OR nalbuphine OR nicocodine OR nicomorphine OR nocistatin OR norbuprenorphine OR nordextropropoxyphene OR normethadone OR normorphine OR norpethidine OR norpropoxyphene OR opiate* OR opium OR oripavine OR oxycodone OR oxymorphone OR paracymethadol OR paregoric OR pentazocine OR pethidine OR phenadoxone OR phencyclidine) AND phenazocine OR phenoperidine OR piconadol OR piminodine OR piritramide OR profadol OR promedol OR propiram OR protopine OR remifentanil OR sufentanil OR tapentadol OR thebaine OR tilidine OR tramadol)) OR (TITLE-ABS-KEY (acemethadone OR acetylmethadol OR adolonta OR alfenta OR alfentanil OR alfentanyl OR algopan OR alphacetylmethadol OR alphaprodine OR amadol OR amidone OR amidolacetate OR "apo-butorphanol" OR apobutorphanol OR ardinex OR beforal OR "beta casomorphin*" OR bionalgic OR biodone OR biokanol OR biopon OR buprenorphine OR buprenex OR buprex OR butorphanol OR carfentanil OR cetobemidon OR codein* OR codinovo

OR cofapon OR contramal OR dago OR dagol OR damge OR damgo OR darvon OR darvocet OR demerol OR dermorphin OR desomorphine OR dextromoramide OR dextropropoxyphene OR dezocine OR diacetylmorphine OR diagesil OR diamorf OR diamorphine OR dicodid OR dihydrocodeinone OR dihydrocodeine OR dihydrohydroxycodone OR dihydrone OR dihydromorphine OR dihydromorphinone OR dilaudid OR dimepheptanol OR dimethylmeperidine OR dinarkon OR dionine OR dionin OR diphenoxylate OR dipidolor OR dipydolor OR "d moramide" OR "d-moramide" OR dolantin OR dolargan OR dolcontral OR dolin OR dolophine OR dolorex OR dolosal OR dolsin OR dpdpe OR dplpe OR dropizol OR duragesic OR duramorph OR durogesic OR endomorphin OR endorphin* OR enkephalin* OR eseroline OR ethylketazocine OR ethylketocyclazocine OR ethylmorphine OR etorphine OR ethorphine OR eucodal OR fanaxal OR fenoperidine OR fentanest OR fentanyl OR fentanil OR fentora OR fortral OR heroin OR hycodan OR hycon OR hydrocodeinonebitartrate OR hydrocodon OR hydrocodone OR hydromorphon OR hydromorphone OR isocodeine OR isonipecain OR isopromedol OR jutadol OR ketobemidone OR laam OR laudacon OR laudanon OR laudanum OR laudopan OR "l dromoran" OR "l-dromoran" OR lealgin OR leukendorphin* OR levoacetylmethadol OR levomethadyl OR "levo dromoran" OR "levo-dromoran" OR levodromoran OR levodroman OR levorphan OR levorphanol OR lexis OR lidol OR limifen OR lofentanil OR lydol OR m99 OR meperidine OR meptazinol OR meptid OR metadol OR metasedin OR methaddict OR methadol OR methadyl OR "methadyl acetate" OR methylmorphin* OR methadone OR methadose OR methex OR moradol OR morphine OR morphines OR morphia OR "ms contin" OR "mtw tramadol" OR "mtw-tramadol" OR "mtwtramadol" OR nalbuphine OR narcotic* OR narphen OR nepenthe OR nisentil OR "n methylmorphine" OR "n-methylmorphine" OR nobligan OR nocistatin OR normethadone OR nubain OR numorphan OR omnopon OR opana OR operidine OR opial OR opioid* OR opiod* OR opiate* OR opium* OR opon OR oposal OR oramorph OR orlaam OR oxiconum OR oxycodone OR oxycodone OR oxymorphone OR oxycone OR oxycontin OR palfium OR palladone OR pancodine OR papaveretum OR pantopon* OR paramorfan OR paramorphan OR pavon OR papaver OR pentazocine OR pethidine OR phenadone OR phenazocine OR phenbenzorphin OR phenethylazocine OR phenoperidine OR phentanyl OR phymet OR physeptone OR pinadone OR pirinitramide OR piritramid OR piritramide OR prefin OR prodine OR propoxyphene OR promedol OR prontofort OR protopine OR pyrrolamidol OR pyrolamidol OR "ranitidin 1a pharma" OR rapifen OR remifentanil OR robidone OR stadol OR sublimaze OR suboxone OR subutex OR sufenta OR sufentanil OR sufentanilhameln OR sufentanilratiopharm OR sulfentanil OR sulfentanyl OR symoron OR talwin OR takadol OR temgesic OR tetrapon OR theocodin OR theradol OR tilidate OR tilidin OR tilidine OR tiral OR topalgic OR torbugesic OR trachyl OR tradol OR tradolpuren OR tradonal OR tralgiol OR "trama 1a pharma" OR "trama abz" OR "trama dorsch" OR "trama kd" OR "trama-dorsch" OR tramadorsch OR tramabeta OR tramadin OR tramadoc OR tramadol OR tramadoldolgit OR tramadolhameln OR tramador OR tramadolratiopharm OR tramadura OR tramagetic OR tramagit OR tramake OR tramal OR tramex OR tramundin OR trasedal OR trimeperidine OR ultram OR valeron OR valoron OR "xymel 50" OR zamudol OR zumalgic OR zydol OR zytram)) OR (TITLE-ABS-KEY ("opiate alkaloids" OR morphin* OR benzomorphin* OR pentazocine OR fortral OR lexis OR talwin OR phenazocine OR narphen OR phenbenzorphin OR phenethylazocine OR buprenorphine OR buprenex OR buprex OR prefin OR suboxone OR butorphanol OR "apo-butorphanol" OR beforal OR dolorex OR moradol OR stadol OR torbugesic OR dextromethorphan OR delsym OR levomethorphan OR racemethorphan OR "d-methorphan" OR "l-methorphan" OR dextrorphan OR

methylmorphinan OR diprenorphine OR revivon OR etorphine OR ethorphine OR m99 OR levallorphan OR lorfan OR naloxiphan OR levorphanol OR "l-dromoran" OR "l-dromoran" OR "levo dromoran" OR "levo-dromoran" OR levodromoran OR levodroman OR levorphan OR codeine OR ardinex OR isocodeine OR "n methylmorphine" OR "n-methylmorphine" OR hydrocodone OR robidone OR hydrocon OR codinovo OR dicodid OR dihydrocodeinone OR hycodan OR hycon OR hydrocodeinonebitartrate OR hydrocodon OR oxycodone OR dihydrohydroxycodone OR dihydrone OR dinarkon OR eucodal OR oxiconum OR oxycodone OR oxycone OR oxycontin OR pancodine OR theocodin OR dihydromorphine OR paramorfan OR paramorphan OR dionine OR ethomorphine OR ethylmorphine OR heroin OR diacetylmorphine OR diagesil OR diamorf OR diamorphine OR dihydromorphinone OR dilaudid OR hydromorphon OR hydromorphone OR laudacon OR palladone OR morphia OR "ms contin" OR duramorph OR oxymorphone OR numorphan OR opana OR thebaine OR nalbuphine OR nubain OR nalorphine OR allylnormorphine OR lethidrone OR naloxone OR nalone OR naloxon OR narcan OR narcanti OR naltrexone OR antaxone OR celupan OR nalorex OR nemexin OR revia OR trexan OR noscapine OR capval OR "librochin prikkelhoest" OR narcotine OR noscaped OR tuscalman OR papaverine OR cerespan OR pavabid OR pavatym OR pilocarpine OR isopilocarpine OR isoptocarpine OR ocusert OR salagen)) OR (TITLE-ABS-KEY (((heroin OR morphine OR narcotic* OR opiate* OR opioid* OR opium) W/2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR "mis use*" OR "mis use*" OR overdose* OR "over dose*" OR "over dose*" OR overuse* OR "over use*" OR "over use*")))) OR (TITLE-ABS-KEY (((substance OR drug) W/2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR "mis use*" OR "mis use*" OR overdose* OR "over dose*" OR "over dose*" OR overuse* OR "over use*" OR "over use*"))))) AND (TITLE-ABS-KEY ((physician* OR doctor* OR "medical practitioner*" OR "nurse practitioner*" OR prescriber*) AND pattern*))) OR (((TITLE-ABS-KEY ('prescription AND drug AND monitoring' OR 'drug AND monitoring AND program*') OR TITLE-ABS-KEY ('pdmp AND data*' OR 'pdmp AND report*' OR 'pdmp AND utilization') OR TITLE-ABS-KEY ((prescriber* OR prescription*) W/2 (database* OR monitor* OR surveillanc*)) OR TITLE-ABS-KEY ((prescribe* OR prescript*) W/2 (medication* OR substance*) W/6 (database* OR monitor* OR program* OR surveillanc*)) OR TITLE-ABS-KEY (((drug* OR medication* OR prescription*) W/2 (monitor* OR surveillanc*)) OR pharmacovigilanc* OR 'pharmaco AND vigilanc*')))) AND ((TITLE-ABS-KEY (('controlled AND substance*' OR narcotic* OR stupefacient* OR acetorphine OR acetylcodeine OR acetylmethadol OR alphacetylmethadol OR alphaprodine OR anileridine OR apadoline OR azidomorphine OR benzhydrocodone OR bezitramide OR bremazocine OR brorphine OR buprenorphine OR butorphanol OR ciramadol OR codeine OR codydramol OR conorfone OR crotonylfentanyl OR cyclopropylfentanyl OR dermorphin OR desomorphine OR dextromoramide OR dextropropoxyphene OR dextrorphan OR dezocine OR diamorphine OR diconal OR dihydrocodeine OR dihydroetorphine OR dihydromorphine OR diphenoxylate OR dipipanone OR drotebanol OR dsuvia OR ecgonine OR enadoline OR 'endomorphin AND 1' OR 'endomorphin AND 2' OR eseroline OR ethylketazocine OR ethylmorphine OR etonitazene OR etorphine OR etoxeridine OR fentanyl OR alfentanil OR 'beta AND hydroxymefentanyl' OR brifentanil OR carfentanil OR hypnorm OR mefentanyl OR mirfentanil OR ocfentanil OR remifentanil OR sufentanil OR trefentanil OR furethidine OR heroin OR hydrocodone OR hydromorphone OR isomethadone OR ketazocine OR ketobemidone OR ketogan OR kyotorphin OR lefetamine OR levacetylmethadol OR levomethadone OR levopropoxyphene OR levorphanol OR lofentanil OR meperidine OR meptazinol OR metazocine OR 'methadyl AND acetate' OR

methadone OR morphine OR 'morphinomimetic AND agent*' OR morphinone OR nalbuphine OR nicodine OR nicomorphine OR nocistatin OR norbuprenorphine OR nordextropropoxyphene OR normethadone OR normorphine OR norpethidine OR norpropoxyphene OR opiate* OR opium OR oripavine OR oxycodone OR oxymorphone OR paracymethadol OR paregoric OR pentazocine OR pethidine OR phenadoxone OR phencyclidine) AND phenazocine OR phenoperidine OR piconadol OR piminodine OR piritramide OR profadol OR promedol OR propiram OR protopine OR remifentanil OR sufentanil OR tapentadol OR thebaine OR tilidine OR tramadol)) OR (TITLE-ABS-KEY (acemethadone OR acetylmethadol OR adolonta OR alfenta OR alfentanil OR alfentanil OR allopam OR alphacetylmethadol OR alphaprodine OR amadol OR amidone OR amidolacetate OR "apo-butorphanol" OR apobutorphanol OR ardinex OR beforal OR "beta casomorphin*" OR biodalgic OR biodone OR biokanol OR biopon OR buprenorphine OR buprenex OR buprex OR butorphanol OR carfentanil OR cetobemidol OR codein* OR codinovo OR cofapon OR contramal OR dago OR dagol OR damge OR damgo OR darvon OR darvocet OR demerol OR dermorphin OR desomorphine OR dextromoramide OR dextropropoxyphene OR dezocine OR diacetylmorphine OR diagesil OR diamorf OR diamorphine OR dicodid OR dihydrocodeinone OR dihydrocodeine OR dihydrohydroxycodone OR dihydron OR dihydromorphine OR dihydromorphinone OR dilaudid OR dimepheptanol OR dimethylmeperidine OR dinarkon OR dionine OR dionin OR diphenoxylate OR dipidolor OR dipydolor OR "d moramide" OR "d-moramide" OR dolantin OR dolargan OR dolcontral OR dolin OR dolophine OR dolorex OR dolosal OR dolsin OR dpdpe OR dplpe OR dropizol OR duragesic OR duramorph OR durogesic OR endomorphin OR endorphin* OR enkephalin* OR eseroline OR ethylketazocine OR ethylketocyclazocine OR ethylmorphine OR etorphine OR ethorphine OR eucodal OR fanaxal OR fenoperidine OR fentanest OR fentanyl OR fentanil OR fentora OR fortral OR heroin OR hycodan OR hycon OR hydrocodeinonebitartrate OR hydrocodon OR hydrocodone OR hydromorphon OR hydromorphone OR isocodeine OR isonipocain OR isopromedol OR jutadol OR ketobemidone OR laam OR laudacon OR laudanum OR laudanum OR laudopan OR "l dromoran" OR "l-dromoran" OR lealgin OR leukendorphin* OR levoacetylmethadol OR levomethadyl OR "levo dromoran" OR "levo-dromoran" OR levodromoran OR levodroman OR levorphan OR levorphanol OR lexic OR lidol OR limifen OR lofentanil OR lydol OR m99 OR meperidine OR meptazinol OR meptid OR metadol OR metasedin OR methaddict OR methadol OR methadyl OR "methadyl acetate" OR methylmorphin* OR methadone OR methadose OR methex OR moradol OR morphine OR morphines OR morphia OR "ms contin" OR "mtw tramadol" OR "mtw-tramadol" OR "mtwtramadol" OR nalbuphine OR narcotic* OR narphen OR nepenthe OR nisentil OR "n methylmorphine" OR "n-methylmorphine" OR nobligan OR nocistatin OR normethadone OR nubain OR numorphan OR omnopon OR opana OR operidine OR opial OR opioid* OR opioid* OR opiate* OR opium* OR opon OR oposal OR oramorph OR orlaam OR oxiconum OR oxycodone OR oxycodone OR oxymorphone OR oxycone OR oxycontin OR palfium OR palladone OR pancodine OR papaveretum OR pantopon* OR paramorfan OR paramorphan OR pavon OR papaver OR pentazocine OR pethidine OR phenadone OR phenazocine OR phenbenzorphine OR phenethylazocine OR phenoperidine OR phentanyl OR phymet OR physeptone OR pinadone OR pirinitramide OR piritramid OR piritramide OR prefin OR prodine OR propoxyphene OR promedol OR prontosfort OR protopine OR pyrrolamidol OR pyrolamidol OR "ranitidin 1a pharma" OR rapifen OR remifentanil OR robidone OR stadol OR sublimaze OR suboxone OR subutex OR sufenta OR sufentanil OR sufentanilhameln OR sufentanilratiopharm OR sulfentanil OR sulfentanil OR symoron OR talwin OR takadol OR temgesic OR tetrapon OR

theocodin OR theradol OR tilidate OR tilidin OR tilidine OR tiral OR topalgic OR torbugesic OR trachyl OR tradol OR tradolpuren OR tradonal OR tralgiol OR "trama 1a pharma" OR "trama abz" OR "trama dorsch" OR "trama kd" OR "trama-dorsch" OR tramadorsch OR tramabeta OR tramadin OR tramadoc OR tramadol OR tramadoldolgit OR tramadolhameln OR tramadolor OR tramadolratiopharm OR tramadura OR tramagetic OR tramagit OR tramake OR tramal OR tramex OR tramundin OR trasedal OR trimeperidine OR ultram OR valerone OR valoron OR "xymel 50" OR zamudol OR zumalgic OR zydol OR zytram)) OR (TITLE-ABS-KEY ("opiate alkaloids" OR morphin* OR benzomorphan* OR pentazocine OR fortal OR lexir OR talwin OR phenazocine OR narphen OR phenbenzorphane OR phenethylazocine OR buprenorphine OR buprenex OR buprex OR prefin OR suboxone OR butorphanol OR "apo-butorphanol" OR beforal OR dolorex OR moradol OR stadol OR torbugesic OR dextromethorphan OR delsym OR levomethorphan OR racemethorphan OR "d-methorphan" OR "l-methorphan" OR dextrorphan OR methylmorphinan OR diprenorphine OR revivon OR etorphine OR ethorphine OR m99 OR levallorphan OR lorfan OR naloxiphan OR levorphanol OR "l dromoran" OR "l-dromoran" OR "levo dromoran" OR "levo-dromoran" OR levodromoran OR levodroman OR levorphan OR codeine OR ardinex OR isocodeine OR "n methylmorphine" OR "n-methylmorphine" OR hydrocodone OR robidone OR hydrocon OR codinovo OR dicodid OR dihydrocodeinone OR hycodan OR hycon OR hydrocodeinonebitartrate OR hydrocodon OR oxycodone OR dihydrohydroxycodone OR dihydron OR dinarkon OR eucodal OR oxiconum OR oxycodone OR oxycone OR oxycontin OR pancodine OR theocodin OR dihydromorphine OR paramorfan OR paramorphan OR dionine OR ethomorphine OR ethylmorphine OR heroin OR diacetylmorphine OR diagesil OR diamorf OR diamorphine OR dihydromorphinone OR dilaudid OR hydromorphan OR hydromorphone OR laudacon OR palladone OR morphia OR "ms contin" OR duramorph OR oxymorphine OR numorphan OR opana OR thebaine OR nalbuphine OR nubain OR nalorphine OR allylnormorphine OR lethidrone OR naloxone OR nalone OR naloxon OR narcan OR narcanti OR naltrexone OR antaxone OR celupan OR nalorex OR nemexin OR revia OR trexan OR noscapine OR capval OR "librochin prikkelhoest" OR narcotine OR noscaped OR tuscalman OR papaverine OR cerespan OR pavabid OR pavatym OR pilocarpine OR isopilocarpine OR isoptocarpine OR ocusert OR salagen)) OR (TITLE-ABS-KEY ((heroin OR morphine OR narcotic* OR opiate* OR opioid* OR opium) W/2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR "mis use*" OR "mis use*" OR overdose* OR "over dose*" OR "over dose*" OR overuse* OR "over use*" OR "over use*")))) OR (TITLE-ABS-KEY (((substance OR drug) W/2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR "mis use*" OR "mis use*" OR overdose* OR "over dose*" OR "over dose*" OR overuse* OR "over use*" OR "over use*"))))) AND ((TITLE-ABS-KEY ("routinely collected data" OR ((data W/1 (collection OR identification OR pubic* OR record OR records))) OR ("public reporting" OR "public* reported") AND data) OR dataset* OR "data set*") OR TITLE-ABS-KEY ("administrative data" OR ((administrative W/2 data*)) OR register OR registers OR registry OR registries) OR TITLE-ABS-KEY (("community health" OR "public health") W/3 (data OR "data set*" OR registr* OR register* OR report OR reports OR survey*))) OR TITLE-ABS-KEY ("all payer claims" OR ((antibiotic* W/2 (resistance OR stewardship))) OR "behavioral risk factor*" OR "behavioural risk factor*" OR brfss OR "birth defects" OR "blood lead" OR cancer OR claims OR "communicable disease*" OR death OR "early hearing" OR "emergency department*" OR epidemiolog* OR "health care" OR healthcare OR "healthcare-associated infection*" OR "health care statistics" OR "hospital discharge*" OR immigrant* OR immunization* OR injury OR injuries

OR medicaid OR "medical cannabis" OR mortality OR (("national health and nutrition examination" OR nhanes OR "national toxic substance*" OR "newborn blood" OR "newborn hearing" OR "newborn heart" OR "pregnancy risk" OR "prehospital emergency" OR "public health" OR refugee* OR "risk assessment" OR "sexually transmitted disease*" OR syndromic OR trauma OR tuberculosis OR violence OR vaccin* OR "vital statistics" OR "women, infants, and children" OR wic) W/2 (data* OR registr* OR report OR reports OR screening OR surveillanc* OR survey* OR system OR systems))) OR "medical record*" OR "electronic health record*") OR TITLE-ABS-KEY ("public* data*" OR (("public health" W/3 (data* OR registr* OR report OR reports OR screening OR surveillanc* OR survey* OR system OR systems))) OR "public use*")) AND PUBYEAR > 1999 AND (EXCLUDE (DOCTYPE , "re") OR EXCLUDE (DOCTYPE , "no") OR EXCLUDE (DOCTYPE , "cp") OR EXCLUDE (DOCTYPE , "ed") OR EXCLUDE (DOCTYPE , "sh") OR EXCLUDE (DOCTYPE , "ch"))

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11 (#8) AND #9 and 2000 or 2001 or 2002 or 2003 or 2004 or 2005 or 2006 or 2007 or 2008 or 2009 or 2010 or 2011 or 2012 or 2013 or 2014 or 2015 or 2016 or 2017 or 2018 or 2019 or 2020 or 2021 (Publication Years) 1,159

10 (#8) AND #9 1,190

9 (((TS=("routinely collected data" OR ((data NEAR/1 (collection OR identification OR pubic* OR record OR records))) OR (("public reporting" OR "public* reported") AND data) OR dataset* OR "data set*")) OR TS=("administrative data" OR ((administrative NEAR/2 data*)) OR register OR registers OR registry OR registries)) OR TS=("all payer claims" OR ((antibiotic* NEAR/2 (resistance OR stewardship))) OR "behavioral risk factor*" OR "behavioural risk factor*" OR brfss OR "birth defects" OR "blood lead" OR cancer OR claims OR "communicable disease*" OR death OR "early hearing" OR "emergency department*" OR epidemiolog* OR "health care" OR healthcare OR "healthcare-associated infection*" OR "health care statistics" OR "hospital discharge*" OR immigrant* OR immunization* OR injury OR injuries OR medicaid OR "medical cannabis" OR mortality OR ((("national health and nutrition examination" OR nhanes OR "national toxic substance*" OR "newborn blood" OR "newborn hearing" OR "newborn heart" OR "pregnancy risk" OR "prehospital emergency" OR "public health" OR refugee* OR "risk assessment" OR "sexually transmitted disease*" OR syndromic OR trauma OR tuberculosis OR violence OR vaccin* OR "vital statistics" OR "women, infants, and children" OR wic) NEAR/2 (data* OR registr* OR report OR reports OR screening OR surveillanc* OR survey* OR system OR systems))) OR "medical record*" OR "electronic health record*")) OR TS=("public* data*" OR (("public health" NEAR/3

(data* OR registr* OR report OR reports OR screening OR surveillanc* OR survey* OR system OR systems))) OR "public use*") 6,857,002

8 (((((#2) OR #3) OR #4) OR #5) OR #6) AND #1 2,069

7 ((((#2) OR #3) OR #4) OR #5) OR #6 339,032

6 TS=(((substance OR drug) NEAR/2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR "mis use*" OR "mis use*" OR overdose* OR "over dose*" OR "over dose*" OR overuse* OR "over use*" OR "over use*"))) 81,852

5 TS=(((heroin OR morphine OR narcotic* OR opiate* OR opioid* OR opium) NEAR/2 (addic* OR abuse* OR abusing* OR dependen* OR misuse* OR "mis use*" OR "mis use*" OR overdose* OR "over dose*" OR "over dose*" OR overuse* OR "over use*" OR "over use*"))) 24,424

4 TS=("opiate alkaloids" OR morphin* OR benzomorphan* OR pentazocine OR fortal OR lexis OR talwin OR phenazocine OR narphen OR phenbenzorphane OR phenethylazocine OR buprenorphine OR "6029 m" OR 6029m OR buprenex OR buprex OR pefin OR "rx 6029 m" OR rx6029m OR temgesic OR suboxone OR butorphanol OR "apo-butorphanol" OR "bc 2627" OR "bc-2627" OR bc2627 OR beforal OR dolorex OR moradol OR stadol OR torbugesic OR dextromethorphan OR delsym OR levomethorphan OR racemethorphan OR "d-methorphan" OR "l-methorphan" OR dextrorphan OR methylmorphinan OR diprenorphine OR revivon OR etorphine OR ethorphine OR m99 OR levallorphan OR lorfan OR naloxiphan OR levorphanol OR "l dromoran" OR "l-dromoran" OR "levo dromoran" OR "levo-dromoran" OR levodromoran OR levodroman OR levorphan OR codeine OR ardinex OR isocodeine OR "n methylmorphine" OR "n-methylmorphine" OR hydrocodone OR robidone OR hydrocon OR codinovo OR dicodid OR dihydrocodeinone OR hycodan OR hycon OR hydrocodeinonebitartrate OR hydrocodon OR oxycodone OR dihydrohydroxycodone OR dihydrone OR dinarkon OR eucodal OR oxiconum OR oxycodone OR oxycone OR oxycontin OR pancodine OR theocodin OR dihydromorphine OR paramorfan OR paramorphan OR dionine OR ethomorphine OR ethylmorphine OR heroin OR diacetylmorphine OR diagesil OR diamorf OR diamorphine OR dihydromorphinone OR dilaudid OR hydromorphan OR hydromorphone OR laudacon OR palladone OR morphia OR "ms contin" OR duramorph OR oxymorphone OR numorphan OR opana OR thebaine OR nalbuphine OR "en 2234a" OR "en-2234a" OR en2234a OR nubain OR nalorphine OR allylnormorphine OR lethidrone OR naloxone OR nalone OR naloxon OR narkan OR narcanti OR "mrz 2593" OR "mrz 2593 br" OR "mrz 2593-br" OR "mrz 2593br" OR "mrz-2593" OR "mrz2593" OR naltrexone OR antaxone OR celupan OR "en 1639a" OR "en-1639a" OR en1639a OR nalorex OR nemexin OR revia OR trexan OR noscapine OR capval OR "librochin prikkelhoest" OR narcotine OR noscapect OR tuscalman OR papaverine OR cerespan OR pavabid OR pavatym OR pilocarpine OR isopilocarpine OR isoptocarpine OR ocusert OR salagen) 137,887

3 TS=("6029 m" OR 6029m OR acemethadone OR acetylmethadol OR adolonta OR alfenta OR alfentanil OR alfentanyl OR algopan OR alphacetylmethadol OR alphaprodine OR amadol OR amidone OR amidolacetate OR "apo-butorphanol" OR apobutorphanol OR ardinex OR "bc 2627" OR "bc-2627" OR bc2627 OR beforal OR "beta casomorphin*" OR biodalgic OR biodone OR biokanol OR biopon OR buprenorphine OR buprenex OR buprex OR butorphanol OR carfentanil OR cetobemidon OR codein* OR codinovo OR cofapon OR contramal OR dago OR dagol OR damge OR damgo OR darvon OR darvocet OR demerol OR dermorphin OR desomorphine OR dextromoramide OR dextropropoxyphene OR dezocine OR diacetylmorphine OR diagesil OR diamorf OR diamorphine OR dicodid OR dihydrocodeinone OR dihydrocodeine OR dihydrohydroxycodone OR dihydrone OR dihydromorphine OR dihydromorphinone OR dilaudid OR dimepheptanol OR dimethylmeperidine OR dinarkon OR dionine OR

dionin OR diphenoxylate OR dipidolor OR dipydolor OR "d moramide" OR "d-moramide" OR dolantin OR dolargan OR dolcontral OR dolin OR dolophine OR dolorex OR dolosal OR dolsin OR dpdpe OR dplpe OR dropizol OR duragesic OR duramorph OR durogesic OR "en 2234a" OR "en-2234a" OR en2234a OR endomorphin OR endorphin* OR enkephalin* OR eseroline OR ethylketazocine OR ethylketocyclazocine OR ethylmorphine OR etorphine OR ethorphine OR eucodal OR fanaxal OR fenoperidine OR fentanest OR fentanyl OR fentanil OR fentora OR fortral OR "go 1261" OR "go-1261" OR go1261 OR heroin OR hycodan OR hycon OR hydrocodeinonebitartrate OR hydrocodon OR hydrocodone OR hydromorphon OR hydromorphone OR isocodeine OR isonipeccain OR isopromedol OR jutadol OR "k 315" OR "k-315" OR k315 OR ketobemidone OR laam OR laudacon OR laudanon OR laudanum OR laudopan OR "l dromoran" OR "l-dromoran" OR lealgin OR leukendorphin* OR levoacetylmethadol OR levomethadyl OR "levo dromoran" OR "levo-dromoran" OR levodromoran OR levodroman OR levorphan OR levorphanol OR lexis OR lidol OR limifen OR lofentanil OR lydol OR m99 OR meperidine OR meptazinol OR meptid OR metadol OR metasedin OR methaddict OR methadol OR methadyl OR "methadyl acetate" OR methylmorphin* OR methadone OR methadose OR methex OR moradol OR morphine OR morphines OR morphia OR "ms contin" OR "mtw tramadol" OR "mtw-tramadol" OR "mtwtramadol" OR nalbuphine OR narcotic* OR narphen OR nepenthe OR nisentil OR "n methylmorphine" OR "n-methylmorphine" OR nobligan OR nocistatin OR normethadone OR nubain OR numorphan OR omnopon OR opana OR operidine OR opial OR opioid* OR opiod* OR opiate* OR opium* OR opon OR oposal OR oramorph OR orlaam OR oxiconum OR oxycodone OR oxycodone OR oxymorphone OR oxycone OR oxycontin OR palfium OR palladone OR pancodine OR papaveretum OR pantopon* OR paramorfan OR paramorphan OR pavon OR papaver OR pentazocine OR pethidine OR phenadone OR phenazocine OR phenbenzorphin OR phenethylazocine OR phenoperidine OR phentanyl OR phymet OR physeptone OR pinadone OR piritramide OR piritramid OR piritramide OR prefin OR prodine OR propoxyphene OR promedol OR prontofort OR protopine OR pyrrolamidol OR pyrolamidol OR "r 1406" OR "r-1406" OR r1406 OR "r 30730" OR "r-30730" OR r30730 OR "r 39209" OR "r-39209" OR r39209 OR "r 4263" OR "r-4263" OR r4263 OR "ranitidin 1a pharma" OR rapifen OR remifentanil OR robidone OR "rx 6029 m" OR rx6029m OR "rx 783006" OR "rx-783006" OR "sdz 202-250" OR "sdz202-250" OR stadol OR sublimaze OR suboxone OR subutex OR sufenta OR sufentanil OR sufentanilhameln OR sufentanilratiopharm OR sulfentanil OR sulfentanyl OR symoron OR talwin OR takadol OR temgesic OR tetrapon OR thecodin OR theradol OR tilidate OR tilidin OR tilidine OR tiral OR topalgic OR torbugesic OR trachyl OR tradol OR tradolpuren OR tradonal OR tralgiol OR "trama 1a pharma" OR "trama abz" OR "trama dorsch" OR "trama kd" OR "trama-dorsch" OR tramadorsch OR tramabeta OR tramadin OR tramadoc OR tramadol OR tramadoldolgit OR tramadolhameln OR tramadololor OR tramadolratiopharm OR tramadura OR tramagetic OR tramagit OR tramake OR tramal OR tramex OR tramundin OR trasedal OR trimeperidine OR ultram OR valerone OR valoron OR "win 35197 2" OR "win-35197-2" OR win351972 OR "wy 22811" OR "wy-22811" OR wy22811 OR "xymel 50" OR zamudol OR zumalgic OR zydol OR zytram)

245,051

2 TS=((('controlled substance*' OR narcotic* OR stupefacient* OR acetorphine OR acetylcodeine OR acetylmethadol OR alphacetylmethadol OR alphaprodine OR anileridine OR apadoline OR azidomorphine OR benzhydrocodone OR bezitramide OR bromazocine OR bromphine OR buprenorphine OR butorphanol OR ciramadol OR codeine OR codydramol OR conorfone OR crotonylfentanyl OR cyclopropylfentanyl OR dermorphin OR desomorphine OR dextromoramide OR dextropropoxyphene OR dextrorphan OR dezocine OR diamorphine OR diconal OR dihydrocodeine OR dihydroetorphine OR dihydromorphine OR diphenoxylate OR dipipanone OR drotebanol OR dsuvia OR ecgonine OR enadoline

OR 'endomorphin 1' OR 'endomorphin 2' OR eseroline OR ethylketazocine OR ethylmorphine OR etonitazene OR etorphine OR etoxeridine OR fentanyl OR alfentanil OR 'beta hydroxymefentanyl' OR brifentanil OR carfentanil OR hypnorm OR mefentanyl OR mirfentanil OR ocfentanil OR remifentanil OR sufentanil OR trefentanil OR furethidine OR heroin OR hydrocodone OR hydromorphone OR isomethadone OR ketazocine OR ketobemidone OR ketogan OR kytorphin OR lefetamine OR levacetylmethadol OR levomethadone OR levopropoxyphene OR levorphanol OR lofentanil OR meperidine OR meptazinol OR metazocine OR 'methadyl acetate' OR methadone OR morphine OR 'morphinomimetic agent*' OR morphinone OR nalbuphine OR nicocodine OR nicomorphine OR nocistatin OR norbuprenorphine OR nordextropropoxyphene OR normethadone OR normorphine OR norpethidine OR norpropoxyphene OR opiate* OR opium OR oripavine OR oxycodone OR oxymorphone OR paracymethadol OR paregoric OR pentazocine OR pethidine OR phenadoxone OR phencyclidine) AND phenazocine OR phenoperidine OR piconadol OR piminodine OR piritramide OR profadol OR promedol OR propiram OR protopine OR remifentanil OR sufentanil OR tapentadol OR thebaine OR tilidine OR tramadol) 18,937

1 TS=('prescription drug monitoring' OR 'drug monitoring program*') OR TS=("pdmp data*" OR "pdmp report*" OR "pdmp utilization") OR TS=((prescriber* OR prescription*) NEAR/2 (database* OR monitor* OR surveillanc*))) 11,873

Web of Science Core Collection (Clarivate) October 4, 2021

Web of Science Core Collection

Science Citation Index Expanded (SCI-EXPANDED)--1900-present

Social Sciences Citation Index (SSCI)--1900-present

Arts & Humanities Citation Index (AHCI)--1975-present

Emerging Sources Citation Index (ESCI)--2015-present

7 (#5) AND # 10

6 TS=("prescription drug monitoring" OR "drug monitoring program*" OR "pdmp data*" OR "pdmp report*" OR "pdmp utilization" OR ((prescriber* OR prescription*) NEAR/2 (database* OR monitor* OR surveillanc*)) OR ((prescribe* OR prescript*) NEAR/2 (medication* OR substance*) NEAR/6 (database* OR monitor* OR program* OR surveillanc*)) OR (((drug* OR medication* OR prescription*) NEAR/2 (monitor* OR surveillanc*))) OR pharmacovigilanc* OR "pharmaco vigilanc*") 63,701

5 #1 OR #2 OR #3 OR #4 3,102

4 (CF="American Psychiatric Association") 1,203

3 (CF="American Society of Addiction Medicine") 89

2 (CF="Society of Behavioral Medicine") 227

1 (CF="American Public Health Association") 1,583

Grey Literature Search Strategy

Federal and organizational web sites:

Centers for Disease Control and Prevention <https://www.cdc.gov/drugoverdose/pubs/index.html>

Results returned for:

Include any **Opioid OR opioids OR opiate OR opiates OR narcotic OR narcotics** Matching
prescription drug monitoring program
Language **English**
Between dates **1/1/2001 - 9/30/2021**

Substance Abuse and Mental Health Services Administration <https://www.samhsa.gov/>

SAMHSA Publications:

"prescription drug monitoring program"

SAMHSA Data:

"prescription drug monitoring program"
"prescription drug monitoring"
"drug monitoring"

SAMHSA.gov

Search "prescription drug monitoring program" from homepage

National Institute on Drug Abuse <https://www.drugabuse.gov/drug-topics/publications>

Searches:

"prescription drug monitoring program"
"prescription drug monitoring "
"drug monitoring"

Prescription Drug Monitoring Program Training and Technical Assistance Center

<https://www.pdmpassist.org/>

Media: <https://www.pdmpassist.org/Media>

Search: opioids Format: Publication

PDMP Works <https://pdmpworks.org/>

NABP PMP Interconnect <https://nabp.pharmacy/members/pmp-interconnect/>

Publications <https://nabp.pharmacy/resources/publications/>

Reports

Task Force Reports <https://nabp.pharmacy/resources/reports/task-force-reports/>

Rogue Rx Activity Reports

<https://nabp.pharmacy/resources/reports/rogue-rx/>

Conference proceedings from meetings of the following professional organizations:

- American Public Health Association <https://www.apha.org/>
- Society of Behavioral Medicine <https://www.sbm.org/>
- American Society of Addiction Medicine <https://www.asam.org/>
- American Psychiatric Association <https://www.psychiatry.org/>