Nebraska: What’s Going On with the PDMP and HIE

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PDMP Program Director
NeHII, Inc.

BJA PDMP North Regional Meeting
October 16, 2018
Nebraska PDMP Legislative Summary

- LB 237 (2011)
  - Creation of Nebraska PDMP
- LB 1072 (2014)
  - Repeal no funding stipulation
- LB 471 (2016)
  - Prevents opting out
  - Allow prescribers and dispensers to access the system at no cost
  - Report all dispensed controlled substance prescriptions by January 1, 2017
  - Report ALL dispensed prescriptions by January 1, 2018
- LB 223 (2017)
  - Allow prescriber designees
  - Veterinarian reporting CII- CIV beginning July 1, 2018
- LB 1034 (2018)
  - Exclude reporting of non-human non-controlled substances
  - Clarify pharmacist use of the PDMP
- Neb. Rev. Stat § 71-2454
- Neb. Rev. Stat § 84-712.05(19)
PDMP Highlights

• Operated by DHHS
• Use NeHII and Optum HIE platform
• Developed with DrFirst
• Funded through federal grants
• Dispensers must submit data
  • Nebraska pharmacies
  • Mail order pharmacies
  • Dispensing practitioners with a pharmacy permit
  • Delegated dispensers
  • Veterinarians (dispensing CS II-IV only)
• All dispensed prescription drugs reported
• Reported on a daily basis
PDMP Highlights

• Prescribers and pharmacists can access PDMP patient reports

• Prescribers and pharmacists can authorize designees (e.g., RN, LPN, pharmacy tech)
Nebraska’s Innovative Approach

• PDMP monitors controlled substances and some “drugs of concern”
• All prescription drugs can be drugs of concern
  • Drug interactions, allergies
• HIE users accustomed to seeing the med history, not just opioids, controlled substances
• PDMP contained gaps prior to 2017
PDMP

By the Numbers
By the Numbers - Prescriptions

• January 1 – December 31, 2017
  • 3,882,974 dispensed prescription records (1.9M pop.)
    • 2.04 Rx/person

• January 1 – August 31, 2018
  • 20,989,152 dispensed prescription records
    • 18,890,705 (90%) dispensed non-controlled substances

• 2017 Average 10,638 Rx/day

• 2018 Average 86,436 Rx/day
Nebraska PDMP Reported Data
January 2017 – August 2018

Monthly # Unique Dispensed Prescriptions Reported
Nebraska PDMP Reported Data and Errors
July 2017 – July 2018
By the Numbers – Enrolled Users

- **7,366** Enrolled users of the PDMP (as of 8/31/18)
  - **4,873** (37.6%) prescribers (MD, APRN, DDS, DVM, PA)
    - with address in NE, KS, MO, IA, SD, WY, CO
  - **2,002** (58.6%) dispensers (i.e., pharmacists)
    - with address in NE, KS, MO, IA, SD, WY, CO
  - **491** (0.7%) designees (e.g., nurses, pharmacy technicians, pharmacist interns, etc.)
    - with address in NE, KS, MO, IA, SD, WY, CO
User Queries
July 2017 – August 2018

# Unique Queries per Month
User Queries
July 2017 – August 2018

User Queries by Category
August, 2018

- Prescriber: 69%
- Dispenser: 18%
- Designee: 13%

Unique User Queries by License Type
August, 2018

- MD: 51%
- PA: 17%
- APRN: 11%
- DDS: 8%
- RP: 2%
- Designee: 17%
Implemented Enhancements

• Report all prescription drugs – January 1, 2018
• Group/Sort
• Date Sold (when available)
• Non-human controlled substances
• Clinical safety alerts
  • MME
  • Multiple Provider Episodes (e.g., 5-5-6)
  • Overlapping Opioid-Benzodiazepine
Submission Errors

• Learning process
• Some pharmacies don’t dispense controlled substances and have not previously reported
• Some pharmacies resent same files repeatedly, causing error rates to increase
• Insufficient testing
• Field delimiter contained within field, causing “shift” of fields
  • Asterisk entered in Address field interpreted as field separator
• Some coded missing or extra fields
Submission Errors

• NPI
  • Legislation
  • Veterinarians and some pharmacies don’t have NPI
  • Restricted manual entry/override of NPI
  • Map prescriber 10-digit phone number to NPI field

• “Record does not exist to be voided”
  • Original not submitted prior to January 1
  • Cancelled/reversed prescriptions errored because original prescription not found, so no match when DSP01=02 for Rx

• Information entered for non-controlled Rx has variations that may not conform to ASAP format
  • Pharmacies must conform to ASAP standard format
  • Refills Authorized (DSP04) may have > 99 refills
  • Address not required for non-controlled or may contain extraneous information
Pharmacy Segment Errors

• Pharmacy NPI (PHA01)
  • Pharmacy 10-digit phone number

• Pharmacy DEA (PHA03)
  • May not exist

• Pharmacy name, address
  • Field length
Prescriber Segment Errors

- NPI, DEA (PRE01/PRE02)
  - Required by Nebraska statute
  - Veterinarians not allowed by CMS to have NPI
  - Some pharmacy systems require valid check digit
  - Alternatively use prescriber phone number

- Prescriber name
  - Missing prescriber first/last name
  - Vendor programming issue
**Patient Segment Errors**

- Patient ID Qualifier (PAT02)
  - Invalid format
- Patient address (PAT 12-16)
  - Not required for prescriptions but required for PDMP
  - Missing/invalid zip code
- Telephone number (PAT17)
  - Invalid format
Dispensing/Prescription Segment Errors

• Reporting Status (DSP01)
  • Voids prior to original being reported
  • Nursing home pharmacies report daily dispensing
• Date filled earlier than Date written (DSP03, DSP05)
  • Nursing home pharmacy processing
• Refills authorized (DSP04)
  • Not meeting ASAP format criteria
    • PRN defaulted to 999 as pharmacy process
• Pharmacist NPI (DSP14)
  • Pharmacies use certain fields for purposes other than intended
• Payment type (DSP16)
  • Home health, home infusion, nursing home pharmacies not previously used
  • Separate billing system
• RxNorm (DSP18/DSP19)
  • Not meeting ASAP format criteria
    • SCD vs 01
Dispensing/Prescription Segment Errors

- Product ID (DSP08)
  - NDC required
  - UPC, HCPCS, NADA
  - DSP07=03
  - Some invalid length
  - DSP07=02 for veterinary products

- CDI
  - Majority of errors
  - Not previously reported for non-controlled substances
  - Some ingredients don’t have NDC
    - Flavorings
    - Chemicals, vitamins
    - Tubing, pumps, mailing labels
  - General number (e.g., 88888888888) to allow for validation
Future Dispensing/Prescription Considerations

• Indication

• Rx SIG
  • ASAP 4.2A
  • Technically complex
  • Sig vs. abbreviation vs. Free text
  • Translation table?
PDMP

What it Looks Like
Who Can Access?

NeHII HIE users
Optum™ Data Exchange HIE 2.0
HIE Pathway
Any HIE participant

PDMP users
Nebraska PDMP
PDMP Pathway
Prescribers (MD, PA, APRN, DDS)
Dispensers (RP)
Designees (RN, Pharm tech)
Identifying and Selecting Patients

Search Medication History

Enter Patient Information

LAST NAME*  FIRST NAME**  DOB
Watson      Jo      06/04/1980

Patient Search Results

Disclaimer: You are selecting one or more patients to combine together into a single-use query. Please note any selections of multiple patients and use of query results are at the discretion of the user. Selections may or may not include all aliases for a particular patient. Patient selections will not be saved for future use.

<table>
<thead>
<tr>
<th>ID</th>
<th>Patient Name</th>
<th>DOB</th>
<th>Gender</th>
<th>Species</th>
<th>Address</th>
<th>City</th>
<th>Zip</th>
<th>Telephone #</th>
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<tbody>
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<td>U</td>
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<td>123 First Street</td>
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<td>1313 Mockinbird Lane</td>
<td>Mockinbird heights</td>
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### Medication History Combined Results

<table>
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<tr>
<th>#</th>
<th>Last Name</th>
<th>First Name</th>
<th>DOB</th>
<th>Gender</th>
<th>City</th>
<th>ZipCode</th>
<th>Minimum # of Lines</th>
<th>Minimum # of Months</th>
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<tr>
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<td>08/04/1955</td>
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<tr>
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<td>08/04/1955</td>
<td>Male</td>
<td></td>
<td>New York</td>
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</tbody>
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### Results

#### Controlled Substances

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<th>Stop Date</th>
<th>Drug Name</th>
<th>City</th>
<th>Days</th>
<th>Refills</th>
<th>Prescriber</th>
<th>Pharmacy</th>
<th>Payment</th>
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</thead>
<tbody>
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<td>03/19/2018</td>
<td>hydrocodone/acetaminophen (Vicodin) 1-500 mg tablet</td>
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#### Non-Controlled Substances

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<th>Days</th>
<th>Refills</th>
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<th>Pharmacy</th>
<th>Payment</th>
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</thead>
<tbody>
<tr>
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<td>04/25/2018</td>
<td>oxycodone (oxycontin) 10 mg tablet</td>
<td>60</td>
<td>0</td>
<td>0</td>
<td>Lawrence Crosby</td>
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<td>Private Pay</td>
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<tr>
<td>2</td>
<td>07/10/2018</td>
<td>07/20/2018</td>
<td>oxycodone/acetaminophen (325/325) 1 mg tablet</td>
<td>78</td>
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<td>Nathan Allen</td>
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<tr>
<td>3</td>
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<td>07/25/2018</td>
<td>oxycodone/naloxone (Opana) 15 mg tablet</td>
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<td>55</td>
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<td>Milton aka Wills</td>
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</tr>
<tr>
<td>4</td>
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<td>ESV 321 Pharmacy Pne: 4029299095</td>
<td>Commercial Insurane</td>
</tr>
</tbody>
</table>

Disclaimer: Certain information may not be available or accurate in this report, including dates that the patient used to be enrolled due to updated address, new claims, or errors in insurance data. The provider should be contacted for verified medication history with the patient.
## Grouping and Sorting Prescriptions

![Prescription Sorting Interface](image)

<table>
<thead>
<tr>
<th>Patient</th>
<th>Fill Date</th>
<th>Sold Date</th>
<th>Drug</th>
<th>Qty</th>
<th>Days</th>
<th>Refills</th>
<th>Prescriber</th>
<th>Pharmacy</th>
<th>Payment</th>
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<tbody>
<tr>
<td>2</td>
<td>08/03/2018</td>
<td>08/05/2018</td>
<td>hydrocodone-acetaminophen (Vicodin) 5-300 mg tablet</td>
<td>180</td>
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<td>0</td>
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<tr>
<td>4</td>
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<td>07/31/2018</td>
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<td>0</td>
<td>Beverly Crumher</td>
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<tr>
<td>2</td>
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<td>07/29/2018</td>
<td>alprazolam (Xanax) 1 mg tablet</td>
<td>15</td>
<td>15</td>
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<td>Hershel Greene</td>
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<tr>
<td>2</td>
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<td>07/26/2018</td>
<td>alprazolam (Xanax XR) 1 mg tablet extended release 24 hr</td>
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<td>0</td>
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<td>Gregory House</td>
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</table>
MME Alert

Links to Nebraska Pain Management Guidance Document
Nebraska Pain Management Guidance Document

TREATING ACUTE PAIN
(0-7 Days Following Trauma or Surgery)

In most cases, acute pain can be treated effectively with non-opioid or non-pharmacological options (e.g., vibration, bio). With more severe acute injury (e.g., significant trauma, fracture, crush injury, postoperative pain, extensive burn), shorter-term use of opioids may be appropriate. Initial opioid prescriptions should not exceed seven days, and ten to three days of opioid medication will often suffice. If an individual needs medication beyond these days or beyond the average expected time for initial healing, a re-evaluation of the patient should be performed prior to further opioid prescribing. Physical dependence on opioids can occur within only a few weeks of continuous use so great caution needs to be exercised during this critical recovery period.

Assessment

- Review medical history, including records from previous providers, when available.
- Administer a screening tool to determine diagnosis and appropriate care. Document baseline function and baseline pain.
- Determine whether the injury can be treated without opioids or if the severity of the injury justifies the risks of opioid therapy.

Non-Opioid Treatment

- Help patients set reasonable expectations concerning recovery from the injury. Educate them about the healing process and the benefits of appropriate activity. Reinforce the potential role pain can play in protecting and facilitating recovery. Over-the-counter (OTC) medications will provide significant relief from pain in many situations and can be relied upon for ongoing pain relief after the acute period is over.
- Patients should improve in function and pain and resume their normal activities in a matter of days to weeks, depending upon the diagnosis. Re Evaluate those who do not follow the normal course of recovery.

NSAID Treatment

- Nonsteroidal anti-inflammatory drugs (NSAIDs) are a powerful option for treatment of pain. Caution is indicated with any of the following: unstable, active ulcer, history of peptic ulcer, severe renal disease, severe cardiovascular disease, history of hemorrhage, history of renal impairment, history of hemorrhage or history of fever, AST/ALT > 3 times normal, G1 bleeding history or cautionary disorder.

- Use of anticoagulant medications
- Chronic alcohol use, active hepatitis

Nonsteroidal anti-inflammatory drugs (NSAIDs) are a powerful option for treatment of pain. Caution is indicated with any of the following:
- Inability to eat because of nausea or vomiting
- History of serious side effects
- History of difficult or extended recovery
- History of serious side effects
- History of severe side effects
- History of serious side effects
- History of serious side effects
### Multiple Provider Episodes

#### Select Time Range:
- 6 Months

#### Unique Prescribers Visited (5):
- **Leonard McCoy**
  - NPI: 0000000005, DEA: ZZ0000005
  - (609) 111-1225
- **Doogie Howser**
  - NPI: 0000000005, DEA: ZZ0000005
  - (609) 111-1225
- **Frank N Stein**
  - NPI: 0000000005, DEA: ZZ0000005
  - (609) 111-1225
- **Beverly Crusher**
  - NPI: 0000000005, DEA: ZZ0000005
  - (609) 111-1225
- **Gregory House**
  - NPI: 0000000005, DEA: ZZ0000005
  - (609) 111-1225

#### Unique Pharmacies Visited (4):
- **Kevin’s Pharmacy**
  - 42nd & Emle St, Omaha, NE 68185
  - (402) 550-9902
- **Test Pharmacy**
  - 42nd & Emle St, Omaha, NE 68186
  - (402) 550-9902
- **Hometown Pharmacy**
  - 42nd & Emle St, Omaha, NE 68186
  - (402) 550-9902
Clicking on the alert will display a list of the prescribers who issued an opioid prescription and pharmacies which dispensed opioid prescriptions in the last 6 months.

<table>
<thead>
<tr>
<th>Unique Prescribers Visited (12):</th>
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<tbody>
<tr>
<td>Sherman T Potter</td>
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<tr>
<td>Leonard McCoy</td>
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<td>Dooge Hoover</td>
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<td>Frank N Stein</td>
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<td>Miranda Bailey</td>
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<td>Beverly Grubert</td>
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<td>Hawkeye Pierce</td>
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<td>S. T. Rang-Bones</td>
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<td>Janet Fraser</td>
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<td>Wrong T Bones</td>
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<td>Meredith Grey</td>
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<table>
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<td>Big Box Pharmacy</td>
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<td>Kristen’s Perfect Pharmacy</td>
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<tr>
<td>Hometown Pharmacy</td>
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<td>Test Pharmacy</td>
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Overlapping Opioid/Benzodiazepine Alert

**Medications Timeline**

- **Alprazolam**
- **Hydrocodone/Acetaminophen**
- **Hydrosorphone**

**Overlapping Medications**

<table>
<thead>
<tr>
<th>Category</th>
<th>Drug Name</th>
<th>Fill Start Date</th>
<th>Fill End Date</th>
<th>Sold Date</th>
<th>Day Supply</th>
<th>Quantity</th>
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<th>Pharmacy</th>
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<tr>
<td>Alprazolam (Alprazolam) 1 mg tablet</td>
<td>06/10/2018</td>
<td>06/15/2018</td>
<td>06/12/2018</td>
<td>15</td>
<td>51</td>
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<td>06/03/2018</td>
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<td>180</td>
<td>Google Reader</td>
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<tr>
<td>Hydromorphone (Dilaudid) 0.5 mg/0.5 mL syringe</td>
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<td>06/17/2018</td>
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<td>Hydromorphone (Dilaudid) 0.5 mg/0.5 mL syringe</td>
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</tbody>
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What’s Next?

• Provider Patient Dashboard
  • Save “favorites”
  • Display safety alerts
• Dispensed opioid location visualization (i.e., Geo Mapping of patient opioid dispenses)
• Designee management
• Promoting Interoperability & Specialized Registry
Specialized Registry

- Meaningful Use (Promoting Interoperability)
- Integration
  - HIE
  - Single Sign On
- Meet Specialized Registry measure
  - Eligible Professionals and Eligible hospitals to submit data via Certified EHR Technology (CEHRT)
  - PDMP considered a public health specialized registry
  - Submit prescription data to PDMP
  - Submit patient information to query PDMP
  - Washington, Pennsylvania, Maryland, Florida, Illinois, Michigan, South Dakota, Nebraska
HIE Collaboration

- PDMP Integration within HIE
  - Nebraska
  - Washington
  - Maryland
  - Oregon
SHIEC

• Strategic Health Information Exchange Collaborative
• National collaborative representing health information exchanges (HIEs) and their strategic business and technology partners
• Secure exchange of patient information
  • Intrastate
  • Interstate
• 60+ member HIE organizations
• Cover more than 200 million people
• HIE – patient health/medical information
• PDMP – prescription information
SHIEC PDMP Workgroup

• 40+ participants
  • HIE members
  • CMS/ONC

• Understand the purpose of the PDMP

• Discuss future opportunities of PDMPs and the role HIEs can play to impact the opioid epidemic and patient health and safety

• PDMP – prescription information

• HIE – patient health/medical information
SHIEC PDMP Workgroup

• Review state and federal bills and legislation
• Discuss activities occurring within states
  • Integration
• Invite guests to provide information on PDMP activities
  • Appriiss
  • BJA/TTAC
• Opportunities for data and population health analytics
• Encourage dialogues between HIEs and PDMPs