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analysis to advance the health of vulnerable populations

Nebraska PDMP Case Study

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UMBC

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Nebraska Prescription Drug Monitoring Program (PDMP)

- Overview
- Implementation Model
- Funding and Costs
- Data Reporting and Provider Access
- Nebraska Results and Lessons Learned

Overview

- Nebraska (NE) set the precedent in Jan. 2018 by establishing the first PDMP to collect data on all prescription information
- NE has created a model for prescription information collection and usage
- The model has potential to aid in resolving opioid and substance use disorder issues, as well as allowing providers to make better informed treatment decisions

Legislation

- NE LB 237 (2011) – Creation of a PDMP
  - Prevent misuse of prescription drugs in an efficient and cost-effective manner
  - Allow doctors and pharmacists to monitor the care and treatment of patients for whom a prescription drug is prescribed
  - Identified NE Department of Health and Human Services (DHHS) and NE Health Information Initiative (NeHII) as collaborative partners to administer the PDMP
  - Prohibit use of state funding to implement or operate the PDMP

Legislation

- NE LB 1072 (2014)
  - Prevent misuse of controlled dangerous substances (CDS)
  - Repealed the no-funding stipulation

- NE LB 471 (2016)
  - Establish framework of the PDMP system
  - All CDS reported to the PDMP starting January 1, 2017
  - All prescriptions reported to the PDMP starting January 1, 2018
  - Allow prescribers and dispensers to access the system at no cost

Legislation

- NE LB 223 (2017)
  - Amend LB 471 to comply with HIPAA
  - Require veterinarians to submit CDS prescription drug information starting July 2018
  - Require new users of the PDMP to complete a training
  - Allow for a designee of a prescriber or dispenser

- NE LB 1034 (2018)
  - Language clarifications
    - Exclude animal non-CDS
    - Clarify pharmacist use
    - Remove conflicting dates for veterinarians to report data

Implementation Model

- Contracted with the NeHII Health Information Exchange (HIE) to host the PDMP
  - NeHII is a non-profit that runs the state HIE
  - Public/private governance model
  - Certified as a Qualified Clinical Data Registry by the Centers for Medicare & Medicaid Services (CMS)
- Implementation and participation fees covered through federal grant funding from various agencies

Implementation Model

- Surescripts supplies data from pharmacy benefit management (PBM) systems and retail feeds to capture self-pay prescriptions
- Data is accessible to registered and certified providers
- Data is available through NE DHHS online portal

Implementation Model

- Data is encrypted and stored on a HIPAA-compliant database
- Focus is on patient safety
- Data is stored by dispensing record
- Application access controlled through encryption

Funding

- Federal grants
  - Centers for Disease Control and Prevention: $4 million over four years
  - Bureau of Justice Assistance: $500,000 over two years
  - Office of the National Coordinator for Health Information Technology: $3 million over two years
- Currently supported by a mix of public (grants, state) and private (hospitals and payers) funding

Cost

- Estimated revenues exceeded costs for the HIE in 2017
- No cost to access the PDMP for all providers and dispensers
- Hospitals and insurers payment for HIE access
  - Hospitals: $500 monthly fee
  - Insurers: $25,000 annual fee

Data Reporting

- Required to report: pharmacies, mail service pharmacies, veterinarians, other dispensers
- Who can access: physicians, nurses, pharmacists, designated licensed pharmacy staff, other credentialed health professionals, other dispensers
- As of 2018 all prescriptions including non-CDS are required to be submitted, with some exemptions

Data Reporting - Patient Consent

- Patients enrolled in HIE if provider is enrolled
- Patients can opt out of HIE, but not the PDMP
- Consumer education efforts are being pursued to increase confidence in HIE

Data Reporting

- Data uploaded to database daily by prescribers
- Dispensers required to report within one day of dispensing
- Systems either use software vendor for data entry or do manual entry

NEBRASKA: RESULTS TO DATE AND LESSONS LEARNED

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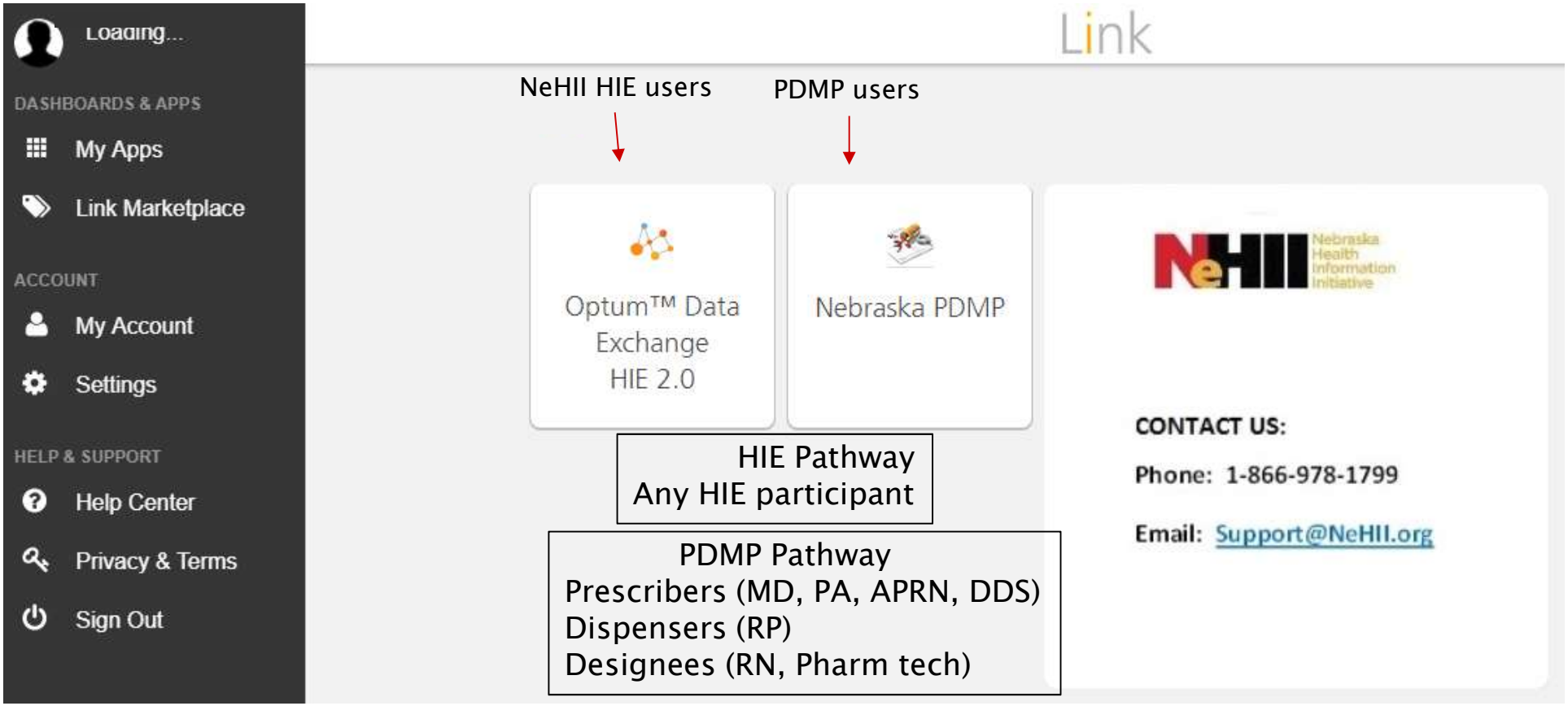
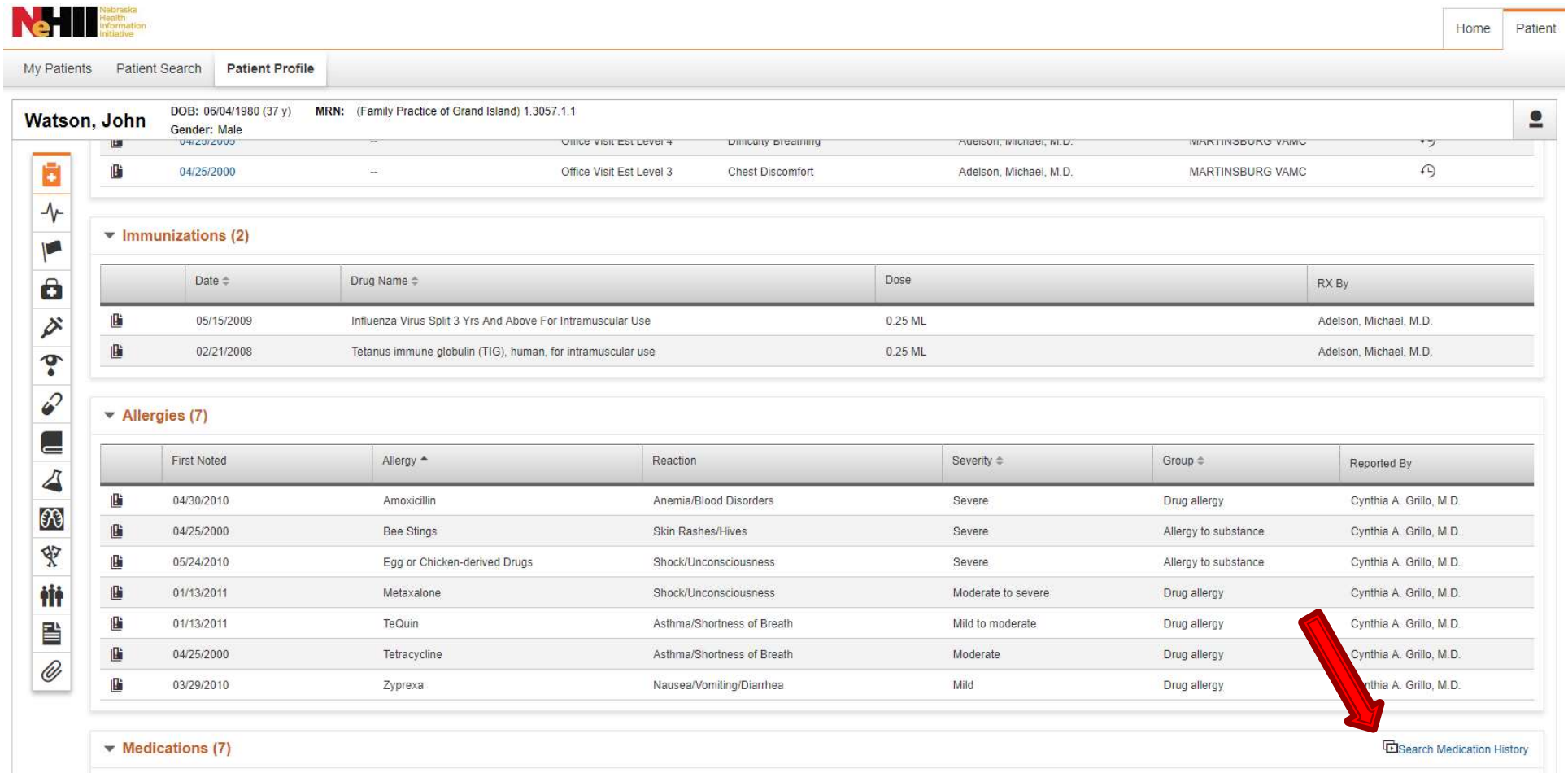
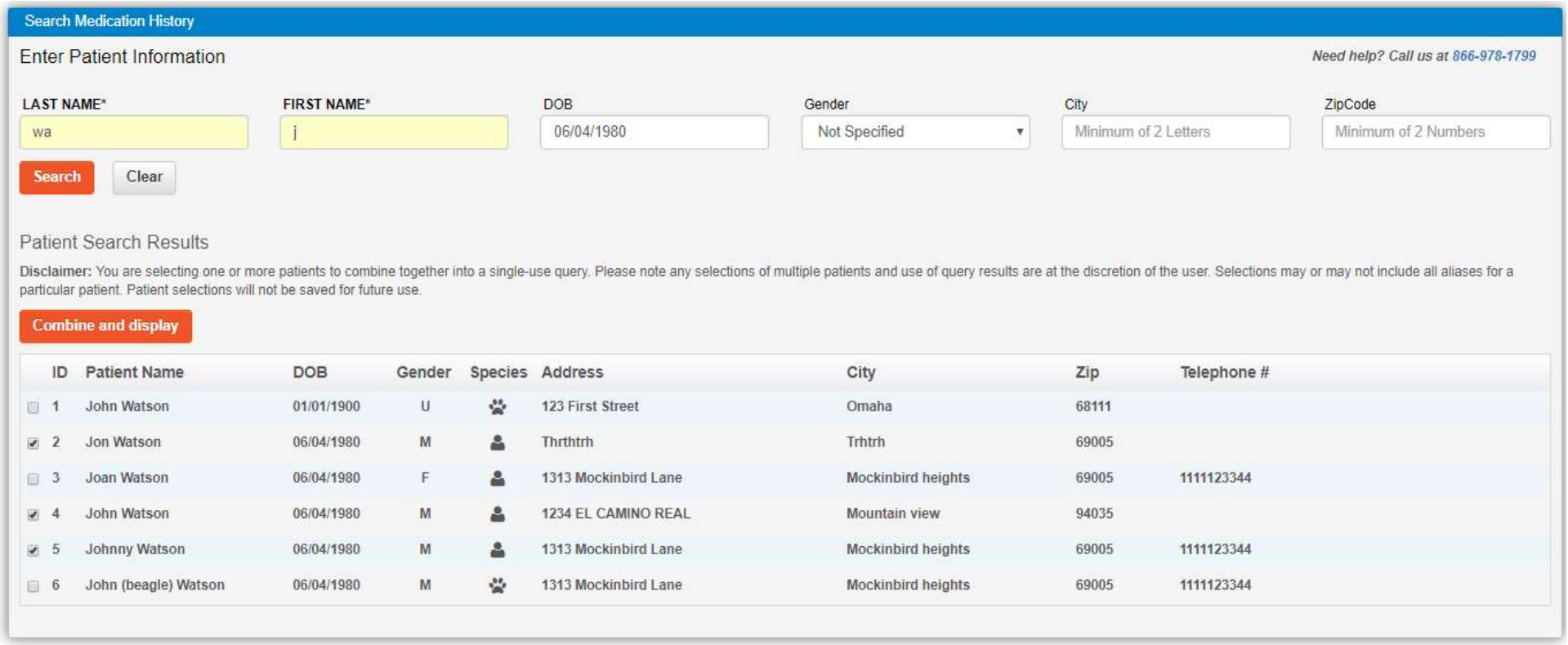
PDMP Portal


Loading...
DASHBOARDS & APPS
My Apps
Link Marketplace
ACCOUNT
My Account
Settings
HELP & SUPPORT
Help Center
Privacy & Terms
Sign Out
Link
NeHII HIE users
PDMP users
Optum™ Data Exchange HIE 2.0
Nebraska PDMP
HIE Pathway
Any HIE participant
PDMP Pathway
Prescribers (MD, PA, APRN, DDS)
Dispensers (RP)
Designees (RN, Pharm tech)
CONTACT US:
Phone: 1-866-978-1799
Email: Support@NeHII.org

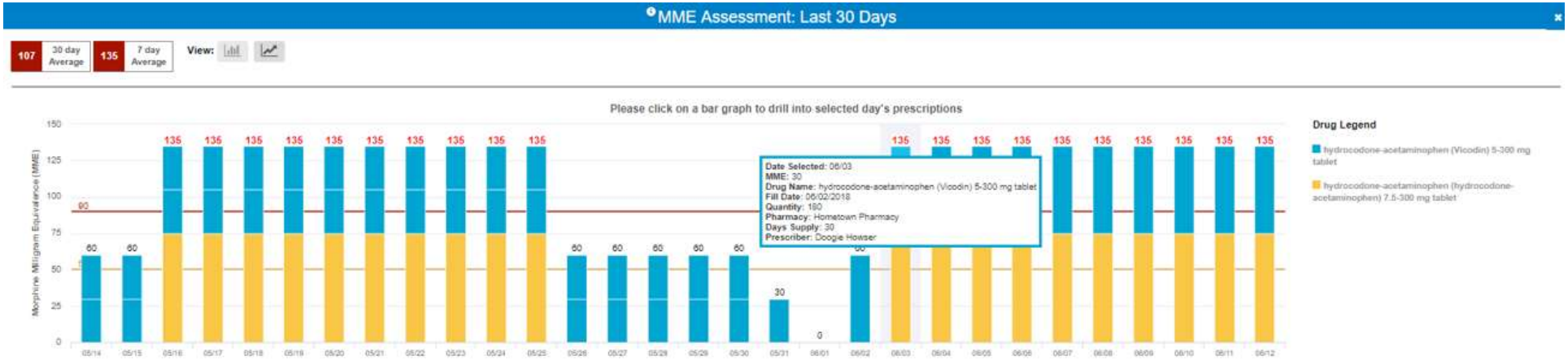
HIE PDMP/Medication History



Patient PDMP Queries – Access through PDMP portal



MME Alert

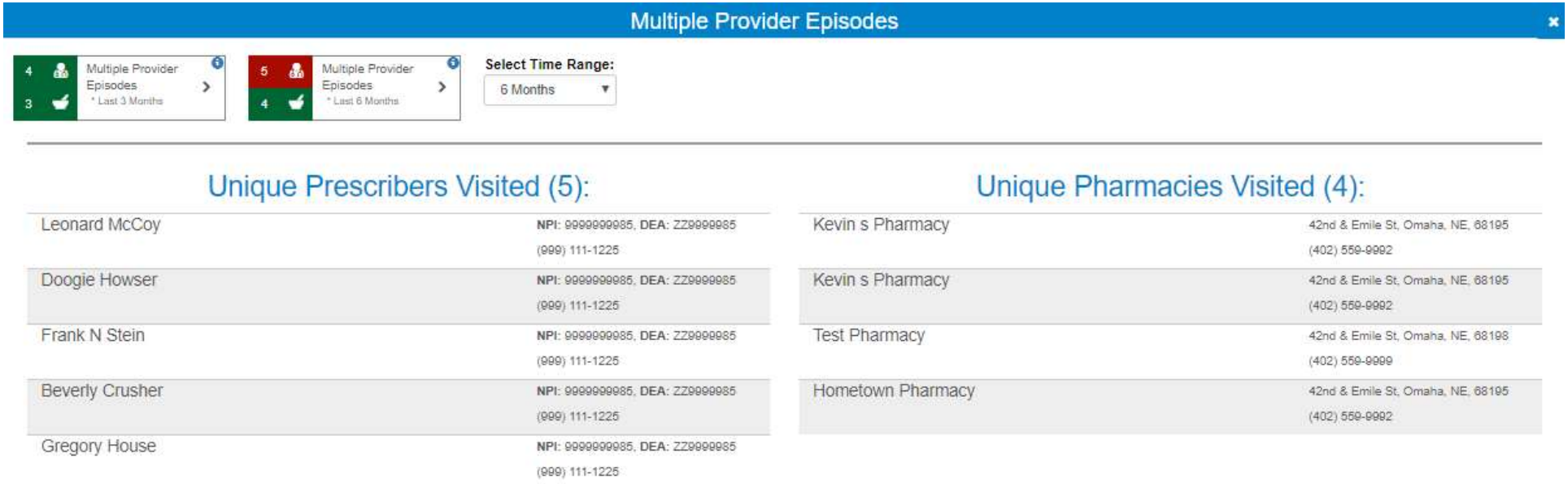


Date selected: 06/03/2018

Prescription(s): 3

Drug Name	MME	Fill Date	Sold Date	Quantity	Days Supply	Prescriber	Pharmacy
hydrocodone-acetaminophen (hydrocodone-acetaminophen) 7.5-300 mg tablet	75	06/03/2018	06/05/2018	100	10	Doogie Howser	Test Pharmacy
hydrocodone-acetaminophen (Vicodin) 5-300 mg tablet	30	06/02/2018	06/02/2018	180	30	Doogie Howser	Hometown Pharmacy
hydrocodone-acetaminophen (Vicodin) 5-300 mg tablet	30	06/02/2018	06/02/2018	180	30	Doogie Howser	Hometown Pharmacy

Multiple Provider Episode Detail

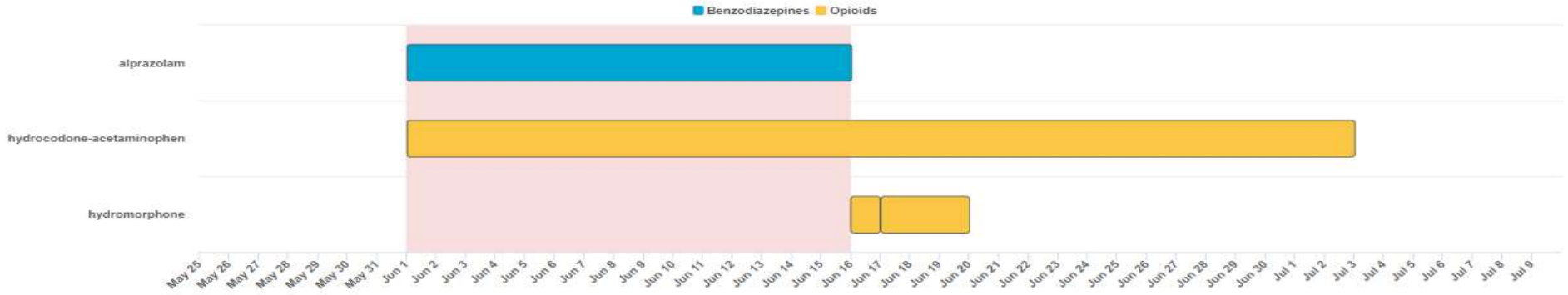


Nebraska Health Information Initiative

Overlapping Opioid/Benzodiazepine Alert Detail

Overlapping Therapy Alert: Last 45 days

Medications Timeline



Overlapping Medications

Category	Drug Name	Fill Start Date	Fill End Date	Sold Date	Day Supply	Quantity	Prescriber	Pharmacy
Overlapping Period: 06/01/2018 - 06/15/2018								
	alprazolam (alprazolam) 1 mg tablet	06/01/2018	06/15/2018	06/01/2018	15	15	Victoria Veterinarian	Newbie Pharmacy
	alprazolam (alprazolam) 1 mg tablet	06/01/2018	06/15/2018	06/01/2018	15	15	Victoria Veterinarian	Newbie Pharmacy
	hydrocodone-acetaminophen (Vicodin) 5-300 mg tablet	06/01/2018	06/30/2018	06/01/2018	30	180	Gregory House	Hometown Pharmacy
	hydrocodone-acetaminophen (Vicodin) 5-300 mg tablet	06/01/2018	06/30/2018	06/01/2018	30	180	Gregory House	Hometown Pharmacy
	hydrocodone-acetaminophen (hydrocodone-acetaminophen) 7.5-300 mg tablet	06/02/2018	06/11/2018	06/03/2018	10	100	Doogie Howser	Test Pharmacy
	hydrocodone-acetaminophen (hydrocodone-acetaminophen) 7.5-300 mg tablet	06/02/2018	06/11/2018	06/03/2018	10	100	Doogie Howser	Test Pharmacy
	hydrocodone-acetaminophen (Vicodin) 5-300 mg tablet	06/03/2018	07/02/2018	06/05/2018	30	180	Doogie Howser	Hometown Pharmacy
	hydrocodone-acetaminophen (Vicodin) 5-300 mg tablet	06/03/2018	07/02/2018	06/05/2018	30	180	Doogie Howser	Hometown Pharmacy
	hydrocodone-acetaminophen (hydrocodone-acetaminophen) 7.5-300 mg tablet	06/05/2018	06/14/2018		10	100	Doogie Howser	Test Pharmacy
	hydrocodone-acetaminophen (hydrocodone-acetaminophen) 7.5-300 mg tablet	06/05/2018	06/14/2018		10	100	Doogie Howser	Test Pharmacy
	hydromorphone (Dilaudid) 0.5 mg/0.5 mL syringe	06/16/2018	06/16/2018	06/17/2018	1	1	Beverly Crusher	Kevin s Pharmacy
	hydromorphone (Dilaudid) 0.5 mg/0.5 mL syringe	06/16/2018	06/16/2018	06/17/2018	1	1	Beverly Crusher	Kevin s Pharmacy
	hydromorphone (Dilaudid) 0.5 mg/0.5 mL syringe	06/17/2018	06/19/2018	06/18/2018	3	0.0005	Beverly Crusher	Kevin s Pharmacy

Reporting all dispensed prescriptions

- Required reporting as of January 1, 2018
- Comprehensive medication history
  - 10 x more data than traditional PDMP's that include controlled substances only
- ***Patient safety tool***
- Allow clinicians to make better informed decisions
- Identify medications from multiple prescribers and pharmacies
- Identify potential drug interactions, allergies
- Provide a valuable resource in the event of natural disasters, system power interruptions
- Tool for medication reconciliation

NEBRASKA
Good Life. Great Mission.
DEPT. OF HEALTH AND HUMAN SERVICES
PRESCRIPTION DRUG MONITORING PROGRAM
NeHII Nebraska Health Information Initiative

NeHII Nebraska Health Information Initiative

By the Numbers – Prescriptions

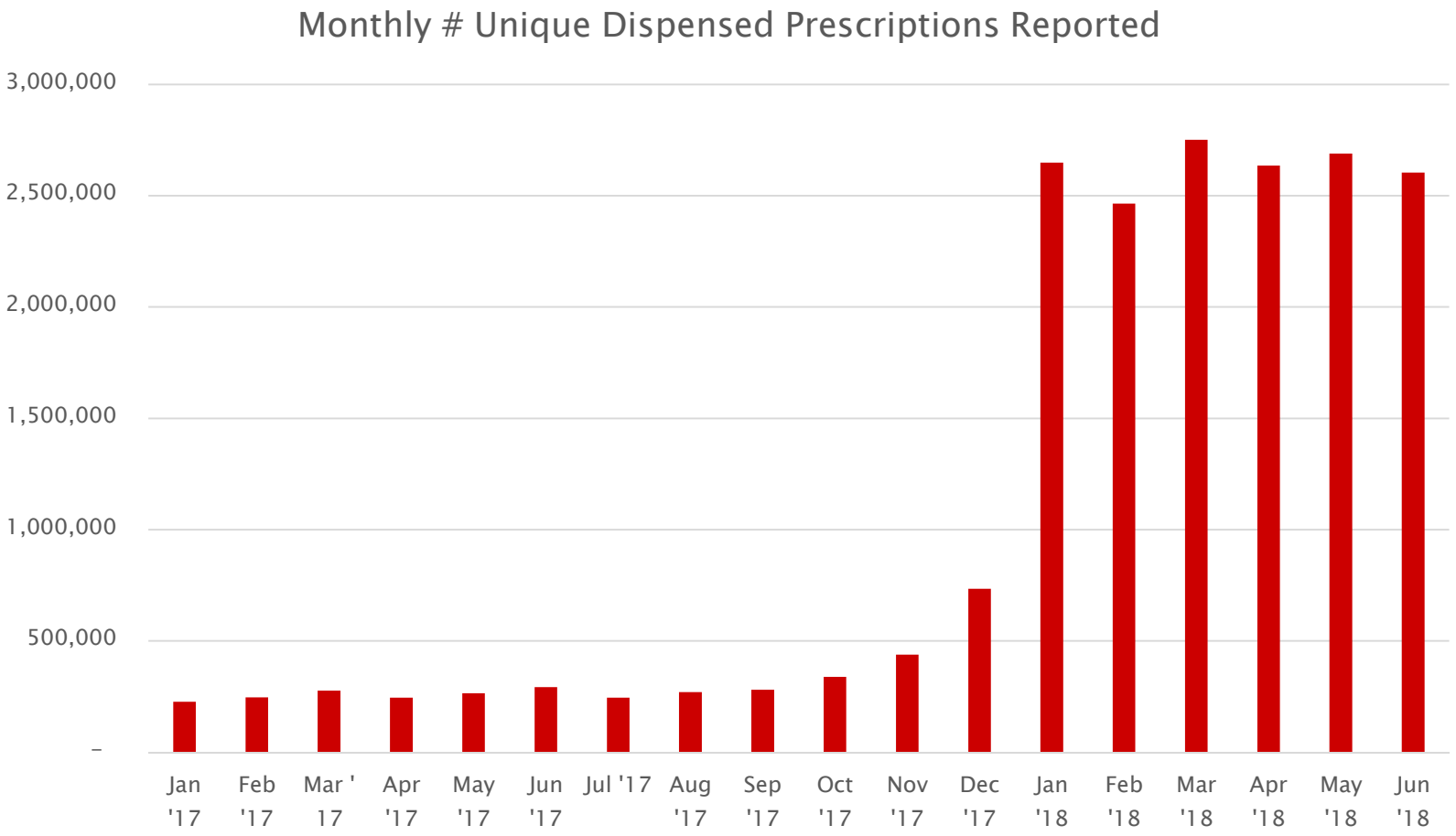
- January 1 – December 31, 2017
  - 3,882,974 dispensed prescription records
- January 1 – June 30, 2018
  - 15,795,016 dispensed prescription records
    - 14,220,549 (90%) dispensed non-controlled substances
- 2017 Average 10,638 Rx/day
- 2018 Average 87,265 Rx/day

By the Numbers – Enrolled Users

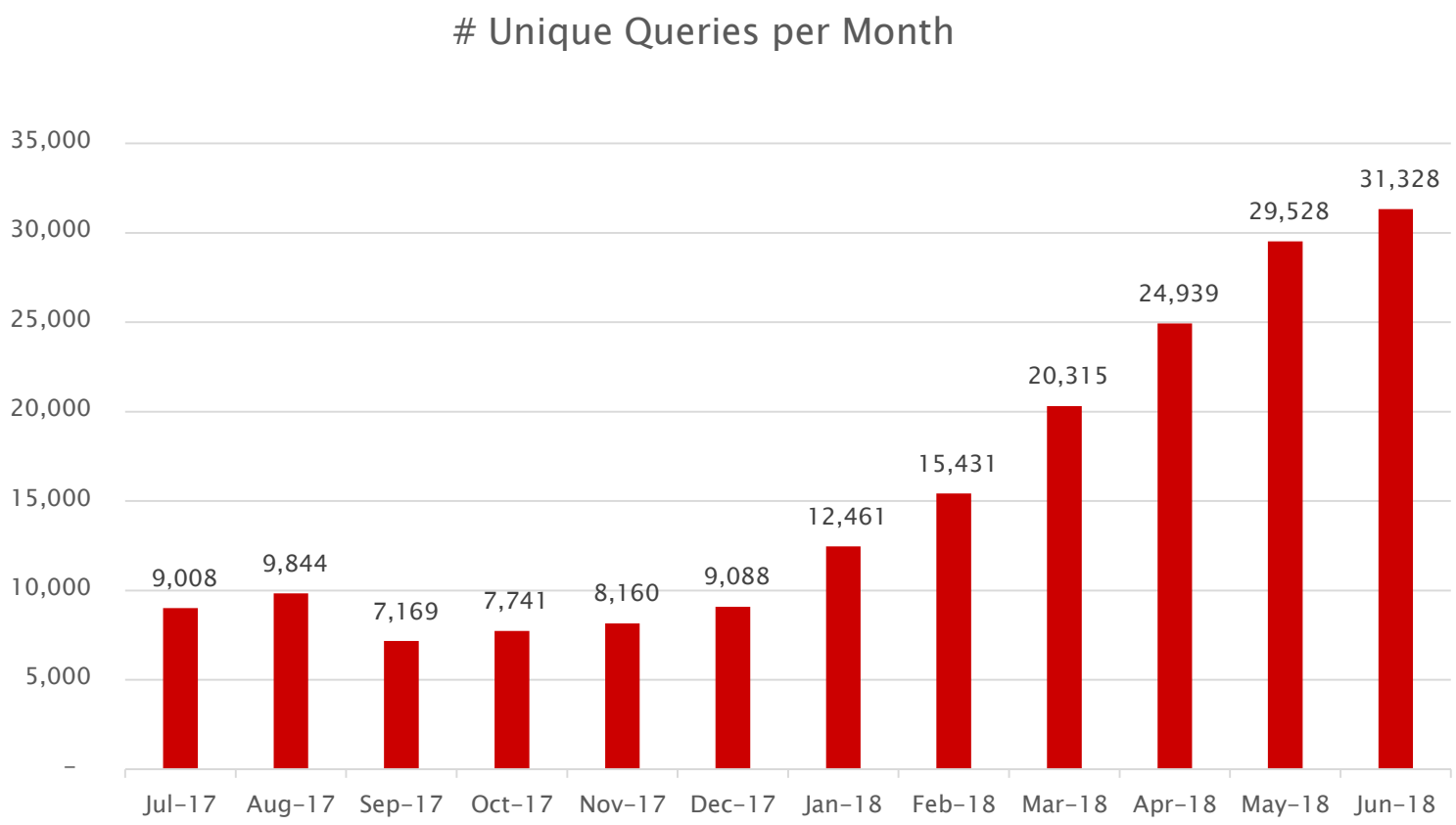
- 6,911 Enrolled users of the PDMP (as of 6/29/18)
  - 4,625 prescribers (MD, APRN, DDS, DVM, PA)
    - with address in NE, KS, MO, IA, SD, WY, CO
  - 1,883 dispensers (i.e., pharmacists)
    - with address in NE, KS, MO, IA, SD, WY, CO
  - 403 designees (e.g., nurses, pharmacy technicians, pharmacist interns, etc.)

Nebraska PDMP Reported Data

January 2017 – June 2018



Queries
July 2017 – June 2018



Interoperability

- Federal recognition and involvement of addressing opioid epidemic
- Interstate data sharing
  - Two primary networks/hubs
  - Opportunities via HIE's
- Integration
  - Direct workflow integration
    - HIE
    - Electronic health record (EHR)
    - Pharmacy Software System

Opportunities for PDMPs

- Easy access
  - Workflow integration
  - Interoperability
  - Workflow integration
  - Directly access through HIE, EHR, or pharmacy software
  - Single Sign-On (SSO)
  - Interstate data sharing

Lessons Learned for Success

- Communication
  - Early, frequent notification to pharmacies and vendors
- Cooperation
  - Several pharmacies have never reported
- Collaboration
  - Relationship building
    - Call vendors
    - Status updates
    - Test accounts to validate files
- Error monitoring
- Better quantity and quality of data

Future Opportunities

- Data analytics
  - Tableau to develop metrics, measures, maps
- Quality Improvement Initiatives
  - Opioid use
  - Benzodiazepine use
  - Chronic disease
    - Diabetes without statin
- Medication compliance/adherence
- Medication reconciliation
- Meaningful Use PDMP specialized registry

About The Hilltop Institute

The Hilltop Institute at the University of Maryland, Baltimore County (UMBC) is a nationally recognized research center dedicated to improving the health and wellbeing of vulnerable populations. Hilltop conducts research, analysis, and evaluations on behalf of government agencies, foundations, and nonprofit organizations at the national, state, and local levels.

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