



Appriss Health Information Solutions

NARxCheck/Gateway Overview

June 2016

Provided by Clay Rogers

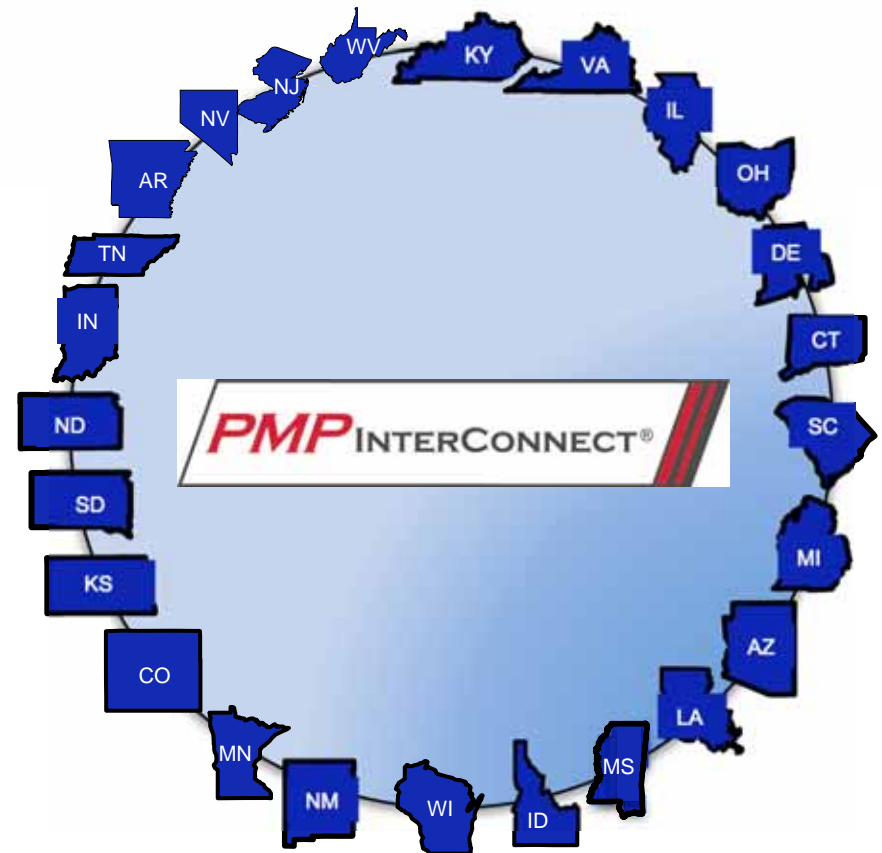


Multi-Layered Solution

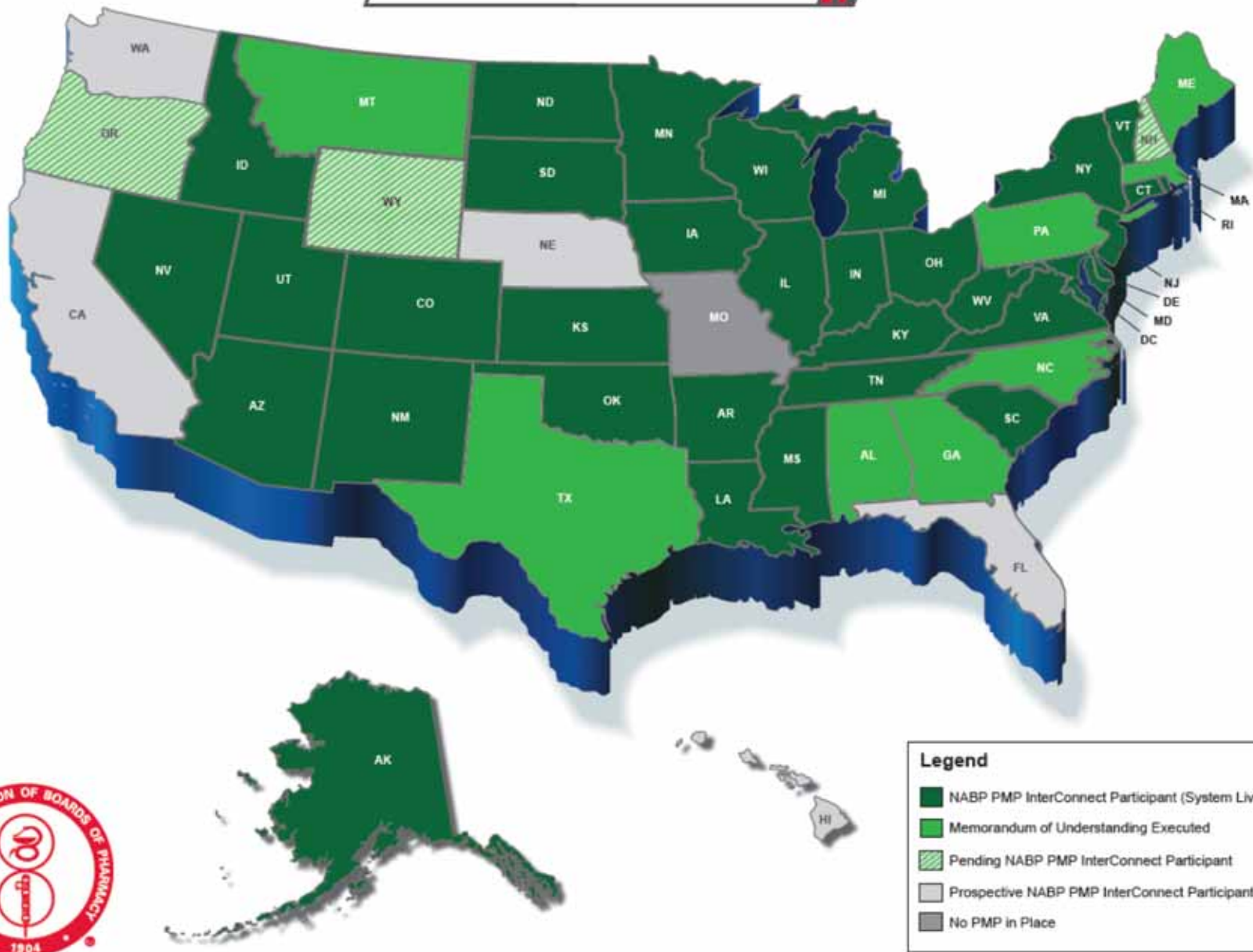


PMP InterConnect: A Nationwide PMP Data Sharing Platform

- In 2011 Appriss launched PMP InterConnect to facilitate interoperability and interstate data sharing between state PMPs.
- Currently 31 states connected and climbing
- Features Include:
 - A “smart hub” routing methodology
 - A “rules engine” to enforce inter-state data sharing permissions
- Currently processing > 1.8M requests per month and increasing month-over-month



PMP INTERCONNECT®



Legend

- NABP PMP InterConnect Participant (System Live)
- Memorandum of Understanding Executed
- Pending NABP PMP InterConnect Participant
- Prospective NABP PMP InterConnect Participant
- No PMP in Place

Integration using PMP Gateway



Barriers to Adoption of PMPs by Physicians

Time Constraints

Not easy to access (separate web portal)

Not in clinical workflow

Data can be difficult to interpret

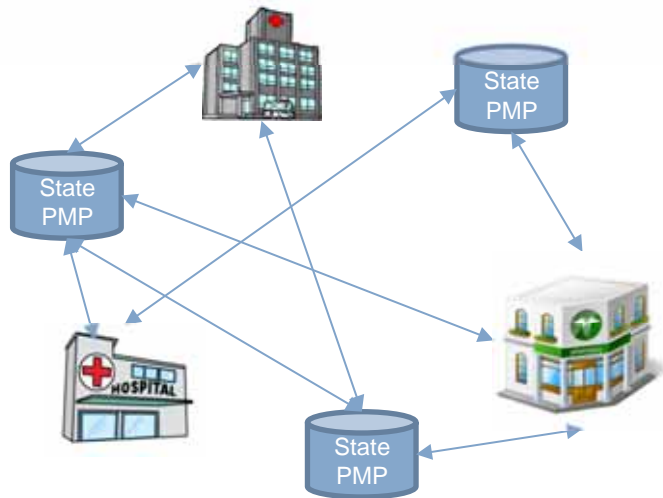
Lack of training/awareness

Not mandated



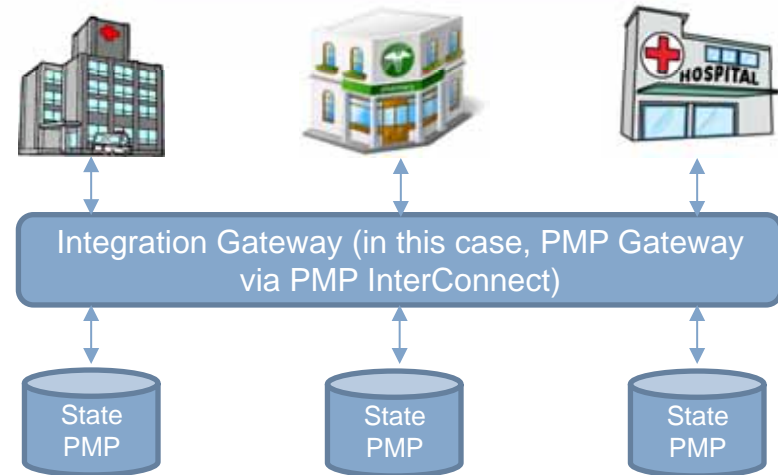
Two Different Approaches to Integration

Point-to-Point



- Every system makes individual connections to every other system it needs to “talk to”
- Each system needs to know how to speak to other systems
- No central location to enforce data sharing rules
- The model is brittle because absorbing a change in one system requires all other connecting systems to change

Gateway/Hub Model



- Every system connects via a Hub/Gateway
- Each system needs to know just one interface
- Central place to locate all data sharing rules
- Hub/Gateway can support multiple protocols
- Individual systems can change/evolve without impacting other systems (so long as how they interact with the Gateway stays the same)



PMP Gateway: A Health IT Connectivity Platform for PMP Data

- PMP Gateway is an interface that simplifies integration of controlled substance prescription history into health IT systems.
- Provides health IT systems, a single access point to many state PMPs' data via PMP Interconnect, thus saving healthcare providers, the effort of doing individual integrations with each state PDMP.



How PMP Gateway Works



How PMP Gateway Works

Requesting
Health IT System



PMP
GATEWAYTM
PRESCRIPTION MONITORING PROGRAM

NAR_xCHECK



Doctor Requests Patient Prescription Drug Report



Acme Hospital



Dr. Mike Smith



John Doe



Health IT System Sends PMP Gateway a Patient Request

Requesting
Health IT System



Encrypted

<XML>
Patient
Request



Information Provided in PMP Gateway Patient Request

Requesting
Health IT System



<XML>
Patient
Request

Patient Request



Name: Acme Hospital
Identifier: NPI 123456789
State Code: State



First Name: Mike
Last Name: Smith
Role: Physician
Identifier: DEA AB123456789



First Name: John
Last Name: Doe
Demographics



PMP Gateway Sends PMP InterConnect Patient Request



Encrypted Transportation



Information Provided in PMP InterConnect Patient Request



<XML>
Patient
Request

PMP Interconnect Patient Request

State PMPs; State A, State B, State C



Role: Physician

Encrypted



First Name: John
Last Name: Doe
Demographics



PMP InterConnect Responds with PMP Data from Requested State PMPs

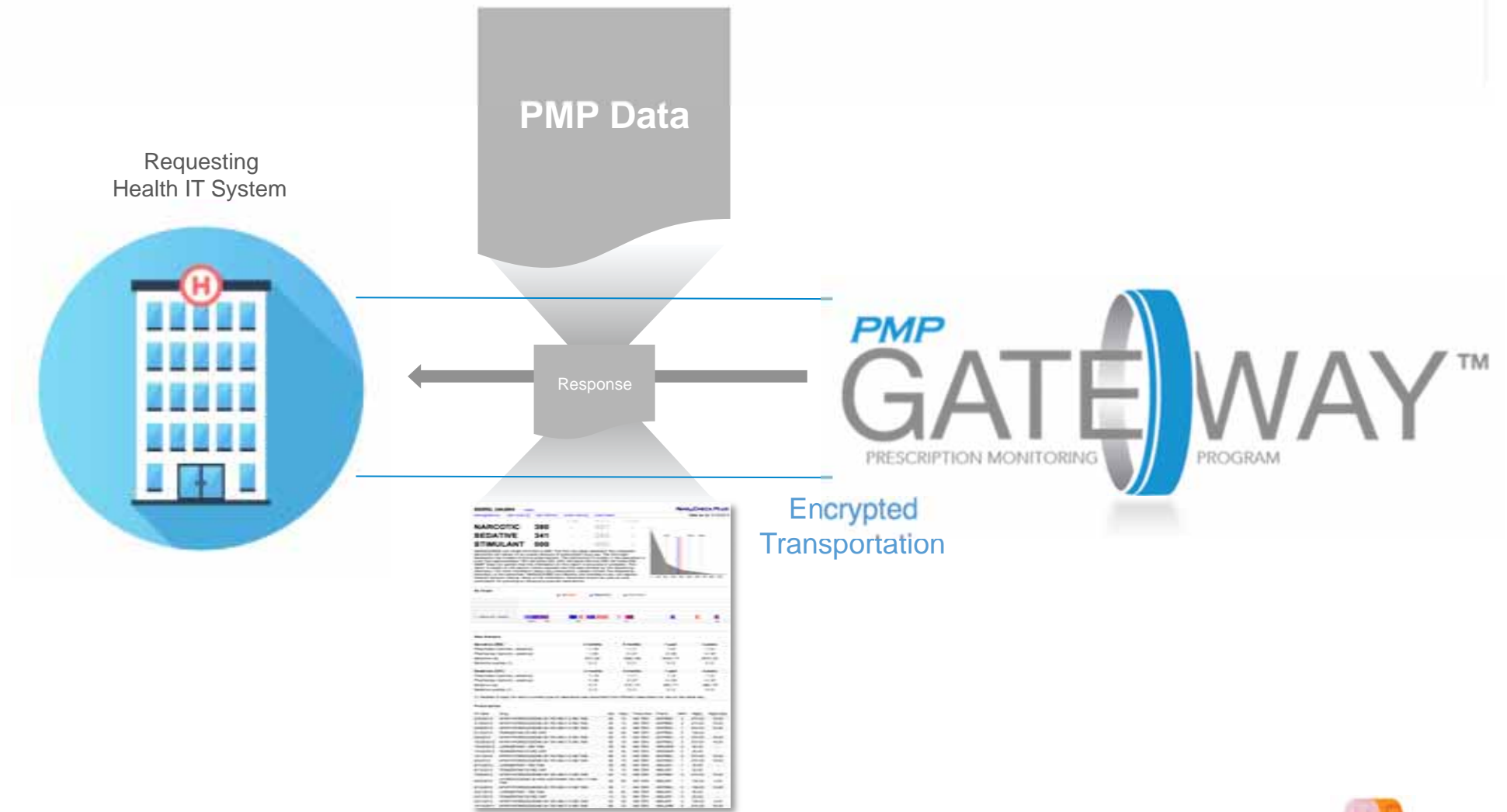


Encrypted PMP Data

Encrypted Transportation



PMP Gateway Provides PMP Data or NARxCheck Report



Doctor Views PMP Report Within Electronic Medical Record System



Acme Hospital

EMR



Overview of ASAP Web Services



Broad Collaboration With Diverse Organizations to Improve and Promote Interoperability



The Office of the National Coordinator for Health Information Technology



ASAP

Federal & Standards Organizations

Arizona

Connecticut

Delaware

Kansas

Mississippi

Nevada

New Mexico

North Dakota

Ohio

South Carolina

South Dakota

Virginia

Wisconsin



Pharmacies

State PMPs



Health Information Exchange

E – Prescribing



Electronic Medical Record Companies



PMP Gateway - ASAP Web Services

- PMP Gateway supports ASAP Web Services to provide one access point to state PMP data.
- Appriss worked in close collaboration with ASAP for PMP Gateway to support the ASAP Web Service Implementation Guide.
- Functionality Supported:
 - Ad Hoc Query
 - Data Only (Prescription History)
 - NARxChECK (Prescription History + Scores)
 - Allows specifying more than one state in the request
- Not supported:
 - Pick List
 - Automated Poll
- PMP Gateway - ASAP WS WSDL can be provided upon request.

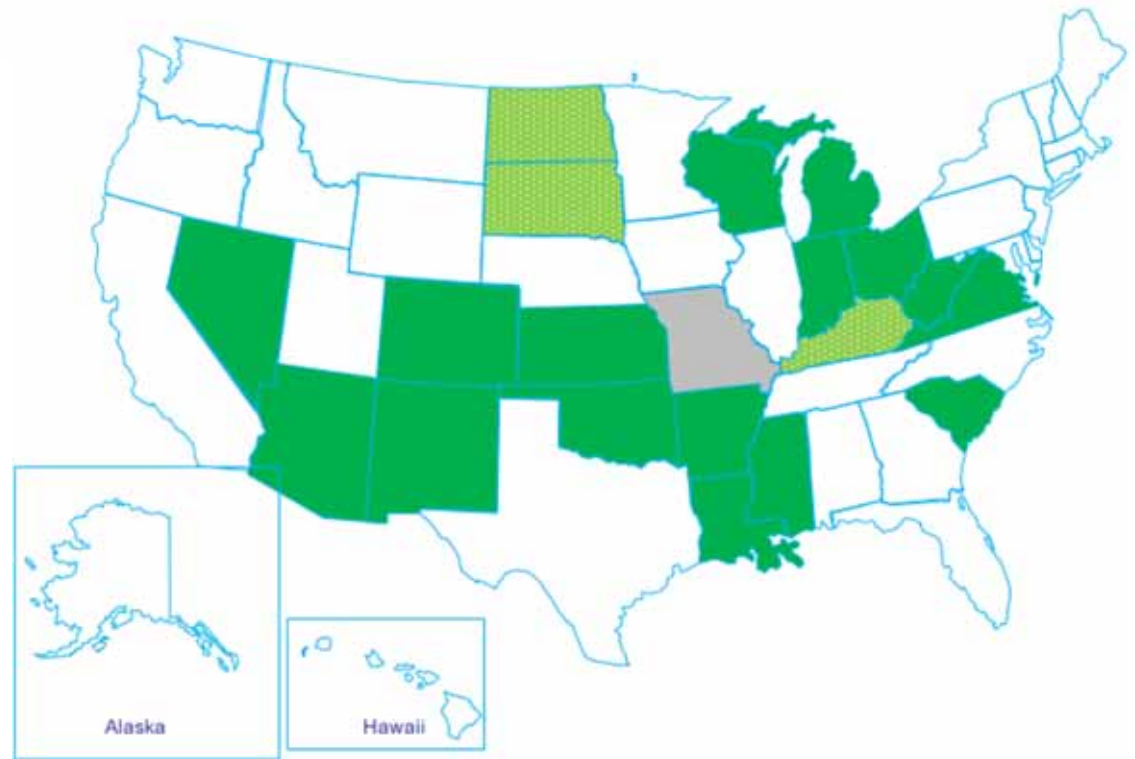


Status of PMP Gateway Deployments



Over 17 Million Requests Served Within Clinical Workflows!

State	Enabled Interoperability Infrastructure	Requests processed to-date
WI	Sep 2014	24,304
OH	Mar 2015	3,868,769
NV	Mar 2015	1,775,220
AZ	Mar 2015	2,501,716
NM	April 2015	1,431,258
VA	April 2015	2,442,006
MS	April 2015	614,504
KS	Jun 2015	1,214,876
WV	July 2015	658,023
AR	Aug 2015	728,796
SC	Sep 2015	262,208
CO	Sep 2015	654,228
LA	Oct 2015	660,604
IN	Dec 2015	266,962
OK	Feb 2016	260
MI	Mar 2016	5,484
Total		17,109,078



States with live deployments of integration



Imminent

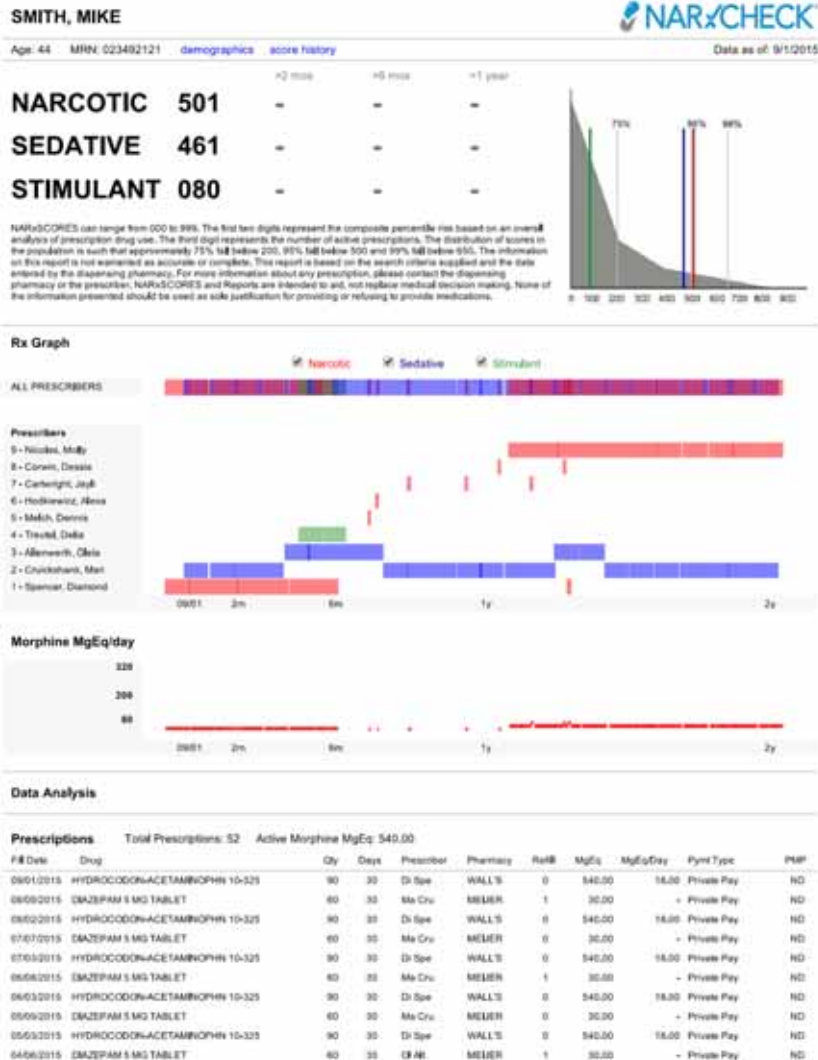




NARxCHECK the Next Generation of Reporting/Analytics



NARxCHECK – A Patient Risk Assessment Tool

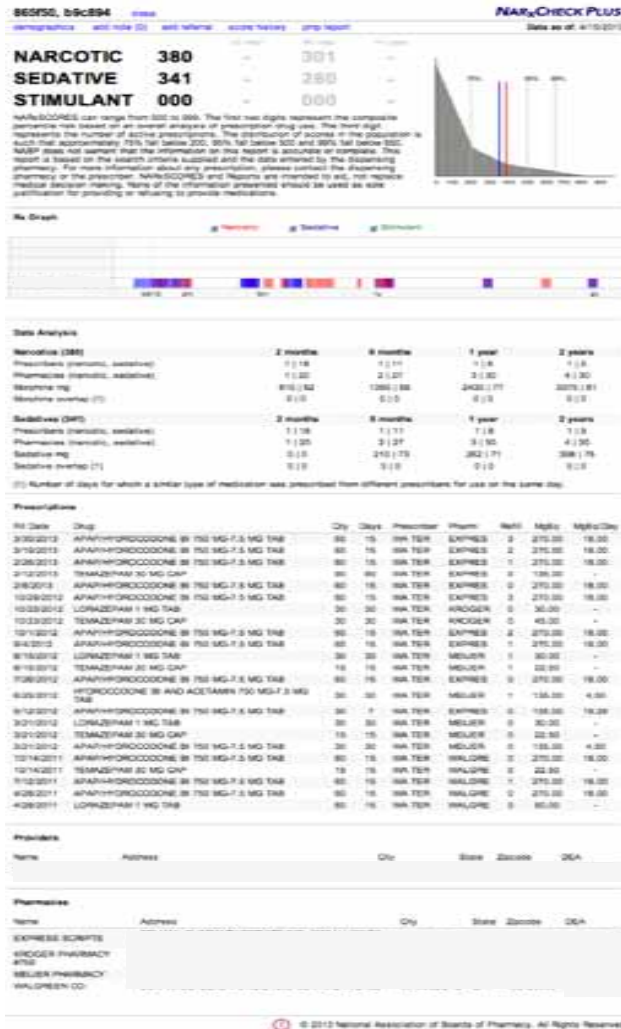


- Generated on demand for each patient
- Delivered directly into clinical workflows
- Score indicates amount of clinically significant information available on report
 - # of prescribers
 - # of pharmacies
 - # of days of overlap in medications
 - MME
 - Combinations of drugs
- Interactive Rx Graph shows easy ways to determine possible areas of concern
- Retrospective analysis of NARxCHECK scores and drug-overdose related data showed high correlation

Guided Tour



Components of a NARxCHECK Report



Header

Scores

Prescription Graph

Data Analysis

Prescription History

Providers

Pharmacies



Summary

John Schmidt | Gender Male | Age 52

- Basic Information
- Immunization
- Medication
- Plan of Care
- Encounters
- Problem List
- Procedures
- Lab Results
- NARxCHECK

Demographics

Telephone: 415-555-1229
 Email: bonniemcintire@gmail.com
 Address: 17 Daws Road
 Portland, OR 97006

Birth Date: March 7, 1960
 Marital Status: Married
 Ethnicity: Asian
 Religion: Christian
 Language: English, Spanish

Allergies

- Penicillin**
Hives
- Codeine**
Shortness of Breath
- Bee Stings**
Anaphylactic Shock

NARxCHECK

[Drug Report](#)

190 **260** **0**
 NARCOTICS STIMULANTS SEDATIVES

Current Medications

- September 28, 2012 — November 28, 2012
- ACETAMINOPHEN WITH CODIENE**
2 puffs once a day
day: 5 / 30 Report side effect | Request a refill
 - September 28, 2012
 - INDOMETHACIN**
50mg bid with food
lifetime Report side effect | Request a refill
 - August 28, 2012 — November 28, 2012
 - NAPROXEN**
2 pills a day
day: 10 / 60 Report side effect | Request a refill

Recent Medical Events

- Flu Shot (H1N1)
June 2, 2012
- ED Visit for Ankle Sprain
March 28, 2011
- Ankle Sprain (Slipped on ice and fell)
March 28, 2010
- Marital Status changed to Married
March 1, 2009

Current Problems

- Ankle Sprain**
Status: Active
Slipped on ice and fell.
- Cholecystitis**
Status: Resolved
Surgery postponed until after delivery.

- Summary
- Basic Information
- Immunization
- Medication
- Plan of Care
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- Procedures
- Lab Results

NARxCHECK

John Schmidt | Gender Male | Age 52

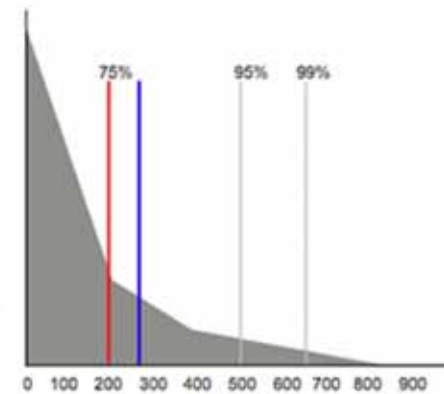
Schmidt, John

NARxCHECK PLUS

[demographics](#) [score history](#)

Data as of: 10/1/2014

		>2 mos	>6 mos	>1 year
NARCOTIC	190	190	=	=
SEDATIVE	260	260	=	=
STIMULANT	000	000	=	=



NARxSCORES can range from 000 to 999. The first two digits represent the composite percentile risk based on an overall analysis of prescription drug use. The third digit represents the number of active prescriptions. The distribution of scores in the population is such that approximately 75% fall below 200, 95% fall below 500 and 99% fall below 650. The information on this report is not warranted as accurate or complete. This report is based on the search criteria supplied and the data entered by the dispensing pharmacy. For more information about any prescription, please contact the dispensing pharmacy or the prescriber. NARxSCORES and Reports are intended to aid, not replace medical decision making. None of the information presented should be used as sole justification for providing or refusing to provide medications.

Rx Graph

Narcotic Sedative Stimulant



Data Analysis

Narcotics (190)	2 months	6 months	1 year	2 years
Prescribers (narcotic, sedative)	0 0	1 11	2 15	3 15

Questions & Answers

