The Office of the National Coordinator for Health Information Technology

Behavioral Health and Health Information Technology

Tools and Resources for States and Providers

Welcome & Housekeeping

- Hard copies of slides & speaker biographies are available in the back of the room. Electronic copies available upon request.
  Email: Andrea.Jackson@hhs.gov

- Please hold your questions until the *end* of the session

Panel Speakers

- **Today's speakers:**
  - Andrea Jackson, Policy Analyst, ONC
  - Samantha Meklir, Senior Policy Advisor, ONC
  - Albert Taylor, Medical Informatics Officer, ONC
  - Thomas Novak, Medicaid Interoperability Lead, ONC/CMS
  - Kenneth Salyards, Public Health Advisor, Substance Abuse and Mental Health Services Administration (SAMHSA)
  - Shaun Alfreds, Executive Director and Chief Executive Officer, HealthInfoNet (Maine)
  - Lindsey Ferris, Program Director, HIE Projects, CRISP (Maryland)

The Office of the National Coordinator for Health Information Technology

Understanding the Value of Health Information Technology

ONC Educational Module for Behavioral Health Providers

Andrea Jackson DrPH, MPH | Office of Policy

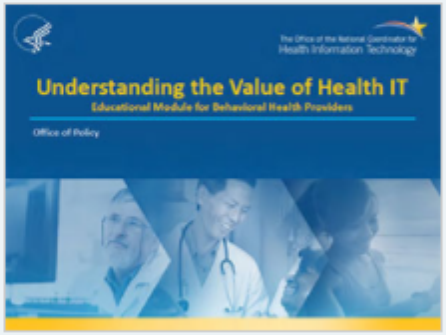
November 30, 2017

Educational Module for Behavioral Health Providers

Educational Module for Behavioral Health Providers

Integrating health IT into behavioral health care can improve care coordination and patient outcomes. The information and resources in this module will help you adopt and implement health IT in your practice.

Go to the Educational Module for Behavioral Health Providers [PDF - 5.4 MB]



Available From: https://www.healthit.gov/playbook/pdf/educational-module-Behavioral-Health-Providers.pdf

Module Overview

- **The purpose of the ONC *Education Module for Behavioral Health Providers* is to help early adopter behavioral health providers…**
  - » better understand the value and applicability of health information technology
  - » prepare for success in today's evolving health IT and value based payment environment
  - » identify resources and information for behavioral health providers seeking to adopt and implement health IT
  - » become familiar with privacy laws and consent management when sharing sensitive information
- **ONC invites you to use these materials wholly, or in part, and incorporate them into teaching materials to support your practice setting.**
- **Slides available from: https://www.healthit.gov/playbook/pdf/educational-module-Behavioral-Health-Providers.pdf**

Health IT Adoption & Behavioral Health

Expanding health IT use in behavioral health care could facilitate coordination and integration of behavioral health and general medical care.

National Electronic Health Records Survey: 2015 Specialty and Overall Physicians Electronic Health Record Adoption			
Specialty	Any EHR or EMR System?	Basic System	Certified System
	Percent	**Percent**	**Percent**
Primary Care	89.6	57.9	80.9
Psychiatry	61.3	15.5	40.8

Data retrieved from: https://www.cdc.gov/nchs/data/ahcd/nehrs/2015_nehrs_ehr_by_specialty.pdf

Why is Health IT Important for Behavioral Health?

Adopting Health IT Infrastructure to Support Care Coordination & Integrated Care:
Care coordination is critical to team based and accountable care and elevates the need for advanced health IT infrastructure to enable integrated care.

Quality and Performance Measure Collection and Submission:
There are increasing expectations for behavioral health providers to capture and submit quality measures. There is value in capturing measures electronically and in using existing electronic data to inform progress toward achieving quality goals.

Workflow and Process Improvement & Efficiencies:
Health IT facilitates the use of electronic health information received from multiple sources at the point of care. Clinical pathways can support more client centered workflows.

Patient Identification & Matching:
Health IT facilitates ability to identify patients, essential for shared care plans longitudinal records and can help ensure the care team is treating the correct patient.

Compliance with ICD-10 & DSM-V:
behavioral health providers that adopted EHRs are able to more easily become compliant with ICD-10 and DSM-V and identify common diagnoses.

Source: https://aspe.hhs.gov/sites/default/files/pdf/76451/StratEng.pdf & https://www.youtube.com/watch?v=dko7p6PIm84

Understanding the Value of Health IT: Overview

- MODULE 1: CURRENT HEALTH CARE LANDSCAPE AND VALUE OF HEALTH IT
  - **Health IT and behavioral health**
  - **Drivers of health IT adoption and use**
  - **Cost drivers of health IT adoption and use**
  - **Federal policies and investments on health IT policy and use**
  - **CASE STUDY 1: Coordinating Care Across Settings**

- MODULE 2: WHY HEALTH IT ADOPTION AND IMPLEMENTATION MATTERS
  - **National health IT adoption rates**
  - **State-based examples of health IT implementation**
  - **Health IT adoption challenges**
  - **Technology enabled patient engagement**
  - **HIE tools & resources**
  - **Case Study 2: Managing Behavioral Health Referrals**

- MODULE 3: HEALTH INFORMATION EXCHANGE ADOPTION & IMPLEMENTATION
  - **Health information exchange and its relevance to behavioral health**
  - **Role of health IT standards in behavioral health**
  - **Privacy laws & consent management**
  - **Health information exchange resources**
  - **Case Study 3: Integrating Behavioral Health Data into an HIE**

Behavioral Health Opportunities: Snapshot of Federal Investments

Medicaid 1115 Delivery System Reform Incentive Payment (DSRIP) Program

Includes options for waiver flexibility, state plan amendments, health home models and Medicaid managed care expansion that can provide opportunities for collaboration and technology adoption to advance and improve health outcomes.

State Innovation Model (SIM) Grant Program

Competitive federal funding opportunity for states to pilot innovative approaches to technology use, advanced analytics, new service delivery models, use of telehealth, and other efforts to improve access, efficiency, and outcomes, with a number of states focusing on expanding integrated care.

State Medicaid Letter #16-003

Expands support for Medicaid health information exchange describing options for how behavioral health and other clinicians could adopt HIE. Allows use of HITECH Administrative Matching Funds to help Medicaid clinicians that are eligible for EHR Incentive Payments connect to other Medicaid providers.

Medicaid Innovation Accelerator Program (IAP)

Technical assistance program to help state Medicaid programs accelerate delivery and system reform initiatives. IAP focuses on behavioral health as two of its four program areas: reducing substance use disorders and integrating physical and mental health care.

How to Get Involved

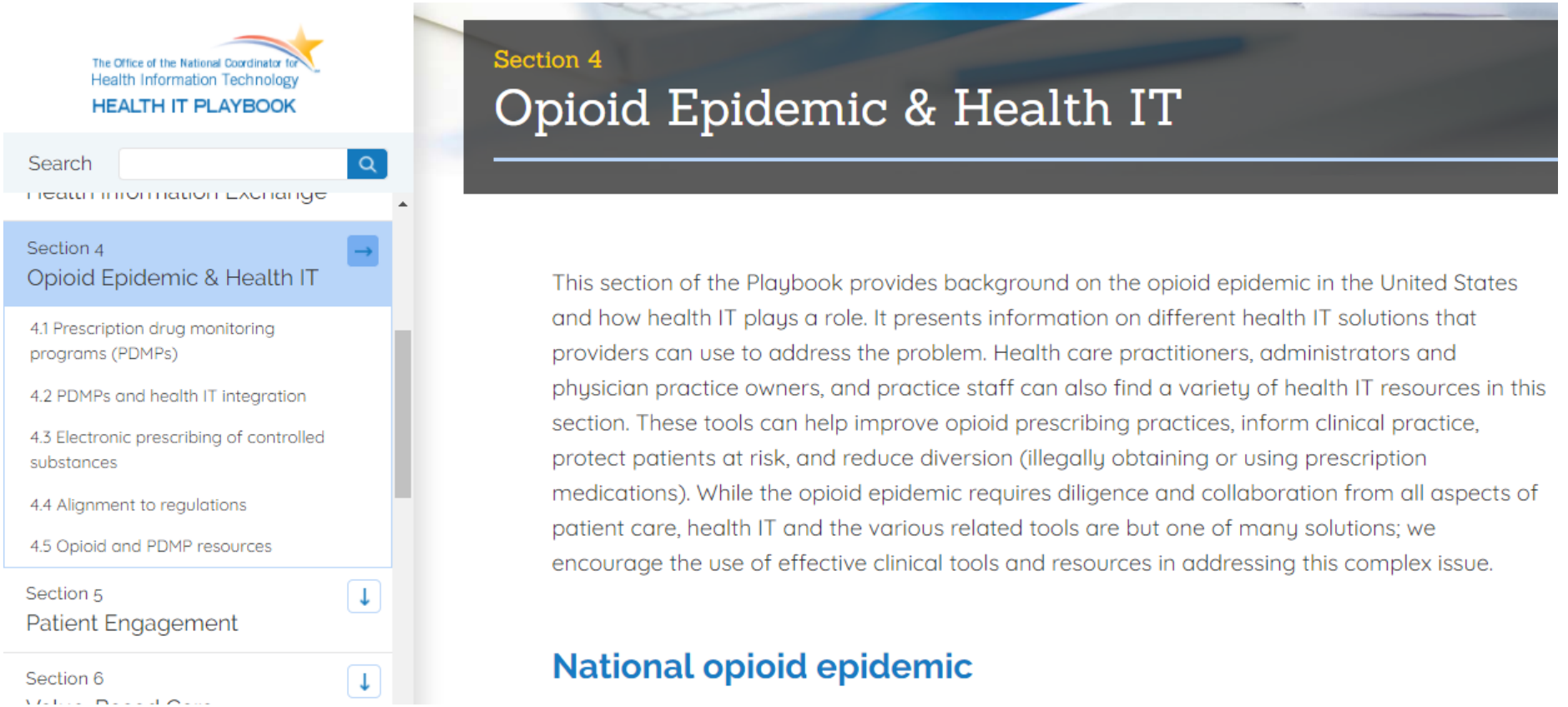
- ✓ **Contact Your Provider Association**
- ✓ **Contact Your State's Health IT Initiative Coordinator**
- ✓ **Learn More About ONC Certification Program**

Spotlight - Health IT Tools and Resources for Substance Use Disorders

- **Mobile Health Tools:**
  - **MATx, SAMHSA's App to Help Treat Opioid Use Disorder**
    - A smartphone app developed to support practitioners who currently provide MAT, as well as those who plan to do so in the future.
    - Practitioners can access step-by-step guidance to become certified to prescribe buprenorphine, the latest training opportunities to provide effective, evidence-based treatment, and current MAT resources.
  - **Addiction Comprehensive Health Enhancement Support System (ACHESS)**
    - A smartphone app designed to improve continuing care for adults in recovery from alcohol use disorders by providing ongoing emotional and instrumental support.
    - The app is aimed at providing monitoring, information, communication, and social support services to patients, including ways for patients and counselors to keep in contact.

- **Prescription Drug Monitoring Program (PDMP) Resources:**
  - **In Brief: Prescription Drug Monitoring Programs: A Guide for Health care Providers**
    - The brief explains the emergence and purpose of PDMPs and describes how PDMP use can enhance clinical decision making. Discusses how this data improves individual patient safety while also helping decrease prescription drug misuse and unintentional overdose deaths.

Health IT Playbook-
Opioid Epidemic & Health IT



Available From: https://www.healthit.gov/playbook/opioid-epidemic-and-health-it/

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Advancing the Interoperability of Social, Psychological, and Behavioral Data

Samantha Meklir, Senior Policy Analyst
Albert Taylor, Medical Informatics Officer

Value of Social, Psychological, and Behavioral Data (SPB) and Health IT

Health IT enabled SPB data (including social determinants of health or SDOH data) support population health management, risk adjustment and rate setting, quality measurement and improvement, care coordination, and clinical decision support.

Health IT-enabled SPB tools and practices can:

- Capture actionable patient data on factors affecting health not previously available in health IT.
- Enable effective clinical practice improvement activities including care coordination with community organizations
- Enhance provider productivity by collecting, sharing, and using SPB data as part integrated workflow practices
- Improve overall care delivery and community health
- Integrate data from disparate sources to understand the population composition and stratify risk scores and analytics to help address gaps in care and services

Value of SPB and Health IT- Federal Examples

Federal Health IT Strategic Plan (2015-2020)

- Recognizes that many health and social determinants outside of care delivery influence individuals' health and well-being; contains specific objectives to "expand the capacity of health IT to integrate, share, and use data on social determinants of health to foster the health and improve the management of care in diverse, underserved communities" as part of our nation's goal for transforming health care.

CMS

- Accountable Health Communities Model https://innovation.cms.gov/initiatives/ahcm/
- Comprehensive Primary Care Plus https://innovation.cms.gov/initiatives/comprehensive-primary-care-plus
- QPP and Clinical Practice Improvement Activity - Care Coordination
- Electronic Long-Term Services & Supports (eLTSS) https://oncprojectracking.healthit.gov/wiki/display/TechLabSC/eLTSS+Home

ONC

- Health IT Certification Program 2015 Certification Criteria-Social, Psychological, Behavioral data (45 CFR 170.315(a)(15)) https://www.healthit.gov/policy-researchers-implementers/2015-edition-final-rule

Interoperability in Action: Advancing Interoperable Social Determinants of Health (SDOH)

ONC Interoperability in Action Webinar, July 25, 2017
Advancing Interoperable Social Determinants of Health (SDOH)

Webinar highlighted:

- Efforts and available resources to increase the interoperability of SDOH assessment tools, concepts and data elements
- Health IT using SDOH to improve clinical decision support, quality measurement, care coordination, and population health management
- Several “health IT-enabled” exemplars (such as Health Leads, Socially Determined, NACHC/AAPCHO/OCHIN and PRAPARE tool)
- Content to support online resources as informed by the National Library of Medicine (NLM) and Regenstrief Institute

Access Slides/Recording

Interoperability in Action: Advancing Interoperable Social Determinants of Health (SDOH)

- 76% of participants were interested in exchanging social needs data with community based organizations
- Social Interventions Research & Evaluation Network (SIREN) identifying available codes representing different SPB domains in different screening tools
- NACHC/AAPCHO developing common data model linking social risk assessment data with interventions data and facilitating EHR integration
- OCHIN researching data collection through EHR/portal integration to support community services referrals to meet social needs; standardizing SDOH data collection and presentation in EHRs could lead to improved patient and population health outcomes
- Prioritizing standardization is based on: consensus, instrument validity and usability, available interventions, business value (program requirements, reimbursement for interventions and outcomes)
- Best practice opportunities for developing terminology and codes through user requests
- Assessment tools use validated, standardized questions and answers with flexibility in administration

Stakeholder Led - SDOH Interoperability Advancement

The Social Interventions Research &Evaluation Network (SIREN) of University of California, San Francisco (UCSF) is leading efforts to advance the Standardization & Interoperability of SDOH data collected in EHRs

- On November 9, 2017, SIREN convened 45 experts in social prescribing and health IT to advance health IT standards for social determinants of health (SDOH) data in EHRs. There was strong consensus that a more comprehensive set of codes are needed to represent SDOH data. SIREN drafted a paper summarizing the current state of medical terminologies that represent SDOH data and will work with other organizations to address gaps in existing terminology. Learn more by contacting siren@ucsf.edu or https://sirenetwork.ucsf.edu/

- Stakeholders focusing part of initial efforts on SDOH screening/assessment tools including the National Association of Community Health Center's PRAPARE (http://www.nachc.org/research-and-data/prapare/) tool, CMS Accountable Health Communities (AHC) tool https://nam.edu/wp-content/uploads/2017/05/Standardized-Screening-for-Health-Related-Social-Needs-in-Clinical-Settings.pdf and the set of social and behavioral measures recommended by IOM (now NAM) which are the basis for the ONC Social, Psychological, and Behavioral data certification criteria for EHRs.

Interoperability in Action: Informing Next Steps

- Call upon various stakeholders to commit to adopting health IT to enable SDOH tools
  - Social determinant assessment tool developers, end users, EHR developers, payers, researchers
- Identification of best practices and tools for further development
  - SIREN (https://sirenetwork.ucsf.edu/tools-resources/metrics-measures-instruments)
- Available federal resources for health IT-enabling these tools
  - ONC Interoperability Standards Advisory- https://www.healthit.gov/isa/
  - National Library of Medicine
    - Common Data Element Repository- https://cde.nlm.nih.gov/
    - Value Set Authority Center (VSAC)- https://vsac.nlm.nih.gov/
- Communities facilitating connections with governmental and non-governmental resources to advance progress

ONC Resources for Social, Psychological, and Behavioral Data (SPB) Health IT and Standards

- ONC Interoperability Standards Advisory: https://www.healthit.gov/isa/i-s-social-psychological-and-behavioral-data

- Certification Companion Guide and Test Procedures for SDOH provide technical guidance and clarifications to the regulation text and provides links to resources to facilitate adoption:
  - https://www.healthit.gov/sites/default/files/2015Ed_CCG_a15-Social-psych-behavioral-data.pdf
  - https://www.healthit.gov/sites/default/files/170_315a15_social_behavioral_data_v1.1.pdf

- ONC has explored health IT to support advanced health models' capabilities to address the holistic health of individuals and communities that they serve:
  - https://www.healthit.gov/FACAS/health-it-policy-committee/health-it-policy-committee-recommendations-national-coordinator-health-it
  - Advanced Health Models Hearing: https://www.healthit.gov/facas/calendar/2015/06/02/policy-advanced-health-models-and-meaningful-use-workgroup-public-hearing

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Leveraging Medicaid Systems to Support Behavioral Health

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SAMHSA HealthIT
HEALTH INFORMATION TECHNOLOGY

SAMHSA Privacy Update

Kenneth Salyards

Information Management Specialist

Center for Substance Abuse Treatment

Substance Abuse and Mental Health Services Administration

42 CFR Part 2: Overview

42 CFR Part 2 restricts the disclosure and use of patient substance abuse records maintained in connection with the performance of any federally-assisted alcohol and drug abuse program.

42 CFR Part 2: Status

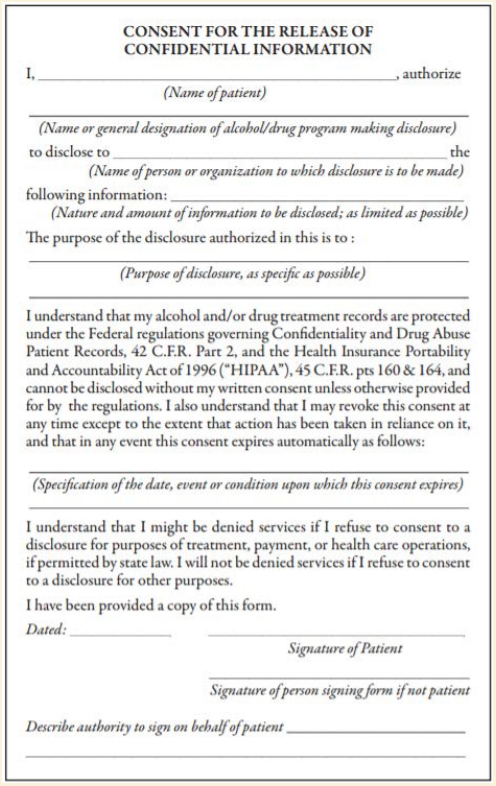
- SAMHSA is in the process of finalizing the January 2017 Supplemental Notice of Proposed Rulemaking
- SAMHSA is in the process of finalizing sub-regulatory guidance and FAQs
- SAMHSA is planning a meeting in compliance with the 21st Century Cures Act, in order to receive input on the first year of implementation of the 2017 Final Rule

42 CFR Part 2: Consent Requirements

- Requires patient consent for disclosures of protected health information even for the purposes of treatment, payment, or health care operations
- Consent for disclosure must be in writing
- No redisclosure without patient written consent

42 CFR Part 2: Ten Elements

1. Name of the entities making the disclosure
2. Name of the entities to receive the disclosure
3. Name of the patient who is the subject of the disclosure
4. Specific purpose or need for the disclosure
5. How much and type of information to be disclosed



CONSENT FOR THE RELEASE OF CONFIDENTIAL INFORMATION

I, _____, authorize
(Name of patient)

_____
(Name or general designation of alcohol/drug program making disclosure)

to disclose to _____ the
(Name of person or organization to which disclosure is to be made)

following information: _____
(Nature and amount of information to be disclosed; as limited as possible)

The purpose of the disclosure authorized in this is to :

_____
(Purpose of disclosure, as specific as possible)

_____

I understand that my alcohol and/or drug treatment records are protected under the Federal regulations governing Confidentiality and Drug Abuse Patient Records, 42 C.F.R. Part 2, and the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), 45 C.F.R. pts 160 & 164, and cannot be disclosed without my written consent unless otherwise provided for by the regulations. I also understand that I may revoke this consent at any time except to the extent that action has been taken in reliance on it, and that in any event this consent expires automatically as follows:

_____
(Specification of the date, event or condition upon which this consent expires)

_____

I understand that I might be denied services if I refuse to consent to a disclosure for purposes of treatment, payment, or health care operations, if permitted by state law. I will not be denied services if I refuse to consent to a disclosure for other purposes.

I have been provided a copy of this form.

Dated: _____ _____
Signature of Patient

_____
Signature of person signing form if not patient

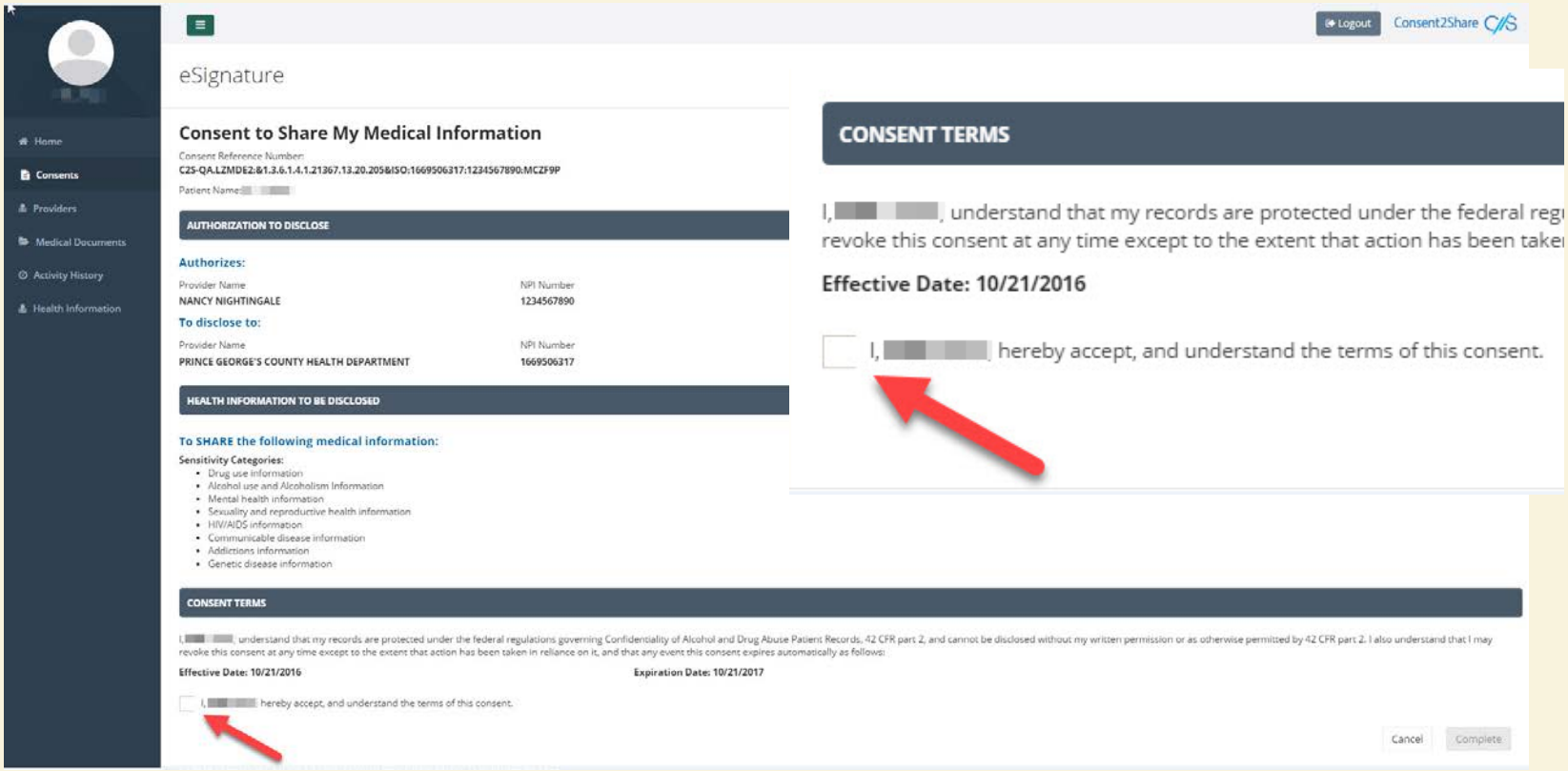
Describe authority to sign on behalf of patient _____

_____

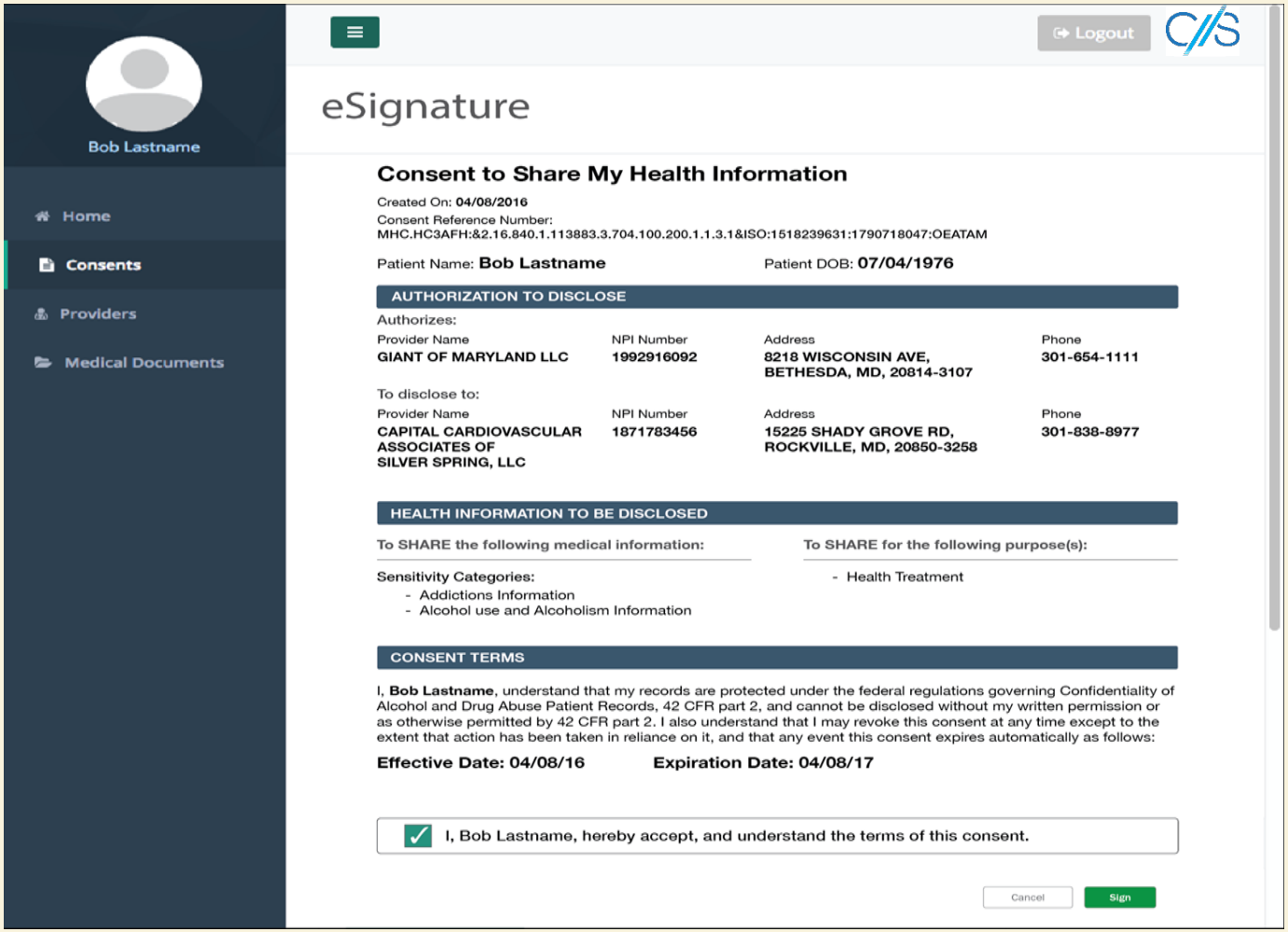
42 CFR Part 2: Ten Elements, Continued

6. The patient's right to revoke the consent in writing and exceptions to the right to revoke
7. The program's ability to condition treatment, payment, enrollment, or eligibility of benefits on the patient
8. The date, event, or condition on which the consent expires
9. The signature of the patient (and/or other authorized person)
10. The date that the consent is signed

Consent2Share: Patient Provides Electronic Consent



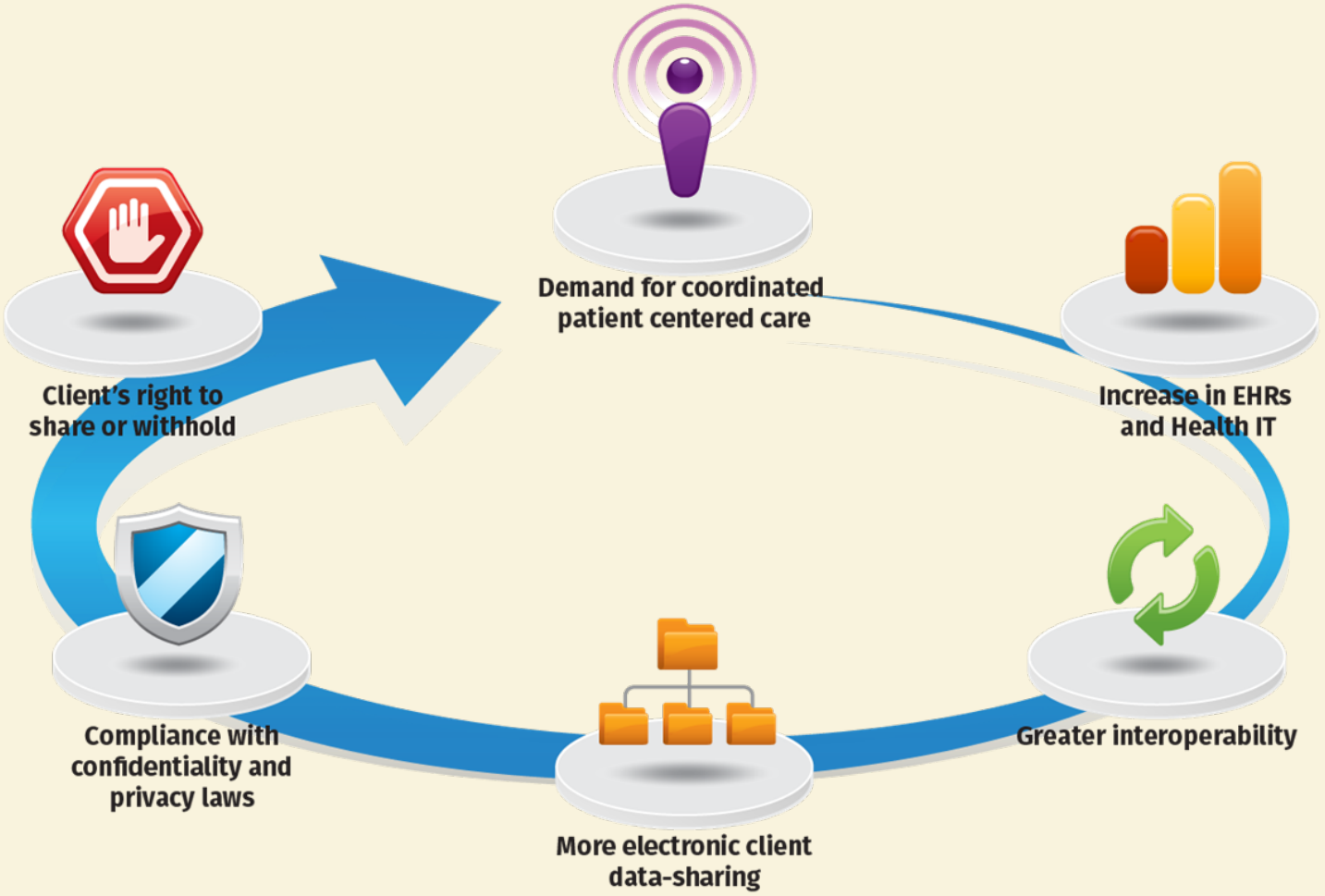
Consent2Share: Patient's View of Signed Consent



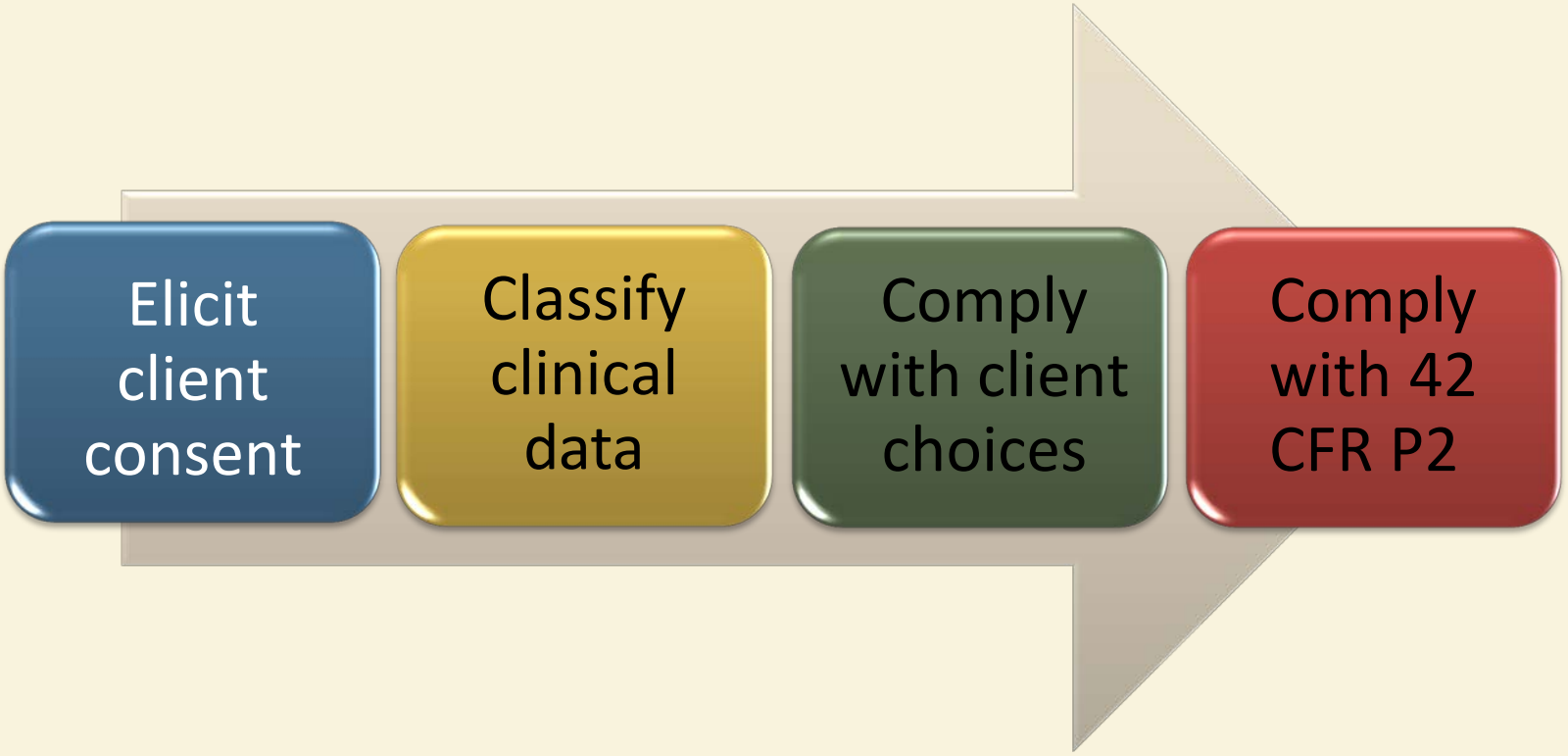
Data Segmentation for Privacy (DS4P)

- An initiative sponsored by SAMHSA and ONC to improve the ability to securely share sensitive health information, specifically substance abuse patient records
- Demonstrated how standards can support current privacy policies to share sensitive health information across organizations
- Developed standards to enable sensitive electronic health information to be securely shared with authorized users

The Current Health Care Environment

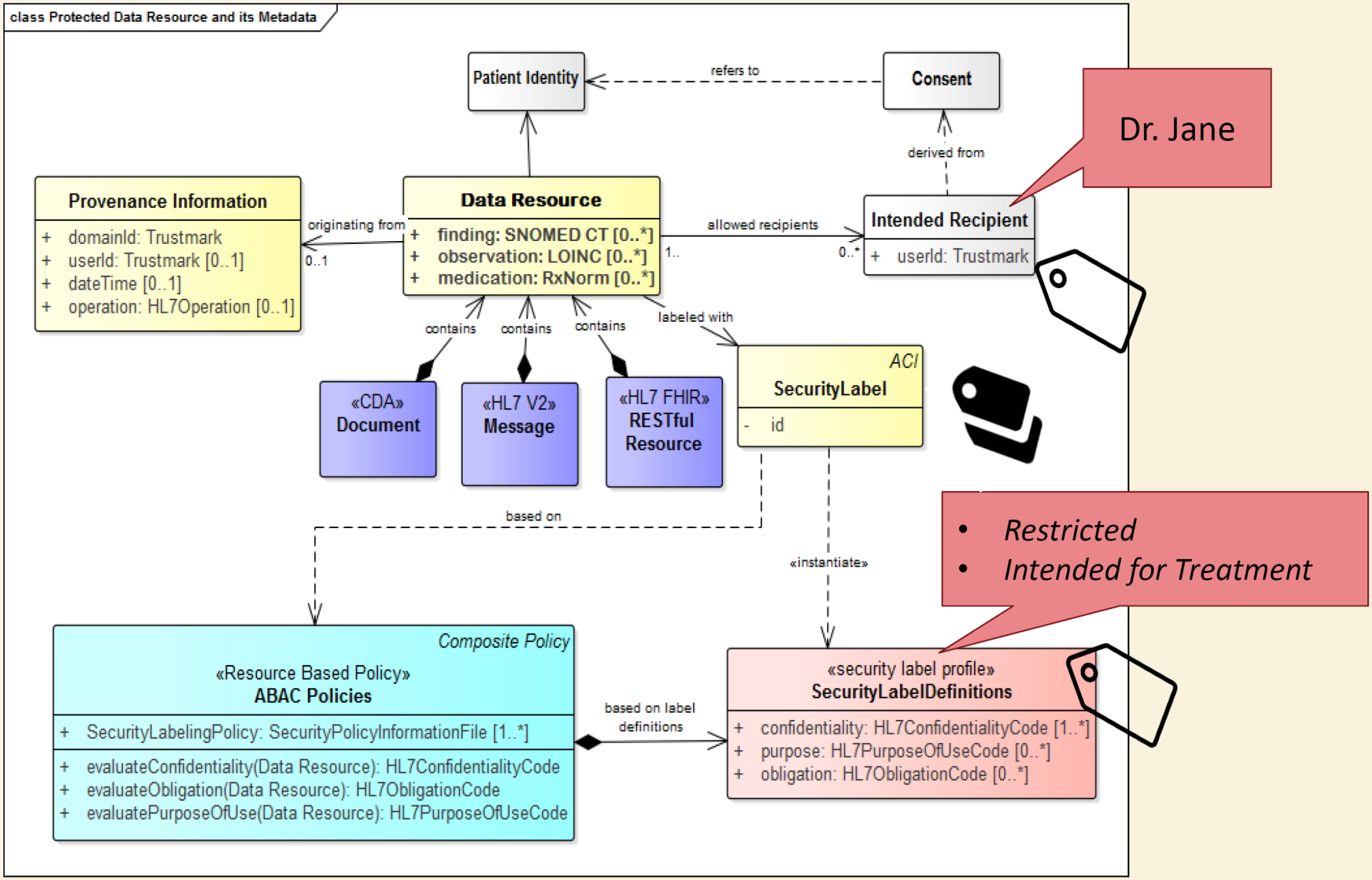


Need for DS4P & Consent Management



Segmentation and Security Labeling

- Requires an algorithm to identify and label sensitive information
  - ✓ Assign a "confidentiality" as "*Restricted*" if information is sensitive
  - ✓ Use the client consent to identify "intended recipients" for sensitive information (e.g., Dr. Jane)
- Security labels may be applied to any data intended for exchange (e.g., document, messages, resource)


class Protected Data Resource and its Metadata
Patient Identity
refers to
Consent
derived from
Dr. Jane
Provenance Information
+ domainId: Trustmark
+ userId: Trustmark [0..1]
+ dateTime [0..1]
+ operation: HL7Operation [0..1]
originating from
0..1
Data Resource
+ finding: SNOMED CT [0..*]
+ observation: LOINC [0..*]
+ medication: RxNorm [0..*]
allowed recipients
1..
0..*
Intended Recipient
+ userId: Trustmark
contains
contains
contains
labeled with
«CDA»
Document
«HL7 V2»
Message
«HL7 FHIR»
RESTful
Resource
ACI
SecurityLabel
- id
based on
«instantiate»
• Restricted
• Intended for Treatment
Composite Policy
«Resource Based Policy»
ABAC Policies
+ SecurityLabelingPolicy: SecurityPolicyInformationFile [1..*]
+ evaluateConfidentiality(Data Resource): HL7ConfidentialityCode
+ evaluateObligation(Data Resource): HL7ObligationCode
+ evaluatePurposeOfUse(Data Resource): HL7PurposeOfUseCode
based on label definitions
«security label profile»
SecurityLabelDefinitions
+ confidentiality: HL7ConfidentialityCode [1..*]
+ purpose: HL7PurposeOfUseCode [0..*]
+ obligation: HL7ObligationCode [0..*]

Consent2Share Components

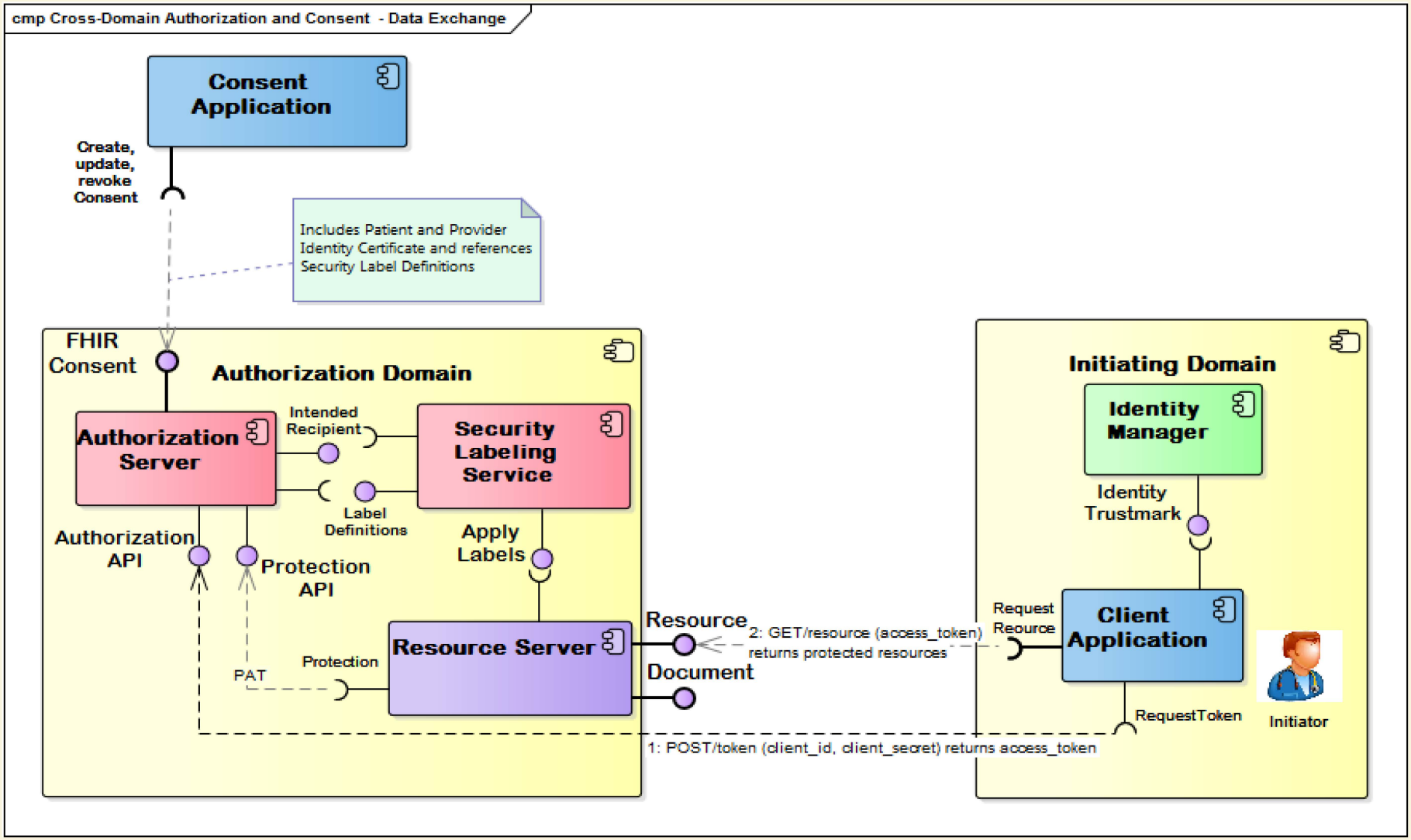
Consent2Share includes 30 distinct components, including:

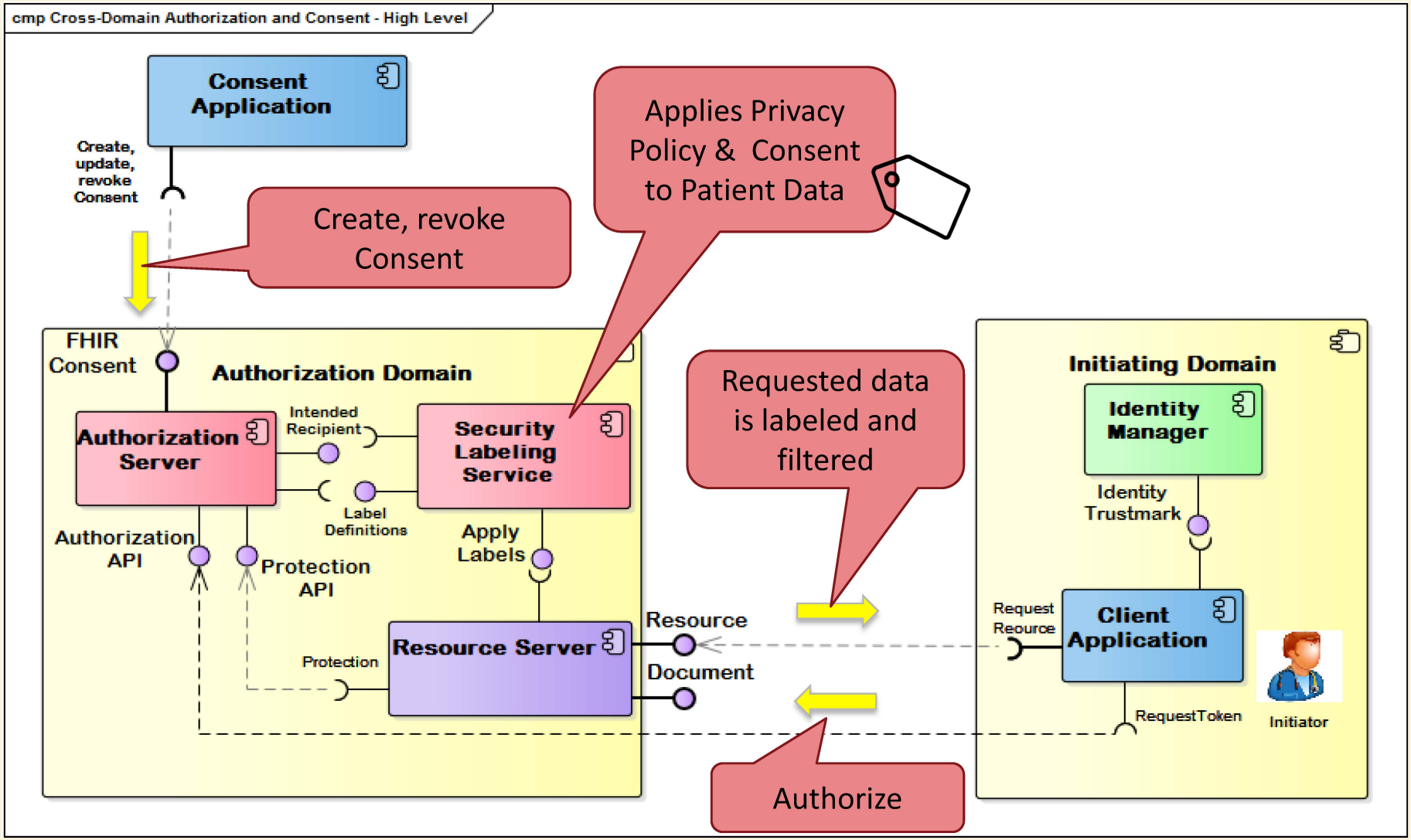
- **Patient User Interface**—for patients to review and conduct consent management
- **Patient Management User Interface**—for admins to create and manage user accounts
- **Management Component**—to create and manage consent policies
- **Information Exchange Hub**—allows the retrieval of data from an HIE irrespective of the format of the data
- **Data Segmentation Service**—manages a patient's sensitive health information as directed by the patient's consent choices

Consent Process in the Cloud

- Consent2Share includes discrete components
- Uses OAuth to separate application components to make them easier to implement
- *Example:* The Consent User Interface can be separate from the segmentation component
- Modular approach allows greater customization
- Uses HL7 FHIR to store consents

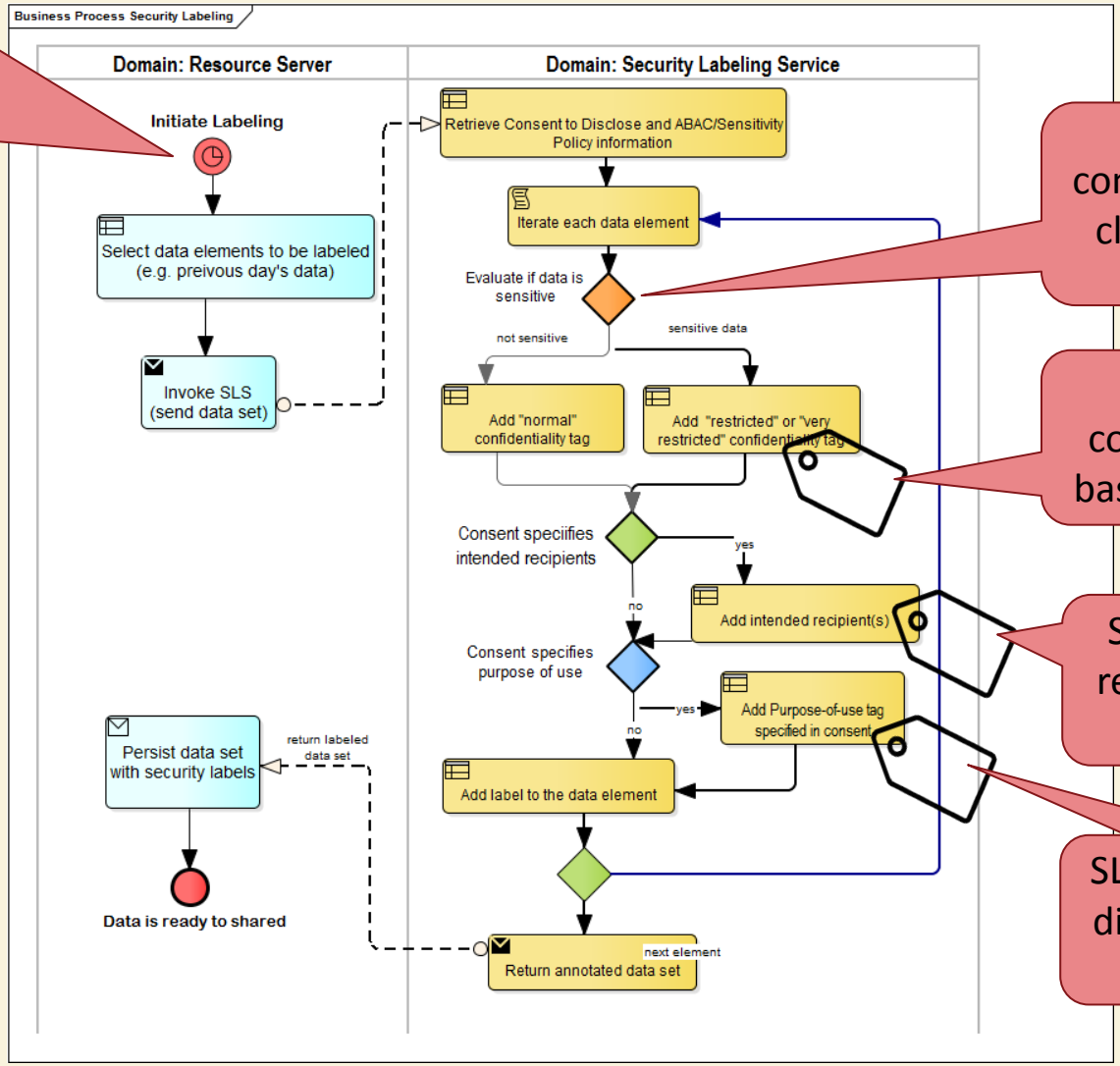
Runtime Components




cmp Cross-Domain Authorization and Consent - High Level
Consent Application
Create, update, revoke Consent
Create, revoke Consent
Applies Privacy Policy & Consent to Patient Data
FHIR Consent
Authorization Domain
Authorization Server
Intended Recipient
Security Labeling Service
Label Definitions
Authorization API
Protection API
Apply Labels
Protection
Resource Server
Resource
Document
Requested data is labeled and filtered
Initiating Domain
Identity Manager
Identity Trustmark
Request Reource
Client Application
RequestToken
Initiator
Authorize

Security Labeling Process

Security labels could be pre-processed when a resource is persisted, in batch, or on-demand



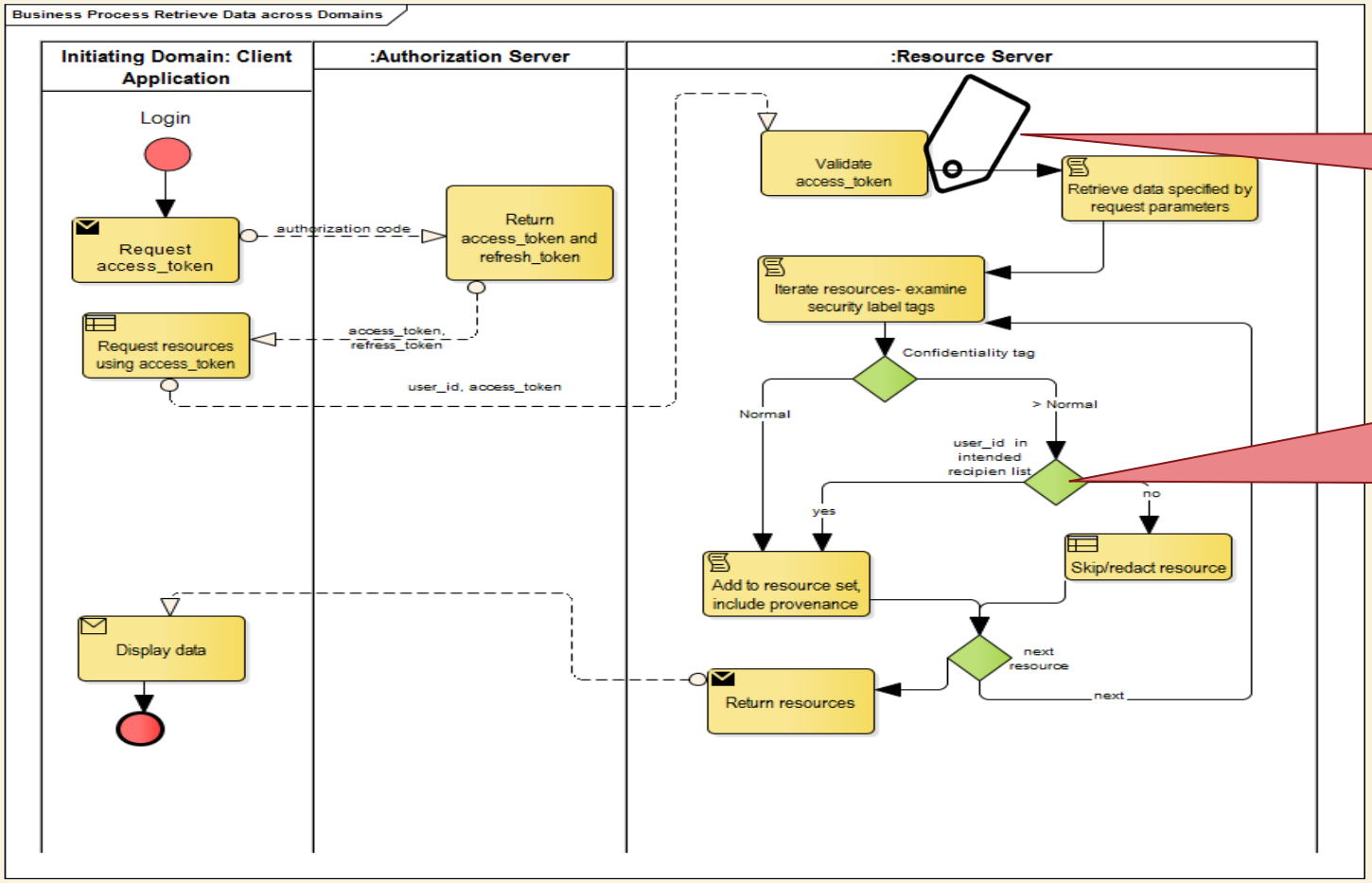
Sensitivity computed based on clinical value sets and NLP

SLS assigns a confidentiality tag based on sensitivity

SLS adds intended recipients based on consent

SLS adds purpose of disclosure based on consent

Sharing Data-based Matching Initiator & Data Attributes

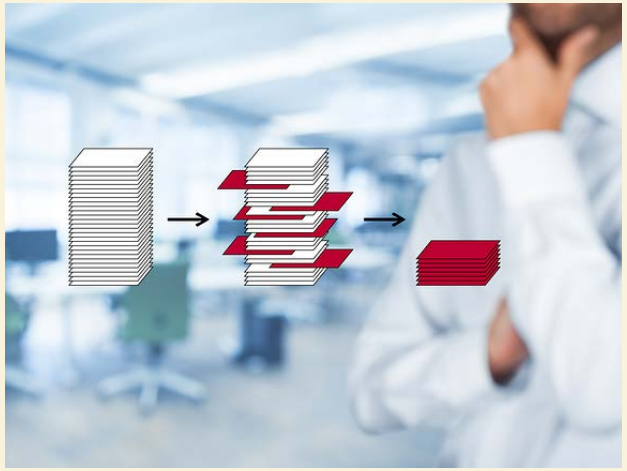


Evaluate security label

Compare request token with security label

Opportunities for Data Segmentation

- Separation of Concerns
  - ✓ Consent Management
  - ✓ Data Tagging / Redaction
  - ✓ Put segmentation service at the data instance
- Increase patient access to consent management applications
- Enable EHR applications to honor data tagging
- Use HL7 FHIR



For More Information

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HealthInfoNet

Impact of HIE on Behavioral HealthCare in Maine: A SIM Case Study

November 30, 2017

HealthInfoNet SIM Behavioral Health Project Goals

1. Provide HIT and HIE adoption reimbursements *($1.5 Million/$75,000 each)* to up to 20 community-based Behavioral Health (BH) provider Organizations across the State
2. Implement bi-directional connections between 20 BH organizations and HIE
   - Train BH staff to leverage EHR and HIE services
   - Document and share “Data Informed” workflows for patient care improvement
   - Build data interfaces and go live with initial data available from each BH organization
3. Support quality improvement aimed at reducing ED Utilization and measure impact (“Observational Analysis”)

HealthInfoNet

HealthInfoNet SIM Behavioral Health Statistics

$1.5 million reimbursed across 20 BHOs

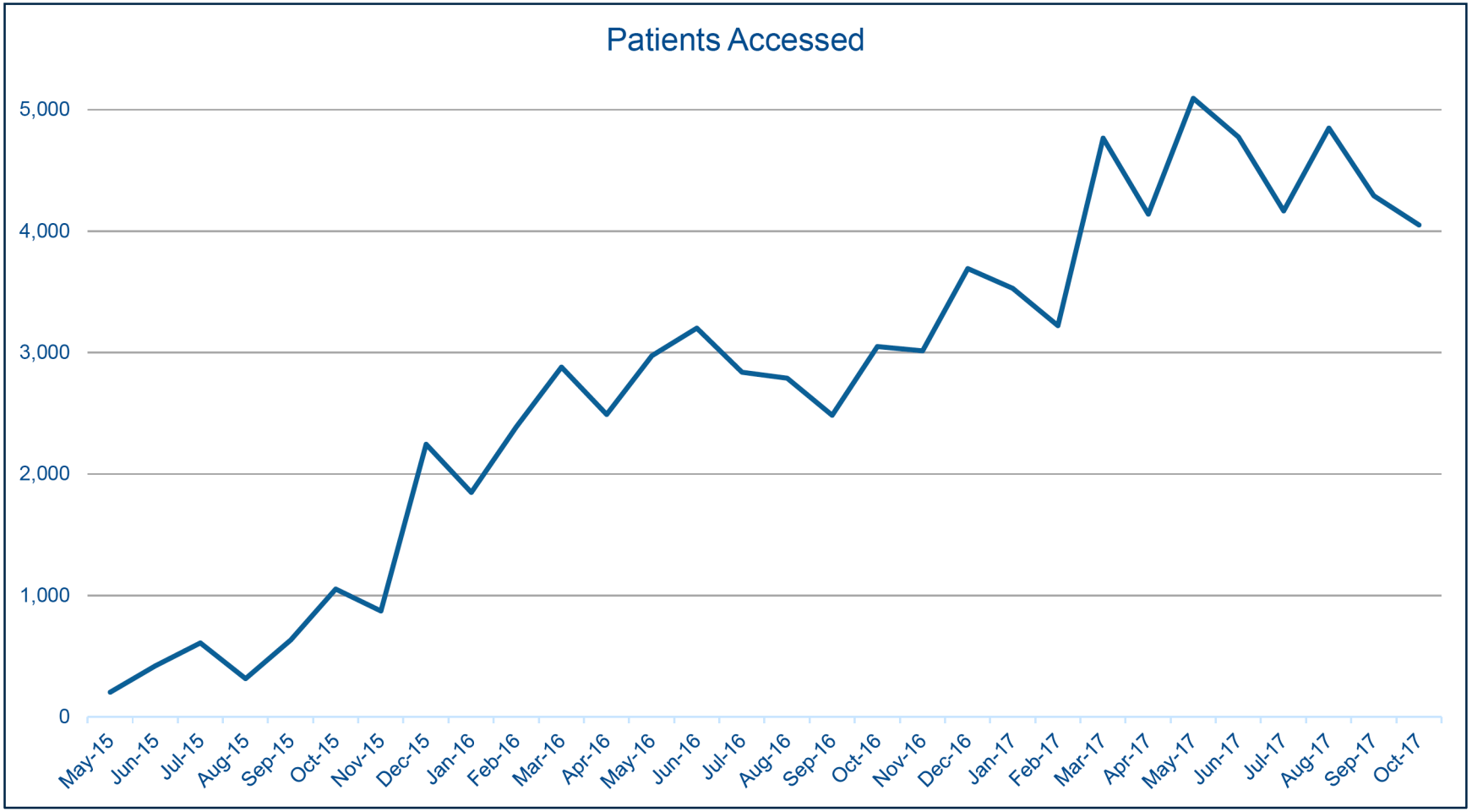
12,000

75,000+
Cumulative Patient Accesses

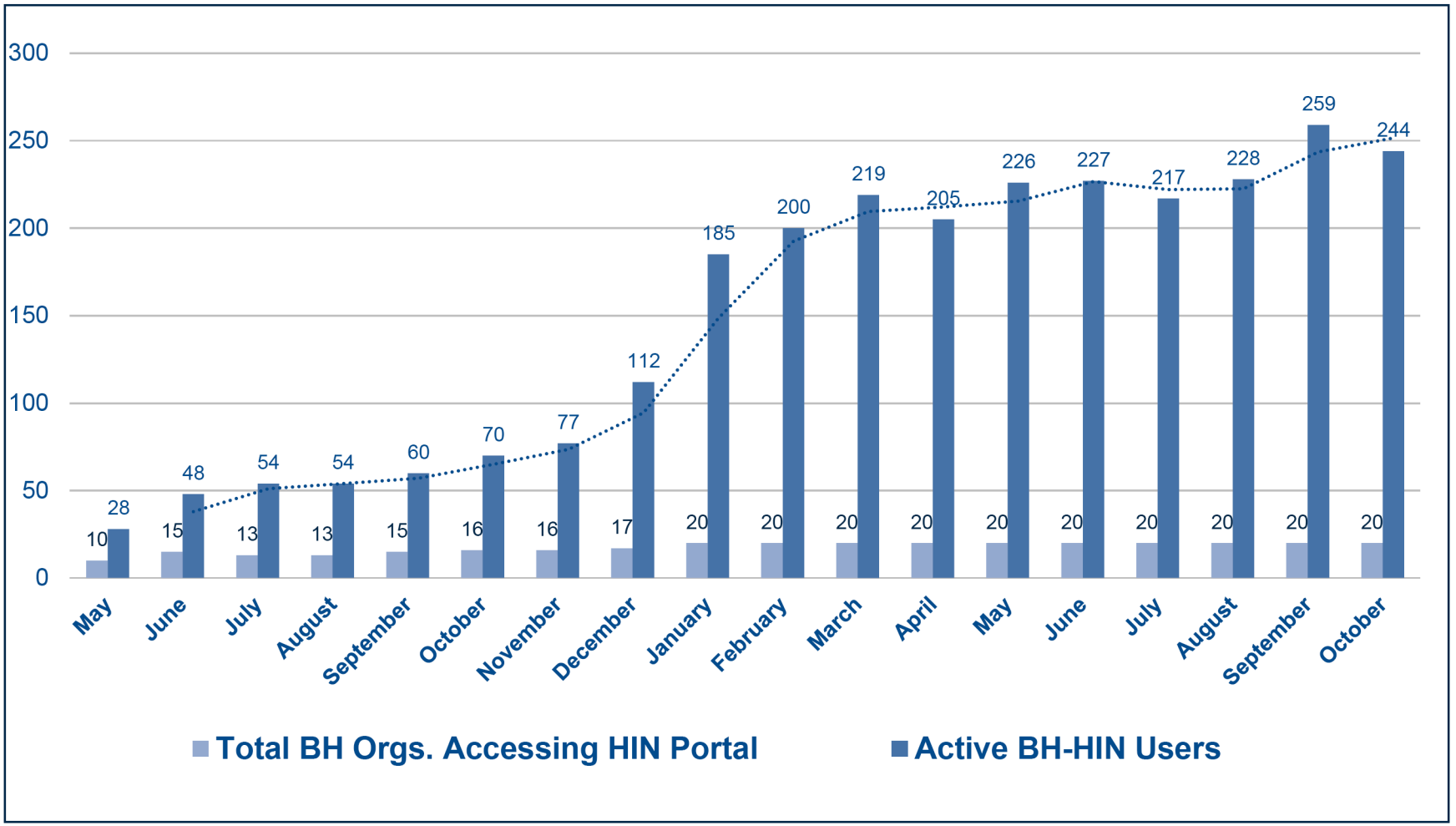
Patients Managed with Notifications by **163** Users

260
Average Users Per Month

Monthly Records Accessed



Staff Active HIE Access



“Data Informed” Workflows Documented

1. Targeted Care Management Services
2. Hospital Discharge Planning
3. Comprehensive Transitional Care; Post ED and Hospital Follow up
4. Identification and Coordination with Client’s Care Team
5. Medication Reconciliation
6. Client Engagement and Education; Using the Client’s HIE record
7. Intervention with Client Following a Medical Event while Waiting for Reports from Medical Providers
8. Assessment of Accuracy of SMI Diagnosis vs. Medical Diagnosis with Medical Provider
9. Identification of Gaps / Overuse of Medical Care
10. Location of Missing Clients

Value of HIE in Managing Mental Illness and Chronic Disease

- Reduce fragmentation with medical community
- Mitigate medical issues that contribute to Mental Illness
- Identify prescriptions, both unknown and duplicated
- Provide a safety-net, locate clients and intervene
- Provide integrated BH intervention to address medical issues and reduce unnecessary ED visits

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"HIN impacts how behavioral health clinicians and staff are delivering care. This data informs their treatment planning and helping clients understand how behavior changes can affect their medical outcomes."

- Jason White, MS, LSW, Chief Executive Officer, Maine Behavioral Health Organization

"Thanks to HIN, our team can access and share a client's medical information with them so they can better understand the condition and how their behaviors can affect the medical condition. Through this understanding, they are motivated to better themselves and change their lives."

- Sharon Greenleaf, CRC, MAC, LCPC, CCS, Acting Director, Northeast Occupational Exchange

"We have seen a huge benefit in sharing our client's HealthInfoNet information with them. Understanding the whole picture of their health has empowered them to take an active role in their care decisions instead of being passive participant."

- Brian Moynihan, MS, LCPC, Assistant Regional Manager, Adult Child and Family Services, Community Health and Counseling Services

HealthInfoNet

BH Quality Project Goals

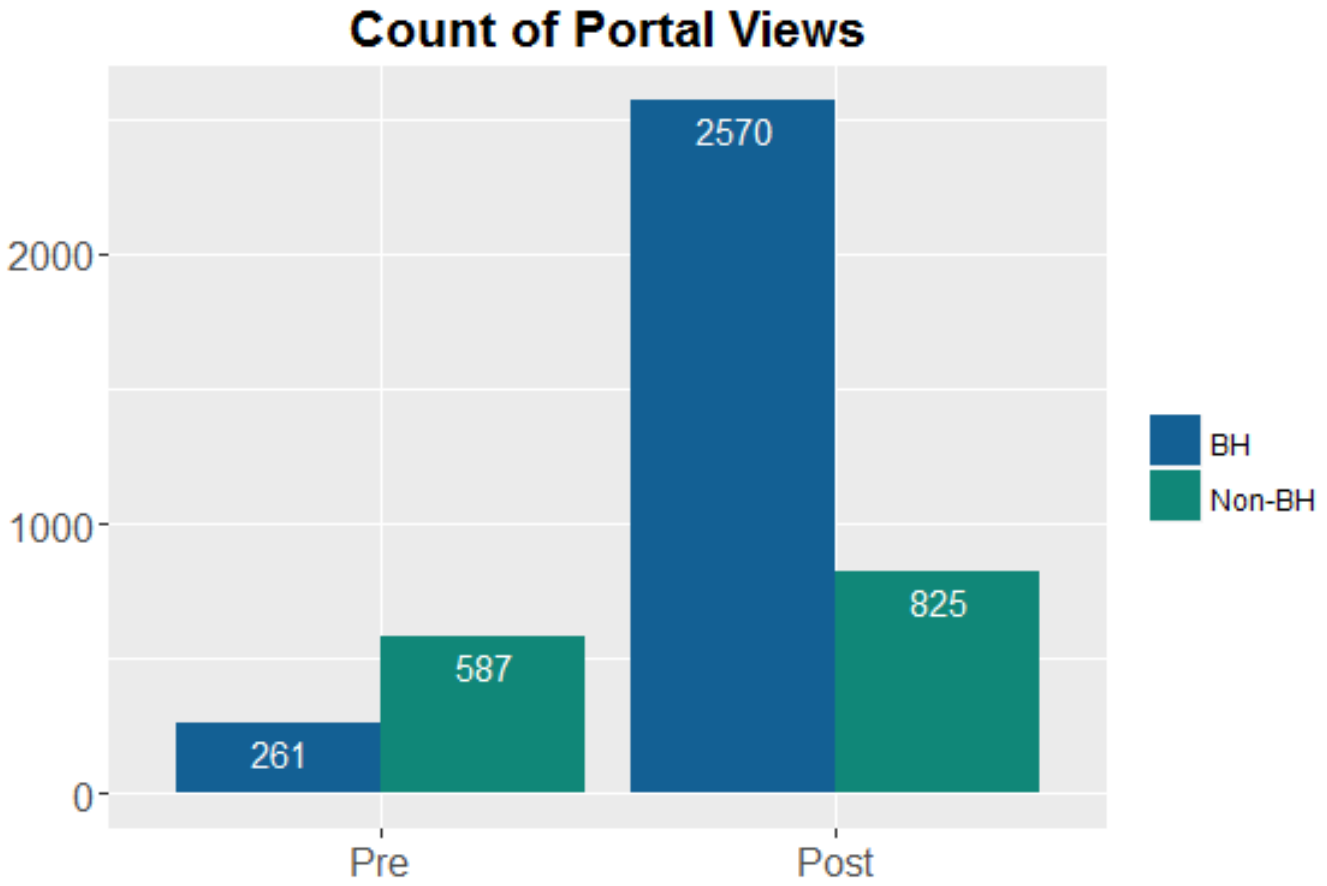
1. Implement real-time notifications for ED/hospital admissions to intervene with persons with Medicaid coverage and with a history of 2 or more ED visits within a 6 month period
2. Access the HIN Portal to coordinate care with both the client & medical community
3. Leverage “Data Informed” workflows with all organizations and convene monthly “learning community” to share lessons learned
4. Measure change in ED utilization at the end of 6 month period (“Observational Analysis”)

BH Quality Improvement Project

1. Hypothesis – Integrated care interventions that include medical record data and real-time notifications will reduce ED utilization for patients covered by Medicaid
2. Patients chosen for inclusion based on 2-or more ED visits in the 6-month “pre intervention” period
3. A list of 800+ patients was provided to the 18 BH organizations to determine appropriateness for intervention
4. A observation panel of 443 patients were selected by the 18 BH organizations participating

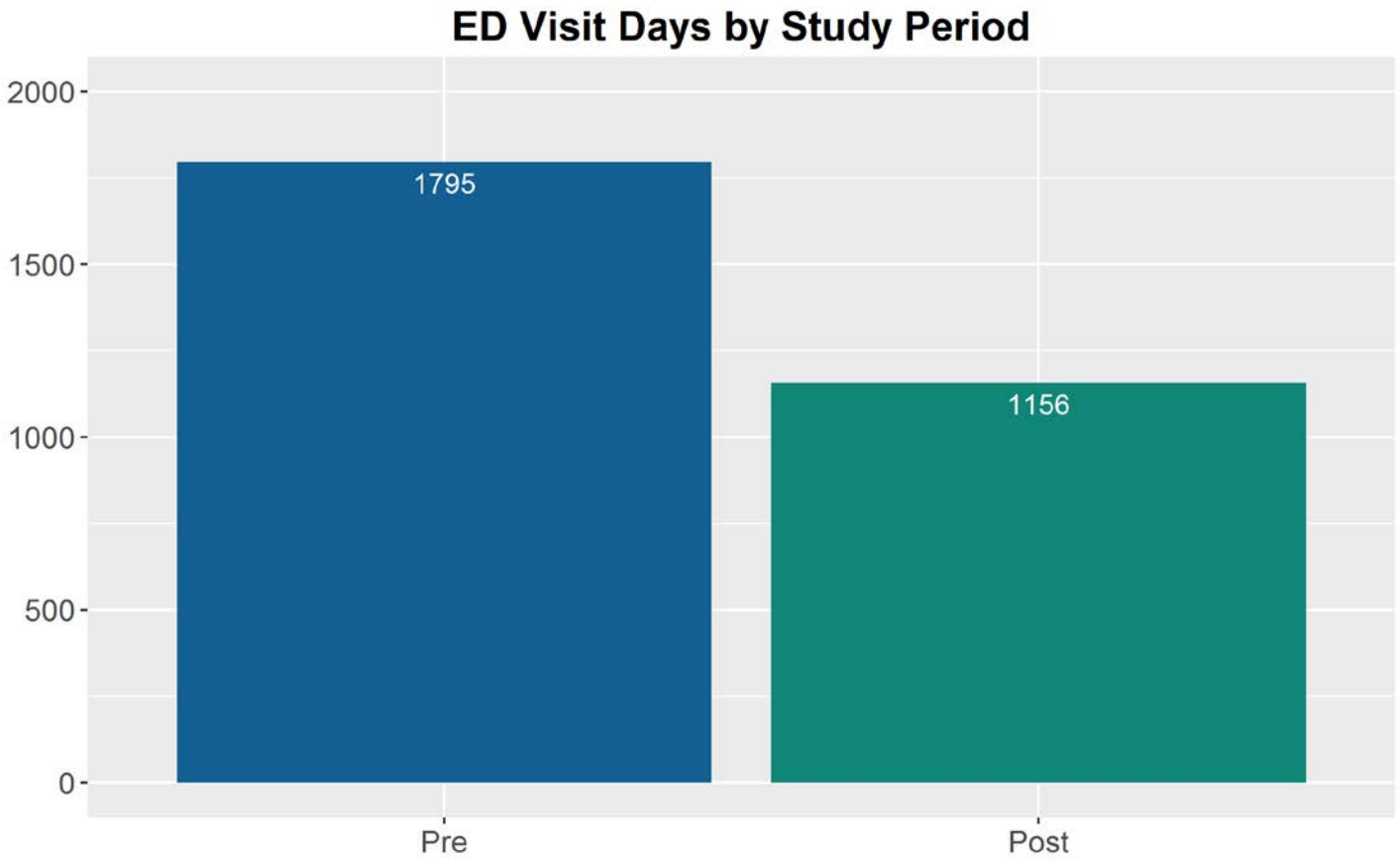
HealthInfoNet

HIE Portal Views of Cohort Patients



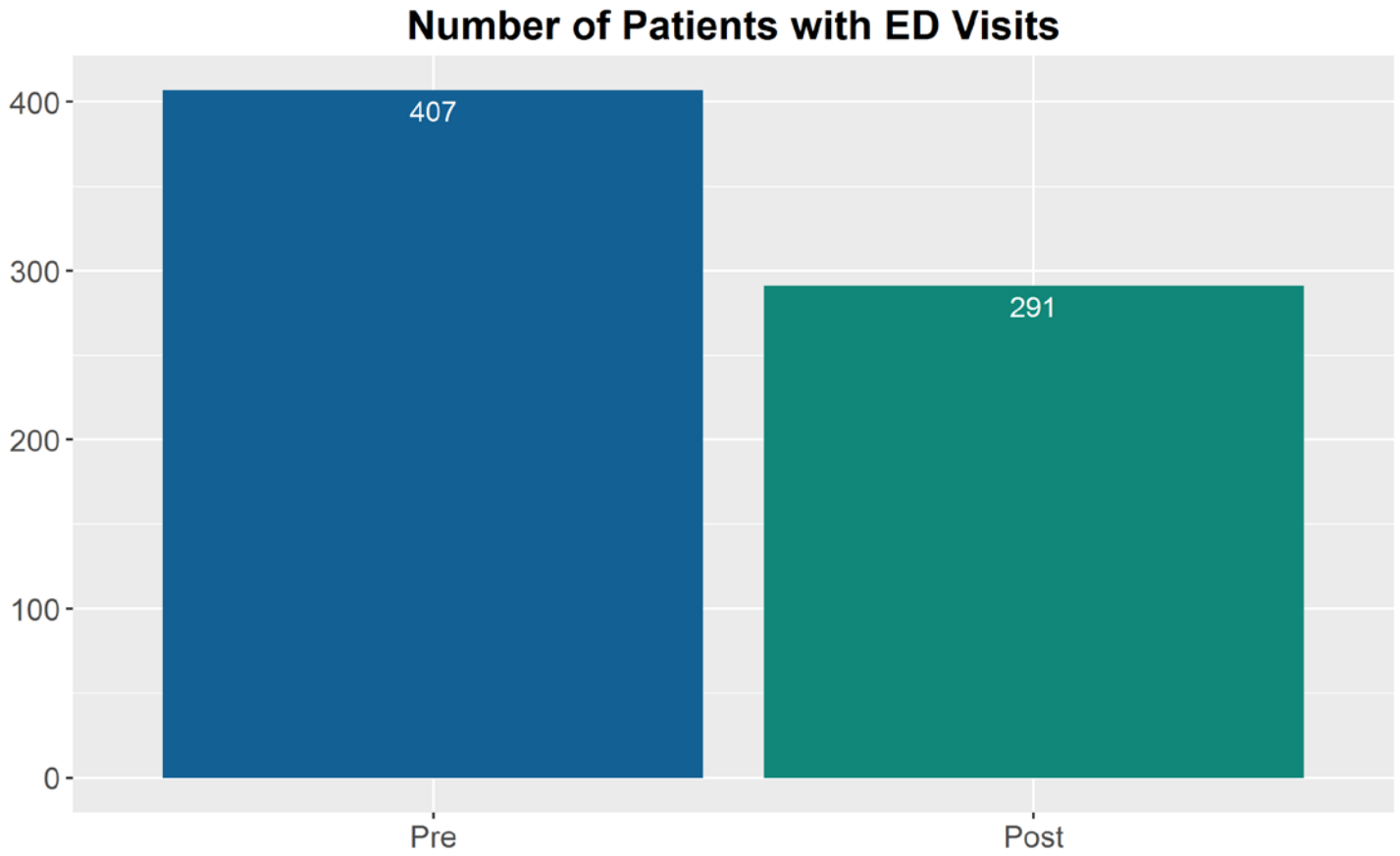
- **Portal views increased in the post-intervention period, mostly by users from behavioral health facilities**

ED Visit Days for Cohort



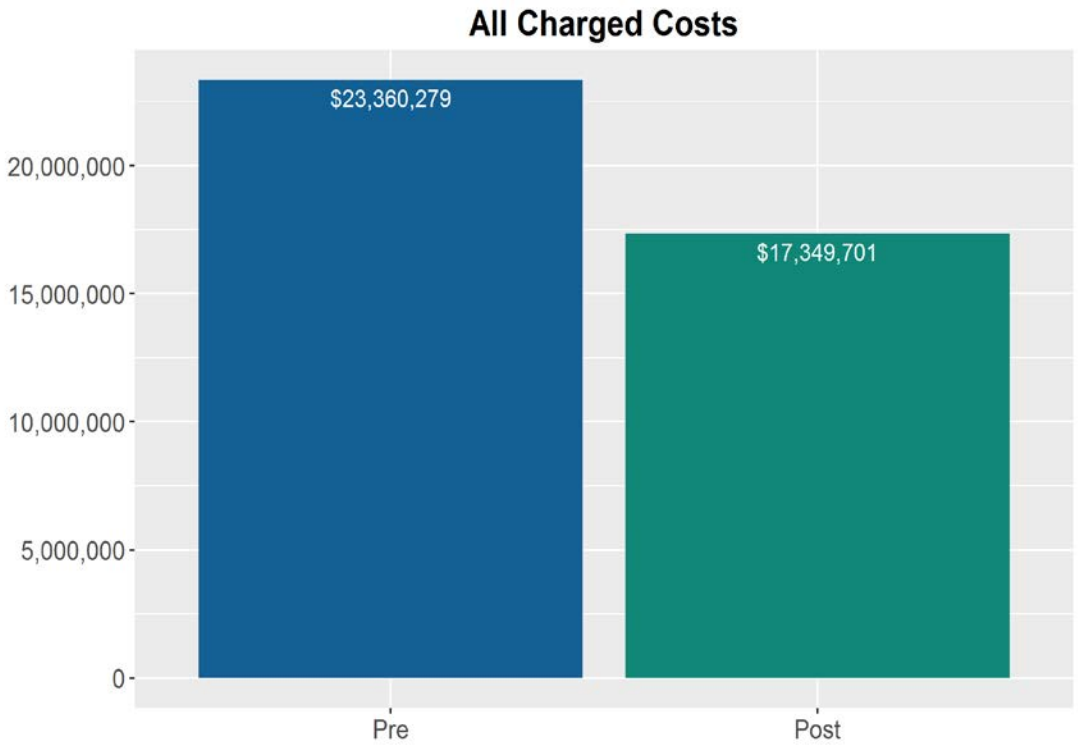
There was a 35%+ reduction in ED Visit Days for the cohort population in the post intervention period

Cohort Patients with ED Visits



There was a 30%+ reduction in patients having ED visits in the post intervention period

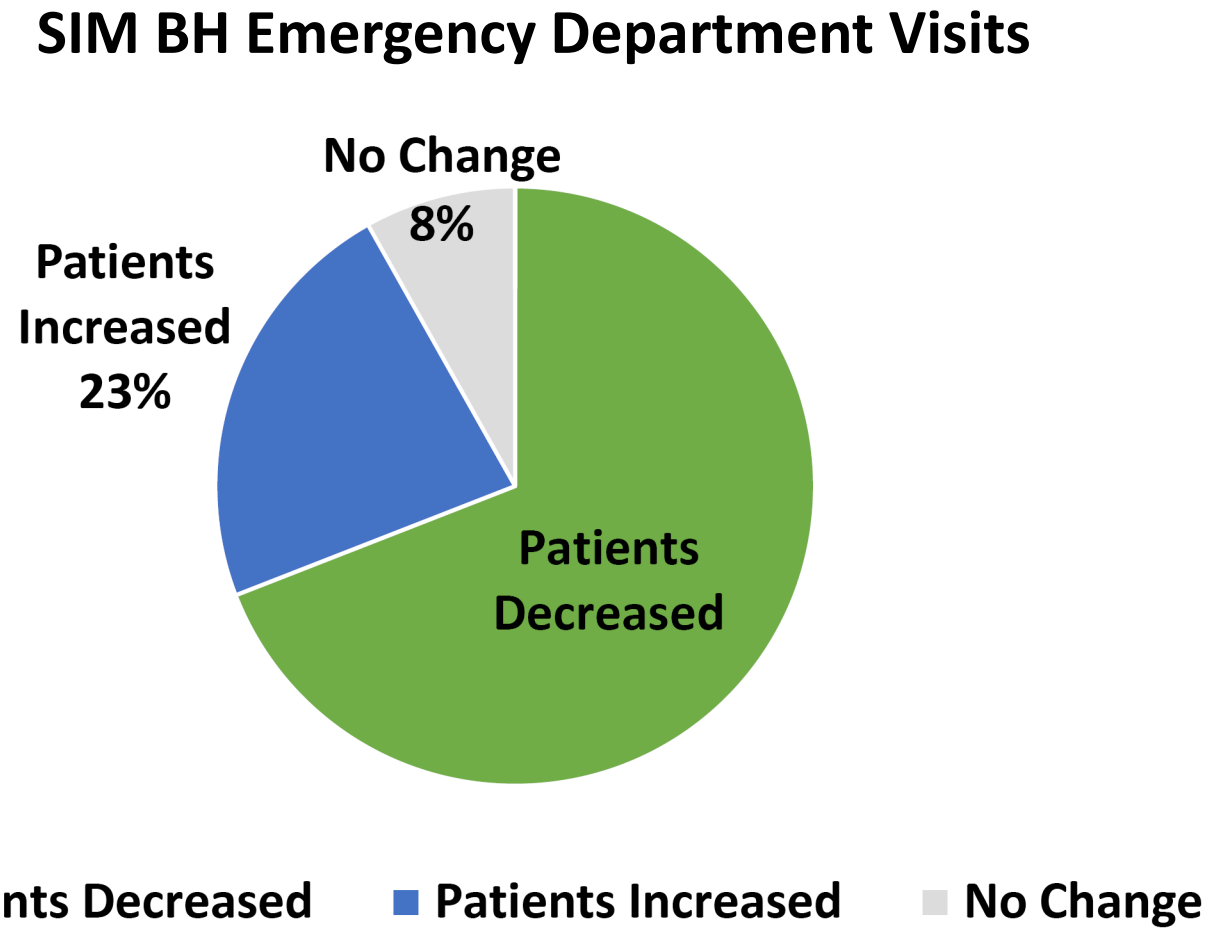
All Medical Charges for Cohort



Claims Charge Data

- Total medical charges were $6,010,578 (34%) less in the post-intervention period
  - Does not include pharmacy claims
  - Reduced spend not evaluated in controlled study
    - HIE Intervention tied with implementation of Behavioral Health Home model in ME
  - Caveats such as sample bias, claims lag etc., apply

When Cohort Followed for 12 Months _ Similar Results Observed



Conclusions and Discussion

- Data integration into workflow is resource intense for BHOs
  - When coordinated, “data informed”, and tied to policy expectations - the impact can be significant - improving patient experience, improving appropriate utilization, and reducing cost
- Few BHOs have dedicated staff to care management and workflow optimization
- DHHS is continuing post-SIM by subsidizing BH connections to the HIE

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CRISP

CHESAPEAKE REGIONAL INFORMATION SYSTEM FOR OUR PATIENTS

CRISP/Maryland PDMP Integration & Behavioral Health Efforts

CRISP
Lindsey Ferris
Program Director, HIE Projects

7160 Columbia Gateway Drive, Suite 230
Columbia, MD 21046
877.952.7477 | info@crisphealth.org
www.crisphealth.org

CRISP Mission, Vision, Values

Our Vision

To advance health and wellness by deploying health information technology solutions adopted through cooperation and collaboration.

Our Mission

We will enable and support the healthcare community of Maryland and our region to appropriately and securely share data in order to facilitate care, reduce costs, and improve health outcomes.

Our Guiding Principles

1. *Begin with a manageable scope and remain incremental.*
2. *Create opportunities to cooperate even while participating healthcare organizations still compete in other ways.*
3. *Affirm that competition and market-mechanisms spur innovation and improvement.*
4. *Promote and enable consumers' control over their own health information.*
5. *Use best practices and standards.*
6. *Serve our region's entire healthcare community.*

PDMP Background/CRISP Involvement

PDMP Background

- Established in law, 2011
- Regulations adopted, 2012
- Dispenser reporting required, 2013
- Under the Maryland Department of Health (MDH) Behavioral Health Administration (BHA)
- Data reported every 3 days (moving to 24 hours soon)
- Voluntary use (mandated use starts July 1, 2018)

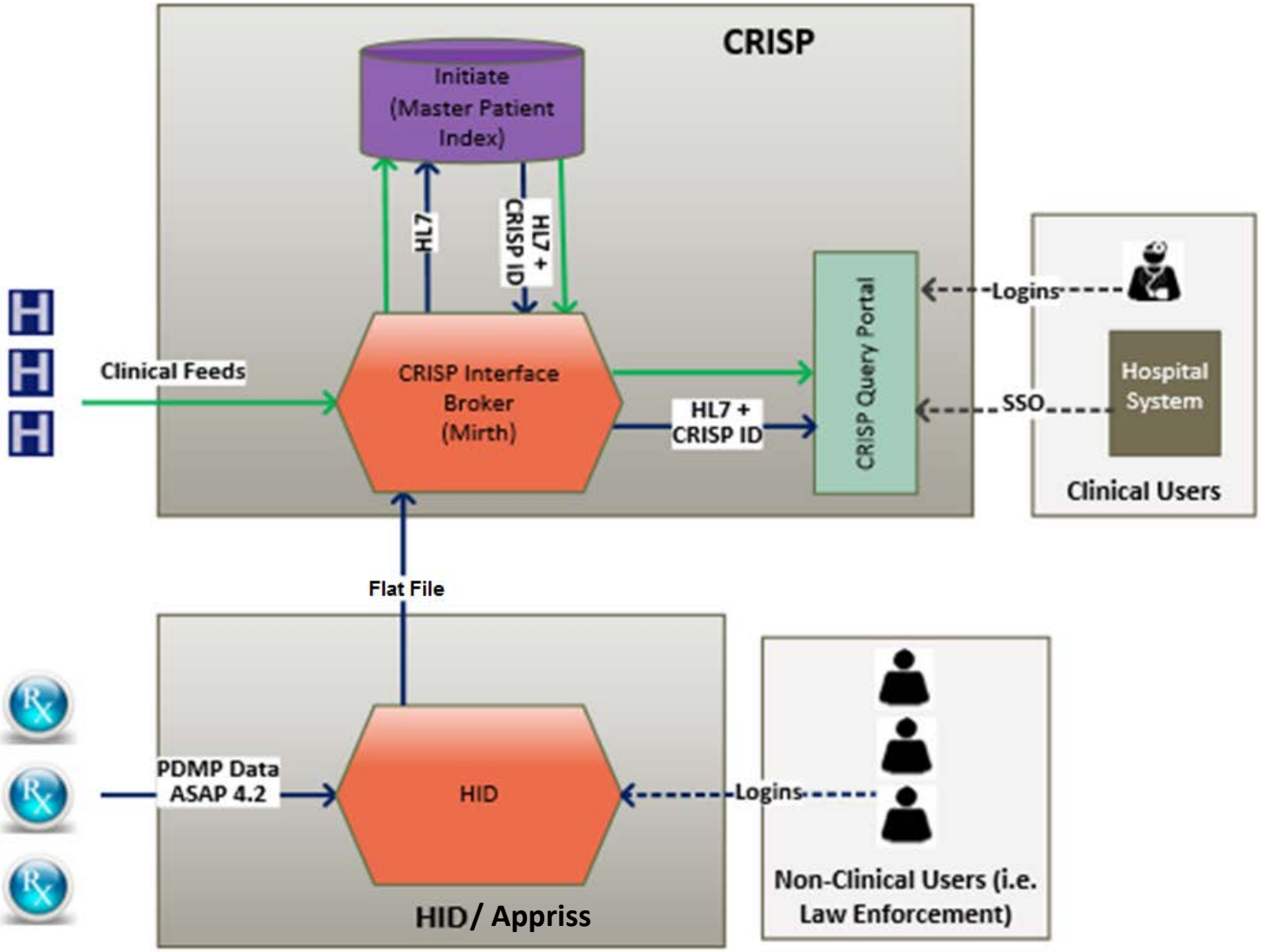
CRISP Involvement

- Serves as underlying technology for official Maryland PDMP
- Credentialing and access point for clinical providers
- Provides advanced patient matching
- Allows for PDMP data to be viewed alongside HIE data
- Contracted with PDMP vendor for collection of data from dispensers (Appriss/Health Information Designs)

Partnership Benefits

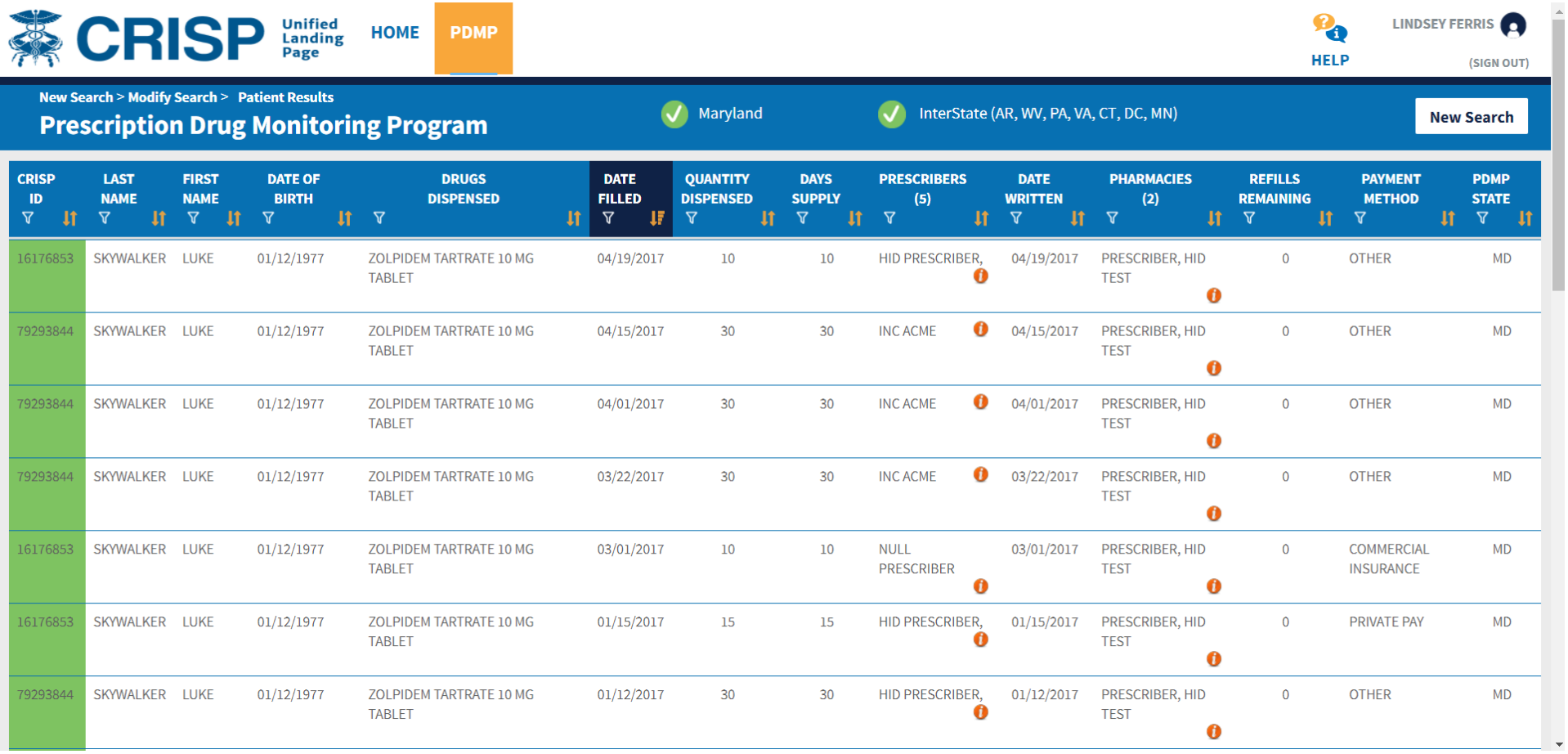
- Advanced patient matching of PDMP data
- Ability to leverage existing credentialing/outreach processes
- Ability to leverage existing CRISP services
  - Query portal
  - Encounter Notification Service
  - Reporting Service
  - Streamlined access to data (Single Sign-On, etc.)
- New technology build in response to opioid crisis and PDMP legislative action
  - Unified Landing Page / PDMP Search

Technical Architecture



PDMP Data Embedded in CRISP Portal

- All Maryland and out-of-state PDMP data are displayed together



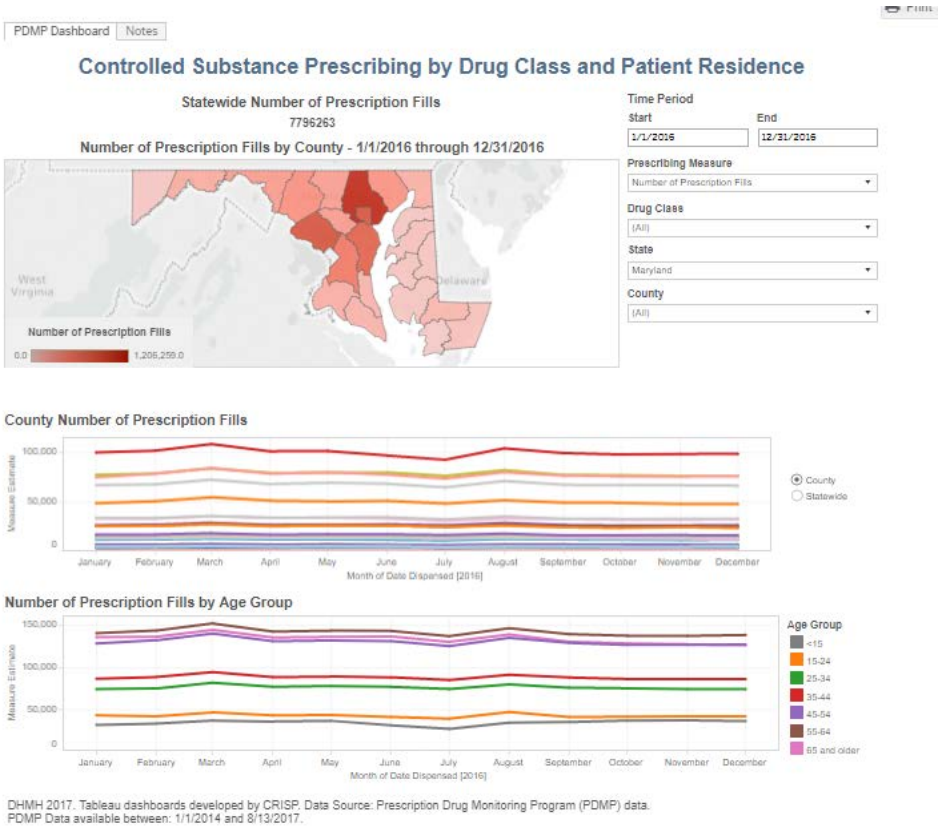
CRISP ID	LAST NAME	FIRST NAME	DATE OF BIRTH	DRUGS DISPENSED	DATE FILLED	QUANTITY DISPENSED	DAYS SUPPLY	PRESCRIBERS (5)	DATE WRITTEN	PHARMACIES (2)	REFILLS REMAINING	PAYMENT METHOD	PDMP STATE
16176853	SKYWALKER	LUKE	01/12/1977	ZOLPIDEM TARTRATE 10 MG TABLET	04/19/2017	10	10	HID PRESCRIBER,	04/19/2017	PRESCRIBER, HID TEST	0	OTHER	MD
79293844	SKYWALKER	LUKE	01/12/1977	ZOLPIDEM TARTRATE 10 MG TABLET	04/15/2017	30	30	INC ACME	04/15/2017	PRESCRIBER, HID TEST	0	OTHER	MD
79293844	SKYWALKER	LUKE	01/12/1977	ZOLPIDEM TARTRATE 10 MG TABLET	04/01/2017	30	30	INC ACME	04/01/2017	PRESCRIBER, HID TEST	0	OTHER	MD
79293844	SKYWALKER	LUKE	01/12/1977	ZOLPIDEM TARTRATE 10 MG TABLET	03/22/2017	30	30	INC ACME	03/22/2017	PRESCRIBER, HID TEST	0	OTHER	MD
16176853	SKYWALKER	LUKE	01/12/1977	ZOLPIDEM TARTRATE 10 MG TABLET	03/01/2017	10	10	NULL PRESCRIBER	03/01/2017	PRESCRIBER, HID TEST	0	COMMERCIAL INSURANCE	MD
16176853	SKYWALKER	LUKE	01/12/1977	ZOLPIDEM TARTRATE 10 MG TABLET	01/15/2017	15	15	HID PRESCRIBER,	01/15/2017	PRESCRIBER, HID TEST	0	PRIVATE PAY	MD
79293844	SKYWALKER	LUKE	01/12/1977	ZOLPIDEM TARTRATE 10 MG TABLET	01/12/2017	30	30	HID PRESCRIBER,	01/12/2017	PRESCRIBER, HID TEST	0	OTHER	MD

Other PDMP Data Efforts

1. Enabling streamlined workflows for accessing PDMP data

- Single Sign-On (one-click access)
- In-context alerting (zero-click access)
- Data delivery to EHR
- 3rd party vendor integration (i.e. DrFirst, PastRx, etc.)

2. PDMP Reports

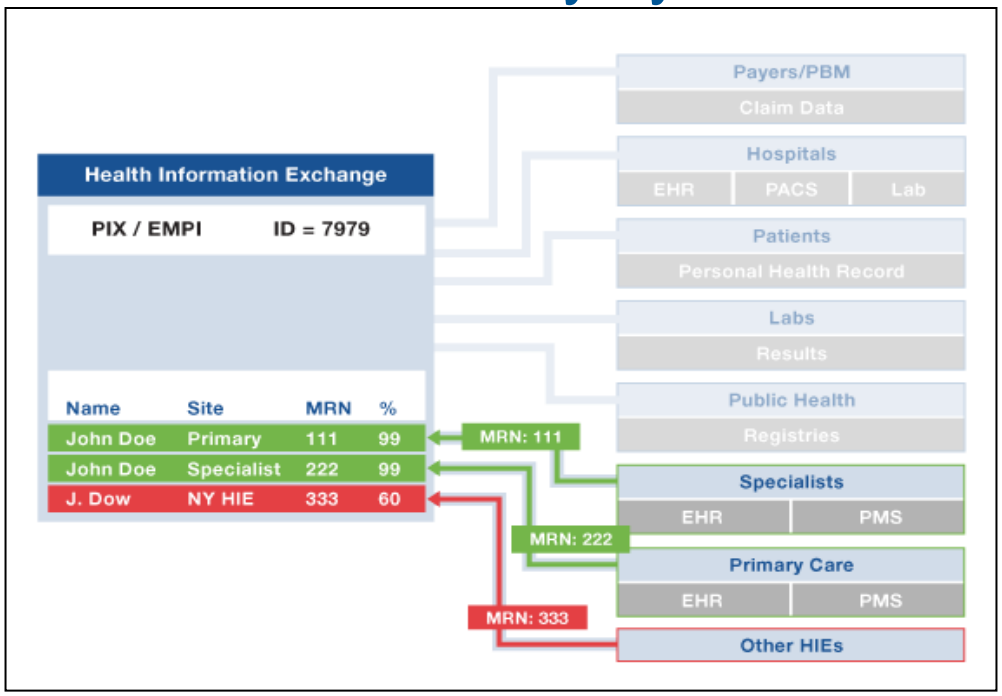


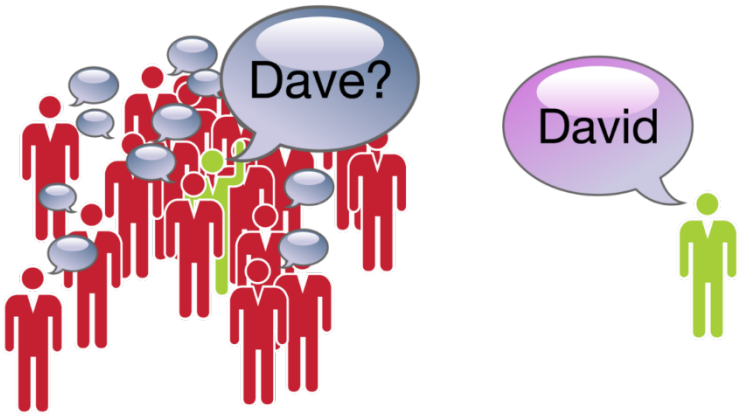
Behavioral Health Priorities

- Infrastructure design – single patient record
  - Patient's chart seamlessly encompasses behavioral health and somatic care data
- Extending CRISP services to behavioral health organizations
  - CRISP Query Portal
  - Encounter Notification Service
  - Pre/post CRS reports
- Facilitating secure and compliant behavioral health data sharing
  - Relies upon Consent2Share tool
  - Dependent upon Maryland HIE regulation change

Infrastructure Design – Single Patient Record

- CRISP's Master Patient Index:
  - Analyzes both behavioral health and somatic care sources of patient data
  - Presents a single patient record accessed seamlessly by users





Extending CRISP Services to Behavioral Health Community

- Clinical query portal access
  - Largely just outreach & education
- Encounter Notification Service
  - Real-time notifications of patients that experience a healthcare event (ED visit, admission, etc.)
  - Design changes made to ensure data protected
- Pre/post report to assess impact of a program
  - Report showing hospital utilization and cost data before and after program enrollment date to assess effectiveness of the program

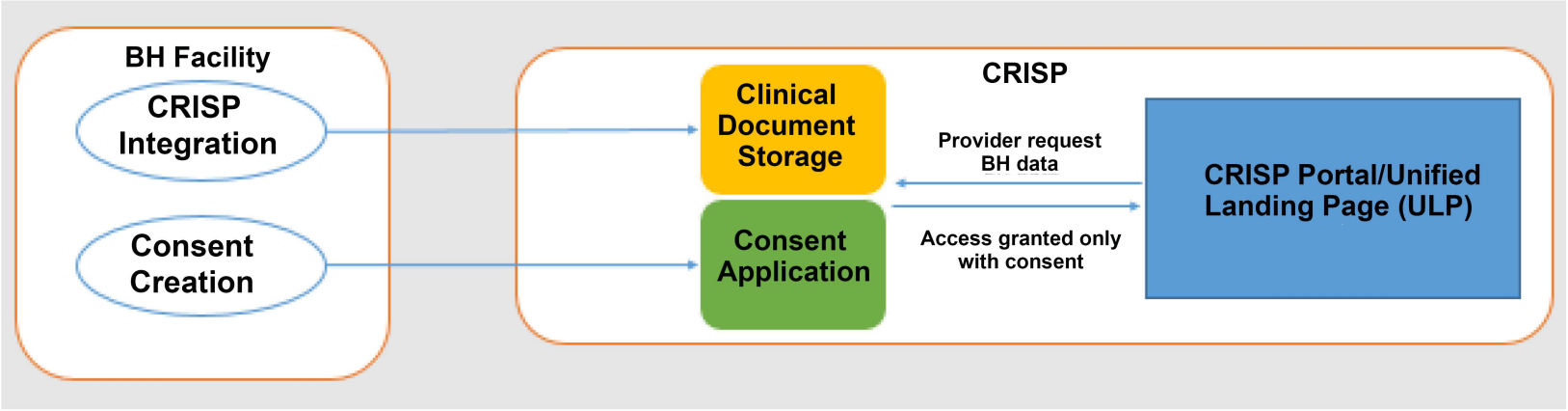
Behavioral Health Data Sharing

Sharing data requires…

1. Behavioral health facilities to share data with CRISP
   - 90/10 funding available through Data Exchange Support Program (~$10,000+) – payment to practice to send data
   - 90/10 funding to perform outreach to organizations
2. A tool to store the data
   - 90/10 funding to stand up data storage platform
3. Patient consent to share data compliant with 42 CFR Part 2 requirements
   - Using SAMHSA-sponsored product, Consent2Share, to electronically capture patient's consent
   - 90/10 funding to update platform to be provider-led workflow and integrate into CRISP infrastructure
   - Requires Maryland HIE regulation change
4. A way to access the data
   - 90/10 funding to link the data into the CRISP portal

What is Consent2Share (C2S)?

- An open source software application that electronically captures a patient's consent preferences according to 42 CFR Part 2 requirements
  - To & From providers
  - Amount and Kind of Information to be shared
  - Purpose of Use
  - Term of Consent (length of time active)
- Within Consent2Share, you will be able to:
  - Search for and create patient profiles
  - Create 42 CFR part 2 compliant consents
  - Sign consents as the provider creating them on behalf of the patient
  - Print completed consents for patient signature
  - Manage revocations and changes, per patient preference



Lessons Learned

- CRISP is a foreign concept to behavioral health community
- Challenges knowing which organizations fall under Part 2
  - Balance of wanting to put in proper data protections and not being the entity defining who is subject to them
- Policy considerations
  - Maryland regulation
  - Policies to access data for quality reporting policies versus treatment
  - Alignment of organizational structures with existing CRISP access policies
- Technology considerations
  - Nuances of Consent2Share tool: dependent on NPIs, single to & from provider selection, redactions uses code set (need to maintain)
  - No nationally endorsed SUD code set
  - Designing CRISP portal - ease of workflow & privacy
  - Minimum necessary for storing & serving up data
  - Redundancy of data privacy
- Mixed facility considerations
  - Balance of limiting access to non-SUD data versus safeguarding data
  - Technology-based options (over-engineering?)

Questions?

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The Office of the National Coordinator for Health Information Technology

Thank You & Questions

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