

**HealthInfoNet Update:
Using Data to Inform
Decision Making in
2018 and Beyond**


**New England HIMSS:
November 14, 2018**

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Objectives

- HealthInfoNet Overview
- HIN's Services
- New Tools and Functions
- HIN's Strategic Priorities 2019-2021



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What is HealthInfoNet?

- The Board of Directors are **multi-stakeholder** group of active and prominent members of the **Maine medical community** representing Consumers, Providers, Payers, Business and Government.
- HealthInfoNet is **independent** and is not owned by insurance companies, health care organizations, associations, employers or government.
- HealthInfoNet is a **private nonprofit** organization. It is funded by many sources including charitable foundations, Maine health care providers, and state and federal government.

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Why Does Maine need HealthInfoNet?

HealthInfoNet delivers a unique statewide information system that enables ongoing collaboration between competing health care organizations to achieve efficient and comprehensive electronic exchange of patient health information regardless of where care is provided.

Without HealthInfoNet, this collaboration would not exist

On average 60% of patients in Maine have been seen at two or more unaffiliated facilities (physician offices or hospitals) connected to HIN in the last 24 months

- 70% of MaineGeneral Health's patients
- 97% of Southern Maine Healthcare's patients
- 95% of St. Joseph's Healthcare's patients
- 85% of Eastern Maine Healthcare's patients

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How does it work?

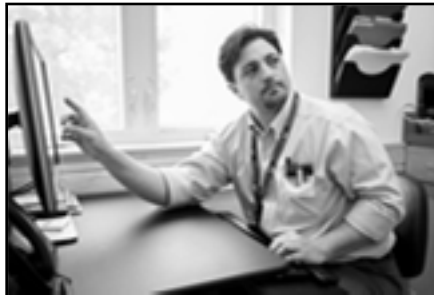
- HealthInfoNet's system combines information from separate health care sites to create a **single electronic patient health record**.
- Patient health information is **automatically uploaded** from a provider's electronic health record system.
- The information is **standardized and aggregated** across sites.
- HealthInfoNet **automates reporting** for hospitals public health needs such as syndromic surveillance for Maine CDC & electronic lab reporting for Meaningful Use requirements.

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HealthInfoNet HIE Clinical Services

- **Statewide Clinical Data Repository & Real-time HIE Clinical Portal**
 - Aggregated and standardized patient level clinical, encounter and diagnostic coding data
 - Central resource for accessing patient specific information to support coordination of care and treatment decisions.
- **Real-Time Notifications Service**
 - Electronic email "notifications" about specific events of care (i.e., ED & inpatient admin/discharge, new lab results, etc.) Connections to electronic health record systems across the state of Maine



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HealthInfoNet Analytics and Reporting

- Real time **syndromic surveillance, laboratory and immunization registry** reporting
- Near real-time **Predictive Analytics**
 - Enhance proactive care management to address risk and improve outcomes
 - Provide analysis of statewide market share and volume information
- **Statewide CDC Quality Measure Dashboard** allows for real-time assessment of diabetes, hypertension & obesity
- **Medicaid Utilization Reporting Tool** supports Medicaid care management and ED utilization (MaineCare ED Collaborative)
- **Hospital and Emergency Utilization Dashboard** – supports quarterly hospital and emergency utilization reporting to CMS for independent practices participating in the Northern New England Practice Transformation Network



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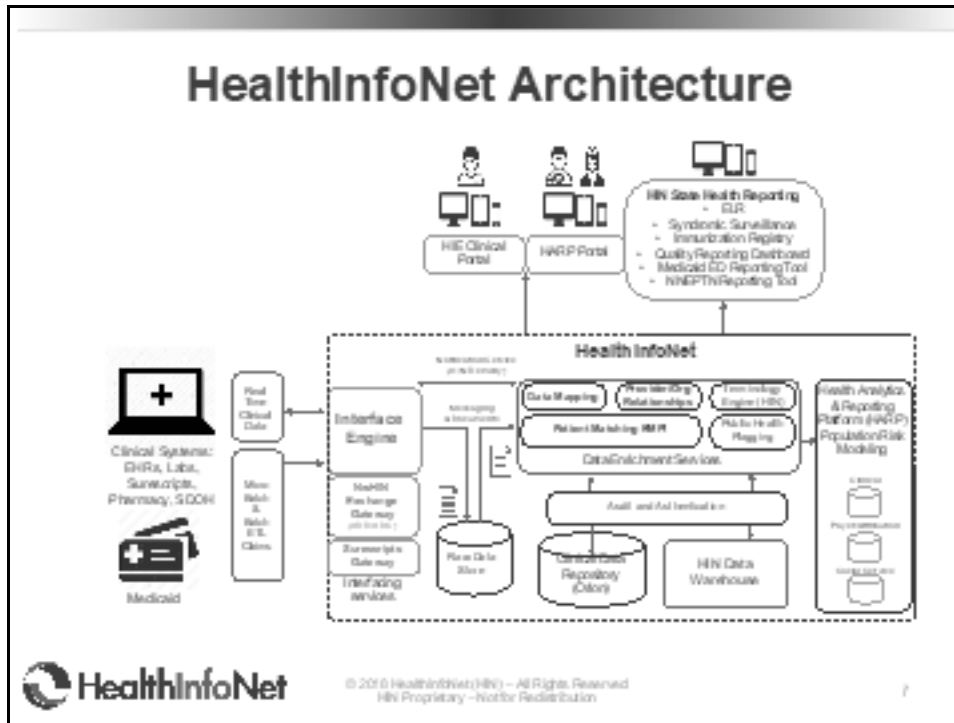
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Data Acquisition and QA

- HL7 v.2.x data acquired from EHRs and reference laboratories in “near” real-time
 - Chief complaint and event of care information is received in seconds
 - Coding data (final dx/px) received 12-36 hours
- Batch Medicaid eligibility and claims files received via SFTP monthly
- Prescription medication data received from Surescripts
- All data processed through interface engine and then through a language terminology engine for discrete data elements
 - Validation process and user acceptance testing (UAT) conducted with **ALL** sites at initial onboard and subsequently annual
 - Automatic QA for data type, format and site data volume at each site through interface engine and SQL database volume reporting
 - Sites address errors identified in sources systems – HIN does not change data received

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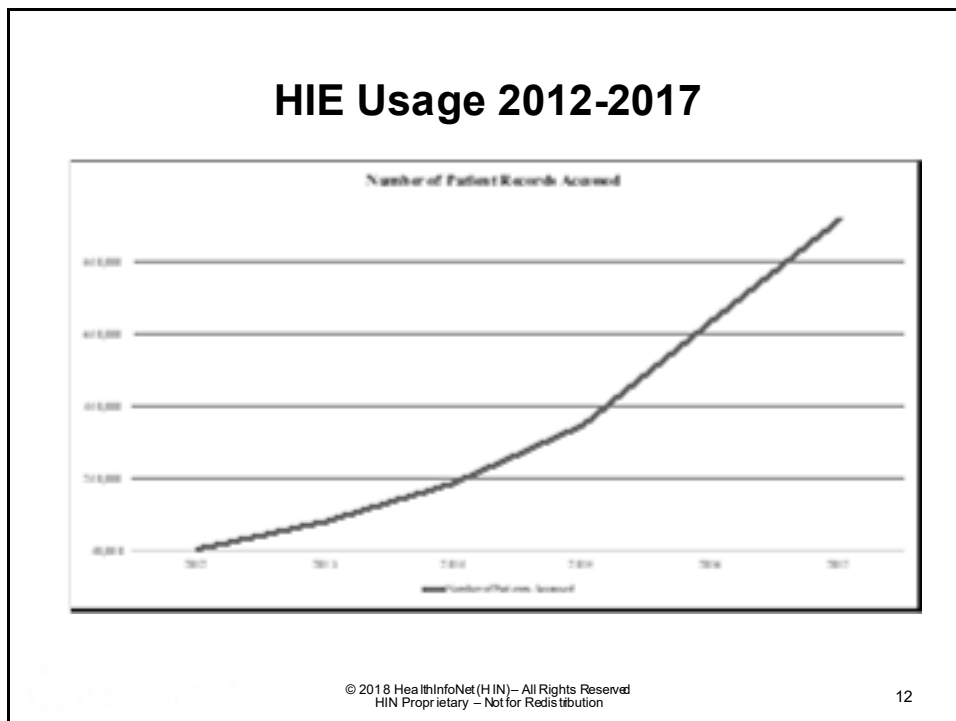
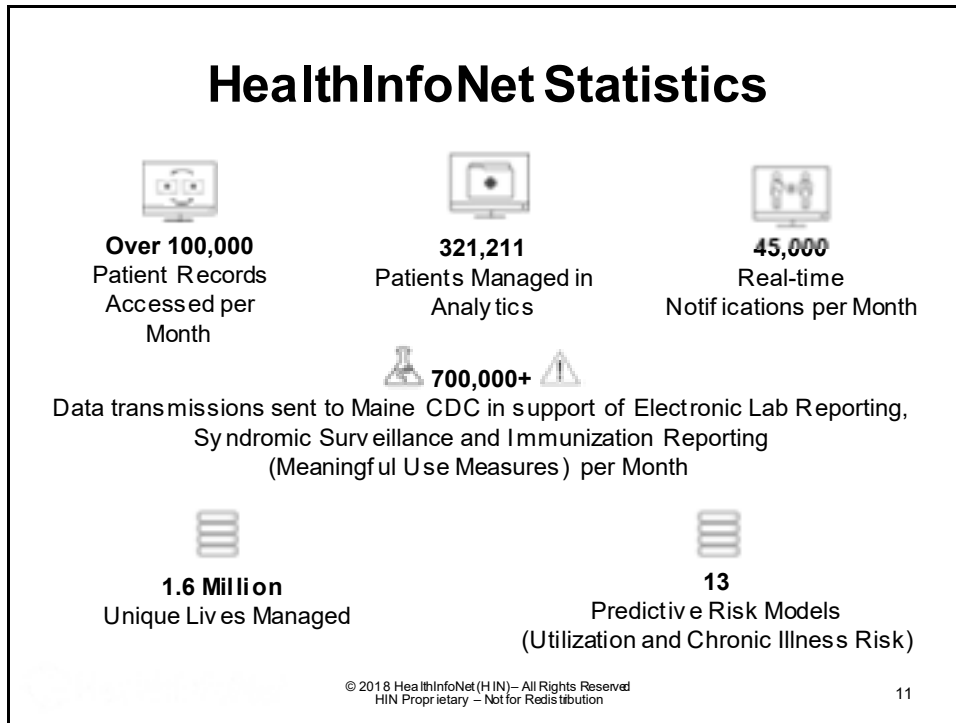
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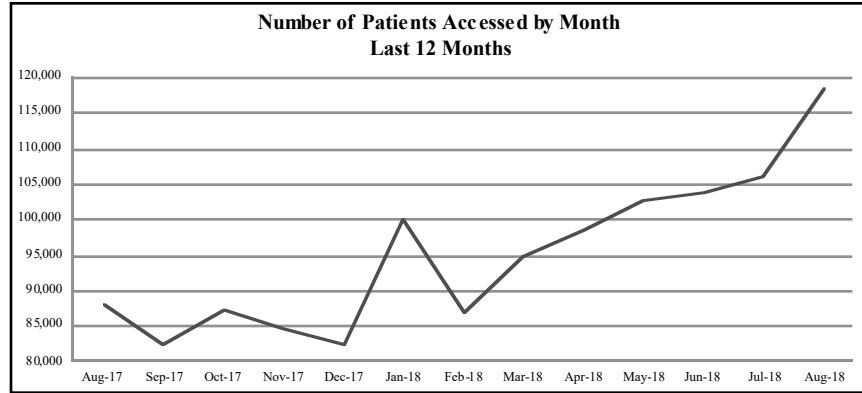
HIE Connections - 750+

	Acute Care Hospitals	18	
	Critical Access Hospitals	16	
	Mental Health Hospitals	1	
	Ambulatory	464	
	Behavioral Health	151	
	FQHCs	68	
	Post-Acute Care	48	
	VA Locations	12	
	Labs	5	
	Health Systems	5	
	Emergency Medical Service	3	
	Pharmacy	2	
	Payers	1	

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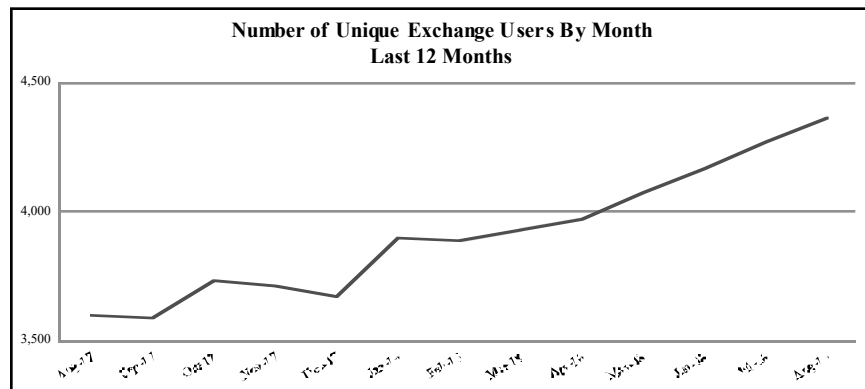
Patients Accessed



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Unique Users



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HIN in Action: Clinical Portal



"I use HIN to prepare our medical staff with the most information possible about the patient before they come into our care. HIN also fills in the blanks when our patients seek care outside of MaineHealth"

- Dorn McMahon, LCSW, Maine Medical Partners

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Notification Services

- Near **real-time notifications** pushed to providers via e-mail
- Specific **events of care** such as:
 - Admissions to and discharge from the hospital, emergency room and skilled nursing facilities
 - Final radiology reports
 - Final lab results
 - Final microbiology results
 - Patients deceased
 - New document (notes)



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Common Clinical Workflows

1. **Review medical information in preparation for each visit;** view recent visits and clinical results to support your clinical decision making workflow
2. **Identify medication prescriptions** you are unaware of and prevent duplicate or conflicting prescriptions
3. **Identify medical diagnosis** you are unaware of, review lab & radiology results and coordinate care with PCP, specialists, etc.
4. **Set up real-time/daily summary emails** for follow up to ED/hospital events of care to provide integrated care management and time sensitive patient intervention
5. **Follow up with external care partners** that share the “care plan” with you and your patient population

HIN in Action: Public Health Reporting

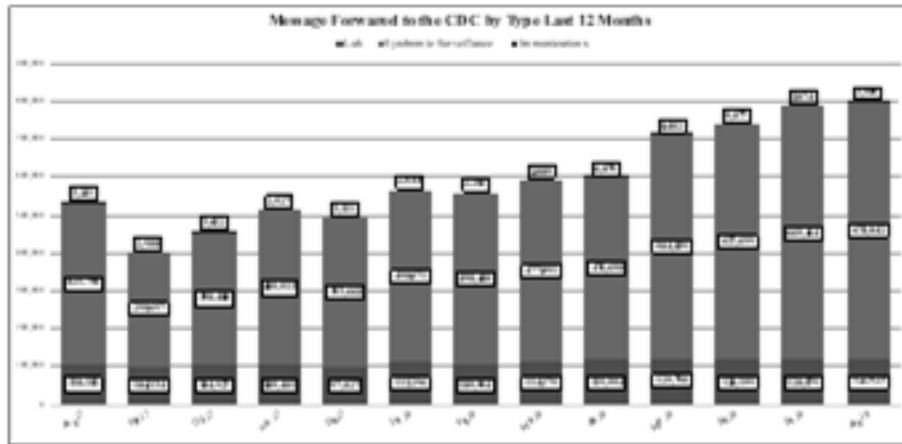
“I am always reminded of the words by former U.S. Surgeon General, Everett Koop, MD:

‘Health care is vital to all of us some of the time, public health is vital to all of us all of the time.’

Data on population health is essential for public health. Accurate reporting of health data is at the core of successful public health programs. Without the data public health will not succeed.”

-Stephen Sears, MD, Chief of Staff, VA Maine
and former Maine State Epidemiologist

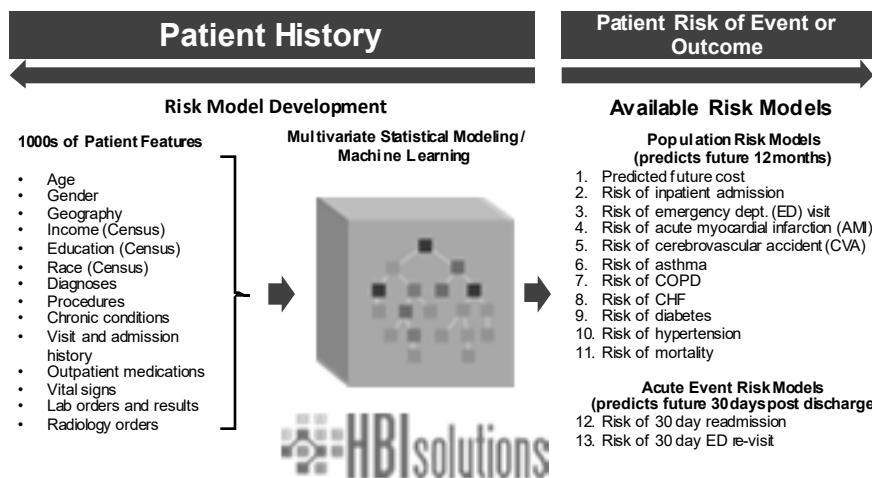
CDC Messages



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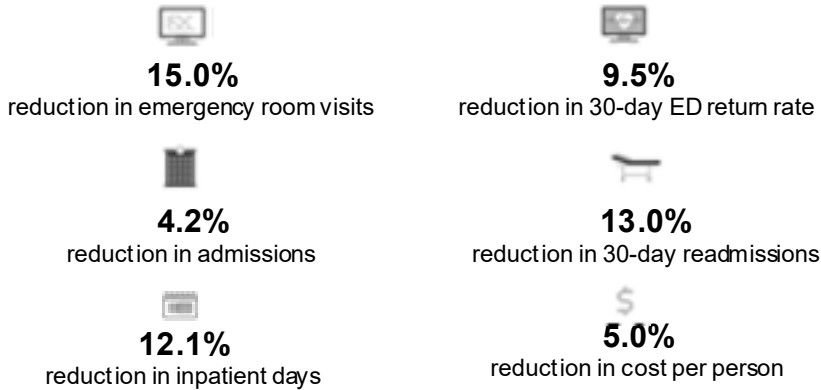
Predictive Analytics Models



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HIN In Action: Analytics St. Joseph Healthcare

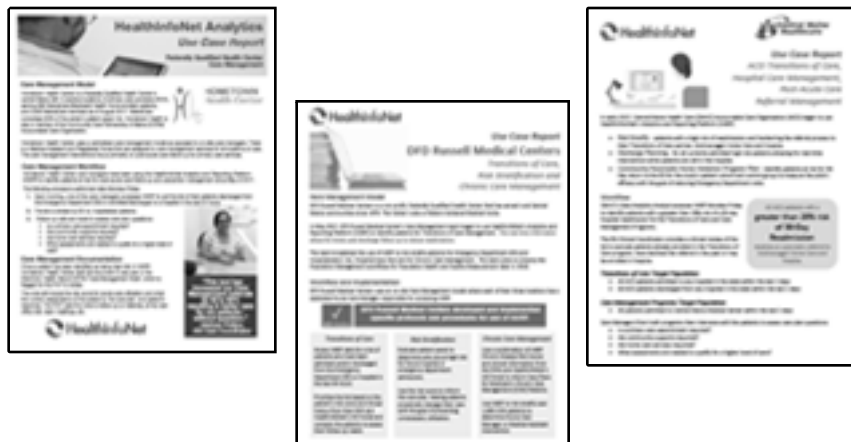


Compared to the state-adjusted rates

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Analytics use Case Reports



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Maine CDC Statewide Quality Measures Dashboard

- Maine CDC contracted HIN to design the **first statewide quality measures dashboard** to support disease prevention programs.
- CDC team requested HIN use NQF “e-measure specifications” when possible.
- Together, HIN and the CDC customize the measure specifications to create more informed measures for **hypertension and diabetes**.

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MaineCare Utilization Reporting Tool

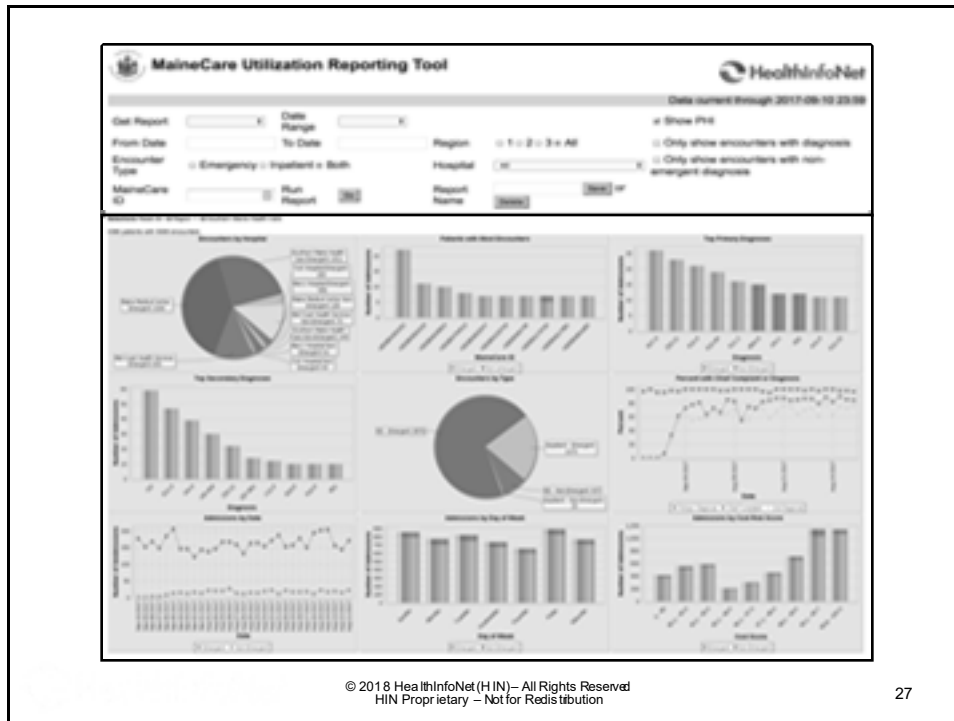
- MaineCare contracted HIN to design a technical solution for their Care Management program **to identify members using the ED for non-emergent diagnosis.** (SIM GRANT)
- Replaced use of the **hospital census fax.**
- MaineCare provides HIN **monthly batch claims data** (eligibility, medical, pharmacy) to integrate with the HIE Clinical Data Repository and Master Person Index.

HIN In Action: Medicaid Utilization

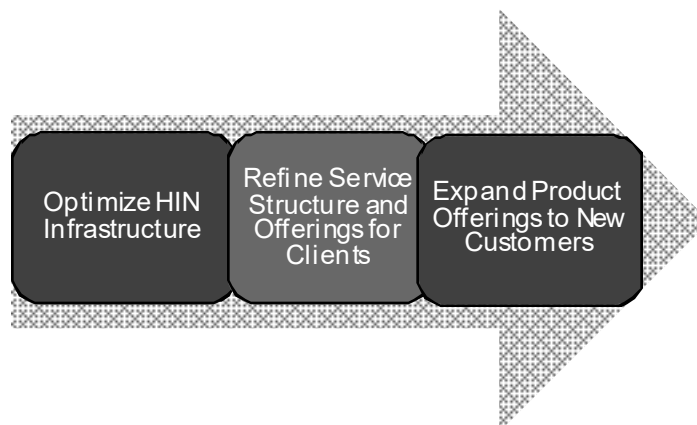
“The MaineCare Utilization Reporting Tool is an asset the Office of MaineCare Services utilizes to identify individuals who are eligible for care management through our Emergency Department Collaborative.

This tool allows us to have real time access to data so we can effectively and efficiently identify those in need of care management resources.”

**- Stefanie Nadeau
Director, Office of MaineCare Services**



2018 HIN Strategic Operations



Infrastructure & Service Optimization

- New Storage Area Network and Back Up Systems
- Analytics optimization
- Data center consolidation and network improvements
- Coming: UI Updates for HIE & Analytics (Q4 2018/Q1 2019)

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Expansion to New Organizations

- Behavioral Health Organizations
- SDOH
 - Community Action Agencies (CAA)
 - Head Start services data
 - FQHC “UDS” social data:
 - Housing/migrant worker status
 - Use of new SDoH ICD-10 coding available (Z Codes)
 - Maine Department of Health and Human Services
 - Funded non-emergent medical transportation services data
 - Medicaid Claims
 - Maine Housing Authority
 - Homeless Management Information System (HMIS)

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HIE Portal - Community Services & Health Record Integration

Non-Emergency Transportation				Housing			
Date	Provider	Type (CPT Code)	Agency	Date	Provider	Service	Description
2016-06-10	PENGLAS, C.A.F. INC. (A1130)	Witness from Visit	Managed Care Services for F (also clinics) (MTC)	2016-06-10	Green (not broker) (G04)	Supported Housing	per dem.
2016-07-23	PENGLAS, C.A.F. INC.	Bus. trip to other state	Monthly Bus Pass with regional transit provider (MPL)				
2016-07-01	PENGLAS, C.A.F. INC.	Vehicle provided by volunteer (A2000)	Service of Managed Care Services (SMC)				
2016-06-14	PENGLAS, C.A.F. INC. (A1130)	Witness from Visit	Managed Care Services for F (also clinics) (MTC)				

Income and Employment				Educational Support			
Date	Attribute	Value	Remark	Date	Provider	Service	Agency
2016-06-10	Income as % of Poverty Level	0	NA	2016-06-10	Services & Resources Training	Education and training for patient self management (SMO)	Service of Managed Care Services (SMC)
2016-04-10	Employment status	Not working	Disabled				
2016-03-27	Disability	Disabled	Epilepsy (11 00)				

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HealthInfoNet 2019-2021 Strategic Priorities

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Strategic Priorities

1. Expansion of services and customers
 - i. SDOH, Specialty Care, Substance Use Treatment
2. Data Expansion
 - i. SDOH, SUD, Quality Metrics, Claims, etc.
3. Software Development / Product Development
 - i. New tools – Term Atlas™, Others...
4. Out-of-State Opportunities
 - i. Trading Partners: Commonwell, Partners, NH etc.
 - ii. Partnerships with other HIEs

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Questions and Discussion

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