

Using Predictive Analytics to Redeem Optimal Value From HIE Data

Joe Miller, Director of Strategy and Innovation

Rashmi Menon, Manager, HIE and Clinical Integration

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**CARE IS THE HEART
OF OUR WORK™**

Delivering the Next
Generation
of Health Care

Agenda and Company Overview



Agenda

- Transformation of health information exchange (HIE) data into meaningful, actionable insights for improvements in clinical workflows.
- Using data analysis to determine patterns of clinical events and employing stratification strategies to identify members at greatest risk.
- Integration of HIE data with other sources to provide a complete picture of members' health across the continuum of care.



Company Overview

AmeriHealth Caritas:

- Has more than 35 years of experience expanding access to care for members and striving to maximize value for health care providers, community organizations, and government stakeholders.
- Is backed by two of the largest and most well-respected Blue companies, Independence Health Group and Blue Cross Blue Shield of Michigan.
- Works every day to fine-tune the future of health care through innovation, compassion, and an unwavering dedication to eliminating health disparities.



Company Overview



Blue states Existing AmeriHealth Caritas Medicaid health plan markets

- Dual eligible special needs plan (D-SNP)
- Medicare-Medicaid plan (MMP)
- Behavioral health managed care
- Specialty pharmacy
- Long-term services and supports (LTSS) experience
- Pharmacy benefit management

Who We Serve

Social issues

- Poverty.
- Language barriers.
- Education.
- Homelessness.
- Transportation.
- Food access.
- Personal safety.

**Medicaid
Dual eligibles
LTSS
IDD**

Health issues

- Health literacy.
- Comorbidities.
- Behavioral health.
- Substance use.
- Polypharmacy.
- Drug adherence.

Our Approach



**Leverage existing
partnerships with
providers and HIEs**



**Apply our
“whole-member”
philosophy to care
management**



**Innovate with our
leading data
integration and
interoperability platform**

HIE at AmeriHealth Caritas



AmeriHealth Caritas HIE Journey

**HSX
PA**

2015
Invested in HIE infrastructure and served as a founder of HealthShare Exchange (HSX) in PA

**DC,
LA,
FL, MI**

2016
Implemented multi-state HIE gateway

IA, MI

2017
Integrated transactions coming through our HIE gateway with back-end systems

DE

2018
Fully integrated to care management and provider applications

HIE at a Glance



5

State/regional HIEs exchanging data with our health plans



1,343

Hospitals sending data to our plans via HIEs



1.3M

Members in plans exchanging information with HIEs



275,009

Continuity of Care Documents (CCDs) received through HIEs



3.8M

Admission, discharge, and transfer (ADT) encounter notification alerts

Collaboration With State HIEs



Plan	HIE	#Transactions (last 12 months)
AmeriHealth Caritas Louisiana	Louisiana Health Information Exchange	100,379
Keystone First and Keystone First VIP Choice	HSX	778,996
Prestige Health Choice	Florida HIE	374,035
AmeriHealth Caritas District of Columbia	CRISP	181,139
AmeriHealth Caritas VIP Choice and Blue Cross Complete of Michigan	MiHIN Shared Services	981,024

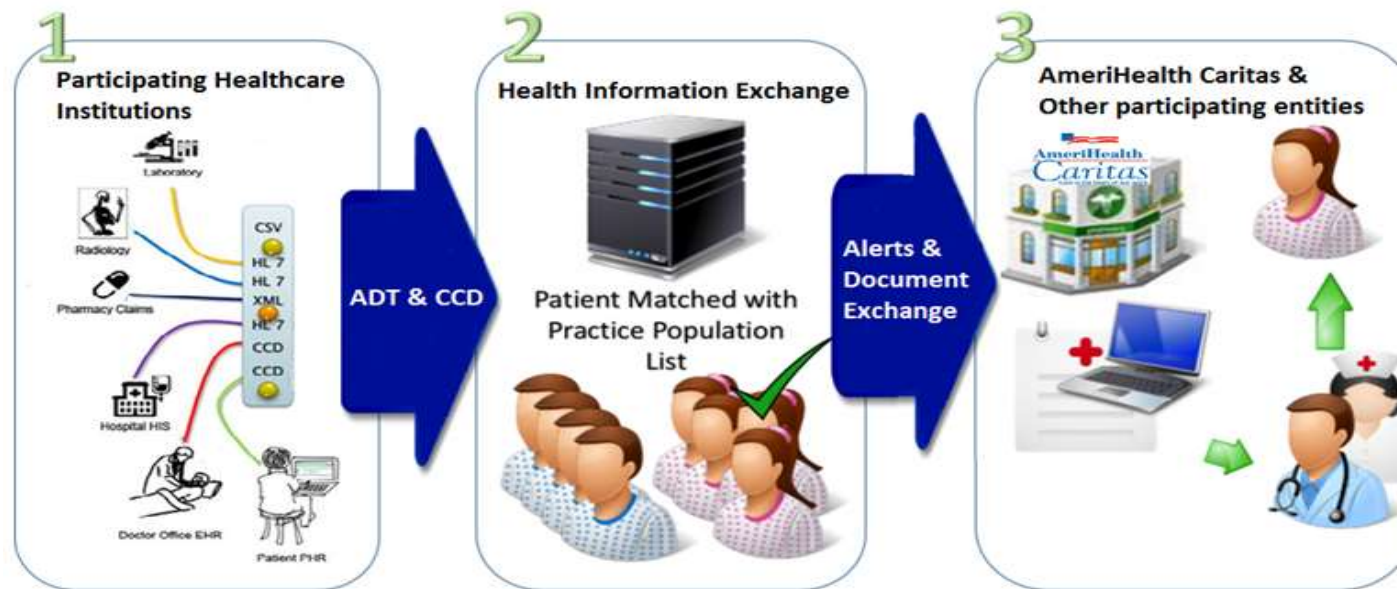
Collaboration With State HIEs



Integrated

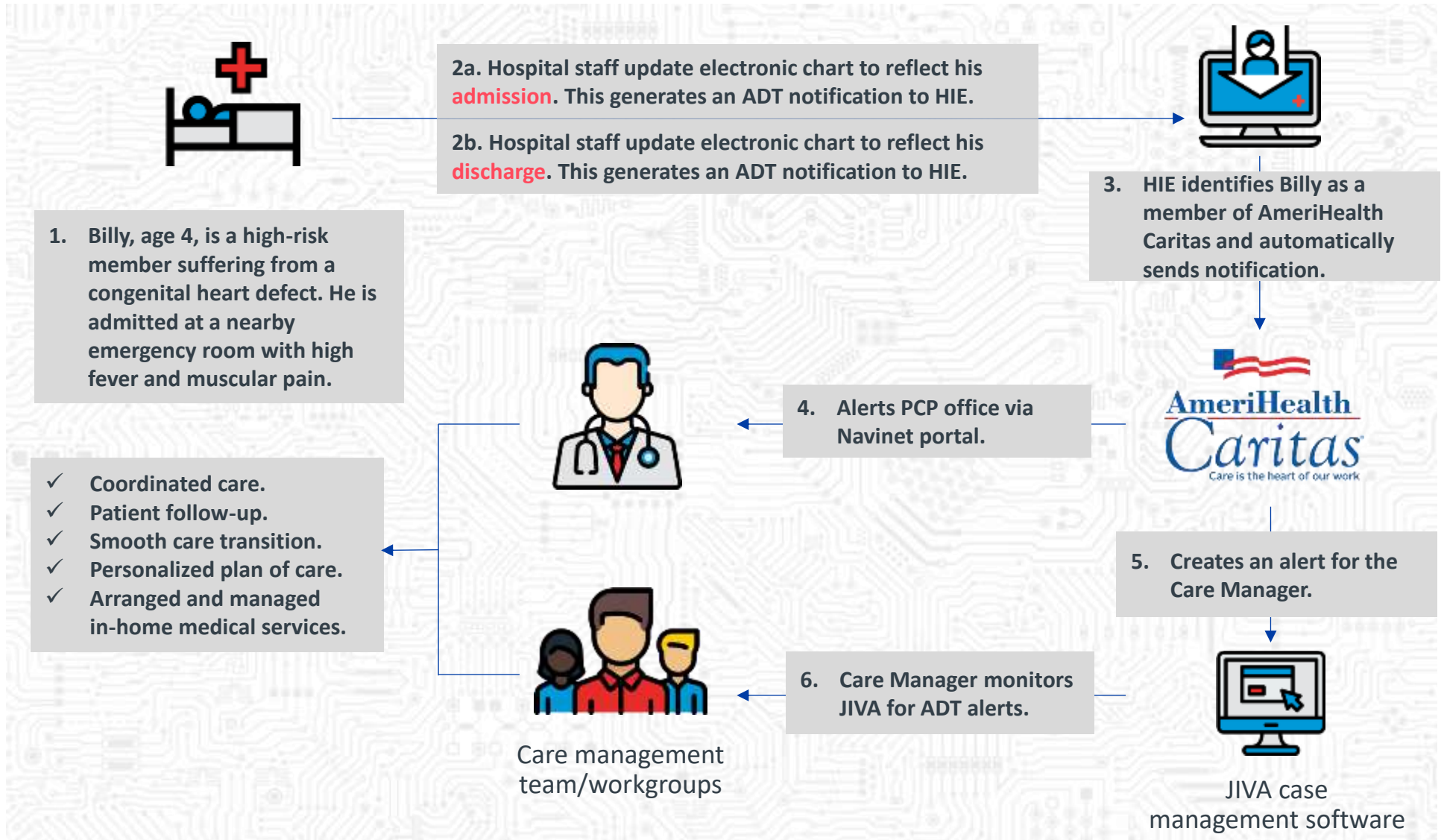
In-flight

AmeriHealth Caritas HIE Experience



1. Participating health care institutions send Admission, Discharge and Transfer (ADT) alerts and Continuity of Care Documents (CCDs) to AmeriHealth Caritas via the HIE in real time or near-real time (within 24 hours).
2. The HIE interface validates the member, applies rules and predictive modeling, and integrates data with care management applications.
3. Aggregated member data is integrated into the workflow and shared with AmeriHealth Caritas Care Managers and providers.

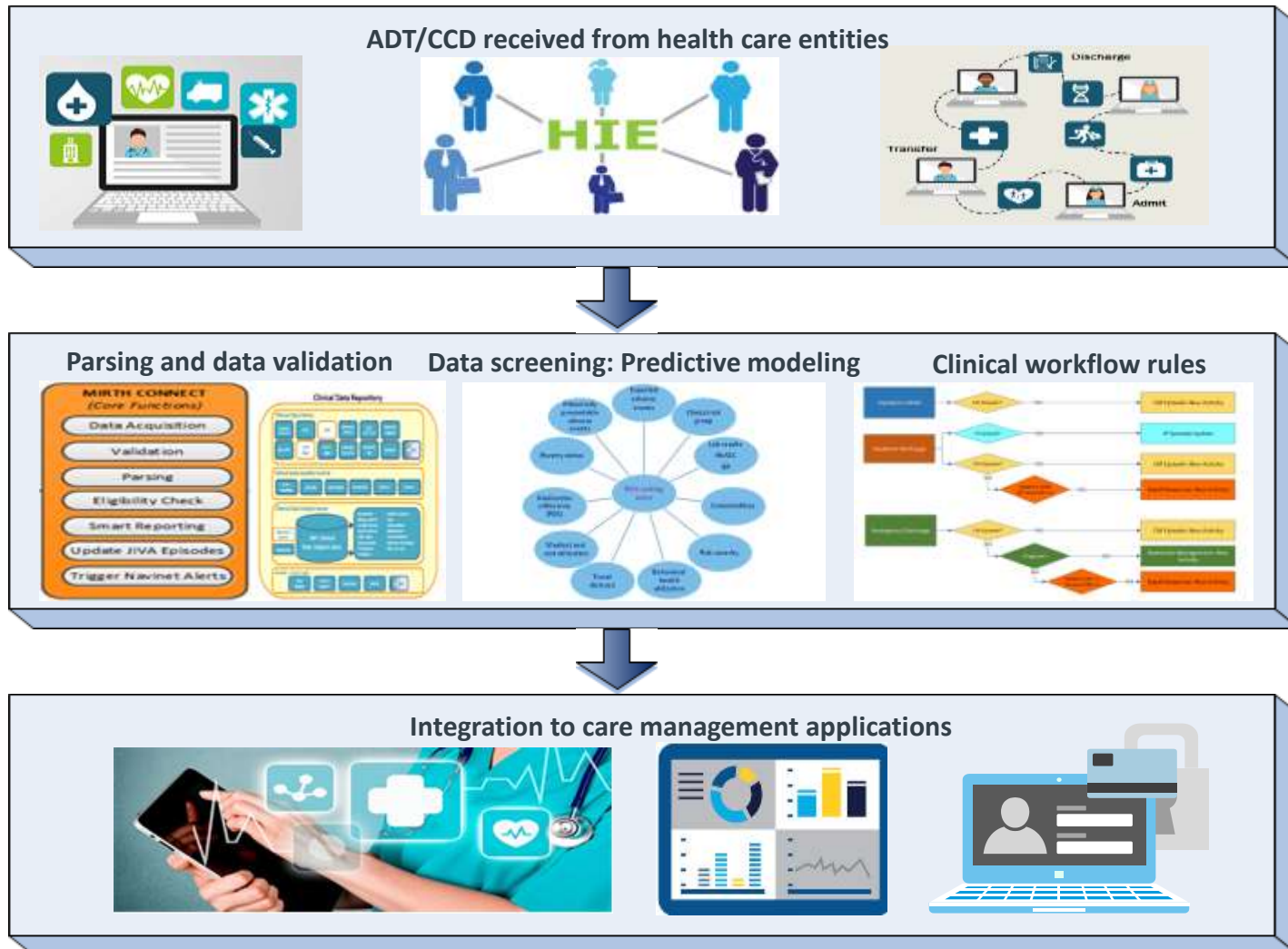
HIE Advantage: Case Study



HIE Process



HIE Process Overview



HIE Process: Data Intake



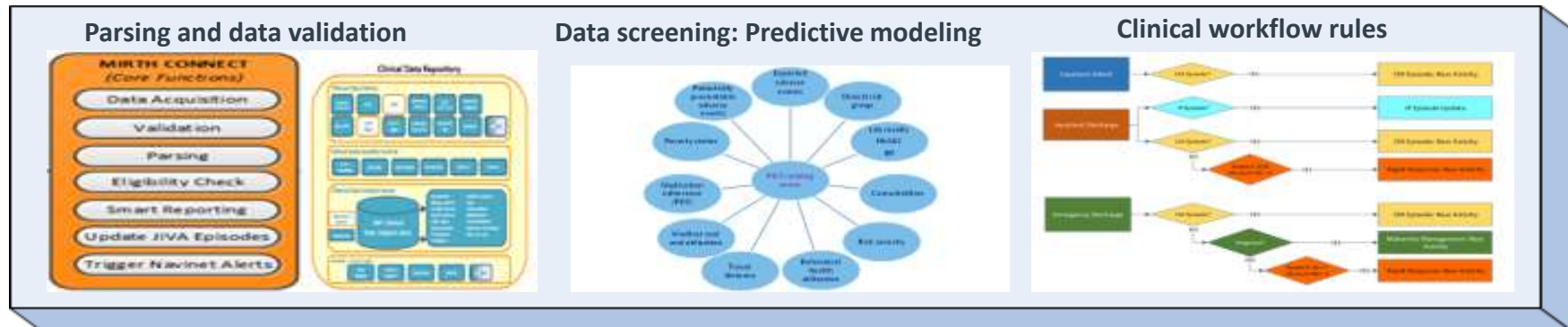
Electronic health record shared via HIE

- Patient administration information (ADT).
- Patient care history (CCD).
- Clinical summary including pharmacy, diagnosis, allergies (CCD).

Data integration

- Data exchange with HIEs is done in real time and/or batch mode.
- Real-time data integration is done via secure virtual private network (VPN).
- Batch data exchanges are done using Secure File Gateway (SFG) or Secure File Transfer Protocol (SFTP) with Pretty Good Privacy (PGP) encryption.

HIE Process Overview: Data Processing



- **Interface:** Mirth Connect, a cross-platform HL7 interface engine, is used to process ADTs and CCDs.
- **Data storage:** Parsed clinical information from ADTs and CCDs is stored in a clinical data repository, which is built on an HL7-based schema.
- **Predictive modeling:** Analytic risk stratification predictive models that use various parameters (e.g., demographics and gaps in care) are applied to member data for targeting members in need of care.
- **Clinical workflow rules:** Information derived from clinical data, such as frequent emergency room users and pregnancy markers, is then applied to clinical workflows to integrate the results from predictive modeling into care management application workflows.

HIE Process Overview: Data Integration



ADT integration: Integration of HIE ADT data into care management workflow for emergency discharge, inpatient admission, and inpatient discharge events. This capability improves care management workflows to:

- Create event records and authorizations.
- Update discharge information.
- Close inpatient cases.

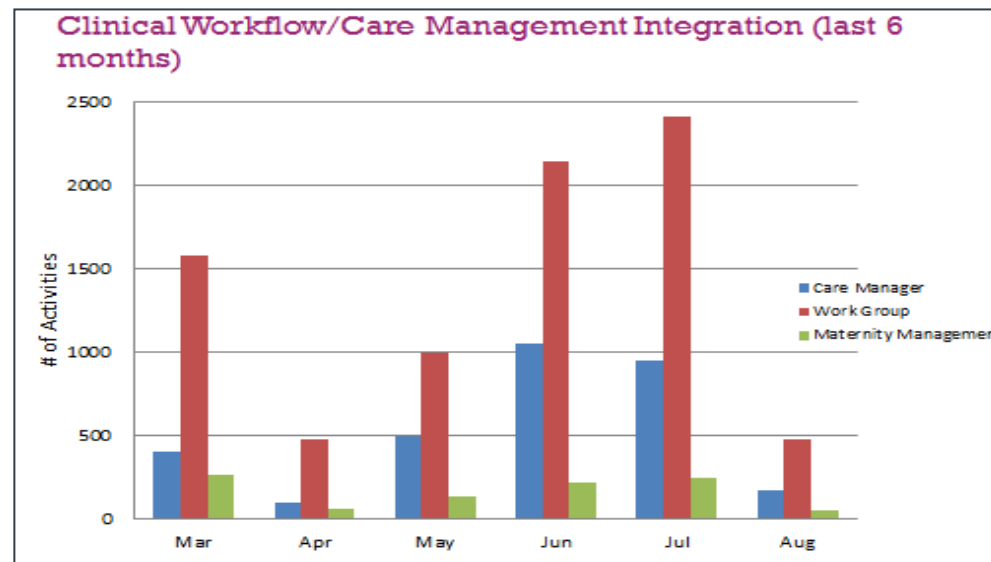
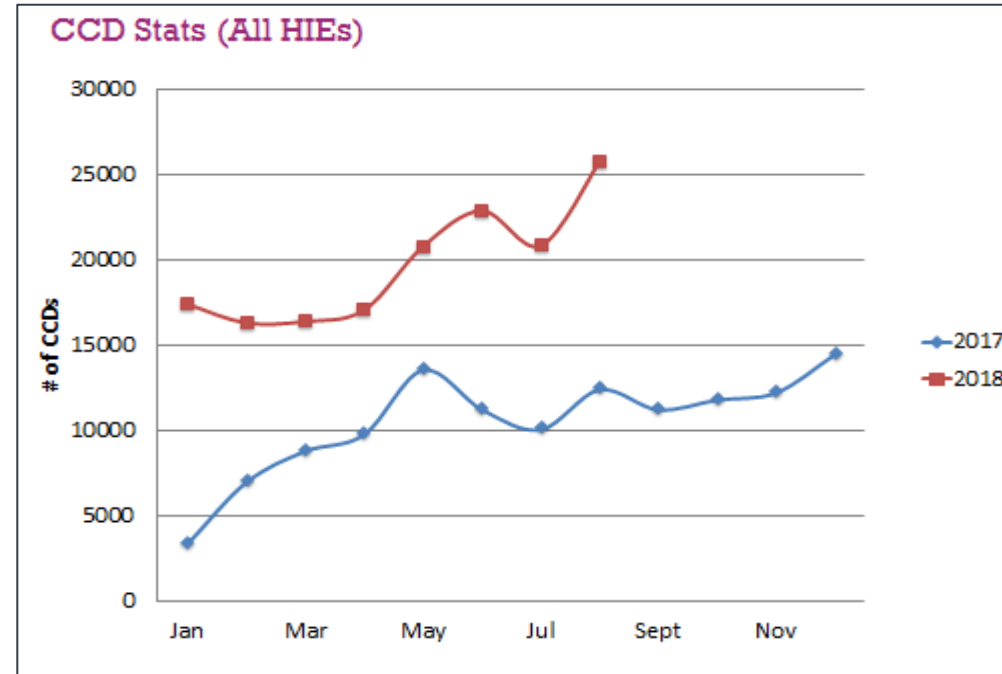
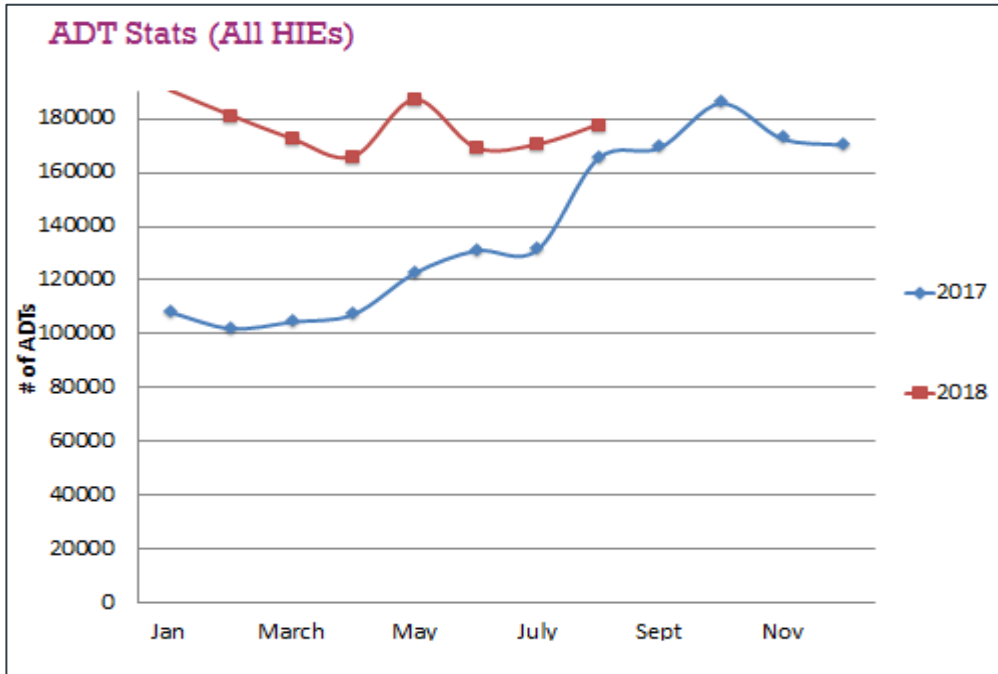
CCD integration: Integration of CCD data into care management workflow to provide comparison of prescribed and filled medications. This provides the ability to:

- Pull medications from CCD into a display to match prescription last filled.
- Create an activity or alert through work queues for member outreach.
- Share medication reconciliation summary via the Provider Portal.

Clinical activity history: Integrate member's clinical history data with electronic health systems at hospital and provider facilities. This allows better, targeted treatment by:

- Integrating into hospital emergency departments, reducing unnecessary tests, medications, and therapies.
- Reducing member length of stay.
- Improving patient satisfaction.

Overall HIE Metrics



Benefits, Challenges, and Next Steps



Benefits of HIE: Aligned to Triple-Aim Goals

Improved health outcomes

- ✓ Effective coordination of care between providers.
- ✓ Integration of physical and behavioral health care into an integrated care plan.

Better care

- ✓ 360-degree view of member health.
- ✓ Reduction in missed or delayed diagnoses.
- ✓ Reduction in adverse events.
- ✓ Improved health monitoring and reporting.

Reduced utilization costs

- ✓ Reduction in readmissions.
- ✓ Reduction in frequency of emergency room visits.
- ✓ Prevention of duplicative or repeat tests (e.g., lab work and diagnostics).
- ✓ Reduction in length of hospital stays.



Challenges and Next Steps

Challenges	Next steps
<ul style="list-style-type: none">• Minimal clinical data on ADT transaction.• Lower rates of provider participation in HIEs.• Work load management for Care Managers.	<ul style="list-style-type: none">• Supplement ADT with CCD data.• Increase provider participation.• Increase adoption of electronic health record/electronic medical record integration.

Questions



More than
35 YEARS
of making
care the heart
of our **work.**



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