



**eHEALTH INITIATIVE**  
Real Solutions. Better Health.

# **eHealth Initiative Data Analytics Sub-Workgroup**

**April 16, 2015  
2:00 p.m. EDT**

# Reminder

Please mute your line when not speaking

(\* 6 to mute, \*7 to unmute)

This call is being recorded

Slides from today's presentation are available at [ehidc.org](http://ehidc.org)



# About eHealth Initiative

- Since 2001, eHealth Initiative is the only national, non-partisan group that represents all the stakeholders in healthcare.
- Mission to promote use of information and technology in healthcare to improve quality, safety and efficiency.
- eHealth Initiative focuses its research, education and advocacy efforts in three areas:
  - Business and clinical motivators
  - Interoperability
  - Data access and use



# Data Analytics Sub-Workgroup Purpose

Recognizing that the ability to collect meaningful exchange health data has no value unless it is appropriately accessed and analyzed to inform clinical decisions about an individual's condition and possible interventions is an important component in our efforts towards better health outcomes.

eHealth Initiative has created the Data Analytics Sub-Workgroup under the Data Access and Use Workgroup that will primarily focus on access to data and the use of predictive analytics. This group will focus on key issues including access to data, data analytics, and use cases to highlight the use of predictive analytics to identify patients at risk, align appropriate interventions, and improve health outcomes.

This group will meet on the third Thursday of every month from 2:00 pm – 3:00 pm EDT to focus on appropriately broadening access to data and the growing role of analytics in driving value-based healthcare.



# Agenda

**2:00 – 2:05 PM Welcome and Introductions**

**2:05 – 2:40 PM Presentations**

- Chris Leggett, Director of Care Delivery, US Policy at GlaxoSmithKline (GSK)
- **2:40 – 3:00 PM Q&A**





do more  
feel better  
live longer

## eHI Presentation Data Analytics Sub-Workgroup

Chris Leggett  
Director, US Public Policy

# eHI Data Analytics Sub-Workgroup

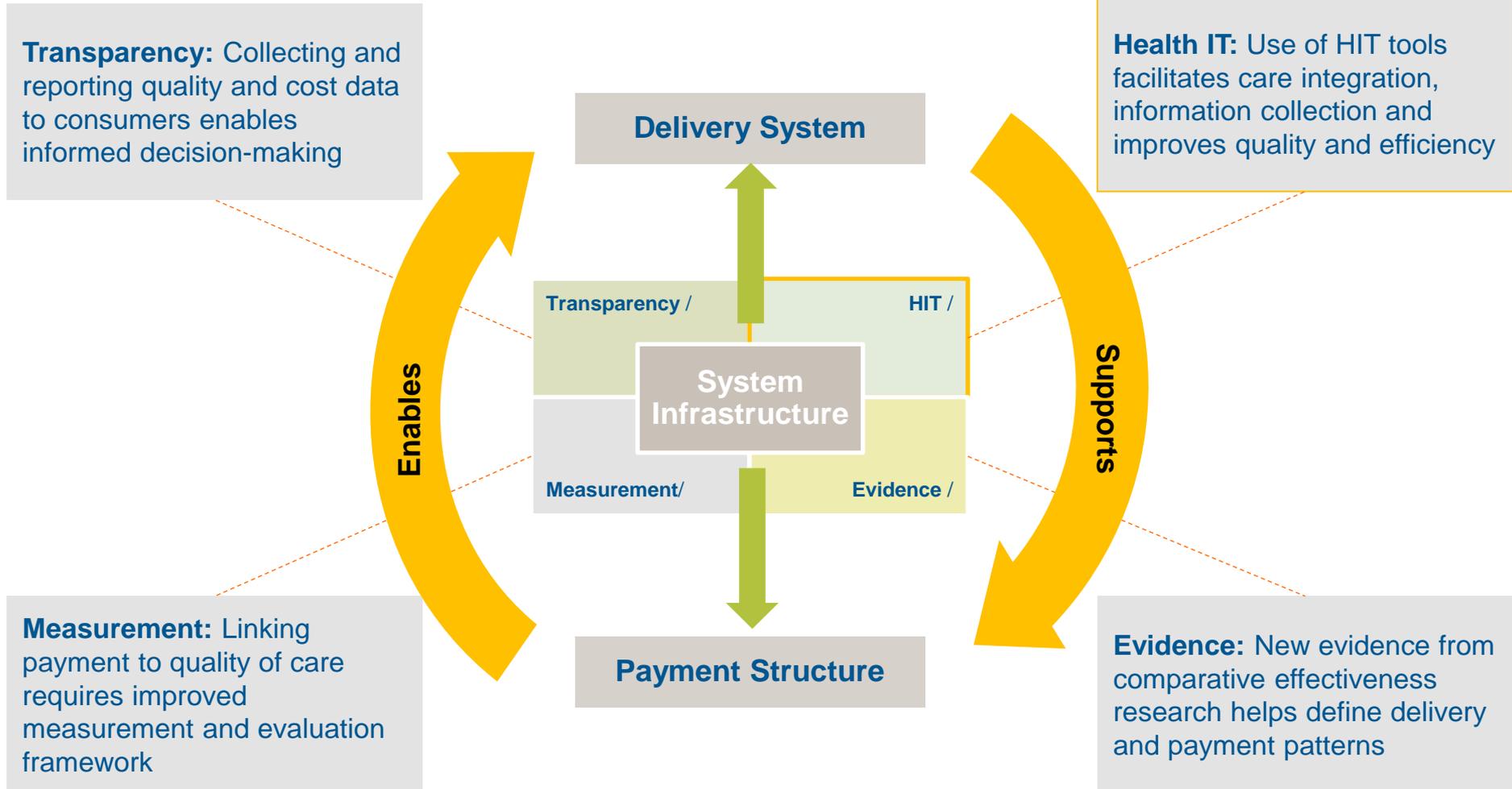
## Topics for Discussion

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- Health Information Technology – Enabling Healthcare Transformation
  - Example of HIT Enabling Healthcare Transformation
    - Objective of Medication Management Analytics Pilot
    - Overview of Care Triage™
    - Utilization and Findings
    - Community Pharmacy Use Case
  - What's Next?
    - Further Evidence Generation
    - Shape External Environment
-

# US Healthcare Shifts from Volume to Value



# EHR Incentive Program



Transition from adoption of technology to “meaningful use” of data

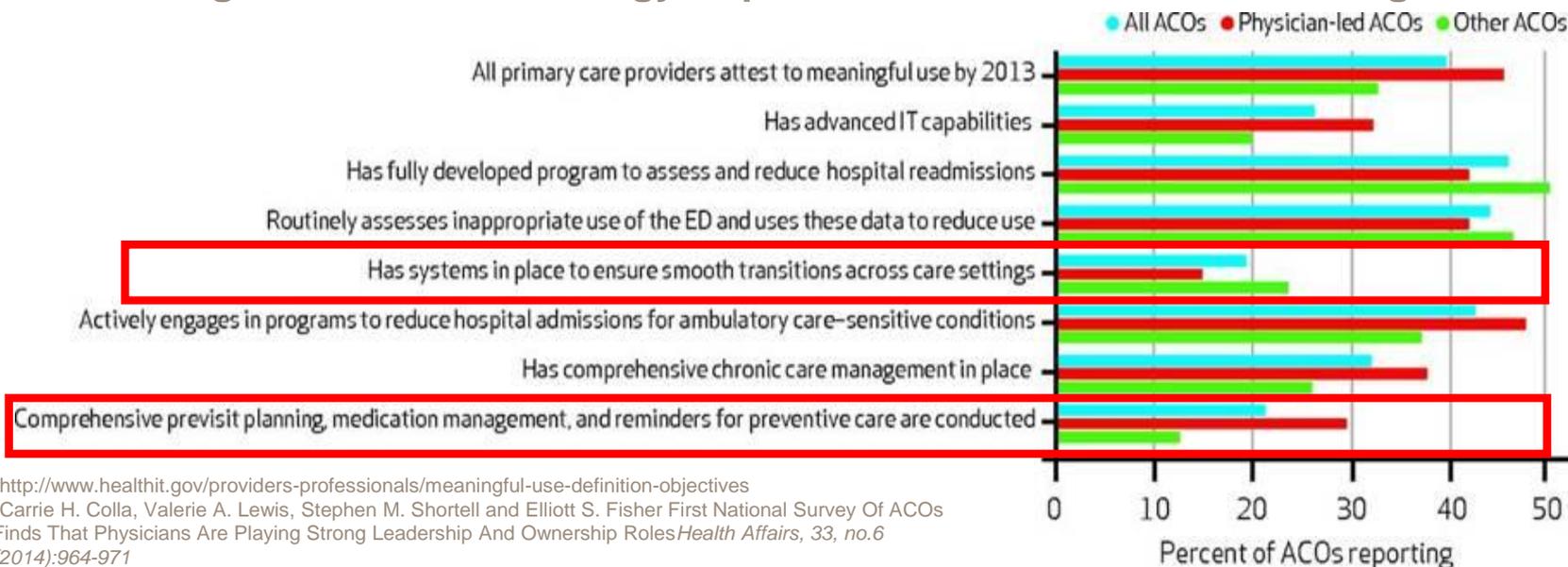
- **Widespread adoption and implementation of EHRs – Hospitals and Providers**

- **Meaningful Use Defined<sup>1</sup>**

- Meaningful use is using certified electronic health record (EHR) technology to:

- Improve quality, safety, efficiency, and reduce health disparities
- Engage patients and family
- Improve care coordination, and population and public health
- Maintain privacy and security of patient health information

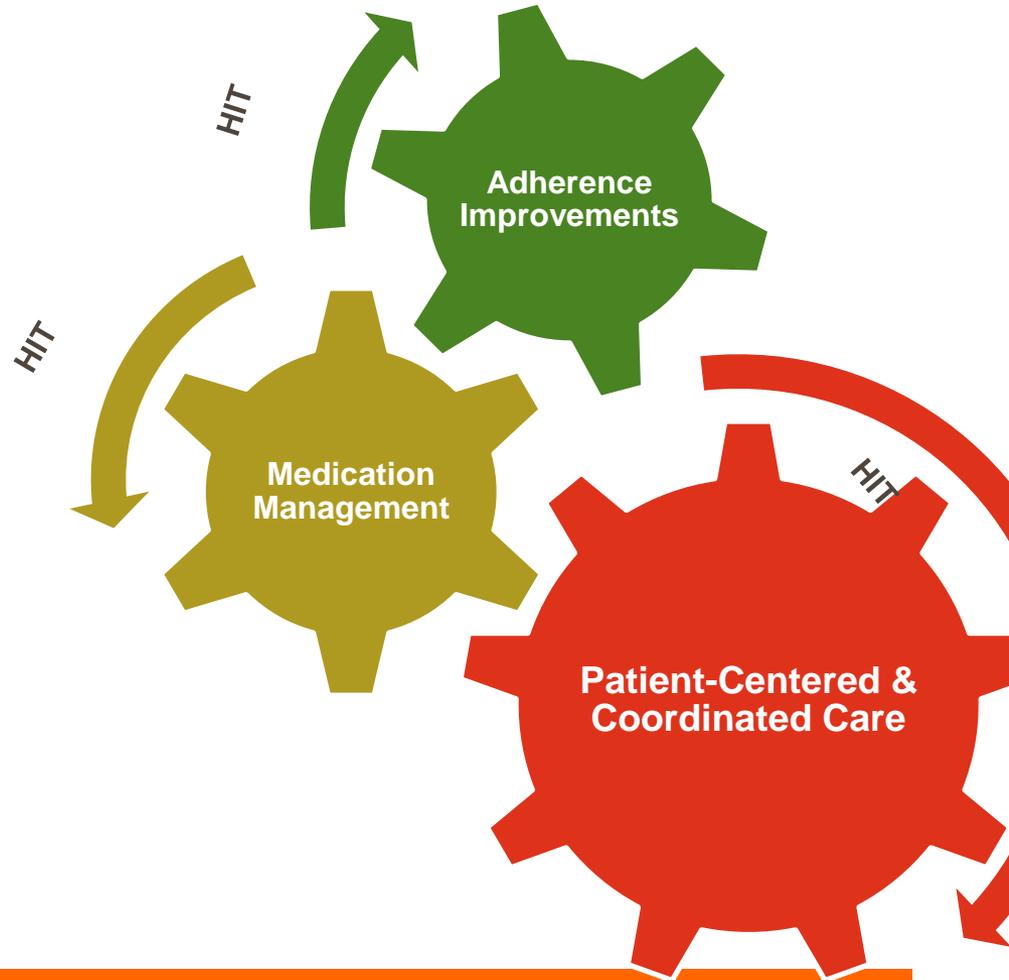
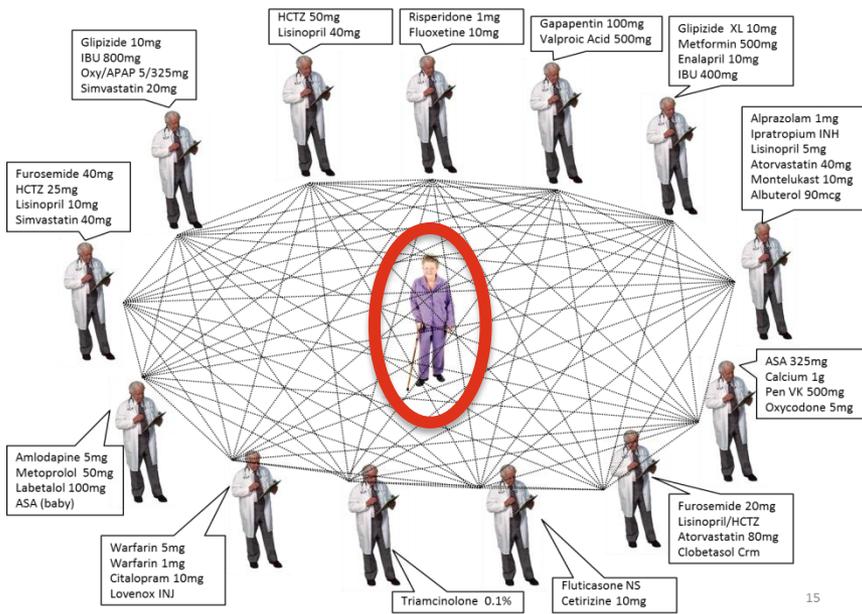
- **Care Management And Technology Capabilities Of Accountable Care Organizations<sup>2</sup>**



<sup>1</sup><http://www.healthit.gov/providers-professionals/meaningful-use-definition-objectives>

<sup>2</sup>Carrie H. Colla, Valerie A. Lewis, Stephen M. Shortell and Elliott S. Fisher First National Survey Of ACOs Finds That Physicians Are Playing Strong Leadership And Ownership Roles *Health Affairs*, 33, no.6 (2014):964-971

# Health Information Technology (HIT) Enables Comprehensive Medication Management



Medicare patient with multiple chronic conditions



Visits 13 healthcare providers and fills 50 prescriptions every year<sup>1</sup>

GSK believes that coordinated care delivery with a patient centered comprehensive medication management component produces appropriate adherence, better outcomes and lower overall costs.

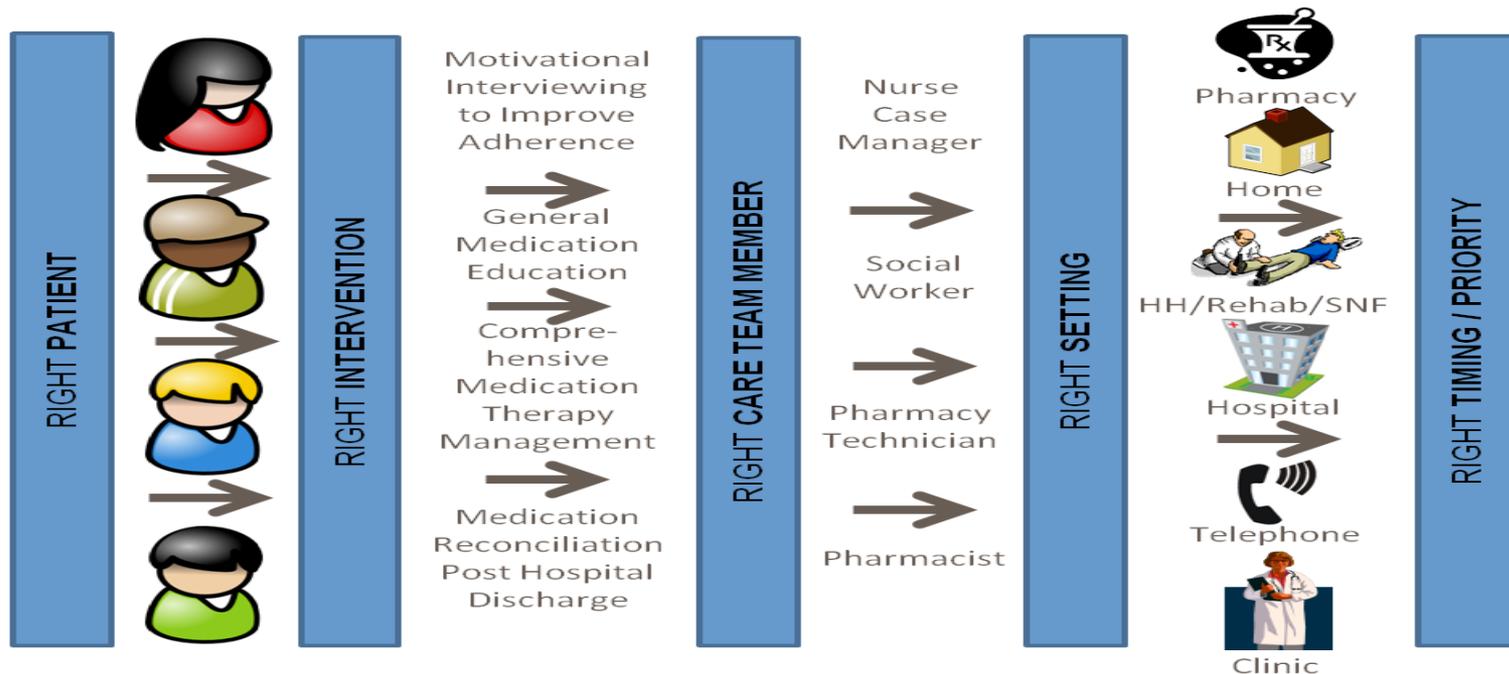
1. The Patient- Centered Medical Home-Integrating comprehensive medication management to optimize patient outcomes. Available at <http://www.accp.com/docs/positions/misc/CMM%20Resource%20Guide.pdf>.

# Medication Management Analytics Pilot – Care Triage™

GSK and Community Care of North Carolina (CCNC) Collaboration



CCNC and GSK are collaborating to address an unmet need of healthcare professionals with a collective objective of improving patient outcomes. Through the use of data and analytics we will co-develop tools that identify patients at risk of negative outcomes and provide medication management guidance: what intervention, which interventionist, which setting, at the appropriate time.

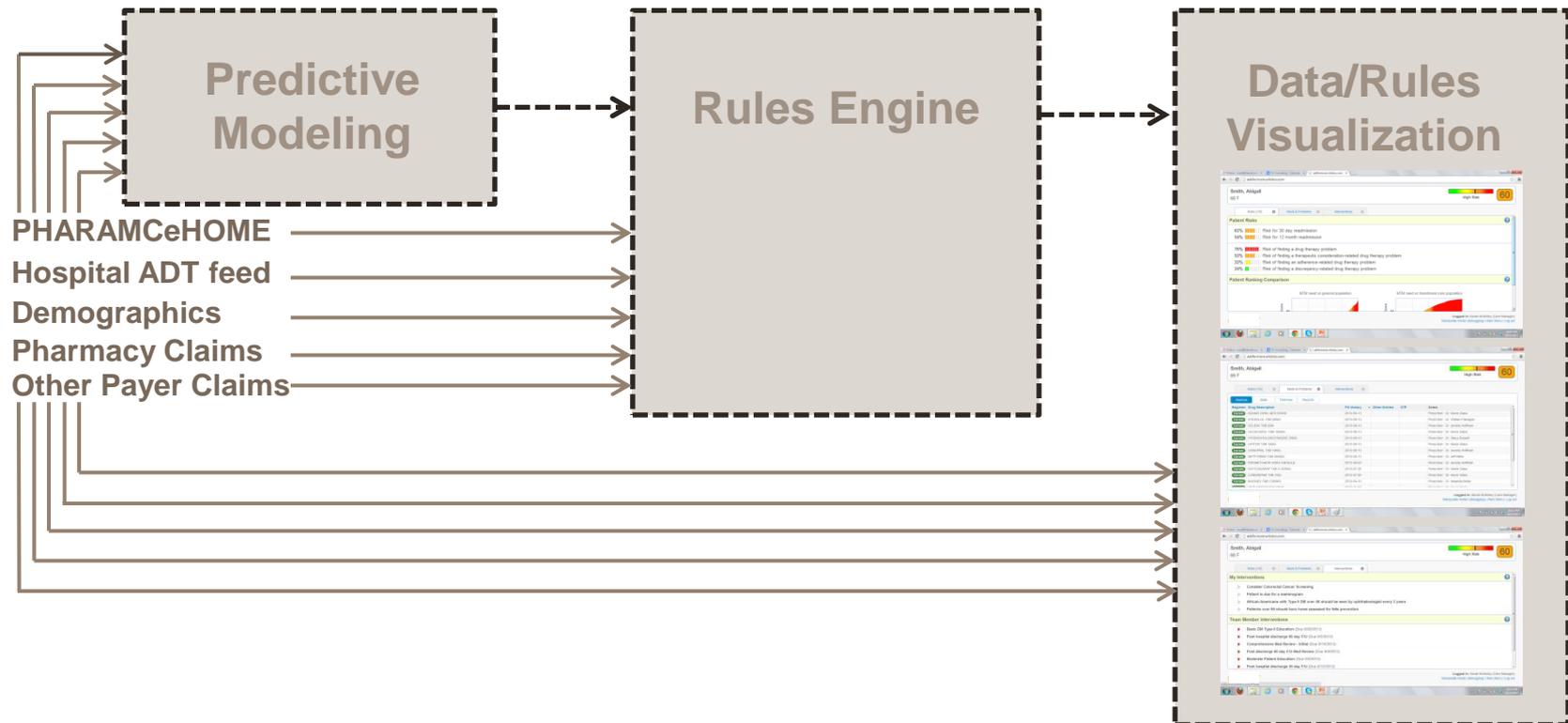


# Medication Management Analytics Pilot - Care Triage™



GSK and Community Care of North Carolina (CCNC) Collaboration

Utilize data, prescriptive analytics and logistics to enable healthcare providers to identify patients at risk of negative outcomes and provide medication management guidance to the appropriate settings of care



Care Triage™ is a lightweight, user –friendly tool that adapts to diverse environments and allows healthcare professionals to quickly obtain relevant information in 30 seconds

# Patient Risk Profile



[Redacted]

50 Female

Composite Score:

**75**

0 **75** 100



**Very High Risk**

Last Calculated: 12/31/2013 at 7:52 AM

Risks



Medications

Interventions

## Patient Risks

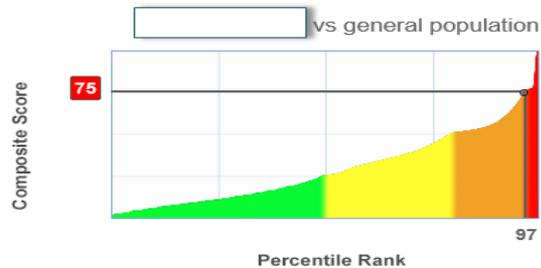


- ██████████ Risk percentile for hospitalization within next 30 days
- ██████████ Risk percentile for hospitalization within next 12 months

- ██████████ Risk percentile of finding a drug therapy problem
  - ██████████ Risk percentile of finding a high priority adherence-related drug therapy problem
  - ██████████ Risk percentile of finding a high priority discrepancy-related drug therapy problem
  - ██████████ Risk percentile of finding a high priority therapeutic consideration-related drug therapy problem

High priority drug therapy problems are only displayed when the risk percentile of finding any drug therapy problem is greater than or equal to the 50th percentile of the general population taking at least one chronic medication.

## Patient Ranking Comparison



Logged In: kroberts@n3cn.org (Pharmacist)

# Medication List

50 Female

Composite Score:

75



Very High Risk

Last Calculated: 12/31/2013 at 7:52 AM

Risks

Medications

Interventions

Details

TimeView

Current Regimen: ✔ High Risk Meds: 2  
MTM Intensive Meds: 0

Fill History:  
(12 months)

Unique Pharmacies: 4  
Unique Prescribers: 8

Total Med Fills: 130



## Medicines filled at pharmacy (19)

ACCU-CHEK TES COMPACT  
ALBUTEROL SULFATE NEB 0.083%  
ALENDRONATE SODIUM TAB 70MG  
ATORVASTATIN CALCIUM TAB 20MG  
BYDUREON INJ  
CLOTRIMAZOLE/BETAMETHASONE DIPROPIONATE CRE DIPROP  
DALIRESP TAB 500MCG  
HYDROCODONE/ACETAMINOPHEN TAB 5-500MG  
JANUMET TAB 50-1000  
**LANTUS SOLOSTAR INJ SOLOSTAR**  
LISINAPRIL/HYDROCHLOROTHIAZIDE TAB 20-25MG  
MEDROXYPROGESTERONE ACETATE TAB 10MG  
**NOVOLOG FLEXPEN INJ FLEXPEN**  
OMEPRazole CAP 20MG  
PRAMIPEXOLE DIHYDROCHLORIDE TAB 0.125MG  
PROAIR HFA AER  
SPIRIVA HANDIHALER CAP HANDIHLR  
SYMBICORT AER 160-4.5  
ZOLPIDEM TARTRATE TAB 10MG

## Selected Conditions

Asthma  
COPD  
Diabetes  
Emphysema  
Hypertension

50 Female

Composite Score:

**75**



**Very High Risk**

Last Calculated: 12/31/2013 at 7:52 AM

Risks



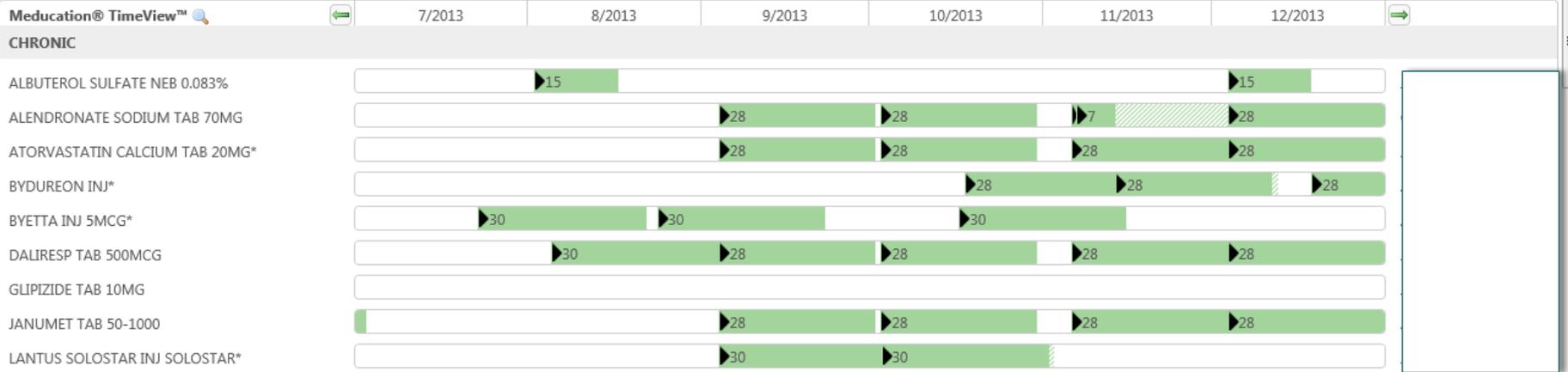
Medications

Interventions

Details

**TimeView**

Only includes filled medications from electronic pharmacy claims processing



Logged In: kroberts@n3cn.org (Pharmacist)

**Most users found TimeView to be extremely beneficial. TimeView provided a visual representation of a patient's adherence to their medication regimen.**

# Interventions

Risks



Medications

Interventions

## My Interventions



### Guidance ▾ **Complex Comprehensive Medication Review**

**Care Opportunity::** Generalized Medication Management Issue (Patient with  $\geq 3$  Chronic Medications in past year, Adherence Index  $< 0.6$ , and  $\geq 10$  Acute Medication Fills in past 90 days)

**Intervention::** Complex Comprehensive Medication Review including Gather Fill History, Gather Active Medication List (EMR), Gather Social History, Gather Medical History, Compile 3 or More Medication Lists, Review Adherence Based on Fill Date(s), Assess Adherence Based on Patient Interview, Identify Discrepancies, Assess Complex Discrepancies (Drug-Drug Interactions, Therapeutic Duplications, Severe Adverse Drug Reactions, and Contraindications), Assess for Optimal Medication Therapy, Evaluate available clinical data, Develop written summary of drug therapy problem(s) for follow up

**Assigned:** 12/31/2013

**Owner:** Not Assigned

**Owner Role:** Pharmacist

## Team Member Interventions



No available interventions

# Dashboard – Population View



askformore.whistco.com/home/menu

## 27 Patients

Very High 6  
High 13  
Medium 7  
Some 1

All Filter

Risk	Name	Age	Last Activity	Next Due	Location
96	Very High Belville, Caryn	78 F	0	2013-11-12	Allegiant Family Care
94	Very High Egbert, Chasidy	47 F	12	2013-10-19	Johnson Co. Health Center
94	Very High Spratling, Alia	72 F	13		Pinnacle Health
88	Very High Teachout, Donita	82 F	0		Pinnacle Health
84	Very High Wilkerson,Carolyn	63 F	6	2013-12-08	Allegiant Family Health
80	Very High Stuhr, Drusilla	92 F			Allegiant Family Health
74	High Olenick,Dominic	73 M	14		
72	High Markey, Nobuko	63 M	23		
71	High Weikel, Gabriella	63 F	26	2013-01-05	Johnson Co. Health Center
71	High Conlee, Edda	39 F	31		Pinnacle Health
70	High Layfield, Deborah	77 F	29		
70	High Beavers, Antonietta	59 F	42	2013-12-05	
66	High Winkleman, Asley	63 M	50	2013-12-24	
65	High Delawder, Vernie	83 M		2013-09-02	
65	High Buswell, Kia	82 F		2013-01-15	Johnson Co. Health Center
63	High Borrer, Edmundo	64 M	60		Pinnacle Health
63	High Tuten, Nedra	58 F	64		Allegiant Family Care
60	High Smith, Abigail	68 F	75	2013-09-27	
59	High Clement, Robbin	72 F	82		
48	Medium Skoglund, Valrie	78 F	72		Allegiant Family Care
46	Medium Mcalpin, Lovie	82 F	72		Allegiant Family Care

NOTE: the names of the patients and caregivers listed are fictitious to protect privacy

Logged In: Sarah McKinley (Care Manager)  
[Log out](#)

# Pilot Deployments

## Deployment Sites and Settings



Deployment Site	State	Setting	Population
<b>CCNC Network</b>	NC	Care Transitions	Medicare, Dual
<b>Indiana</b>	IN	PCMH	Medicare, Medicaid, Dual, Commercial
<b>Community Pharmacy Enhanced Services Network</b>	NC	Pharmacy	Medicare, Medicaid, Dual, Commercial
<b>First in Health</b>	NC	Large Employer, Payer	Commercial
<b>NC Health Information Exchange (Rural Health Group)</b>	NC	Health Information Exchange	Medicare, Medicaid, Dual, Commercial
<b>New Hanover Regional Medical Center</b>	NC	Accountable Care Organization	Medicare, Commercial
<b>Daymark</b>	NC	Behavioral Health	Medicaid

# Care Triage™ enables “meaningful use” of data

Findings from our collaboration



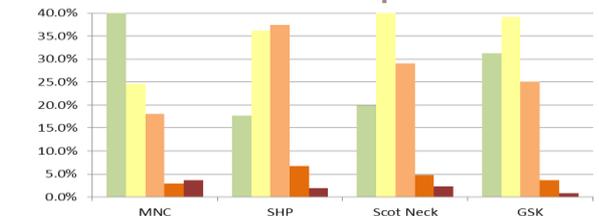
## In Session Utilization focused on Care Transitions, Patient Engagement and Comprehensive Medication Management

- Approximately 4,300 unique users - Pharmacists and Nurses
  - Used with approximately 13,000 patients across CCNC networks and IUHealth
- Global Risk Score – Readmission Risk + Drug Therapy Problems Risk
  - Helps prioritize patients for pharmacists involved in medication management
  - Helps prioritize patients for nurses who need to schedule home visits
- Medication list and TimeView™ most used tabs in Care Triage™
  - Identifies high risk medications and longitudinal view of medication history
  - Allows for tailored patient discussions – improve patient engagement

## Out of Session Utilization focused on Population Health Management

- Stratify patient populations based on need
  - Unique findings from different data sets, public vs. commercial
  - Light touch interventions vs. more aggressive interventions
- First in Health PCMH population and the “near sick”
  - CMM initiative underway with GSK employees enrolled in First in Health

Distribution of Medication Management Need across Four Populations



Global Risk Score

- 0-24 Very Low Risk of Getting Sick
- 25-49 Low Risk of Getting Sick
- 50-64 Moderate Risk of Getting Sick
- 65-74 High Risk of Getting Sick (the “Near Sick” )
- 75-100 Already Sick

# Transformation to Value-Based Healthcare

## Integrating the Pharmacist



### Opportunity:

- **Pharmacists have a role in the changing healthcare environment<sup>1</sup>**
  - Comprehensive Medication Management
  - Medication reconciliation
  - Preventive Services
  - Education and Behavioral Counseling
- **Medication Management can enhance health care quality, produce better clinical outcomes, and lower the total cost of care**
  - Many quality measures aligned with the proper utilization of medications
- **Pharmacists interact with patients on a regular basis**
  - Research from Community Care of North Carolina (CCNC) has shown that pharmacists have frequent, face-to-face contact with patients, far more than even physicians<sup>2</sup>

### Barriers:

- **Pharmacists not widely connected to the healthcare ecosystem**
  - Not eligible for Meaningful Use incentives
  - Lack access to meaningful information to drive decision-making
- **Incentives not aligned to increase engagement with patients and providers**
  - Focused on dispensing medications
  - Limited reimbursement for medication management services

<sup>1</sup> Exploring Pharmacists' Role in a Changing Healthcare Environment, Avalere Health, May 2014 <sup>2</sup><http://us.gsk.com/en-us/media/press-releases/2014/north-carolina-based-collaboration-takes-on-medicine-management-challenge/>

Population Type	Commercial	Medicaid	Medicare	Medicaid + Medicare					
Setting	ACO	Call Center	Clinic	HIE	Home Health	Hospital	Long-term Care	Payer	Pharmacy
Credentials	Care Manager	MSW	Nurse	Pharmacist	Pharmacy Technician	Physician	QI Coordinator		
Modality	Desktop	Email	Panel View	Report	Tablet	Text (SMS)			

## Prioritization and Planning

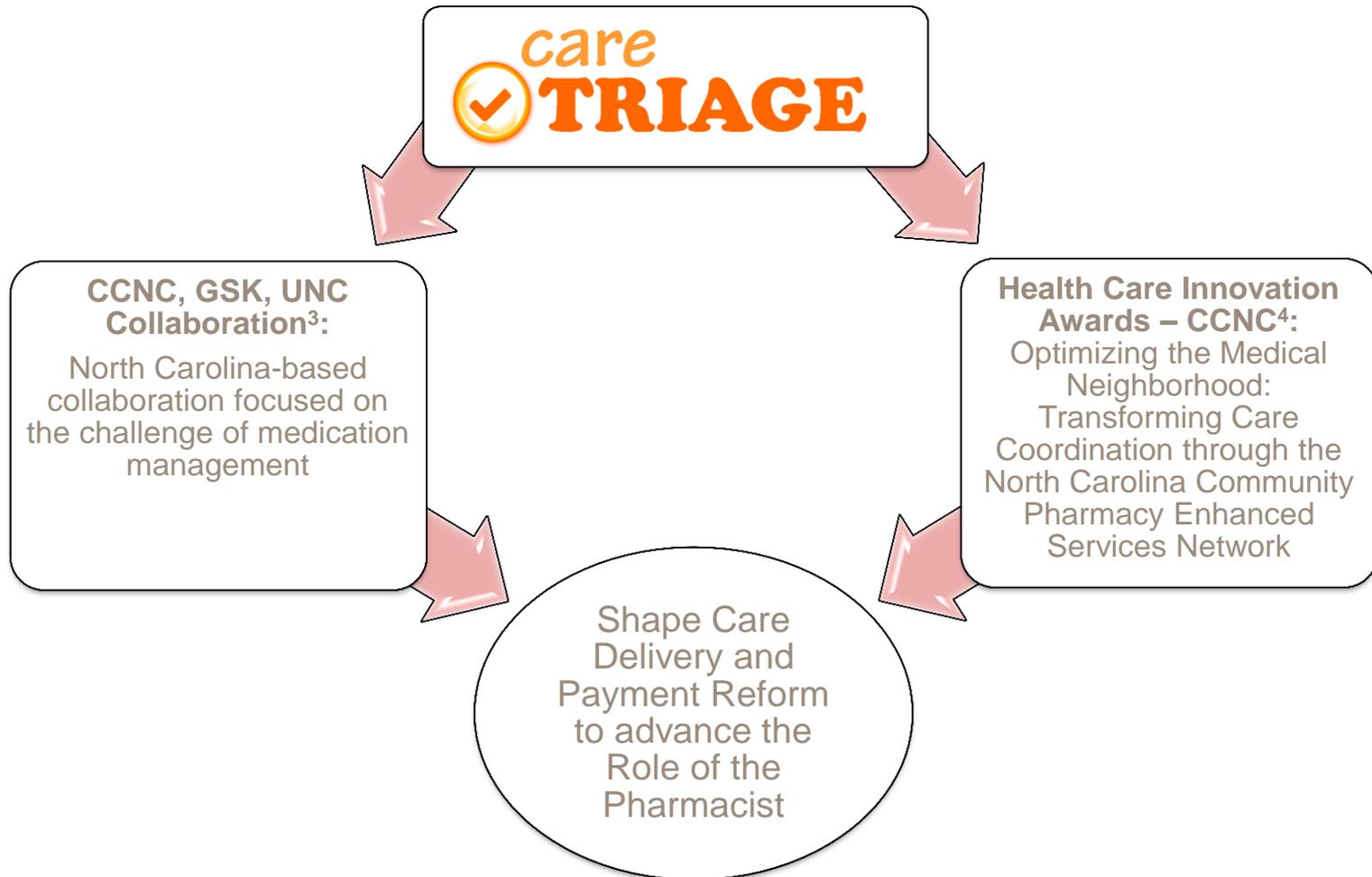
- Utilizes Care Triage™ to **proactively care** for high risk transitional care patient populations.
- Pharmacists review **daily reports** of patients that meet certain priority criteria and, using Care Triage and their expert clinical judgment, perform detailed analysis of the patient's situation.
- A **comprehensive medication review** is performed using Care Triage's Time View (graphic display of fill history) and risk score components.
- **Visual gaps in therapy** and **high risk scores** are clear indications of the need for a pharmacist to drill down in more detail and plan an intervention (i.e. phone call, home visit, visit to the pharmacy).
- Before Care Triage, one pharmacist mentioned that the review process felt like **looking for a needle in a haystack**.

## Guide Real-Time Interventions

- Pharmacies will also **utilize Care Triage in real time** when presented with the opportunity for a **meaningful interaction with patients** on site.
- Access to robust information and **care guidance** will allow pharmacists to **tailor their message** to the patient's unique situation.

# Care Delivery and Payment Reform

Evidence Generation to Shape Policy



<sup>3</sup><http://us.gsk.com/en-us/media/press-releases/2014/north-carolina-based-collaboration-takes-on-medicine-management-challenge/>

<sup>4</sup><http://innovation.cms.gov/Files/x/HCIATwoPrjProCombined.pdf>

# Transform Data into Patient Insights

Shape policy to support the “meaningful use” of data

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- Support efforts that advance population health management, care coordination, patient engagement, and comprehensive medication management to improve patient care
  - Advocate for the availability of medication fill history within the EHR
    - NCPDP SCRIPT Standard Medication History transaction
    - NCPDP SCRIPT Standard Fill Status Notification transaction
  - Advocate for healthcare professionals to identify and address Drug Therapy Problems (DTPs) to improve patient care
    - Predictive of negative outcomes
      - Discrepancy related problems
      - Therapeutic considerations
    - Medication management based on the need of the patient
      - Medication Reconciliation to Comprehensive Medication Management
  - Advocate for pharmacists to be actively engaged in medication management
    - Advance the role of pharmacists from dispensing to medication management
    - Include the role of the pharmacist in care delivery models
    - Include in payment reform
-

# Questions

# Questions?



Thank you!

