Care Delivery Work Group:
Discussion of Potential HIE Tools for Development

December 9, 2015

Overall HIE Goals of the District

- Promote increased health care system integration

- Encourage greater connectivity between providers

- Increase access to and use of data in the DC HIE

- Assist increased quality measurement and reporting

- Support the Health Home initiative(s)
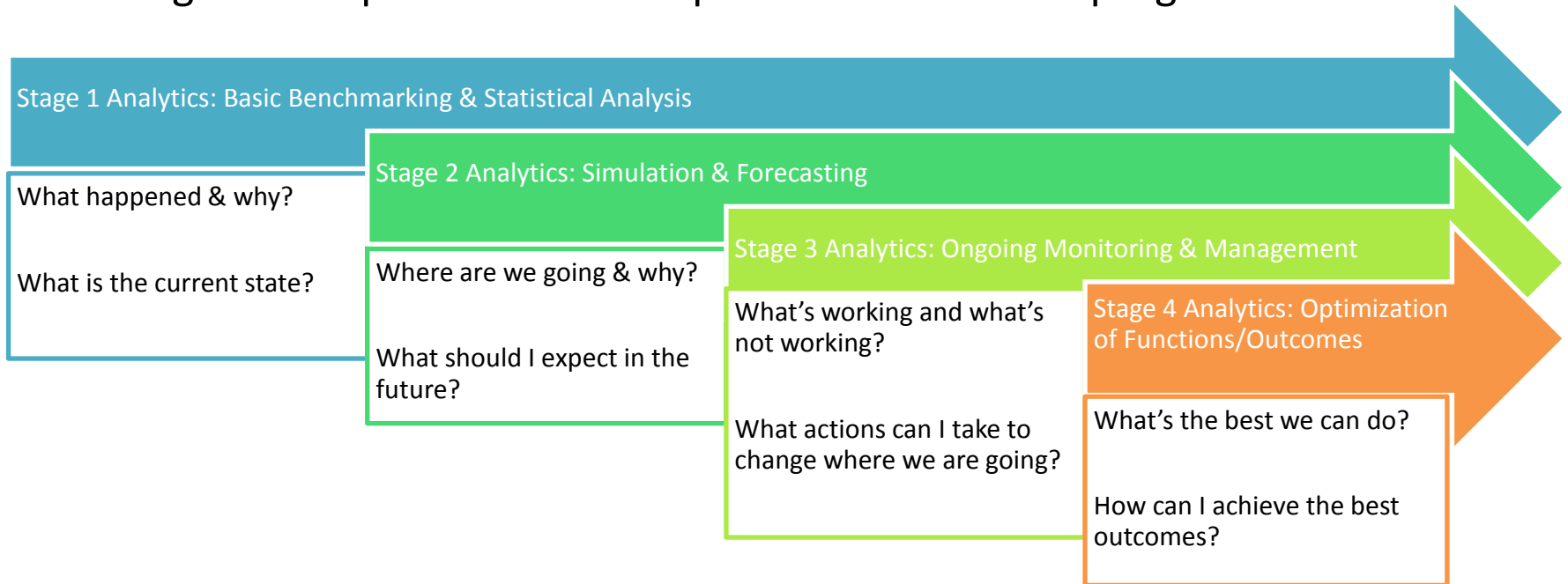
Potential Tools/Initiatives

1) Risk Adjustment/Predictive Analytics

2) Dynamic Patient Care Profile

3) Electronic Clinical Quality Measurement Reporting and Storage Solution

4) Electronic Obstetrics Authorization & Initial Assessment Form

5) Increased Ambulatory Connectivity and Support

#1: Definitions

- **Risk assessment**
  - A systematic process or tool used to evaluate an individuals health risks and/or quality of life

- **Predictive modeling**
  - A process used in predictive analytics to create a statistical model of future behavior. Predictive analytics is an area of data mining concerned with forecasting probabilities and trends

- **Risk adjustment**
  - An actuarial tool used to calibrate payments to health plans or other stakeholders based on relative health of the at-risk population

#1: Measuring Past vs. Predicting Future

- Could we leverage predictive analytics—including predictive models—to design and implement more impactful health home programs?

Stage 1 Analytics: Basic Benchmarking & Statistical Analysis			
What happened & why? What is the current state?	**Stage 2 Analytics: Simulation & Forecasting**		
	Where are we going & why? What should I expect in the future?	**Stage 3 Analytics: Ongoing Monitoring & Management**	
		What's working and what's not working? What actions can I take to change where we are going?	**Stage 4 Analytics: Optimization of Functions/Outcomes**
			What's the best we can do? How can I achieve the best outcomes?

- With predictive analytics, we can focus on what we can control (the future), rather than focusing on what we cannot control (the past).

- Predictive analytics allow us to be **proactive**, instead of **reactive**.

#1 – Potential Role in Health Homes

Identify

- **Identify "high-tier" cohort for the program**

  - Estimate the greatest opportunities to bend the trend in morbidity, utilization, and medical cost patterns

Measure/Monitor

- **Measure the program's past <u>and</u> future value and ROI**

  - Monitor programs impact in short- and long-term morbidity, utilization, and medical cost trends

#1: Tools Offer a Range of Features

Feature / Capability
Identifies individual conditions for a given beneficiary
Quantifies condition prevalence within a population
Estimates medical cost trends (long-term vs. short-term)
Addresses the unique needs of Medicaid beneficiaries in the tool
Assigns recipients to distinct health status classification (customizable to estimate utilization/preventable utilization and project trends)

#2: Patient Care Profile

- "On-demand" document made available to providers and care managers that presents an aggregation of critical information for a particular patient.

    - Single access point to a critical mass of patient information that will help support better care coordination.

    - Includes information not traditionally included in other clinical documents (e.g., episodic clinical documents), such as:

        - Identification of Care Team Members
        - Diagnosed Chronic Conditions
        - Housing Status
        - Risk Score

- Initially accessible though a portal system.

    - In subsequent phases, the Care Profile can be enabled to allow EHRs to call for the document directly within the system.

#2: Dynamic Care Profile – Mock-Up

PATIENT CARE PROFILE VIEW - MOCK UP

PATIENT DEMOGRAPHICS			RISK STRATIFICATION			ATTRIBUTED PROVIDER(S)/PAYER(S)		
Name : John X. Smith			**Risk Type**	**Score**	**Band**	**Organization**	**POC**	**Phone**
DOB : 04/09/1954			Redmission	51	Medium	Bread for the City	Dr. X	2025556688
Address: 3700 Massachusetts Ave NW, Washington DC, 20016			Re-ED visit	70	High	MFA	Dr. O	2025679876
Phone #1: 202-444-7777						Trusted Health Plan		2026453546
Phone#2: 202-555-3232								

CARE MANAGEMENT PROGRAM(S)

Care Plan available	Organization	Care Manager	Phone Number	Email	Type	Short / Long term	Start Date	End Date
Yes, click HERE to view	Trusted Health Plan	Ms. Mary Von	443-410-4100	mvon@hcc.org	Diabetes control	Long term	2/1/2014	2/1/2016
Yes, click HERE to view	Providence Hospital	Sally Brown	443-555-8787	sallyomailey@cfmp.org	COPD	Short	3/1/2014	6/1/2014

CHRONIC CONDITIONS		MEDICATIONS		IMMUNIZATIONS		HOUSING STATUS	
Type	**Date**	**Type**	**Date**	**Type**	**Date**	**Status**	**Date**
COPD	3/21/2008	Metformin	2/15/2014	MMR	6/6/2015	Permanent Supportive Housing	10/10/2010
Diabetes	8/22/1982	Levalbuterol	6/11/2009	Influenza	11/11/2014		
		Insulin	11/23/1985				

ENCOUNTER NOTIFICATION(S)

ER VISIT(S) [LAST 120 DAYS]				OTHER PROVIDER(S) [LAST 120 DAYS]		
Date	**Facility**	**Visit Type**		**Date**	**Facility**	**Visit Type**
6/15/2014	MFA	ER		6/15/2014	MFA	
7/2/2015	Bread for the City	ER		7/2/2015	Bread for the City	

HOSPITAL VISIT(S) [LAST 120 DAYS]		
Date	**Facility**	**Visit Type**
6/15/2014	Providence Hospital	Inpatient
7/2/2015	Howard University Hospital	OBV

MEDICAID CLAIMS DATA FROM LAST 12 MONTHS
(MM-DD-YYYY - MM-DD-YYYY)

Patient Total at All Hospitals

Total Charges	$423,868
Total Visits	38
Total Hospitals	11
Zip on Last Visit	20001

Primary Payer
Medicaid fee for service

Secondary Payer
Other

Conditions

Chronic: Obstructive Pulmonar
Chronic: Asthma
Chronic: Chronic Kidney Dise:
Chronic: Diabetes
Chronic: Heart Failure
Chronic: Hyperlipidemia
Chronic: Hypertension
Mental Health: Depression

Case Mix Data Through: August 2015

Admit Date	Discharge Date	Hospital Name	MRN	Visit Type	IP Re admit	Pqi	DRG	DRG Description	SOI	Dx1Description	Dx1	Dx2	Dx3	Dx4
9/25/2015	9/25/2015	Hospital 1	123456789	IP	Yes	Yes	048	PERIPHERAL, CRANIAL & AUTONOMIC NERVE DISORDERS	3	"DIAB NEURO MANIF TYPE II"	25060	40391	3441	5856
9/25/2015	9/25/2015	Hospital 2	987654321	OBV		Yes				"DIAB NEURO MANIF TYPE II"	25060	5363	5856	V4511
9/25/2015	9/25/2015	Hospital 1	123123123	ED						"ABDOM PAIN GENERALIZED (Begin 1994)"	78907	7295	25000	V5867
9/25/2015	9/25/2015	Hospital 3	123456789	IP	Yes		460	RENAL FAILURE	3	"HYP RENAL NOS W REN FAIL (Begin 1989)"	40391	2761	4168	5363
9/25/2015	9/25/2015	Hospital 1	987654321	OBV		Yes				"DIAB NEURO MANIF TYPE II"	25060	5363	V58.	40391
9/25/2015	9/25/2015	Hospital 3	987654321	OBV						"GASTROPARESIS (Begin 1994)"	5363	3441	40391	5856
9/25/2015	9/25/2015	Hospital 1	654321	IP	Yes	Yes	048	PERIPHERAL, CRANIAL & AUTONOMIC NERVE DISORDERS	3	"DIAB NEURO MANIF TYPE II"	25060	40391	3441	2761

#3-5: Other Potential HIE Projects

- ***eCQM Reporting and Storage Solution***
  - Facilitate mandatory reporting criteria and prepare hospitals/practices for future APM opportunities

- ***Electronic OB Authorization Form***
  - Further engage pregnant beneficiaries in prenatal care and create infrastructure for future specialized registries

- ***Increased Ambulatory Connectivity and Support***
  - Support current and future care coordination services, including baseline clinical data exchange and quality measurement