



Staten Island  
Performing Provider System, LLC

# Staten Island Performing Provider System

---

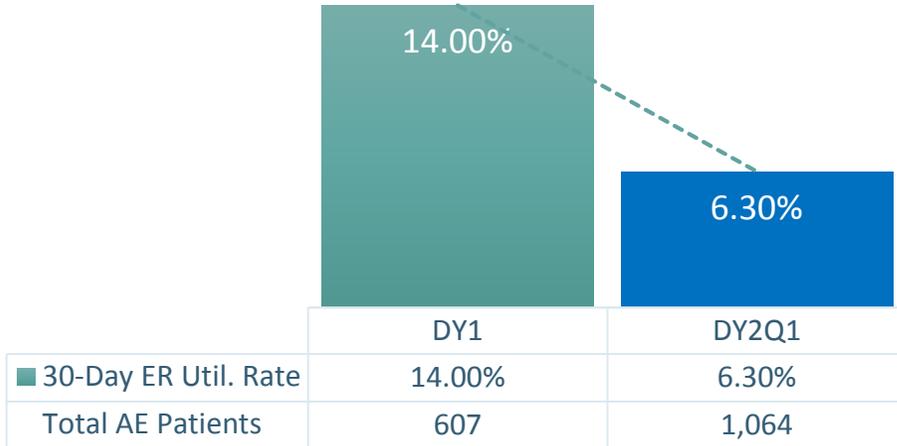
PRESENTATION TO THE PUBLIC HEALTH & HEALTH PLANNING COUNCIL

SEPTEMBER 23, 2016

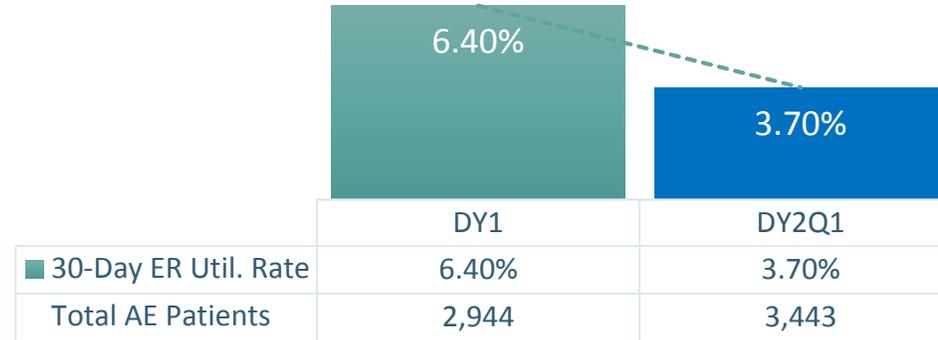


# Current Progress - Improving Care Outcomes

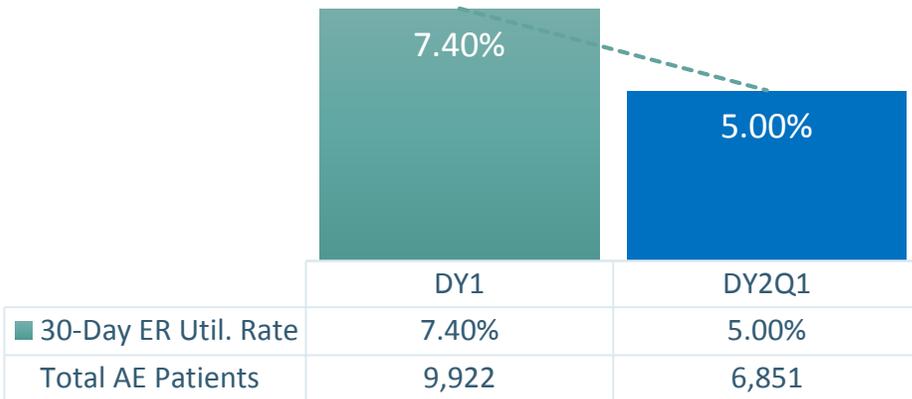
2.A.III : HH at Risk



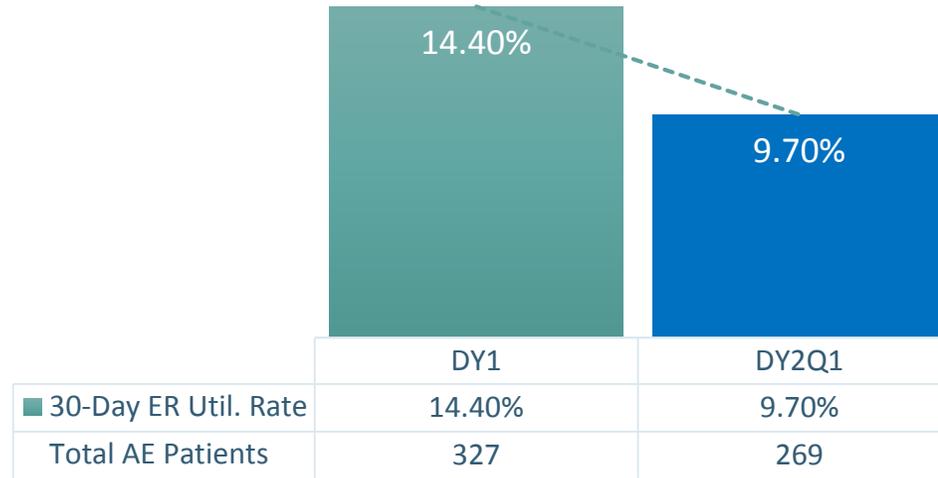
3.C.I : Diabetes Management



3.A.I



3.A.IV



## Key Findings: Significant improvement in 30-day ER Utilization Rate (DY1 vs. DY2Q1)

- 2.A.III: **55%** improvement, decreased from 14% to 6.3%.
- 3.C.I: **42%** improvement, decreased from 6.4% to 3.7%.
- 3.A.I: **32%** improvement, decreased from 7.4% to 5.0%.
- 3.A.IV: **33%** improvement, decreased from 14.4% to 9.7%.



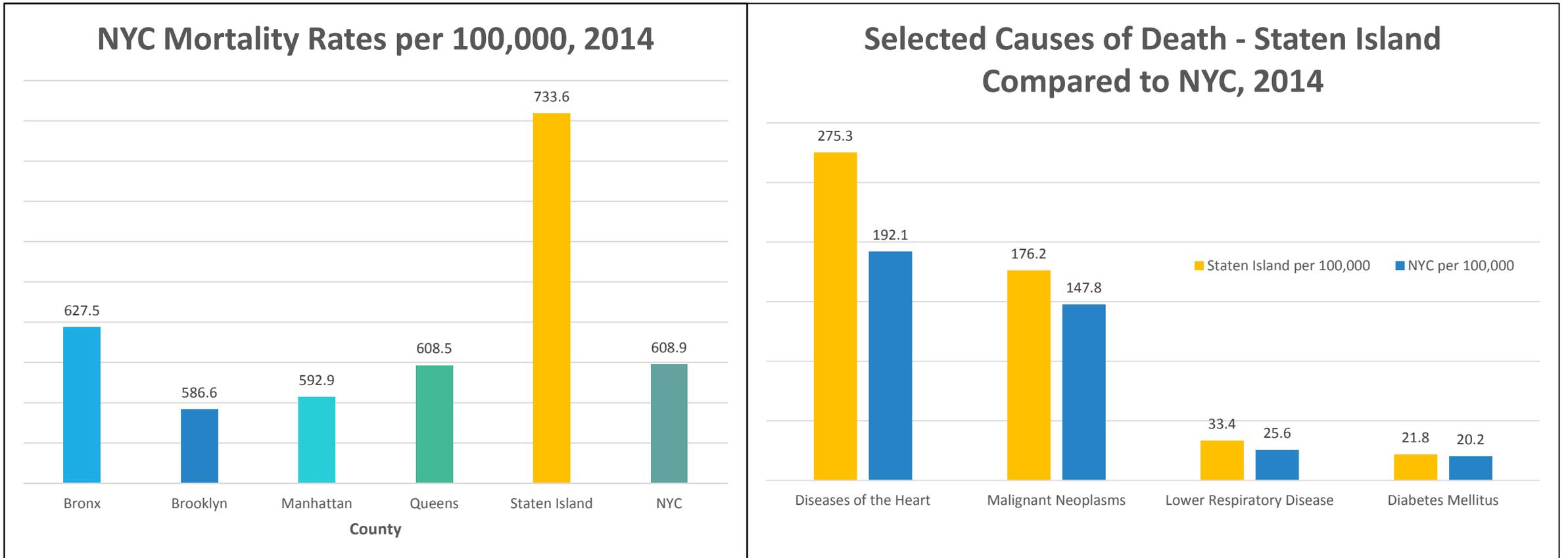
# Public Health Data Defines Targeted DSRIP Programs

---

- Identification of health disparities on Staten Island driven by community needs assessment and public health data
- CBO and partner engagement critical for engaging underserved populations affected by social determinants of health
- Use of MAPP and comprehensive data sources enhances PPS analytics
- Data drives DSRIP projects, Population Health Improvement Projects and informs Cultural Competency and Health Literacy strategy
- New York State Prevention Agenda informs DSRIP goals and initiatives
- Innovative program development on Staten Island includes multi-disciplinary pilots
- DSRIP Year 2 data suggests outcome improvements
- Recommendations to facilitate further project implementation



# Health Disparities on Staten Island



Source: New York State Department of Health Vital Statistics, 2014. Table 39: Death Rates For Selected Causes of Death by Resident County, Updated May 2016. Accessed 9/15/2016.



# New York State Prevention Agenda Informs DSRIP Goals & Initiatives

## Prevention Agenda

- Improve the health status of New Yorkers
- Reduce exposure to outdoor air pollutants
- Improve the built environment to promote healthy lifestyles
- Reduce obesity
- Increase access to chronic disease preventive care
- Reduce dental caries
- Strengthen infrastructure for behavioral health

## DSRIP Initiatives Align with New York State Prevention Agenda



## DSRIP

- Prevent hospitalizations, reduce disparities and increase the number of adults who have a regular health care provider
- Asthma project
  - Healthy Communities initiative
  - Population Health Improvement Program & partnerships with school health
  - Pilot for CKD risk with CHASI
  - Oral health promotion program
  - Behavioral Health Improvement Program Pilots



# Engagement and Collaboration with CBOs Informs Program Development

Clinical Partners



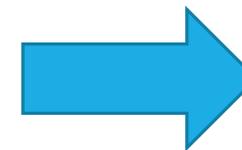
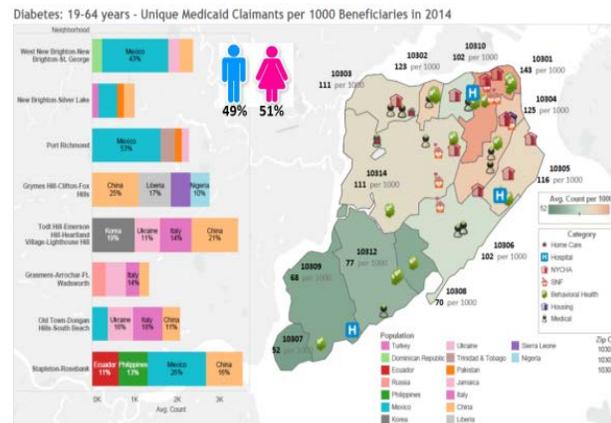
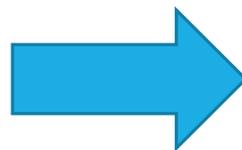
CBOs



Health Literacy Workgroup



CCHL Site Champion Workgroup

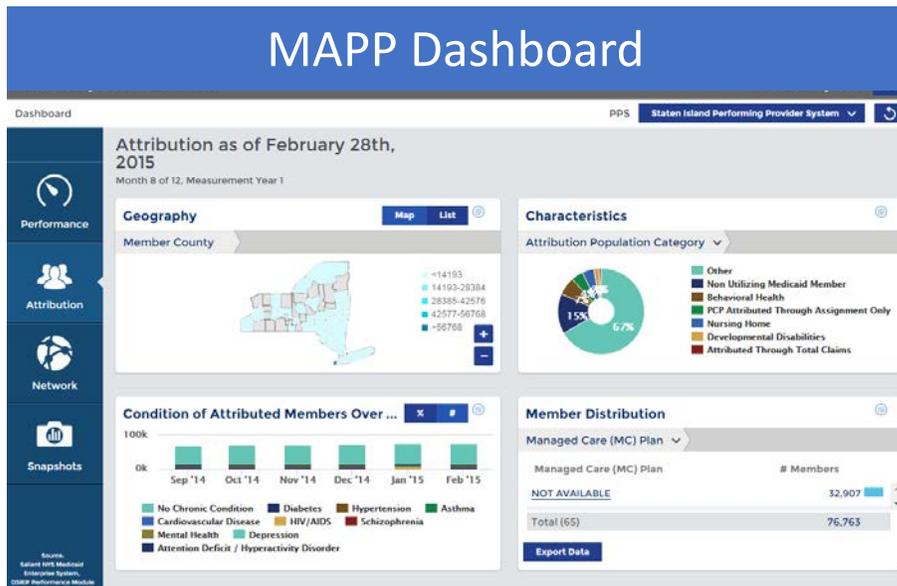


- Cultural Competency training partnerships for partner staff
- Diversity and inclusion for all Staten Islanders via language access services, Health Literacy campaigns and health education
- Patient Administering Patient Activation Measure® surveys
- Addressing social determinants by partnering with food banks, DOE, housing and immigrant agencies
- Promote Healthy Neighborhoods Initiatives
- Population Health Improvement Program Small Physician practices

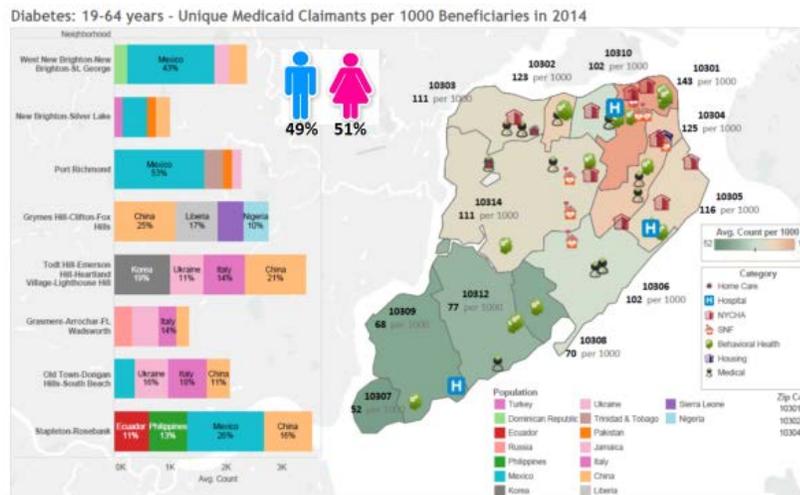


# Using Public Health Data to Develop DSRIP Programs

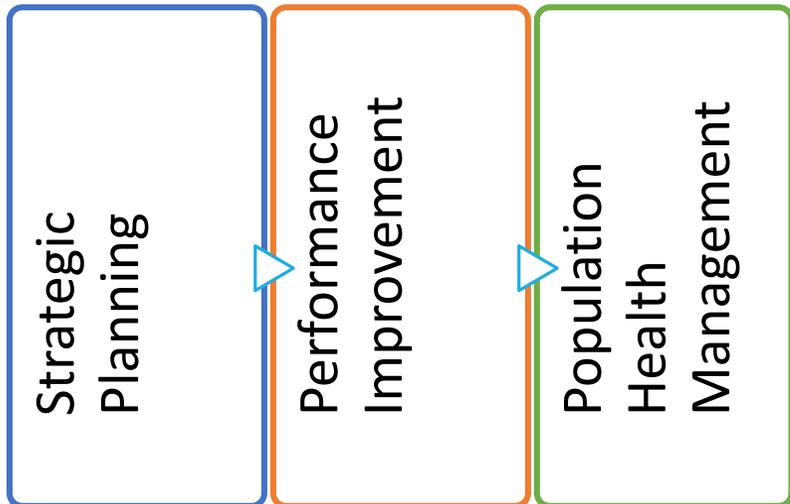
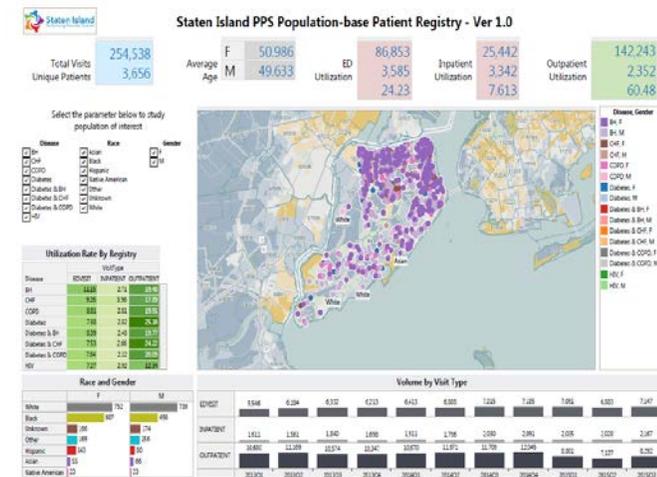
## MAPP Dashboard



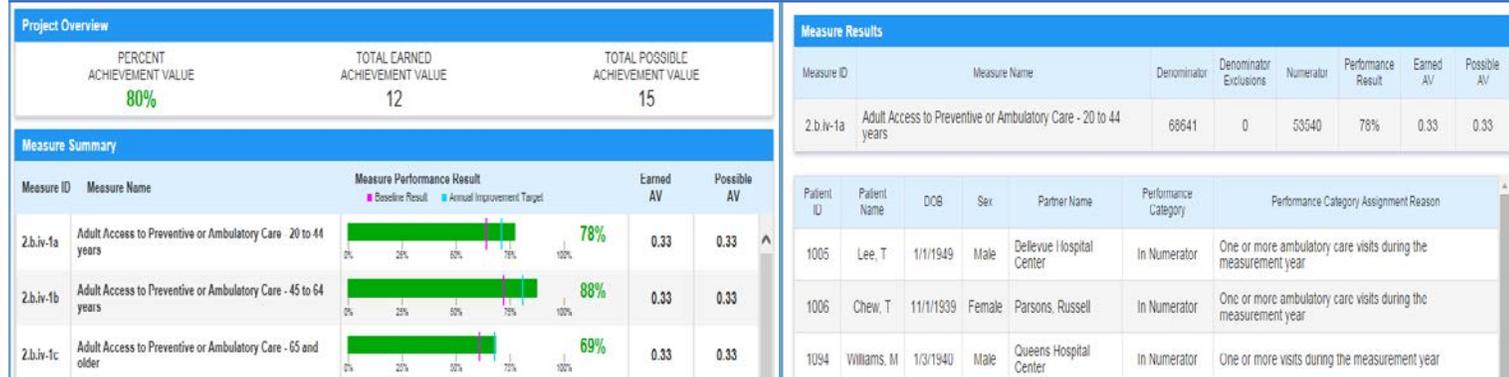
## Healthcare Hotspotting



## Population-based Registry 1.0



## Performance Management Dashboard





# Comprehensive Data Sources

1

## Direct Data Feed from Partners

Lead Providers  
Clinical Data

Other  
Partners  
Clinical/Billing  
Data

Care  
Management  
Partners (GSI)

Actively  
Engaged  
roster

2

## Public Data

Uninsured  
population

Planning  
Dept. Data

ACS Data:  
Education &  
Housing  
Status

NYC FITNESS-  
GRAM

3

## DOH Data Sources

Medicaid Member  
Roster v3

Claims Data  
v1

Medicaid Data  
Warehouse / SIM

IPA File

CPA File

4

## Other Feeds

Patient Activation  
Measures (PAM)

Local RHIO  
Data Sources

MCO's

Board of  
Education

Emergency  
Medical Service  
(EMS) Dataset



# Population Health View

## 1 Key Statistics

# Population Health Management

Total Visits	139,488	Average Age	F 42.74751	ED Visits	49,308	Inpatient Visits	12,356	Outpatient Visits	77,824
Unique Patients	2,609		M 42.80918	Unique Patients	2,544	Unique Patients	2,150	Unique Patients	1,695

## Tool: Population-based Patient Registry Ver. 1.0

Use Case: Diabetes w/chronic Comorbid Conditions

Population: Attributed Members with at least one of the chronic comorbid conditions:

Diabetes, BH, COPD and CHF

**Disease**

- (All)
- Asthma
- BH
- CHF
- COPD
- Diabetes
- Diabetes & BH
- Diabetes & CHF
- Diabetes & COPD
- HIV
- NULL

**Race**

- (All)
- Asian
- Black
- Hispanic
- Native American
- NULL
- Other
- Unknown
- White

**Age\_Group**

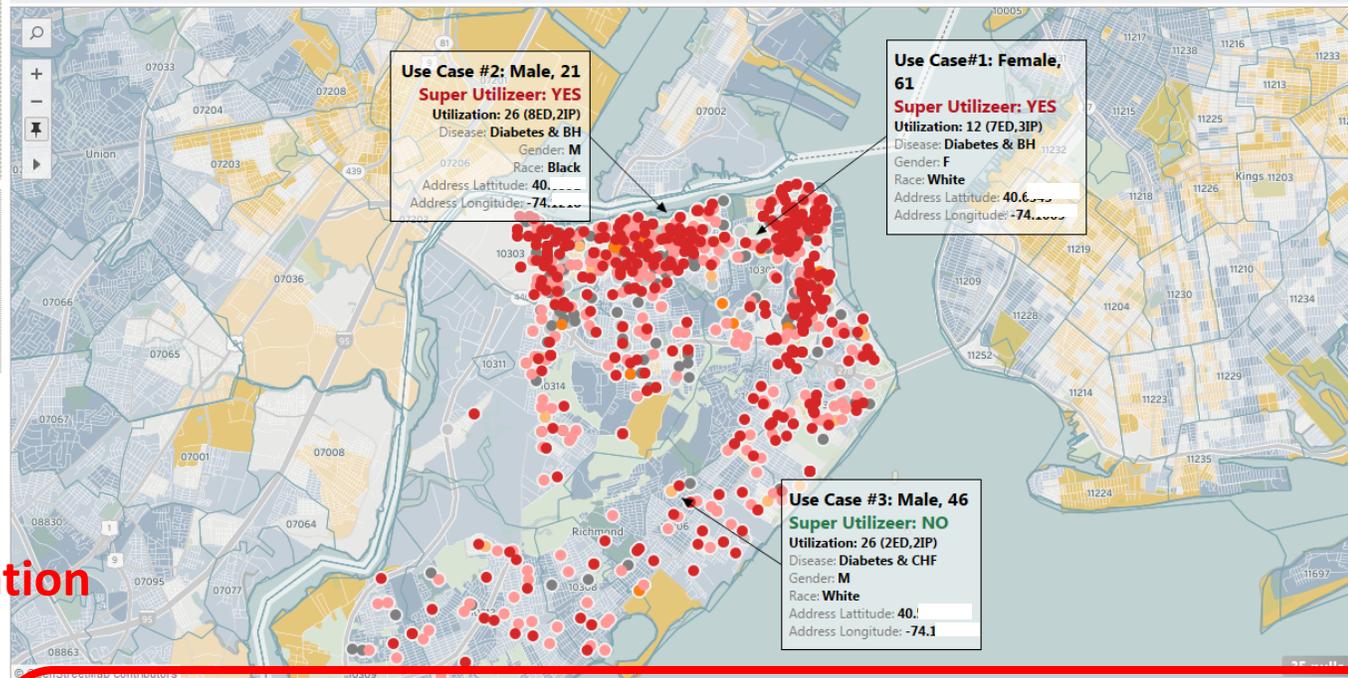
- (All)
- 0-18
- 19-64
- 65+

**Year**

- (All)
- 2012
- 2013
- 2014
- 2015
- 2016

**Gender**

- (All)
- F
- M



**Disease, Gender**

- Diabetes & BH, F
- Diabetes & BH, M
- Diabetes & CHF, F
- Diabetes & CHF, M
- Diabetes & COPD, F
- Diabetes & COPD, M

**Utilization Rate (Per 100 Patient) By Disease Area**

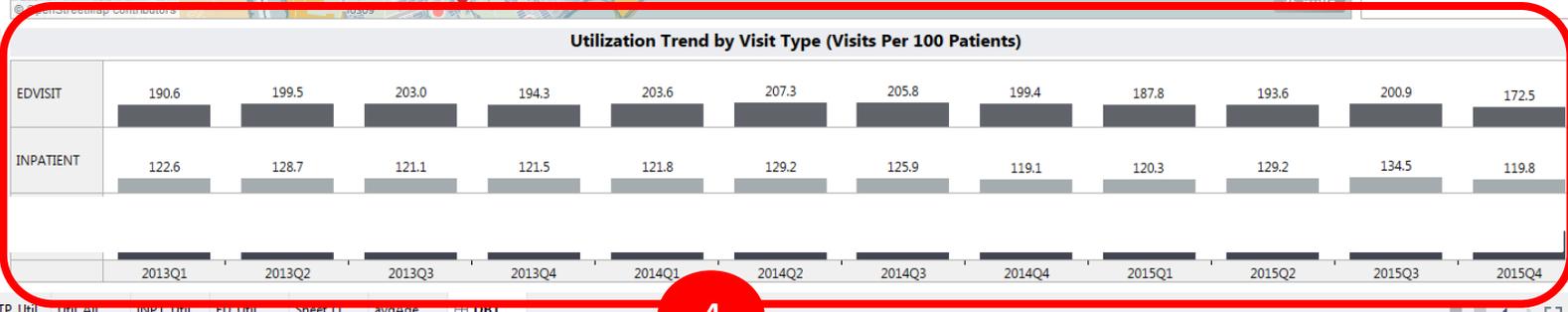
Disease	VisitType		
	EDVISIT	INPATIENT	OUTPATIENT
Diabetes & BH	214.0	123.9	329.2
Diabetes & CHF	190.5	125.1	388.2
Diabetes & COPD	185.2	125.1	341.4

## Utilization by Population

**Race and Gender**

	F	M
White	528	597
Black	532	403
Other	105	117
Hispanic	142	74
Asian	35	42

## Patient Demographics



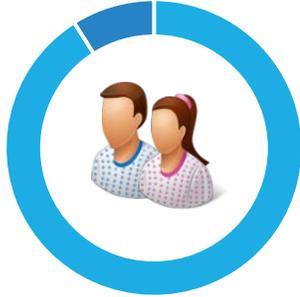
## Hospital Utilization Trend



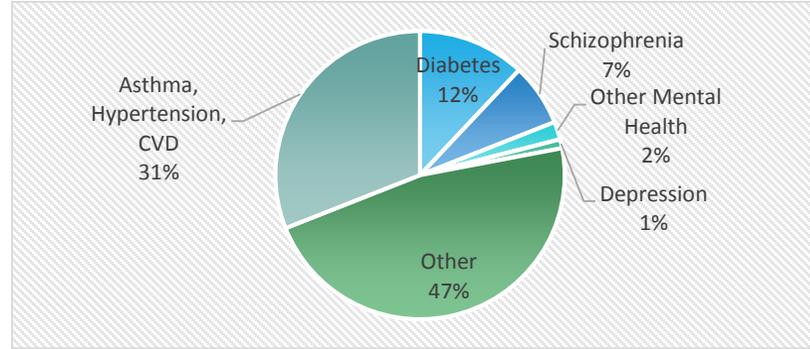
# The Impact of Top 500 High Risk Patients (HRP)

Staten Island PPS Risk profile algorithm identified the top 500 High Risk Patients (HRP) from 63,605 Staten Island PPS Medicaid Enrollees

**<1%** of Staten Island PPS Medicaid Enrollees are defined as High Risk Patients (HRP)



**100%** HRP had one or more Chronic conditions



**Percentage of Top 500 High Risk Patients (HRP) engaged in DSRIP projects**

44%  
2.a: Integrated Delivery (Health Home or HHR)

12%  
2.b: Care Coordination (2.b.iv, 2.b.vii, 2.b.viii)

47%  
3.a: Behavioral Health (3.a.i, 3.a.iv)

22%  
Took PAM survey as of 09-09-2016

That population drives **20%** of preventable ED Visits (PPV) of Staten Island PPS Medicaid enrollees



Avg. PPV /HRP: **8.29**

Min PPV /HRP: **4** Max PPV /HRP: **140**

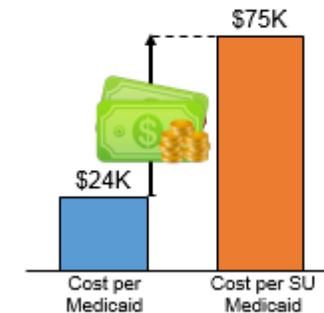
... and **20%** of preventable readmissions



Avg. PPR/HRP: **1.54**

Min PPR /HRP: **1** Max PPR /HRP: **6**

Average spending per Super Utilizer recipient is **3.1X** greater



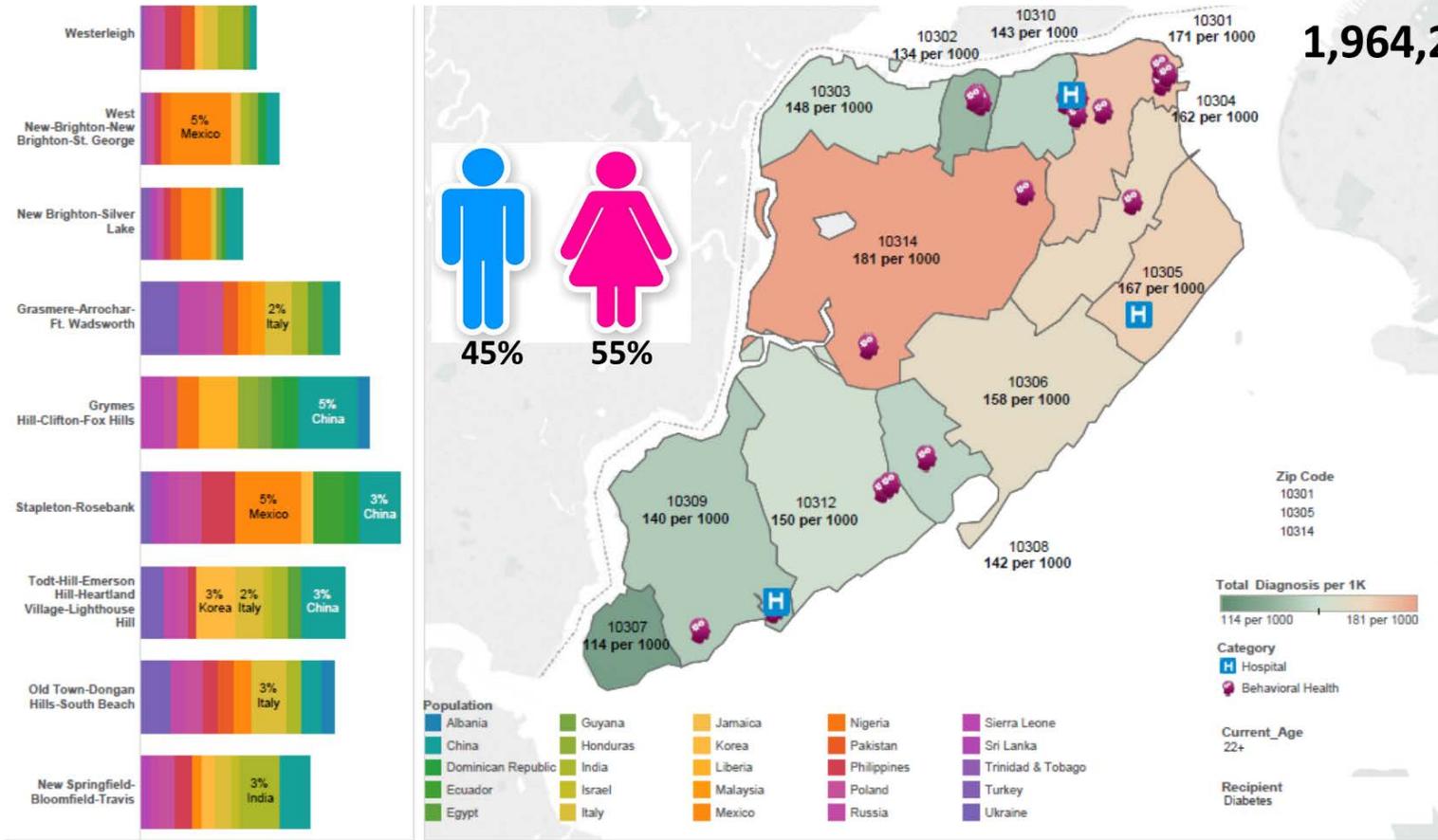


# Use Case: Diabetes Management

## Overlaying data to target key hot spots and develop programs

Diabetes – Unique Medicaid Claimants per 1000 Beneficiaries in 2015, Age 22+

Total Claims: **1,964,210**



## Improving Diabetes Management

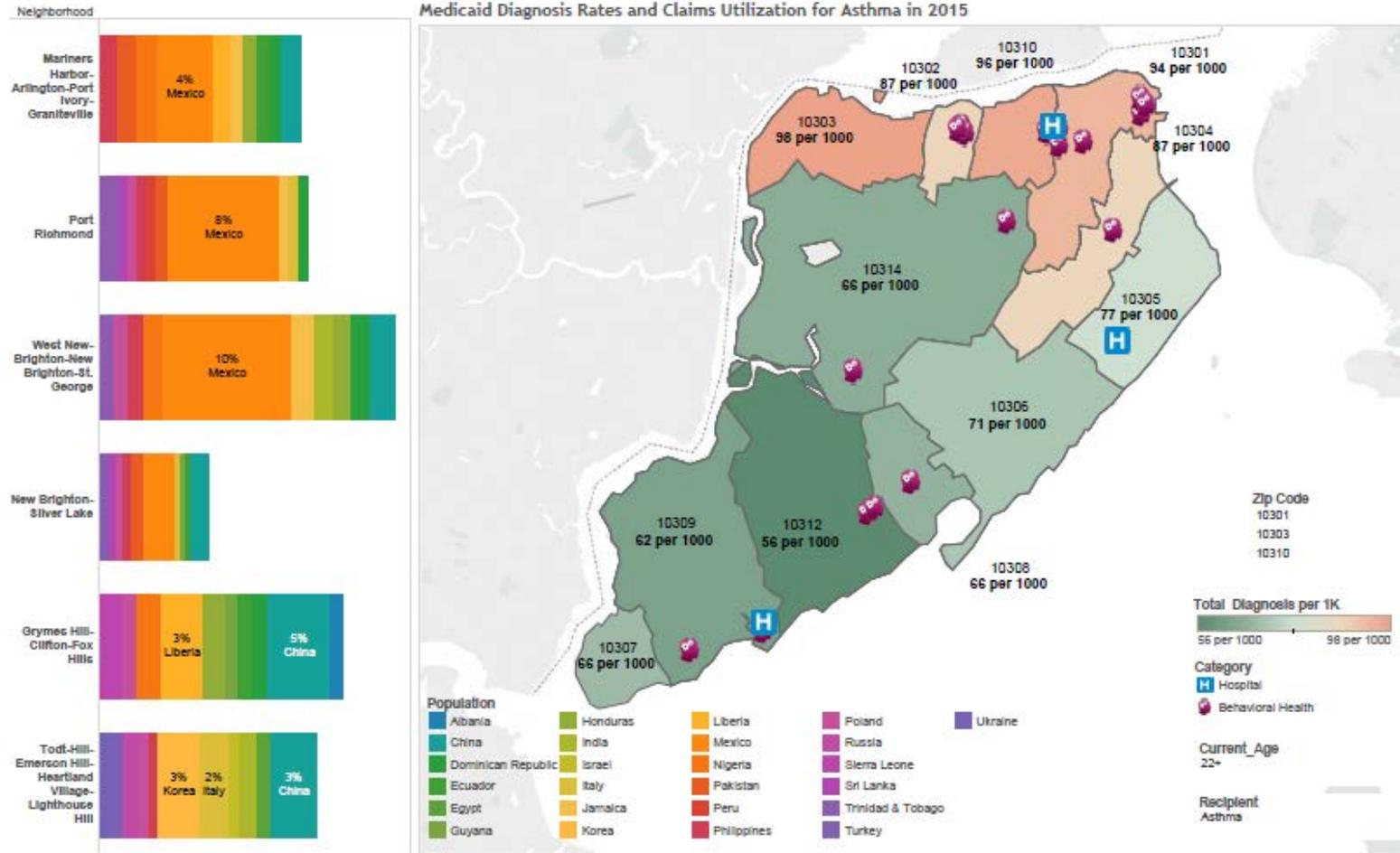
- PPS gathers and evaluates baseline data for this population
- Population Health Improvement Program (PHIP) target Small Practices
- City Harvest Program w PHIP to give a “Healthy Food Prescription” & nutrition/cooking classes
- Fund Stanford Model – Chronic Disease Self-Management Program and Diabetes Self-Management Program
- Expansion to other healthcare providers and community groups



# Use Case: Asthma Analytics and Program Development

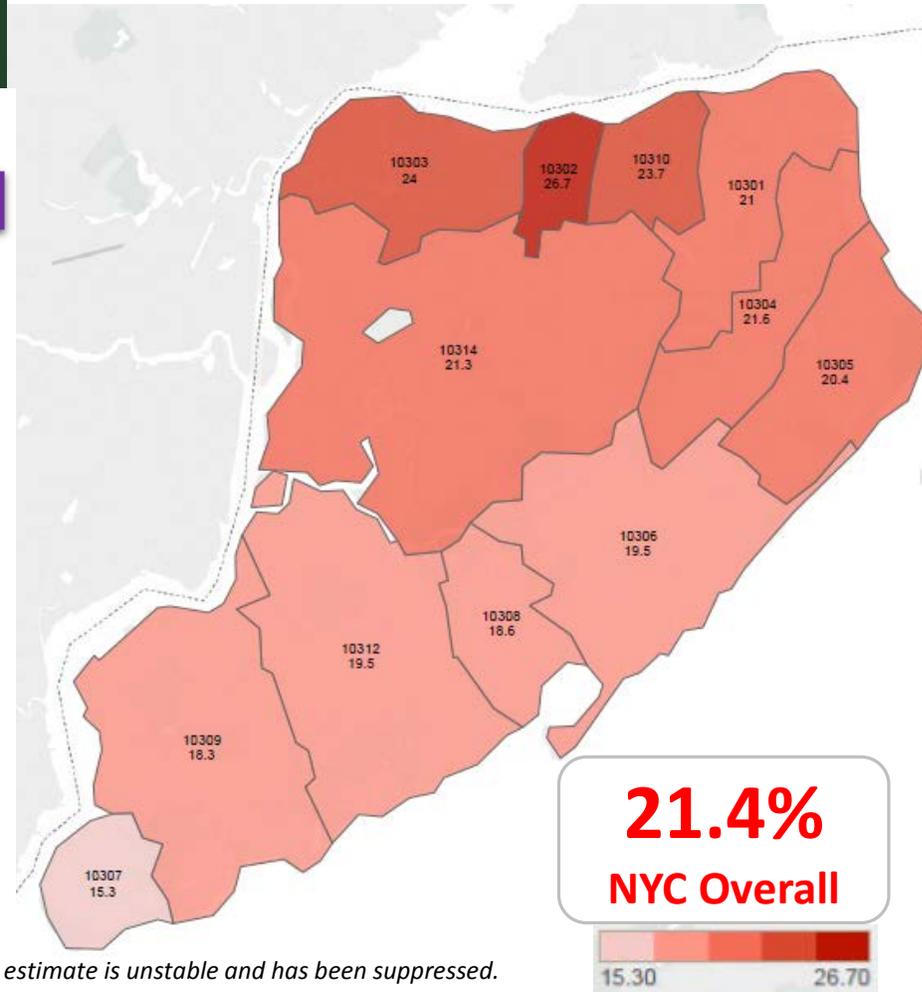
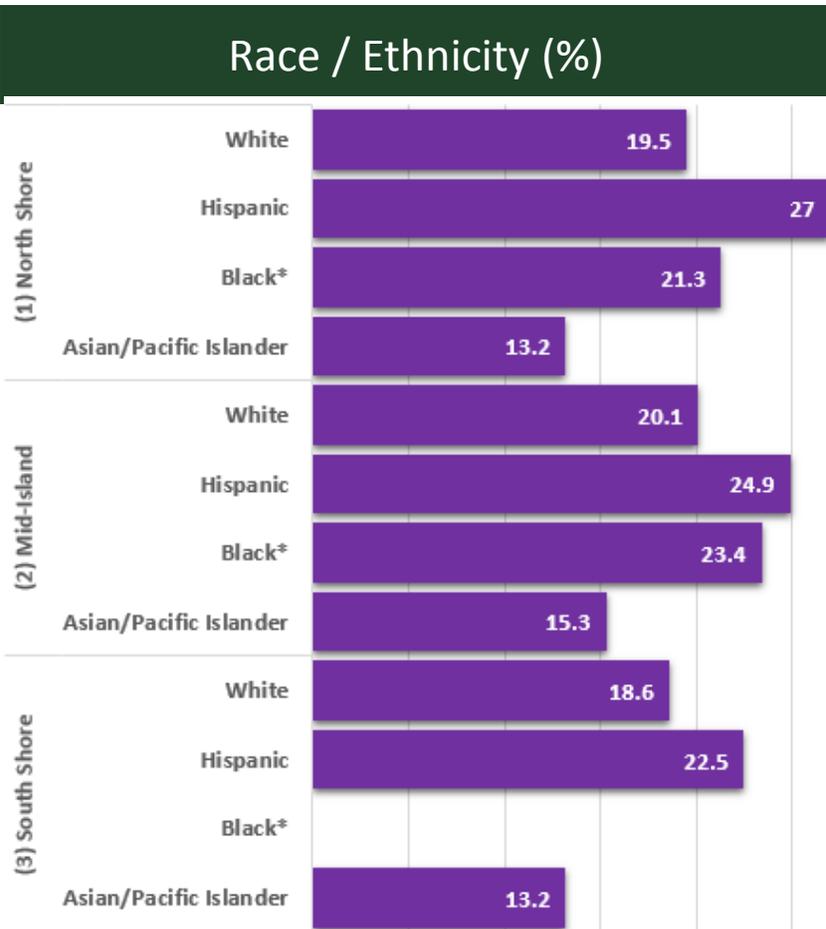
## Improving Asthma Management

- PPS gathers and evaluates baseline data for this population
- Incorporated Asthma as a VBP component of our PHIP Program
- Introduced Asthma Home Visits by CBO Partner for at risk patients
- Utilize School Health data to hotspot lost days and monitor progress
- PPS shares analysis with clinical partners to improve follow-up and outcomes for asthma patients





# Obesity Prevalence among NYC public school students by zip code, grades K-8, during the 2012-13 school year



\* Indicates that N<100. This estimate is unstable and has been suppressed.

## Program Development

- Incorporated Childhood Obesity as a VBP component of our PHIP Program
- Introduced Nutrition education/cooking classes, Food Prescription program by City Harvest for at risk patients
- Utilize School Health data to hotspot and monitor progress
- PPS shares analysis with clinical partners to improve follow-up and outcomes for at-risk patients

Grade  
K-8

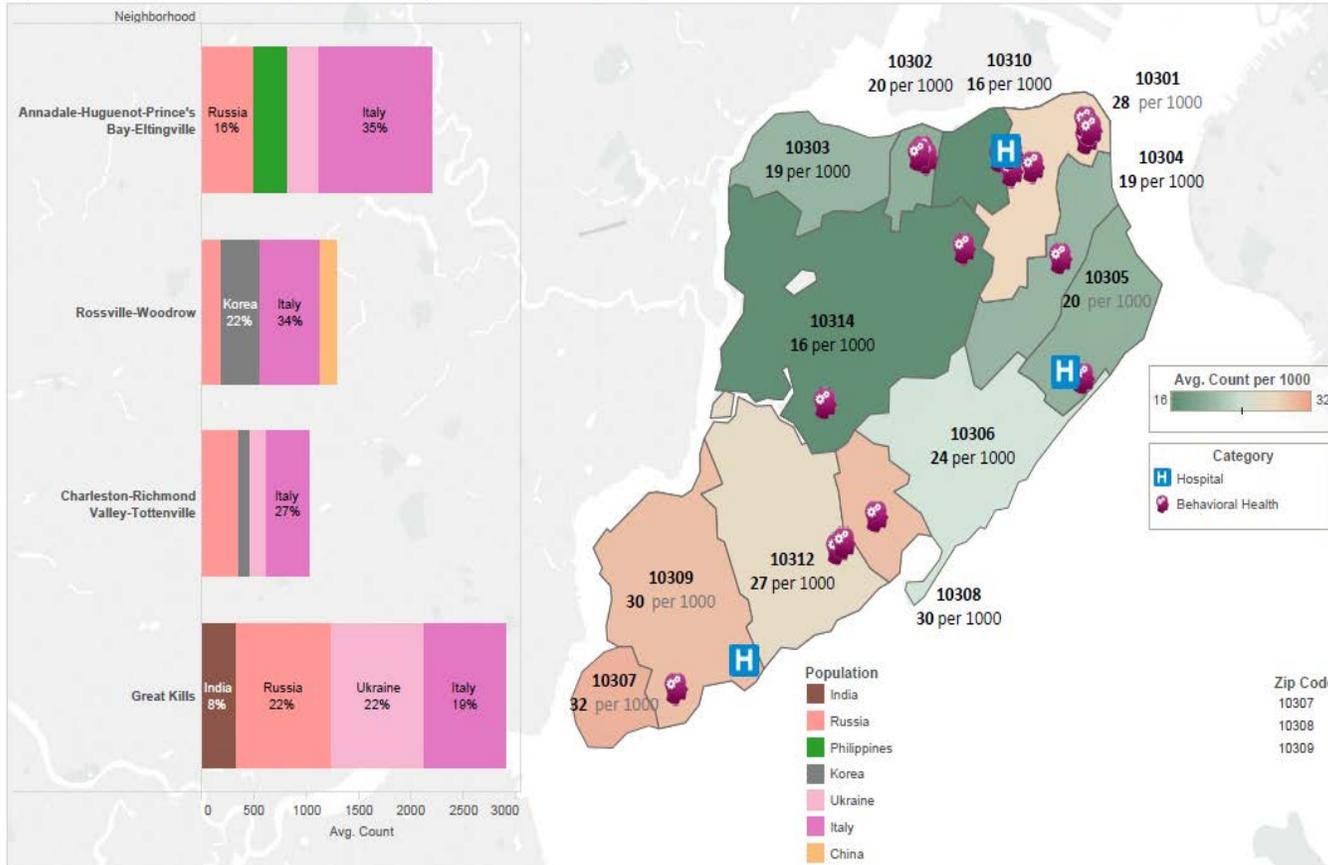
	OK	01	02	03	04	05	06	07	08
North Shore	16.20	19.50	22.80	24.60	25.20	26.70	24.90	22.80	20.10
Mid-Island	18.60	16.50	21.90	21.90	24.90	21.30	19.50	21.60	19.50
South Shore	12.90	13.80	17.70	20.10	20.40	20.40	20.10	20.70	20.40



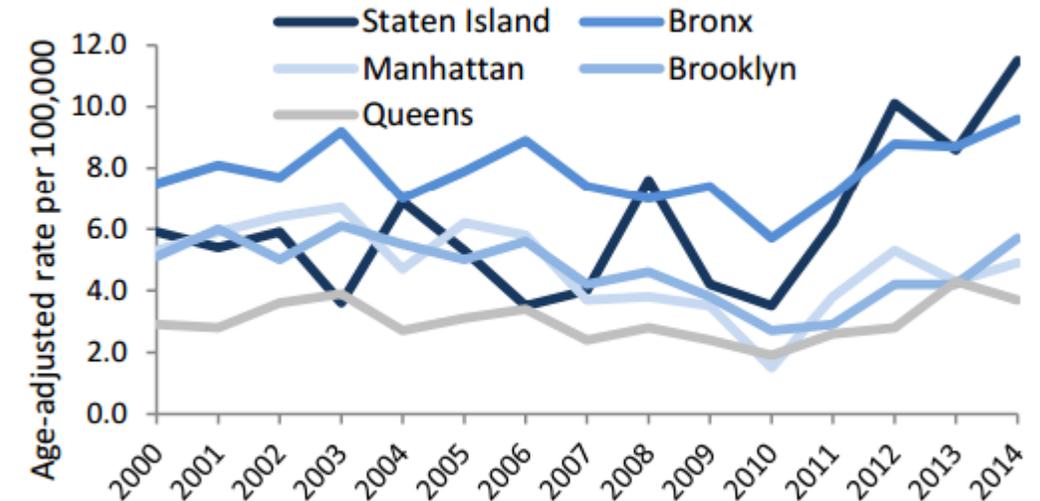
# Use Case: Substance Abuse Epidemic

## Geomapping: Nation of Origin Overlay

Opioid - Unique Medicaid Claimants per 1000 Beneficiaries in 2014



## Unintentional overdose deaths involving heroin by borough of residence, New York City, 2000–2014\*



\* Data for 2014 are preliminary and subject to change  
 Source: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics



# Innovative Programs: Behavioral Health Pilots

## ED Warm Handoff Pilot

Reduce avoidable SUD-related ED visits by connecting ED patients with substance use disorder needs to timely and appropriate treatment and services



BH Specialists in ED



Peer Counselors in ED



24/7 call center



Provider Directory



SUD Treatment Providers



24/7 Crisis Stabilization Centers

## EMS HealthLink Pilot

Reduce inappropriate ED and EMS utilization by engaging Staten Islanders in longitudinal relationships with multi-disciplinary care teams that address their comprehensive healthcare needs



Mobile crisis / Outreach Team

**EMS**

NYC Support



24/7 call center



Provider Directory



SUD & MH Treatment Providers



24/7 Crisis Stabilization Centers

## RCDA Pre-Arrest Diversion Program (PDP)

Reduce overdose deaths, non-fatal ODs, and improve health outcomes by diverting individuals to treatment/service providers post-arrest and pre-arrest



RCDA Coordinator



Peer Counselor



24/7 call center



Provider Directory



Treatment / Service Providers



24/7 Resource / Stabilization Centers

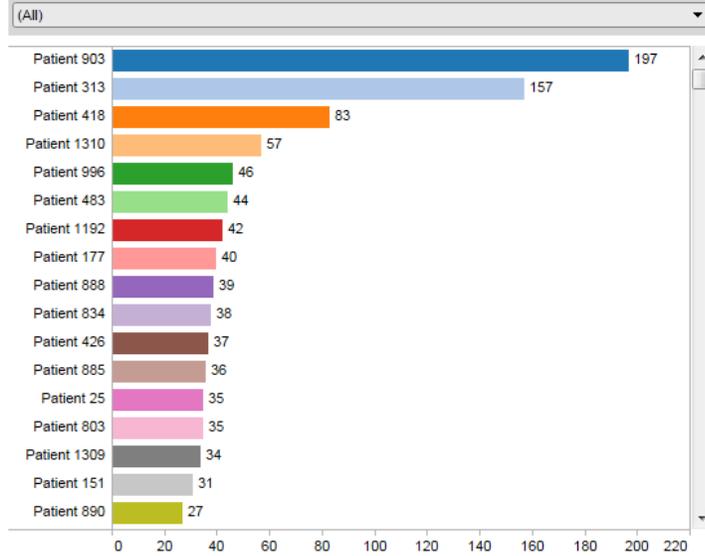


# SI PPS EMS Super Utilizer (SU) Dashboard : FY2014-15

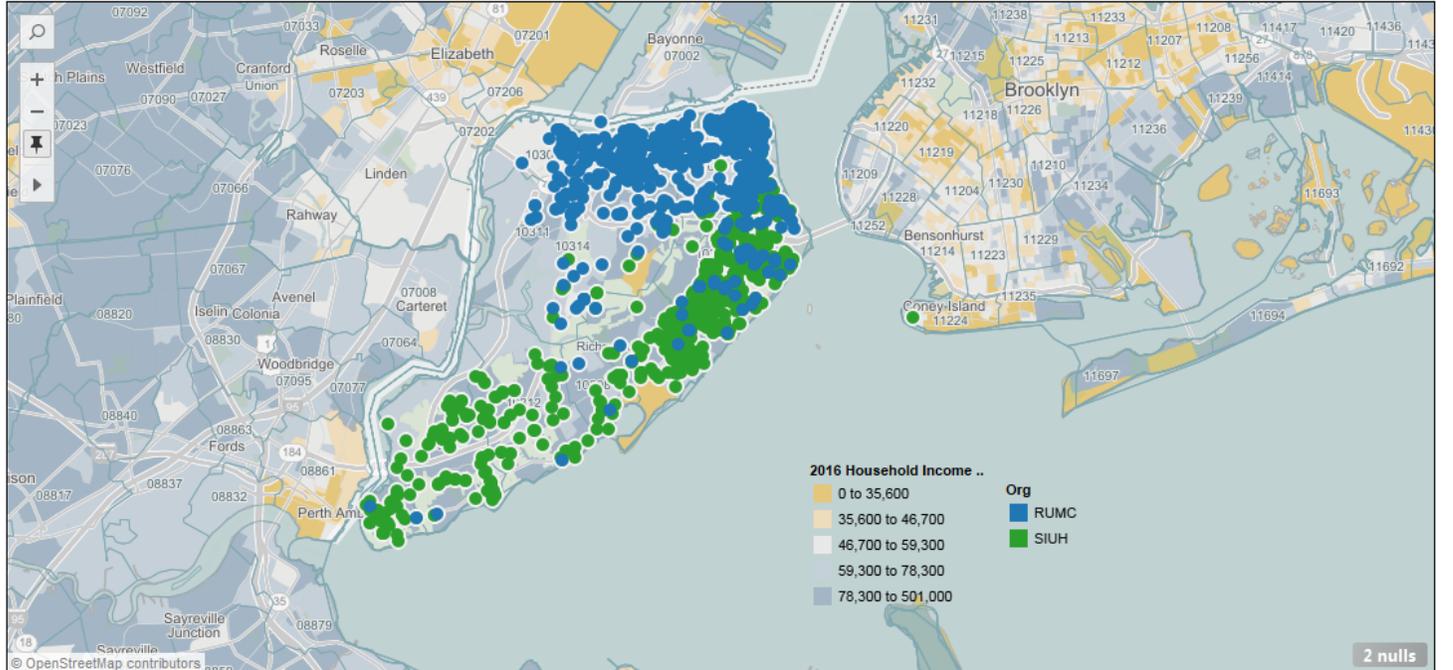
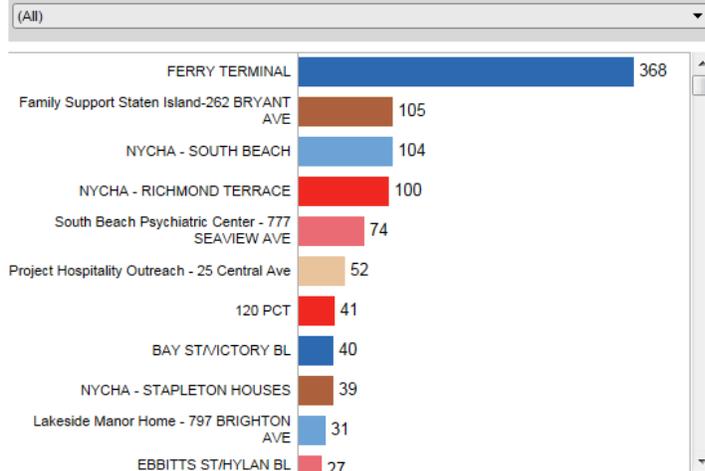
**Chief Complaint** (All) **Dispatch Code** (All) **Org** (All)  RUMC  SIUH

# Unique SU	TOTAL # CALLS	# RUMC CALLS	# SIUH CALLS	Estimated TOTAL COST
1,441	6,605	4,510	2,095	\$9,907,500

## Super Utilizers (Rank by # of Calls):



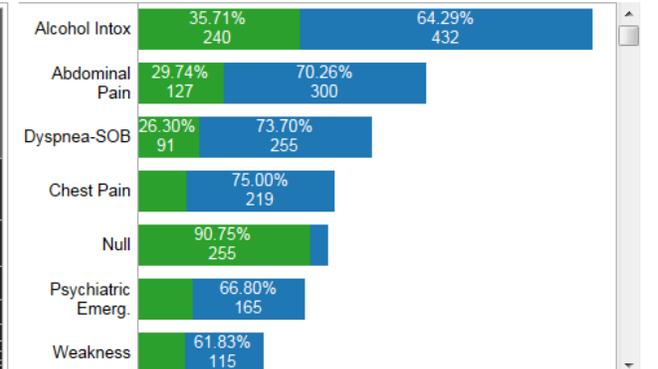
## Incidence Locations (Rank by # of Calls):



## Dispatch Codes

<b>SICK - Sick</b> 1,287 19.49%	<b>DRUG - Hx Drug Or Alcohol Abuse</b> 605 9.16%	<b>INJURY - Non-Critical Injury</b> 440 6.66%	<b>ABDPN - Abdominal Pain</b> 376 5.69%	<b>UNC -</b>
<b>DIFFBR - Difficulty Breathing</b> 1,142 17.29%	<b>CARD - Cardiac Condition</b> 480 7.27%	<b>UNKNOW - Caller Has No Pt</b>	<b>STATEP - Multiple Or</b>	<b>OB</b>
	<b>EDP - Psychiatric Patient</b> 445 6.74%	<b>ALTMEN - Altered Mental</b>	<b>ASTHMB - Asthma</b>	
		<b>RESPIR - Respiratory</b>	<b>INBLED - Internal</b>	

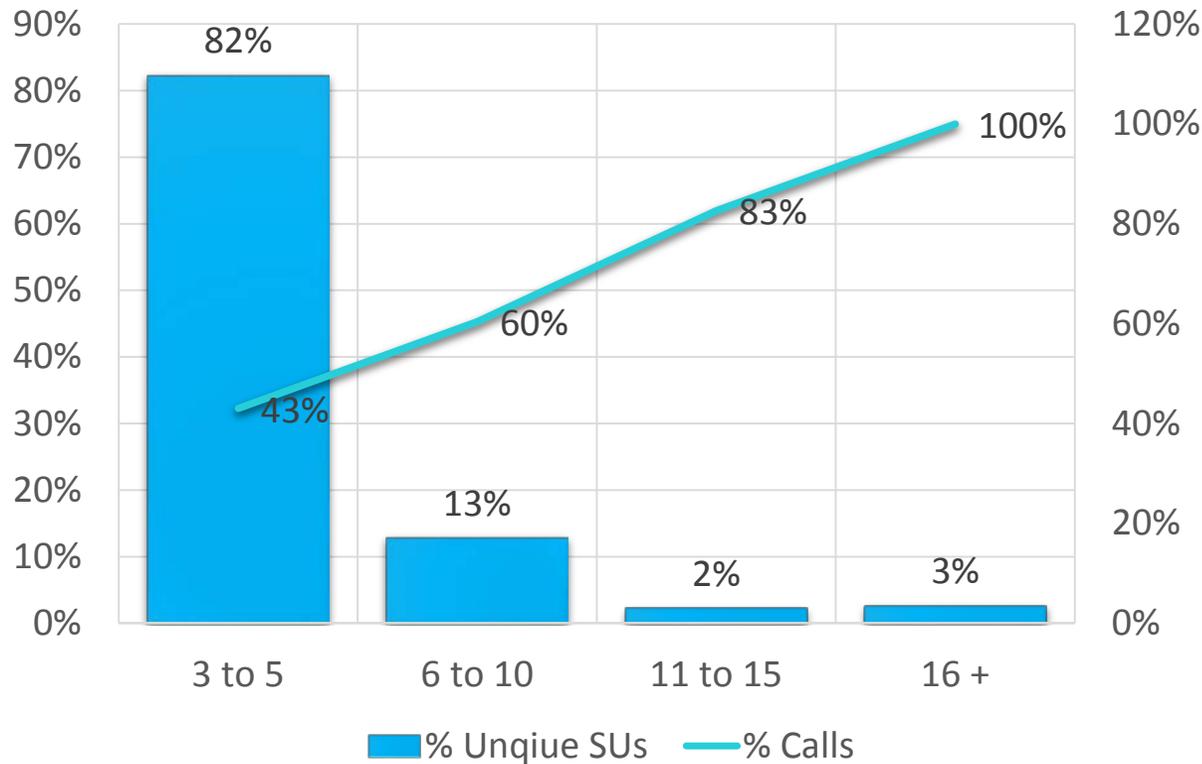
## Top Chief Complaint





# Staten Island PPS Super Utilizer EMS Call Analysis

# of Super Utilizer (SU) vs. Total # 911 Calls



EMS Super Utilizers (SU)	Description
<b>SU Definition</b>	Patients made <u>3 or more</u> 911 calls to RUMC or SIUH EMS in 24 months
<b>Data Period</b>	1/1/2014 – 12/31/2015
<b>Data Source</b>	RUMC and SIUH EMS tracking systems
<b>Results Set</b>	1441 unique patients ; 6605 calls identified.
<b>Descriptive Statistics</b>	<ul style="list-style-type: none"> <li>Average 911 calls per patient : 4.6</li> <li>Max Calls per Patient: 197</li> </ul>

- 82% SUs made 3 to 5 calls
- 13% SUs made 6 to 10 calls
- 5% SUs made 11 or more calls, and contribute 40% of the total call volume



# EMS Diversion Program with NYC Support

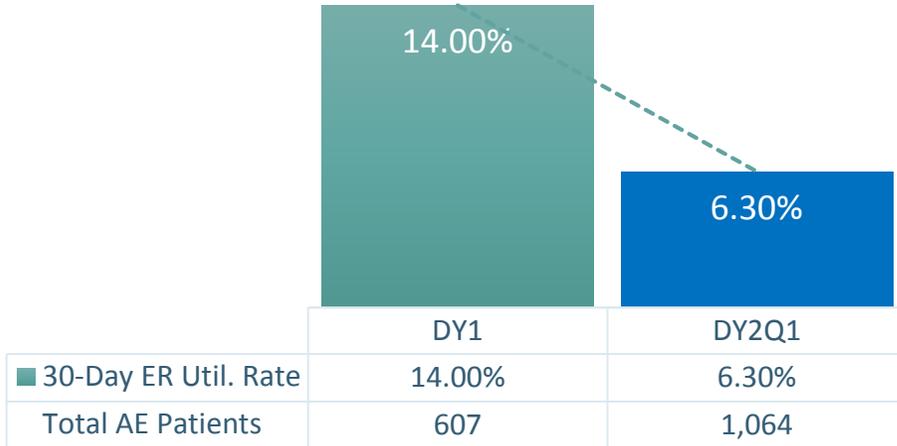
---

- Promote alternate 911 call model in collaboration with PPS partners, law enforcement, and other public agencies utilizing NYC Support and 24/7 Call Center to link individuals to community services in Staten Island
- Utilize SUD Warm Hand-Off and RCDA Pre-Arrest Diversion programs for at-risk population management
- Identify frequent callers and engage them proactively for care management and outreach via Health Home teams
- Identify locations with high volumes of calls and integrate outreach teams to actively engage people with unmet, emerging needs
- Dispatch mobile outreach teams to high demand locations at key times

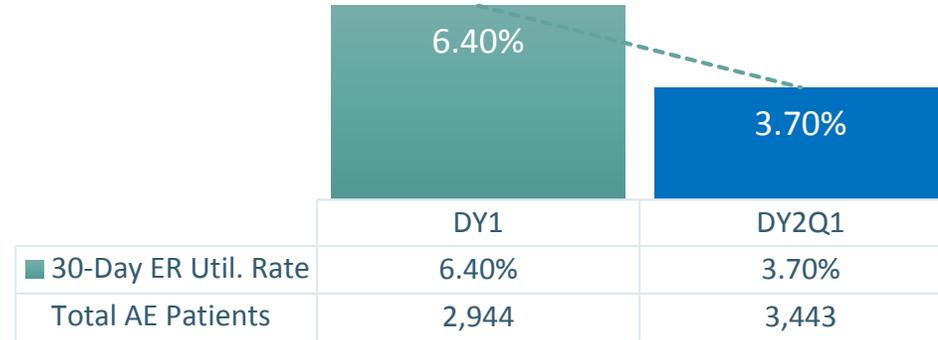


# Current Progress - Improving Care Outcomes

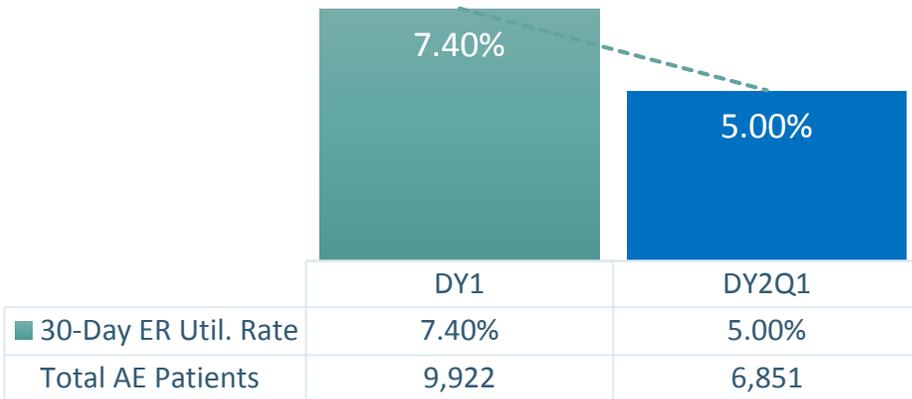
2.A.III : HH at Risk



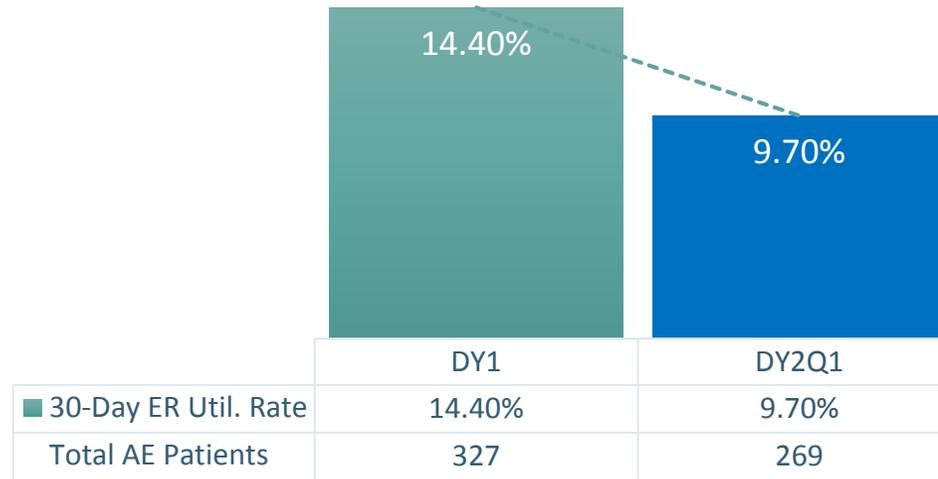
3.C.I : Diabetes Management



3.A.I



3.A.IV



## Key Findings: Significant improvement in 30-day ER Utilization Rate (DY1 vs. DY2Q1)

- 2.A.III: **55%** improvement, decreased from 14% to 6.3%.
- 3.C.I: **42%** improvement, decreased from 6.4% to 3.7%.
- 3.A.I: **32%** improvement, decreased from 7.4% to 5.0%.
- 3.A.IV: **33%** improvement, decreased from 14.4% to 9.7%.



# Recommendations

---

- Greater RHIO/SHIN-NY functionality to enhance practitioner use
- Support from major EHR vendors on addressing Population Health metrics
- Encourage relationships with MCOs to focus on Population Health initiatives
- More favorable regulatory and reimbursement process, support co-location, integrated care and SUD practices
- Expand telemedicine capacity in multiple settings
- Create a state-wide program that permits local EMS to redirect non-emergency care to alternate service locations (i.e. for individuals experiencing Behavioral Health crises, ETOH, SUD, minor medical complaints)