# MRT Supportive Housing: Investing in the Social Determinants of Health

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#### Presenters

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Largest supportive housing Medicaid investment in the country (\$641 Million over 7 years)



**Served over 11,000** high-cost, high-need Medicaid members!



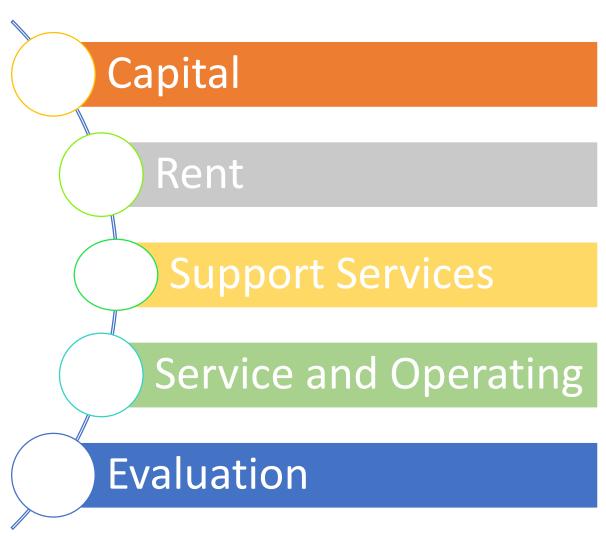
Largest state dataset on Medicaid and housing.
Contracted for a three-year evaluation on all investments





#### Over the past six years MRT Supportive Housing has...

- Developed 19 rental subsidy and supportive services programs statewide
- Added 1,482 units to the state's supportive housing inventory, including a projected 621 units in the pipeline for 2018
- Prioritized capital projects for the most vulnerable Medicaid participants
- Collected Medicaid data from the inception of the program to allow for data driven policy development





# Video: BronxWorks Health Homes Supportive Housing Pilot



#### Demonstrated Success....

**✓ Improving Health Outcomes** 

**✓ Bending the Medicaid Cost Curve** 

**✓ Creating Future Investment Opportunities** 



### Future Opportunities: SDH, CBOs and VBP

- Value based payment (VBP) is creating collaborations between healthcare systems and community based organizations;
- These collaborations include SDH inventions, including housing;
- VBP will change the way that healthcare providers think about social determinants;
- Housing and other social determinants will become embedded in the healthcare system.





# MRT Supportive Housing Evaluation



- Data has been collected to prove the value and outcomes of supportive housing.
- These reports will allow plans, community based organizations and other states to replicate New York's successful supportive housing model.
- Presented today are the first two reports in a series of twelve, to be completed through 2018.



#### Contact us!

Medicaid Redesign Team Supportive Housing Initiative

http://www.health.ny.gov/health\_care/medicaid/redesign/supportive\_housing\_initiatives.htm

VBP Social Determinants of Health and Community Based Organizations

https://www.health.ny.gov/health\_care/medicaid/redesign/dsrip/vbp\_library/index.htm

MRT Supportive Housing Email

mrtsupportivehousing@health.ny.gov



#### Medicaid Redesign Team Supportive Housing Evaluation

Year 1 Cost and Utilization Findings, by Program

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# Objectives and Overview of the Evaluation



### Objectives of the Presentation

 To review overall, diagnostic, and program-specific findings from the Year 1 evaluation

 To discuss reactions to this preliminary look at the data, as it relates to practice, policy, and future research directions







#### Overview of the Evaluation



**Outcomes Study** 

Implementation Study





## Approach/Methodology

- Medicaid service utilization and Medicaid costs were measured for MRT-SH program participants overall, and by program
- Descriptive statistics were presented to determine whether there were statistically significant differences in utilization or cost
- Predictive analyses were conducted to understand characteristics associated with greater or lesser pre-post changes





#### Inclusion Criteria

- One-year pre-period and oneyear post period
  - Participants enrolled in supportive housing for at least one year prior to January 1, 2016
  - For newer programs (Health Homes Supportive Housing Pilot, OTDA Homeless Senior and Disabled Placement Pilot, and HHAP programs), 6 or 9 month post-periods were used

- Consistent Medicaid coverage before and after supportive housing enrollment
  - For participants dual eligible for Medicaid and Medicare, Medicare costs are not included
  - Intent-to-treat methodologyparticipants remain in the analysis whether or not they remained enrolled in SH for the entire year



### Programs Included in the Year 1 Evaluation

- AIDS Institute, Services Only & Services + Subsidies
- East 99<sup>th</sup> Street
- Health Homes Supportive Housing Pilot
- OASAS Rental Subsidies
- OMH Rental Subsidies Brooklyn

- OMH Rental Subsidies Statewide
- OPWDD Expansion Program
- Eviction Prevention for Vulnerable Adults
- Homeless Housing and Assistance Program (HHAP)
- OTDA Homeless Senior and Disabled Placement Pilot (NYC)

# MRT-SH Year 1 Evaluation Findings: *Programs Overall*

## MRT-SH Programs Overall

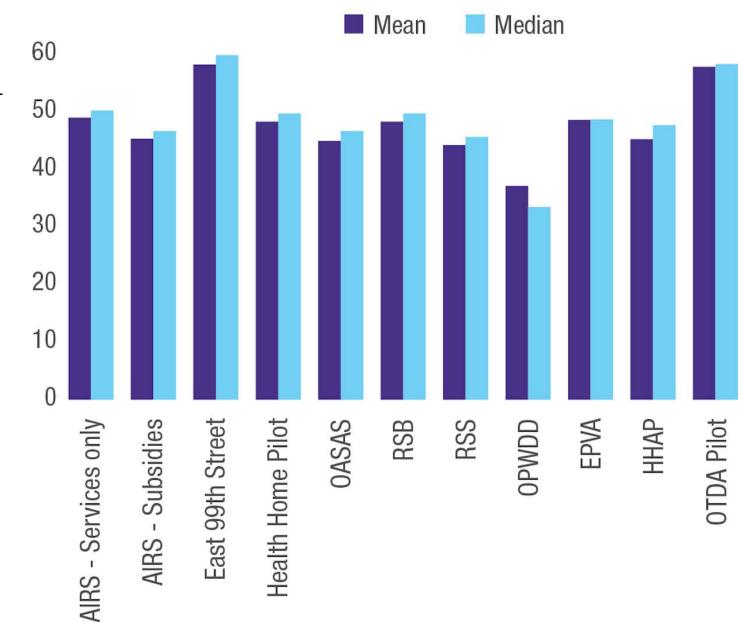
- Who is served by the MRT-SH Programs?
- What are their demographic and clinical characteristics?
- What were the key utilization and cost findings for the programs overall, in Year 1 of the evaluation?





#### **Average Age at Enrollment: MRT-SH Participants**

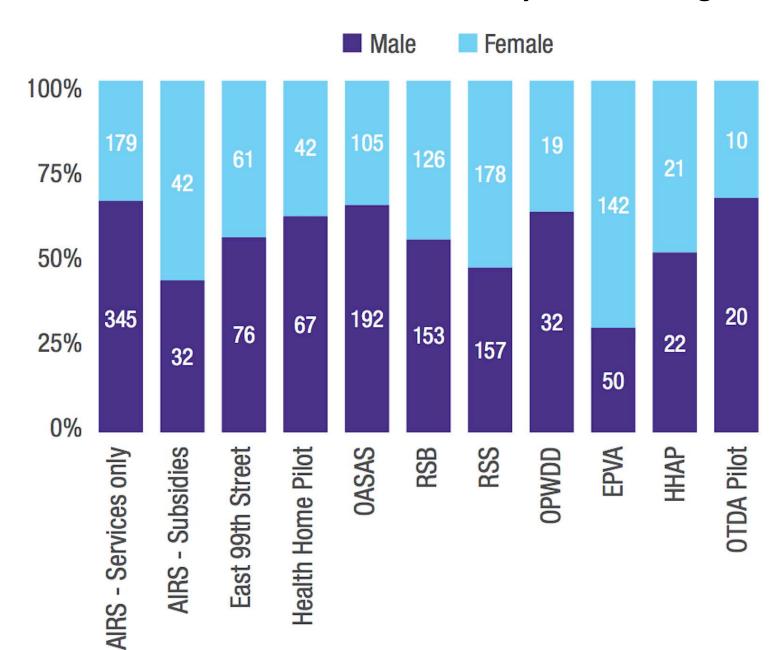
- Mean age at enrollment: 47.1
- Median age at enrollment: 49



- Lowest average age: 36.6 for OPWDD Expansion
- Highest average age: 57.4 for East 99<sup>th</sup> Street

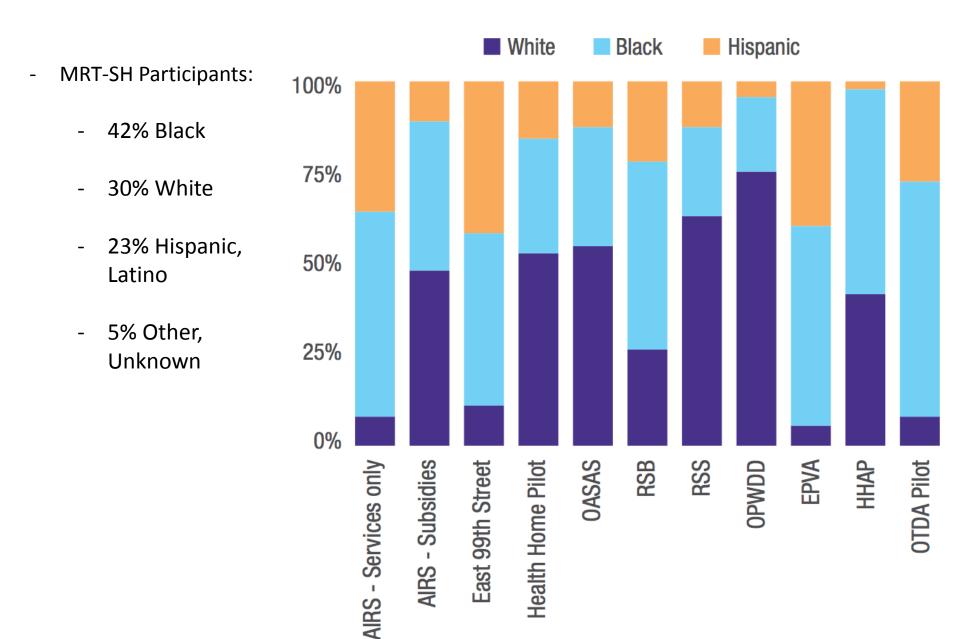
#### Distribution of MRT Enrollees by Sex and Program

- Overall, 55% male, 45% female



- AIDS Institute,
   Services-only
   and OTDA
   Homeless Senior
   and Disabled
   Pilot most
   weighted toward
   men
- Eviction
   Prevention most weighted toward women

#### MRT-SH Enrollees by Race/Ethnicity and Program

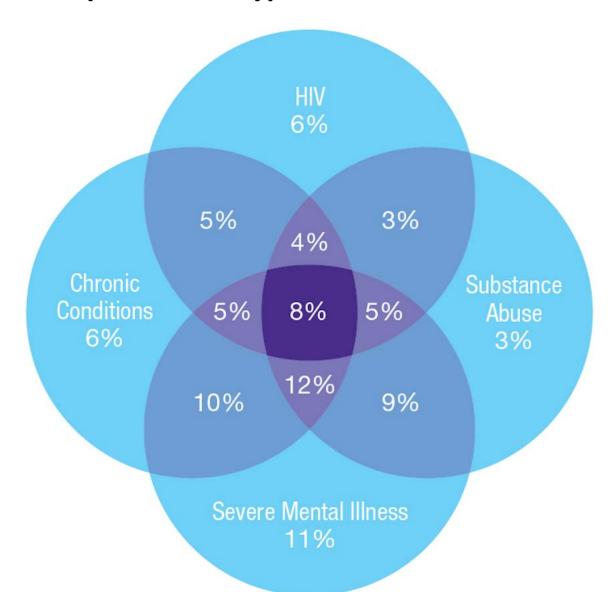


- Highest percentage of Hispanic clients: East 99<sup>th</sup> Street and Eviction Prevention
- Highest percentage of Black clients:OTDA Pilot
- Highest percentage of White clients: OPWDD Expansion



# MRT-SH Participants, Overall Overlap Between Types of Chronic Conditions

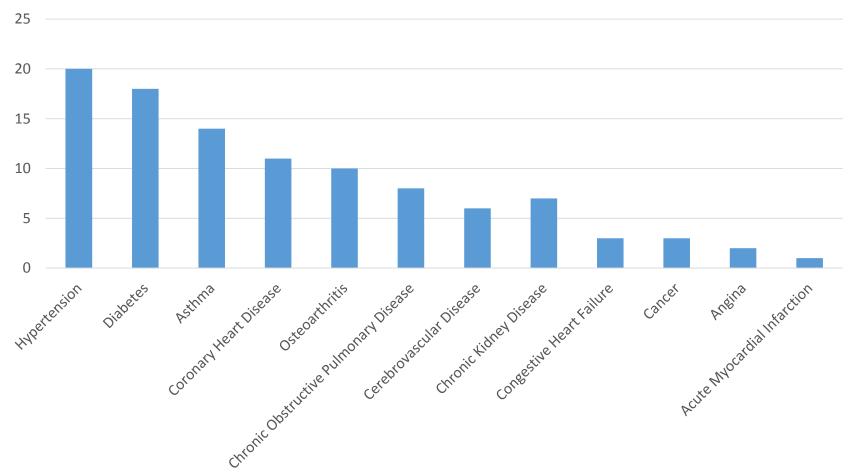
- 66% SMI
- 46% SUD
- 40% HIV
- 53% one or more other chronic conditions



- 8% have four conditions
- 26% have three conditions

- $\bigcirc$
- Hypertension (20%)
- Diabetes (18%)
- Asthma (14%)
- Coronary Heart Disease (11%)

# Type of Chronic Condition, % of MRT-SH Participants Overall



# Health Care Utilization Changes at a Glance: MRT-SH Programs Overall

- Virtually all services were used significantly less post-enrollment in the MRT-SH programs
  - Any inpatient care (from 44% to 36%)
  - Any emergency department visits (from 60% to 53%)
  - Average inpatient days (from 10.1 to 6.1)
  - Average emergency department visits (3.1 to 2.3)
  - Inpatient rehab (7.2% to 4.0%)







# Inpatient and Emergency Department Utilization, Pre- and Post-Enrollment

- Significant decreases in inpatient care categories

	Pre	Post	Significance
Inpatient utilization			
Any inpatient care	44%	36%	***
Any inpatient mental health (defined by Dx)	12.0%	8.8%	***
Any inpatient substance abuse	18%	12%	***
Average number inpatient days	10.1	6.1	***
Emergency department utilization			
Any ED visits	60%	53%	***
Any ED visits - mental health	11.2%	7.8%	***
Any ED visits - substance abuse	10.2%	7.7%	***
Average number of ED visits	3.1	2.3	***
Average number of ED visits - mental health	0.22	0.17	***
Average number of ED visits - substance abuse	0.28	0.16	***
Specific behavioral health services			
Any Comprehensive Psychiatric Emergency Program (CPEP)	3.2%	3.3%	n.s.
Any psychiatric inpatient	10.0%	7.3%	***
Inpatient rehab	7.2%	4.0%	***
Inpatient detox	3.5%	2.6%	*

- Significant decreases in emergency department visits

- Significant decreases in psych inpatient, inpatient rehab, inpatient detox

# Medicaid Cost Changes at a Glance: MRT-SH Programs Overall

- On an annualized basis, the 2,071 individuals studied saw Medicaid costs fall by 15%
- 6 of 11 programs showed statistically significant decreases in overall cost
- 3 additional programs showed non-significant decreases
- Service categories showing decreases: Clinic (6/11); ED (6/11); Lab (6/11); Hospital Inpatient (3/11); Hospital Outpatient (2/11)
- Service categories showing increases: Non-institutional LTC (2/11); Nursing Home (1/11); Transportation (1/11)





# Cost Differences Pre- and Post-Enrollment, by Program

Program	N	Total Cost Difference	Total Mean Cost Difference	Statistical Significance
AIDS Institute, Services-only	524	-\$938,990	-\$1,792	
AIDS Institute, Services + Subsidy	74	\$296,928	\$4,013	
East 99 <sup>th</sup> Street	137	-\$1,622,245	-\$11,841	***
Eviction Prevention	192	-\$280,037	-\$1,459	
Health Home Pilot	109	\$146,879	\$1,348	
ННАР	43	-\$137,166	-\$3,190	*
OASAS-RS	297	-\$3,227,080	-\$10,866	***
OPWDD	51	-\$2,508,051	-\$49,178	***
OTDA NYC	30	\$130,536	\$4,351	
OMH RSB	279	-\$2,732,538	-\$9,794	***
OMH RSS	335	-\$2,055,141	-\$6,135	***

# MRT-SH Programs Overall- Summary and Conclusions

- MRT-SH programs are serving diverse populations with serious health needs and high rates of co-morbidities
- Most programs are serving participants who utilized a significant amount of high cost Medicaid services prior to enrollment
- Overall, inpatient and emergency department services are being used less postenrollment, though findings vary substantially by program
- There are statistically significant cost decreases overall for several programs





# MRT-SH Findings: A Look at Medicaid Service Utilization by Diagnostic Group



## Overview: Findings by Diagnostic Group

 Characteristics of MRT-SH participants with SMI, SUD, HIV, and chronic conditions

 Medicaid service utilization findings (inpatient and emergency department) for enrollees with these diagnoses





# Inpatient Days and Emergency Department Visits by Diagnostic Group, Pre- and Post- Enrollment

- Significant		Inpatient Days			Emergency Visits		
decrease in		Pre	Post	Sig.	Pre	Post	Sig.
inpatient days and emergency visits for all diagnostic groups	Severe mental illness	12.0	6.8	***	3.7	2.6	***
	Substance use disorder	15.8	8.8	***	4.4	2.9	***
	HIV	8.2	5.9	***	3.0	2.3	***
	Chronic medical condition	11.7	7.4	***	4.3	3.1	***

### Diagnostic Combinations

- Use of inpatient and emergency department services prior to MRT-SH enrollment varied according to the combinations of diagnoses that the participants experienced
- Diagnostic combinations that included an SUD were associated with higher utilization than combinations that did not include an SUD





### Serious Mental Illness (SMI) Findings

#### **Characteristics of MRT-SH Recipients with SMI Diagnosis**

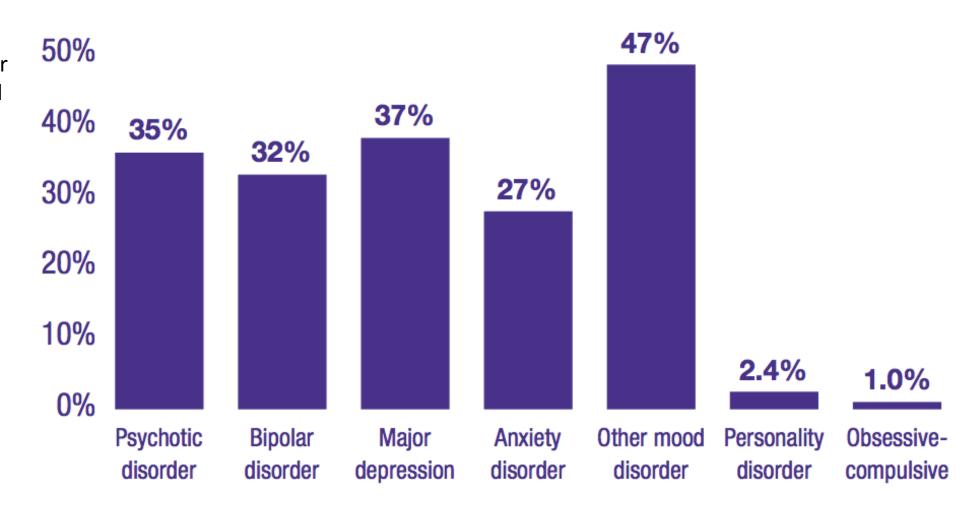
Clients with SMI: Slightly younger, more likely to be white

	MRT SMI Population	Overall MRT Population
Average age (in years)	45.6	47.1
Race/ethnicity		
Non-Hispanic white	36%	30%
Non-Hispanic Black	37%	42%
Hispanic/Latino	21%	23%
Other race or multiracial Gender	5%	5%
Male	52%	55%
Female	48%	45%
Geography		
New York City	58%	65%
Long Island	4%	3%
Other New York State	38%	33%
Comorbidities		
Has HIV	34%	40%
Has a SUD	52%	46%
Has another chronic medical condition	54%	53%

Clients with SMI: Less likely to live in NYC, substantially more likely to have an active SUD

#### **Specific Categories of SMI Experienced by MRT-SH Participants**

Other Mood
Disorders, Major
Depression, and
Psychotic
Disorders are
most common



# MRT-SH Enrollees with SMI: Program Placement

- Enrollees with SMI were most likely to be enrolled in an OMH program, with a significant number also in AIDS Institute programs and OASAS programs
- The majority of clients with a psychotic disorder were enrolled in an OMH program
- Clients with other mental health diagnoses were found in a wider variety of programs





### Average Overall Inpatient Days and % with >= 1 Emergency Visits for SMI among the SMI Population, by Program, Pre- and Post-Enrollment

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Significant decrease in inpatient days for AIDS Institute
Services only, Health Home Pilot, OASAS-RS, and both OMH rental subsidy programs

	# Inpatient Days – for any reason				ith Emerg sits – for S	-
	Pre	Post	Sig.	Pre	Post	Sig.
AIDS Institute – Services only	10.9	8.1	**	8.7%	4.8%	*
AIDS Institute – Services + Subsidy	6.6	6.8	n.s.	21%	13%	n.s.
East 99th	4.5	3.0	n.s.	3%	3%	n.s.
Health Home Pilot	8.4	4.4	**	10%	4.1%	†
OASAS Rental Subsidies	24.7	11.6	***	29%	18%	**
OMH Rental - Brooklyn	9.1	5.1	*	14%	9.1%	†
OMH Rental - Statewide	12.8	7.1	***	25%	18%	*
OPWDD	0.7	1.0	n.s.	3.0%	0%	n.s.
OTDA Eviction Prevention	5.5	1.8	n.s.	6.0%	0%	†
Homeless Housing Program	6.5	1.8	†	7.7%	7.7%	n.s.
OTDA Pilot	3.8	4.6	n.s.	9.1%	18%	n.s.

Significant decrease in % with at least 1 emergency visit for AIDS Institute Services only, OASAS-RS, and OMH Rental Subsidies Statewide

### CPEP and Psychiatric Inpatient Stays among the SMI Population by Program, Pre- and Post-Enrollment

No significant changes in CPEP services

	Any CPEP			Any Psychiatric Inpatient		
	Pre	Post	Sig.	Pre	Post	Sig.
AIDS Institute – Services only	3.6%	2.4%	n.s.	7.9%	4.4%	*
AIDS Institute – Services + Subsidy	7.7%	2.4%	n.s.	15%	18%	n.s.
East 99th	1.7%	1.7%	n.s.	8.5%	5.1%	n.s.
Health Home Pilot	4.2%	8.5%	n.s.	15%	13%	n.s.
OASAS Rental Subsidies	4.5%	3.6%	n.s.	19%	12%	**
OMH Rental - Brooklyn	5.5%	6.7%	n.s.	12%	9.5%	n.s.
OMH Rental - Statewide	5.9%	3.6%	n.s.	25%	16%	***
OPWDD	3.2%	3.2%	n.s.	3.2%	6.5%	n.s.
OTDA Eviction Prevention	0%	3.6%	†	6.0%	2.4%	n.s.
Homeless Housing Program	12%	3.9%	n.s.	15%	3.9%	†
OTDA Pilot	0%	2.7%	†	18%	27%	n.s.

Significant decreases in psychiatric inpatient for AIDS Institute, Services only, OASAS-RS, and OMH RSS

# MRT-SH Enrollees with SMI: Inpatient Trends by Participant Characteristics

- The average decrease in inpatient days for those with SMI: 5.4 days
- Inpatient reductions were greater for:
  - Hispanic clients, compared to white clients
  - Men compared to women
  - Participants with a co-morbid SUD (lesser reduction for those with HIV)
- There was less of a reduction as client age increased
- OASAS-RS clients experienced the greatest reduction compared with other programs, followed by the OMH rental subsidies programs





# MRT-SH Enrollees with SMI: Emergency Department Trends by Participant Characteristics

- The average decrease in emergency department visits for those with SMI: 0.8
- Emergency department reductions were greatest for:
  - Those with co-morbid conditions or a psychotic disorder or "other mood disorder", and lesser for those with Major Depression only
  - Participants enrolled in Managed Care for at least part of the enrollment period
- OASAS-RS clients experienced a greater reduction compared with other programs that are not behavioral-health focused





#### Substance Use Disorder (SUD) Findings

#### **Characteristics of MRT-SH Recipients with a SUD**

Recipients with a SUD: more likely to be male, somewhat more likely to be white

	MRT SUD Population	Overall MRT Population
Average age (in years)	46.2	47.1
Race/ethnicity		
Non-Hispanic Black	40%	42%
Hispanic/Latino	20%	23%
Other race or multiracial	6%	5%
Non-Hispanic white	35%	30%
Gender		
Male	61%	55%
Female	39%	45%
Geography		
New York City	56%	65%
Long Island	3%	3%
Other New York State	41%	33%
Comorbidities		
Has HIV	43%	40%
Has a SMI	73%	66%
Has another chronic medical condition	57%	53%

Recipients with a SUD: less likely to live in NYC, more likely to have a cooccurring SMI

# MRT-SH Enrollees with SUD: Program Placement

- Enrollees with a SUD are most likely to be enrolled in AIDS Institute programs and the OASAS Rental Subsidies program, with a large number also enrolled in OMH Rental Subsidies programs
- The majority of clients with alcohol use disorders are enrolled in OASAS-RS
- The majority of clients with opioid use disorders and cocaine use disorders are enrolled in AIDS Institute programs





### Overall Inpatient Days and Emergency Department Visits Among Participants with a SUD, Pre- and Post-Enrollment

Significant decrease in inpatient days for AIDS Institute Services only, Health Home Pilot, OASAS-RS, and OMH-RSS

		# Inpatient Days – for any reason			% with >=1 Emergency Visits – for SUD		
	Pre	Post	Sig.	Pre	Post	Sig.	
AIDS Institute – Services only	13.9	7.8	***	18%	11%	*	
AIDS Institute – Services + Subsidy	8.6	7.2	n.s.	19%	19%	n.s.	
East 99th	14.8	11.0	n.s.	25%	0%	n.s.	
Health Home Pilot	10.9	3.5	***	25%	7%	*	
OASAS Rental Subsidies	24.2	12.5	***	32%	19%	sksksk	
OMH Rental - Brooklyn	14.2	9.2	n.s.	15%	13%	n.s.	
OMH Rental - Statewide	14.1	8.8	***	22%	19%	n.s.	
OPWDD	0	0		0%	0%		
OTDA Eviction Prevention	2.2	2.2	n.s.	8.3%	5.6%	n.s.	
Homeless Housing Program	6.0	1.2	†	24%	9.5%	n.s.	
OTDA Pilot	2.2	5.1	n.s.	0%	0%		

Significant decrease in % with at least one emergency visit for AIDS Institute Services only, Health Home Pilot, and OASAS-RS

### Percent of the SUD Population Using Inpatient Rehab or Detox by Program, Pre- and Post-Enrollment

Significant decrease in inpatient rehab for Health Home Pilot, OASAS-RS, OMH-RSS

	% with	Inpatient	Rehab	% with	% with Inpatient Detox		
	Pre	Post	Sig.	Pre	Post	Sig.	
AIDS Institute – Services only	10%	6.6%	†	7.3%	4.2%	†	
AIDS Institute – Services + Subsidy	14%	5.6%	n.s.	2.8%	2.8%	n.s.	
East 99th	0%	0%		0%	0%		
Health Home Pilot	16%	3.5%	*	7.0%	1.8%	†	
OASAS Rental Subsidies	27%	13%	***	13%	8.3%	**	
OMH Rental - Brooklyn	9.7%	8.7%	n.s.	7.8%	6.8%	n.s.	
OMH Rental - Statewide	15%	2.8%	***	1.4%	1.4%	n.s.	
OPWDD	0%	0%		0%	0%		
OTDA Eviction Prevention	0%	0%		2.8%	0%		
HHAP	9.5%	4.8%	n.s.	0%	0%		
OTDA Pilot	0%	0%		0%	0%		

Significant decrease in inpatient detox for OASAS-RS

# MRT-SH Enrollees with a SUD: Inpatient Trends by Participant Characteristics

- The average decrease in inpatient days for enrollees with a SUD was 6.5 days
- There was a greater decrease for White clients compared with Black and Hispanic clients
- There was a greater decrease for those with a cocaine use, cannabis use, or non-opioid combination disorder, compared to those with an alcohol use disorder only



# MRT-SH Enrollees with a SUD: Emergency Department Trends by Participant Characteristics

- The average decrease in emergency department visits among those with a SUD was 1.5
- There was a greater decrease for clients with a co-morbid chronic condition and those enrolled in managed care for at least part of the pre-period





### **HIV Findings**

#### **Characteristics of MRT-SH Recipients with HIV**

Clients with HIV: Somewhat older, more likely to be Black, Hispanic, male

	MRT HIV Population	Overall MRT Population
Average age (in years)	49.7	47.1
Race/ethnicity		
Non-Hispanic Black	52%	42%
Hispanic/Latino	28%	23%
Other race or multiracial	5%	5%
Non-Hispanic white	15%	30%
Gender		
Male	60%	55%
Female	40%	45%
Geography		
New York City	86%	65%
Long Island	1%	3%
Other New York State	13%	33%
Comorbidities		
Has SMI	57%	66%
Has a SUD	50%	46%
Has another chronic medical condition	54%	53%

Clients with HIV: More likely to live in NYC, more likely to have a SUD

# MRT-SH Enrollees with HIV: Program Placement

- Enrollees with HIV are most likely to be enrolled in an AIDS Institute program (close to three quarters of those with HIV)
- More than a quarter are enrolled in other programs, including OMH Rental Subsidies





### Overall Inpatient Days and Emergency Department Visits Among Participants with HIV, Pre- and Post-Enrollment

Significant decrease in inpatient days for AIDS Institute Services only

	Sig.
Pre Post Sig. Pre Post S	- 3
AIDS Institute "Services only" 8.8 6.0 ** 56% 52%	†
AIDS Institute "Services + Subsidy" 4.5 6.9 n.s. 73% 65% n	1.S.
East 99th 2.6 2.5 n.s. 33% 43% n	1.S.
Health Home Pilot 11.4 4.7 n.s. 73% 68% n	າ.s.
OASAS Rental Subsidies         15.9         9.7         n.s.         90%         87%         n	າ.ຮ.
OMH Rental - Brooklyn 8.4 5.7 † 63% 60% n	າ.ຮ.
OMH Rental - Statewide         4.8         3.5         n.s.         73%         65%         n	າ.ຮ.
OTDA Eviction Prevention 1.3 2.5 n.s. 52% 52% n	1.S.
OTDA Pilot 3.5 4.2 n.s. 69% 38% n	1.S.

No significant change in % with at least on emergency visit

# MRT-SH Enrollees with HIV: Inpatient Trends by Participant Characteristics

- The average decrease in inpatient days for enrollees with HIV was 1.9 days
- There was a greater decrease for White clients compared to Black and Hispanic clients
- There was a greater decrease for those with a co-morbid SUD





# MRT-SH Enrollees with HIV: Emergency Department Trends by Participant Characteristics

The average decrease in emergency department visits among those with HIV was 0.7

Findings did not vary significantly based on client characteristics





#### **Chronic Conditions Findings**

### Characteristics of MRT-SH Recipients with a Chronic Condition

Recipients with a chronic condition:
Somewhat older, more likely to be Black or Hispanic

	MRT Chronic Conditions Population	Overall MRT Population
Average age (in years)	49.8	47.1
Race/ethnicity		
Non-Hispanic Black	45%	42%
Hispanic/Latino	24%	23%
Other race or multiracial	5%	5%
Non-Hispanic white	26%	30%
Gender		
Male	55%	55%
Female	45%	45%
Geography		
New York City	66%	65%
Long Island	3%	3%
Other New York State	31%	33%
Comorbidities		
Has SMI	67%	66%
Has a SUD	50%	46%
Has HIV	40%	40%

Recipients with a chronic condition: More likely to have a SUD, slightly more likely to have a SMI

# MRT-SH Enrollees with a Chronic Condition: Program Placement

 Enrollees with a chronic condition are most likely to be enrolled in AIDS Institute programs, followed by OASAS Rental Subsidies and the OMH Rental Subsidy programs



### Overall Inpatient Days and Emergency Department Visits Among Participants with a Chronic Condition, Pre- and Post-Enrollment

Significant decrease in inpatient days for OASAS-RS, and both OMH rental subsidies programs

	# Inpatient Days – for any reason			% with >=1 Emergency Visits – for any reason		
	Pre	Post	Sig.	Pre	Post	Sig.
AIDS Institute – Services only	11.1	8.6	†	68%	61%	†
AIDS Institute – Services + Subsidy	3.9	8.5	n.s.	82%	79%	n.s.
East 99th	5.0	4.3	n.s.	39%	44%	n.s.
Health Home Pilot	10.7	6.3	†	83%	63%	†
OASAS Rental Subsidies	22.5	11.9	sksksk	85%	74%	*
OMH Rental - Brooklyn	11.1	6.6	*	63%	55%	n.s.
OMH Rental - Statewide	13.7	7.0	**	76%	67%	*
OPWDD	1.1	1.5	n.s.	38%	33%	n.s.
OTDA Eviction Prevention	5.3	3.6	n.s.	49%	40%	n.s.
HHAP	6.2	1.6	†	80%	60%	n.s.
OTDA Pilot	3.1	4.7	n.s.	73%	41%	†

Significant decrease in % with at least one emergency visit for OASAS-RS and OMH-RSS

# MRT-SH Enrollees with a Chronic Condition: Inpatient Trends by Participant Characteristics

- The average decrease in inpatient days for enrollees with a chronic condition was 3.4
- There was a greater decrease for White clients compared with Black clients
- There was a greater decrease for individuals diagnosed with coronary heart disease, chronic obstructive pulmonary disease (COPD), or congestive heart failure





## MRT-SH Enrollees with a Chronic Condition: Emergency Department Trends by Participant Characteristics

- The average decrease in emergency department visits for enrollees with a chronic condition was 0.8
- Decreases were greater for young clients and those diagnosed with angina



# MRT-SH Programs-Specific Utilization and Cost Findings:

## A Look at OASAS Rental Subsidies and OMH Rental Subsidies Statewide



#### Program-Specific Utilization and Cost Findings

- What conditions and co-morbidities do participants experience, by program?
- What are the inpatient and emergency department utilization changes, pre- and post-enrollment, by program?
- What are the Medicaid costs, pre- and post-enrollment, by program?



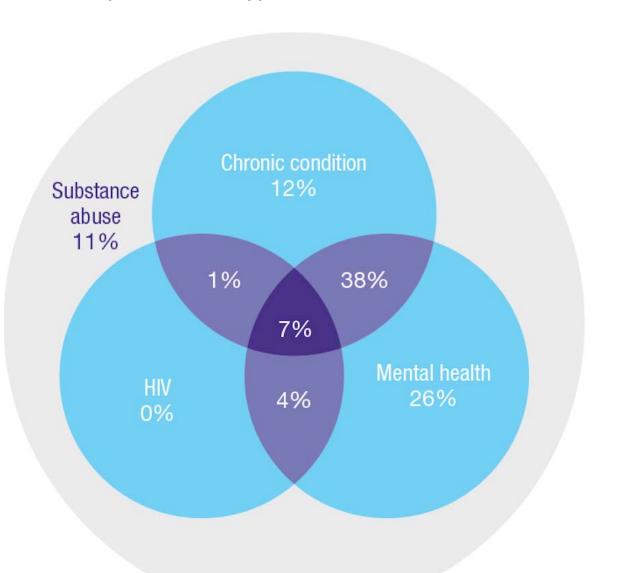
#### **OASAS**

#### **OASAS** Rental Subsidies



### OASAS Rental Subsidies (n=297) Overlap Between Types of Chronic Conditions

- All participants
   have a substance
   abuse history
- 75% with SMI
- 59% with other chronic condition
- 13% with HIV



- 6% with four conditions
- 11% with SUD only

## OASAS Rental Subsidies (n=297) Inpatient/ED, Pre- and Post-Enrollment

- Significant decrease in all inpatient categories
- Dramatic decrease in any inpatient (77% to 52%)

	Pre	Post	Sig.
Inpatient utilization			
Any inpatient care	77%	52%	***
Any inpatient mental health (by Dx)	21%	14%	**
Any inpatient substance abuse	55%	31%	***
Average number inpatient days	23.4	12.0	***
Emergency department utilization			
Any ED visits	85%	70%	** *
Any ED visits - mental health	22%	14%	**
Any ED visits - substance abuse	30%	19%	***
Average number of ED visits	6.1	3.6	***
Average number of ED visits - mental health	0.4	0.3	*
Average number of ED visits - substance abuse	1.0	0.5	***
Specific behavioral health services			
Any CPEP	3.7%	2.7%	n.s.
Any psychiatric inpatient (by rate code)	15%	11%	†
Inpatient rehab	25%	13%	***
Inpatient detox	13%	8%	*

- Significant decrease in all ED categories

- Significant decrease in inpatient rehab and inpatient detox

#### OASAS Rental Subsidies: Cost Summary at a Glance

- Statistically significant decrease in overall cost
- Statistically significant decreases in cost for nearly all service categories
- Statistically significant increase in cost for the "other" service category (driven by Health Home services)





### OASAS Rental Subsidies (n=297) Pre- and Post- Medicaid Costs

Program / Category of Service	Pre-Period Total Cost	Post-Period Total Cost	Total Cost Difference	Mean Difference in Total Cost	Median Difference in Total Cost	Sign Test
OASAS Rental Subsidies and Supports (Overall)	\$12,121,793	\$8,894,713	-\$3,227,080	-\$10,866	-\$6,833	***
Clinic	\$1,344,515	\$943,499	-\$401,016	-\$1,350	-\$304	***
DME	\$35,462	\$22,668	-\$12,794	-\$43	\$0	***
Emergency Department	\$472,278	\$289,197	-\$183,081	-\$616	-\$269	***
Hospital Inpatient	\$5,949,276	\$3,616,058	-\$2,333,218	-\$7,856	-\$2,750	***
Hospital Outpatient	\$1,085,716	\$738,040	-\$347,676	-\$1,171	-\$305	***
Lab	\$146,537	\$105,633	-\$40,903	-\$138	-\$4	***
Non-Institutional LTC	\$16,339	\$14,320	-\$2,019	-\$7	\$0	
Nursing Home	\$116,719	\$47,168	-\$69,551	-\$234	\$0	
Other+++	\$768,754	\$1,005,937	\$237,183	\$799	\$495	***
Pharmacy	\$1,234,883	\$1,246,869	\$11,986	\$40	-\$20	
Physician Services	\$699,601	\$580,797	-\$118,804	-\$400	-\$141	**
Transportation Services	\$251,711	\$284,527	\$32,816	\$110	\$0	

# OASAS Rental Subsidies: Summary of Findings

- Very positive results overall
- Significantly less inpatient and emergency care is being used by participants post-enrollment
- Significant cost decreases overall and for nearly all service categories





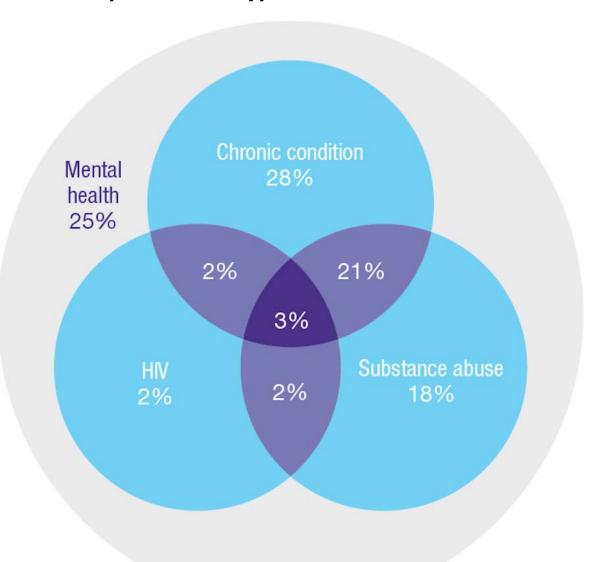
#### OMH

# OMH Rental Subsidies Statewide



### OMH Rental Subsidies Statewide (n=335) Overlap Between Types of Chronic Conditions

- All participants have a history of mental health conditions
- 53% have a chronic condition other than HIV
- 43% with SUD
- 8% with HIV



- 3% with four conditions
- 25% with mental health conditions only

### OMH Rental Subsidies Statewide (n=335) Inpatient/ED, Pre- and Post-Enrollment

- Significant decrease in all inpatient categories, including any inpatient care (48% to 37%)

	Pre	Post	Sig.
Inpatient utilization	_		
Any inpatient care	48%	37%	***
Any inpatient mental health	27%	17%	***
Any inpatient substance abuse	12%	6%	**
Average number inpatient days	11.8	6.5	***
Emergency department utilization			
Any ED visits	69%	61%	**
Any ED visits - mental health	22%	17%	*
Any ED visits - substance abuse	9.6%	10%	n.s.
Average number of ED visits	4.5	3.1	**
Average number of ED visits - mental health	0.5	0.4	*
Average number of ED visits - substance abuse	0.14	0.16	n.s.
Specific behavioral health services			
Any CPEP	5.4%	3.3%	n.s.
Any psychiatric inpatient	23%	14%	***
Inpatient rehab	6.3%	1.2%	***
Inpatient detox	0.6%	0.9%	n.s.

Significant decrease in most emergency department categories, including any emergency department visits (69% to 61%)

- Significant decrease in psych inpatient and inpatient rehab

# OMH Rental Subsidies Statewide Cost Summary at a Glance

- Statistically significant decrease in total and average costs
- Statistically significant decreases for several cost categories, including: hospital inpatient, clinic, emergency department, and "other" services
- The decrease in "other" services was driven by a \$1.3 million decrease in OMH rehabilitative services for participants who transitioned from community residences



### OMH Rental Subsidies Statewide (n=335) Pre- and Post- Medicaid Costs

Program / Category of Service	Pre-Period Total Cost	Post-Period Total Cost	Total Cost Difference	Mean Difference in Total Cost	Median Difference in Total Cost	Sign Test
Rental Subsidies: Statewide	\$10,162,895	\$8,107,754	-\$2,055,141	-\$6134.75	-\$1791.16	***
Clinic	\$626,659	\$479,109	-\$147,549	-\$440.446	-\$6.96	***
DME	\$24,851	\$20,437	-\$4,414	-\$13.1767	\$0	
Emergency Department	\$404,188	\$296,574	-\$107,614	-\$321.235	-\$9.52	***
Hospital Inpatient	\$3,015,812	\$1,866,101	-\$1,149,710	-\$3431.97	\$0	***
Hospital Outpatient	\$915,873	\$944,667	\$28,794	\$85.9511	\$0	
Lab	\$57,823	\$56,253	-\$1,569	-\$4.68388	\$0	
Non-Institutional LTC	\$118,582	\$51,585	-\$66,997	-\$199.992	\$0	
Nursing Home	\$75,932	\$91,312	\$15,380	\$45.90928	\$0	
Other†††	\$2,885,190	\$1,928,726	-\$956,464	-\$2855.12	\$603.61	***
Pharmacy	\$1,080,018	\$1,312,789	\$232,771	\$694.8384	\$0	
Physician Services	\$553,637	\$607,685	\$54,048	\$161.3367	\$0	
Transportation Services	\$404,331	\$452,516	\$48,185	\$143.8348	\$0	

# OMH Rental Subsidies Statewide Summary of Findings

- Very positive picture of improved outcomes, with significant decreases in inpatient care and emergency department use, particularly for mental health conditions
- Significant cost reductions overall, and in specific categories (inpatient, clinic, emergency department, and "other" services)





#### **Summary and Conclusions**

- MRT-SH programs are serving diverse populations with serious health needs and high rates of co-morbidities
- While findings vary substantially by program, inpatient and emergency department services are being used less overall
- There is evidence of significant cost decreases overall for several programs
- Year 2 and 3 of the evaluation will yield further information about cost and utilization





#### **Evaluation- Next Steps**

- A comparison group is being developed for integration into the study
- Additional studies are being conducted to inform effective targeting of participants for the MRT-SH programs, and to better understand unmet need/potential barriers to supportive housing access
- Additional outcome metrics are being introduced (e.g. viral load data, HEDIS measures, diagnoses related to homelessness/substance abuse, housing stability, and others)



#### **Evaluation- Next Steps**

- An implementation study is highlighting the extent to which programs are being implemented as intended, as well as program strengths and weaknesses from different stakeholder perspectives (program managers, staff, MRT-SH enrollees)
- A full cost study will be conducted in Year 3, bringing in a comparison group, and factoring in costs related to the investment into the MRT-SH programs



# Questions, Comments, Discussion