Association of American Medical Colleges
CMO Group
September 30, 2022

Innovative Patient-Centered Strategies to Address Length of Stay (LOS) and Patient Progression Challenges at Academic Health Centers

Julia D. Andrieni, MD FACP
Associate Professor of Clinical Medicine, Weill Cornell Medical College
SVP, Population Health and Primary Care
President and CEO Houston Methodist Coordinate Care ACO

Norman Lancit, MSW, MBA, ACM-SW
Director, Transitions in Care

Zachary Menn, MD, MHA, MBA
Director, Value Based Care

HOUSTON Methodist® LEADING MEDICINE

AGENDA

HOUSTON Methodist COORDINATED CARE

1. **HMCC ACO LOS Overview**
2. Value-Based Inpatient Case Management
3. Value-Based Post-Discharge Care Management
4. Lessons Learned

Houston Methodist

HOUSTON Methodist LEADING MEDICINE

FACILITIES AND CAPACITY

Houston Methodist is a faith-based, academic medical center comprised of 8 hospitals,

- **1** academic medical center
- **6** community hospitals
- **1** long-term acute care hospital
- **2,509** operating beds

PHYSICIANS AND STAFF

27,900+
Employees

1,000+
Employed Physicians
+ 4,000 Affiliated Physicians

PATIENT ENCOUNTERS

In 2020, Houston Methodist had

- **130,000+** HOSPITAL ADMISSIONS
- **1,625,000+** OUTPATIENT VISITS
- **1,600,000+** CLINIC VISITS

RECOGNITION AND ACCOLADES

BEST HOSPITALS U.S.News HONOR ROLL 2021-22

MAGNET RECOGNIZED AMERICAN NURSES CREDENTIALING CENTER

Bernard A Birnbaum, MD
Quality Leadership Ranking
Top Performer 2021
vizient.

RESEARCH, EDUCATION AND GIVING

- **$167 MILLION** Research Institute funding
- **49** ACGME Residency Training Programs
- **WEILL CORNELL** Medical School affiliation
- **ENMED PROGRAM** Partnership with Texas A&M

More than **$1 BILLION** in charity care and community benefits

HOUSTON METHODIST COORDINATED CARE (HMCC) ACO
MEDICARE SHARED SAVINGS PROGRAM WITH TWO-SIDED FINANCIAL RISK

HOUSTON Methodist COORDINATED CARE

Houston Methodist Coordinated Care Accountable Care Organization (2017 – Present)

Vision

Houston Methodist Coordinated Care (HMCC) ACO is a data driven, high-quality, patient-centered new care model to improve clinical outcomes and longitudinal care coordination.

Mission

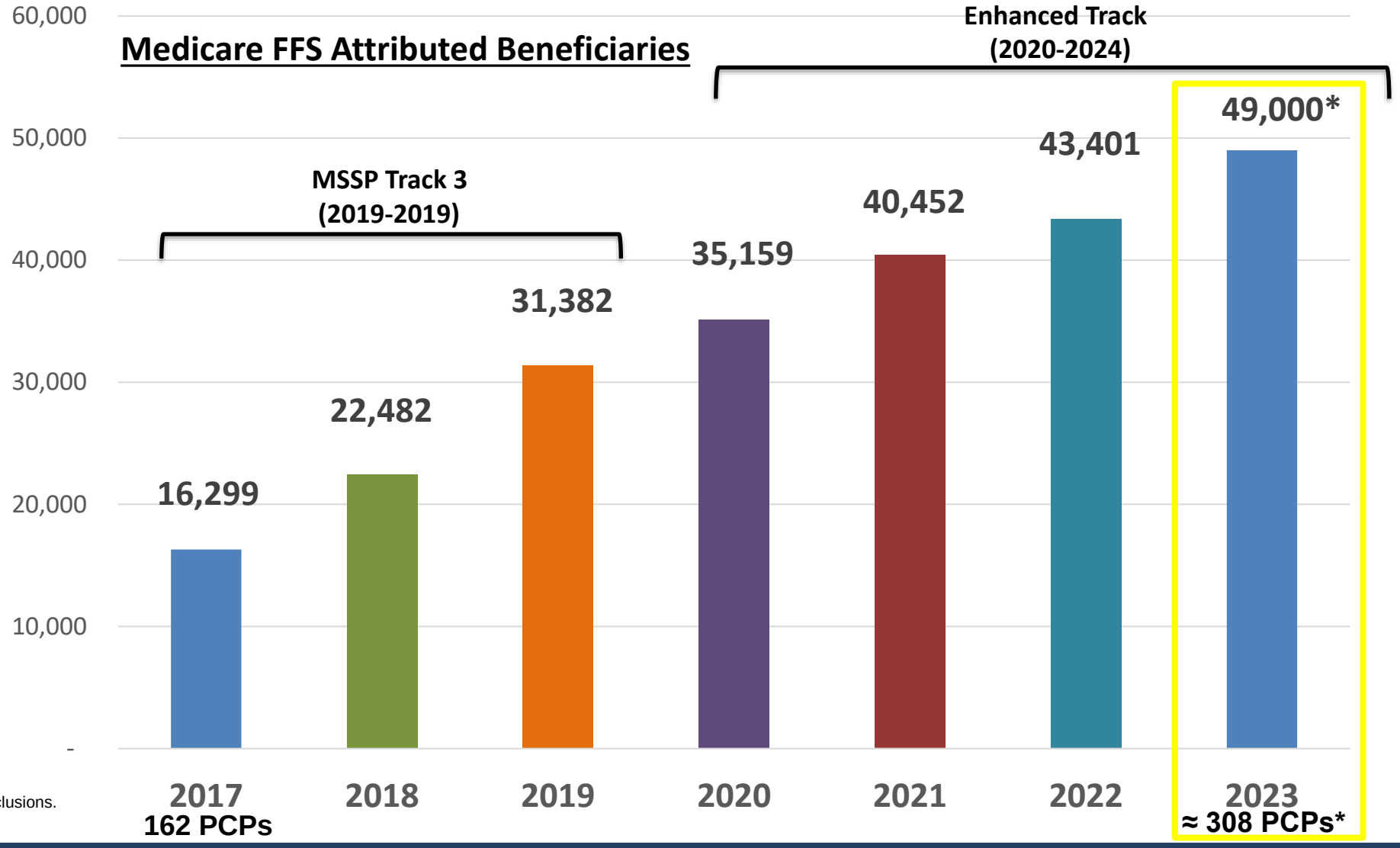
1. Create a **High Value Primary Care Practice Network** as a cornerstone to Population Health management.
   Approximately 300 PCPs = 2/3 Employed Primary Care Physicians + 1/3 Aligned Primary Care Physicians

2. Develop a **Team-Based Multi-disciplinary Approach** to Coordinate Patient Needs within Primary Care Practices, Hospitals, Post-Acute facilities, and Patients Home.
   1 Clinical Pharmacist, 9 Inpatient Case Managers, 3 Care Coordinators, 1 Nurse Manager, and 4 Outpatient Nurse Care Managers

3. Implement **IT Data Analytics Infrastructure** to Track and Trend patient data to drive strategy and outcomes.
   Data Sources: Epic, Integrated Proprietary Predictive Analytics, SDoH, and CMS Claims

4. Build a **High Quality Post Acute Care Network**
   SNFist Physician Partners, Post-Acute ACO Medical Director, and 2 Nurse Care Managers

HOUSTON METHODIST COORDINATED CARE (HMCC) ACO GROWTH ENHANCED TRACK MEDICARE SHARED SAVINGS PROGRAM



Source: CMS Claims Data
Net number of beneficiaries excluding CMS Q4 exclusions.
*Projection

2021: HMCC ACO #6 Quality (94%) and #14 Earned Shared Savings Nationally from 475 Medicare ACOs

2022 HMCC Medicare ACO LOS Comparison
Tracking for 7 HM Hospitals CEO Leadership Teams

HOUSTON Methodist LEADING MEDICINE

HM Hospital	Admissions	CMI Matched	Group	Mean LOS (Days)	Variance
Houston Methodist Hospital	616	2.460	MSSP	6.81	0.06
	616	2.417	Non-MSSP	6.75	
Houston Methodist Willowbrook	315	1.865	MSSP	4.38	0.60
	315	1.974	Non-MSSP	4.98	
Houston Methodist The Woodlands	308				0.52
	308				
Houston Methodist Sugar Land	299				0.14
	299				
Houston Methodist Baytown	126	1.792	MSSP	4.79	0.64
	126	1.880	Non-MSSP	5.43	
Houston Methodist Clear Lake	141	1.759	MSSP	4.24	0.33
	141	1.753	Non-MSSP	4.57	
Houston Methodist West	112	1.701	MSSP	4.28	0.03
	112	1.843	Non-MSSP	4.25	
Houston Methodist System	1,917	2.045	MSSP	5.18	0.25
	1,917	2.077	Non-MSSP	5.43	

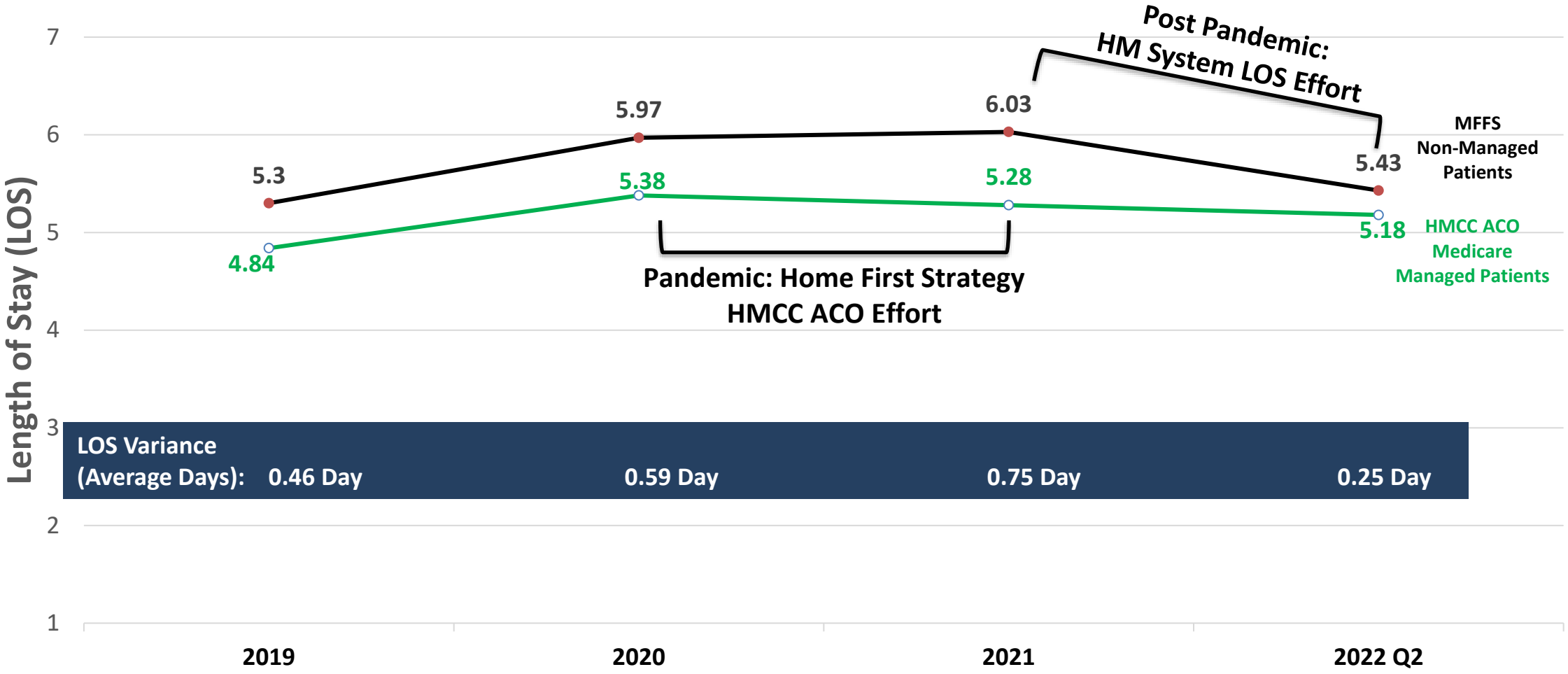
HMCC ACO decreases LOS on average .25 days systemwide

Source: Vizient HM Hospital Data 2022 Q2

HMCC ACO LOS MEDICARE COMPARISON AND TREND IN 7 HM HOSPITALS

HOUSTON Methodist LEADING MEDICINE

HMCC ACO Managed Patients LOS Compared to Unmanaged Medicare Fee For Service Patients LOS (CMI Matched)

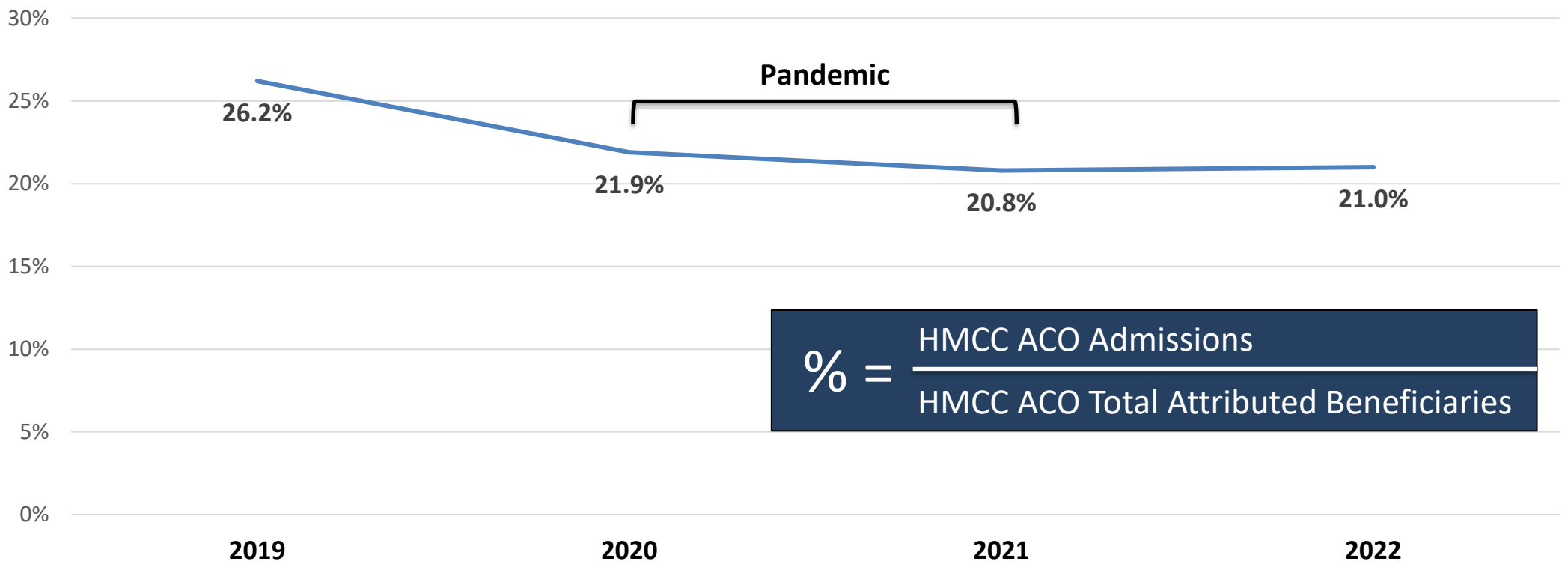


Source: Vizient HM Hospital Data

HMCC ACO MEDICARE PROGRAM ADMISSIONS TREND IMPACTING LOS

HOUSTON Methodist LEADING MEDICINE

5.2% Medicare Admission Reduction from 2019 to 2022



$$\% = \frac{\text{HMCC ACO Admissions}}{\text{HMCC ACO Total Attributed Beneficiaries}}$$

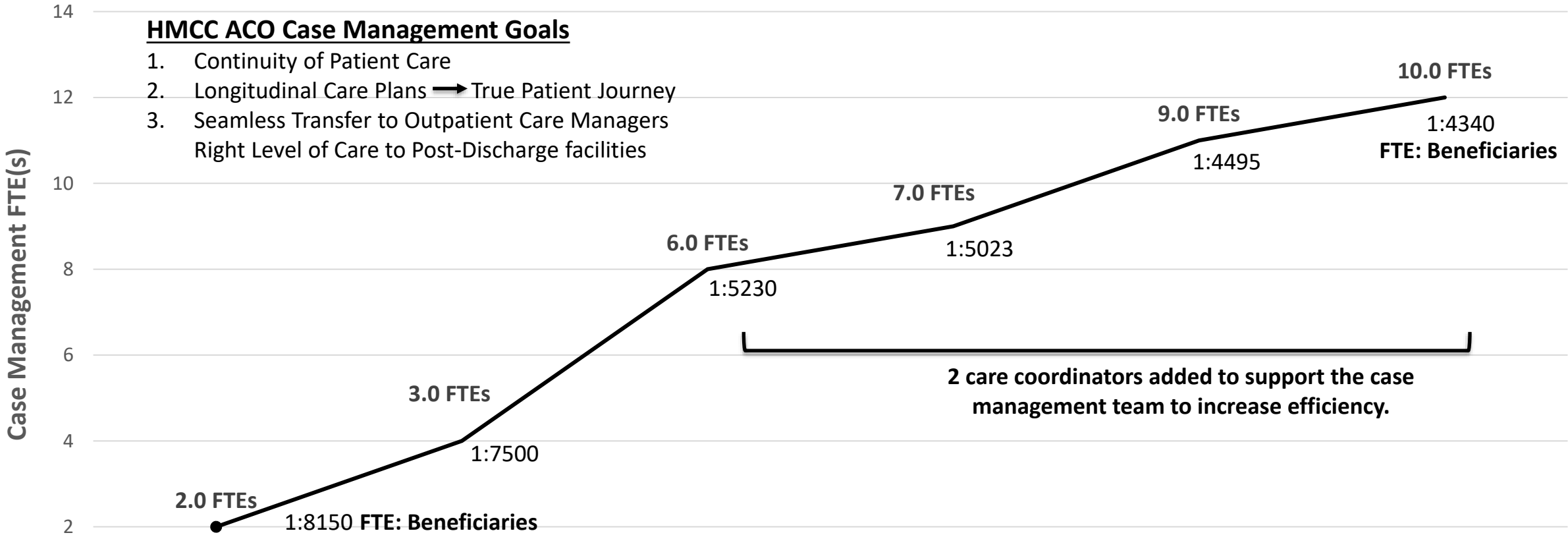
Year	CMS Attributed Beneficiaries	Total Admissions	Admissions as % of Total Beneficiaries
2019	31,382	8,224	26.2%
2020	35,159	7,702	21.9%
2021	40,452	8,425	20.8%
2022	43,401	9,120	21.0%

Source: CMS Claims Data

VALUE-BASED CARE INPATIENT CASE MANAGEMENT TEAM GROWTH BASED ON HM HOSPITAL MEDICARE ACO DISCHARGE VOLUME

HOUSTON Methodist LEADING MEDICINE

Value Based Care Case Management Team (FTEs) (Hospital Onsite + Telephonic Coverage Offsite)



	2017	2018	2019	2020	2021	2022
CMS Beneficiaries	16,300	22,500	31,382	35,159	40,452	43,401
# of HM Hospitals with Case Management Onsite	1	2	4	5	6	6

FINANCIAL VIABILITY
INVESTMENT IN VBC CASE MANAGEMENT INFRASTRUCTURE

HOUSTON Methodist LEADING MEDICINE

Building a VBC Case Management Team

1. Invest in Case Management to drive outcomes and ROI which can finance case management team.
2. As CMS Medicare ACO attribution grows, add new hospital based case managers to hospitals based on admission volumes.
3. If a community hospital has low admission volumes, case management team covers telephonically.
4. Collaborate with Hospital Case Management team for weekend and overnight coverage.

Year	MSSP Beneficiaries	Case Management (CM) FTEs	Hospitals with CM Onsite	Medicare Savings Received (Dollars)	Physician Incentives Paid (Dollars)	CM Total Cost (Dollars)	Percentage of Earned Shared Savings
2017	16,300	2.0	1			$195k	
2018	22,500	3.0	2	$2.0MM	$665k	**$429k**	21%
2019	31,382	6.0	4	$2.0MM	$871k	**$693k**	34%
2020	35,159	7.0	5	$6.0MM	$2.6MM	**$806k**	13%
2021	40,452	9.0	6	$19.0MM	$8.9MM	**$1.0MM**	5%
2022	43,401	10.0	6	$21.8MM	$10.0MM	**$1.2MM**	6%

Sweet Spot: Balance Medicare Admissions Growth per Hospital with Addition of CM FTEs

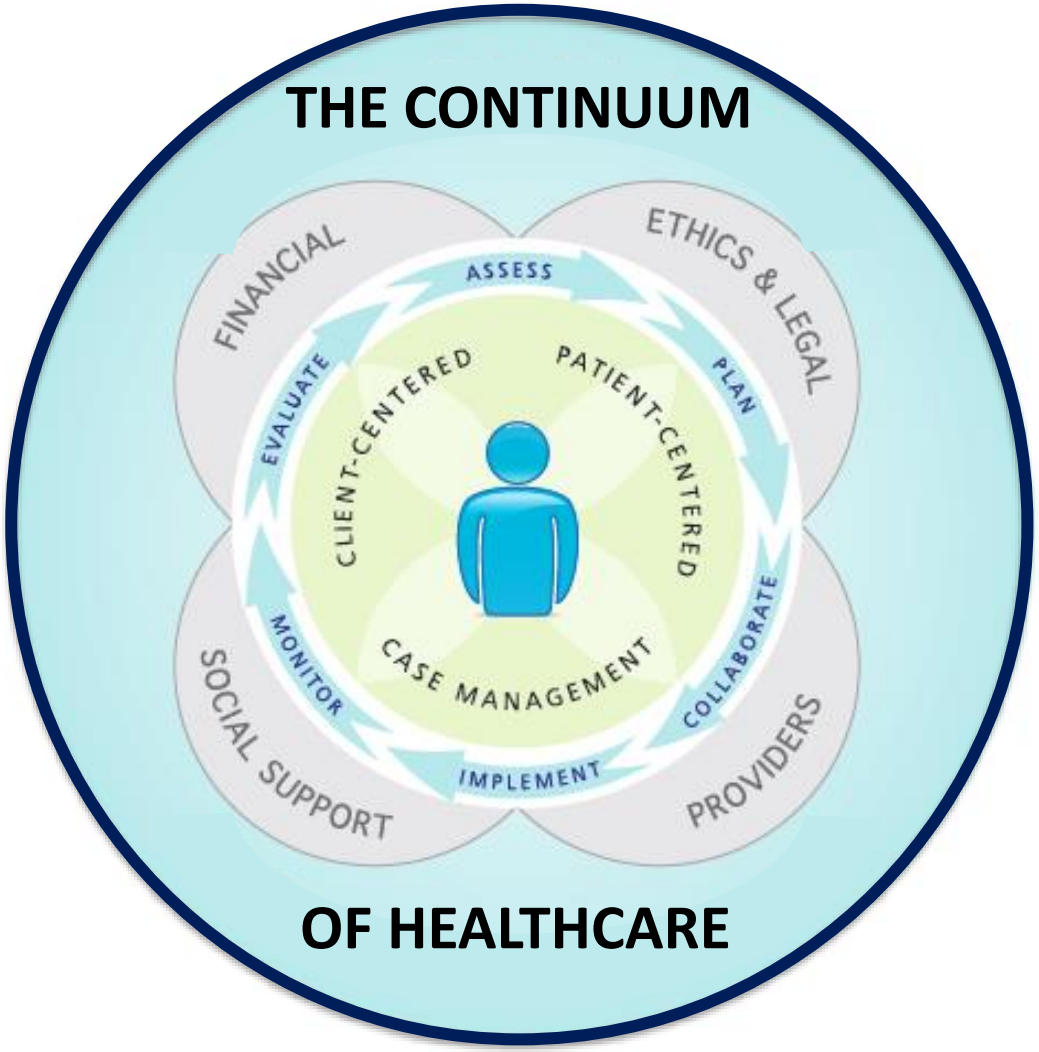
AGENDA

HOUSTON Methodist COORDINATED CARE

1. HMCC ACO LOS Overview
2. **Value-Based Inpatient Case Management**
3. Value-Based Post-Discharge Care Management
4. Lessons Learned

HMCC ACO VALUE BASED DISCHARGE PLANNING MODEL

HOUSTON Methodist COORDINATED CARE



NEW ACO INPATIENT MODEL
VALUE BASED CASE MANAGEMENT IMPACTS LOS

HOUSTON Methodist COORDINATED CARE

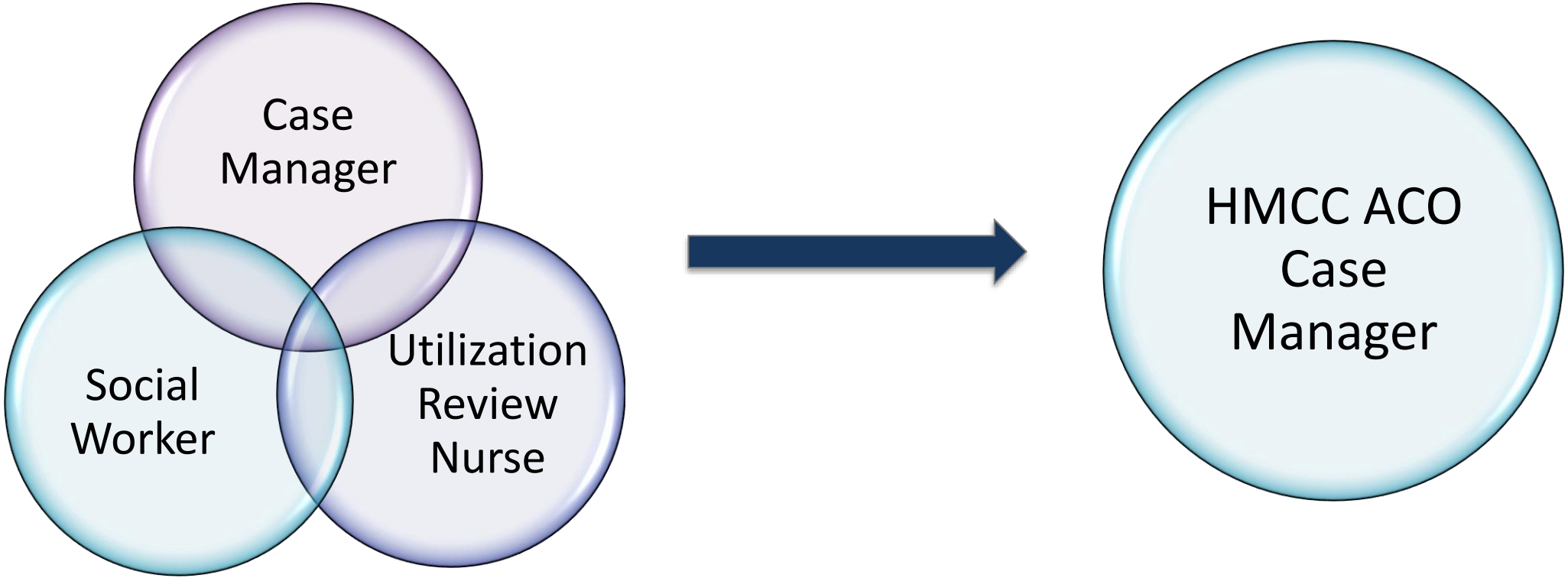
Key Strategies

- Post-hospitalization patient care plan focuses on **Innovative Delivery Model** for coordination of care
- Strategy focuses on **Appropriate Patient Resources** for proper discharge planning coordination
- Establish **Better Patient Care Coordination** between HMCC ACO inpatient, outpatient care management teams, and Primary Care Physicians
- **Continuity of Patient Care** with HMCC ACO inpatient team across the Houston Methodist system transforms care and **Builds Trusting Patient Relationships**
- Initial HMCC ACO inpatient team assessment focuses on clinical and non-clinical (**Social Determinants of Health**) to provide appropriate patient resources

HMCC ACO INPATIENT CASE MANAGEMENT TEAM CROSS TRAINED TO INCREASE EFFICIENCY AND EFFECTIVNESS

HOUSTON Methodist COORDINATED CARE

Three healthcare roles combined into one role impacts LOS



Care Coordinators Support Inpatient Case Management by Scheduling PCP Follow-up Appointment Prior to Discharge, Home Health, DME, and Hospice

ACO VALUE BASED CARE INPATIENT TEAM COMBINES 3 ROLES

HOUSTON Methodist COORDINATED CARE

Utilization Review

- Determine medical necessity
- Identify avoidable admissions in the Emergency Room

+

Social Worker

Helps patient and families:

- Understand and cope with illness
- Work through emotions of a diagnosis
- Provide counseling for patient resources

+

Case Manager

- Advocate for community resources
- Advocates for consultation services during patient hospitalization
- Liaison between patient and medical team during hospitalization

HMCC ACO INPATIENT CASE MANAGEMENT

HOUSTON Methodist COORDINATED CARE

Initial Assessment Questions

- **Behavior Health**
  - Assessment for Depression and Stress factors
  - Insight to illness and Readiness for change
- **Patient Social Support System**
  - Relatives
  - Neighbors
- **Community Support Resources**
  - Faith organization/Spiritual care
  - Primary Care Centers
- **Social Determinants of Health (SDoH)**

- Food Insecurity
- Health Literacy
- Transportation
- Medication Affordability

HOUSTON Methodist COORDINATED CARE

Initial Patient Assessment Questions

- **Patient Living Situation**
  - Alone
  - With family
  - Long-term care facility
- **Patient Mobility Status**
  - Independent
  - Needs assistance
  - Bedbound
- **Patient Physical Activity**
  - Needs ambulatory assistive devices (Walker, Wheelchair)
  - Fitness level and physical activities

HMCC ACO EMERGENCY ROOM STRATEGY: UTILIZATION NURSE IDENTIFIES AVOIDABLE ADMISSIONS

HOUSTON Methodist COORDINATED CARE

- **HMCC ACO Case Management Utilization Nurse**
  - Reviews HMCC ACO patients in 12 Emergency Rooms 3-4 times a day to assess if admission is necessary.
  - Initiates discharge plan from Emergency Room for those appropriate to discharge home with patient resources in collaboration with the ED physician. Patient handoff to HMCC ACO outpatient case management team.

HMCC ACO ED/OBS MEDICARE SHARED SAVINGS PROGRAM
PATIENTS DISCHARGED FROM HM ED OR OBSERVATION

HOUSTON Methodist COORDINATED CARE

2022 HM Hospital MSSP Discharges from ED and Observation (Jan-August)

HM Hospital	MSSP Inpatient Volume	Percentage of Total MSSP Admissions	ED and OBS Discharges
HMH	2257	34%	692
HMTW	1054	16%	224
HMSL	965	15%	214
HMW	398	6%	207
HMCL	391	6%	166
HMB	411	6%	117
HMWB	1084	17%	109
HM System	6560	100%	1729

ACO INPATIENT CASE MANAGEMENT PATIENT STORY

HOUSTON Methodist COORDINATED CARE

- Key points:
- 74-year-old gentleman who suffered a TBI subdural hematoma mowing his lawn when a branch struck him in the head.
  - Admitted 6 times with 6th admission LOS = 30 days
  - No past known health issues
  - Very active life style
  - Family Support system in Colorado

Patient provided permission to use his picture

ACO INPATIENT CASE MANAGEMENT INTERVENTION

HOUSTON Methodist COORDINATED CARE

Case Management Assessment

Key Medical Issues:

During assessment, barriers identified:

- New Daily Headaches
- New Mild cognitive impairment with confusion
- New Unsteady gait with falls

Treatment

- Drainage of the subdural hematoma and discharged home
  - Admitted for re-evacuation on 6th admission with LOS = 30
  - Discharged to acute rehab for 2 weeks and went home.

No Admission Since 2018 and Doing Well

AGENDA

HOUSTON Methodist COORDINATED CARE

1. HMCC ACO LOS Overview
2. Value-Based Inpatient Case Management
3. **Value-Based Post-Discharge Care Management**
4. Lessons Learned

CMS SKILLED NURSING FACILITY 3-DAY WAIVER DECREASES LENGTH OF STAY

HOUSTON Methodist COORDINATED CARE

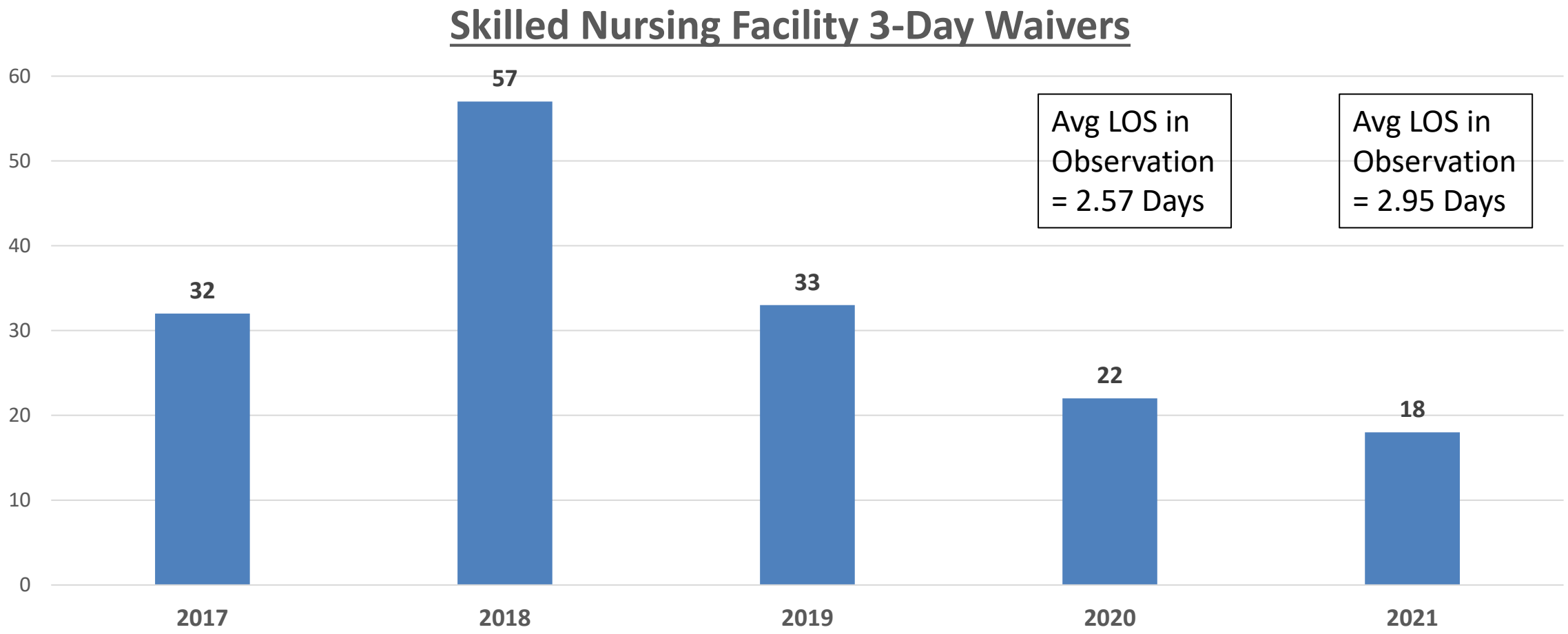
- **The SNF 3-Day Rule Waiver waives the requirement for a 3-day inpatient hospital** stay prior to a Medicare-covered Skilled Nursing Facility stay, if the patient meets criteria for the SNF level of care.

- **Patients may be admitted directly** from home, a physician office, Emergency Department or Observation.

- To be eligible for the SNF 3-Day Rule Waiver, an ACO must be applying to participate or already be participating in the Shared Savings Program Levels C, D, or E of the BASIC track or the ENHANCED track.

CMS SKILLED NURSING FACILITY 3-DAY WAIVER FROM OBSERVATION

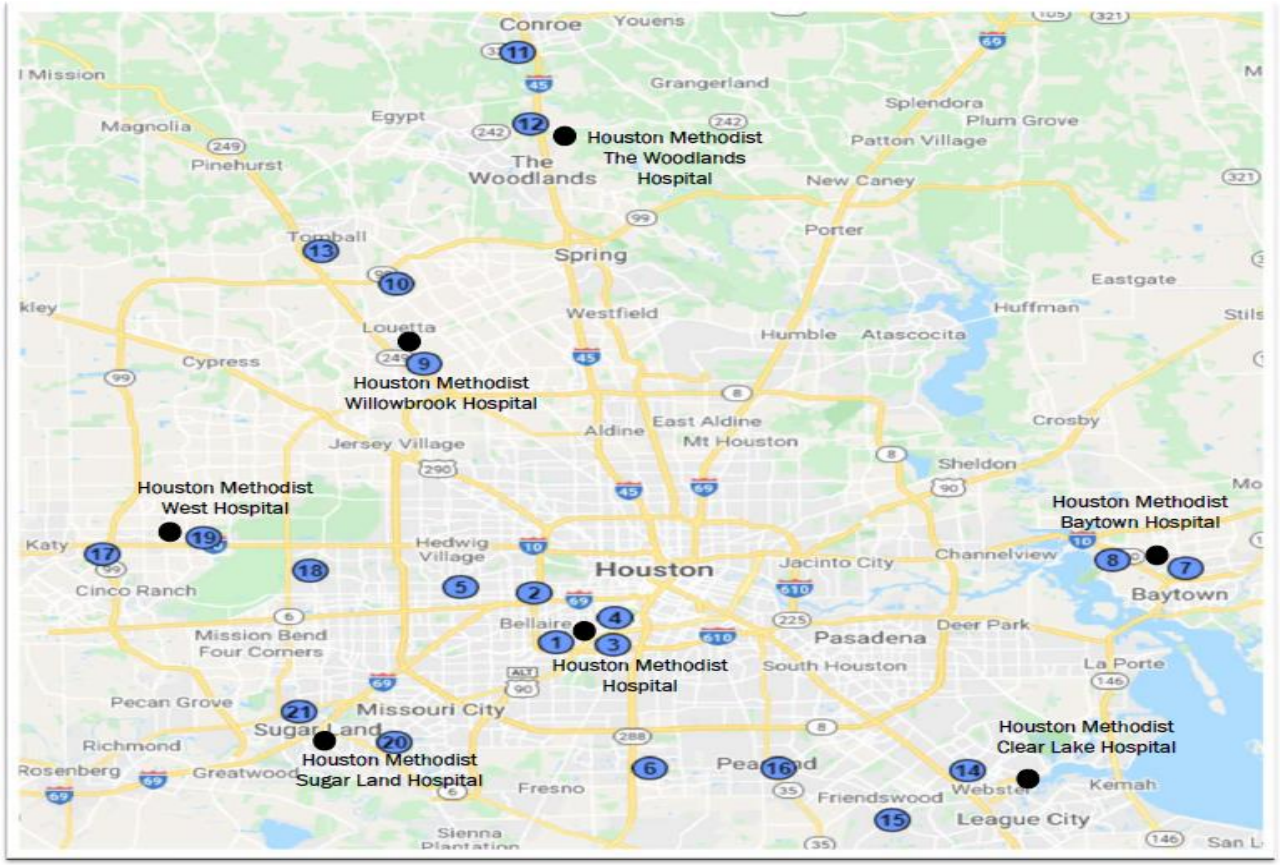
HOUSTON Methodist COORDINATED CARE



2022 HMCC ACO
SNF HIGH QUALITY CRITERIA

HOUSTON Methodist COORDINATED CARE

HOUSTON METHODIST COORDINATED CARE **HIGH QUALITY SNF** MAP



HOUSTON METHODIST HOSPITAL

1. Bayou Manor*
2. Brookdale Galleria*
3. Holly Hall*
4. Houston Methodist Hospital SNF*
5. The Buckingham*
6. Tuscany Village*

HOUSTON METHODIST BAYTOWN

7. Rollingbrook Rehabilitation*
8. St. James House*

HOUSTON METHODIST WILLOWBROOK

9. Brookdale Willowbrook*
10. The Village at Gleannloch Farms*

HOUSTON METHODIST THE WOODLANDS

11. Brightpointe at Rivershire
12. Park Manor The Woodlands*
13. Park Manor Tomball

HOUSTON METHODIST CLEAR LAKE

14. Ignite Medical Resort*
15. Friendship Haven*
16. Oasis at Pearland*

HOUSTON METHODIST WEST

17. Brighton Senior Living Katy*
18. Parkway Place
19. Solera at West Houston*

HOUSTON METHODIST SUGAR LAND

20. Park Manor Quail Valley*
21. Sugar Land Health Care Center

*Physician Partnerships

Factors Considered: CMS Stars, Communication and Collaboration from Skilled Nursing Facility Staff, Quality Metrics (Length of Stay, Readmissions, CMI, Volume), and Physician Partnerships

2022 HMCC SNF HIGH QUALITY MAP WITH 2021 CMS CLAIMS PERFORMANCE

HOUSTON Methodist COORDINATED CARE

Facility Name	Volume	Average LOS	Readmission Rate	Partner Physicians
Houston Methodist Hospital				
Bayou Manor	9	18.2	22.22%	Yes
Brookdale Galleria	24	16.5	20.83%	Yes
Holly Hall	12	15.2	16.67%	Yes
HMH SNF	52	14.1	25.00%	Yes
The Buckingham	28	17.4	25.00%	Yes
Tuscany Village	21	22.8	0.00%	Yes
Houston Methodist Baytown				
Rollingbrook Rehabilitation	39	21.9	23.08%	Yes
St. James House	11	21.3	18.18%	Yes
Houston Methodist Willowbrook				
Brookdale Willowbrook	36	22.2	22.22%	Yes
The Village at Gleannloch Farms	52	23.9	28.85%	Yes
Houston Methodist The Woodlands				
Brightpointe at Rivershire	45	28.9	11.11%	Yes
Park Manor The Woodlands	17	21.2	17.65%	Yes
Park Manor Tomball	7	22.0	14.29%	No
Houston Methodist Clear Lake				
Ignite Medical Resort	41	24.1	14.63%	Yes
Friendship Haven	13	16.2	23.08%	Yes
Oasis at Pearland	13	18.8	7.69%	Yes
Houston Methodist West				
Brighton Senior Living Katy	10	20.0	20.00%	Yes
Parkway Place	7	27.7	14.29%	No
Solera at West Houston	12	18.3	16.67%	Yes
Houston Methodist Sugar Land				
Park Manor Quail Valley	31	19.0	22.58%	Yes
Sugar Land Health Care Center	8	19.1	25.00%	Yes

HMCC ACO POST-ACUTE SNF PHYSICIAN PARTNERS 2022 JAN - AUG

HOUSTON Methodist COORDINATED CARE

- The HMCC Post-acute team meets weekly with SNFs and physician partners to review patient progress, barriers to discharge and any care coordination needs.
- Additionally, the group reviews any readmissions from the previous week to identify and processes that may be improved or issues at specific SNFs.
- The SNF high quality map is updated quarterly based on changes in quality, communication and performance of each SNF.

HMCC ACO Physician Partners	Total Discharges YTD	Average SNF LOS YTD	Readmission to Inpatient from SNF
SNFist Partner Group	233	20.00	15.02%
Other Partner Physicians	71	20.22	16.90%
No Affiliated Physician	239	22.51	22.18%

POST ACUTE ACO CARE MANAGEMENT FOLLOW UP: PATIENT NARRATIVE

HOUSTON Methodist COORDINATED CARE

85 y.o. female has history of systolic congestive heart failure (ejection fraction last noted to be between 24% to 29%), CAD (history of myocardial infarction, status-post percutaneous coronary intervention with 5 stents placement), COPD, chronic kidney disease, chronic anemia, GERD, hyperlipidemia, depression, paroxysmal atrial fibrillation, COPD, prior DVTs, and hypothyroidism. Patient was discharged from hospital to SNF for deconditioning following a **14-day hospital length of stay** with **5 specialty consults**.
Patient with hospital discharge orders for heart failure fluid restrictions at SNF.

HMCC ACO Care Manager visited patient in the Skilled Nursing Facility.
Identified Challenges:
•Pt with 3 open cans of soda on her bedside stand.
•**Pt has gained 15 pounds in SNF in a 2-week period post discharge.**
•ACO nurse called the SNF nurse and physician to report weight gain.
•ACO nurse called the niece and asked them to stop bringing in soda

What was the resolution?
Partnering with the preferred Physician SNFist group, Lasix were increased, daily weights were implemented (not standard at SNFs), cardiology follow-up scheduled, and family stopped bringing in soda. ACO nurse continued to follow the patient and involved the family in education of the patient's needs.

HMCC ACO TRANSITION IN CARE TELEPHONIC NURSING CARE MANAGEMENT

HOUSTON Methodist COORDINATED CARE

Outpatient care management lowers readmissions without increasing LOS

Transition Care Program Strategy: Reduction in Readmissions

30-day telephonic nursing program for high-risk patients recently discharged from acute inpatient and post-acute facilities.

Focus:

- Ensuring smooth transition to home setting with resources
- Follow up appointments to specialists and PCPs
- Developing symptom response action plans for patients
- Avoiding inappropriate readmissions

HMCC TRANSITIONS IN CARE NURSING OUTREACH REDUCES MEDICARE READMISSIONS

HOUSTON Methodist COORDINATED CARE

Nurse	Year	Cases	Readmissions	Observed readmission rate	Expected rate from digital twins	Excess or (avoided) readmissions
Nurse A	2021	265	55	20.8%	21.7%	-4%
	2022	108	22	20.4%	19.8%	3%
Nurse B	2021	-	-	-	-	-
	2022	65	13	20.0%	23.3%	-14%
Nurse C	2021	231	32	13.9%	21.5%	-35%
	2022	113	20	17.7%	21.3%	-17%
Nurse D	2021	-	-	-	-	-
	2022	76	12	15.8%	20.1%	-21%
Nurse E	2021	277	55	19.9%	21.4%	-7%
	2022	136	17	12.5%	19.6%	-36%
Total Program	2021	773	142	18.4%	21.5%	-15%
	2022	498	84	16.9%	20.7%	-19%

- The digital twinning approach to compare beneficiaries in the MSSP transitional care program to *matched HMCC beneficiaries with the same sex, age, and readmission likelihood based on CMS claims data who are not in the transitional care program.*

Source: CMS Claims Data

AGENDA

HOUSTON Methodist COORDINATED CARE

1. HMCC ACO LOS Overview
2. Value-Based Inpatient Case Management
3. Value-Based Post-Discharge Care Management
4. **Lessons Learned**

LESSONS LEARNED: FOCUS ON LONGITUDINAL CARE PLANS AND NOT LOS

HOUSTON Methodist COORDINATED CARE

1. Patients with **higher LOS** have been correlated with **higher readmissions.**
2. Patients with **multiple inpatient specialty consultants** tend to have a **higher LOS.**
3. **Utilization management in the ED/Obs** can identify avoidable admissions.
4. **3 Day SNF waiver** utilization can decrease LOS.
5. **Efficient and Effective discharge planning** combines case management, social work and utilization review into one role for longitudinal care plans.
6. **Continuity of care** with case managers and patients/family establishes trust in post discharge planning with potential decrease LOS
7. **Tracking and trending LOS comparisons** for HM Hospitals drives new LOS initiatives and best practices.