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THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

Improving Patient Flow: A Roadmap to Health System Synchronization

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Learning Objectives

- Describe a systems-based patient flow strategy that aligns teams across the care continuum, including development of a robust improvement portfolio and key performance indicator dashboard
- Outline a clear delineation of shared and separate roles and responsibilities of health system leaders related to patient flow, including key performance indicators and operational alignment

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Agenda

- OSU Organizational structure
- Roadmap
- Key interventions
- Outcomes and impact
- Lessons learned
- Key takeaways
- Questions

Where have we been → Where are we going?

Historical State	Initial Steps Taken	Future State	How We Get There
Outdated operational oversight model	• Redesigned operational model and structured report outs • Restructure with hiring of Administrator to oversee Patient flow departments (EVS, Patient Transport, Transfer Center, ED Operations	• Have a constantly evolving operating model that changes with the needs of the department	• Strategic planning session every year to create the following years action plan & subsequent PI work • Move report out meetings from monthly to bi-monthly • Conduct targeted surveys to understand efficacy of meetings
No ownership of throughput data	• Create “focused data” summary for key stakeholders to review • Present only on data in which we can actively link to work being conducted • Partner with outside data source and ACE to build a more consistent robust ED data dashboards	• Have a clean, concise, and consistent dashboard to review summary statistics • Having a process of 48 hours or less turnaround time for needed requests	• Continue to work with data team to catalog what people need to see / how • Leverage third party to get more rapid turnaround of data needed • Present throughput performance at nursing huddles and EM faculty meeting
Boarding viewed as insurmountable barrier	• Identify / set clear boundaries of what is in and what is out of scope “boarders” • Create mitigation plans / barriers to success to ensure we have plans to address boarders and other things that may negatively impact our team's work	• Create a bi-directional process that drives accountability, action, and alignment with all patient flow stakeholders and links with system flow initiatives	• Partner with patient flow stakeholders to ensure ED is collaborating in the most efficient way to reduce boarding • Contribute to the building of an impactful surge plan with key patient flow stakeholders
Inconsistent operational practices / “Culture of optionality”	• Create multi-disciplinary groups led by ED team members to work together to evaluate each aspect of patient care to improve, standardize, and hardwire where possible	• Create an evergreen process dependent model where groups have a standardized way of asking questions regarding *what/why/how* we are operating	• Obtain more support to ensure clinical teams can remain clinical • Utilize these work groups as talent pipelines

Patient Flow Oversight Model

Patient Flow Executive Oversight Council

Focus: Provide health system view/ priorities, ensure alignment, accountability, and engagement

Patient Flow & Capacity Management Advisory Council

Focus: Ensure connection/ collaboration across Councils, facilitate review/prioritization of improvement projects and resources

Tele-Health

Transfer Center Operations Council

Focus: Transfer Center Operations, Outreach Strategy

ED Leadership Council

Focus: ED throughput/ efficiency

Hospital-specific Patient Flow Operations Councils

Focus: Hospital specific improvement projects, EVS/ Transport efficiency

Care Progression Council

Focus: Physician Led LOS improvement initiatives

Post-Acute

Key Committees/Teams to Align with:

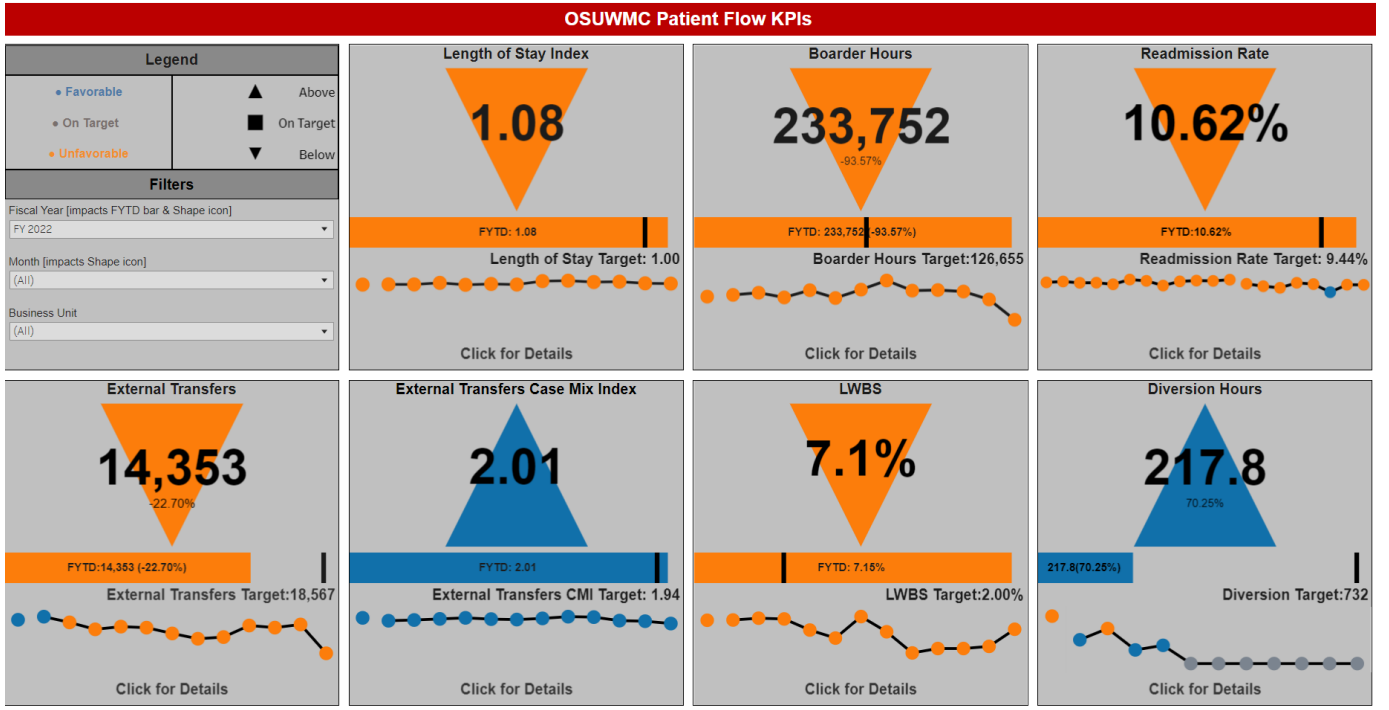
- Outreach
- Telehealth (eConsult, evisits, etc.)
- Post-Acute and Home-based Care Division
- AfterHours Clinic/ Immediate Care
- Utilization Management
- MedCare/MedFlight

Patient Flow Oversight Model

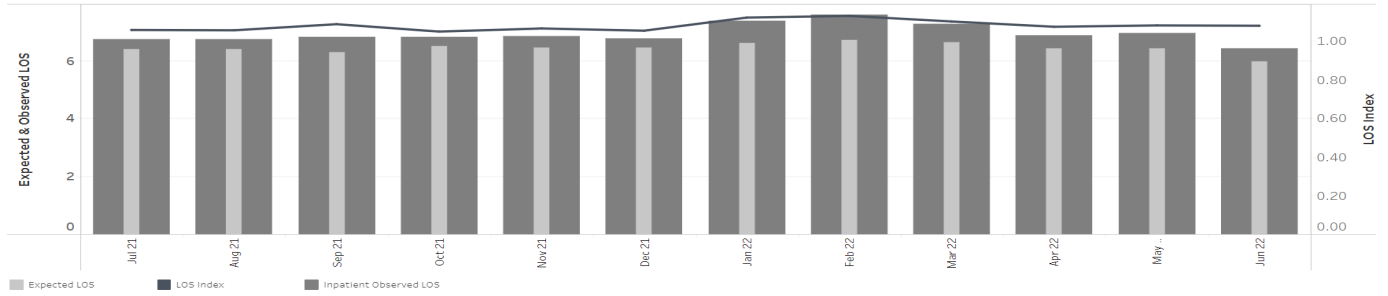
Forum	KPIs	Agenda	Meeting Cadence
Patient Flow Executive Oversight Council	• Telehealth: TBD • Transfer Center: Volume, CMI, same-day discharges, 1-day LOS volume • Inpatient: LOS, ED Boarding, ADC/ Capacity % • ED: Diversion, LWBS, LOS ED discharge • CM: Readmissions, % D/C to Home, % D/C to Home Health • Post-Acute: TBD	• Scorecard Review • Telehealth/ Outreach Update • Transfer Center Update • Emergency Department Update • Hospital Division Update • Post-Acute Division Update	Bi-Monthly 75 min
Patient Flow & Capacity Management Advisory Council	• Ops Council KPIs by business unit • Project(s) Leading Metrics	• Improvement Project Updates • Bed management strategy / Capacity management • Topics/ Issues to escalate to OSUMC Patient Flow Oversight Council • Topics/ Issues to cascade to Patient Flow Operations Council • Project prioritization/ selection, MEPI engagement/ facilitation, Oversight model	Monthly 45 min
Care Progression Council	• LOS by Business Unit • LOS by Clinical Service • LOS by Nursing Unit • LOS by Discharge Disposition • Readmission Rate • % DC to Home • O/E LOS	• KPI Review • Progress / Update from Care Progression Management System • Service Based Initiative Review • Business Unit LOS Initiative Review	Monthly 45 min
Transfer Center Operations Council	• Volume • Acuity Accountability (Same-day Discharges from Obs/ED, CMI, 1-day LOS volume) • Cancellation rates • Trends/analysis by referring facilities	• Scorecard Review • Transfer Center Operations Update • Outreach/ Referral Network Update • Center for EMS/ MedCare Update • Improvement Project Updates (process improvement, telehealth, etc.)	Bi-monthly 45 min
Emergency Department Throughput Council	• LWBS • Median Discharged LOS • Sepsis Bundle Compliance • Falls, Falls with Injury	• Metric Update • Group leads work group report out • Issue / decision escalation • Ad Hoc Opportunity evaluation	Monthly 45min
UH Patient Flow Operations Council	• EVS TAT • Transport TAT • D/C Lounge Utilization • D/C Time of Day • ED Discharge LOS • OBS LOS	• Scorecard Review • Operational Updates • Topics/ Issues to escalate to UH Patient Flow Leadership Council • New Business	Monthly 45 min

Patient Flow Dashboard

- In-house designed dashboard
- Transparent access to real-time data on key patient flow key performance indicators (KPIs)
- Aligned with departmental project work



	FY 2022			
	Q1	Q2	Q3	Q4
Expected LOS	6.35	6.46	6.63	6.34
Inpatient Observed LOS	6.75	6.80	7.39	6.82
LOS Index	1.06	1.05	1.11	1.08
Discharge Volume	16,825	16,154	14,754	12,124



LWBS: Left Without Being Seen

Triad Oversight Structure

University Hospital Triad Leaders		
Triad Leaders		
Administrator	Physician	Nurse

Emergency Medicine		
Triad Leaders		
Administrator	Physician	Nurse

Medical Inpatient Services		
Triad Leaders		
Administrator	Physician	Nurse

Surgical Inpatient Services		
Triad Leaders		
Administrator	Physician	Nurse

Critical Care		
Triad Leaders		
Administrator	Physician	Nurse

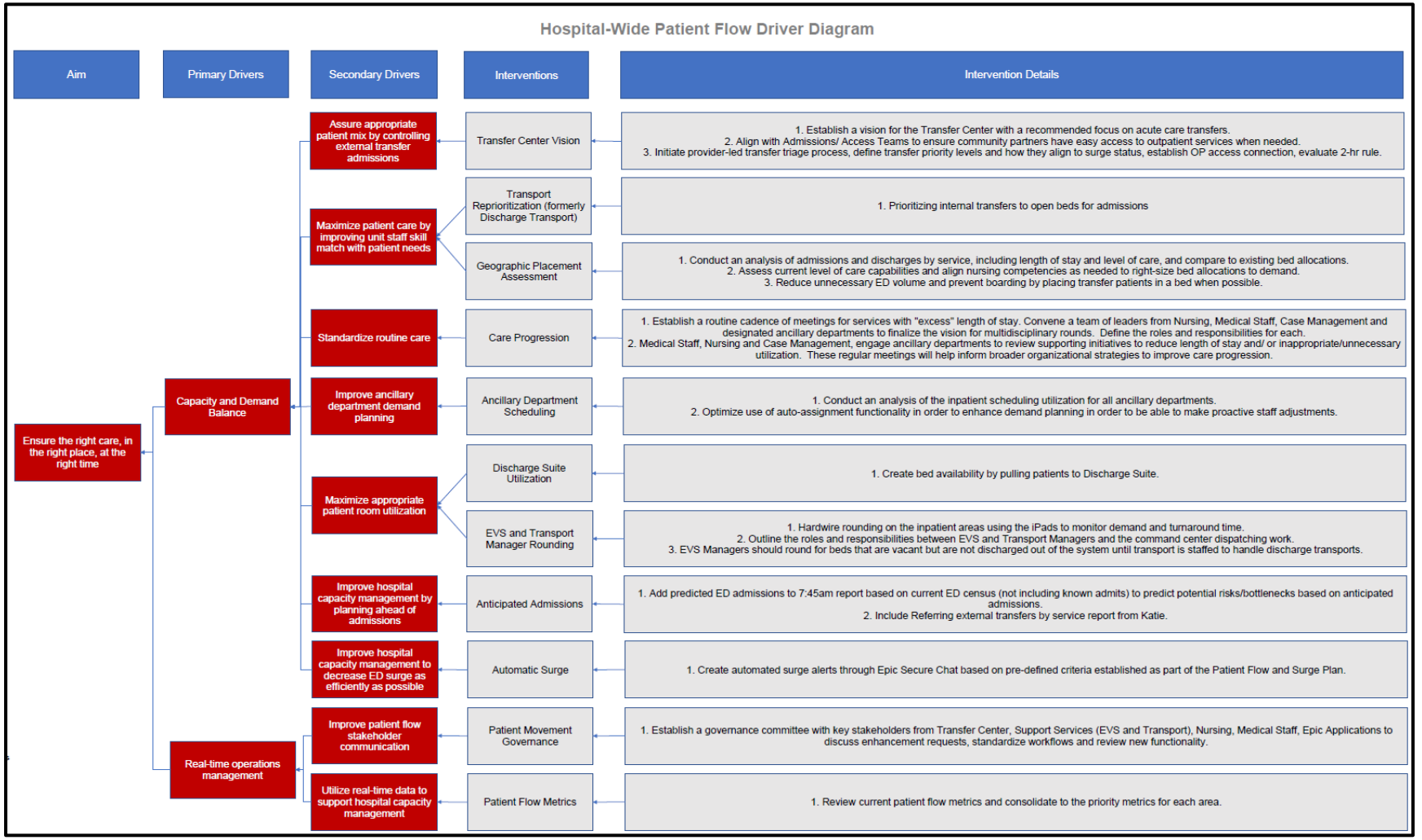
Perioperative & Procedural		
Triad Leaders		
Administrator	Physician	Nurse

Patient Flow		
Triad Leaders		
Administrator	Physician	Nurse

Quality & Safety		
Triad Leaders		
Administrator	Physician	Nurse

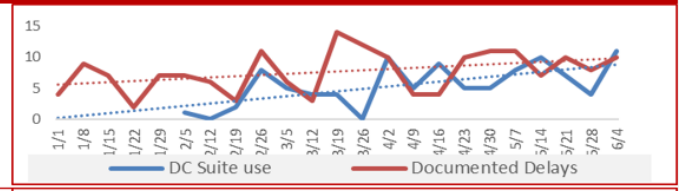
Driver Diagram

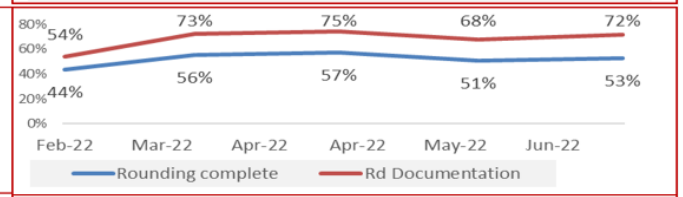
- Aligns the work with focused interventions
- Primary and secondary drivers to influence high impact goals
- Utilizing specific interventions to drive each of the projects
- Creating an organized patient flow initiatives

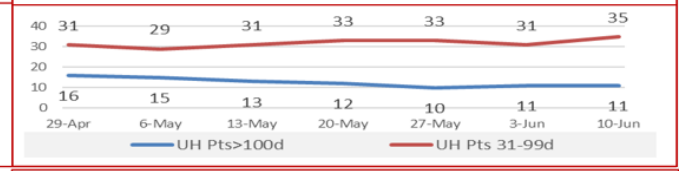
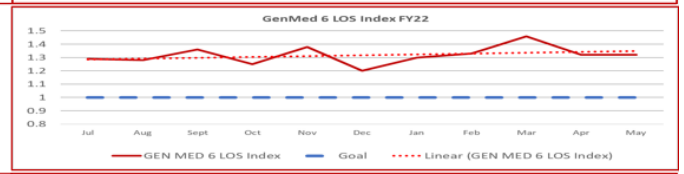
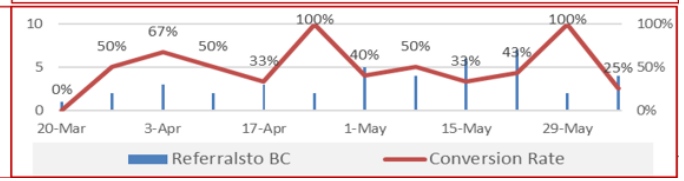


Focused Initiatives

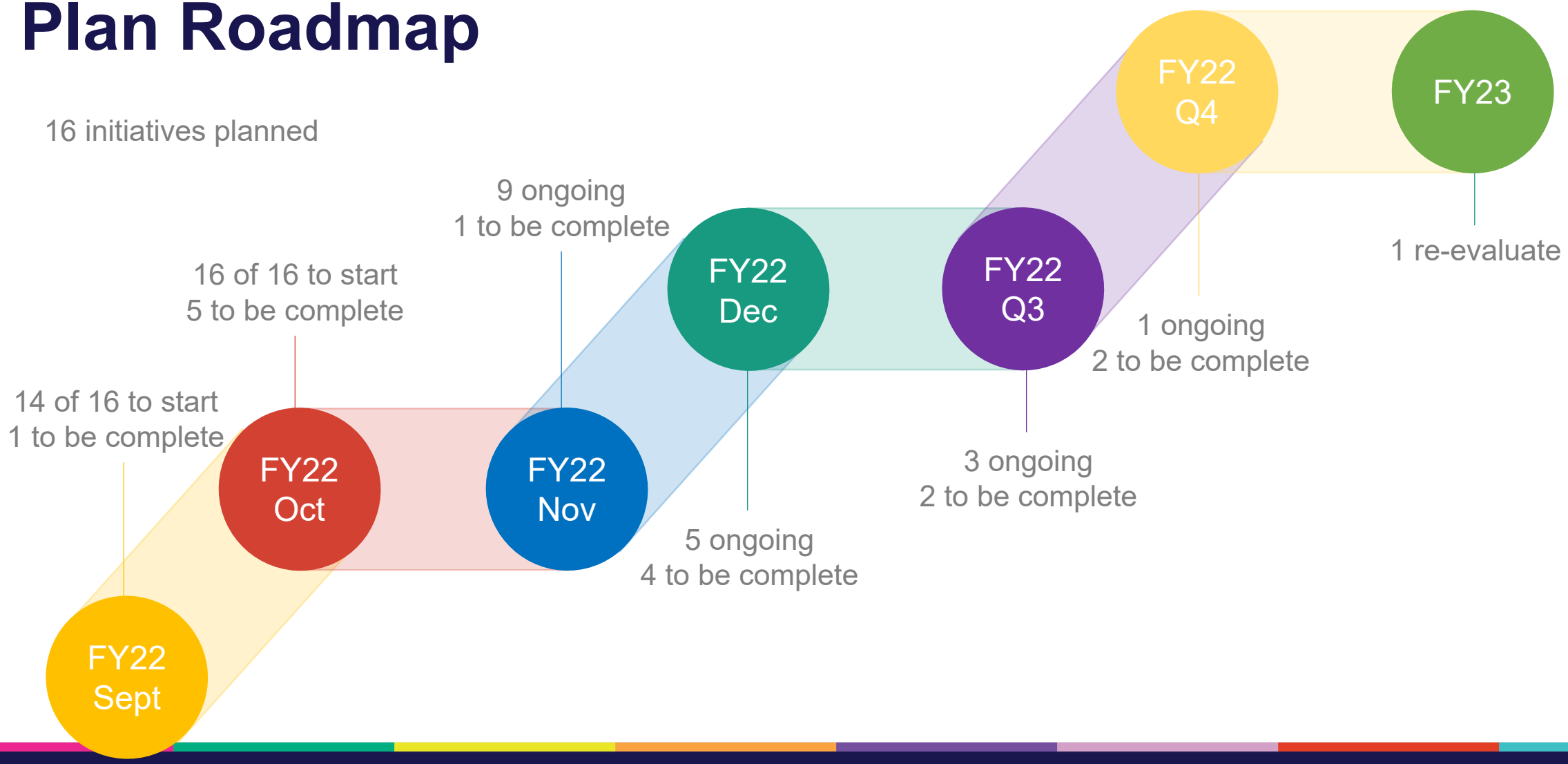
- **Prioritized Actions**
- Focused on increasing appropriate external transfers to optimize high acuity transfers and decompress ED
- Hardwired unit Discharge Huddles with standard workflow expectations for all units
- Improved consistency of Joint Unit-Based Daily Rounding
- Implemented transparent escalation process for Long Stay patients (LOS >14 days)
- Standardized Hospital Medicine discharge practices
- Increased Dispatch Health engagement for patients who are eligible to go home

Status	Project	Highlight June 17th, 2022	KPI Trend
G	Unit Discharge Huddles	• Data reporting rectified and documented delays & d/c suite use increasing • Addition of R7E as anew unit for huddle work (ACU#1) has req'd input • Reviewing & sharing unit huddle participant survey results consistently • Upcoming: Integrate program with QRO for unit standard work/ Switch focus from ↑total documented delays to ↓modifiable delays • Huddle- Control phase; Content delay escalation- Analyze	

G	Daily Rounding	• Return to improved measures of documentation and occurrence.
		• Plateau reversing? (5 units at or above 80% goal/5 units >70%, 3 units <60%)
		  • Rounding practice inconsistent over weekends/holidays
		  • Countermeasure: Unit action plans improving weekend compliance
		• Upcoming: Continued accountability to action plans/Kristina meeting with <60% units to review the "why and discuss barriers
		• Improve – Control
			

G	Long-stay Patients	• Continue to hover around 10-12 >100 LOS in UH. 2 in ICU and 2 non-citizens • Laurels contract reinstated (paused for run rate), • Long-stay referral process maps complete and now in testing phases • Contract SNF program referral process in control phase • Long stay patient referral process in analyze phase implement end of summer	
R	Hospital Medicine	• TOD DC home trends improved over FY, but flat and ↓ target • Individual F:D Ratios given to all Hospitalists • Upcoming: Rolling out floor-based localization plan July 7th for GM6 (UH)/ Coaching plan for high F:D providers • Improve phase	
Y	Dispatch Health engagements	• Conversion rate (40%) remains above goal (49%); under target for visits (>7/wk) • Referrals trended down last two weeks • Upcoming: Completing education with PM&R/Dodd teams • Concern: CM management needs IHIS change to improve accountability for referrals. • Improve phase	

Patient Flow Improvement Plan Roadmap



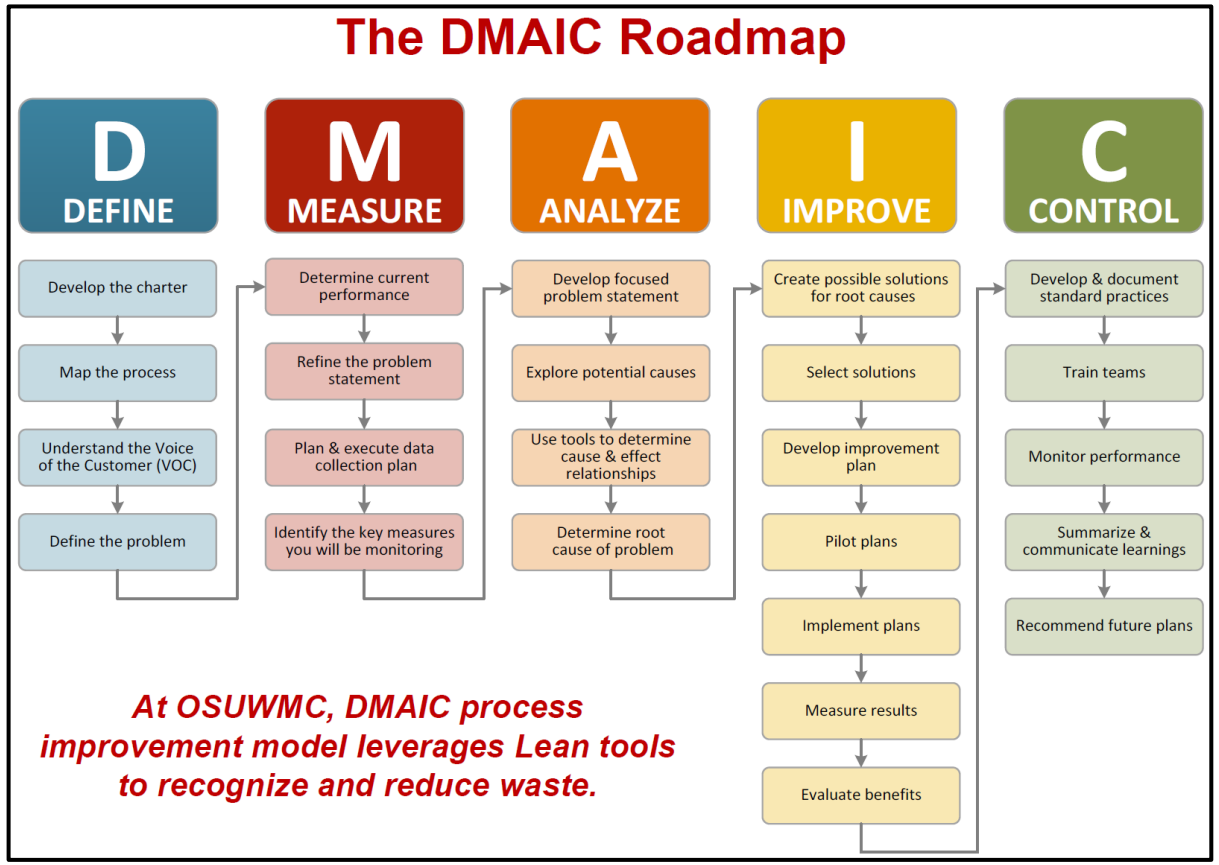
Focused Projects

- Capacity constraints, staffing shortages, COVID surges, and other factors negatively impacting efficient patient access and optimizing KPIs
- Focused projects
- Lead by senior administrator and project owners
- Each project was assigned a MEPI consultant

Focus Area	Department	Project Name	Brief Description	Status
Support Services Integration	EVS Patient Transport	EVS and Transport Manager Rounding	1. Hardwire rounding on the inpatient areas using the iPads to monitor demand and turnaround time. 2. Outline the roles and responsibilities between EVS and Transport Managers and the command center dispatching work. 3. EVS Managers should round for beds that are vacant but are not discharged out of the system until transport is staffed to handle discharge transports.	●
Support Services Integration	Ancillary Services	Ancillary Department Scheduling	1. Conduct an analysis of the inpatient scheduling utilization for all ancillary departments. 2. Optimize use of auto-assignment functionality in order to enhance demand planning in order to be able to make proactive staff adjustments.	●
Support Services Integration	Patient Transport	Discharge Transport	1. Develop a staffing plan to support patient discharges using patient transport. 2. Ensure functionality is active to make the bed go dirty as soon as the discharge transport is in progress in order to reduce 'dead bed' time.	●
Care Progression	ED	Reducing ED LOS	1. Within ED control, reduce LOS for level 3, 4, 5 patients (including Arrival Zone and Fast Track).	●
Care Progression	Patient Flow	Care Progression Meetings	1. Medical Staff, Nursing and Case Management, engage ancillary departments to review supporting initiatives to reduce length of stay and/ or inappropriate/unnecessary utilization. These regular meetings will help inform broader organizational strategies to improve care progression.	○
Care Progression	Nursing	Discharge Suite Utilization	1. Create bed availability by pulling patients to Discharge Suite.	●
Leadership Structure	Nursing	Nursing Liaison	1. Designate a nursing lead to serve as the liaison between Transfer Center/ Capacity Management to ensure alignment of institution patient flow priorities, e.g. establishing geographic placement guidelines in collaboration with medical staff.	●
Leadership Structure	Transfer Center	Transfer Center Vision	1. Establish a vision for the Transfer Center with a recommended focus on acute care transfers. 2. Align with Admissions/ Access Teams to ensure community partners have easy access to outpatient services when needed. 3. Initiate provider-led transfer triage process, define transfer priority levels and how they align to surge status, establish OP access connection, evaluate 2-hr rule.	●
Leadership Structure	Transfer Center	Geographic Placement Assessment	1. Conduct an analysis of admissions and discharges by service, including length of stay and level of care, and compare to existing bed allocations. 2. Assess current level of care capabilities and align nursing competencies as needed to right-size bed allocations to demand. 3. Reduce unnecessary ED volume and prevent boarding by placing transfer patients in a bed when possible.	●
KPI and Technology	Transfer Center	Automated Surge Alerts	1. Create automated surge alerts through Epic Secure Chat based on pre-defined criteria established as part of the Patient Flow and Surge Plan. 2. Develop distribution lists based on the level of surge to go to stakeholders to activate their departmental plans.	●
Care Progression	Transfer Center	Care Progression Meetings	1. Establish a routine cadence of meetings for services with "excess" length of stay. Convene a team of leaders from Nursing, Medical Staff, Case Management and designated ancillary departments to finalize the vision for multidisciplinary rounds. Define the roles and responsibilities for each.	●

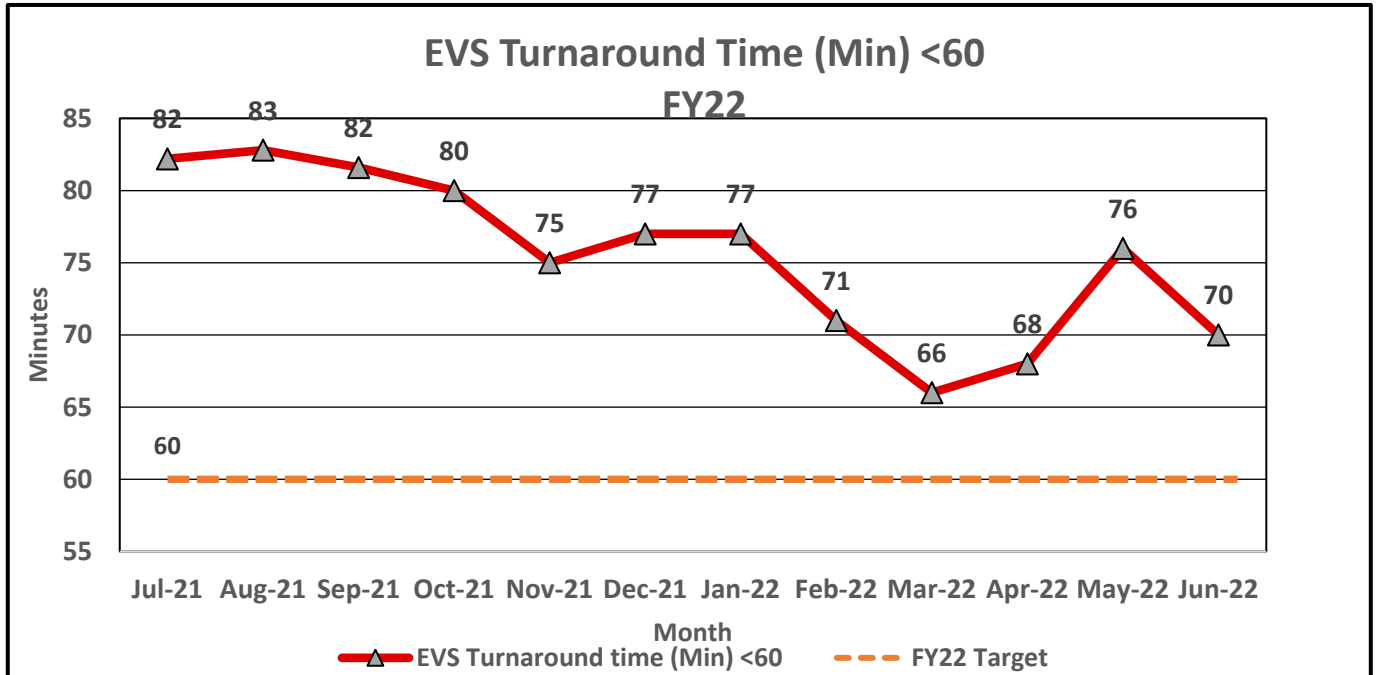
Standardized Lean Tools

- Operational Excellence training through the OSU Fisher school of Business
  - Yellow Belt – 45 Participants
  - Green Belt - 30 Participants
- Focused quality-related improvement efforts/ projects
- Team based culture
- Standard toolkit for project management/ execution
- Leadership Development
  - Promote cross-team problem solving
  - Team based culture



Environmental Services

- Increased focus on FTEs
- Hired new Associate Director
- Targeted projects to reduce turnaround times
- 10% Improvement in room clean times, compared to FY21



Key Performance Indicator (KPI)	FY21	4th Quarter		2022 YTD	
	Actual	Actual	Target	Actual	Target
Metric 1: Discharge Clean Turnaround Time	81 Min	71 min	<75	76 min	<75
Metric 2: Dirty to Assign	32 Min	20 min	<30	26 min	<30
Metric 3: Assign to in Progress	6 Min	6 min	<5	6 min	<5
Metric 4: In Progress to Clean	39 Min	40 min	<37	38 min	<37

UH Environmental Services – Turnaround Times

Report Out Date:	7/13/22
Project Status:	
Process Metric YTD Status:	Near Target

Objective: Improve hospital throughput by reducing bed clean turnaround time for discharged patients.

Core Team Leads:

Core Team FY22:

Process Metrics	FY'21 Act	FY'22 Goal	FY'23 Goal	Jul-Sep 1Q Act	Oct-Dec 2Q Act	Jan-Mar 3Q Act	Apr-Jun 4Q YTD	FY'22 YTD
UH Discharge Clean Turn Time (Minutes) – Rollup BSH, Doan, Rhodes and Ross	81	75	71	81	79	71	71	75
Dirty to Assign metric	32	30	24	32	30	21	20	25
Assign to in Progress	6	5	5	6	6	6	6	6
In Progress to Clean	39	37	37	38	38	36	40	38

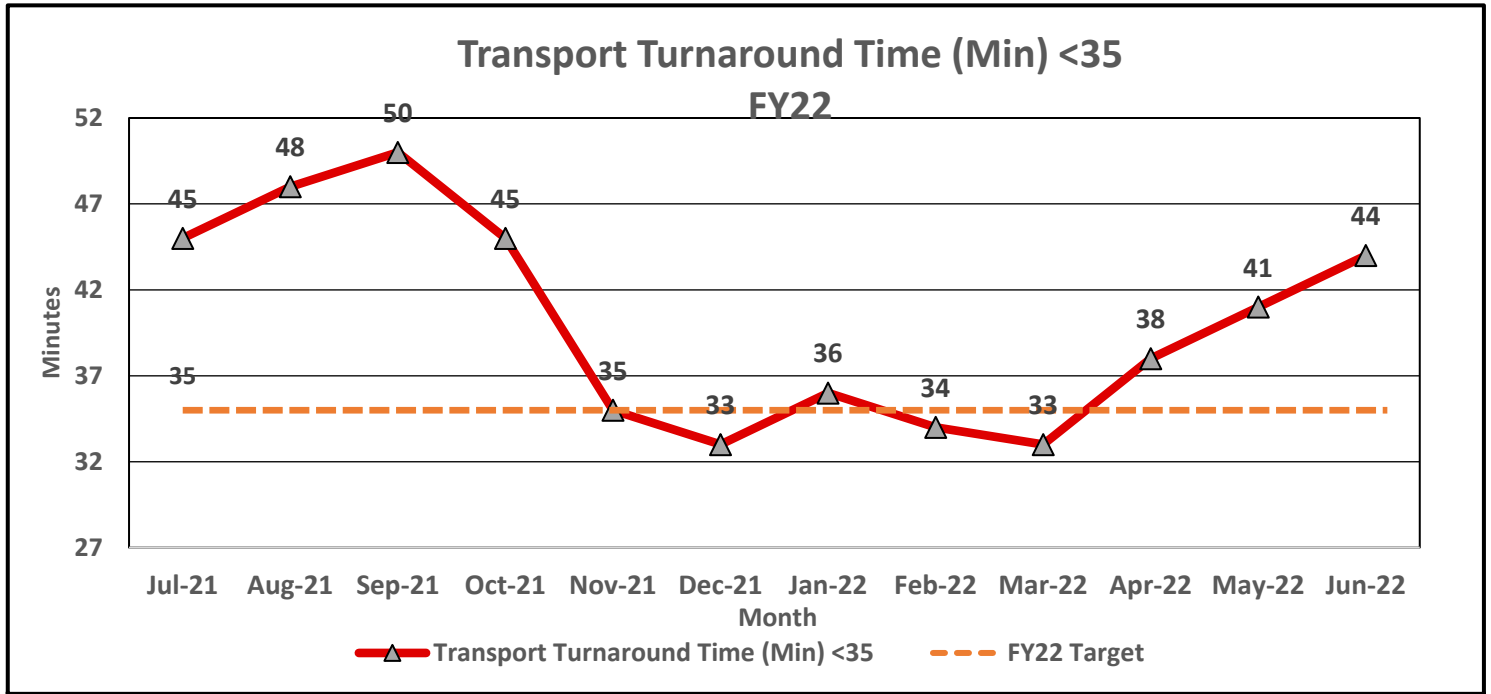
Past 60 Days Accomplishments & Deliverables
Create visual management board with monthly metrics
Investigate delay time and hold time that have no reason designated
Identified the discharge curve, where staff shortages exist, and the halt in discharge in the current staffing model at shift change
Identify and assign an EVS manager each shift to monitor throughput and discharge escalations placed in EHR
Add Rover app to EVS iPad

Upcoming 60 Day Action Plan	Who		When
Continue pilot with EVS throughput manager			3/21/22
Investigate rooms marked clean in error	Turn Team		4/4/22
Explore options for UH EVS dashboard			FY23

Decision/ Issue Escalation	Who		When

Patient Transport

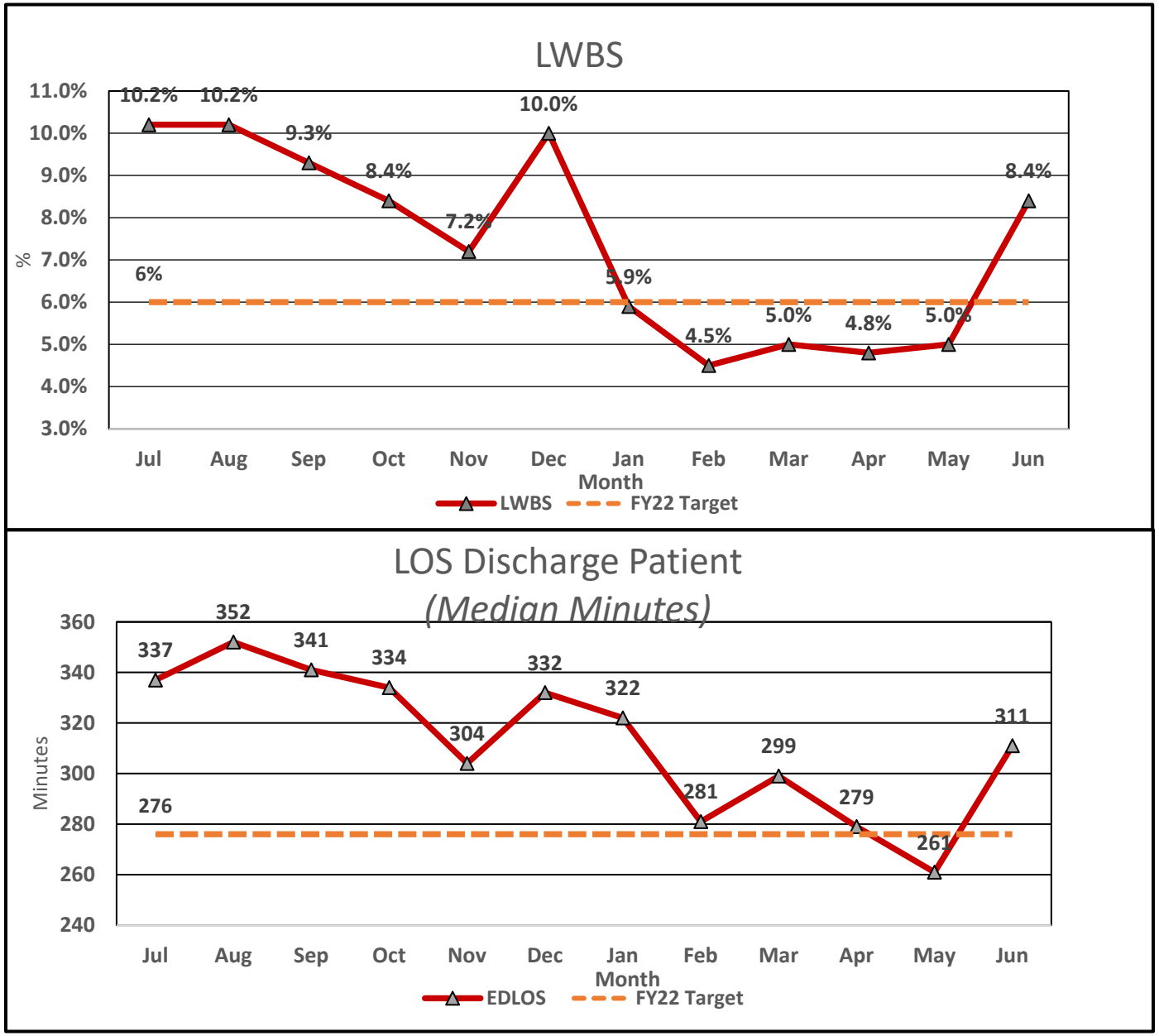
- Increased focus on FTEs
- Targeted projects to reduce turnaround times
  - E.g., changing transport prioritization model
- 31% improvement in turnaround times vs prior year



Key Performance Indicator (KPI)	FY21	4th Quarter		2022 YTD	
	Actual	Actual	Target	Actual	Target
Metric 1: Activate to Assigned	23 Min	15 min	<10	11 min	<10
Metric 2: Acknowledged to In-Progress	10 Min	11 min	<10	11 min	<10
Metric 3: In-Progress to Complete	10 Min	8 min	<10	8 min	<10
Metric 4: Turnaround Times	58 Min	40 min	<35	40 min	<35

ED: Leading Metrics

- Targeted standardization of throughput and operational efficiency while expanding a focus on patient quality of care, employee engagement, and interdepartmental collaboration
- 11 projects to address inefficiencies
- 8% and 14% improvement of our LWBS and median discharged patient LOS within the University Hospital ED respectively, compared to FY21

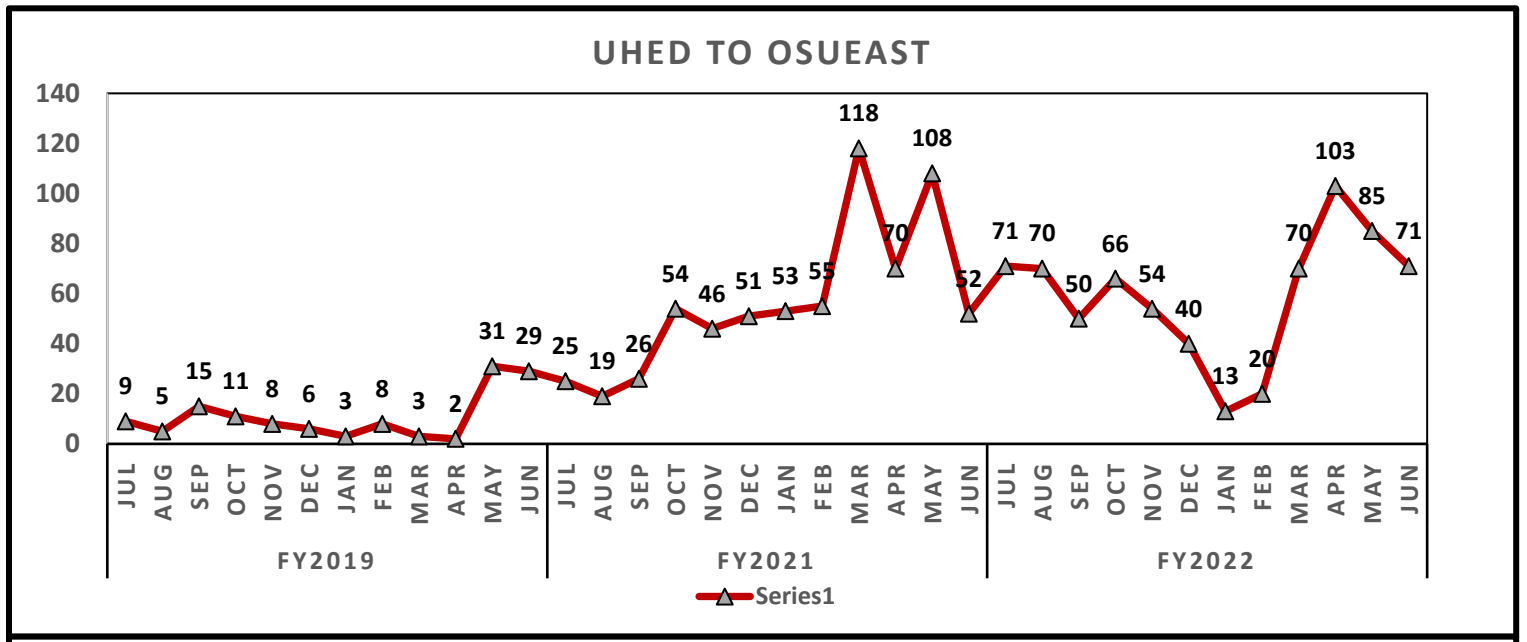


Transfer Center

Prioritized Actions

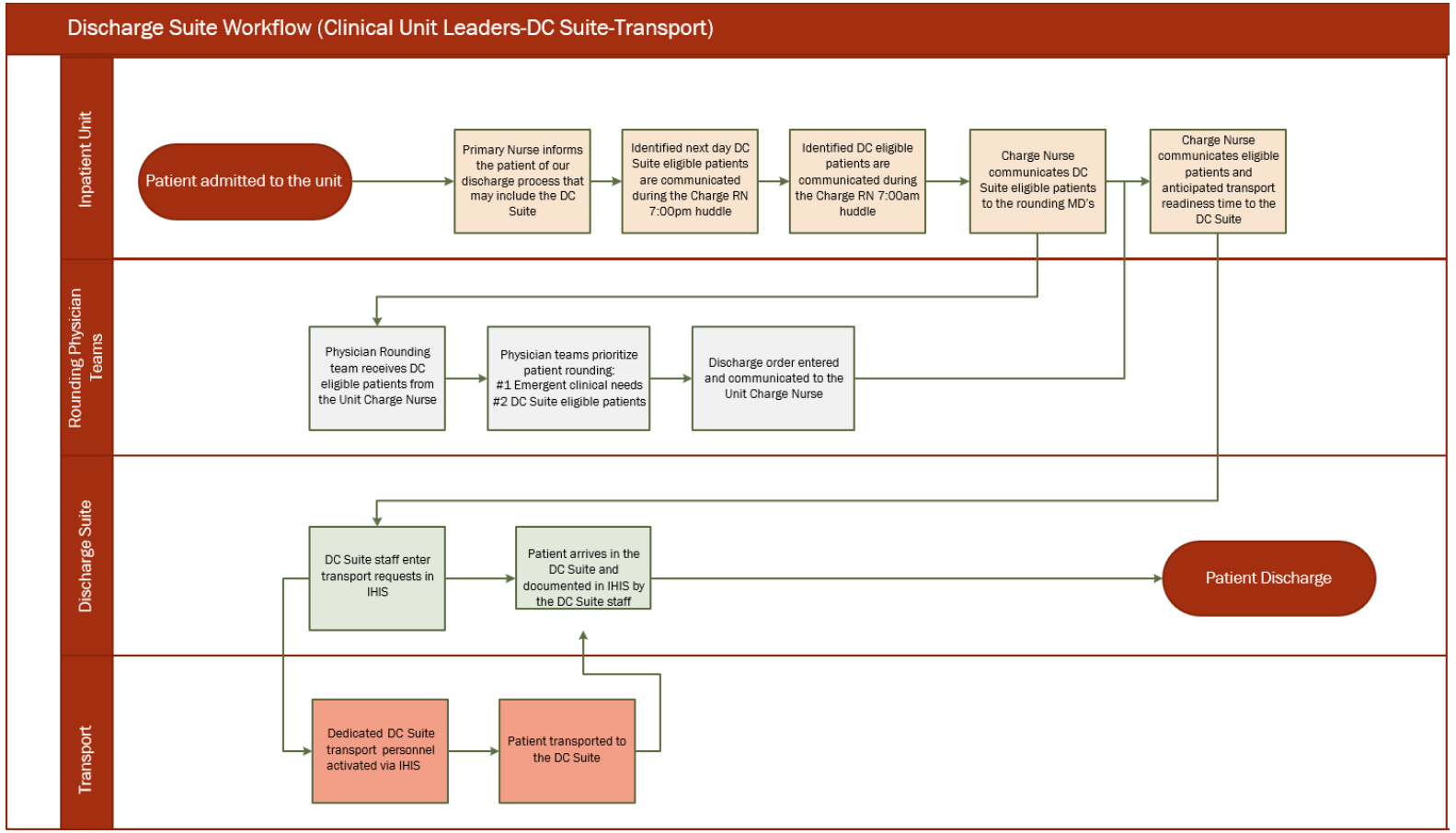
- Right care, Right place
- Focus on providing clinic appointments to patients who did not need to be in the ED
- Focus on increasing appropriate external transfers to East Hospital to optimize high acuity transfers to UH and decompress ED
- Transfer Center external transfers CMI improved compared to prior two years, resulting in better patient placement and access to non-acute care services

FY22 Average CMI	FY21 Average CMI	FY20 Average CMI
2.50	2.46	2.26



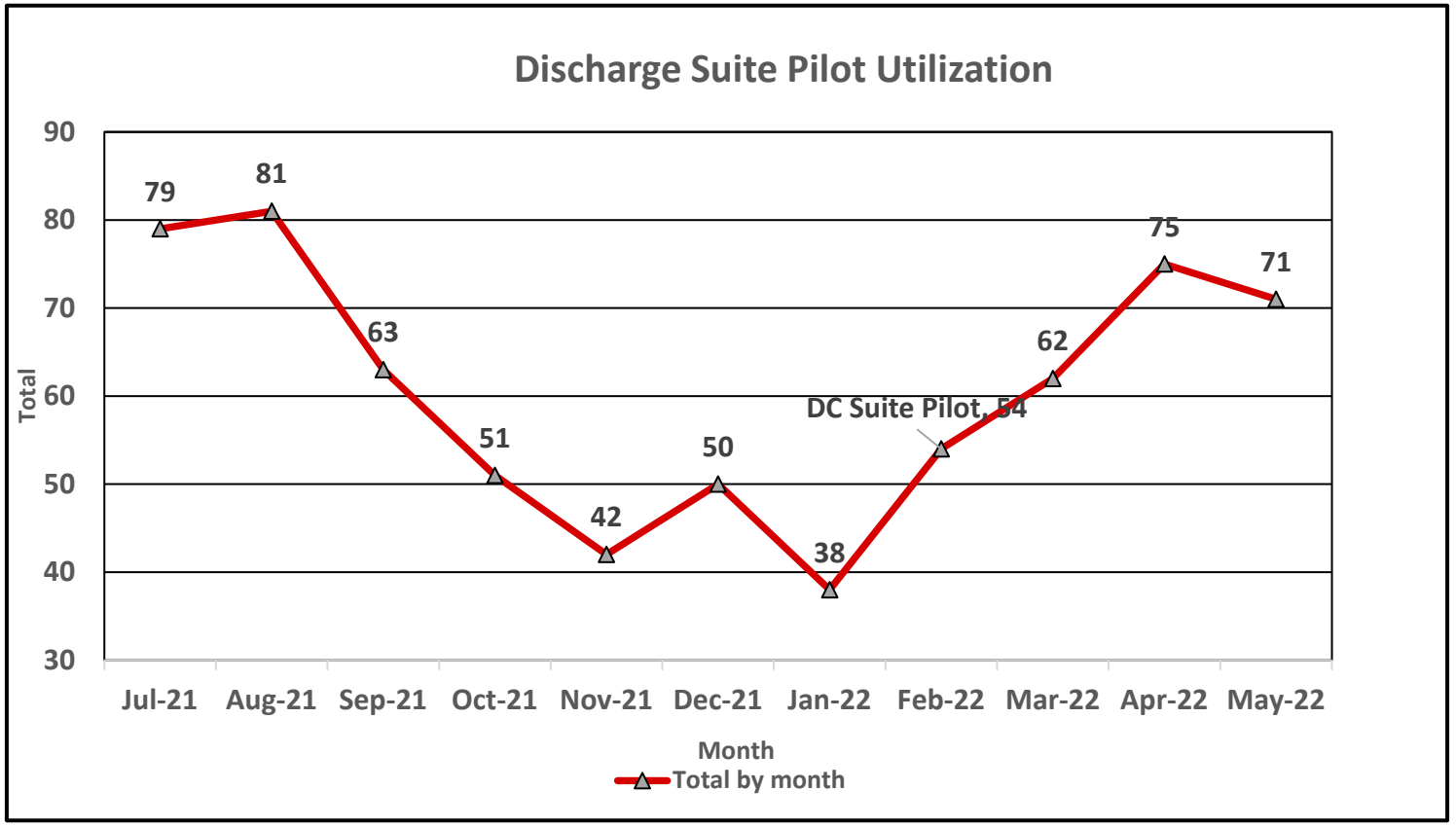
Discharge Suite

- Developed discharge suite pilot program
- Established “pull” method
- Collaborative effort with clinicians, nurses, case management, and discharge (DC) suite staff



Discharge Suite Utilization

- Underutilized DC Suite
- Started pilot in early February
- Nurses in the DC suite utilized a snapboard in our EHR system to schedule patients ahead of time to the DC Suite
- Use of the snapboard allowed for better tracking of patients in the suite throughout the day
- Increase of utilization by almost 50% since pilot



Lessons Learned

- Not all leaders are equipped with the requisite skillsets
- Investing in Operational Excellence training is crucial to system synchronization
- Data rich organizations can be knowledge poor
- Must have engagement with key stakeholders and clinical leaders
- Departmental ownership of leading metrics and KPIs is essential
- Dashboard development was key to achieving encouraging results

Key Takeaways

- Impacting LOS is difficult
- The new councils have allowed quick escalation of problems and addresses issues and barriers expeditiously
- Success in the redesign depends on the right structure, health system collaboration, and accountability for results
- Engaging in multidisciplinary teams including Nursing, Providers, Support Services, Ambulatory, Outreach, Executive Leadership, and other key staff across the care settings is essential
- We expect to have ongoing quantifiable improvements across the Patient Flow dashboard, importantly in hospital LOS

Questions?

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