



maryland  
**health services**  
cost review commission

---

## ED LOS Subgroup Meeting

April 26, 2024

HSCRC Quality Team

## Subgroup 2 Members

First and Last Name	Title and Organization
Gai Cole/Alia Khan backup	Johns Hopkins Health System
Dr.Peter Hill	Senior Vice President of Medical Affairs at John Hopkins
Alex Yazaji, MD	Chief Medical Officer Medstar Union Memorial and Good Samaritan Hospitals
Brenda Watson	Advanta Government Services
Brian sims	Vice President, Quality & Equity
Carrie Adams	COO Meritus Medical Center
James B. Sherwood	VP, Business Development, ED, and Pediatrics
John Moxley	Senior Director- Department of Medicine, Luminis Health
Katie Eckert/Patsy McNeil backup	VP Reimbursement and Strategic Analytics
Kristen Geissler	Managing Director, BRG
Christina Martin	UPMC Western Maryland
Dr. Mark Goldstein	Medical doctor - Sinai Hospital
Michele Patchett	Director of Performance Improvement and Innovation Greater Baltimore Medical center
Michael Sokolow	UMMS Sr Director, Quality Business Intelligence
Dr. Revathi Jyothindran	Medical doctor - Northwest Hospital
Taneisha Laume	CRISP Representative
Eileen MacDonald, MD	Chief of Medicine, Physician Advisor, Luminis Health
Zahid Butt	CEO, Medisolv

Thank you to the industry and stakeholders for contributing your interest, time, and expertise to this work.

Workgroup information can be found on the HSCRC website:

<https://hscrc.maryland.gov/Pages/ED-length-of-stay-workgroup.aspx>

# Workgroup Learning Agreements

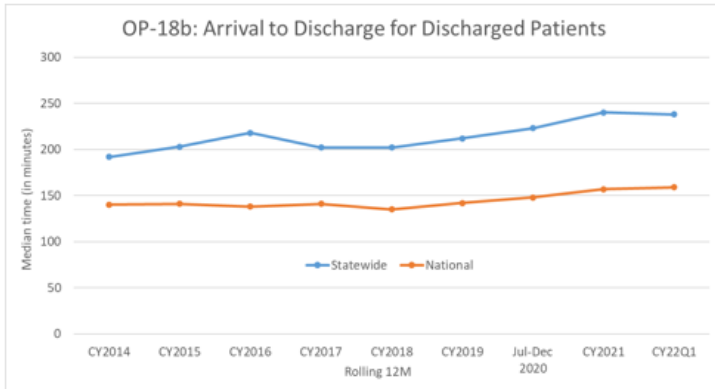
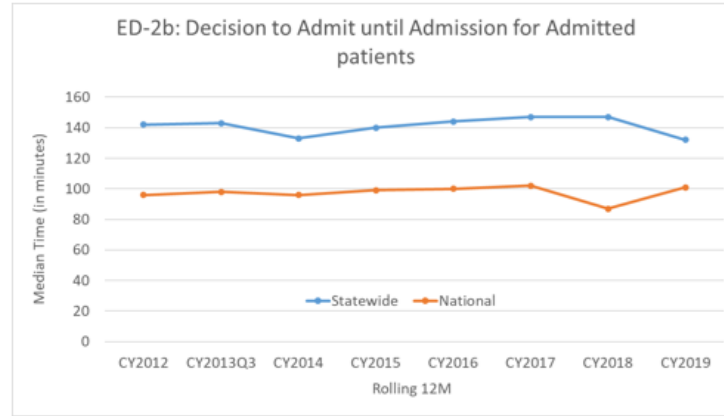
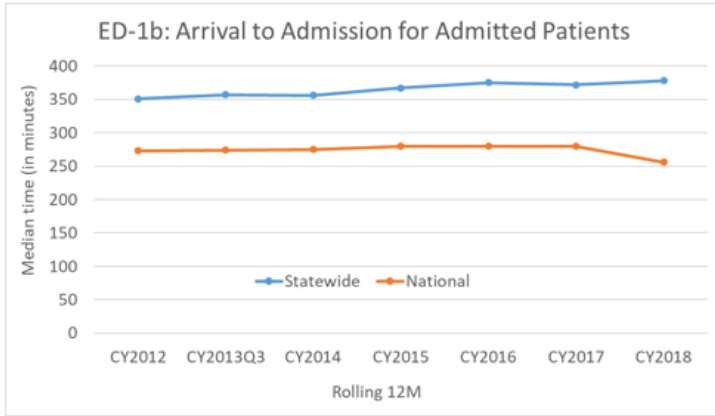
- **Be Present** – Make a conscious effort to know who is in the room, become an active listener. Refrain from multitasking and checking emails during meetings.
- **Call Each Other In As We Call Each Other Out** – When challenging ideas or perspectives give feedback respectfully. When being challenged - listen, acknowledge the issue, and respond respectfully.
- **Recognize the Difference of Intent vs Impact** – Be accountable for our words and actions.
- **Create Space for Multiple Truths** – Seek understanding of differences in opinion and respect diverse perspectives.
- **Notice Power Dynamics** – Be aware of how you may unconsciously be using your power and privilege.
- **Center Learning and Growth** – At times, the work will be uncomfortable and challenging. Mistakes and misunderstanding will occur as we work towards a common solution. We are here to learn and grow from each other both individually and collectively.

**REMINDER:**  
These  
workgroup  
meetings are  
recorded.

# Agenda

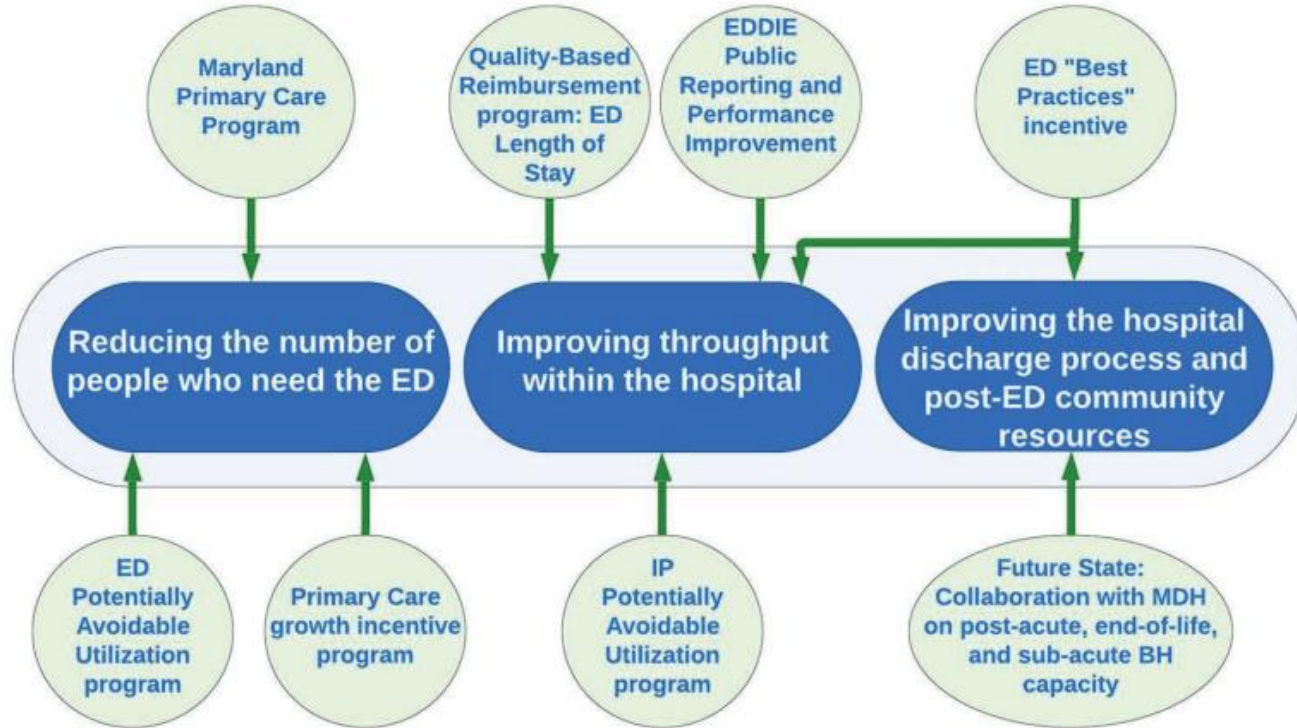
- ✓ Overview ED initiatives and QBR ED-1 Data collection and incentive development
- ✓ Review Data Subgroup 1: Accomplishments and Timeline
- ✓ Define goals of Measure and Incentive Methodology Subgroup 2
- ✓ Next Steps and Opportunities

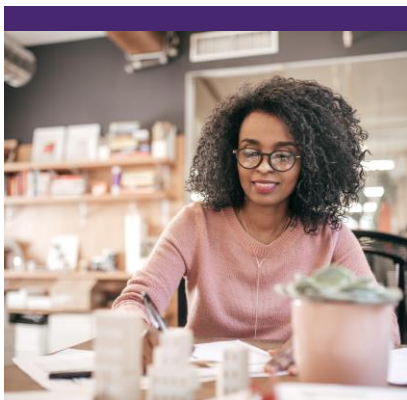
# CMS ED LOS Data: Maryland performs worse than nation



Measure ID	Measure Definition
ED-1	Median time from ED arrival to departure for admitted patients
ED-2	Median admit decision time to ED departure time for admitted patients
OP-18	Median time of ED arrival to departure for discharged patients

# Interventions to Impact ED LOS





# Tonya Johnson

## Caregiver

**Age** 44 yrs old  
**Location** Silver Spring, MD

## Biography

### • Caregiver to 85-year-old mother

Tonya is a devoted daughter to her 85-year-old mother who recently became ill with an abscess. Following a telehealth visit with a PCP, the doctor urgently recommended a CT scan, identifying symptoms of diverticulitis. Tonya begged the PCP for other options, but he insisted they go to the ED for the CT scan. Tonya accompanied her mother to a suburban hospital in Maryland and had a distressing experience. Her mother was triaged right away. She waited 3 hours to see a PA, 6 hours for the CT scan, 8 hours to receive an antibiotic (in the waiting room), and sent home after 9 hours.

## Goals

- Get quality care for her mother, including timely diagnoses & proper treatment
- Advocates for efficient processes (e.g., minimize wait time, prioritize urgent medical needs), respect and privacy, even in busy emergency departments
- Balance caring for her mother and her own family

## Patterns & Behaviors

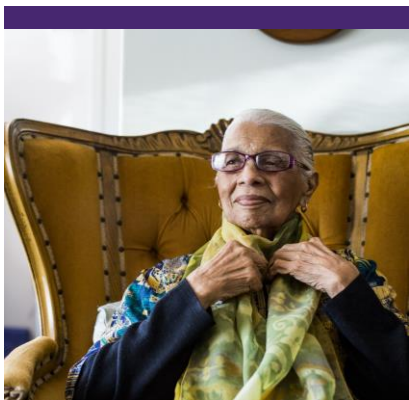
- Fierce advocate for her mother's health, persistently asking questions and challenging the system when necessary
- Researches medical conditions, treatment options, and hospital practices
- Often neglects her own well-being, struggling to find time to care for her family, rest, exercise or her personal needs

## Frustrations

- Numerous assessments performed & treatments delivered in the waiting room
- A private room was never provided until the last 10 minutes prior to the PA providing discharge instructions
- Hospital said every bed was full inside
- Mix of frustration, concern, and helplessness
- Fears she missed critical signs & symptoms

## Health System Knowledge

- Worked in the healthcare industry for 20 years
- Readily knows how to navigate insurance, appointment scheduling, and medical paperwork
- Became an advocate for systemic change, sharing her story, participating in patient forums, and supporting initiatives to improve healthcare delivery



# Carmen Johnson

## Patient

**Age** 85 yrs old  
**Location** Fulton, MD

## Biography

### • 85-year-old Senior – lives alone

Carmen has lived in Fulton, MD for the last 12 years. She now lives alone after her husband of 40 years passed away last year. She is moderately active, attends church and enjoys spending time with family and friends. She has experienced abdominal pain in her left side for 3- 4 days along with slight fever and nausea. She is scared to tell her daughter when things are wrong. Her daughter scheduled a doctor's appointment. Carmen takes several medications for high blood pressure and glaucoma and hates going to the doctor.

## Goals

- Find relief for her symptoms
- Hopes the ED visit will provide answers and alleviate her pain & discomfort
- Maintain her independence
- Rely on her daughter's judgment & guidance
- Maximize her quality of life

## Patterns and Behaviors

- Downplays her pain and waits to tell her daughter something is wrong
- Contemplates mortality and frequently worries about her independence
- Very engaged with family, friends, neighbors, and church

## Frustrations

- Long wait times at the ED makes her anxious
- Feels exposed and vulnerable while being assessed and treated openly in the waiting room
- Worries her health issues inconvenience her daughter, feels like a burden
- Fears her symptoms are overlooked or misdiagnosed

## Health System Knowledge

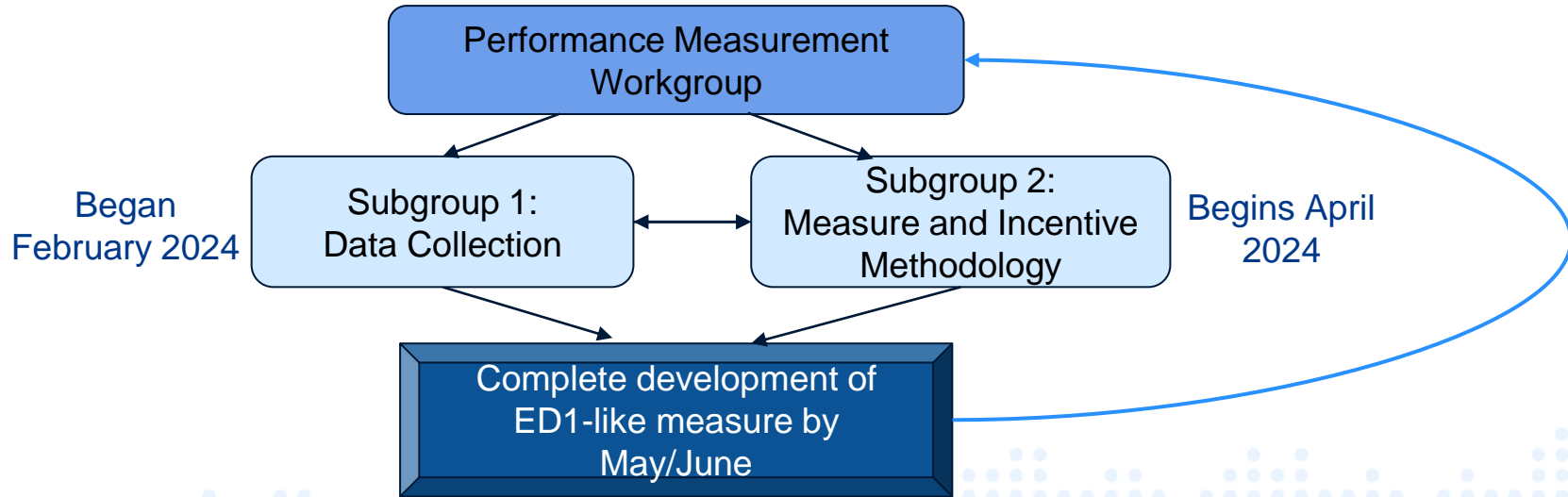
- Moderate use of technology / social media for seeking information about healthcare services
- Some knowledge navigating the healthcare system; however, relies on adult children for insurance, appointment scheduling, and medical paperwork
- Responsible with medical appointments



# Quality Based Reporting (QBR): ED LOS Measure Development Plan

## Objective:

- Subgroup 1: Develop mechanism to collect ED length of stay for **admitted patients**
- Subgroup 2: Develop ED LOS measure and incentive methodology for RY 2026 QBR



# Case-mix data as chose



## Advantages

1. Add date and timestamps and other needed variables to monthly HSCRC case-mix data
2. Allow hospitals to calculate summary measures and submit to HSCRC (similar to EDDIE reporting)
3. Use retired ED1 electronic clinical quality measure/Adapt ED2 eCQM to capture time of admission and observation stays

- Takes advantage of existing data collection method and edit check processes
- HSCRC calculates measure for all hospitals
- Additional time stamps can be collected (i.e., start of observation)
- Can stratify or risk-adjust ED LOS data

# What Are We Trying To Accomplish In Today's Meeting?

- Overview of Data Subgroup 1
  - Measure specifications
  - Timelines
- Goals for Measure and Incentive Subgroup 2
  - Which ED1 measure strata should be used for payment?
  - Should incentive be for improvement only? Or improvement and attainment?
  - What performance standards will we used? (i.e., threshold/benchmarks)
  - Should measure be risk-adjusted? What additional data is needed for risk adjustment?
  - Other decisions: Minimum cell sizes? Missing data?
- Next Steps



ED Patient Arrival (Time and Date)  
Pre Registration / Sign-In

HH:MM or UTD  
MM-DD-YYYY or UTD

Care Process

ED Patient Departure\* (Time and Date)

HH:MM or UTD  
MM-DD-YYYY or UTD

\*Departure = time / date the  
patient physically leaves the ED



Self-Present



EMS



Transfer



Registration



Triage



ED Bed



Inpatient Admission



Observation

Outpatient Data (OP-18)



Discharge



Death

Patient initially placed in  
Observation then moved to  
Inpatient Admission

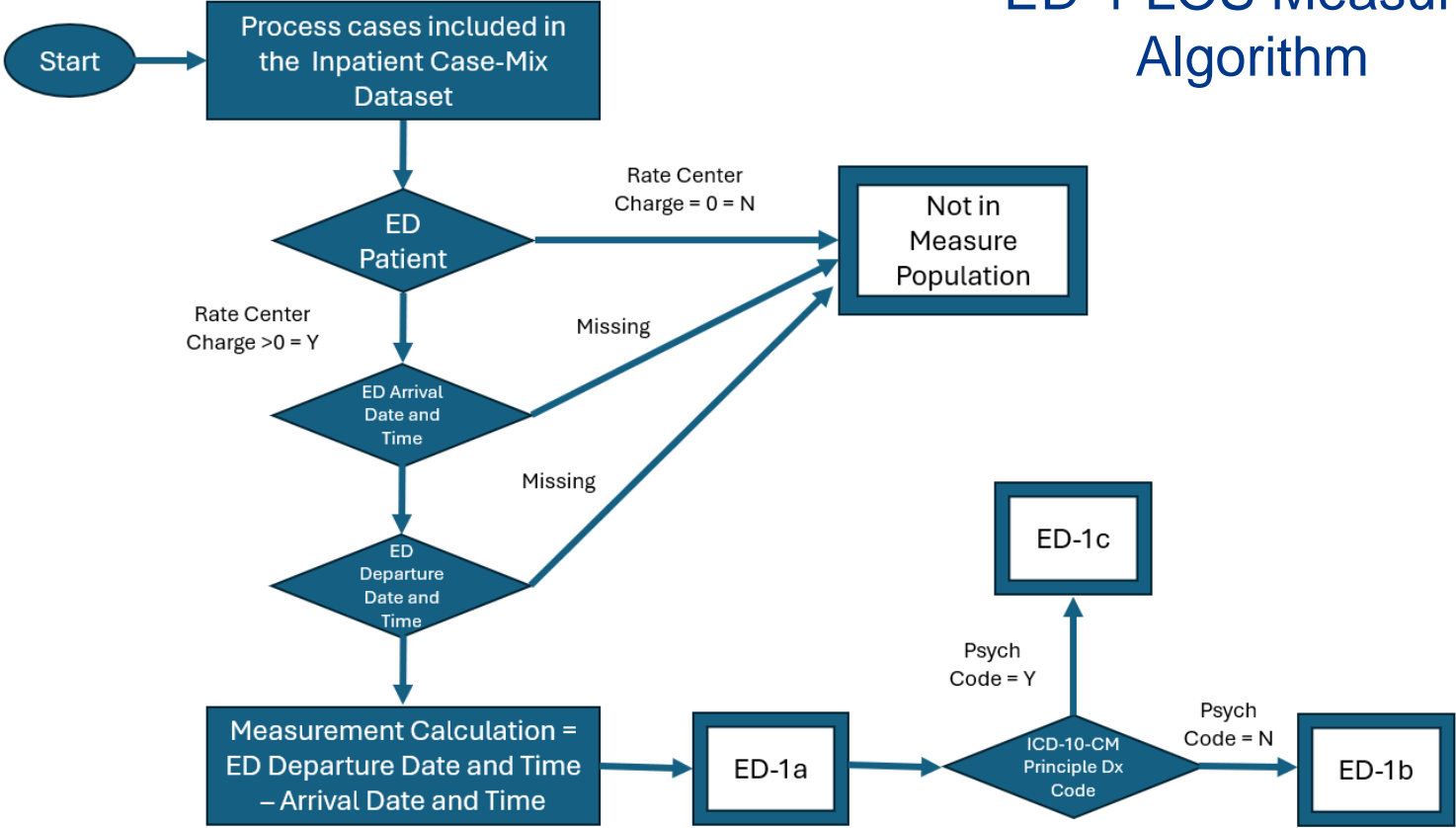
# ED1 LOS Measure Description

<b>Measure Name:</b>	<b>HSCRC ED1 Length of Stay (LOS) measure</b>
Description	Median time from emergency department arrival to time of departure from the emergency room for patients admitted to the facility from the emergency department or observation
Population	All ED patients who are admitted to Inpatient bed and discharged from hospital during reporting period
Exclusions	Patients who are discharged from ED or OBS to community/transfers, Deaths (in OP-18)

## Specifications for Joint Commission on ED Departure Date/Time and Observation:

- For patients who are placed into observation outside the services of the emergency department, abstract the date of departure from the emergency department.
- For patients who are placed into observation under the services of the emergency department, abstract the date of departure from the observation services (e.g., patient is seen in the ED and admitted to an observation unit of the ED on 01-01-20xx then is discharged from the observation unit on 01-03-20xx abstract 01-03-20xx as the departure date).

# ED-1 LOS Measure Algorithm



# Ad-Hoc Data Submission Requirements (DSR)

Data Elements	Description	Rationale	Inpatient/Outpatient
Medicare Provider #	Hospital Medicare ID	Required for matching	Both Datasets
Medical Record Number	Patient's medical record number assigned by hospital		
Patient Account Number	Patient admission number		
From Date of Service	First day of patient encounter or visit		
Thru Date of Service	Date of patient discharge		
ED Arrival Date	Date patient arrived at ED (i.e., sign-in, pre-registration)	New Variables for ED-1	Both Datasets
ED Arrival Time	Time patient arrived at ED (HHMM in military time)		
ED Departure Date	Date patient departed ED (i.e., physically left the ED)		
ED Departure Time	Time patient departed ED (HHMM in military time)		
Additional Variables			
Observation Status Date	EHR timestamp for when patient enters observation status; could be in or outside of the ED	To be able to examine impact of observation status on ED length of stay/boarding	Both Datasets
Observation Status Time	EHR timestamp for when patient enters observation status; could be in or outside of the ED		
IP Unit Arrival Date	Date patient arrived at IP unit (HHMM in military time)	To be able to ensure we have data on total wait time if needed	Inpatient Only
IP Unit Arrival Time	Time patient arrived IP unit ED (i.e., physical arrive at unit)		

# Data Submission and Reporting Timeline

Tasks	Key Dates
Finalize ED-1 LOS & OP-18 Measure specifications and algorithm	May 2024
1st Adhoc submission window opens: Submit CY23 & Jan-Mar 2024 (15 months data)	July 2024
Release summary level statewide report on ED-1 and OP-18 median length of stay	September/October 2024
2nd Adhoc submission window opens: Submit Apr-Sept 2024 (6 months data)	December 2024
Starting in Jan 2025 regular case-mix submissions will include ED-1 LOS and OP-18 variables	January 2025
Final data submission (Oct-Dec 24) will use regular case-mix DSR that includes ED-1 LOS & OP-18 variables	March 2025
Release summary level statewide report on ED-1 & OP-18 median length of stay	April/May 2025
Final RY26 QBR Revenue Adjustments (ED-1 LOS Only)	January 2026 (preliminary July 2025)

- Between 1st and 2nd adhoc submissions, check data quality:
1. Data error checks
  2. Match ad hoc data with Case-Mix data; provide match rate.
  3. Revise DSR, if needed
  4. Request statewide or hospital specific resubmissions



# Data Quality Checks

Data Items			Data Quality							
Data Item	Data Item Name	Description	HSCRC Variable	Data Type	Max Length	Format	Required Field	Edit Check Level (Warning/Error/Fatal Error/Cross Edit Error) FY22	Cross Edit Error Variable	Quality Threshold 10%: Monthly 5%: Quarterly
1	Medicare Provider Number	Enter the Medicare provider number assigned to the hospital. NNNNNN = MEDICARE PROVIDER NUMBER (SEE "Provider ID" TAB FOR CODES)	HOSPID	NUM	6	See "Provider ID"	Yes	<b>Fatal error:</b> If value is missing or invalid (alpha or special characters)	N/A	100% Complete
2	Medical Record Number	Enter the unique medical record number assigned by the hospital for the patient's medical record. The unique medical record number is to be assigned permanently to the patient and may not change regardless of the number of admissions for that particular patient during the patient's lifetime. <b>LEADING ZEROES/SPACES ARE NOT REQUIRED.</b> NNNNNNNNNN = PATIENT'S MEDICAL RECORD NUMBER	MRNUM	CHAR	11	No alpha or special characters.	Yes	<b>Fatal error:</b> If value is missing or invalid (alpha or special characters)	N/A	100% Complete
3	Patient Account Number	Enter the unique number assigned by the hospital for this patient's admission. For Commission reporting requirements, this number is related to a single admission, and will change with each encounter or visit reported. <b>LEADING ZEROES/SPACES ARE NOT REQUIRED.</b> NNNNNNNNNNNNNNNN = PATIENT ACCOUNT NUMBER	PATACCT	CHAR	18	No alpha or special characters.	Yes	<b>Fatal Error:</b> If value is missing, invalid (alpha or special characters), all 9's or all 0's	N/A	100% Complete
4	From Date of Service	Enter the month, day, and year for the first day of the specific patient encounter or visit. For example, for April 2, 2007, enter 04022007 (mmddyyyy). <b>The From Date must be before the Through Date.</b> MMDDYYYY = MONTH, DAY, YEAR	FR_DATE	DATE	8	No alpha or special characters.	Yes	<b>Fatal error:</b> If value is missing or invalid (alpha or special characters) <b>Fatal error:</b> If value is after Thru Date	Thru Date of Service	100% Complete
5	Thru Date of Service	Enter the month, day, and year for the last day covering the specific patient encounter, visit or the <b>date of discharge</b> . For example, for April 3, 2007, enter 04032007 (mmddyyyy). <b>The Through Date must be after the From Date and be in the current reporting period.</b> MMDDYYYY = MONTH, DAY, YEAR	TH_DATE	DATE	8	No alpha or special characters.	Yes	<b>Fatal error:</b> If value is missing or invalid (alpha or special characters) <b>Fatal Error:</b> If value reported is outside of reporting period	N/A	100% Complete
6	ED Arrival Date	Enter the month, day, and year for the specific patient ED arrival date. For example, for April 2, 2023, enter 04022023 (mmddyyyy). MMDDYYYY = MONTH, DAY, YEAR	ED_ARRIVAL_DATE	DATE	9	No alpha or special characters.	Yes	<b>Fatal error:</b> If value is missing or invalid (alpha or special characters) or not valid date <b>Fatal Error:</b> If value reported is after Departure date	N/A	100% Complete
7	ED Departure Date	Enter the month, day, and year for the specific patient ED Departure date. For example, for April 2, 2023, enter 04022023 (mmddyyyy). MMDDYYYY = MONTH, DAY, YEAR	ED_DEPART_DATE	DATE	10	No alpha or special characters.	Yes	<b>Fatal error:</b> If value is missing or invalid (alpha or special characters) or not valid date	N/A	100% Complete
8	ED Arrival Time	Enter the hour and minute for the ED arrival date. For Example, for 02:30 PM, enter 1430 (hhmm). HHMM= HOUR, MINUTE	ED_ARRIVAL_TIME	NUM	4	No alpha or special characters.	Yes	<b>Fatal error:</b> If value is missing or invalid (not valid time)	N/A	100% Complete
9	ED Departure Time	Enter the hour and minute for the ED departure date. For Example, for 02:30 PM, enter 1430 (hhmm). HHMM= HOUR, MINUTE	ED_DEPART_TIME	NUM	4	No alpha or special characters.	Yes	<b>Fatal error:</b> If value is missing or invalid (not valid time)	N/A	100% Complete

## Subgroup 2: QBR Measure and Incentive Structure

- RY26 QBR recommendation:
  - Within Person and Community Engagement Domain, add ED wait time measure weighted at 10 percent.
- Decisions still to be made for CY 2024 performance:
  - Which ED1 measure strata should be used for payment?
  - Should incentive be for improvement only? Or improvement and attainment?
  - What performance standards will we use? Threshold/benchmarks?
  - Should measure be risk-adjusted? What additional data is needed for risk adjustment?
  - Minimum cell sizes? Missing data?

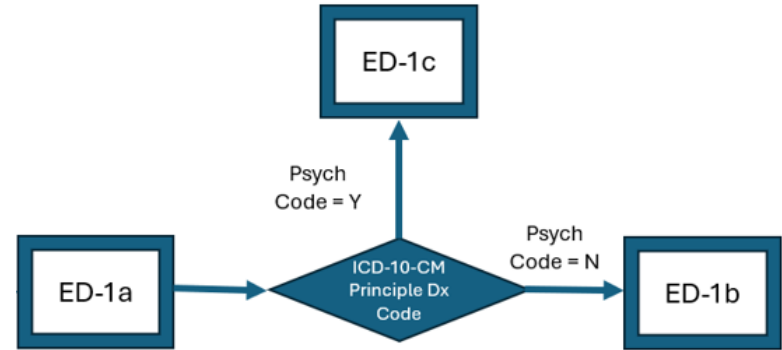
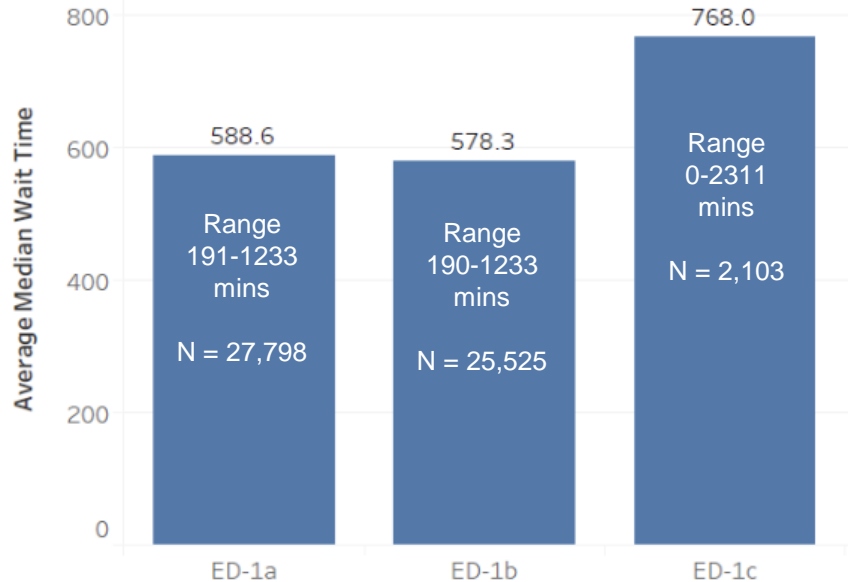
# Which ED1 measure strata should be used for payment?

ED1a = All patients

ED1b = Non-psych

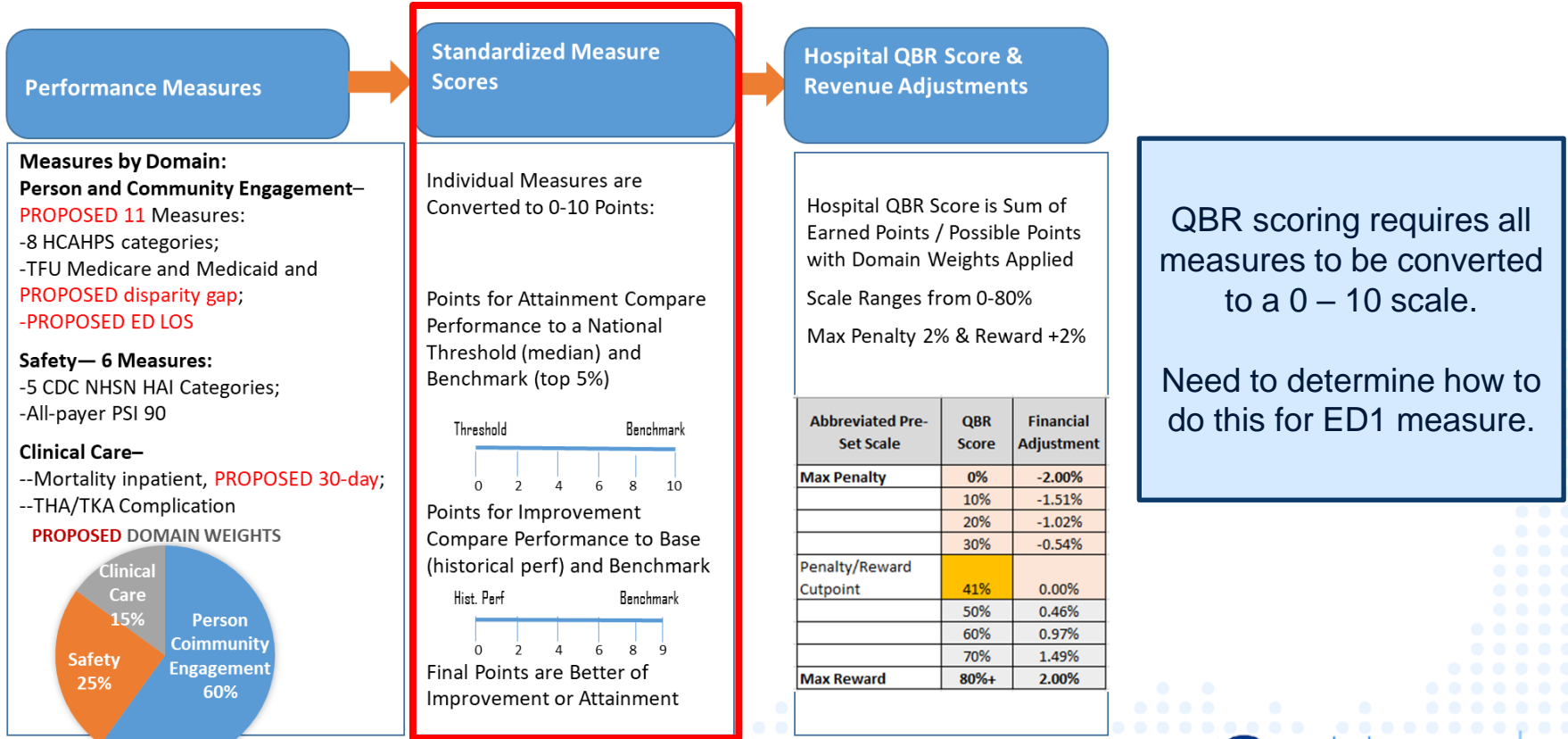
ED1c = Psych

Median Wait Time by Measure Type for March 2024



Strata A = B + C

# Current QBR Methodology



**Measures by Domain:**  
**Person and Community Engagement—**  
**PROPOSED 11 Measures:**  
 -8 HCAHPS categories;  
 -TFU Medicare and Medicaid and  
**PROPOSED disparity gap;**  
**-PROPOSED ED LOS**

**Safety— 6 Measures:**  
 -5 CDC NHSN HAI Categories;  
 -All-payer PSI 90

**Clinical Care—**  
 --Mortality inpatient, **PROPOSED 30-day;**  
 --THA/TKA Complication  
**PROPOSED DOMAIN WEIGHTS**



**Standardized Measure Scores**

Individual Measures are Converted to 0-10 Points:

Points for Attainment Compare Performance to a National Threshold (median) and Benchmark (top 5%)

Points for Improvement Compare Performance to Base (historical perf) and Benchmark

Final Points are Better of Improvement or Attainment

**Hospital QBR Score & Revenue Adjustments**

Hospital QBR Score is Sum of Earned Points / Possible Points with Domain Weights Applied

Scale Ranges from 0-80%

Max Penalty 2% & Reward +2%

Abbreviated Pre-Set Scale	QBR Score	Financial Adjustment
<b>Max Penalty</b>	<b>0%</b>	<b>-2.00%</b>
	10%	-1.51%
	20%	-1.02%
	30%	-0.54%
Penalty/Reward Cutpoint	<b>41%</b>	0.00%
	50%	0.46%
	60%	0.97%
	70%	1.49%
<b>Max Reward</b>	<b>80%+</b>	<b>2.00%</b>

QBR scoring requires all measures to be converted to a 0 – 10 scale.

Need to determine how to do this for ED1 measure.

## ED-1 Incentive

- Should incentive be for improvement only? Or improvement and attainment?
- What performance standards should be used?

### Improvement

Emphasizes need for all hospitals in Maryland to improve

Controls for hospital patient mix if changes over time are minimal

Controls for potential measure differences across hospitals/systems

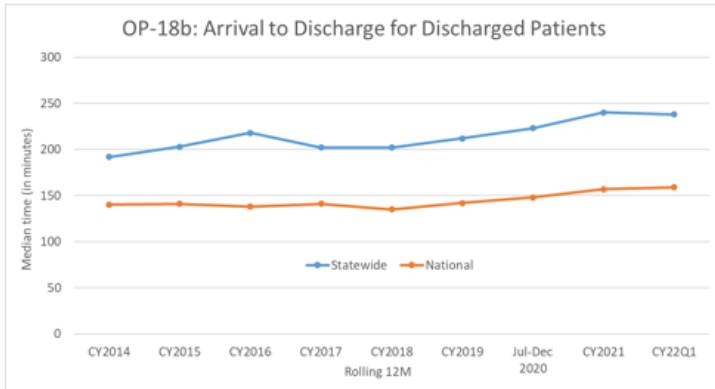
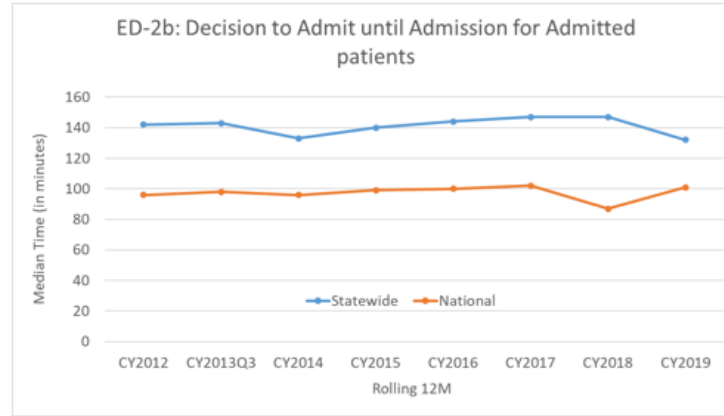
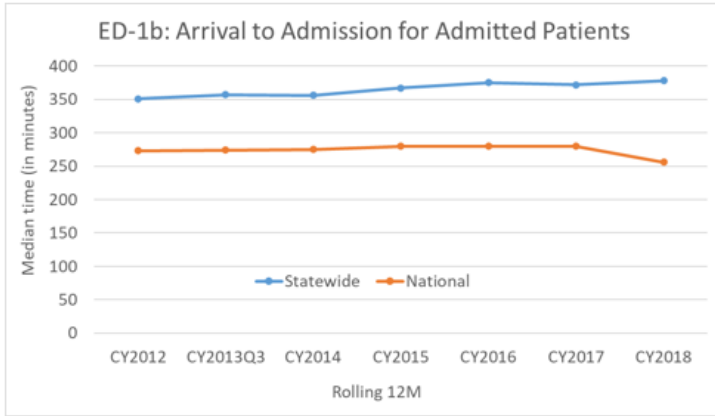
### Attainment

Recognizes hospitals with “good” wait times/LOS

Requires threshold and benchmark for best performance to be established

Case-mix adjustment and measurement consistency are much more critical for fair comparison

# CMS ED LOS Data: Maryland performs worse than nation



Measure ID	Measure Definition
ED-1	Median time from ED arrival to departure for admitted patients
ED-2	Median admit decision time to ED departure time for admitted patients
OP-18	Median time of ED arrival to departure for discharged patients

## ED-1 Risk-Adjustment Considerations

- Should measure be risk-adjusted? What additional data is needed for risk adjustment?
  - Hospitals have advocated for risk adjustment for things such as occupancy rates and discharge to non-community settings
  - When measuring improvement, is risk-adjustment necessary?
  - Instead of risk-adjustment of measure, could there be adjustments to improvement targets?



## ED-1 Other Decisions

- Missing data?
- Minimum cell sizes?
- Other thoughts not discussed?



## Next Steps/Opportunities

- Review meeting discussion
- Explore benchmarking options
- Continue research of risk-adjustment

**Next Meeting of Subgroup 2:**  
**May 17, 2024**