ED LOS Subgroup Meeting

March 1, 2024

HSCRC Quality Team

Subgroup 1 Members

First and Last Name	Title and Organization
Amanda Wright	Director of Patient Care Services – Northwest Hospital
Anene Onyeabo	Senior Analyst, Quality & Health Improvement - MHA
Brenda Watson	Advanta Government Services
Dan Lauth	Manager, Data Analytics and MedStar Health
David Goodmansen	Director of Performance Improvement
Dr.Peter Hill	Senior Vice President of Medical Affairs at John Hopkins
Grace Kaeding	CRISP Representative
James McGarvey	Clinical Analyst Frederick Health Hospital
Jennifer Kramer	Executive Director of Emergency and Vascular Services
Kristen Geissler	Managing Director, BRG
Laura Fortman/Yvette Hicks backup	Systems Architect, Johns Hopkins Emergency Medicine
Lauren Small	IT Director at Frederick.Health
Margarita Noel/Laura Wieber backup	Quality Engineer and Epic Liaison
Michael Staley	Executive Director; Quality and Accreditation at Meritus Medical Center
Mike Ward	UMMS Case Mix Manager
Shivani Bhatt	Sr. Data Analyst, hMetrix
Sophia Batallas/Theron Pappas backup	System Quality Director & Director of Data Analytics
Stephanie Cleaveland	Assistant CNO and Director of Emergency Services
Wendy Helms	Clinical Director Emergency Services, Trauma, and Forensic UPMC Western Maryland
Zahid Butt	Medisolv
Courtney Carta/Teresa Browm	MHCC

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

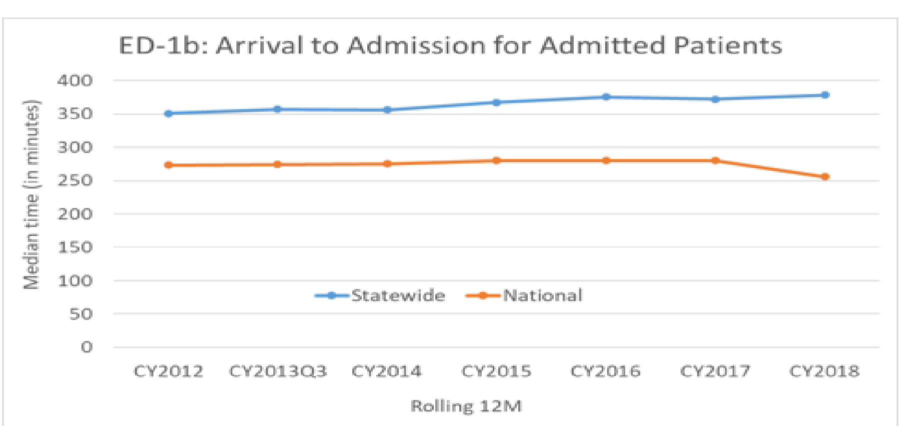
- **Be Present** – Make a conscious effort to know who is in the room, become an active listener. Refrain from multitasking and checking emails during meetings.
- **Call Each Other In As We Call Each Other Out** – When challenging ideas or perspectives give feedback respectfully. When being challenged - 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.

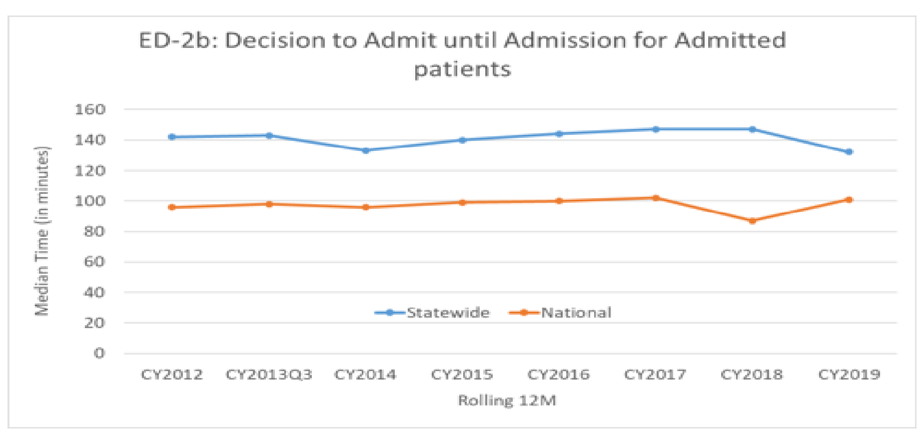
REMINDER: **These workgroup meetings are recorded.**

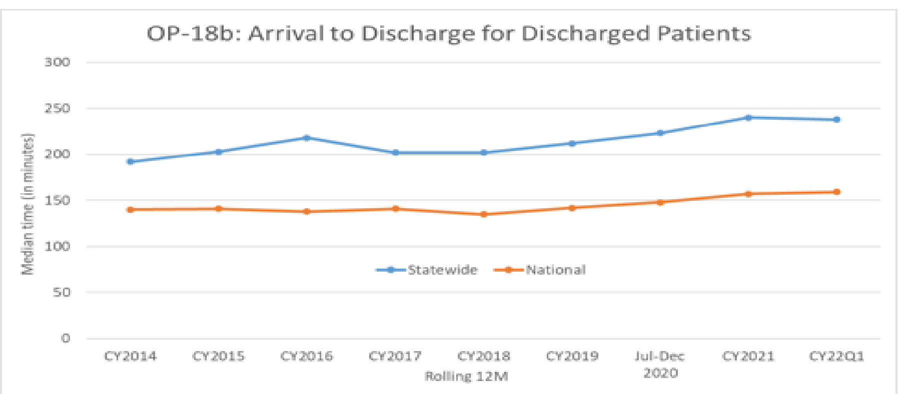
Agenda

- ✓ Why We Are Here / CMS ED LOS Data
- ✓ ED LOS Measure Development Plan
- ✓ Feb 2 Meeting Recap
- ✓ Existing date stamps in case-mix data
- ✓ ED Throughput Graphic Review
- ✓ ED-1 Survey Results
- ✓ ED-1 Specifications Template
- ✓ Next Steps and Opportunities

CMS ED LOS Data: Maryland Performs Worse Than Nation





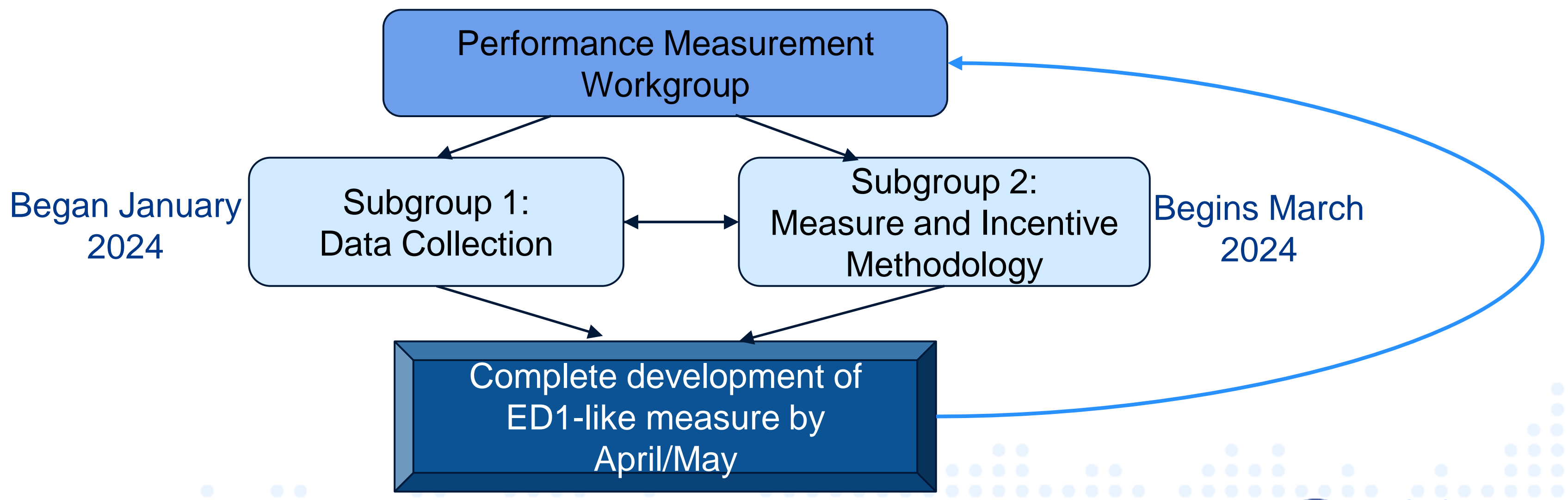


Measure ID	Measure Definition
ED-1	Median time from ED arrival to departure for admitted patients
ED-2	Median admit decision time to ED departure time for admitted patients
OP-18	Median time of ED arrival to departure for discharged patients

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

Objective:

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



maryland health services cost review commission

Interventions to Impact ED LOS

Maryland Primary Care Program

Quality-Based Reimbursement program: ED Length of Stay

EDDIE Public Reporting and Performance Improvement

ED "Best Practices" incentive

Reducing the number of people who need the ED

Improving throughput within the hospital

Improving the hospital discharge process and post-ED community resources

ED Potentially Avoidable Utilization program

Primary Care growth incentive program

IP Potentially Avoidable Utilization program

Future State: Collaboration with MDH on post-acute, end-of-life, and sub-acute BH capacity

Quality Based Reimbursement (QBR) Program

Purpose

To incentivize quality improvement across three patient-centered quality measurement domains:

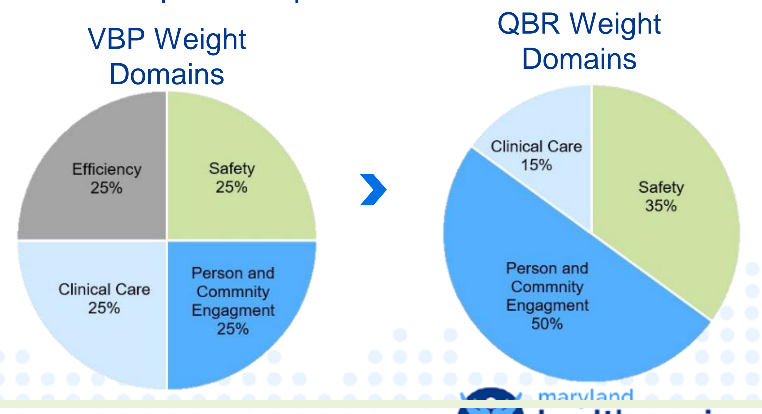
1. **Person and Community Engagement (HCAHPS)** - 8 survey-based measures + follow-up + ED Length of Stay
2. **Clinical Care** - inpatient mortality rate + hip/knee replacement complication rate
3. **Safety** - 6 measures of in-patient Safety (National Healthcare Safety Network (NHSN) Healthcare Associated Infections) + Patient Safety Index (PSI-90)

How it Works: Revenue-at-Risk

The Program puts **2 percent** of inpatient hospital revenue at risk (maximum penalty/reward)

Federal Alignment

The QBR program uses **similar measures to the federal Medicare Value-Based Purchasing (VBP) program** but has an all-payer focus and adjustable domain weights that focus on MD-specific improvements.



February 2, 2024 Meeting Recap

- **All Health Systems Reported That Wait Times Are A Hospital Throughput Issue**
  - Patients in ED waiting for inpatient bed, admission to a skilled nursing facility (SNF), discharge to location other than home, e.g., homeless
  - Staffing issues (RN shortage)
  - Amplified media (news) coverage
- **Definition Of Observation Status Varies Across Health Systems, Including**
  - Most health systems define “Observation” using Medicare guidelines for reimbursement
  - Insurance companies define “Observation”
  - “Observation” is defined by a physician’s order (order status)
- **Most Health Systems Have The Capacity To Start “Admitted Inpatient Level Of Care” Orders In The ED**
  - No health system identified a specific time when admission orders are initiated
  - At least two health systems reported having access to “as needed” RN support if observation or “admitted but holding” patients numbers reached 10-15 patients
- **Majority Of Health Systems’ EHRs Capture The ED-1 Time Stamp Data Elements For Arrival Date and Time & Departure Date and Time**
  - Some systems reported having a hybrid health record (EHR and hard copy) requiring manual data extraction
  - Data definitions of arrival and departure times differ by health system

Methods of Data Collection

From 1st Subgroup Meeting

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

Advantages

- 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?

- Understand current case-mix data date and time stamps

- Review survey results and diagram of patient flow
  - Identify ED-1 time stamps
  - Understand Observation patient flow
  - Review questions and limitations on ED1 data collection identified in survey

- Review measure specification template

- Decide on next steps / opportunities

Case-Mix Data Variables and Edit Checks

*Red font indicates a recent change.

Date Stamps for the IP Data Set

Record Type	Data Item	Data Item Name	Description	HSCRC Variable Name	Data Type	Max Length	Format	Required Field	Edit Status: New Edit - In Production this FY, Existing Edit or N/A	Edit Check Level (Warning/Error/Fatal Error/Cross Edit Error)	Cross-Edit Error Variable	Quality Threshold 10%: Monthly 5%: Quarterly
1	4	Admission Date	Enter the month, day, and year of the patient's admission to the hospital	ADMTDATE	DATE	8		Yes	Existing Edit	**Fatal Error:** If value is missing or invalid (alpha or special characters) **Fatal Cross Edit Error**: If value > Discharge Date **Warning:** If calculated LOS > 365 days	Discharge Date	100% Complete (Excluding Warnings)
1	5	Discharge Date	Enter the month, day, and year of the patient's discharge from the hospital.	DISCDATE	DATE	8		Yes	Existing Edit	**Fatal Error:** If value is missing or invalid (alpha or special characters) **Fatal Error:** If value reported is outside of reporting quarter	N/A	100% Complete
1	9	Date of Birth	Enter the month, day, and year of the patient's birth. (Ex., October 14, 1977, is entered as 10141977 (mm/dd/yyyy)).	DOB	DATE	8		Yes	Existing Edit	**Error:** if value is invalid (alpha or special characters) or invalid format ***Note:*** *Records with Invalid dates will not be grouped* **Error:** If calculated age => 115 years **Error:** If value is missing **Cross Edit Error:** If calculated age based on DOB is > 0 and Nature of Admission = 2 **Cross Edit Error:** If value > Admission Date	Nature of Admission, Admission Date	Included in error threshold
1	535	Arrival Date	Date when patient arrived at the Hospital (in the outpatient) before getting admitted/transferred to Inpatient. If the visit was a direct admit to the inpatient hospital, the arrival date should = the admission date	ARRIVAL_DATE	DATE	8		Yes	New or Revised Edit	**Error:** If value is invalid or blank **Warning:** If Procedure Date is before Arrival Date **Warning:** if Arrival Date is after Admission Date	Principal Procedure Date, Other Procedure date 1-99	Included in error threshold
2	64	Principal Procedure Date	Enter the date of the PRINCIPAL procedure performed during the patient's stay.	PROCDATE	DATE	8		Yes, if procedure is reported	New or Revised Edit - In Production in this FY	**Error:** If value is invalid (alpha or special characters) **Cross Edit Error:** If value is missing and Principle Procedure is reported **Error:** If Principle Procedure date is outside of (Arrival date-3) and Discharge date	Principle Procedure	Included in error threshold
2		Other Procedure Date 1-99	Enter the date of the secondary procedure performed during the patient's stay.	PR1DATE-PR99DATE	DATE	8		Yes, if procedure is reported	New or Revised Edit - In Production in this FY	**Error:** If value is invalid (alpha or special characters) **Cross Edit Error:** If value is missing and Principle Procedure is reported **Error:** If Principle Procedure date is outside of (Arrival date-3) and Discharge date	Arrival Date, Discharge Date, associated Procedure	Included in error threshold
4	506	Date of Event 1-10	Enter the date that event on the patient occurred. Enter "99999999 Unable to Determine" when the date of the event is missing from the medical record.	DATEEV1-DATEEV10	DATE	8		Yes, if TYPEEV is reported	Existing Edit	**Warning:** If value is missing or invalid (alpha or special characters)	N/A	N/A

Existing Data Stamps for ED-1 Like Measure

- **Admission Date (ADMTDATE)**
  - Enter the month, day, and year of the patients' admission to the hospital
  - **Edit Check Level:** Fatal error and fatal cross edit error
  - **Cross- Edit Error Variable:** Discharge Date
  - Quality Threshold: 100% Complete
  - Required field
- **Arrival Date**
- **Discharge Date**

Explanation of Key Edit Terms

- **Edit Status**: Indicates whether an edit is new, existing, or not applicable (N/A).
- **Edit Check Level**: Determines the severity level of an edit. Examples:
  - **Warning**: Indicates potential issues that should be reviewed but may not prevent data submission.
  - **Error**: Highlights issues that must be addressed before data submission.
  - **Fatal Error**: Denotes critical issues that prevent data submission.
  - **Cross Edit Error**: Arises from inconsistencies between related data fields.
- **Cross-Edit Error**: Occurs when data validation fails due to relationships between variables.
- **Quality Threshold**: Defines thresholds for data quality, often expressed as percentages for monthly or quarterly reporting.

ED-1 Survey and Patient Flow

HSCRC ED-1 Data Survey Background

Insights gained from Feb 2 meeting led to development of the ED-1 Survey to further the discussion on how ED arrival to departure times for those admitted into an inpatient bed is calculated (e.g., ED-1 or ED-1 like measure data collection).

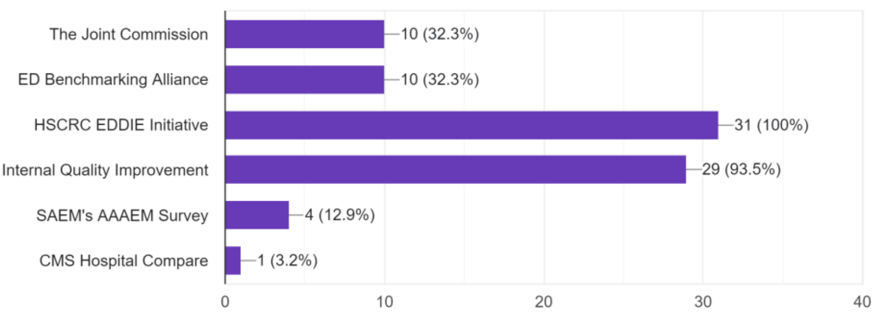
Participants completed one survey per hospital. Results presented include 31 responses received by February 23rd.

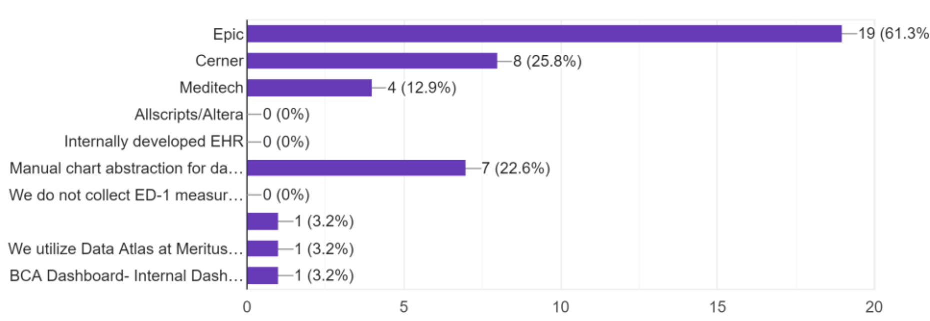
8 multiple choice questions

2 open ended questions

1 additional information question

ED-1 Data Survey Findings





Based on sample of hospitals:

- 10/31 hospitals submit to both TJC and ED benchmarking alliance
- All hospitals that reported manual chart abstraction also reported using an EHR for data collection

ED Throughput Graphic

Patient Arrival

Care

Disposition

Patient Departure Location

Patient arrives at Emergency Department

Walk-Ins

EMS

Transfer

Sign-In

Registration

Triage

Waiting Room

ED Bed/Vertical Care Unit

RN / MD Exam, Treatment

Disposition Order

Inpatient Admission

Inpatient Bed

ED Bed

ED Bed - Extended Stay / Boarding

Observation

Inpatient Bed

ED Bed

ED Bed - Extended Stay / Boarding

Overflow Unit Bed

Observation Unit Bed

Home (Exclusion)

Transfer (Exclusion)

Graphic does not address patients who expire in the Emergency Department. These patients would not be included in an inpatient measure.

ED Throughput: Patient Arrival

Patient Arrival

Patient arrives at Emergency Department

Walk-Ins

EMS

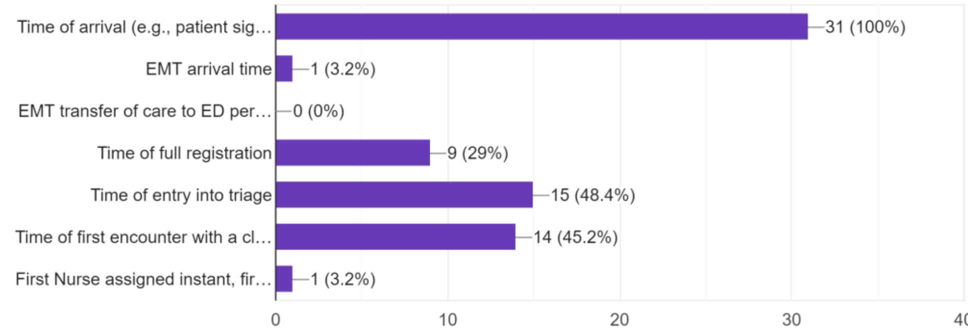
Transfer

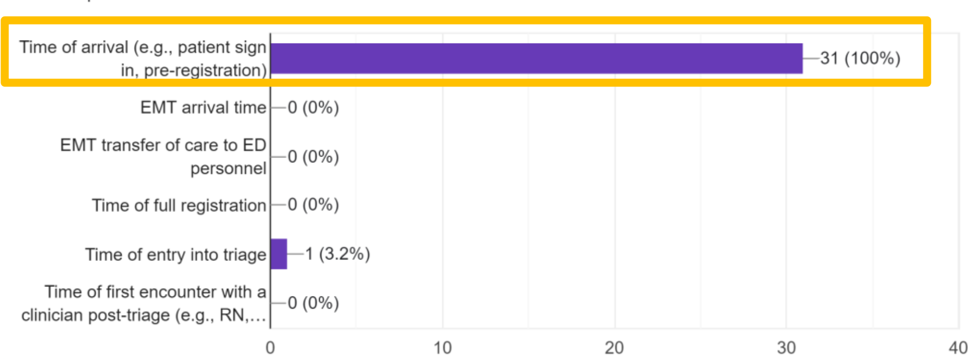
Sign-In

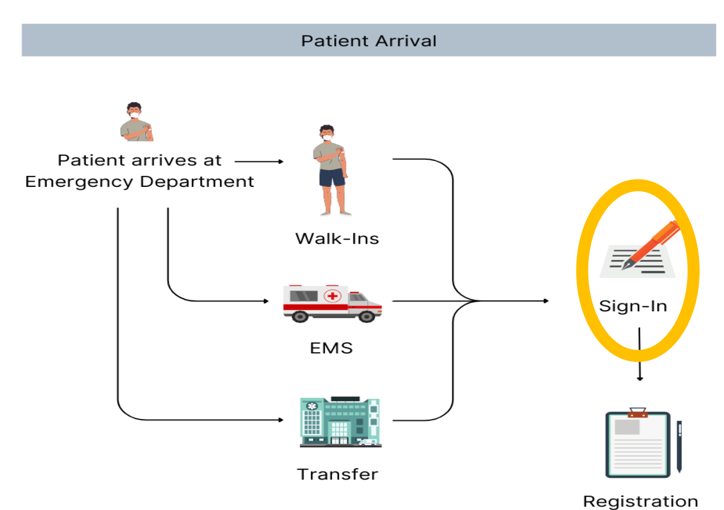
Registration

Is anything missing that is important for understanding patient arrival process?

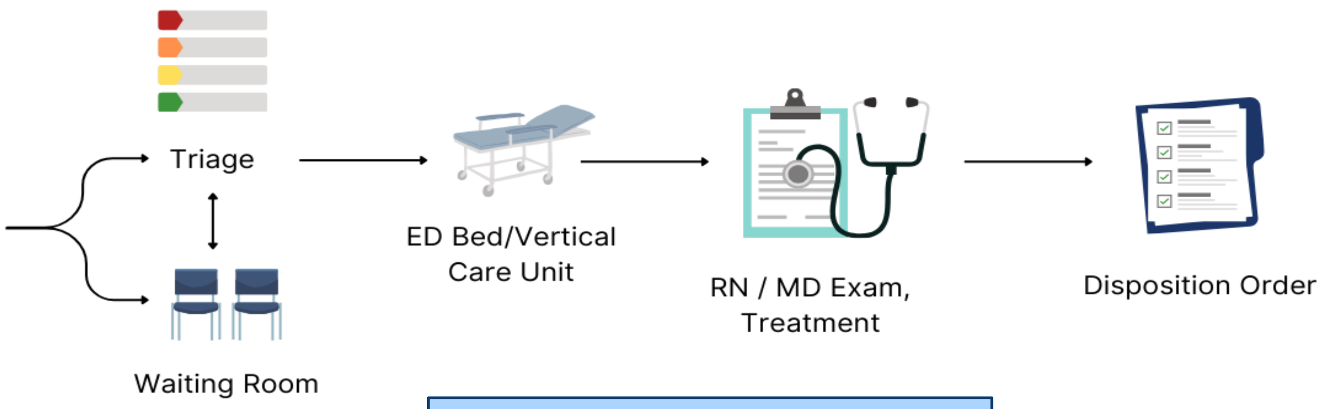
ED-1 Data Survey Findings: Patient Arrival







ED Throughput: Care



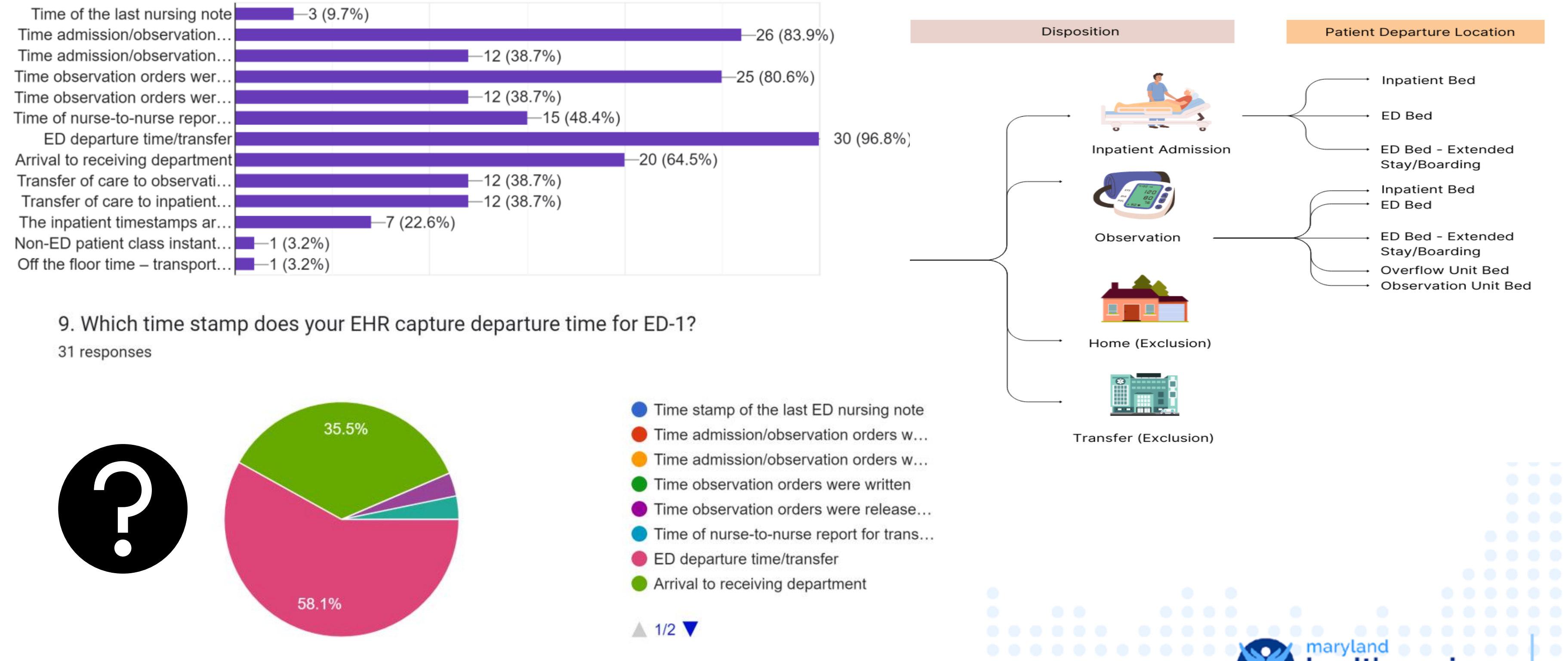
Is anything missing that is important for understanding patient care process?

ED Throughout: Disposition and Patient Departure Location

Disposition	Patient Departure Location
Inpatient Admission	Inpatient Bed ED Bed ED Bed - Extended Stay/Boarding
Observation	Inpatient Bed ED Bed ED Bed - Extended Stay/Boarding Overflow Unit Bed Observation Unit Bed
Home (Exclusion)	
Transfer (Exclusion)	

Is anything missing that is important for understanding patient discharge process?

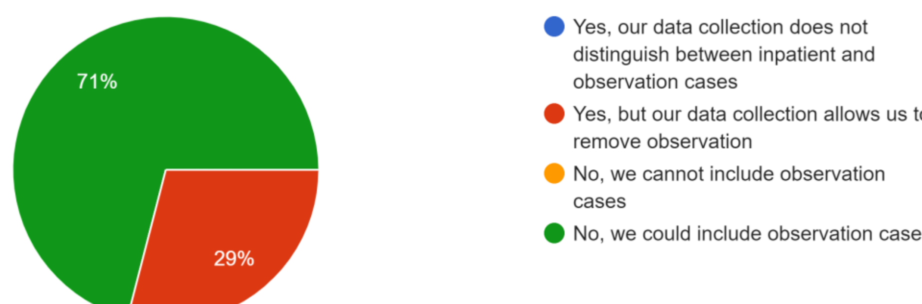
ED-1 Data Survey Findings



Observation Status

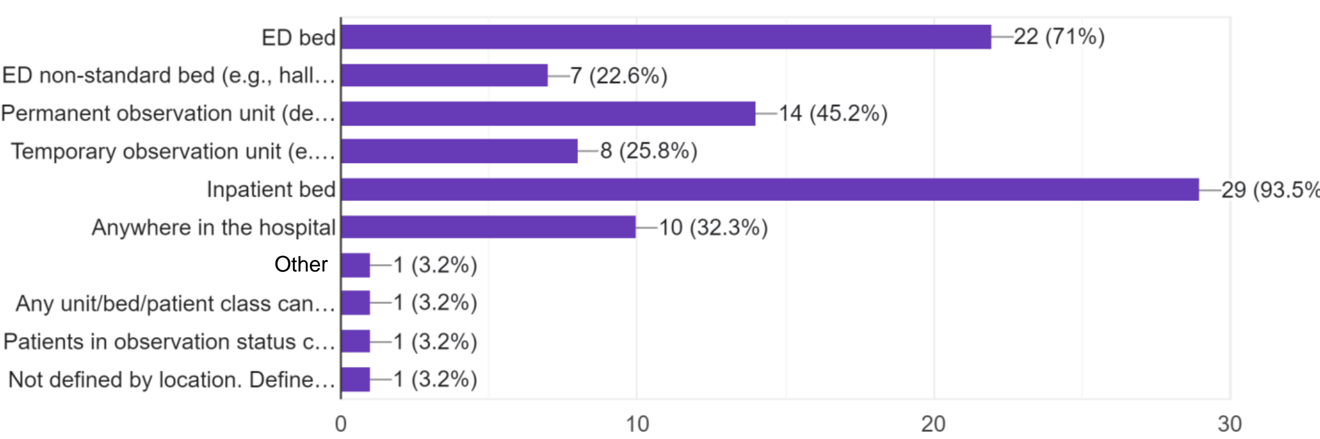
Observation Concerns

- Two primary questions:
  - Should all observation cases be included in ED-1 measure (i.e., should they be treated as an admission)?
  - Should ED length of stay for patients who are admitted include observation time?



ED-1 Data Survey Findings

Question 7: Understanding observation can occur in many areas, in which areas does your organization / facility provide observation care?



ED-1 Data Survey Findings

Question 6: How does your organization / facility define observation?

- CMS Definition (see appendix)
- Observation is defined as a patient class designation of observation as part of transfer order
- Provider/Physician Order
- Observation is defined as hospitalization of a patient who does not meet admission criteria.
- Uses observation status for hospitalized patients who are believed to spend less than 48 hours in the hospital
- Observation care is clinically appropriate services, which include ongoing short-term treatment, assessment, and reassessment, that are furnished while a decision is being made regarding whether patients will require further treatment as hospital inpatients or if they are able to be discharged from the hospital.
- From a data identification standpoint, we define the cases based on an observation status in the EHR, and can also do so by pulling observation charge data.

Question 6: How does your organization / facility define observation?

- 12 hospitals stated observation is defined by the physician/provider order and indicates whether the patient is in observation or inpatient status
- 8 hospitals stated observation is defined as hospitalization of a patient who does not meet admission criteria.
- 6 hospitals use CMS' definition: Observation care is clinically appropriate services, to include ongoing short-term treatment, assessment, and reassessment, furnished while a decision is being made if patients will require further treatment as hospital inpatients or can be discharged from the hospital. Observation generally lasts less than 24 hours but may be as long as 48 hours.
- 2 hospitals define Observation status as continuing to provide care or continued evaluation of patients beyond a traditional emergency department stay. The patients remain in the emergency department and receive additional treatment and/or diagnostic evaluation to avoid hospitalization or determine need for admission
- 2 hospitals report ED providers place an order to indicate that a patient requires hospitalization and the accepting hospitalist to determine whether the patient should be classified as hospitalized observation or inpatient admission.
- 1 hospital uses a data identification standpoint that defines the cases based on an observation status in the EHR, and can do so by pulling observation charge data.

Concerns and Limitations

Question 10: Do you have any limitations or concerns on their data collection processes for ED-1?

- 1 hospital requests for file format spec information as soon as possible since it will require an IT project/build
- 8 respondents did not have any questions or concerns and marked N/A
- 4 hospitals expressed:
  - They do not have the infrastructure to support the measure
  - It was not clear to include observation cases in this data.
  - Must build reports to capture this data. Need to know exactly what should be included and exactly what date/ times should be reported
  - The abstract has arrival date but there is no time stamp. Departure related fields are not on the abstract. Adding both items would add a layer of complexity changes to the specifications will take time and incur a vendor cost
- 7 hospitals reported that the ED Depart Time was not always accurate

Question 10: Do you have any limitations or concerns on their data collection processes for ED-1?

- 2 hospitals stated that Case mix data and direct data submissions from EPIC do not discern between ED observation and Hospitalized Observation patients.
- 1 hospital mentioned concerns on the completeness of the data set due to scheduling of the collection process.
- 1 hospital stated because ED-1 is retired they do not have the infrastructure to support the measure
- 1 hospital does not have any identified limitations or concerns with our ability to collect and report data.

Question 11: Is there any additional information not captured in the above survey that you would like to share regarding how your organization captures ED-1 measure data?

- Clarification on psych stratification
- Inclusion or exclusion of Pediatric EDs/patients
- 1 hospital expressed -Need to ensure all hospitals have same dispositions from ED available as discrete documentation
- 1 hospital asked-Is HSCRC following the CMS specifications for ED-1?
- 1 hospital system would like to include the following patients in the ED-1 measure, as they boarded in the ED and would have been transferred to an inpatient bed had there been one available: No specific types of "following patients" were identified.
- 1 hospital would like to include the following patients in the ED-1 measure, as they boarded in the ED and would have been transferred to an inpatient bed had there been one available: These include:
  - Patients who board in the ED and are eventually discharged after some time if their condition resolves or they opt to leave against medical advice while boarding
  - Patients who are transferred to another facility due to lack of an inpatient bed

Measure Specification Template

Categories to be discussed and then filled in at Meeting 3

Measure Name:	**HSCRC ED1: Median time from ED Arrival to ED Departure for Admitted ED patients**
Description	
Population	
Exclusions	
Data Elements	
Arrival Date	
Arrival Time	
ED Departure Date	
ED Departure Time	

Next Steps/Opportunities

- Finalize measure specifications
- Develop timelines for data collection

Next Meeting of Subgroup 1:
March 15, 2024
1st Meeting of Subgroup 2:
March 22, 2024