

Stratifying Your Maternal Quality Data by Patient Race/ Ethnicity, and other Demographics

to Improve Birth Equity

Getting Started

Background (AIM HD)

While aggregate data show overall health outcomes, disaggregate data reveal how health outcomes can vary between racial and ethnic groups or communities.

Disaggregating data on key performance indicators is important to identify racial, ethnic, language, and insurance health inequities that can then be addressed through quality improvement.

Step 1: Assemble a working group that is focused on health care disparities data (HRET)

Include staff from the following hospital areas on the working group:

- Diversity and inclusion
- Quality and safety
- Information and technology
- Data analytics
- Language services
- Admitting and registration
- Compliance
- Community outreach
- Data source stakeholders (e.g. birth certificate clerk)

Step 1a: Assess program's readiness to use data to address inequities (MaDPH)

Determine your program's readiness to use data to address inequities by examining your hospital's data capacity, performance measurement, data quality, contextualized data, and quality improvement using the <u>Transitions Strategies in the Racial Equity Program Data Readiness Assessment</u> as a sample readiness assessment tool.

Step 2a: Identify sources of race, ethnicity, and insurance status data available (MaDPH)

Sources may include surveys, intake/assessment forms, EMR, hospital discharge data, or birth certificate data. Consider how these data were collected—are measures self-reported or do they come from another data source such as the individual's medical record? Are there protocols for data collection available to review? Are they available in the EMR? Are there multiple opportunities to collect this data?

Step 2: Validate the patient race, ethnicity, language, and insurance data (HRET)

Stratification based on reliable and valid data can lead to the discovery of trend data and health care disparities. The first task of the working group is to conduct a thorough assessment of the quality of the existing patient data as it relates to race, ethnicity and language metrics. The working group should examine the following:

• Accuracy



- Completeness
- Uniqueness
- Timeliness
- Consistency

The working group should explore the quality of the data, how the data are housed and how the hospital or care system staff is collecting the data. If data is not collected accurately, or collected in an inconsistent format, it may not provide an accurate picture of inequities. Hospitals can use QI strategies and resources in the ILPQC Toolkit for strategy 2.1 - including <u>AHA Disparities--How to Ask the</u> <u>Questions</u> of patient race and ethnicity and the <u>Response Matrix</u> with sample responses to patient questions - to improve the accuracy and completeness of race, ethnicity data. For example, your team can use brief PDSAs to see if different sources align (e.g. EMR and birth certificate data).

Step 3: Identify the highest priority metrics for stratification/disaggregation (HRET)

Look at OB measures currently collected at your hospital, including measures collected for <u>Leapfrog</u>, Joint Commission, <u>CMS Hospital-acquired condition (HAC)</u>, <u>National Quality Forum</u>, <u>Healthcare</u> <u>Effectiveness Data and Information Set (HEDIS)</u>, and <u>Agency for Healthcare Research and Quality Patient</u> <u>Safety Indicators (AHRQ-PSI)</u>.

Measures used by other PQCs and hospitals doing equity work include:

- Maternal mortality
- Severe maternal morbidity (SMM)
- Severe maternal morbidity among hemorrhage cases
- Severe maternal morbidity among hypertension cases
- Maternal ICU admissions rate
- Readmissions by race/ethnicity
- Readmissions for hypertension
- Estimated blood loss >= 1500cc by race / ethnicity
- Blood product units transfused per 1000 deliveries
- Massive red blood cell transfusions (>= 4 RBC units)
- Nulliparous, Term, Singleton, Vertex (NTSV) cesarean birth
- Cesarean births after labor induction
- Vaginal birth after cesarean
- Exclusive breast milk feeding during newborn's hospitalization
- Labor induction rate
- Total preterm birth
- Timely treatment for severe hypertension

Step 4: Determine if stratification is possible on the selected metrics (HRET)

If there is insufficient data to stratify results on a metric, it will not provide sufficient data to identify a disparity. Hospitals may need to address small group sizes by aggregating metrics to obtain larger groups.

CMQCC recommends that racial/ethnic group sizes less than 20 are insufficient for meaningful group comparisons.



To achieve larger group sizes for comparison, consider aggregating units of time for analysis (e.g. 6 months, 12 months) or consider comparing one group (e.g. black race) to all other groups (e.g. all non-black races).

Step 5: Stratify the data (HRET)

Stratifying valid and reliable data elements allows for the creation of dashboards that display data trends and health care disparities. Incorporating these dashboards into regularly scheduled quality meetings is essential to continually address health care disparities related to data.

Data elements to stratify (HRET, ABM, AM)

- Race/Ethnicity Break down race and ethnicity into as five categories as data allow and prioritize patient self-identified race. At ILPQC, we are looking at the following racial groups for collaborative –level racial and ethnic group comparisons:
 - o White
 - o Black
 - Hispanic
 - o Asian
 - o Other
- Insurance status/type (proxy for SES/income): Private vs. Public (Medicaid, Medicare)
- Other data options
 - Language preference
 - Language proficiency

Resources on race and ethnicity categories: <u>Census approach to race and ethnicity categories</u>. Office of Management and Budget Minimum Standards for Data Collection.

Step 6: Review and use the data to drive quality improvement (MaDPH)

A close look at the data from your hospital with a lens of equity should identify differences in quality measures across groups, potential strategies to address these differences in care provided or outcomes and provide opportunities to focus your quality improvement efforts on these issues at your hospital or outpatient perinatal care locations.

To assess for inequities: (MaDPH)

Use proportions (ratios in which the numerator is a subset of the denominator) or rates (frequency of events during a certain time period divided by the number of people at risk for the event during that time period) instead of raw numbers alone to account for differences in the sizes of the population subgroups. This allows for valid comparisons of health events between population groups and better assessment of risk.

Compare the results across population sub-groups and decide whether meaningful differences exist. It is not necessary for there to be a statistically significant difference. When comparing differences across small groups, the sizes of the populations compared are often not large enough for a difference to be



considered statistically significant even if a meaningful difference does exist. *Even with small numbers, patterns or noticeable differences can stand out and should be investigated further. In some cases small numbers may signal a concern, especially if no cases are expected.*

Key questions for reviewing data from CMQCC include:

Is there a disparity in hospital outcomes between different groups?

Are we willing to make a concerted effort to address it?

Are we improving outcomes in our target community over time?

What more can we do?

Identify ways to share your disaggregated data and analysis with your clinical team and hospital stakeholders and discuss opportunities to use ILPQC Birth Equity Initiative strategies and toolkit to understand and address the problem.

Sources:

A framework for stratifying race, ethnicity, and language data (HRET - health research and educational trust)

Racial Equity Data Road Map: Data as a Tool towards Ending Structural Racism (Massachusetts Department of Public Health, MaDPH)

As well as Massachusetts General, CMQCC, LaPQC, and PNQIN



Example Hospital Data Presentations







Drivers Tab

Birth Equity: Severe Maternal Morbidity (SMM)

- Drivers tab provides a breakdown of the indicators driving the measure results.
- Intent: Focus your QI activities!
- Compare the selected R/E group to:
 "All Others"
 - Selected Peer Group

	Overall	Dri	vers	Trend		
	Gamma Mu Hospital				NICU Level II - CA MDC	
	Non-Hispanic Black		All Others		Non- Hispanic Black	All Others
	Count	Rate per 1000	Count	Rate per 1000	Rate per 1000	Rate per 1000
Overall	25	51.9	78	37.6	28.0	19.6
Hemorrhage	9	18.7	24	11.6	3.7	2.9
Transfusion	13	27.0	47	22.7	18.9	15.0
Hypertension	3	6.2	6	2.9	2.6	1.6
Sepsis	0	0.0	3	1.4	3.1	1.9
Cardiac	0	0.0	0	0.0	0.2	0.1
Respiratory	0	0.0	1	0.5	1.1	1.0





Trend Tab Review



39

SMM20 Rates by Race/Ethnicity in Hospital A



SMM20 Rates by Insurance Status in Hospital A

IL

POC



SMM20 Rates by Race for Medicaid Recipients, Hospital



SMM20 Rate by Race/Ethnicity for Medicaid Recipients - Hospital A



*Adjusted for maternal prepregnancy BMI and age



Equity: Readmissions by Race/Ethnicity



- Readmissions for hypertension
 - (AOR for black women 2.54 [1.06, 6.08])



