June 2021 Leapfrog Hospital Survey Town Hall Call
Monitoring Health Care Inequity
Presenters

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Challenges of Collecting Race, Ethnicity and Language Data

June 9, 2021

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Office of Management & Budget (OMB) Categories

• Race:
  - American Indian or Alaska Native
  - Asian
  - Black or African American
  - Native Hawaiian or Other Pacific Islander
  - White

• Ethnicity:
  - Hispanic or Latino
  - Not Hispanic or Latino

*OMB is seeking public comments and changes to this 1997 Federal standard*
Interracial Marriage
more than tripled since 1960

The percentage of U.S. Americans who identify as multiracial grew faster than those who identify as a single race.

Sources:
1. 2010 US Census Bureau Data

% of Interracial marriages has doubled in the past 30 years
You will need to review the inputs of your race, ethnicity and language data.
Race/Ethnicity/Language Data Process Map

Other service areas: Using own registration process
- Dana Farber Cancer Institute
- Mass Eye and Ear Infirmary
- Community-based ambulatory practices

Service Area 10: Using Patient Access MGB Registration
- Mass General Hospital
- Brigham and Women’s Hospital
- Brigham and Women’s Faulkner Hospital
- Cooley Dickinson Hospital
- Martha’s Vineyard Hospital
- MGH Institute of Health Professions
- McLean Hospital
- Nantucket Cottage Hospital
- Newton-Wellesley Hospital
- North Shore Medical Center
- Partners Healthcare at Home
- Spaulding Rehab Network

Affiliated Community Health Centers

Registration access points:
- *Emergency Department
- *Patient Service Center (via phone; only communicates with patient if insurance status changes)
- *Admitting Services (inpatient/on floor)
- *Affiliated community health centers (have own registrars, who are trained by Admitting Services)
- Patient Gateway (1/3 of patients are on PG)
  *access points with full registration access (can update and create new registration)

- Race, ethnicity, and language data is captured in registration section in Epic.
- Ideally registration information should be updated every 365 days. In practice, this may not happen.
- Training is minimal depending on the site.
- The percent breakdown of registrations that occurs at each access point is not tracked.
- Check-in staff can update:
  - Address
  - Phone
  - Email
  - Primary care provider

Note: numbers correspond to questions on next slide
Questions to understand the registration process

1. If the patient is seen at both an MGB and a site using its own registration process, does the patient registration information collected at one site override the information collected at the other site?

2. If a patient is born at a MGB hospital, does the patient’s race/ethnicity default to that of the mother?
   - The data does not default to that of the mother, but race/ethnicity of infant is often left blank

3. Can primary care physicians change race, ethnicity, and language demographics in the registration section?
   - R/E/L data are linked. If PCPs make an update, the changes would carry over to ADT (Admissions/Discharge/Transfers).

4. Does Admitting oversee the training of registrars in the ED or at CHCs?
   - Admitting does not have oversight over ED registrar training. The affiliated community health centers would come through Admitting’s Epic training program.
   - XXX is the manager of training for Epic. Her team conducts training on how to use the system. Local departments are responsible for workflow/process, etc.

5. When patients update their R/E/L data in Patient Gateway, does the system update this data in past health records or only for any health record made moving forward?
   - The data from visit summaries in PG are snapshots in time, generated at the time of the visit, so they are not updated if a patient’s data changes after the summaries are produced.
Data collection in the Emergency Department may require a different approach given it’s a unique, complex environment.
Who oversees training of registrars in the Emergency Department?

Registration access points:

- *Emergency Department*

- *Patient Service Center* (via phone; only communicates with patient if insurance status changes)

- *Admitting Services* (inpatient/on floor)

- *Affiliated community health centers* (have own registrars, who are trained by Admitting Services)

- *Patient Gateway* (1/3 of patients are on PG)

*access points with full registration access (can update & create new registration)*
Training your registration staff is not a “one and done” and may require additional tools.
Scripts and tip sheets are helpful tools for staff collecting demographic information.
Evolving concepts and categories affect data collection and reporting

- Language around racial/ethnic groups (e.g. Hispanic, Latino/a, LatinX, BIPOC, AAPI)
- Race or Ethnicity? Hispanic, MENA
- Impact of DNA testing on racial/ethnic identity
- Growing focus on additional demographic lenses: disability identity, SOGI, etc.
WELCOME

The Disparities Solutions Center is dedicated to the development and implementation of strategies that advance policy and practice to eliminate racial and ethnic disparities in health care.
Thank You

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Health Equity: REaL and SOGI Improvements

Leapfrog Group
June 9, 2021

Christopher M. Nolan, MPA (he/him)
System Manager, Community Health and Benefit
About RUSH

Rush University System for Health (RUSH) is an academic health system whose mission is to improve the health of the individuals and diverse communities it serves through the integration of outstanding patient care, education, research and community partnerships.

Health Equity at Rush

Health equity work at Rush takes many forms. While some are initiatives created entirely for the purpose of improving equity, others are embedded in existing Hospital and University programming.
RUSH comprises Rush University Medical Center, Rush University, Rush Copley Medical Center and Rush Oak Park Hospital, as well as numerous outpatient care facilities.

Rush University, with more than 2,500 students, is a health sciences university that comprises Rush Medical College, the College of Nursing, the College of Health Sciences and the Graduate College.
Our REaL & SOGI Journey

- Problem Statement
- Background/ Reason for Action & Leadership Buy In
- Best Practices – Vizient and Human Rights Campaign
- Align with larger Rush goals – Equity Governance and Quality Improvement
- Work Flows – make the process easy and engage front line / plan for downstream impact
- Training – develop culturally competent trainings and ensure the “what” and pre/post surveys for impact
- Quality Assurance and is the process working
- Continuity/Sustainability
Background / Reason for Action

- Rush “2018 Health Equity report” – Senior leadership questioning validity of “Hispanic” ethnicity data for Rush Oak Park ED patients
- Vizient equity organizational assessment survey, 2018
  - Gaps in data collection, data validation, and communicating findings
- American Hospital Association Equity of Care award – Honoree for 4 years, yet to win - specifically highlights improvements in this area
- Rush Equity Governance group priority for FY20
- Rush Quality Improvement goal for FY20
  - “Develop standard workflows and scripting for collecting and documenting race, ethnicity and language (REaL) data accurately” (Update: SOGI has since been identified as a target as well)
Problem Statement

Lack of organizational priority on standardizing the collection of Race, Ethnicity, and Language (REaL) and Sexual Orientation and Gender Identity (SOGI) data at the point of registration has led to inconsistent standards for data collection, as well as a lack of standard training and scripting. This non-standardized approach is leading to questionable data, which inhibits Rush from monitoring health outcomes with a health equity lens. In addition, not collecting gender identity data results in the misgendering of patients. Standardizing and improving this process is critical to Rush’s mission to reduce health disparities and achieve health equity.
Why Should Rush Pursue SOGI Data Standardization?

- Collecting SOGI data is essential to providing high-quality, patient-centered care
- Without routine collection of this information, LGBTQ patients and their specific health care needs cannot be identified, disparities cannot be addressed
- Important health care services may not be delivered, including appropriate preventive screenings, assessments of risk for STIs, and affirming behavioral health interventions
- Patients may be inadvertently misgendered without regular collection of gender identity, pronouns, and preferred name.
- As part of HRC’s Health Care Equality Index, organizations are scored on their standardized practices for routinely and appropriately collecting SOGI data, as well as providing education to providers and staff
Strategic Project Goals

Integrate SOGI questions into current templates/workflows

To improve staff confidence level with asking SOGI questions *(goal will be determined post pre-survey results)*

Improve staff understanding about why collecting SOGI data is important *(goal will be determined post pre-survey results)*

Collect SOGI data for 100% of new patients at the point of registration

100% of registration staff trained on new process
Equity vs Equality
Difference v Disparity
Pulse oximeter debate helping some people, but not all

Ending Racism together

RWJBarnabas HEALTH
Setting the stage

- **Equality** means each individual or group of people is given the same resources or opportunities.
- **Equity** recognizes that each person has different circumstances and allocates the exact resources and opportunities needed to reach an equal outcome.

- When does a difference become a disparity?
- When does it cross the line?
- When do you elevate?
Step by Step

Step 1: Identify a problem
- External: 60 minutes (bias), journal article
- Internal: RCA, M&M, pt complaints

Step 2: Data and Research

Step 3: Transparency

Step 4: Be open/CEO support

Step 5: Make a plan

Step 6: Follow up
Dark skin pigmentation results in overestimation of arterial oxygen saturation, especially at low saturation in the three tested pulse oximeters. A notice warning of this effect may currently be the best available action.

For non-white people the machines overestimated saturation levels by several points.
**Dark skin decreases the accuracy of pulse oximeters at low oxygen saturation: the effects of oximeter probe type and gender 2007**

Philip E. Bickler, M.D., Ph.D.,* John R. Feiner, M.D.,† John W. Severinghaus, M.D.‡

Clinically important bias should be considered when monitoring patients with saturations below 80%, especially those with darkly pigmented skin, but further study is needed to confirm these observations in the relevant populations.

“bias was generally the greatest in dark-skinned subjects, intermediate for intermediate skin tones, and least for lightly pigmented individuals.” Racial errors grew significant at lower oxygen levels, starting around 90 and growing widest in the 70s.
Pulse oximeters give biased results for people with darker skin. The consequences could be serious.

To “see” your blood, though, the light must pass through your skin. This should give us pause, since a range of technologies based on color sensing are known to reproduce racial bias.

Other examples of technology bias: Photographic film, fit bit, facial recognition.
• Unequal standards that have become normalized in science and medicine.

• There is a perception that this bias isn’t a big deal. But it matters!

• Indeed, while the oximeter is a key tool for some patients in deciding when to go to the hospital, it’s also what they use at the hospital.
• Physicians disagree on the clinical significance of these discrepancies. And asked themselves... *Do slight racial errors really matter in practice? Does this difference create a disparity?*

• We have provided equality – by offering the pulse ox to everyone...
• “Any decision rooted in implicit bias is detrimental” when “an incorrect assumption could literally mean the difference between life and death.”

• Many devices shaped by “discriminatory design,” and create inequalities that are not intentional can still produce patterned exclusions and unequal rates of survival
This documentary investigates the bias in algorithms after M.I.T. Media Lab researcher Joy Buolamwini uncovered flaws in facial recognition technology.
FDA encouraged developers of pulse oximeters to test their devices on participant groups that include a range of skin tones.

“Your study should have subjects with a range of skin pigmentation,” the guideline notes, “including at least 2 darkly pigmented subjects or 15% of your subject pool, whichever is larger.”

That figure does not track with the country’s broader demographic makeup, which is far more diverse.
Among the patients who had an oxygen saturation of 92 to 96% on pulse oximetry, an arterial oxygen saturation of less than 88% was found in 88 of 749 arterial blood gas measurements in Black patients.

Black patients had nearly three times the frequency of occult hypoxemia that was not detected by pulse oximetry as white patients.

Reliance on pulse oximetry to triage patients and adjust supplemental oxygen levels, may place Black patients at a risk for undiagnosed hypoxemia.

Obviously, the variation in risk according to race necessitates the integration of pulse oximetry with other clinical and patient reported data.

The transparency of this knowledge moves this closer to equity.
• Demand to the U.S. FDA: to conduct a review of the accuracy of pulse oximeters across racially diverse patients and consumers.

• Pulse oximeters may provide misleading measures of blood oxygen level to patients of color—indicating that patients are healthier than they actually are and increasing their risk of negative health impacts from diseases like COVID-19.

• we must reevaluate the ways in which current practices and clinical tools themselves potentially worsen outcomes for people of color.
These numbers are incredibly important: Doctors, lawmakers urge FDA to study racial disparities in pulse oximeters

STAT February 10, 2021
Erin Brodwin and Nicholas St. Fleur

• Democratic Sens. Elizabeth Warren, Cory Booker, and Ron Wyden urged the FDA to review pulse oximeter devices

• Oximeters, they found, were nearly three times as likely to miss hypoxemia in Black patients compared with white patients.
What did we do...

Step 1: Identify a problem
- External: 60 minutes (bias), journal article
- Internal: RCA, M&M, pt complaints

Step 2: Data and Research

Step 3: Transparency

Step 4: Be open/CEO support

Step 5: Make a plan

Step 6: Follow up
S: Skin pigmentation may alter the reading of a pulse oximeter measurement.

B: Dark skin pigmentation may result in overestimation of pulse oximetry measurement results that may show up to 10% variation in readings. Inaccurate readings lead to poor clinical outcomes and health care disparities; this information has been in literature for over 30 years but came to light during COVID.

A: The FDA issued a safety communication in 2021 that pulse oximeter devices have a risk of inaccuracy in certain circumstances that should be considered. Hospital-based pulse oximeters are highly accurate, but the same might not be true for portable devices sold online and in drugstores.

• There are non-FDA approved product available for purchase in people soft that are being used by our own employees throughout the hospital.
Recommendation

R: RWJBH subject matter experts evaluated the RWJBH products and pulse oximetry equipment used in the hospitals to ensure that we are not contributing to health care disparities.

• We need to ensure that the only FDA approved portable pulse oximeters are available for our employees to purchase and distribute. All non-FDA approved products will be removed from people soft.

• The general consent for admission does not hold us harmless for products that we provide the patient to utilize at home. We should create signed instructions about the use and limitations of pulse oximeters.

• Providers must keep in mind that any of the following can affect the accuracy of a pulse oximeter reading: poor circulation, skin thickness, skin temperature, current tobacco use, fingernail polish, and skin pigmentation.
What do you do now.

✔ Talk about it and share
✔ Review your own data
✔ Determine that the difference matters
✔ Review your own products
✔ Be transparent
✔ Be honest