June 2021 Leapfrog Hospital Survey Town Hall Call

Monitoring Health Care Inequity

June 9, 2021

THE LEAPFROG GROUP

Presenters

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THELEAPFROGGROUP

Challenges of Collecting Race, Ethnicity and Language Data

June 9, 2021

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MASSACHUSETTS GENERAL PHYSICIANS ORGANIZATION

Office of Management & Budget (OMB) Categories

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

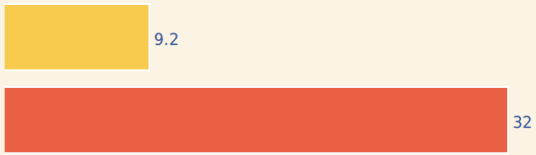
- Ethnicity:
  - ❑ Hispanic or Latino
  - ❑ Not Hispanic or Latino

*OMB is seeking public comments and changes to this 1997 Federal standard

A Growing Multiracial Population

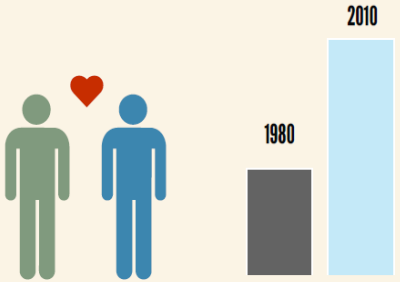
increase in number of children <18 years
who identified as multiracial

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



Sources:

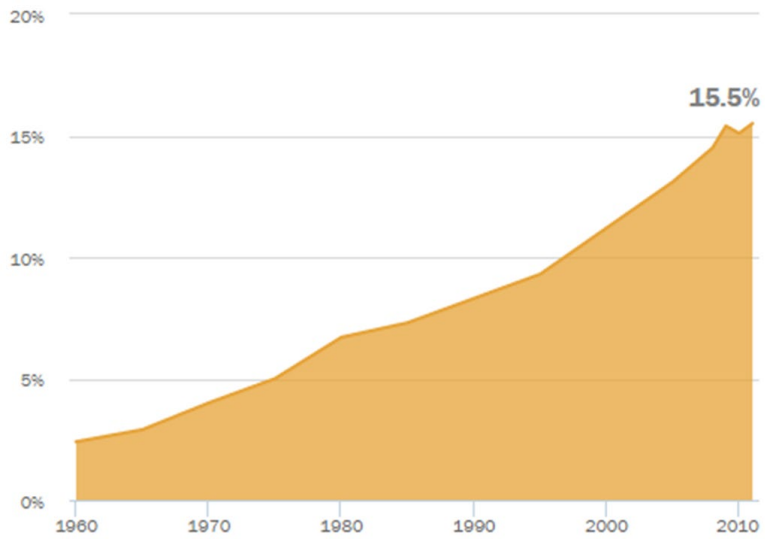
1. 2010 US Census Bureau Data
2. The Rise of Intermarriage Rates, Characteristics Vary by Race and Gender, Pew Research Center, 2012



% of Interracial marriages has doubled in the past 30 years

Interracial Marriage

more than tripled since 1960



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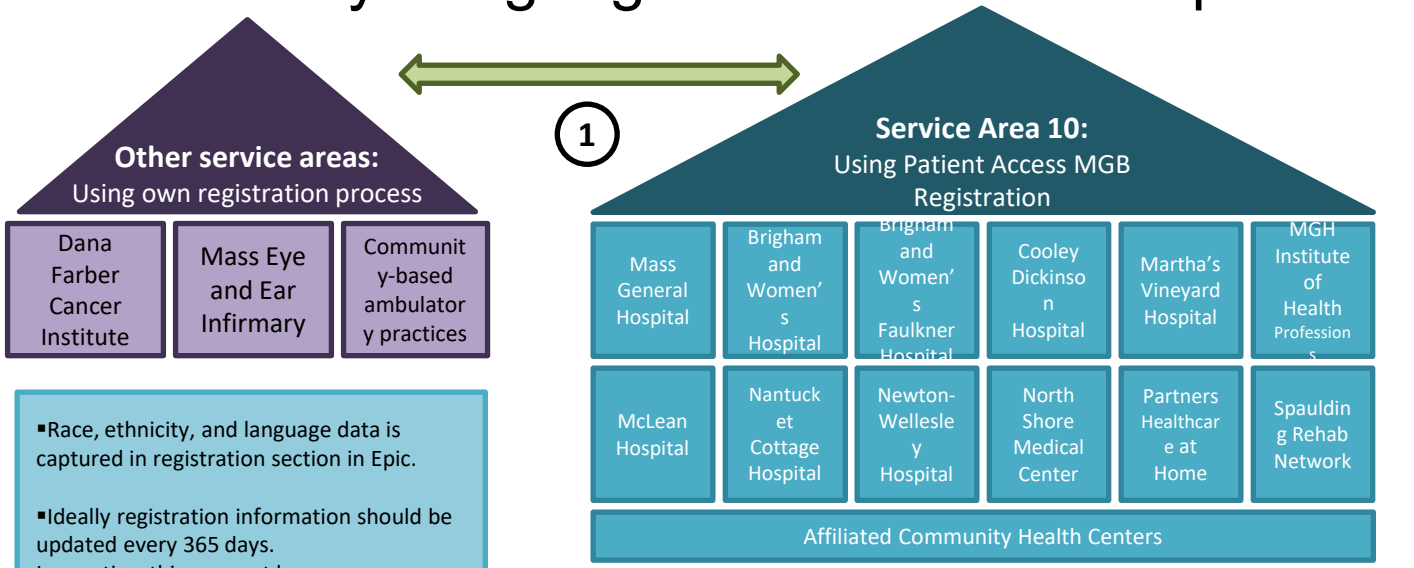
You will need to review the inputs of your race, ethnicity and language data.

Race/Ethnicity/Language Data Process Map



- 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

2

3

Registration access points:

4 5

- ❑***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)

Note: numbers correspond to questions on next slide

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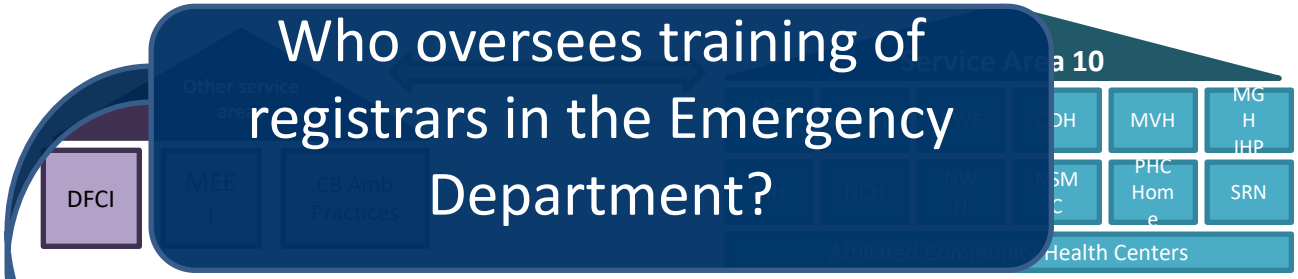
Questions to understand the registration process

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:

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*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

REal Questions: Challenging Patient Responses

Patients may appear or sound uncomfortable, have concerns, or seem upset when asked to self-report their race, ethnicity, and language (REAL) choices. Use this example script to help you start the conversation while giving our patients a brief explanation of why we are asking for this information. You may still get difficult responses, such as the ones below, so please consider the suggestions to help you form an appropriate response.

Question	Suggested Response	Consider…
What is the difference between race and ethnicity?	At Partners, race is defined by federally mandated fields, and include American Indian or Alaska Native, Asian, Black, Native Hawaiian or Other Pacific Islander, or White. Ethnicity is based on a person's self-described nationality, heritage, or place of origin, for example, Chinese or Puerto Rican.	At Partners, race is defined by the federally mandated fields from the Office of Management and Budget. Ethnicity is based on a person's self-described nationality, heritage, or place of origin.
Why are you asking me about my race/ethnicity? **Or** **What does this have to do with my medical history?**	This information will allow us to make sure that all of our patients get the best care possible, without any differences in care based on race or ethnicity or language. Through these efforts, we will improve the health of all of the diverse communities we serve.	Many studies from around the country have made it clear that patient race and ethnicity can affect the type of health care received. The collection of patient race and ethnicity will allow us to make sure that this does not happen at our office.
Who sees this information?	The only people who see this information are your clinicians, clinical support staff, and the teams in our health system involved in quality improvement in order to make sure that all our patients are getting the best care possible, regardless of their race, ethnic background or language. Any personal information you share with us is confidential and protected by law.	Our patient's health information is confidential and protected under the federal HIPAA privacy rule.
I am of mixed race or ethnicity.	We would like you to provide the races or ethnicities you feel best describes you. Our system allows us to record multiple values for patients' race and ethnicity. Can you provide me one at a time, which you identify with?	Partners' Epic build does not have a limit on the number of races or ethnicities we can record for patients.
I'm human. My race/ethnicity is not important.	Yes, I understand completely. However the more we know about you, the better quality care we can provide you. Would you like to provide more detail about your racial/ethnic background?	There are many conditions that are associated with specific patient groups, such as diabetes, high blood pressure. The more we know about our patients, the better prepared we are to provide them with high-quality care based on their individual needs.

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.

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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.

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Thank You

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RUSH

Excellence is just the beginning.

Rush University Medical Center

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

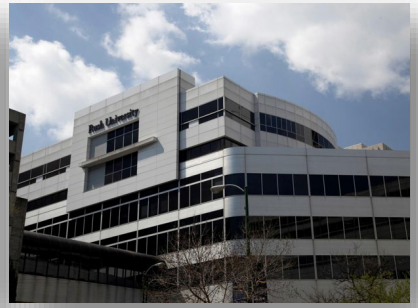
Rush University System for Health (RUSH) is an academic health system whose mission is to improve the health of the individuals and diverse communities it serves through the integration of outstanding patient care, education, research and community partnerships.

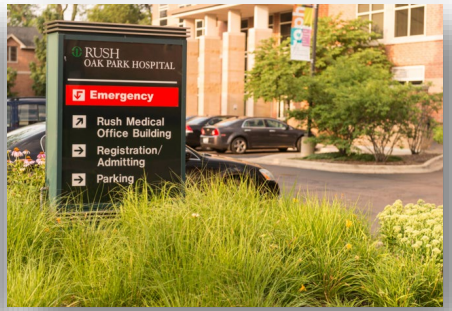
Health Equity at Rush

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

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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?

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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

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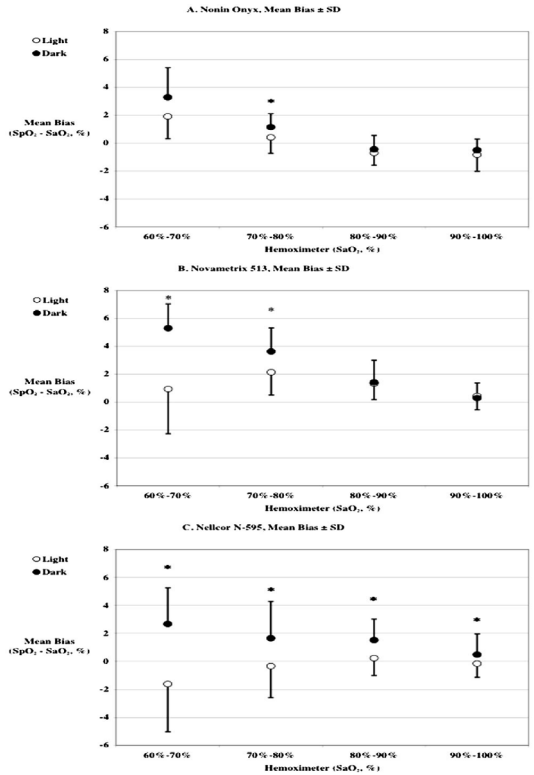
Effects of Skin Pigmentation on Pulse Oximeter Accuracy at Low Saturation 2005

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

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.



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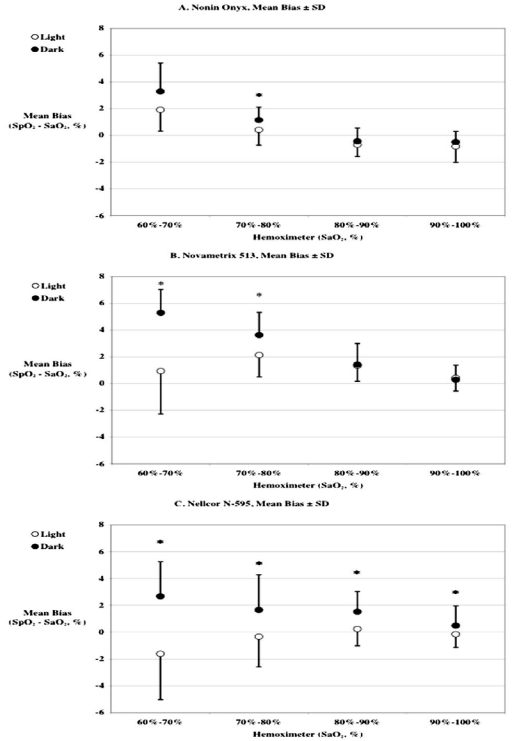
Dark skin decreases the accuracy of pulse oximeters at low oxygen saturation: the effects of oximeter probe type and gender 2007

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



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How a Popular Medical Device Encodes Racial Bias

Boston Review August 5, 2020

Amy Moran-Thomas

- 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

Boston Review
August 5, 2020 Cont

- 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.

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Boston Review
August 5, 2020 Cont

- 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…

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Boston Review
August 5, 2020 Cont

- “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

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Coded Bias

2020 | TV-MA | 1h 25m | Social & Cultural Docs

This documentary investigates the bias in algorithms after M.I.T. Media Lab researcher Joy Buolamwini uncovered flaws in facial recognition technology.

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Pulse Oximeters - Premarket Notification Submissions from FDA

Guidance for Industry and Food and Drug Administration Staff
Document issued on: March 4, 2013

- 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 pigmentations,"* 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

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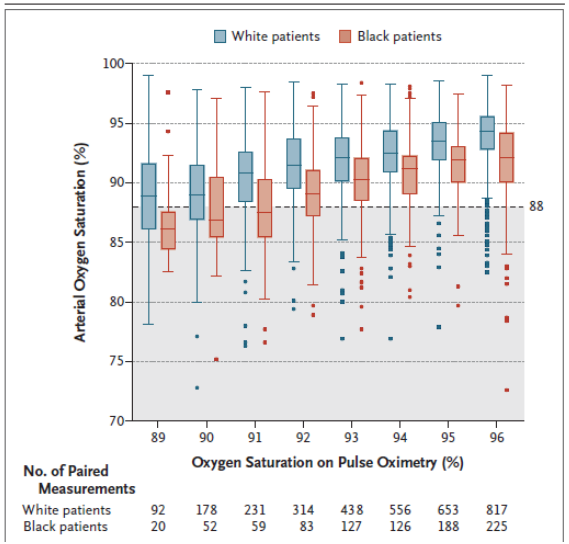
Correspondence to the Editor: Racial Bias in Pulse Oximetry Measurement

New England Journal of Medicine December 17, 2020
Drs. M. Sjoding, R. Dickson, T. Iwashyna, S. Gay and T. Valley

- 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.



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United States Senate
WASHINGTON, DC 20510

January 25, 2021

- 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.

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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

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SBAR

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.

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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.

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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

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