



How many of you are involved in healthy equity work right now?

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What, if anything, is stopping you from contributing to discussions in the space of health equity in healthcare - *or from contributing and advocating more?*

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“Asian and Hispanic patients hospitalized with acute cardiovascular disease, pneumonia, and major surgery had significantly higher rates of hospital-acquired infections when compared to white non-Hispanic patients.”

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“49.1% of limited English proficient patient adverse events involved some physical harm whereas only 29.5% of adverse events for patients who speak English resulted in physical harm.”

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“At safety net hospitals, homeless adults hospitalized for acute myocardial infarction were less likely to receive coronary angiogram, percutaneous coronary intervention, and coronary artery bypass graft compared with non-homeless adults.”

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“The disparities between hospital-associated infection rates at safety net and non-safety net hospitals neither improved nor worsened after the HACRP and HVBP were implemented.”

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Key Terms

- Clinical Pathways / Care Bundles
- Health Disparities
- Health Equity
- Cultural Competency
- Social Determinants of Health (SDoH)
- Equity vs. Equality

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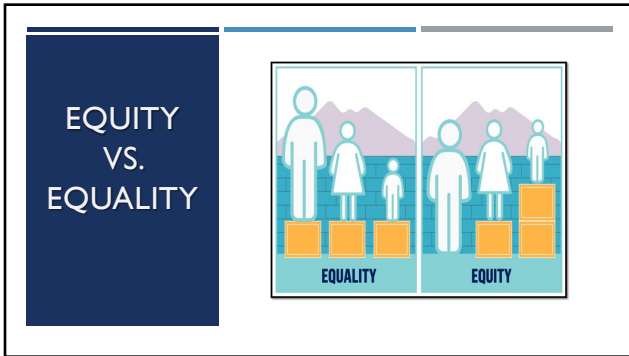
Social Determinants of Health (SDoH)



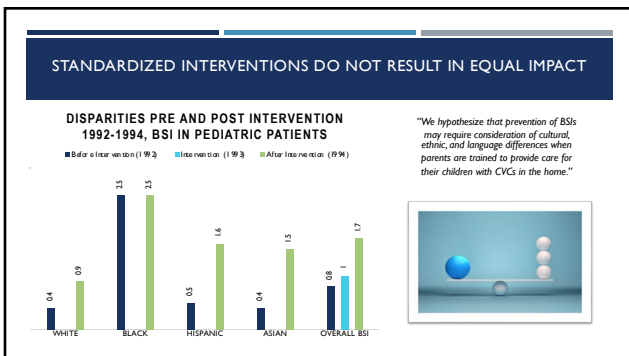
Social determinants of health—social, economic, environmental, and community conditions—may have a stronger influence on the population’s health and well-being than services delivered by practitioners and healthcare delivery organizations.

-AHRQ, 2022 National Healthcare Quality and Disparities Report

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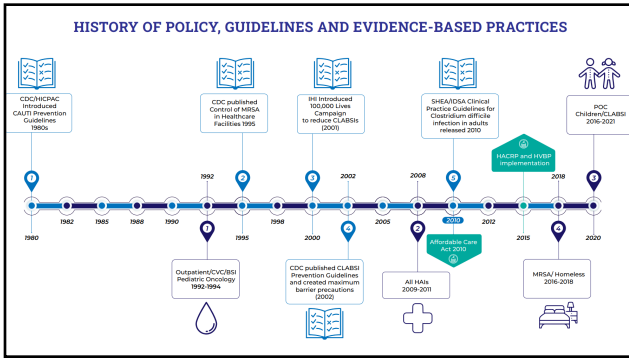


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WHEN DID EVIDENCE BASED CLINICAL GUIDELINES BECOME AVAILABLE?

- **1980s** – CDC/HICPAC CAUTI guidelines introduced importance of appropriate catheter use and insertion technique, need for daily assessment and prompt removal
- **1995** – CDC published Control of MRSA in Healthcare Facilities
- **2001** – IHI Introduced 100,000 Lives Campaign. The goal was to reduce incidence of CLABSIs.
- **2002** – CDC published guidelines for the prevention of intravascular catheter-related infections. Created maximum sterile barrier precautions during central line insertion, daily line necessity assessment, dressing changes and site care.
- **2010** – SHEA/IDSA Clinical Practice Guidelines for Clostridium difficile Infection in Adults: 2010 Update by the Society for Healthcare Epidemiology of America (SHEA) and the Infectious Diseases Society of America (IDSA).

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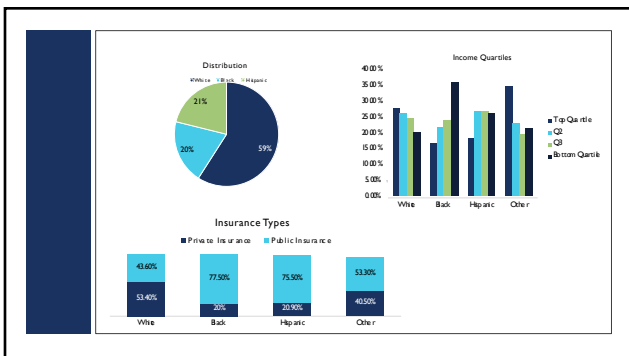


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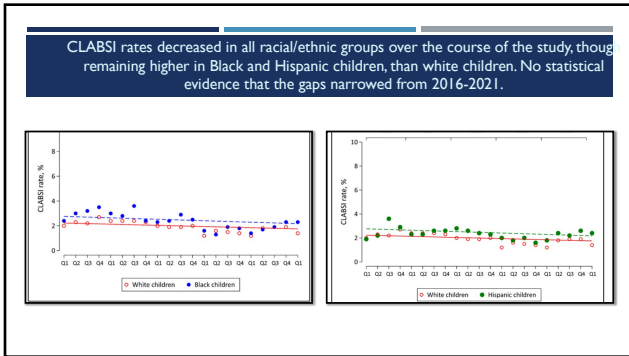
CHILDREN AND CLABSIS

| | | |
|-------------------|---|---|
| Location | Tertiary children's hospitals in the US | <p>Wilder RL, Tolosa JJ, Sartin ML, Natta OJ, Mandy C. Trends of Nosocomial Infections in Pediatric Critical Care Units Associated Bloodstream Infections. <i>Pediatrics</i>. 2022;150(2):e2021049595. doi:10.1542/peds.2021-064550</p> <p>https://pubmed.ncbi.nlm.nih.gov/35079720/</p> <p>Retrospective cohort study, using data assembled from the Pediatric Health Information System (PHIS) database covering the period from January 1, 2018, through March 31, 2022. <5% of the data for each ethnicity was missing, unlikely to alter the results.</p> |
| Timeframe | 2016-2021 | |
| Population | 226,802 children, < 18, admitted to ED or inpatient that had a CVC placed | |

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WHY DIDN'T EVIDENCE BASED PRACTICES ACHIEVE EQUITABLE PREVENTION OF CLABSIs?

- Throughout the study period, CLABSI rate decreased over time for children of White and Black race, however, throughout the study period, both Black and Hispanic children had consistently higher CLABSI rates compared with White children. The rate of CLABSIs in Black and Hispanic children in the first quarter of 2021 was higher than the rate in White children in 2016.
- No statistical evidence that the disparity gap reduced from 2016-2021.
- The underlying factors likely involve social determinants of health and systemic discrimination, as well as intrinsic and extrinsic biases within the healthcare system.
- This study prompts the need to assess racial/ethnic disparities in CLABSIs and should prompt a closer look at maintenance bundle compliance in minority patients. The benefits of such initiatives vary substantially across race and ethnicity.

"[Minority] children fare poorer than their White counterparts in almost every measurable metric, including inpatient morbidity, resource utilization, mortality, and failure to rescue. Contributors to these disparities are complex and multifactorial and have yet to be fully elucidated."

"Although healthcare professionals consciously strive to provide excellent and equitable care, when in situations of stress, competing demands, and fatigue, they may rely more on cognitive shortcuts and are therefore susceptible to the influence of unconscious prejudices."

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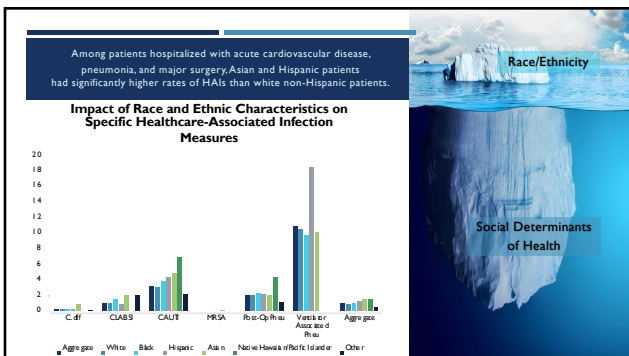
These findings emphasize the need for future exploration of the causes of persistent racial and ethnic disparities in pediatric patients.

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HAIS & RACE/ETHNICITY

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|-------------------|---|--|
| Location | US Hospitals, randomly selected all-payer hospital discharges | <small>Shankar A, Matarazzo M, Wang Y, Boklage N, Eskander S, Reynolds M, Jasek L, Salasanta G, May S. Racial and ethnic disparities in healthcare-associated infections in the United States, 2009-2011. <i>Emerg Infect Dis</i>. 2014 Oct;20(10):Suppl 3:1524-6. doi: 10.1093/emid/ciu222. PMID: 25222888. https://pubmed.ncbi.nlm.nih.gov/25222888/</small> |
| Timeframe | January 2009 – December 2011 | |
| Population | 79,019 patients, > 18, discharged patients for acute cardiovascular disease, pneumonia, and major surgery | |

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LANGUAGE BARRIERS ??

- VAP rates were highest among at-risk patients for all racial/ethnic groups except Native Hawaiian/Pacific Islander and other, for which CAUTI rates were highest.
- Asian and Hispanic patients had the highest rates of developing at least 1 HAI during the hospital stay at 3.8% and 3.3% respectively.
- After adjusting for baseline patient characteristics and comorbidities, Hispanic and Asian patients had higher rates of HAIs compared to non-Hispanic white patients, while Black patients had significantly higher rates but not statistically significant.
- The study found that Hispanic and Asian patients had a greater risk of HAIs compared to Black patients, which was surprising since both groups have higher incomes and educational attainment than Blacks. However, Hispanics and Asians have much lower rates of English proficiency than Blacks and non-Hispanic whites.

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This study shows higher risk-adjusted national HAI rates in Hispanic and Asian patients suggests that language barriers may play an important role in the occurrence of HAIs. Poor communication between healthcare providers and patients could result in increased HAI rates, either directly or indirectly.

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HOMELESSNESS AND DRUG USE MRSA

Location Medical Center in the NE, urban safety net hospital

Timeframe October 2016 – April 2018

Population 78 participants. Recent injection drug use (at least 3 days out of the week prior to hospital admission), spoken English language proficiency, the ability to return to medical center for follow-up, at least two additional contacts with valid phone numbers, and no known upcoming prison sentence or planned move from the region.

UNIVERSITY OF MICHIGAN MEDICAL CENTER
MORRISON, WOODRUFF, A, SHAW, MD. Homelessness, Personal Hygiene, and MRSA Nasal Colonization among Persons Who Inject Drugs. JAMA. 2019;321(10):1015-1022. doi: 10.1001/jama.2018.18000. URL: https://doi.org/10.1001/jama.2018.18000

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Significant Association with MRSA colonization

- Sleeping in a homeless shelter at least 1 night in the last 3 months 200% increase of risk of MRSA colonization
- Sleeping at >1 place within the last week
- Use of public showers
- Sharing bedding

No/Low association with MRSA colonization

- Personal hygiene
- Frequency of bathing
- Street sleeping

Results

- Use of public facilities to support persons experiencing homelessness including homeless shelters and public showers is associated with increased odds of MRSA nasal colonization for PWID

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SHOULD WE ROUTINELY SCREEN THE HOMELESS FOR MRSA?

- Community partnership opportunities with a facilities local homeless shelter and support facilities
- Skin infections are a leading cause of hospitalization, medical care-seeking and healthcare costs among persons who inject drugs (PWID) in the USA. Methicillin-resistant Staphylococcus aureus (MRSA) is the most common etiological agent of these difficult-to treat, and often recurrent, infections.
- Local climate should be considered when assessing risks related to homeless shelter utilization.
- Need to better understand the risk within the homeless shelter that increases risk of MRSA colonization.

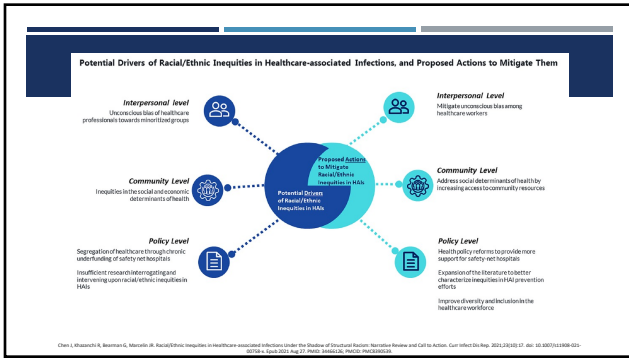
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Need to consider community needs and high-risk populations when conducting the facility infection prevention risk assessment.

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Key Barriers and Challenges in the Literature

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POTENTIAL ACTIONS

Culturally Competent Care

- Diversity, Equity, and Inclusion Programs
- Professional Organization Resources

Patient Education

- Standardized Education
- Utilizing Patient and Family Advisory Group
- Education in preferred language
- Patient empowerment
- "Conversation, not a lecture"

Enhanced Data Queries

Example of using data to identify inequities:

PROCESS query examples (treatment, procedure, encounter)

- Percentage breakdown by race of female patients who were screened for breast cancer.
- Percentage of male patients who had a colonoscopy, by ethnicity.
- Percentage of patients with admitted Pre-Surgery Hip/Knee class prior to Hip/Knee replacement, by ZIP code.

OUTCOME query examples

- Breakdown of readmitted post surgery by insurance status.
- Ethnicity breakdown of patients who suffered a CAUTI.
- Breakdown of Hispanic patients hospitalized for C difficile, by English-speaking and non-English-speaking.

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TOOLKIT/EASY CHECK INS

When assessing an intervention:

- Is the plan feasible and structured for success for everyone in the targeted population of the intervention?
- For those it doesn't work for, will the failure be on their part or the design of the intervention?
- Is there any support or process design that can be done to reduce the risk of failure?
- Were the right people involved in the development of this intervention? Know your facilities and organization's Cultural Competency approach and resources (e.g. patients, Translation Services Department, Patient Education Committee, Community Focus Group, DEI Trainings, and Health Equity Trainings)
- Is the patient/volunteer included in the intervention?

Reviewing HAI/SSI/Outcome Indicator Data

- Annual IP Risk Assessment considers SDOH of population(s) served by the facility/organization.
- Does bundle adherence vary by patient population or demographic? Compare bundle compliance by race/ethnicity, age, sex.
 - Ensure you are looking at the root cause for the practice deviation.
 - Ensure the data is adjusted to compare rate of incidence to the % of population served.

ROBINSON PREVENTION AND PREPARATION CONSULTING

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How many of you feel like you know enough *right now* to contribute to discussions in the space of health equity?

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KEY TAKEAWAYS

Clinical Pathways/ Care Bundles are not enough to equitably eliminate all preventable hospital-associated infections.

Infection Preventionists need to be knowledgeable about health Equity and SDOH. We are apart of that important work.

Facility IP Risk Assessments and Plans should assess and address unique patient populations and challenges.

CLABSI, CAUTI, C. diff, MDRO, SSI, and other prevention work should include a review of SDOH data.

Performance an inequity mitigation assessment on existing and new process improvement efforts and action plans.

Still a research gap

"The sources of these disparities are complex, are rooted in historic and contemporary inequities, and involve many participants at several levels, including health systems, their administrative and bureaucratic processes, utilization managers, healthcare professionals, and patients."

-Institute of Medicine

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