EIGHT different award types; INCREASED Junior Faculty FUNDING; NEW Health Equity Research Award; Med Resident and Student Awards

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Grant System Opens: September 7, 2021

Deadline: December 3, 2021

Read the Grant Flyer, FAQs, or visit the webpage for the full RFAs.

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Health Equity Research Award

APPLY: gi.org/research-awards    DEADLINE: December 3, 2021

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EIGHT different award types; NEW Health Equity Research Award; Bridge Funding; GIQuIC Research funding; Med Resident and Student Awards

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Deadline: Friday, December 10, 2021

NEW! ACG Visiting Scholar in Equity, Diversity & Ethical Care

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The ACG Edgar Achkar Visiting Professorship provides an opportunity for a national expert to visit your institution, spend time with your fellows, educate colleagues, and visit with young faculty.
Participating in the Webinar

All attendees will be muted and will remain in Listen Only Mode.

Type your questions here so that the moderator can see them. Not all questions will be answered but we will get to as many as possible.

How to Receive CME and MOC Points

LIVE VIRTUAL GRAND ROUNDS WEBINAR

ACG will send a link to a CME & MOC evaluation to all attendees on the live webinar.

ABIM Board Certified physicians need to complete their MOC activities by December 31, 2022 in order for the MOC points to count toward any MOC requirements that are due by the end of the year. No MOC credit may be awarded after March 1, 2022 for this activity.
MOC QUESTION

If you plan to claim MOC Points for this activity, you will be asked to: Please list specific changes you will make in your practice as a result of the information you received from this activity.

Include specific strategies or changes that you plan to implement. THESE ANSWERS WILL BE REVIEWED.

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Week 45, 2021
Acute Gastrointestinal Toxicity of Cancer Therapy: What Every Gastroenterologist Should Know
Shilpa Grover, MD, MPH
December 9, 2021 at Noon Eastern

Week 46, 2021
Positioning IBD Advanced Therapies: Today and Tomorrow
Miguel D. Regueiro, MD, FACG
December 16, 2021 at Noon Eastern

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NEW! ACG Visiting Scholar in Equity, Diversity & Ethical Care

Apply Now: www.gi.org/eavp

Deadline: Friday, December 10, 2021

Disclosures:

**Speaker:**
Geoffrey C. Nguyen, MD, PhD, FRCPC
Dr. Nguyen, faculty for this educational event, has no relevant financial relationship(s) with ineligible companies to disclose.

**Moderator:**
Philip N. Okafor, MD
Research Funding: Pfizer

*All of the relevant financial relationships listed for these individuals have been mitigated*
DISPARITIES IN ACCESS AND OUTCOMES IN COMMON GI CONDITIONS

OBJECTIVES

• Defining disparities in healthcare
• Review examples of racial and ethnic disparities in various GI conditions
• Understand mechanisms of outcomes disparities
• Consider steps to mitigating disparities
DEFINITION OF HEALTH DISPARITIES

- Health and health care disparities refer to differences in health and health care between populations. Disparities in “health” and “healthcare” are related, but not synonymous, concepts.
- A “health disparity” refers to a higher burden of illness, injury, disability, or mortality experienced by one group in health insurance coverage, access to a use of care.
- Health and health care disparities often refer to differences that cannot be explained by variations in health needs, patient preferences, or treatment recommendations. Health inequality and inequity also are used to refer to disparities.

DIMENSIONS OF HEALTH DISPARITY

- Geography
- Gender
- Disability
- Race/ethnicity
- Socioeconomic Status
- Variation
- Health Disparity
- Inequality
**DISPARITIES IN HEALTH STATUS**

- Large racial disparities in health status exist between majority whites and minority racial/ethnic groups in the U.S.
- Disparities persist even after accounting for socioeconomic status, insurance, lifestyle and clinical factors.
- Reasons for disparities are complex -- and vary across conditions, populations, settings and services.

**MECHANISMS FOR RACIAL DISPARITIES**

- biologic (e.g. genetic) factors
- socioeconomic status
- environmental factors
- psychosocial factors (stress)
- cultural factors
- health risk behavior and lifestyles
- access to & quality of health care
RACIAL DISPARITIES IN HEALTHCARE

- Differences in health care access or utilization
- Differences in quality of care that are not due to clinically appropriate treatment decisions or patient preferences
- Both can independently contribute to disparities in health status

UNEQUAL TREATMENT

- Pivotal report by Institute of Medicine in 2002
- Outlines scope and severity of disparities in health care
- Mobilized health organizations and policymakers to accelerate efforts to eliminate disparities
COLORECTAL CANCER INCIDENCE AND MORTALITY BY RACE/ETHNICITY
TIME TRENDS IN COLORECTAL CANCER INCIDENCE AND MORTALITY

STRATIFIED BY RACE/ETHNICITY

COLORECTAL CANCER STAGE DISTRIBUTION AND MORTALITY
MECHANISMS OF DISPARITY

- Race
- Bias
- Access to Care
- Socioeconomic Factors

- Biologic Differences
- Lower rates of CRC screening
- Later Stage at Diagnosis
- Disparities in Treatment
  - Delays
  - Types of Treatment
- Cancer Outcomes
- Behavioral Risk Factors

DISPARITIES IN SCREENING

- African Americans less knowledgeable about CRC and screening guidelines compared with Caucasians
- Less likely to convey/transmit family history of cancer
- Lack of knowledge of screening benefits and fatalistic views about cancer
- Lack of provider recommendation for screening
  - Insufficient knowledge
  - Not enough time


DISPARITIES IN TREATMENT

- African Americans less likely than Whites to receive surgery for early-stage colon cancer (Stage I)
- African Americans were less likely than Whites to receive chemotherapy in more advanced stages (Stages II-IV)
- African Americans less likely to undergo targeted therapy with metastatic disease (Stage IV)
- Mortality following colorectal surgery higher in individual hospitals caring higher proportion of African Americans (Medicare SEER data)

- Hospital factors accounting for nearly 50% excess mortality in AAs vs. Whites following colon cancer surgery
- Possible factors: access to multidisciplinary care, imaging, adjuvant therapy


COLON CANCER SCREENING AND ACA

Table 1

<table>
<thead>
<tr>
<th>Stage</th>
<th>Multimodal/Other</th>
<th>African</th>
<th>Asian</th>
<th>Hispanic</th>
<th>Black</th>
<th>White</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage I</td>
<td>65.6%</td>
<td>15.3%</td>
<td>10.3%</td>
<td>14.8%</td>
<td>14.8%</td>
<td>14.8%</td>
<td></td>
</tr>
<tr>
<td>Stage II</td>
<td>50.1%</td>
<td>4.4%</td>
<td>3.8%</td>
<td>4.8%</td>
<td>3.8%</td>
<td>3.8%</td>
<td></td>
</tr>
<tr>
<td>Stage III</td>
<td>23.0%</td>
<td>2.1%</td>
<td>2.1%</td>
<td>0.5%</td>
<td>2.1%</td>
<td>2.1%</td>
<td></td>
</tr>
<tr>
<td>Stage IV</td>
<td>23.0%</td>
<td>2.1%</td>
<td>2.1%</td>
<td>0.5%</td>
<td>2.1%</td>
<td>2.1%</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
- WH: White; AA: African American, Other: Other races/ethnicities.
- WH: White; AA: African American, Other: Other races/ethnicities.
- WH: White; AA: African American, Other: Other races/ethnicities.
- WH: White; AA: African American, Other: Other races/ethnicities.
## MITIGATION STRATEGIES

### Patient education
- Addresses patient-level barriers (e.g., fear, mistrust, etc.)
- Direct to consumer
- May not reach those with low health literacy

### Provider education
- Addresses lower rates of provider recommended screening of AAs
- Broad target population (GIs, primary care doctors)

### Patient navigation
- Evidence for benefit in increasing colonoscopy screening
- Cost-effective

### Broaden modalities of screening
- African Americans may prefer non-colonoscopy screening
- Confusion about preferred modality

### Reduce age of screening
- Reduces burden early-onset disease

---

## RACIAL DISPARITIES

### OTHER GI CANCERS
- Esophageal cancer
- Gastric cancer
- Pancreatic cancer
- Small intestinal cancer
- Liver cancer

Adapted from:
Kupfer S. et al. Gastroenterology. 2015;149:1302–1304

NON-ALCOHOLIC FATTY LIVER DISEASE

DISPARITIES IN BURDEN OF NAFLD


American College of Gastroenterology
**DISPARITIES IN DISEASE PROGRESSION**

Nonalcoholic steatohepatitis prevalence in NAFLD patients

<table>
<thead>
<tr>
<th>Population</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>30.1% to 32.7%</td>
</tr>
<tr>
<td>Hispanics</td>
<td>40.7% to 50.2%</td>
</tr>
<tr>
<td>Whites</td>
<td>30.7% to 33.7%</td>
</tr>
<tr>
<td>Blacks</td>
<td>16.8% to 24.2%</td>
</tr>
</tbody>
</table>


**POPULATION-BASED NHANES SURVEY RACIAL DISPARITIES IN NAFLD**

**NAFLD PREVALENCE BY STEATOSIS INDEX**

**PREVALENCE OF ADVANCED FIBROSIS AMONG NAFLD**
RISK FACTORS NAFLD

• No established/definitive therapies for NAFLD
• Management NAFLD is complex involving lifestyle and behavioral changes interrelated with socioeconomic status
• Hispanics underrepresented in clinical trials for NAFLD
• Blacks and Hispanics underrepresented liver transplant wait lists
  • Higher MELD scores at time of listing
  • Longer time to transplant after listing

HEPATITIS C

DISPARITIES IN HCV BURDEN

- Prevalence twice as high as non-Hispanic whites
- Less likely to spontaneously clear HCV infection
- Higher risk of ESLD complications
- Hepatocellular cancer rate 2x higher

**Barriers to HCV Elimination at Each Step of Care Cascade**

![Bar Chart showing the HCV Care Cascade in the United States with rates for each step.](slidecredit:clinicaloptions.com)

- **Chronic HCV Infected**: 3,500,000
- **Diagnosed and Aware**: 1,743,000
- **Access to Care**: 1,514,667
- **HCV RNA Confirmed**: 952,726
- **Liver Biopsy**: 581,632
- **Prescribed HCV Treatment**: 555,883
- **Achieved SVR**: 326,859

**Rate-limiting step**

**Patients (%)**

<table>
<thead>
<tr>
<th>Step</th>
<th>Patients (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic HCV Infected</td>
<td>100%</td>
</tr>
<tr>
<td>Diagnosed and Aware</td>
<td>50%</td>
</tr>
<tr>
<td>Access to Care</td>
<td>43%</td>
</tr>
<tr>
<td>HCV RNA Confirmed</td>
<td>27%</td>
</tr>
<tr>
<td>Liver Biopsy</td>
<td>17%</td>
</tr>
<tr>
<td>Prescribed HCV Treatment</td>
<td>16%</td>
</tr>
<tr>
<td>Achieved SVR</td>
<td>9%</td>
</tr>
</tbody>
</table>

**Disparities in HCV Management**

- African Americans less likely to be screened for HCV even after considering risk factors
- Less likely to be are of HCV infection
- African Americans likely to be referred to or linked to HCV specialty care when testing positive in primary care
- African Americans referred to HCV specialty care more likely deemed ineligible for HCV treatment
- Incomplete intake forms
- Abnormal lab values (e.g. neutropenia) or poorly controlled diabetes, renal insufficiency
- African Americans less likely to be offered treatment
- Less likely to be referred to and listed for liver transplant and longer waiting times

TEMPORAL TRENDS IN US HCV PREVALENCE BY RACE/ETHNICITY 1999-2016

- Decreasing prevalence in White persons and Black persons
- **No** decline among LatinX persons and **no data** on prevalence in Asian persons before 2011

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (HCV Prevalence (95% CI))</td>
<td>n (HCV Prevalence (95% CI))</td>
<td>n (HCV Prevalence (95% CI))</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>14,814 (1.32 [1.11–1.57])</td>
<td>16,581 (1.08 [0.87–1.35])</td>
<td>14,919 (0.88 [0.61–1.05])</td>
<td>.001 .02 .19</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>7,137 (1.20 [0.94–1.53])</td>
<td>7,887 (0.96 [0.70–1.31])</td>
<td>5,617 (0.65 [0.43–0.99])</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>2,905 (2.76 [2.09–3.66])</td>
<td>3,317 (2.51 [1.94–3.25])</td>
<td>3,341 (1.52 [1.04–2.22])</td>
<td></td>
</tr>
<tr>
<td>Mexican American</td>
<td>3574 (1.13 [0.59–2.16])</td>
<td>3,198 (0.60 [0.27–0.98])</td>
<td>2,043 (0.96 [0.58–1.58])</td>
<td></td>
</tr>
<tr>
<td>LatinX</td>
<td>663 (0.85 [0.34–2.33])</td>
<td>426 (0.93 [0.48–1.78])</td>
<td>134 (0.83 [0.39–1.61])</td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>0 (NA)</td>
<td>0 (NA)</td>
<td>185 (0.23 [0.11–0.49])</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>535 (0.77 [0.34–1.71])</td>
<td>773 (0.70 [0.26–1.87])</td>
<td>486 (1.67 [0.71–3.89])</td>
<td></td>
</tr>
</tbody>
</table>

HIGHER RISK FOR HCC IN HISPANIC PATIENTS WITH HCV

- Retrospective analysis of patients with chronic HCV infection in the National VA HCV Clinical Case Registry 2000-2009 (N = 149,407)
  - 56% Non-Hispanic White, 36% Black, 6.0% Hispanic, 2% Other
  - Median follow-up of 5.2 years: cirrhosis (n = 13,099); HCC (n = 3,551)

<table>
<thead>
<tr>
<th>Race</th>
<th>Cirrhosis Prevalence</th>
<th>HCC Prevalence</th>
<th>Adjusted OR* (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prevalence</td>
<td>Prevalence</td>
<td>Cirrhosis Prevalence</td>
</tr>
<tr>
<td>White</td>
<td>7,775 (9.25)</td>
<td>467 (0.56)</td>
<td>1.0</td>
</tr>
<tr>
<td>Black</td>
<td>2,227 (4.13)</td>
<td>195 (0.36)</td>
<td>0.393 (0.374–0.413)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1,018 (11.41)</td>
<td>100 (1.12)</td>
<td>1.224 (1.141–1.313)</td>
</tr>
<tr>
<td>Other</td>
<td>194 (7.97)</td>
<td>11 (0.45)</td>
<td>0.826 (0.711–0.960)</td>
</tr>
</tbody>
</table>
LOWER HCV TREATMENT RATES IN HISPANIC PATIENTS VS. NON-HISPANIC WHITES

- Multivariate logistic regression model analysis of HCV treatment in chronic HCV patients in 4 urban safety net health systems 2011-2017 (N = 29,544)
- 60.5% male, 38.4% Black, 8.8% Hispanic
- Mixed payor (18.7% Medicaid, 25.9% Medicare, 22.5% commercial)
- Overall treatment of adults with HCV increased from 4.8% in 2014 to 16.9% in 2017

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Adjusted OR for Receiving HCV Treatment (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1.08 (0.99-1.18)</td>
<td>.074</td>
</tr>
<tr>
<td>Male (Ref)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td><strong>Age, yrs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;45</td>
<td>1.00 (Ref)</td>
<td></td>
</tr>
<tr>
<td>45-64</td>
<td>1.35 (1.15-1.54)</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>≥65</td>
<td>1.10 (0.92-1.32)</td>
<td>.495</td>
</tr>
<tr>
<td><strong>Post-DAA vs pre-DAA period</strong></td>
<td>1.44 (1.33-1.56)</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic White</td>
<td>1.00 (Ref)</td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>0.48 (0.39-0.60)</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Black</td>
<td>1.03 (0.94-1.12)</td>
<td>.008</td>
</tr>
<tr>
<td>Asian/Native American</td>
<td>1.43 (1.22-1.67)</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>


DISPARITIES IN ACCESS: DIRECT ANTIVIRAL AGENTS

Kaiser Permanente study of 14,790 HCV-infected patients (2014 – 2016)
DAAs effect for treatment of HCV across racial/ethnic groups
DAA initiation lower in non-Hispanic black (adjusted OR = 0.7) and Hispanic (adjusted OR = 0.8) patients

HIGHER HCV-ASSOCIATED DEATH IN MINORITY GROUPS

TACKLING RACIAL DISPARITIES

- Disproportionate burden of acute and chronic HCV in persons of color – higher risk for infection, fibrosis/cirrhosis, liver outcomes
- Variable distribution by race/ethnicity with regard to elements of HCV care cascade including screening, linkage to care, treatment access and initiation
- Underrepresentation of persons of color in clinical trials evaluating antiviral therapy
- Overrepresentation of socioeconomic barriers to HCV care and treatment – education, employment, insurance
- Multidisciplinary, culturally sensitive models of care delivery are needed to improve the identification and care of persons of color with chronic HCV infection
- Historical differences in response to antiviral therapy no longer observed with contemporary oral DAA regimens – equivalent SVR

Suboptimal population-based national estimates of IBD by race/ethnicity

Based on 1999 National Health Interview Study and self-reported IBD diagnosis

Lower prevalence of IBD in Non-Hispanic Blacks and Hispanics compared with Non-Hispanic Whites

May reflect under-diagnosis

Should be interpreted in context of hospitalizations, surgery, and mortality
IBD COMPLICATIONS RELATIVE TO PREVALENCE

Increased use of emergency department services among African American (AA) IBD patients than Whites (pediatric and adult)

Increase admissions and readmissions to hospital

AAAs less likely to see specialist regularly than Whites

Racial differences in insurance coverage

AAAs more likely to worry about cost of care avoid visits due to transportation difficulties

AAAs may experience greater delays in diagnosis among pediatric IBD populations

• More complications and advanced disease at diagnosis
Racial Differences in Phenotype

Crohn’s disease

- African Americans more likely to have perianal disease and penetrating disease compared with Non-Hispanic Whites
- Hispanics may have more perianal disease than non-Hispanic Whites
- South Asians demonstrate more penetrating and fistulizing disease than Non-Hispanic Whites

Ulcerative colitis

- African Americans more likely to have distal disease compared not Non-Hispanic Whites

Nguyen GC et al. Am J Gastroenterol. 2006; 101: 1012-1023

Disparities in Surgery for Ulcerative Colitis

Colectomy Among Hospitalized UC Patients

Factors for Delays to Surgery

DISPARITIES IN MEDICAL THERAPY

Racial differences in use of biologics

- Single centre study: African Americans with steroid dependence less likely than whites to be on anti-TNF therapy
- Medicaid data: Hispanics with CD less likely to use in anti-TNF agents
- Single centre study: Hispanic patients less likely to receive biologic and immunomodulator therapy
- SHARE cohort: Asian patients less likely to be treated with biologics than White patients
- Large analysis using NAMCS database showed no racial/ethnic differences in immunomodulator or anti-TNF use

Racial differences in adherence

- Multiple studies showing lower adherence among AAs compared with Whites

CONCLUDING REMARKS

Racial and ethnic disparities in healthcare utilization and outcomes exist in various GI conditions.

They are intricately related to many complex cultural, socioeconomic, and biological factors that can confound the relation with outcomes.

Contributing factors to racial and ethnic disparities can vary with different GI conditions.

Understanding underlying factors critical to develop interventions that can mitigate disparities.

UNDER UNIVERSAL HEALTHCARE

Genetic Susceptibility
Disease Phenotype

Quality of Care
Racial Bias

Health care access
-Physician availability
-Wealth/Income
-Access to medical Rx
Environment
Geographic access

Health Preferences
MD-Patient Interaction
Trust in Physician
Cultural beliefs
Language and education

Disparities in Healthcare
From Equality... to Justice

Equality
The assumption is that everyone benefits from the same supports. This is equal treatment.

Equity
Everyone gets the supports they need (this is the concept of "affirmative action"), thus producing equity.

Justice
All 3 can see the game without supports or accommodations because the cause(s) of the inequity was addressed. The systemic barrier has been removed.

Questions?

Speaker: Geoffrey C. Nguyen, MD, PhD, FRCPC

Moderator: Philip N. Okafor, MD
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ACG Hepatology Circle
ACG Functional GI Health and Nutrition Circle
ACG Women in GI Circle

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