



Will Remote Trials Exacerbate Disparities?

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Creative Scientist Workshop on Remote Trials
University of Buffalo CTSI

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Populations with Health Disparities

- **Racial/ethnic minority populations defined by Census**
- **Less privileged socio-economic status**
- **Underserved rural residents**
- **Sexual and gender minorities**
- **Social disadvantage that results in part from being subject to discrimination or racism, and being underserved in health care**
- **A health outcome that is worse in these populations compared to a reference group defines a health disparity**

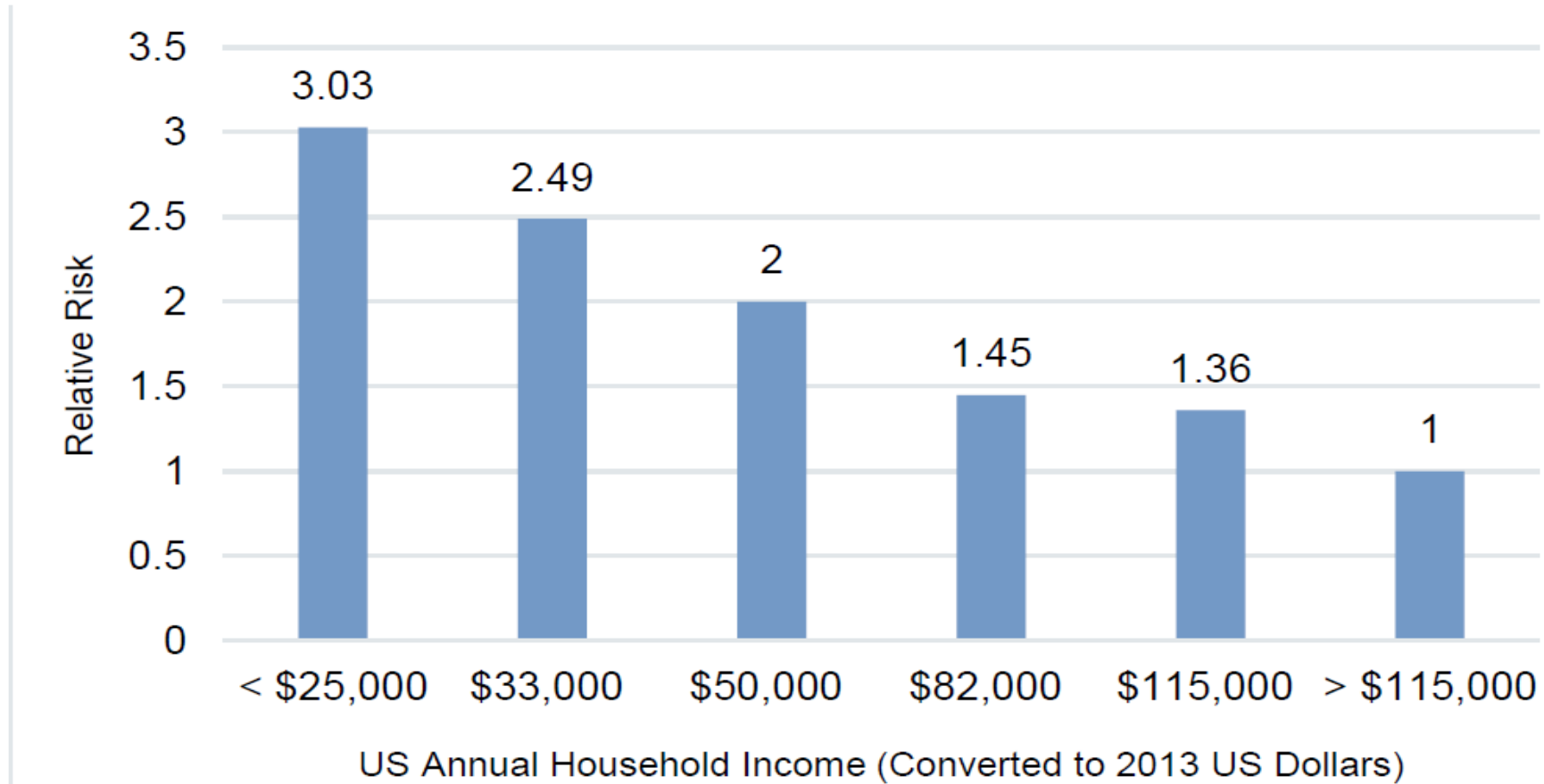


Race/Ethnicity and Socioeconomic Status are Fundamental in Determining Health

- **Race/ethnicity and SES predict life expectancy and mortality that are not fully explained**
- **African Americans have more strokes when compared to Whites for same level of SBP**
- **Most chronic diseases are more common in persons of less privileged SES**
- **Among persons with diabetes, all race/ethnic minority populations have less heart disease and more ESRD, compared to Whites**



Relative Risk of All-Cause Mortality by US Annual Household Income Level in 2016







Wyatt R, et al., Achieving health equity: A guide for health care organizations. IHI White Paper. Institute for Healthcare Improvement, 2016



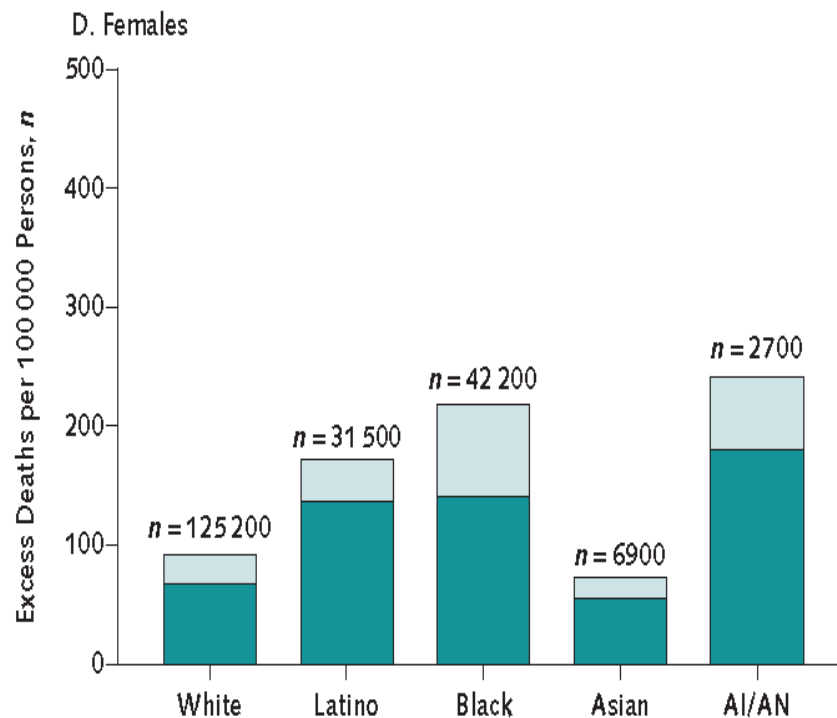
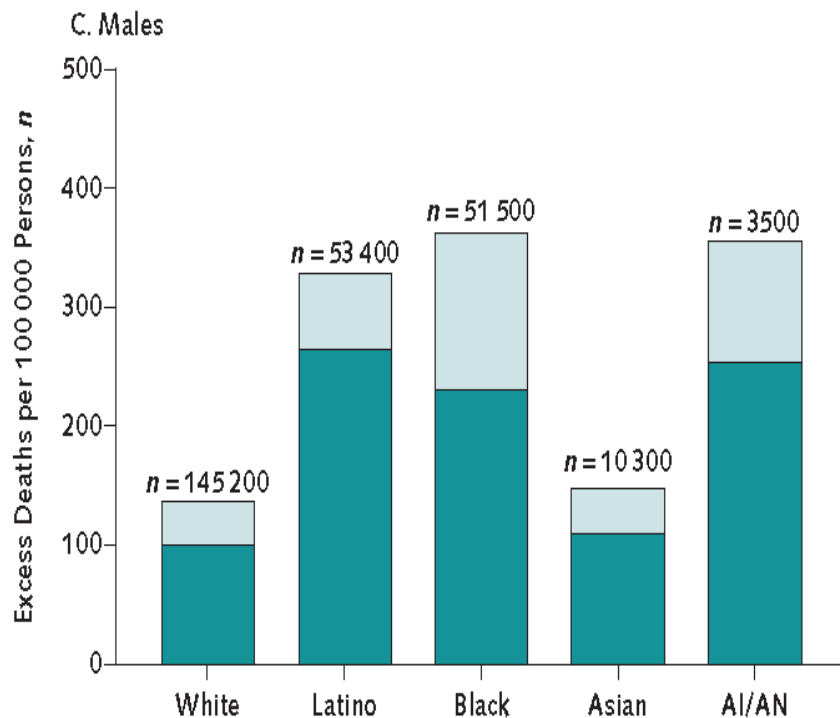
Social Determinants of Health Measures

- Demographics including family background
- Urban or rural residence or geographic region
- Cultural identity, religiosity, spirituality
- Language proficiency, Literacy, numeracy
- **Structural determinants:** housing, green space, broadband, economic opportunity, transportation, schools, healthy food access, public safety
- PhenX Toolkit on SDOH measures:
<https://www.phenxtoolkit.org/collections/view/6>

National Institute on Minority Health and Health Disparities Research Framework

		Levels of Influence*			
		Individual	Interpersonal	Community	Societal
Domains of Influence (Over the Lifecourse)	Biological	Biological Vulnerability and Mechanisms	Caregiver–Child Interaction Family Microbiome	Community Illness Exposure Herd Immunity	Sanitation Immunization Pathogen Exposure
	Behavioral	Health Behaviors Coping Strategies	Family Functioning School/Work Functioning	Community Functioning	Policies and Laws
	Physical/Built Environment	Personal Environment	Household Environment School/Work Environment	Community Environment Community Resources	Societal Structure
	Sociocultural Environment	Sociodemographics Limited English Cultural Identity Response to Discrimination	Social Networks Family/Peer Norms Interpersonal Discrimination	Community Norms Local Structural Discrimination	Social Norms Societal Structural Discrimination
	Health Care System	Insurance Coverage Health Literacy Treatment Preferences	Patient–Clinician Relationship Medical Decision-Making	Availability of Services Safety Net Services	Quality of Care Health Care Policies
Health Outcomes		 Individual Health	 Family/ Organizational Health	 Community Health	 Population Health

Excess Deaths by Race/Ethnicity, 2020



Shiels M, et al., *Ann Intern Med* 2021; doi:10.7326/M21-2134



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Perception of Unfair Treatment: 2015

In past 30 days, were you treated unfairly because of racial or ethnic background in store, work, entertainment place, dealing with police, or getting healthcare?

	Percent Agree	
	All	Health
Latinos	36%	14%
African Americans	53%	12%
Whites	15%	5%

Trust in clinician/institution? Role of Unconscious Bias?

Kaiser Family Foundation Survey of Americans on Race, November 2015.



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NIH Initiatives on Structural Racism

- NIMHD 2017 Workshop: *Structural Racism and Discrimination: Impact on Minority Health and Health Disparities* (<https://www.nimhd.nih.gov/.../structural-racism.html>)
- NIMHD structural racism and discrimination RFA had a robust response; >\$30 M for FY 2022 in 24 ICs (<https://grants.nih.gov/grants/guide/rfa-files/RFA-MD-21-004.html>)
- Common Fund Program in FY 21 just funded 11 grants for \$30 M/2 y— five awards to MSIs/Less resourced institutions
- Planning for FY 2023 Common Fund Program — 10 years
- Special Issue in Ethnicity and Disease
- All NIH Institutes have been asked to increase their commitments for health disparities science



Patient-Clinician Communication Matters

- **Directly linked to higher patient satisfaction scores, better adherence and improved health outcomes**
- **Race concordant visits for African American patients are longer and more patient-centered**
- **In MEPS, African American and Latino physicians care for >50% of minorities, >70% LEP, and more Medicaid/uninsured patients**
- **In 2020, only 14% of medical school graduates and 12% of practicing physicians were URM**



Use of Interpreters in Language Discordant Encounters

- **Patients using interpreters ask less, say less, answer less (even with professionals)**
- **Encounters take twice as long or do half as much — cost and time; provide more time?**
- **Who translates matters: professional interpreter should be required for all important interactions: accuracy and quality**
- **Technology: dual head set telephones, Video conferencing, digital translators**
- **Clinicians' language skills certified**

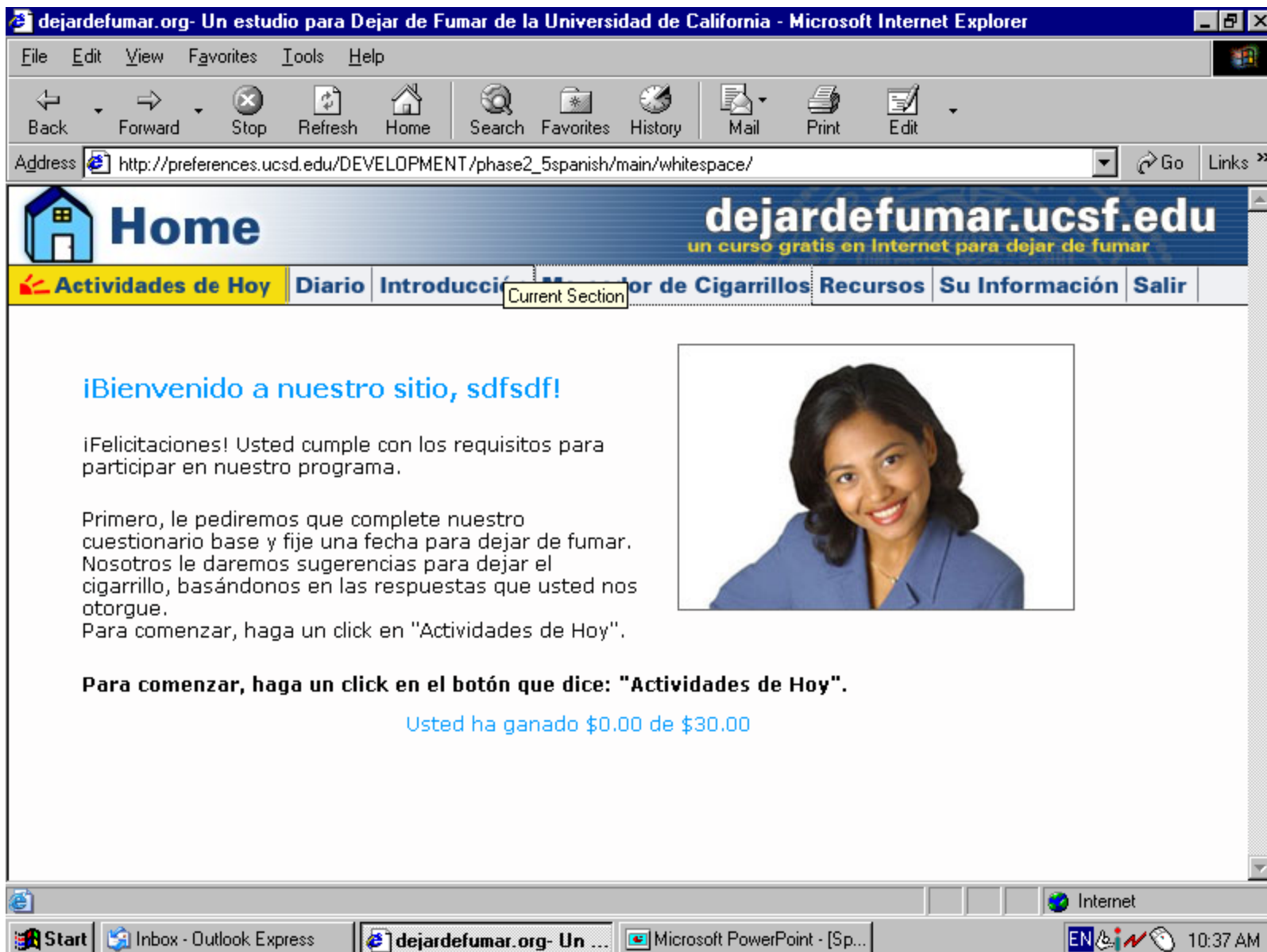


Promoting Health Equity in Telemedicine to Reduce Disparities

- Mental health care can be expanded
- Behavioral health interventions leveraging text, online content and social media — young MSM to promote safer sexual behavior
- Augment access in established patient-clinician relationships or specific specialty consultations
- Is Patient-Centered Care possible with exclusively remote care?
- Cultural humility on video?
- Need **Equity Quality Measure**



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Tomando Control website: Results of RCT of 1000 smokers at one year

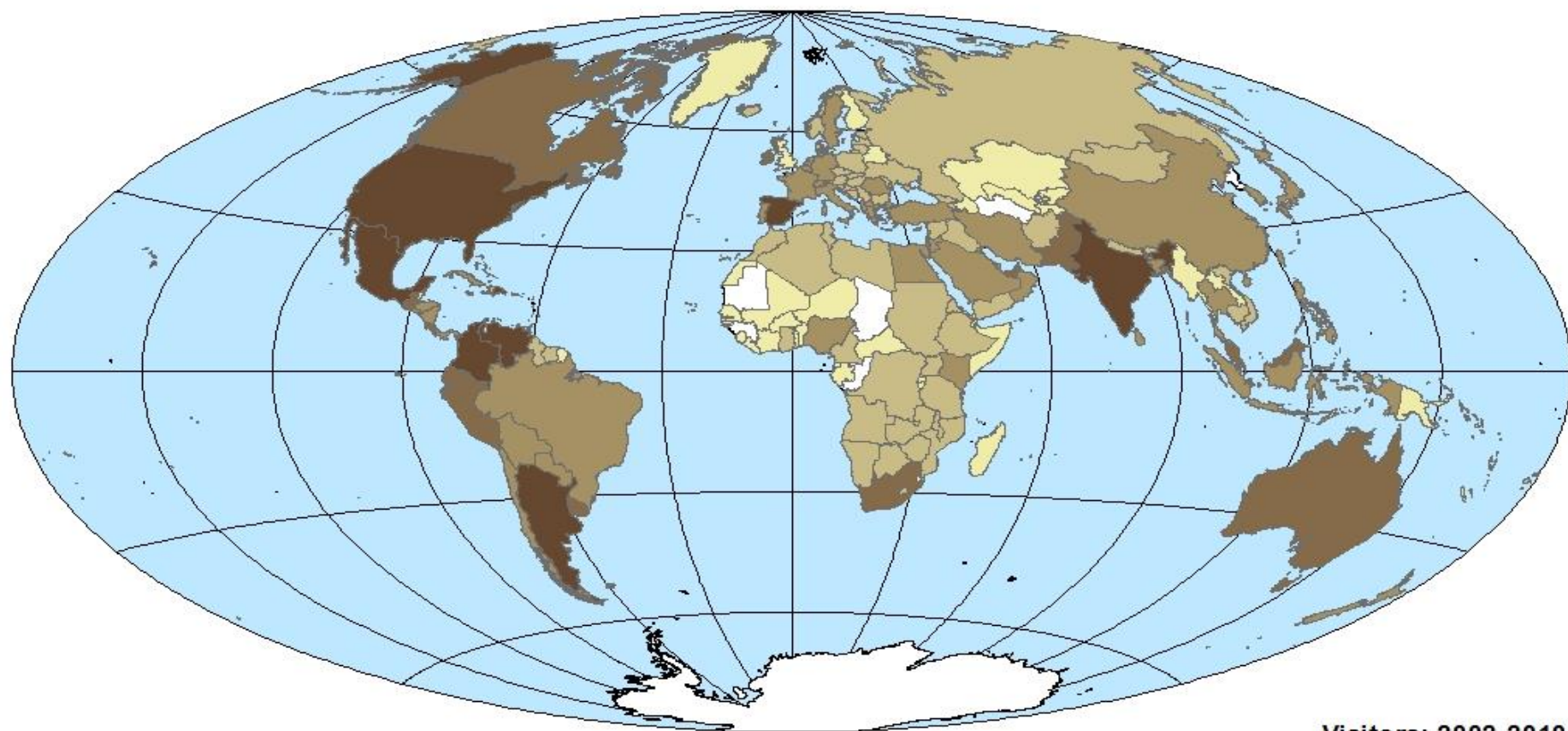
<u>Intervention</u>	<u>% Quit</u>
Guia alone	19.8%
Guia + ITEM	19.1%
Guia + ITEM + Mood	20.7%
Above + Virtual Group	22.7%

Muñoz RF, et al, Nicotine and Tobacco Research 2009; 11: 1025-1034

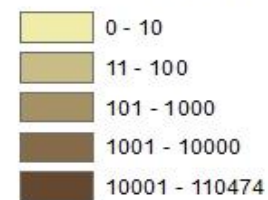


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Visitors: 2002-2010
N=318,799



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Remote Trials May Exacerbate Disparities in Inclusive Participation

- **Investigators struggle to achieve inclusive participation as is — adding a new barrier**
- **Populations with HD need more face time with scientists to address historical mistrust**
- ***Moderna* clinical trial experience—not encouraging**
- **Established cohort studies have pivoted to hybrid approach with progress but with sacrifices**
- **Must continue to generate targets, design parallel plans and be willing to modify to succeed**



Benefits of Health Web Interventions

- **Maximize reach and magnify population benefits**
- **Ability to eliminate access by language if anticipated**
- **Cost efficiency — non-consumable intervention content**
- **Efficacy shown in behavioral change**
- **Massive attrition is a challenge**



Challenges of Interventions Through the Web for Populations with Health Disparities

- **Digital divide and lack of hardware devices— may need to use phone**
- **Language barriers and health literacy limitations may be exacerbated**
- **Privacy of patient or participant in home setting**
- **Face time may be more important in recruitment and retention**



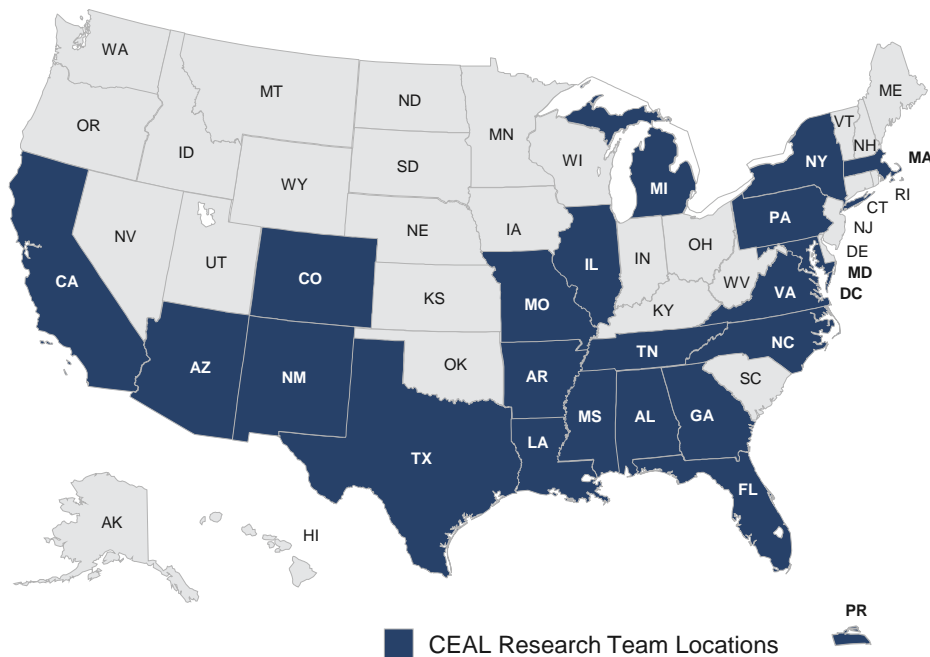
Community Engaged Research to Reduce Health Disparities Remotely?

- **Shift models of care to population health built on strong primary care —telehealth has a role**
- **Recognize the importance of health and not just health care — deliver tailored information**
- **Engage community resources in promoting health: access to real food and safe places**
- **Recognize and manage structural and interpersonal discrimination**
- **Reallocation of resources from health care**



Addressing COVID-19 Vaccine Hesitancy: Where CEAL Operates

CEAL supports research teams in **21 geographies** to focus on urgent community-engaged research and outreach focused on COVID-19 awareness and education among communities hardest hit by the pandemic.



CEAL research teams partner with national & local organizations:



Academic Partners



Community-Based Organizations



Healthcare Centers & Providers



Faith-Based Organizations



State & Local Government Agencies



Pharmacy Networks

For more information, please see the [CEAL Community Engagement webpage](#)

Will Remote Trials Exacerbate Disparities?

- **Universal availability to digital and hardware access with broadband**
- **Factor age – digital immigrants—language, literacy**
- **Assess specific communication strategies between patients-clinicians to maximize trust**
- **Will need combined approaches and old tech**
- **Implement structural change to modify individual and group behaviors**



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