Promising Practices to Improve Hispanic Health

Collaborative interprofessional forum to discuss advancement of Hispanic health

Approaches to Hispanic Health Research

September 25, 2018
1:30-3:00 p.m. ET
Welcome & Introductions: Malika Fair, MD, MPH

Senior Director, Health Equity Partnerships & Programs
Association of American Medical Colleges
AAMC Resources: Website

Learn more: aamc.org/initiatives/research
AAMC Resources: Newsletters

Population Health Connect
Promoting Population Health in Academic Medicine
May 3, 2018

The AAMC Population Health Connect newsletter is a product of the AAMC Public Health Initiatives portfolio to increase awareness about population health activities and curricular resources relevant to the academic medicine community. To learn more about the AAMC’s Public Health Initiatives, visit aamc.org/publichealth.

Upcoming Webinars & Conferences

May 2018

The Wrong Complexion for Protection. Race, Place and the Politics of Pollution
May 4, 2018
College Park, MD

3rd Annual NIH Vivian W. Pinn Symposium - Leveraging the Network to Advance Women in Science
May 16, 2018
Bethesda, MD

11th Annual National Conference on Health Disparities
May 16-19, 2018
Philadelphia, PA

2018 Wisconsin Public Health Association–Wisconsin Association of Local Health Departments and Boards Public Health Conference - Leading the Evolution of Public Health
May 22-24, 2018
Green Bay, WI

The Group on Diversity & Inclusion Professional Development Conference and 10th Anniversary Celebration - Tomorrow’s Leaders, Bridging Boundaries Toward Equity
May 24, June 3, 2018

Conferences, Meetings, and Webinars

Just Announced

The Health Information Environment as a Social Determinant of Health: Implications for Health Disparities and Opportunities for Intervention
July 18, 2019
Sacramento, CA

North American Housing & HIV/AIDS Research Summit IX - Structural Interventions and Ending the Epidemic
August 1-3, 2018
Washington, DC

Grant Funding Opportunities

Just Announced

LOIs and Applications Due in May

Fellowship and Training Opportunities

Just Announced

LOIs and Applications Due in May

Resources

New Resources
AAMC Resources: Public Health Pathways

Learn more: aamc.org/phpathways
Moderator: Maureen Lichtveld, MD, MPH
Tulane University School of Public Health and Tropical Medicine

- Chair, department of global environmental health sciences
- Freeport McMoran Endowed Chair in environmental policy
- Director, Center for Gulf Coast Environmental Health Research, Leadership, and Strategic Initiatives
The Hispanic-serving Health Professions Schools (HSHPS) is composed of academic institutions that strive to achieve equitable health and well-being for our Hispanic community.
**HSHPS RESOURCES**

**Graduate Fellowship Training Program**
GFTP provides training opportunities for students and recent graduates interested in working on Hispanic health research. Fellows are placed throughout the United States and Latin America within government agencies and academic institutions. All HSHPS fellows work alongside a mentor, assist with a research project as it relates to minority health issues, and participate in a lecture series. **Applications for Summer 2019 will open in November!**

**Networking**
Our network not only consists of HSHPS members, but also federal agencies and non-profit organizations. Through our network, Member Institution’s have an opportunity to collaborate on research at a local or national level, provide or seek mentorship, and more.

**e-Newsletter**
Our Member Institutions receive a quarterly newsletter which includes: HSHPS activities, legislative updates, job and funding opportunities, upcoming events, and spotlight a member faculty and student who have contributed to the field of Hispanic health or Hispanic health workforce through scholarly research.

**Webinars**
Member Institutions receive complimentary access to attend quarterly HSHPS educational webinars. Webinars are designed to create a collaborative inter-professional forum to discuss advancement of Hispanic health through community engagement, academic medicine, medical education and clinical approaches to address health disparities.
Learning Objectives

1. Discuss current practice approach to Hispanic research at the community, national and global levels

2. Describe intervention trends in reducing Hispanic health disparities

3. Examine common challenges and barriers in Hispanic health research
Panelists

Norma A. Pérez, MD, DrPH
President, HSHPS
Executive Director, Hispanic Center of Excellence
University of Texas Medical Branch

Gregory A. Talavera, MD, MPH
Professor
South Bay Latino Research Center
San Diego State University School of Public Health

Pierre Buekens, MD, MPH, PhD
W. H. Watkins Professor
Director, CERPE
Tulane University School of Public Health and Tropical Medicine
Norma Alicia Pérez, MD, DrPH
University of Texas Medical Branch

- Executive Director, Hispanic Center of Excellence (HCOE) and Special Programs
- Faculty appointments with Internal Medicine-Geriatrics and Preventive Medicine & Community Health
- President, Hispanic-Serving Health Professions Schools
Promising Practices to Improve Hispanic Health

Collaborative interprofessional forum to discuss advancement of Hispanic health

Community research partnerships: Are we true partners?

Norma A. Pérez, MD, DrPH
President, Hispanic Serving Health Professions Schools
Director, School of Medicine Special Programs and Hispanic Center of Excellence
Assistant Professor of Internal Medicine-Geriatrics and Preventive Medicine and Community Health
No matter how much success you're having, you can't continue working together if you can't communicate.

- Matt Cameron
Pioneers

Kurt Lewin

Paulo Freire

Orlando Fals
Strong Community-based Participatory Research Funders

2001 - Institute of Medicine
Centers for Disease Control
National Institutes of Health
National Institute of Environmental Health Sciences
Agency for Healthcare Research and Quality
#### Three Models of Community-based Participatory Research

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-theme collaboration between a university-based center and a community organization</td>
<td>Targeted, area-based collaboration between academic researchers and a small group of community organizations</td>
<td>Broad-based coalition of grassroots organizations</td>
</tr>
</tbody>
</table>
Ethical Challenges

The Principle of Beneficence

Kelly’s Principals

Camara Jones’ typology
It is a public service of the Center for Community Health and Development at the University of Kansas. It is a free, online resource for those working to build healthier communities and bring about social change.

Since 1994

Over 300 educational modules and other free tools

Available in English, Spanish, Arabic, and Farsi, and with millions of user sessions annually, it has reached those working in over 230 countries around the world.

https://ctb.ku.edu/en/about-the-tool-box
Local Best Practice of Community-based Participatory Research Program

The ITS, established in 2007, is the academic home of UTMB’s Clinical Translational Sciences Award (CTSA), funded by the National Institutes of Health’s National Center for Advancing Translational Sciences (NCATS)
Roles for Community Engagement

Engage communities around specific projects and advance the science of community engaged research

Identify community health needs and priorities

Provide input on research questions relevant to the community

Contribute to appropriate research design and methods

Develop culturally sensitive and ethical proposals

Enhance the recruitment and retention of research participants

Implement and disseminate research findings effectively

Provide culturally competent training for staff and communities

Foster innovation and participate in the dissemination of best practices to other CTSA Program Hubs
What Does Success Look Like?

- Communities participate fully across the translational spectrum
- Communities are consulted for their research priorities
- Stakeholders are respected, valued, and rewarded
- Effective implementation and dissemination strategies are developed
- Increased public support for research
- Improvements in the health and well-being of communities
- Community engagement integrated into leadership, research, and communication strategies
- Community engagement addressed as a scientific problem to identify best practices and most effective approaches
- Community engaged research is rewarded in academic policies
Thank you
Gregory A. Talavera, MD, MPH
San Diego State University Graduate School of Public Health

- Professor of Public Health, Division of Health Promotion & Behavioral Sciences
- Co-director, South Bay Latino Research Center
- Previously practiced ambulatory medicine in the Spanish-speaking, underserved communities of San Diego’s border region
Latino Longitudinal Cohorts
-All of Us’ Research Program
-Hispanic Community Health Study

Gregory Talavera, MD, MPH, Professor Health Promotion and Behavioral Science, Graduate School of Public Health, San Diego State University
The Hispanic Community Health Study – Study of Latinos
Overview, Baseline Results & Potential Disparities
Implications
Gregory A. Talavera, MD, MPH
Professor San Diego State University
PI for the San Diego Field Site
Primary Goals

- To identify the **prevalence of cardiovascular and pulmonary disease and other conditions** in U.S. Hispanic/Latino groups of **diverse backgrounds**.

- To identify the **prevalence of factors** that **protect from or increase the risk for** cardiovascular and pulmonary disease and other conditions in **diverse** U.S. Hispanic/Latino groups.

- To identify **all-cause mortality**, and the incidence of fatal and non-fatal cardiovascular and pulmonary events in **diverse** U.S. Hispanic/Latino groups. (2014) **Birth outcomes**
HCHS/SOL Field Centers & Coordinating Center

Chicago/Northwestern
Martha Daviglus, PI

Bronx/Einstein
Robert Kaplan, PI

NIH – NHLBI
Larissa Avilés-Santa, Project Officer

UNC Chapel Hill Coordinating Center
Jiawen Cai PI; Daniela Sotrez-Alvarez & Gerardo Heiss, Co-PIs

San Diego
Gregory A. Talavera, PI

Miami
Neil Schneiderman, PI
16,418 Participants
Random sampling of the local population
Representative of the local communities

- Ages: 18 - 74 years
  - 6,000 ages 18-44 years
  - 10,000 ages 45-74 years

- Approximately 4,000 persons per Field Center who self-identify with any of the following Hispanic/Latino heritage/background groups:
  - Mexican background
  - Puerto Rican background
  - Cuban background
  - Dominican background
  - Central/South American background
  - Other Hispanics/Latino background groups
Other Longitudinal Studies
Distribution of Study Cohort at Baseline by Hispanic/Latino Heritage/Background

- Central & South American: 18%
- Cuban: 12%
- Mexican: 43%
- Puerto Rican: 17%
- Dominican: 7%
- Other Hispanics/Latinos: 3%
Distribution by Hispanic / Latino Background and Site

San Diego
- Central & South American: 93%
- Cuban: 1%
- Mexican: 3%
- Puerto Rican: 3%
- Dominican: 0%
- Other Hispanics/Latinos: 0%

Bronx
- Puerto Rican: 49%
- Dominican: 11%
- Cuban: 5%
- Mexican: 30%
- Other Hispanics/Latinos: 4%

Chicago
- Other Hispanics/Latinos: 17%
- Central & South American: 20%
- Cuban: 2%
- Mexican: 1%

Miami
- Other Hispanics/Latinos: 52%
- Cuban: 2%
- Mexican: 2%
- Puerto Rican: 2%
- Dominican: 2%
Publications
Parent Study

~500 Manuscripts
487 manuscripts in concept phase
Gene-Environment-Behaviors
Continental Ancestry

Figure 2: Continental ancestry proportions for the autosomes and X chromosome
(A) Estimates of continental ancestry proportions on the autosomes for an unrelated set of HCHS/SOL individuals grouped by self-identified background, with the number of unrelated individuals shown for each group. Each vertical bar represents a single individual, within which the three ancestry fractions are represented by three color-coded segments.
## Prevalence of CVD Risk Factors by Hispanic/Latino Group - MEN

<table>
<thead>
<tr>
<th>CVD Risk Factors (%)(^a)</th>
<th>Hispanic/Latino Group</th>
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<tbody>
<tr>
<td></td>
<td>All</td>
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<tr>
<td><strong>Unweighted N</strong></td>
<td>5979</td>
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<tr>
<td>Hypertension</td>
<td>25.4</td>
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<tr>
<td>Hypercholesterolemia</td>
<td>51.7</td>
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<tr>
<td>Obesity</td>
<td>36.5</td>
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<tr>
<td>Diabetes</td>
<td>16.7</td>
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<tr>
<td>Smoking</td>
<td>25.7</td>
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</tbody>
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\(^a\) Values (except N) weighted for survey design and non-response, and age standardized to Census 2010 US population. **Hypertension** SBP/DBP >140/>90 or on treatment. **Hypercholesterolemia**, total cholesterol >240 mg/dL HDL-C <40 mg/dL LDL-C >160 mg/dL or on treatment. **Obesity**, BMI >30kg/m2; **Diabetes**, fasting glucose >126 mg/dL 2h-post-load plasma glucose >200 mg/dL A1c >6.5%, or use of diabetes medications. **Smoking**, currently smoking cigarettes.
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<td>Hypertension</td>
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<tr>
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Overview of the All of Us Research Program

Gregory Talavera, MD, MPH, Professor Health Promotion and Behavioral Science, Graduate School of Public Health, San Diego State University
**Precision medicine** is an emerging approach for disease treatment and prevention that takes into account individual variability in lifestyle, socioeconomics, environment, and biology.

It is a radical shift in how each of us can receive the best care possible based on our unique makeup.

“All of Us is among the most ambitious research efforts that our nation has undertaken!”

NIH Director Francis Collins, M.D., Ph.D.
Why do we need the All of Us Research Program?

People/Patients

- Patients may not be served well by treatments designed for the “average” patient.
- Health problems can take years to unravel and require much trial and error treatment.
- Patients may not have access to or make use of their own health data.

Professional Providers

- Precision medicine is still in the early days, so providers do not have enough information available to provide precision care for many conditions.
- Developing individualized approaches to care often requires overtime.
- It can be difficult to coordinate care between many different providers, especially with medical records and key data scattered in different silos.

Biomedical Researchers

- Researchers spend a lot of time and resources creating new IT systems, databases, and analytic tools.
- Data collection is not standardized so data can be siloed and difficult to integrate.
- A single lab’s resources may not be sufficient to answer the research question.
National Network of Inaugural Partners

This map is a visual representation of the large and nationally distributed community of partners to the All of Us Research Project.
Kinds of Questions this Resource May Help Answer

How can we prevent the chronic pain that affects more than 100 million people across the U.S. each year?

Or develop better pain medicines that aren’t addictive?

Or develop better treatments for diabetes, which affects almost 10% of Americans—or prevent diabetes altogether?

Or slow or even stop different kinds of dementia?

Or develop more cancer cures that will work the first time, so we can skip painful trial-and-error chemotherapy?
Innovative Aspects of *All of Us*

- **Diversity at the scale of 1 million people:** demographically, geographically, medically, and especially those underrepresented in biomedical research.

- **Diversity of data types collected longitudinally:** clinical, environmental, genetic, behavioral, socioeconomic.

- **Focus on participants as partners:** included in governance, invited to co-invent systems and give input into the science, choice to receive all data and information back.

- **National, open resource for all:** open to the public and all researchers, open source software & tools.

*All of Us* learns from and partners with other large research programs; sharing knowledge and data is key!
What is the promise for researchers?

- The opportunity to **save time and resources** and **accelerate your research breakthroughs** by leveraging:
  - A **rich resource of data**, including biospecimens and increasingly robust electronic health records.
  - A **longitudinal dataset** that will follow participants as they move, age, develop relationships, get sick, and try treatments.
  - A **diverse cohort of participants**, including people both healthy and sick, from all walks of life and all parts of the country.
  - Both raw data and data that is already **cleaned and curated**.
  - **Robust computing and analytic tools** to support complex data analyses in a **secure data environment**.
  - A group of **engaged participants** who may be eager to participate in ancillary studies.

- The ability to easily **share workspaces and analyses** with research partners and reviewers.

- The chance to learn from the program’s pilots and experiments and **leverage innovations** for other studies and cohorts.

As with most studies, we are collecting, evaluating, and curating initial datasets; availability in 2019.
What is the promise for providers?

- Over time, increased scientific evidence and improved guidelines to enable precision medicine opportunities for more people and conditions:
  - Better understanding of the impact of environment and lifestyle factors on health.
  - Increased knowledge of differences in risk factors and response to treatments among diverse populations.
  - More information on the development of conditions that will allow for earlier detection.
  - Deeper understanding of different conditions that may allow for better stratification.

- Innovations that may make it easier to share electronic health records with other providers and patients.

- New knowledge to help address health disparities, increase patient engagement, and understand the usefulness of consumer health devices and apps.

Help accelerate medical breakthroughs by sharing information about All of Us with your patients!
Two Methods of Enrollment

DIRECT VOLUNTEERS

HEALTH CARE PROVIDER ORGANIZATIONS
The Participant Journey

(Figure 6.1 of Core Protocol V1.7)

1. Learn about the All of Us Research Program
2. Create an account
3. Give consent to enroll and share your data
4. Share your electronic health records
5. Respond to Surveys

- Get measured and provide biosamples (blood and urine)
- Track and view your own data
- Scientists make discoveries
- Choose to receive Program updates
The program will start by collecting a limited set of standardized data from sources that will include:

- Participant surveys
- Electronic health records
- Physical measurements
- Biosamples (blood and urine samples)
- Mobile/wearable technologies
- Geospatial/environmental data

Data types will grow and evolve with science, technology, and trust.
Minorities make up 38% of the US population. Minority populations to rise to over 56% of overall population.

Minority enrollment in clinical trials? >10%

**VALUE TO PARTICIPANTS**

African American population = 13.2% of US population
- 5% of clinical trial participants nationwide

Hispanic population = 17% of US population
- 7.6% of NIH clinical trial participants
- 1% of clinical trial participants nationwide

Underrepresented in biomedical research populations include ethnic minorities, as well as age, sex, gender, orientation, income, education, geography, access to care and disability.
A Transformational Approach to Participation

Participants in the *All of Us* Research Program will be true partners—not patients, not subjects—in the research process. Involved in every step of program development:

- What data we collect
- What lab analyses we do
- What research is conducted
- How data gets returned
Genetic Analysis and Challenges to the Health System
Pharmacogenomics

New Paradigm Shift in Treatment
Transitioning From the ‘one-size-fits-all’ to ‘precision medicine’ model with multi-level patient stratification.

One-size-fit-all Medicine → Stratified Medicine → Precision Medicine

Patients are grouped by:
- Disease Subtypes
- Risk Profiles
- Demographics
- Socio-economic
- Clinical Features
- Biomarker
- Molecular sub-populations

Individual patient level:
- Genomics and Omics
- Lifestyle
- Preferences
- Health History
- Medical Records
- Compliance
- Exogenous Factors

Precision medicine ensures delivery of the right intervention to the right patient at the right time.

Drug Industry Bets Big On Precision Medicine: Five Trends Shaping Care Delivery

Thank You
Pierre Buekens, MD, PhD
Tulane University School of Public Health and Tropical Medicine

• W. H. Watkins Professor in the Department of Epidemiology

• Director, Tulane Center for Emerging Reproductive and Perinatal Epidemiology (CERPE)

• Co-founded Trop-G, a collaboration working to control and eliminate NTDs in high-risk areas around the Gulf of Mexico
Accessing Mexican Literature and Data

Pierre Buekens, MD, PhD
Accessing Mexican Literature

- Virtual Library: http://bvrsalud.org
- Lilacs: http://lilacs.bvsalud.org
- Scielo: http://www.scielo.org.mx
LILACS is the most important and comprehensive index of scientific and technical literature of Latin America and the Caribbean. For 32 years contributing to increase visibility, access and quality of health information in the Region.

<table>
<thead>
<tr>
<th>LILACS in numbers</th>
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<tbody>
<tr>
<td>26 countries</td>
</tr>
<tr>
<td>918 journals</td>
</tr>
<tr>
<td>827,400 records</td>
</tr>
<tr>
<td>690,750 articles</td>
</tr>
<tr>
<td>87,713 monographies</td>
</tr>
<tr>
<td>40,647 thesis</td>
</tr>
<tr>
<td>418,391 full texts</td>
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</table>
Polling Question

What is the best Mexican Public Health Journal?

A. BJX Salud Pública
B. QRO Salud Pública
C. Salud Pública de México
D. There is no Mexican Public Health Journal
Mexican Surveys and Databases

- https://www.gob.mx.conapo
- http://www.dgis.salud.gob.mx
Low Birthweight in Mexico: A Systematic Review

Pierre Buekens · Caitlin Canfield · Nicolas Padilla · Elia Lara Lona · Rafael Lozano

Surprisingly, most of the US literature does not refer to birth outcome data available in Mexico.
Fig. 1  Mexican States and Federal District: Low Birthweight (LBW, <2,500 g) rate quartiles, live births, 2009
<table>
<thead>
<tr>
<th>State and City (if applicable)</th>
<th>Sample type</th>
<th>Year</th>
<th>Sample size (# of births or women*)</th>
<th>LBW %</th>
</tr>
</thead>
<tbody>
<tr>
<td>National-Level Survey (DHS/ENFES)</td>
<td>National Household Survey</td>
<td>1982–1987</td>
<td>5,311</td>
<td>10.2</td>
</tr>
<tr>
<td>National-Level Survey (ENSAR)</td>
<td>National Household Survey</td>
<td>2003</td>
<td>19,612*</td>
<td>10.0</td>
</tr>
</tbody>
</table>
Conclusions

• Mexican literature should be cited
• Results from Mexican surveys should be used
• Mexican data available online should be analyzed in collaboration with Mexican colleagues.
Approaches to Hispanic Health Research: Q&A

Norma A. Pérez, MD, DrPH
President, HSHPS
Executive Director, Hispanic Center of Excellence
University of Texas Medical Branch

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