



## Clinical Trial Recruitment Challenges

Precision, Personalized and Diverse: New Tools and Strategies

# Disclaimer

- I do not have any financial relationships to disclose
- I will not discuss off label use and/or investigational use in this presentation
- The views expressed here are mine and not FDA



# Outline

- Who are we?
- FDA's Role in Clinical Trials
- Representation in clinical trials
- Strategies to Improve Diverse Participation in Clinical Trials



# **OVERVIEW OF FOOD AND DRUG ADMINISTRATION & OFFICE OF MINORITY HEALTH AND HEALTH EQUITY (OMHHE)**

# Food and Drug Administration (FDA)

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## Mission

FDA is responsible for protecting the public health by assuring the safety, efficacy and security of human and veterinary drugs, biological products, medical devices, our nation's food supply, cosmetics, and products that emit radiation.

FDA also regulates the manufacturing, marketing, and distribution of tobacco products to protect the public health and to reduce tobacco use by minors.

## Consumer protection agency

Provide information on regulated products to ensure safe and effective use to consumers/patients/health care providers

## Regulatory agency

Intersection of commerce, laws and public health



# FDA Office of Minority Health and Health Equity

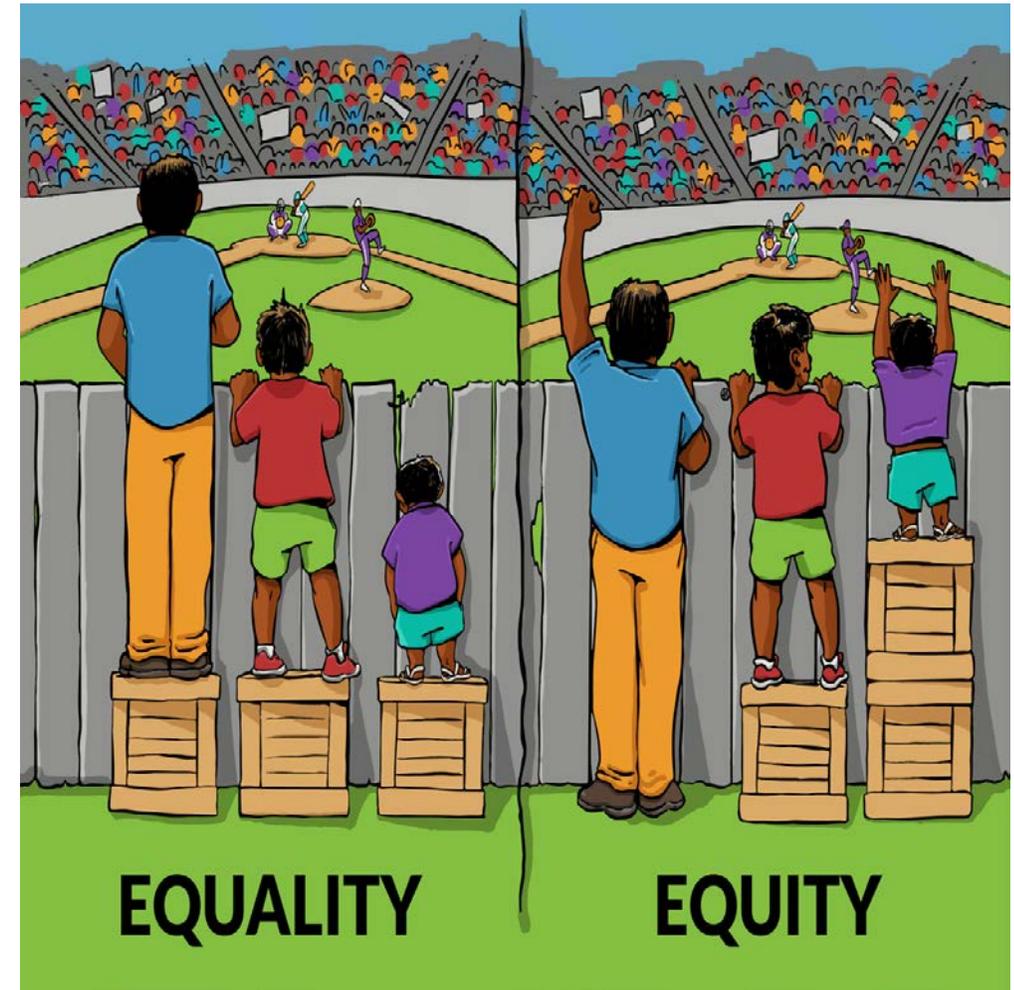


## Mission

To promote and protect the health of diverse populations through research and communication that addresses health disparities.

## Vision

To create a world where health equity is a reality for all.





# What We Do



## Outreach and Communication

- Programs/Initiatives/Campaigns
  - Language Access Program
  - Diversity in Clinical Trials Initiative
- Health Education Materials
- FDA Spokesperson; Speaking Engagements
- Social Media
- Newsletter & E-alerts
- Website
- Lecture Series & Webinars
- FDA & HHS Working Groups
- Stakeholder Meetings/Symposiums/Exhibits
- Foster collaboration between FDA & stakeholders

## Research and Collaboration

- Intramural Research
- Extramural Research
- Participate in FDA Centers of Excellence in Regulatory Science and Innovation (CERSI) Projects
- Summer Teacher Training Program
- Pharmacy Internships
- Academic Collaborations/Fellowships
- Congressional Mandates
- FDA & HHS Working Groups & Collaborations
- Stakeholder Input into Research Agenda
- Guidance Documents



# Research and Collaboration Program Goals

- Goal 1: Advance minority health-focused research and increase the amount of clinical trial data available on racial/ethnic minority populations.
- Goal 2: Reduce health disparities by advancing minority health-focused education and scientific exchange.



# Outreach and Communication Program

## Goals

- Goal 1: Strengthen FDA outreach to racial and ethnic minority populations and underserved populations that often experience low health literacy and speak English as a second language or not at all.
- Goal 2: Partner with external stakeholders to identify and reduce health disparities.



# **FDA'S ROLE IN CLINICAL TRIALS**



## FDA's Role in Clinical Trials

- FDA is the only agency in the world that does primary review of data ranging from pre-clinical to clinical.
- FDA establishes regulations and guidance about the data in trials for product applications.
- FDA helps raise awareness about clinical trials participation.



# Legislation: FDA Safety & Innovation Act of 2012, Section 907

- **Section 907** - *Reporting of Inclusion of Demographic Subgroups in Clinical Trials and Data Analysis in Applications for Drugs, Biologics, and Devices*
  - Report to determine the extent of demographic subgroups in applications, in FDA reviews for safety and efficacy; if information is publically available on FDA website or in labeling; **report posted August 2013**
  - Publish and provide to Congress an action plan outlining recommendations for improving the completeness and quality of analysis of data; **action plan posted August 2014**

# FDASIA Section 907 Action Plan

## Priorities & Sample Strategies



**Priority One:** Improve the completeness and quality of demographic subgroup data collection, reporting and analysis  
**(Quality)**



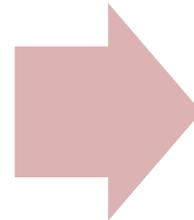
FDA Guidance Documents:  
Collection of Race and Ethnicity Data in Clinical Trials  
Evaluation and Reporting of Age, Race, and Ethnicity Specific Data in Medical Device Clinical Studies

**Priority Two:** Identify barriers to subgroup enrollment in clinical trials and employ strategies to encourage greater participation  
**(Participation)**



Public Meetings  
Tools to support diverse clinical trial participation

**Priority Three:** Make demographic subgroup data more available and transparent  
**(Transparency)**

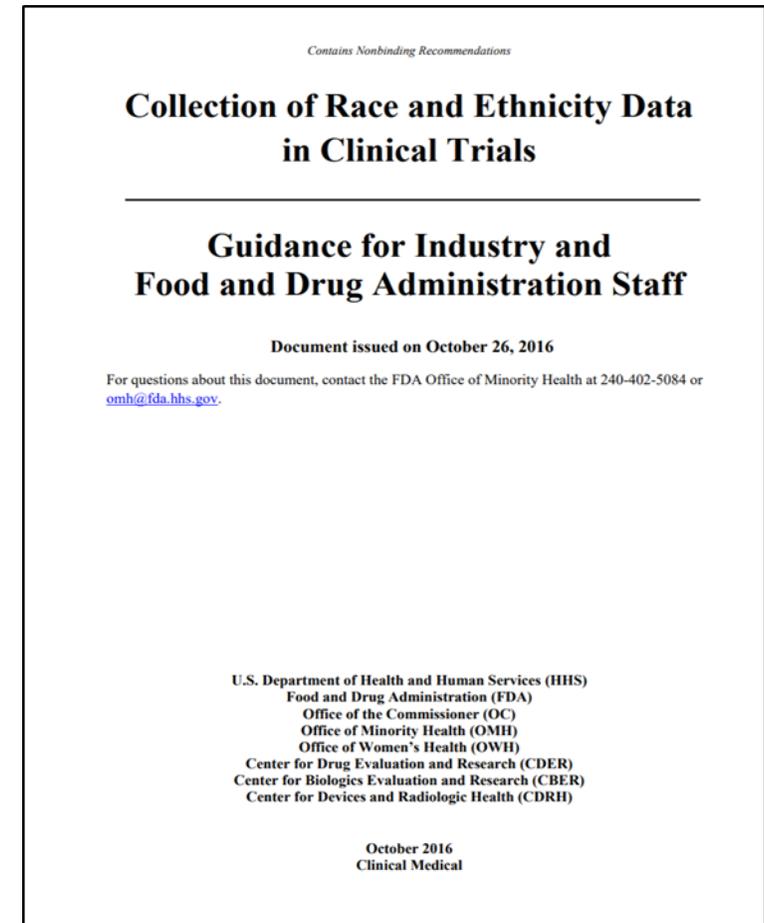


Drug Trials Snapshot



# Guidance Document- Main Points

- FDA expectations are that sponsors enroll participants who **reflect the demographics for clinically relevant populations** with regard to age, gender, race, and ethnicity
- **A plan to address inclusion of clinically relevant subpopulations** should be submitted for discussion to the Agency at the earliest phase of development and, for drugs and biologics, no later than the end of the phase 2 meeting
- Inadequate participation and/or data analyses from clinically relevant subpopulations can lead to insufficient information pertaining to medical product safety and effectiveness for product labeling





# Points to Consider: Subgroup Differences

For potential race and ethnicity differences relevant to the evaluation of the medical product for the disease/condition, consider:

- Prevalence
- Diagnosis and treatment patterns
- Previous subgroup inclusion in past studies for target indication
- Any clinically meaningful subgroup differences in safety or efficacy





# REPRESENTATION IN CLINICAL TRIALS

# The continuing conversation...



SCIENTIFIC AMERICAN

English Cart Sig

POLICY & ETHICS

## Clinical Trials Have Far Too Little Racial and Ethnic Diversity

It's unethical and risky to ignore racial and ethnic minorities

By THE EDITORS on September 1, 2018



ABOUT MISSIONS ADVOCACY DATA

AAMC NEWS

DIVERSITY & INCLUSION



Tuesday, December 20, 2016 | by David Levine and Rebecca Greenberg

### More Minorities Needed in Clinical Trials to Make Research Relevant to All

HEALTHY LIVING 02/23/2017 08:00 am ET | Updated 22 hours ago

## Most Clinical Trials Have A Glaring Flaw Before They Even Begin

A lack of diversity in medical studies is hurting science and patients.

By Erin Schumaker

PROPUBLICA TOPICS SERIES ABOUT

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## Black Patients Miss Out On Promising Cancer Drugs

A ProPublica analysis found that black people and Native Americans are under-represented in clinical trials of new drugs, even when the treatment is aimed at a type of cancer that disproportionately affects them.

by Caroline Chen and Riley Wong, Sept. 19, 5 a.m. EDT

This story was co-published with Stat.

MEETING NEWS



## Survey: Minorities underrepresented in clinical trials, but want to participate

March 15, 2018

Clinical Trials ARENA

Addressing the key challenges in the global clinical trial space

Search

OPERATIONS SUPPLY CHAIN DATA OUTSOURCING ONCOLOGY TECHNOLOGY MEDICAL DEVICES COLD CHAIN RESOURCES SUPPLIERS EVEL

13 JUNE 2018 NEWS

## We Need to Talk About Race: Lack of Diversity in Clinical Trials is a Public Health Issue

CONQUER the patient voice

Home Issues Browse by Topic Patient Stories Financial Support Survivorship Wellness Corner Interactive Media

CLINICAL TRIALS MULTIPLE MYELOMA

Lack of Diversity in Clinical Trials Hurts Patients and Drug Development

Huffington  
Post 2/23/17

HEALTHY LIVING 02/23/2017 08:00 am ET | Updated 22 hours ago

# Most Clinical Trials Have A Glaring Flaw Before They Even Begin

A lack of diversity in medical studies is hurting science and patients.



By Erin Schumaker



PRESCRIPTION  
**Jardiance**  
(empagliflozin) tablets  
10 mg/25 mg

**THE ONLY TYPE 2  
TREATMENT**

FDA-approved  
for adults with  
type 2 diabetes:

- REDUCES RISK OF CV DISEASE  
IN ADULTS WHO ALSO  
TAKE METFORMIN
- LOWERS A1C ALONG WITH  
METFORMIN

Discover JARDIANCE

Not for people with  
or people with di  
(increased ketone

PRESCRIBING INFORMATION  
IMPORTANT SAFETY INFORMATION

# Why do we need minorities in clinical trials?

- Minorities have been historically under-represented in clinical trials
- Need representation to study the effects of medical products in the people who will ultimately use them
- Minorities may respond differently to medical products ( ex: cancer treatment, heart failure medications)
- To understand health disparities—diseases that occur more frequently or appear differently in diverse populations.



# Drug Trials Snapshots: Summaries (2016-2018)

	WOMEN	BLACK or AFRICAN AMERICAN	ASIAN	WHITE	OTHER*	AGE 65 AND OLDER
2016	48%	7%	11%	76%	7%	21%
	WOMEN	BLACK or AFRICAN AMERICAN	ASIAN	WHITE	HISPANIC	AGE 65 AND OLDER
2017	55%	7%	11%	77%	14%	32%
	WOMEN	BLACK or AFRICAN AMERICAN	ASIAN	WHITE	HISPANIC	AGE 65 AND OLDER
2018	56%	11%	10%	69%	14%	15%

\* The percentages of the categories “American Indian or Alaska Native (AI/AN),” “Native Hawaiian or Other Pacific Islander (NH/OPI),” and “Unk nown/Unreported” were small enough that we combined them into the “Other” category for the purposes of this review.

\*\*These particular subgroups were calculated as part of a Geriatrics Report and are not a regular feature of the Drug Trial Snapshots

<https://www.fda.gov/drugs/drug-approvals-and-databases/drug-trials-snapshots>

# Barriers to Diverse Participation

- Mistrust and distrust of the medical system due to historical abuses
- Lack of awareness on the patient's part
- Inadequate recruitment and retention efforts
- Lack of minority physicians, researchers, and clinical investigators
- Misunderstanding of racial/ethnic minorities' beliefs and values that contribute to their decision making process
- Lack of culturally/linguistically appropriate communication
- Perception that minorities do not want to participate
- Physicians/providers may not talk to their patients about clinical trials
- Enrollment criteria
- Return of Results
- Privacy concerns
- Lack of access



# Research Shows....



- **Asian American communities** have low knowledge of and negative attitudes toward clinical trials.[10](#), [11](#)
- In one study of Asian American cancer patients, 62% reported no knowledge of clinical trials.[12](#)
- In a survey study of cancer patients and healthcare providers, Asian Americans were **less likely** than other groups:[13](#)
  - to have heard the term “clinical trials,”
  - to know someone who had participated in a Randomized Clinical Trial (RCT),
  - to be willing to participate in a RCT.
  - were more likely to think of RCTs as experiments
  - were concerned about insurance coverage and costs of care.



**Take home message:  
Ask patients to participate!**

# **COMMUNICATION & OUTREACH STRATEGIES TO IMPROVE DIVERSE PARTICIPATION IN CLINICAL TRIALS**



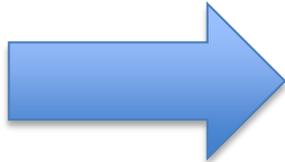
# Building the Case for FDA

- **Issue-** FDA communications may not reach the intended audiences in a manner they can understand
- **Key Strategies-**
  - We meet people at their place of need/comfort level
    - Example: minorities are early adopters of technology
  - We are **spokespersons** to raise the profile of FDA's minority health activities



# Clinical Trials Clinical Trials Diversity Campaign

Developed a **multi media campaign** to raise awareness around the importance of **diverse representation** in clinical trials to ensure medical products are safe and effective for everyone.





# Motivators for Campaigns

- Add positive reinforcement as to why minority health issues matter
- Educate consumers about key issues
- Help stimulate dialogue among peers and patient-provider





# Minorities and Clinical Trials Campaign



Videos

Newsletters & E-alerts

Webpage

Stakeholder Collaboration

Podcasts

Social Media

Communications Toolkit

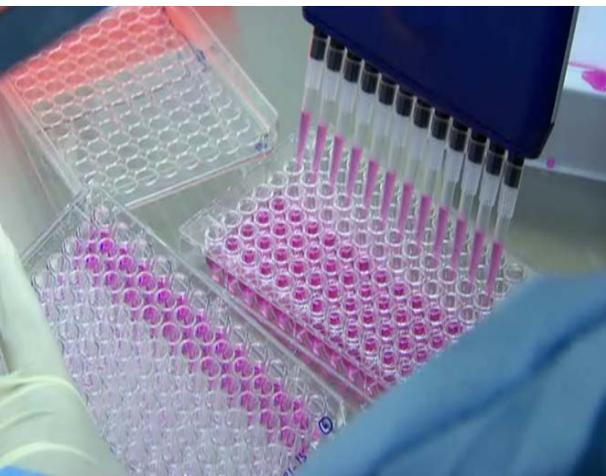
Graphics

# Minority Participation in Clinical Trials Videos



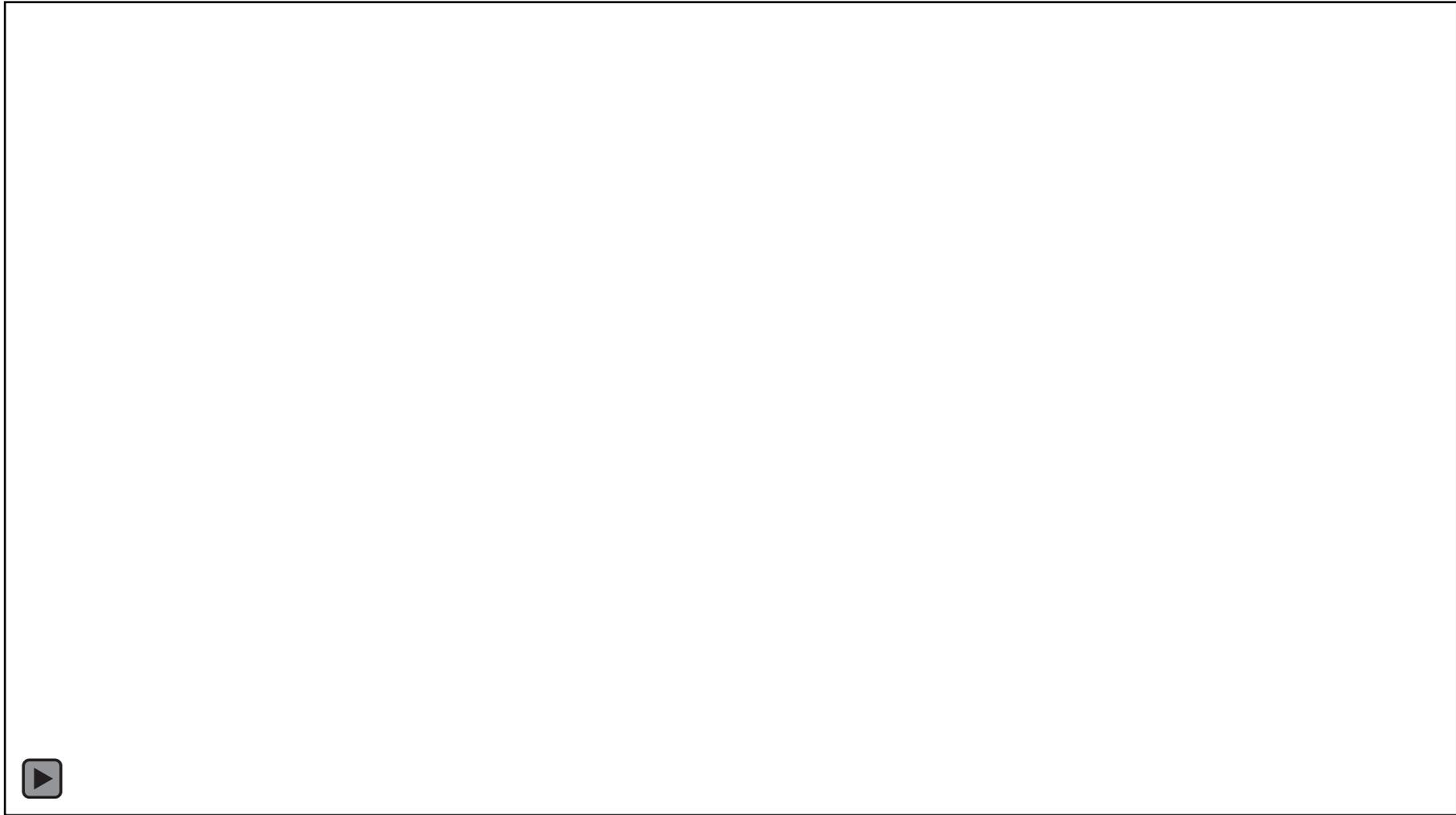
*Videos highlighting the importance of minority participation in clinical trials.*

*Each video features a different theme and key message.*





# Shirley's Story



**Shirley's Story: Diversity is Critical to Making Better Medical Products**



# Veteran Participation in Clinical Trials Videos & Podcast



*Videos highlighting the importance of veteran participation in clinical trials.*

*Launched a new podcast series to discuss minority health issues.*

*First podcast featured three U.S. Army Veterans talking about the importance of clinical trial participation.*



Veterans Health Administration  
Office of Health Equity

# Diversity in Clinical Trials Resources



## Minorities In Clinical Trials

**FACT SHEET**

Clinical trials are research studies that determine whether medical products like medicines, vaccines, or devices are safe and effective. These studies may show which medical approaches work best for certain illnesses or groups of people.

Office of Minority Health

**4 things you should know about The importance of minority**

## Las minorías en los estudios clínicos

**HOJA INFORMATIVA**

Los estudios clínicos son estudios de investigación que determinan si los productos médicos como medicamentos, vacunas o dispositivos son seguros y eficaces. Estos estudios pueden demostrar qué enfoques médicos funcionan mejor para ciertas enfermedades o grupos de personas.

Oficina de Salud de las Minorías

**4 Cosas que debe saber acerca de los estudios clínicos**

1. Los estudios clínicos son estudios de investigación realizados con personas— están diseñados para responder preguntas específicas de investigación acerca de productos o procedimientos médicos. Los investigadores deben seguir protocolos específicos y las pautas de seguridad de la FDA para realizar cada estudio de la manera más segura posible.
2. La participación siempre es voluntaria— y usted puede dejar el estudio cuando quiera.
3. Los estudios clínicos con frecuencia necesitan voluntarios saludables para ayudar a responder preguntas de investigación.
4. La FDA no realiza estudios clínicos: la FDA trabaja con empresas que desarrollan productos médicos para proteger a los participantes y revisar los resultados para asegurar que el producto médico sea seguro y eficiente.

**La importancia de la participación de las minorías en los estudios clínicos**

Los participantes de estudios clínicos deben representar a los pacientes que utilizarán los productos médicos. Esto con frecuencia no es el caso—las minorías raciales y

étnicas están subrepresentadas en los estudios clínicos. Esto es una preocupación porque las personas de diferentes edades, razas y etnias pueden reaccionar de manera diferente a los productos médicos. Estamos comprometidos en trabajar con las empresas para cambiar esta situación. Participar en un estudio clínico puede ser una buena decisión para usted si:

- Usted y su médico creen que los tratamientos actuales no son buenas opciones y un estudio clínico ofrece alternativas adicionales.
- Usted quiere ayudar a asegurar que los beneficios y riesgos de los productos médicos se estudien en los pacientes de grupos diversos que los necesitan.
- Usted quiere ayudar a los investigadores a encontrar mejores maneras de combatir enfermedades.

Si piensa que un estudio clínico puede ser adecuado para usted, hable con su médico. También puede buscar los estudios clínicos a través de nuestra base de datos en línea [www.ClinicalTrials.gov](http://www.ClinicalTrials.gov).

Si quiere conocer más acerca de un medicamento aprobado recientemente que pueda estar tomando, visite las **Fichas de Ensayos Farmacológicos (Drug Trials Snapshot)** — una base de datos que le proporciona información sobre quienes participaron en un estudio para la aprobación de medicamentos. Puede encontrar más información en [www.FDA.gov/DrugTrialsSnapshot](http://www.FDA.gov/DrugTrialsSnapshot).

Para obtener más información sobre la salud de las minorías, vaya a [www.fda.gov/minorityhealth](http://www.fda.gov/minorityhealth). Para ver videos y ver una lista de preguntas para hacer a los investigadores, vaya a [www.hhs.gov/about-research-participation](http://www.hhs.gov/about-research-participation).

La FDA es una agencia dentro del Departamento de Salud y Servicios Humanos de EE. UU., que protege la salud pública al asegurar la seguridad y eficacia de los medicamentos humanos y veterinarios, vacunas y otros productos biológicos para uso humano y dispositivos médicos. La agencia también es responsable de la seguridad y protección del suministro de alimentos, cosméticos, suplementos nutricionales y productos que emiten radiación electrónica y de la regulación de productos de tabaco de la nación.

## Become a Research Volunteer

Research *needs* you  
It's **YOUR** decision

Participe en una investigación como voluntario(a)

La investigación necesita de **USTED**.  
Es **SU** decisión.

Services

Participe en una investigación como voluntario(a)

La investigación necesita de **USTED**.  
Es **SU** decisión.

Services

Departamento de Salud y Servicios Humanos de los Estados Unidos  
Administración de Alimentos y Medicamentos (FDA)  
Oficina de Salud de la Minorías

## Minorities in Clinical Trials

Clinical trials are research studies that determine whether medical products like medicines, vaccines, or devices are safe and effective for people. Participants in clinical trials should represent the patients that will be using the medical products, though this is often not the case. Racial and ethnic minorities are underrepresented in clinical trials. This is a concern because people of different ages, races, and ethnicities may react differently to medical products. If you think a clinical trial may be right for you, talk to your doctor.

You can also search for clinical trials on [ClinicalTrials.gov](http://ClinicalTrials.gov)—an online database of clinical trials sponsored by FDA and the National Institutes of Health (NIH).

Watch this webinar for help navigating [ClinicalTrials.gov](http://ClinicalTrials.gov)

Search [ClinicalTrials.gov](http://ClinicalTrials.gov)! Enter a word or phrase, such as the name of a medical condition or intervention. Example: Cancer AND Los Angeles

**Clinical Trial Resources**

- About Research Participation
- Fact Sheet: Minorities in Clinical Trials [Spanish]
- Brochure: Become a Research Volunteer! [Spanish]
- Webinar: Get to Know ClinicalTrials.gov! [Slides]
- Clinical Trial Diversity Toolkit
- Collection of Race and Ethnicity Data in Clinical Trials- Guidance for Industry and FDA Staff
- FDASIA Section 907: Inclusion of Demographic Subgroups in Clinical Trials
- Women in Clinical Trials
- Drug Trials Snapshots
- Inside Clinical Trials: Testing Medical Products in People
- NIH Infographic- Why do researchers do different types of clinical studies?
- Clinical Trials: What Patients Need to Know

**Consumer Updates**

- FDA Encourages More Participation, Diversity in Clinical Trials [Spanish]
- Who's in Clinical Trials? [Spanish]
- Would Your Child Benefit from a Clinical Trial? [Spanish]

**Journal Publications**

- Strategies for Increased Inclusion of Racial and Ethnic Minorities in Clinical Trials

**FDA Voices, Interviews, and Outreach**

- Mission Possible: Moving the Needle Forward to Advance Health Equity



# What's the Impact?

- Stimulated dialogue around clinical trial diversity
- Increased utilization of our materials
- Next Steps:
  - Further research can assess the effectiveness of our materials and outreach strategies through cognitive testing and focus group testing.
  - PSA targeting physicians and engaging their patients in participating in clinical trials

# Sample of OMHHE Resources

## Asian Americans and Hepatitis B

### FACT SHEET

Hepatitis B is a viral infection that causes inflammation of the liver. 1 out of 12 Asian Americans are chronically infected with hepatitis B. 2 out of 3 Asian Americans that are infected and don't know it.

*Office of Minority Health*

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**What is Hepatitis B?**

Hepatitis B is a liver infection caused by the Hepatitis B virus (HBV). Hepatitis B is transmitted by:

- Having unprotected sex with an infected person
- Sharing contaminated razors, toothbrushes, or needles
- Coming in contact with infected blood (e.g. transfusion, open wounds)
- Mother to baby during vaginal or cesarean birth

If left untreated, hepatitis B can cause scarring of the liver, liver failure, cancer, or even death.



**Hepatitis B Signs and Symptoms**

- Fatigue
- Fever
- Loss of appetite
- Nausea and vomiting
- Yellow eyes and skin (jaundice)
- Clay-colored bowel movement and dark urine
- Pain on the right side of the stomach
- Joint pain

**Key Facts**

- Hepatitis B is preventable. You can prevent the infection by getting vaccinated before being exposed to the virus.
- Know your status. If you think you've been exposed, ask your doctor to get tested.
- If you have hepatitis B, talk to your doctor about starting an FDA-approved treatment regimen.

**Hepatitis B Treatment Options**

*For Children*

- **Intron A** (interferon alpha-2b): Patients with chronic hepatitis B 1 year of age or older with compensated liver disease.
- **Hepsera** (adefovir dipivoxil): Patients with chronic hepatitis B aged 12 years or older.

*For Adults*

- **Viread** (tenofovir): Patients with chronic hepatitis b.
- **Vemlidy** (tenofovir alafenamide): Patients with chronic hepatitis B with compensated liver disease.
- **Baraclude** (entecavir): Patients with chronic hepatitis B with evidence of active viral replication.
- **EpiVir HBV** (lamivudine): Patients with chronic hepatitis B associated with HBV replication and active liver inflammation.
- **Pegasys** (pegylated interferon): Patients with HBeAg positive and HBeAg negative chronic hepatitis B who have compensated liver disease and evidence of viral replication and liver inflammation.
- **Tyzeka** (telbivudine): Patients with chronic hepatitis B with evidence of viral replication and either evidence of persistent elevations in serum aminotransferases (ALT or AST) or histologically active disease.

**Additional Resources**

For more information on Hepatitis B, visit FDA's Hepatitis B Resources page at [www.fda.gov/forpatients/illness/hepatitisBC](http://www.fda.gov/forpatients/illness/hepatitisBC). For more information on minority health go to [www.fda.gov/minorityhealth](http://www.fda.gov/minorityhealth).

The FDA, an agency within the U.S. Department of Health and Human Services, protects the public health by ensuring the safety, effectiveness, and security of human and veterinary drugs, vaccines and other biological products for human use and medical devices. The agency also is responsible for the safety and security of our nation's food supply, cosmetics, dietary supplements, and products that pose an electronic radiation, and for regulating tobacco products.

# Our Health Equity Stakeholders



Yale University



NATIONAL RURAL HEALTH ALLIANCE INC.

UNIVERSITY OF MARYLAND



# Call To Action

- **Talk to your network or stakeholders about clinical trials**
  - Distribute FDA materials (display posters in your office, clinic, or hospital)
  - Send out announcements via your newsletter or social media
  
- **Stay Up to Date**
  - Visit the website and follow us on social media
  - Sign-Up for email alerts
  
- **Get Engaged: Make Your Voice Heard**
  - Communicate your issues and ideas to FDA at public meetings and respond to dockets
  - Patient Engagement Collaborative
  - Patient Representative Program

# Connect With Us



*Follow us on twitter @FDAOMH*



[OMH@fda.hhs.gov](mailto:OMH@fda.hhs.gov)



[www.fda.gov/minorityhealth](http://www.fda.gov/minorityhealth)



Join [webinars](#) and stakeholder calls





- Additional slides



# Minorities and Clinical Trials

	US Population	Clinical Trial Participation
African-Americans	12%	5%
Hispanics	17%	1%

Note: NIH clinical trials have 30% minority representation overall