AGENDA

- Introduction
- Moderator
  - Sydne Enlund, policy specialist, NCSL
- Speakers
  - George Mensah, MD, director, Center for Translation Research and Implementation Science, National Heart, Lung, and Blood Institute (NHLBI), National Institutes of Health
  - Badhri Srinivasan, head of global development operations, Novartis
- Q&A
Bipartisan membership organization
- All 50 states and the territories
  - 7,383 state legislators
  - All state legislative staff (30,000+)

Mission:
- To improve the quality and effectiveness of state legislatures
- To promote policy innovation and communication among state legislatures
- To ensure states a strong, cohesive voice in the federal system
OVERVIEW OF CLINICAL TRIALS AND STATE POLICY

- Research study on human patients to test the safety and effectiveness of new treatments.

- States have enacted laws to mandate coverage of clinical trials, provide funding support and create a trial participant program act.
  - **Colorado** HB20-1232 (enacted 2020) - Authorizes the state medical assistance program (medicaid) to cover routine costs associated with phase I through phase IV clinical trials involving the prevention, detection, diagnosis, or treatment of life-threatening or debilitating diseases or conditions.
  - **Illinois** SB1864 (enacted 2020) - Provides that the medical assistance program shall provide coverage for routine care costs that are incurred in the course of an approved clinical trial if the medical assistance program would provide coverage for the same routine care costs not incurred in a clinical trial.
  - **Illinois** SB 1711 (enacted 2019) - Creates the Cancer Clinical Trial Participation Program Act; provides that an independent third party organization may develop and implement a cancer clinical trial participation program to provide reimbursement to subjects for ancillary costs associated with participation in a cancer clinical trial.
  - **Iowa** HF 766 (enacted 2019) - Makes appropriations; includes $150,000 for melanoma research and clinical trials.
  - **Kentucky** HB 352 (enacted 2020) - Makes appropriations; includes $2.5 million in FY 2020-21 to the Kentucky Pediatric Cancer Research Trust Fund for research and support of expansion of clinical trials at the University of Kentucky and the University of Louisville.
  - **Pennsylvania** SB 712 (enacted 2019) - Makes appropriations; including for biotechnology and drug research, and clinical trials related to several conditions.
  - **Wisconsin** SB 489 (enacted 2020) - Allows reimbursement of certain expenses for patients participating in cancer clinical trials.

- Private insurers in some states have also agreed to cover clinical trials.
1. What are clinical trials and why are they important?
2. Why is inclusive participation in clinical trials critical?
3. How diverse are current COVID-19 clinical trials?
4. What is NIH doing to address this challenge?
5. What can NCSL and State legislators do to help?
A clinical trial is a type of research done in people to determine if a clinical intervention is safe and effective.

- Safety is the #1 priority in a clinical trial (CT).
- The risks & benefits of a CT are explained to all participants who then sign an informed consent before they participate.
- There are rigorous ethical standards the researchers must follow in conducting CTs.
- CT participants have the option of stopping their participation in the CT at any time.
- When an effective vaccine or drug is found, participants on a placebo are switched to the effective vaccine or drug.
The Different Phases of a Clinical Trial and the Approximate Number of Participants Needed

**Pre-Clinical**
- Testing on animals for toxicity.

**Investigational New Drug Application**
- Describes the manufacturer's plans for testing the drug in clinical trials. If approved by FDA, the manufacturer becomes the sponsor of an “existing IND.”

**Clinical Trials**

**Phase I**
- Clinical trials test for safety and dosing ranges.
  - No. of patients: 20 to 80
  - Approximately 63.2% moved to phase II

**Phase II**
- Clinical trials test for efficacy in the patients that the drug is intended to treat.
  - No. of patients: a few dozen to hundreds
  - Approximately 30.7% moved to phase III
  - No. of patients: hundreds to thousands
  - Approximately 58.1% moved to the new drug application process

**Phase III**
- Clinical trials test for efficacy in the patients that the drug is intended to treat.
  - No. of patients: hundreds to thousands

**Review/Approval Process**
- New drug application review
  - Once the drug has successfully completed the phase III trials, the manufacturer generally submits a new drug application to FDA.
  - Approximately 85.3% are approved
- FDA approval results
  - FDA either approves or denies approval for the drug or biologic for marketing and sales in the U.S.

Source: GAO analysis of FDA data and a 2016 collaborative study by Biotechnology Innovation Organization, Biomedtracker, and Amplion.
Why is diversity and inclusion in clinical trials so important during this COVID-19 pandemic?

• To find a vaccine or drug that is safe and effective in all kinds of people, it must be tested in all kinds of people.

• Clinical trials that include men and women from diverse racial and ethnic backgrounds provide greater assurance that it will be safe and effective in both men and women from diverse backgrounds.

• COVID-19 vaccine trials are best designed when they enroll participants from communities that have been hardest hit by the pandemic (adults ≥65 years; underserved racial and ethnic minorities including African Americans, LatinX, American Indians.)
Underserved racial & ethnic communities have been disproportionally impacted by the COVID-19 pandemic.

1. African Americans make up 13% of the U.S. population, but about **20% of COVID-19 cases** and **22% of deaths**.

2. Hispanics/Latinos make up about 18% of the U.S. population, but about **32% of COVID-19 cases** and **17% of deaths**.

3. African Americans, Hispanics, and American Indian/Alaska Natives are at **4-5 times higher risk of being hospitalized** from COVID-19 than are whites.

4. Historically, clinical research studies excluded, or in some cases, exploited, minority populations.

5. Today, many people of color remain **distrustful of clinical research**, or face other barriers to participation.

6. NIH is committed to the inclusion of underserved communities in COVID-19 vaccine trials because it is essential for developing vaccines that are safe and effective for these communities.
The lack of diversity in clinical trials is not a new phenomenon.

In Cancer Trials, Minorities Face Extra Hurdles

As immunotherapy research takes off, the patients getting the treatment have been overwhelmingly white. Researchers know this and say they are trying to correct it.

By DENNIS CRAVAT

DEC. 23, 2016
Lack of diversity in clinical trials is an old problem: Another example from a **Kidney Cancer** drug trial

Extent of Racial and Ethnic Diversity in Current Vaccine Trial Registry

**AstraZeneca Vaccine**

**Janssen Vaccine**

**Moderna Vaccine**

Source: Courtesy of Dr. James Kublin, COVID-19 Prevention Network (CoVPN)

Community Engagement Alliance (CEAL) Against COVID-19 Disparities

NIH National Institutes of Health
Minorities in general are just as willing to participate in clinical trials—several well-done studies show this.

Important to dismiss the notion that minorities are “not interested” in participating in research.

The approaches need to be modified so that having a website or distributing leaflets (old days) are inadequate without directed messages and trusted messengers.

It is critical to address institutional mistrust as opposed to the automatic response of “they do not want to participate because of mistrust”.

Address misconceptions about minority participation in clinical trials
Minority Enrollment in Vaccine Trials Increase Substantially with Appropriately Targeted Engagement and Outreach

As of Friday, September 25, 2020, nearly 31% of participants enrolled cumulatively are from diverse communities.

https://www.modernatx.com/cove-study
NIH Community Engagement Alliance (CEAL) Against COVID-19 Disparities

CEAL works with communities to respond to COVID-19 by addressing misinformation and promoting participation in clinical trials

CEAL Objective 1
Conduct urgent community-engaged research and outreach focused on COVID-19 awareness and education to address misinformation and mistrust.

CEAL Objective 2
Promote and facilitate inclusion of diverse racial and ethnic populations in clinical trials (prevention, vaccine, therapeutics), reflective of the populations disproportionately affected by the pandemic.

CEAL Activities:
- Support and expand existing community outreach efforts by NIH COVID-19 trial networks, such as ACTIV (treatments), RADx (diagnostic tests), and CoVPN (vaccines).
- Establish communication networks across multiple channels and through engagement with trusted organizations and trusted voices in the communities.
Informing, Educating and Promoting Clinical Trial Participation

NIH COVID-19 Communities
Responding Together

Download resources for use in talking to your communities about COVID-19, the vaccines under development, how they are developed, and the importance of being included in research studies.

Bookmark this page and return often for new resources to help you engage community organizations and individuals and encourage participation in clinical trials.

https://covid19community.nih.gov
CoVPN: NIH-Funded Clinical Trial Network to Conduct Phase 3 Trials

- Vaccine Efficacy Trials
  - Larry Corey
  - Kathy Neuzil

- Monoclonal Antibody Prevention Trials
  - Mike Cohen
  - David Stephens

COVID-19 Prevention Network

https://www.coronaviruspreventionnetwork.org/
What can NCSL and State legislators do to help?

- Highlight mechanisms in place, at the state and federal levels, to ensure safety and emphasize that SAFETY is the #1 priority in clinical trials.
- Serve as trusted voices in your community.
- Direct people to trustworthy sources of information about COVID-19.
- Communicate the need to involve people who are most impacted by COVID – older adults (aged 65+, Native/Indigenous, Black/AA, Hispanic/Latino – communities who are hardest hit in this pandemic.
- Support policies and legislation that are based on scientific evidence.
- Promote health equity for all and address structural racism, all forms of discrimination, and barriers that stand in the way of participation.
Trusted Sources of Information on COVID-19 From NIH & CDC


- Get the latest research information from NIH: https://www.nih.gov/coronavirus

- Visit the NHLBI COVID-19 webpage for information for researchers, clinicians, general public: https://www.nhlbi.nih.gov/coronavirus

- Get the latest public health information from CDC: https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html

- **ACTIV**: Learn more about the Accelerating COVID-19 Therapeutic Interventions & Vaccines (ACTIV): https://www.nih.gov/research-training/medical-research-initiatives/activ

- **RADx**: Learn more about the Rapid Acceleration of Diagnostics (RADx) initiative: https://www.nih.gov/research-training/medical-research-initiatives/radx
Trusted Sources of Information on Diversity and Inclusion in Clinical Trials and Clinical Research; FDA and NIH

Inclusion of Women and Minorities as Participants in Research Involving Human Subjects

Inclusion of Individuals Across the Lifespan as Participants in Research Involving Human Subjects

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

https://grants.nih.gov/policy/inclusion.htm
Special thanks to my colleagues

- Michele P. Andrasik, PhD; CoVPN
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- Lenora Johnson, DrPH, MPH; NIH
- Melanie Ivarsson; COVE Phase III Study
- James Kublin, MD, MPH; CoVPN
- Nelson L. Michael, MD, PhD; WRAIR
- Gail D. Pearson, MD, ScD; NIH
- Brett Tolman, Deloitte
- Eliseo Perez-Stable, MD, NIH
Examining Diversity in COVID-19 Clinical Trials

Badhri Srinivasan, Head, Global Development Operations, Novartis

Basel
September 30, 2020
Introduction

**Novartis USA**

- **15,000**
  - Associates in the US

- **USD 3.9bn**
  - Invested annually in R&D in the US

**Global Development Operations**

- **520,500**
  - Patients supported through co-pay assistance program in 2019

- **299,000**
  - Patients received free medication through the Novartis Patient Assistance Foundation Inc since 2015

**5 hubs and activities in more than 60 countries with ~5000 associates supporting the development of a highly diverse portfolio**

- ~102 study starts per year
- ~400 ongoing trials per year
- ~96k patients in studies
- ~21k active sites
- ~80 submission documents
- ~900 regulatory documents
- ~370 database locks & data cut-offs
- ~37k tables, listings & figures
### Challenges

#### Trials

<table>
<thead>
<tr>
<th>4.8 months</th>
<th>14%</th>
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<tbody>
<tr>
<td>Average increase in time to conduct a study despite shorter regulatory approval</td>
<td>Overall success rate for all drugs in clinical trials</td>
</tr>
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#### Recruitment

<table>
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<tr>
<th>2%</th>
<th>80%</th>
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<tbody>
<tr>
<td>Estimated amount of eligible patients that participate in trials</td>
<td>Amount of US trials that fail to meet their recruitment deadlines</td>
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#### Diversity

<table>
<thead>
<tr>
<th>9%</th>
<th>2x</th>
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<tr>
<td>Percentage of African American trial participants, despite being 13.5% of the population</td>
<td>Mortality rate for liver cancer Hispanic/Latino populations, yet still underrepresented in trials</td>
</tr>
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### The Novartis response to COVID-19

#### General response

- Donations
- External Collaborations
- Internal Discovery
- Clinical Investigations

#### COVID-19 trials

- Focus on locations with dense and diverse patient population
- Diverse clinical trial personnel
  - 40% Female
  - 21% Non-white female
  - 32% Non-white male
- ICFs in multiple languages
  - Spanish
  - Brazilian Portuguese
  - Haitian & Portuguese Creole
- Home nursing & telemedicine visits for vulnerable populations
Our efforts on Diversity and Inclusion in Clinical trials

Novartis Commitment

We are committed to drive, build, demonstrate and sustain our ongoing efforts towards Diversity & Inclusion in clinical trials.

Inspired D&I culture

We foster an inspired culture of patient diversity and inclusivity though:
- Internal/external education and awareness
- Cultural competency consulting
- Community outreach

Strategic Partnerships

We partner with external companies to:
- explore alternative recruitment models
- gain insights on patient design materials
- underline the importance of diverse patient populations in trials

Data and technology

We are harnessing
- Our 2 million patient-years of data
- An inclusive Gender Health Equity Strategy
- Map of Life
- Our technology to increase recruitment and democratize access to care

Process and tools

We are leveraging a Strategic planning model for trial teams to consider:
- regional/geographical location
- gender and ethnicity differences by disease
- Insights into clinical trial design and statistical analysis plan

Novartis Commitment

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- explore alternative recruitment models
- gain insights on patient design materials
- underline the importance of diverse patient populations in trials
A joint challenge: A collaborative solution
DISCUSSION AND Q&A

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- **Speakers**
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  - Badhri Srinivasan, head of global development operations, Novartis
Questions?

Contact
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