Diverse representation and inclusion in clinical research: Justification, opportunities, and solutions

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- I have no personal conflicts of interests relevant to this presentation.
Our Vision
Improve the integrity, safety, and rigor of global clinical trials.

Our Mission
Engage diverse stakeholders to define emerging issues in global clinical trials and to create and implement ethical, actionable, and practical solutions.
Demographics and Clinical Trial Drug Development: An Example

New Cases of Multiple Myeloma, Per 100,000 People

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
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</tr>
<tr>
<td>Black</td>
<td>14</td>
</tr>
<tr>
<td>Asian</td>
<td>4</td>
</tr>
<tr>
<td>Native American</td>
<td>6</td>
</tr>
</tbody>
</table>

Darzalex

- White: 76%
- Black: 10%
- Asian: 6%
- Native American: Not reported

Empliciti

- White: 84%
- Black: 4%
- Asian: 10%
- Native American: <1%

Farydak

- White: 63%
- Black: 3%
- Asian: 33%
- Native American: Not reported

*Riley Wong for ProPublica Sept. 19, 2018 citing U.S. Food and Drug Administration; National Cancer Institute*
Health disparities by race in the COVID-19 pandemic

Coronavirus deaths and race

COVID-19 is disproportionately killing black Americans, according to data released by several states.

<table>
<thead>
<tr>
<th>State</th>
<th>Blacks</th>
<th>Whites</th>
<th>Total deaths</th>
</tr>
</thead>
<tbody>
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<td>0.06</td>
<td>27</td>
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<td>167</td>
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<td>0.01</td>
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</tr>
<tr>
<td>Illinois</td>
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<td>0.001</td>
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<tr>
<td>North Carolina</td>
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</tbody>
</table>

Death totals as of Tuesday afternoon.
State governments, U.S. Census Bureau

Lorena Elebee / Los Angeles Times

https://twitter.com/kellymdoran/status/1247929514535129088
Between 2008 and 2013, 21% of FDA-approved new molecular entities had racial or ethnic (or both) differences in safety, efficacy, pharmacokinetics or pharmacogenomics.*


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

2019

4%

Psychiatry

29%

Oncology

White  Black AA  Asian  Hispanic

White  Black/AA  Asia  Hispanic

FDA Guidance

Recruitment plan “for discussion” required by end Phase 2
Diversity Lacking In Genomic Databases

- Racial and ethnic minorities are underrepresented in genomic databases. This lack of diversity affects understanding.
- Significant gaps in knowledge regarding potential health care disparities in genomic medicine and precision health remain.
- Genomic databases need greater inclusion of diverse ancestral populations and ancestral information.
Diversity exists across many dimensions

Dimensions of diversity are not independent variables
In the end, an individual is being treated
So why? Barriers to participation

**Sponsors/Institutions/Sites/Regulators**
- Lack of patient, advocacy, and community engagement
- Lack of diverse workforce and professional development
- Fear of trial time and cost
- Variable regulatory expectations for review and approval

**Investigators/Referring Physicians/Research Staff**
- Uncertain scientific utility of inclusion
- Eligibility criteria limiting enrollment
- Inaccuracy of site feasibility assessments
- Inadequate staffing and time constraints of PIs, staff
- Recruitment and retention challenges
- Institutional bias, lack of cultural competence, lack of diverse staff

**Data Collection/Data Analysis**
- Lack of data standards
- Data collection and reporting variable
- Data analysis methodologies inconsistent

**Patients/Advocates/Communities**
- Lack of awareness, Study design and research procedures burdensome
- Trial outcome measures of uncertain participant value
- Limited health literate communications and education
- Logistical issues of trial conduct
- Payment and other concerns
- Mistrust and distrust of research and clinical trials

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**BIO Digital**
Patient and Community Engagement to support diverse participation

- **Forming Relationships**: Allow the patient perspective to influence research priorities and reframe research questions.

- **Sustained partnerships**: Seek patient and community input to tailor study design and implementation to improve access, enrollment, and retention.

- **Training and Support**: Invite the patient and community into the organization in key leadership roles, as advisors, and as consultants.

**Shared Goals**:
Product Development and Infrastructure

- Workforce Development
- Cultural competency
- Resources, human and financial
- Infrastructure
- Accountability

On Study visits
- Additional testing
- Randomization

Informed consent:
- Participant on study

Participant Last visit:
- End of study treatment

Follow-up period

End of trial LPLV

Data Lock

Data Analysis
- Complete
- And Reporting

screening

Access

Recruitment

Pre-Clinical

Approval

Phase 4

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Clear communications throughout the product development program
Clear communication is a two-sided, shared responsibility

- It is not the responsibility of the person receiving information to try to make sense of it
- The communicator is responsible for sharing information that is designed to be understood by the target audience
- The target audience should be comfortable not knowing and communicating any lack of understanding

Plain language
Numeracy
Visualization
Clear design
Cultural considerations
Interactive techniques
Teach-back
The MRCT Center launched a "Health Literacy in Clinical Research" website. A dynamic web-based resource with highlights that include:

- How health literacy applies throughout the clinical research life cycle, from public education through end of participation
- Best practices to support clear research communications
- Case studies and practical examples of how health literacy has been integrated into research processes

In a language understandable to the participant

www.mrctcenter.org/health-literacy
Cooperative development of resources and best practices

Tools and Resources
Information on techniques that are key to successful research communications.

https://mrctcenter.org/health-literacy/

Health literacy can support the participant through their clinical trial journey.

1. DISCOVERY
Public awareness of, education about, and access to clinical research

2. RECRUITMENT
Targeted, relevant, written and verbal invitations to join research

3. CONSENT
Clear written and verbal conversations about informed consent to research participation

4. ON STUDY
Clear information about ongoing research procedures, data collection and reporting

5. END OF STUDY
Plain language summaries, results reports, and research publications

Plain Language  Numeracy  Clear Design  Cultural Considerations

Plain Language
On behalf of the Diversity Work Group,

Thank you

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