

# Ensuring access for underserved populations in biomedical research

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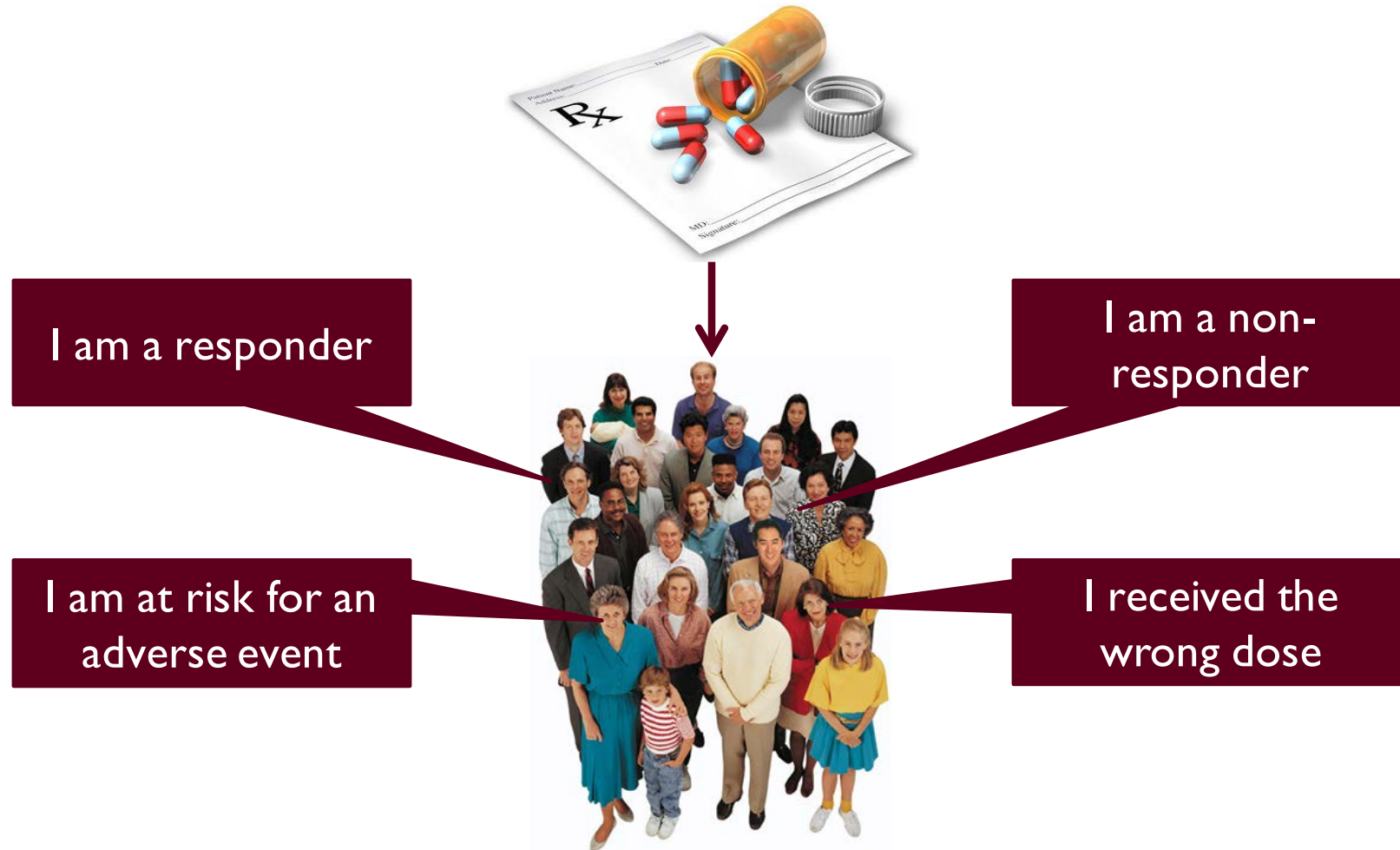
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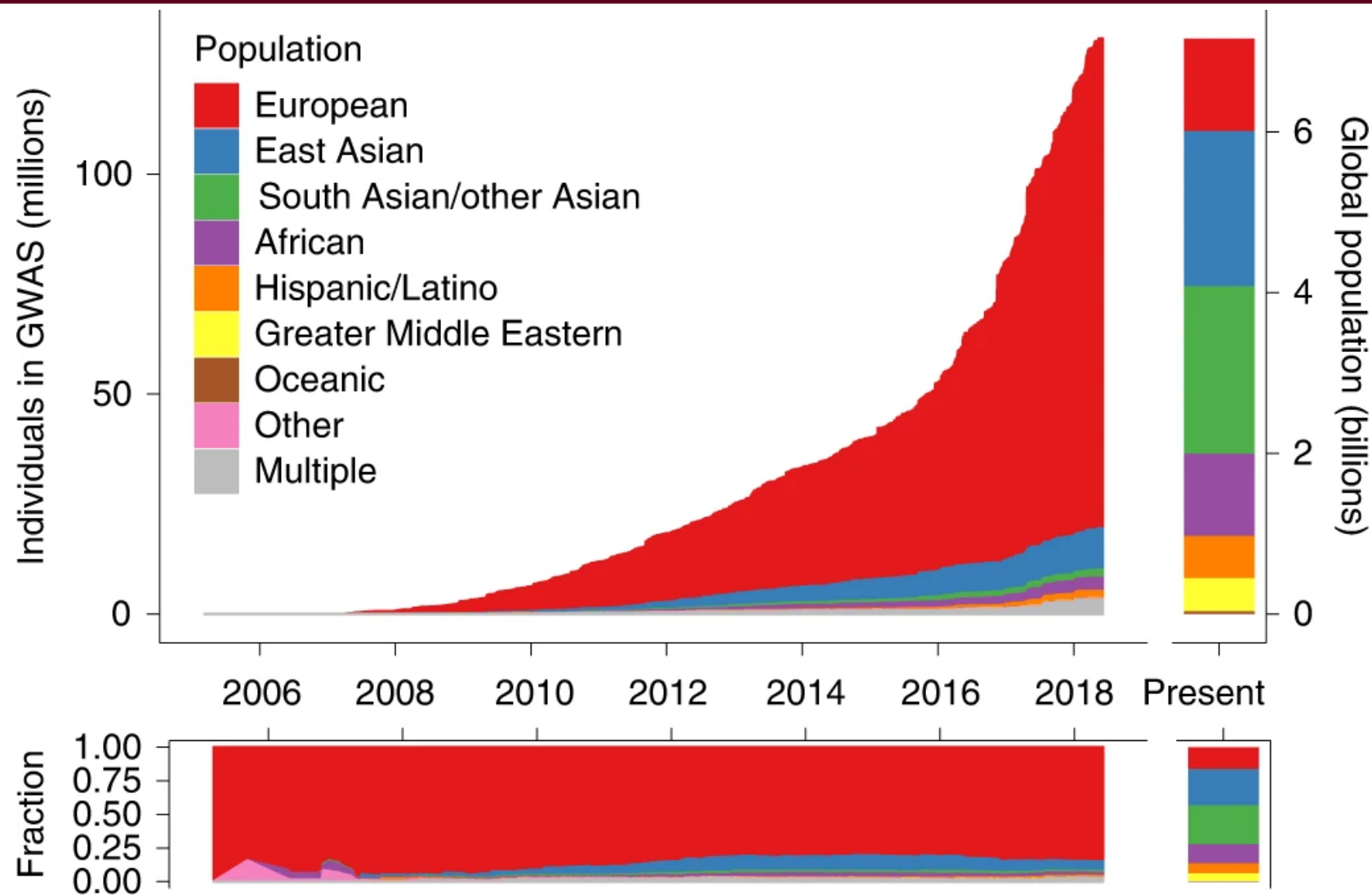
University of Montana

# Precision Medicine and Pharmacogenomics

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# Genomics is failing on diversity



# Genomics is leaving rural populations behind

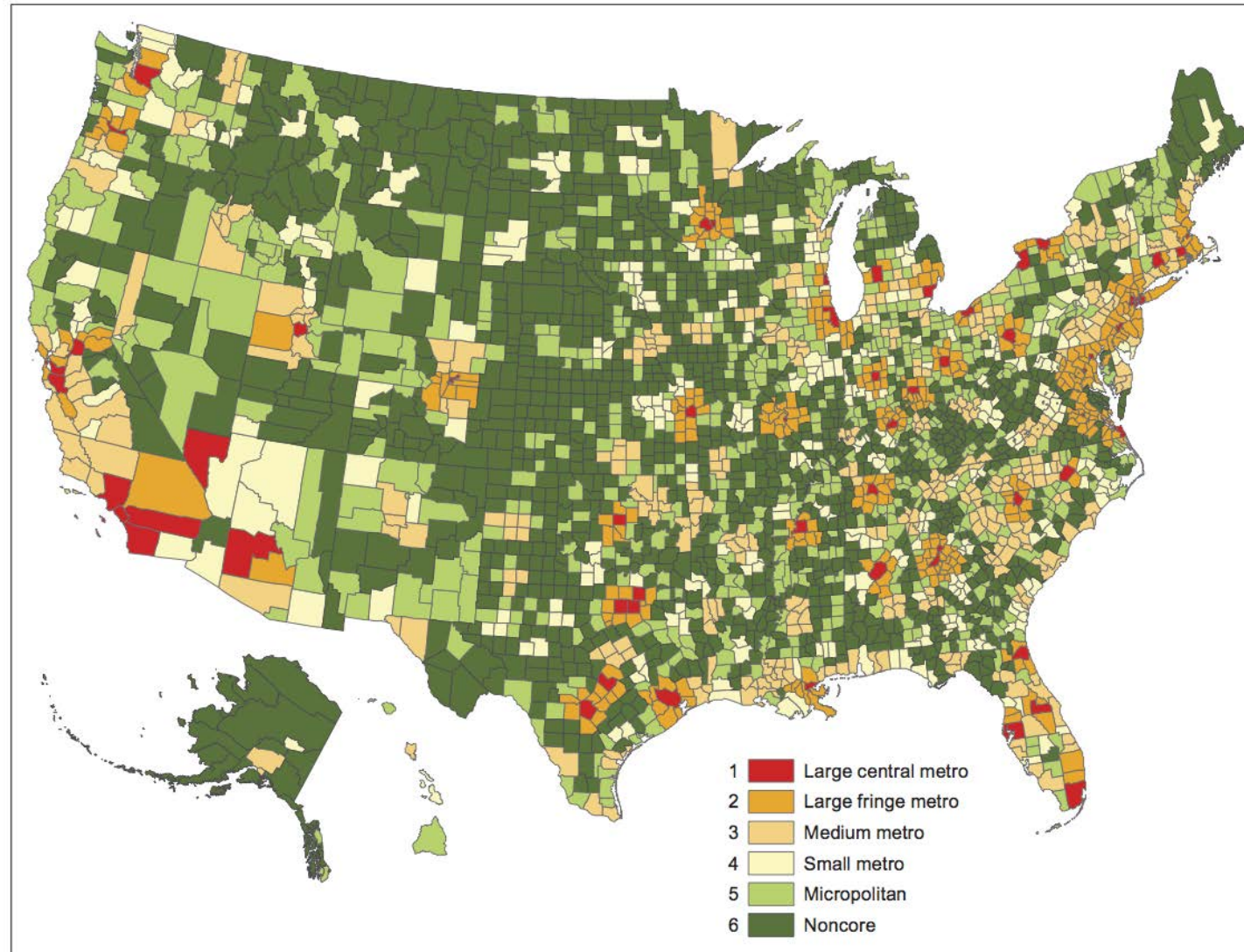
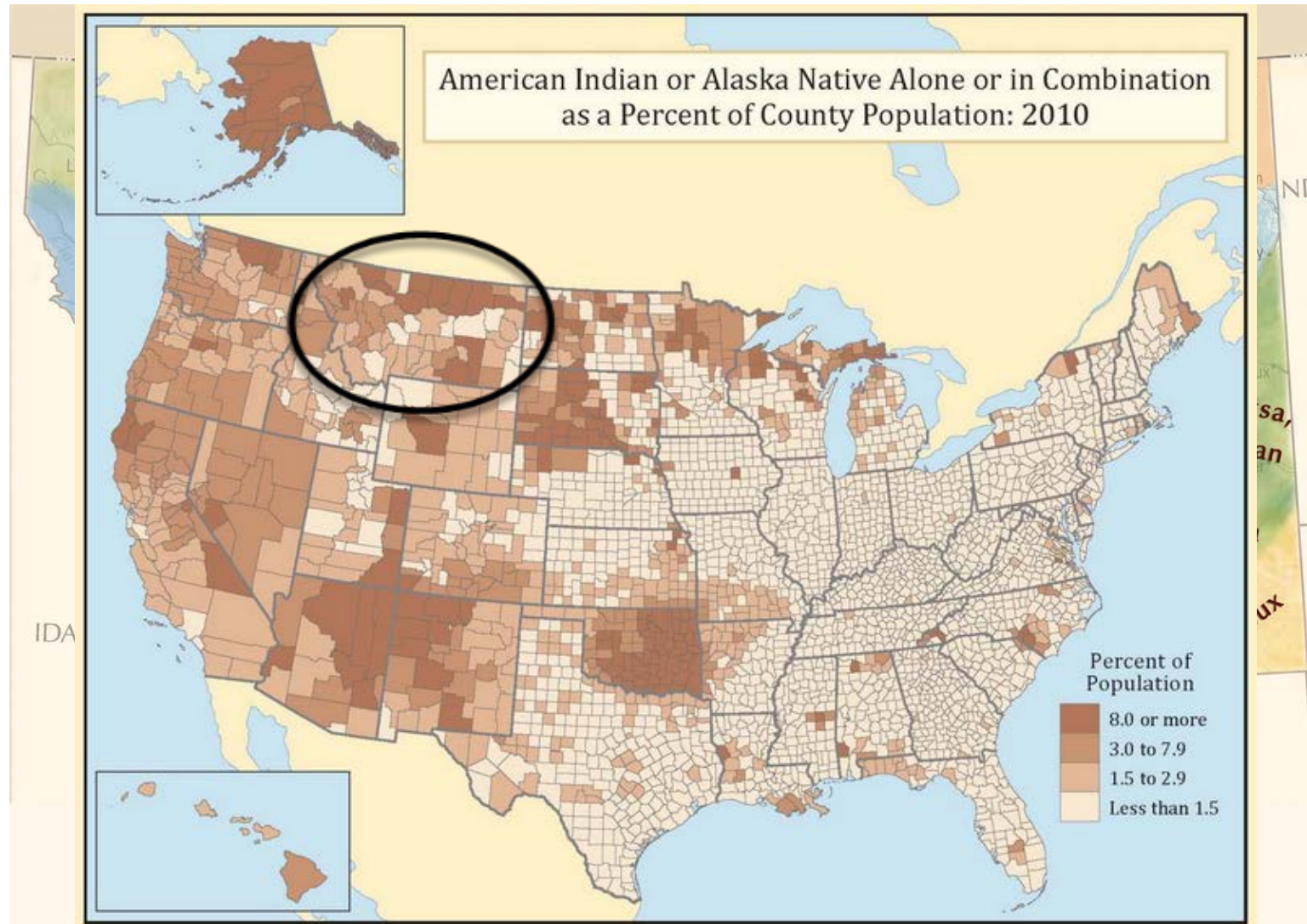


Figure 2. Distribution of counties according to the 2013 NCHS Urban-Rural Classification Scheme for Counties



# Precision Medicine Research with American Indian and Alaska Native (AIAN) People



# Challenges in increasing diversity in research

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- ▶ Perception that past research has provided little benefit
- ▶ Mistrust and lack of receptivity to participating in research
- ▶ Concerns about research questions or study methods
- ▶ Geographical remoteness of communities
- ▶ Hesitation of communities to relinquish control of data
- ▶ Lack of laboratory infrastructure
- ▶ Shortage of expert personnel

# Democratizing research through community engagement

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Woodahl et al, *Pharmacogenomics*, 15:1235-41 (2014)

James et al, *Genet Med*, 16:820-6 (2014)

Dorfman et al, *Pharmacogenomics*, 16:227-37 (2015)

Morales et al, *Progress in Community Health Partnerships*, 10:173-83 (2016)

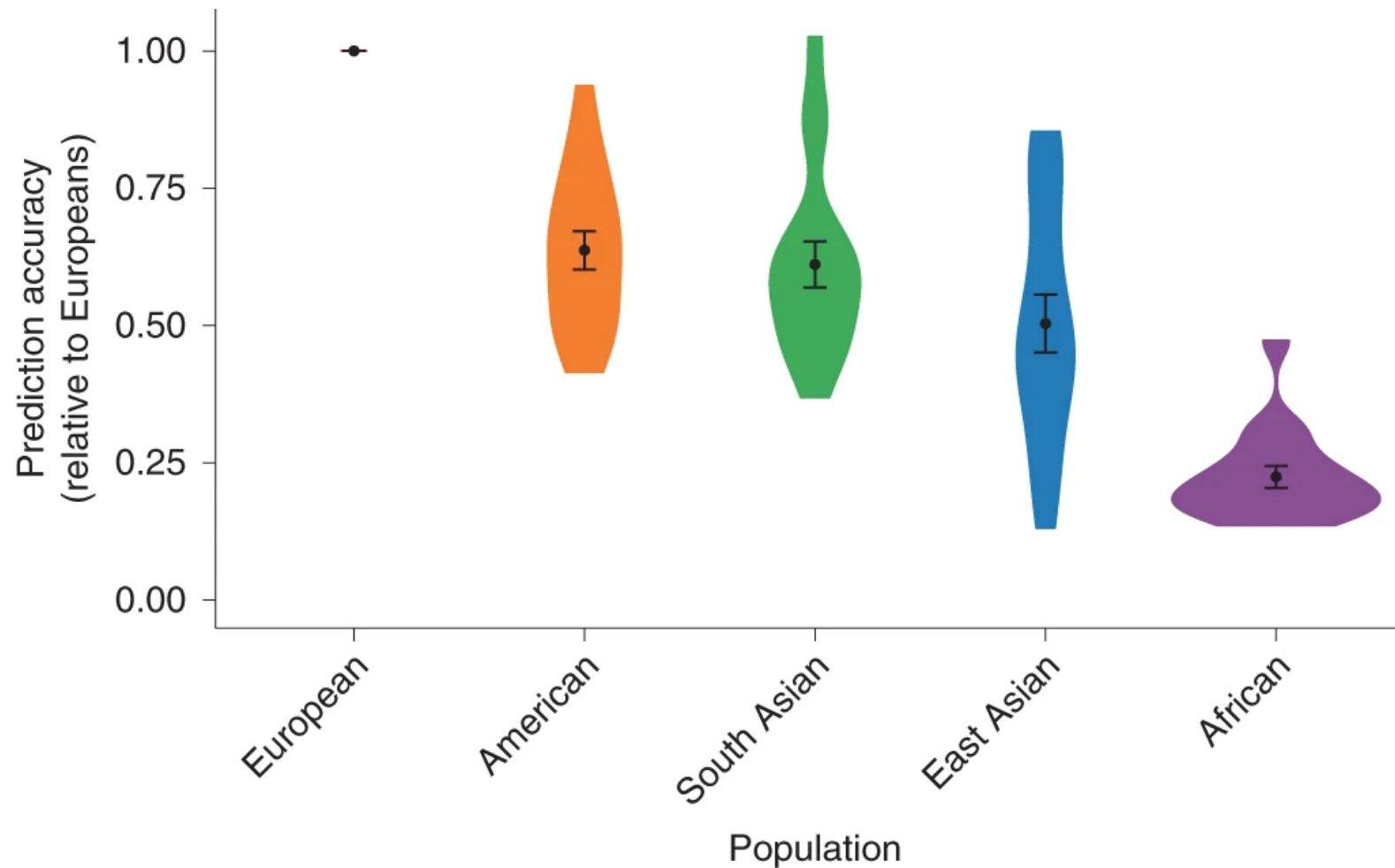
Fohner, Volk, Woodahl. *Clin Pharmacol Ther*, 106:488-490 (2019)







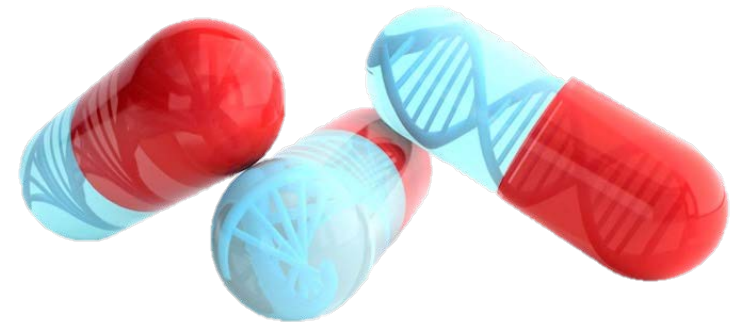
# Ethnic and racial bias in discovery research is a barrier for widespread benefit



# Summary

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- ▶ Discovery and clinical research must consider unique challenges facing underserved communities
- ▶ Population-specific biorepositories are key to advancing research on chronic diseases
- ▶ Community engagement is essential in ensuring access to research for underserved populations and addressing healthcare disparities



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*A People of Vision*

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