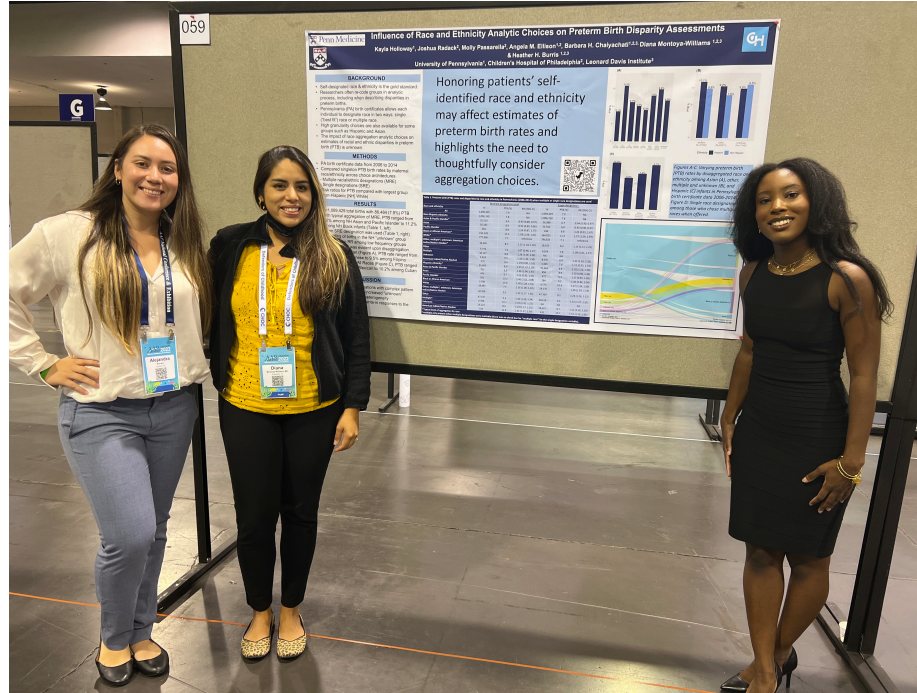
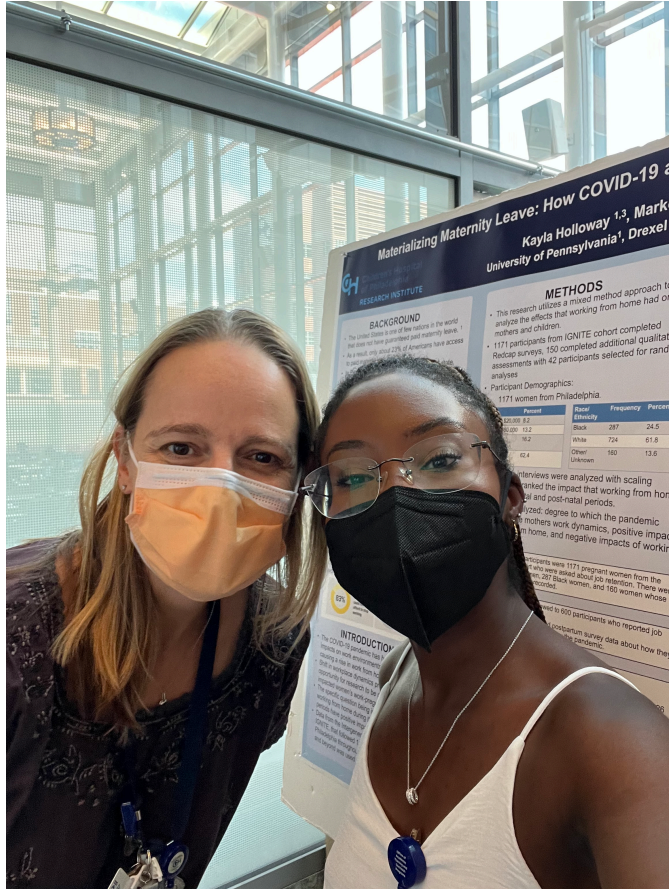


Influence of Race Analytic Choices on Preterm Birth Disparity Assessments

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The Team



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▼ Project Overview

Analyzing write in responses on PA birth certificates to investigate how disaggregating the “Other” category impacts preterm birth disparity outcomes



Background

- Racial disparities in birth outcomes - preterm birth
- Highest for black infants, American Indian/Alaskan Native
- Racial justice movements shaped current climate
- Heightened demand for racial equity
- Birth certificates have evolved regarding race questions
- Birth Certificate racial designation expanded in 2007

Background: Birth Certificate

Birth certificate race options:

- American Indian or Alaska Native
- Asian
- Black or African American
- Multiple
- Native Hawaiian or Other Pacific Islander
- Other
- White

Significance



Honoring self-designations in perinatal research is a challenge



Designations often get lumped into the “Other” category



The “Other” category is heterogeneous and difficult to interpret.



Inability to operationalize self-designations impedes health equity efforts



Accurate categorization and quantification of risk is critical to achieve racial equity

Aims

- To disaggregate the “other” category responses on PA birth certificates
 - Sort write in “other” responses into existing race bins
 - Create new bins of continental origins to better sort
- Assess heterogeneity of the “other” category in preterm birth
- Develop efficient method to honor write in designations

Methods

Study population: PA Birth Certificates 2006-2014 (n=1,089,429)

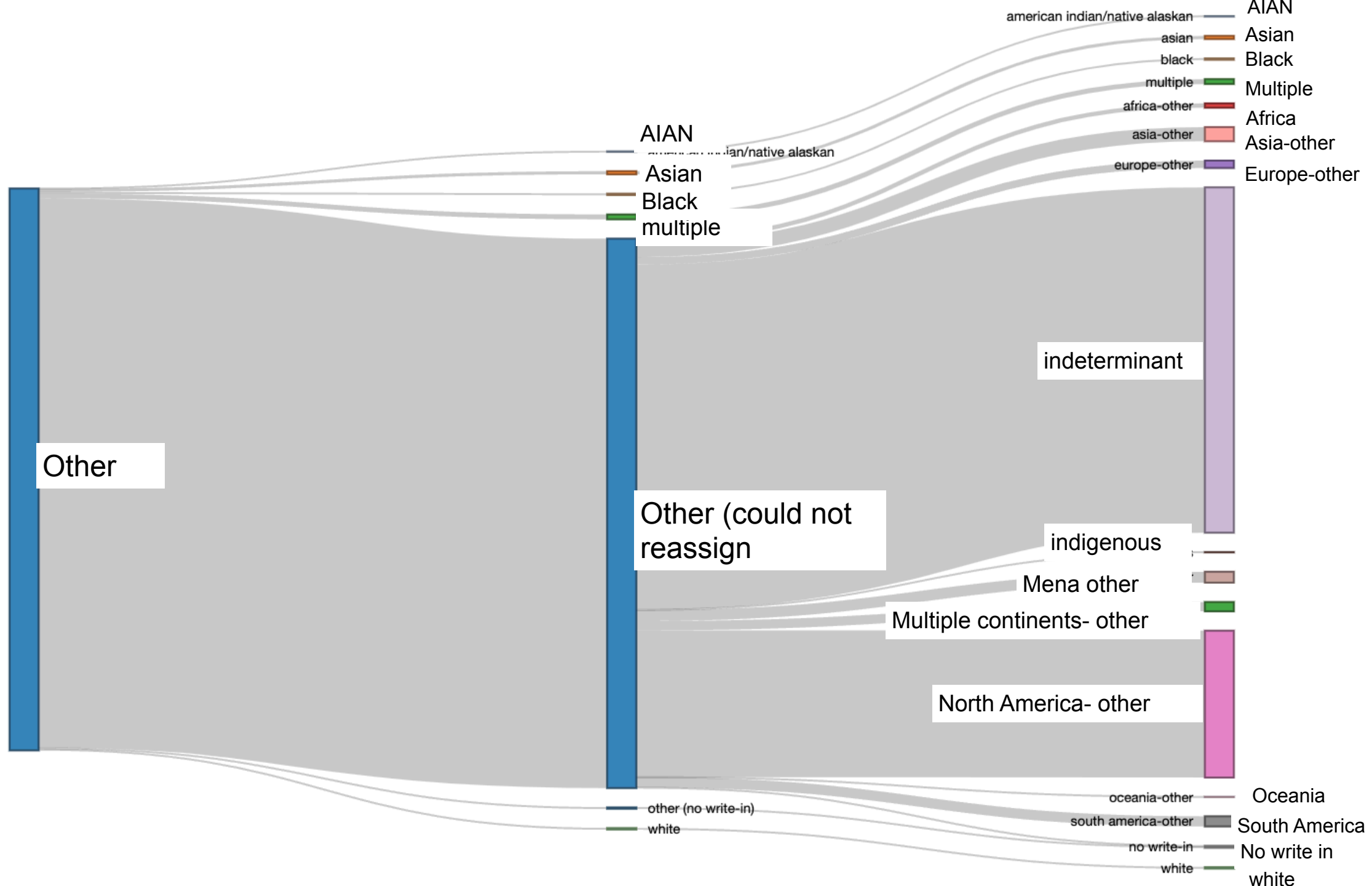
Analytical Approach: Review each write-in response to recategorize

Team convened biweekly to review discrepancies



Findings

Findings



Findings

- 1,089,429 singleton births in Pennsylvania from 2006-2014
- Of 52971 other responses, 1179 were sorted into a traditional race bin
- 19140 were recategorized into a continental bin
- Among births with race write-in responses:
 - 1179 (0.022%) people wrote in a traditional race
 - 19239 (36.31%) people wrote in a country or continent that allowed for continent of origin assignment
 - 32553 (62.45%) people wrote in another signifier that could not be categorized as a race or continental identity.
- Preterm birth rates shifted amongst Hispanic marginalized populations:
 - Asian 8.65% → 9.02%
 - Black 9.97% → 10.01%
- 38.35% of "Other" category was able to be recategorized

Brief Communication | [Published: 23 July 2022](#)

Avoiding loss of native individuals in birth certificate data

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American Indian or Alaskan Native (AIAN) families are disproportionately affected by preterm birth compared to non-Hispanic White families (11.6 vs. 9.1% in 2020) [1]. Persistent inequities across the lifespan result in shorter life expectancies among AIAN individuals than any other racial group in the United States [2]. One challenge to improving health and healthcare of AIAN families is the lack of representation in research [3]. This is partly due to the small proportion of AIAN individuals in the US population (constituting roughly two percent). While the gold standard in analyses of racial disparities in health is to use self-identified race [4], advanced statistical models often cannot accommodate very small sample sizes [5]. As such, AIAN individuals often are absorbed into an “other” category when analyzing health outcomes, including preterm birth. Such aggregation can mask actionable disparities.

Findings

- 222 families (n=222) wrote in names of indigenous tribes but had not clicked the American Indian Alaskan Native (AIAN) box.
 - Incorporating those responses to the 905 who checked the AIAN box, increased the sample size of AIAN births by 24.5%, and the preterm birth rate in that group changed from 10.1 to 10.8.

Future Steps

- Implement new Gold Standard for racial analyses in perinatal research
- Investigate how ethnicity impacts preterm birth disparity



My Role

Over the course of two years, I have contributed a lot to this project! From doing the preliminary analysis of the spreadsheet to representing this project at the AAP conference, I have been fortunate to play a large role in this project.

Lessons Learned

- Communication
- Consistency
- How to approach writing and publishing a manuscript

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