



RACIAL & ETHNIC DISPARITIES IN BIRTH OUTCOMES IN CENTRAL CALIFORNIA

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LEARNING OBJECTIVES

- ❑ Identify key risk factors associated with poor birth outcomes
 - ❑ Individuals
 - ❑ Communities/systems
- ❑ Identify social determinants of health for birth outcomes
- ❑ Identify geographic variation in WIC services

OVERVIEW

- ❑ Background Studies
 - ❑ Infant Mortality
 - ❑ Premature Birth
- ❑ Social & Environmental Determinants of Health
- ❑ Description of WIC mothers
 - ❑ Population differences
 - ❑ Geographic differences
- ❑ Discussion of WIC services

BACKGROUND: FRESNO COUNTY INFANT MORTALITY

- ❑ 87% increase in infant mortality among African Americans from 2007 to 2013
- ❑ Collaboration between First 5 Fresno California and the Central Valley Health Policy Institute

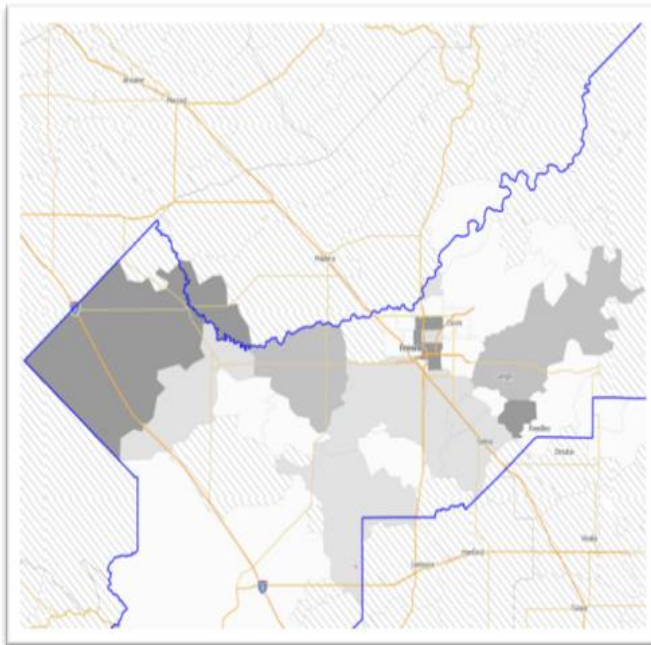


QUANTITATIVE FINDINGS

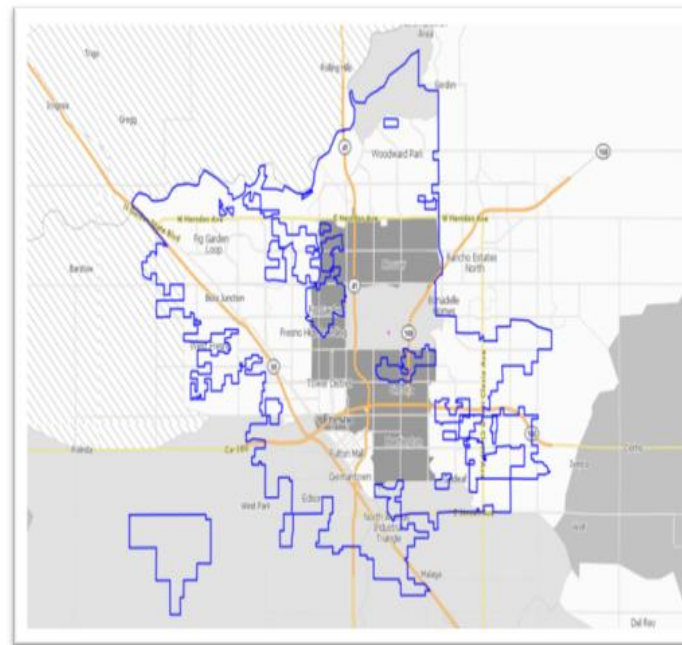
- ❑ 3.13 times a higher infant mortality rate for African Americans than white residents in Fresno County (2013)
 - ❑ 8.1 per 1,000 live births for white residents
 - ❑ 25.3 per 1,000 live births for African American residents
- ❑ Persons enrolled in Medi-Cal are nearly at 50% higher risk than mothers who are privately insured

INFANT MORTALITY RATES, FRESNO COUNTY

Fresno County Zip Codes, 2013



City of Fresno Zip Codes, 2013



Infant Mortality Rate by Zip Code

- 0.0 - 7.99
- 8.0 - 9.99
- 10.0 - 11.99
- 12.0 - 21.13

Map created on November 2, 2015 at HealthyCity.org (c) 2011 Advancement Project. All Rights Reserved.

PREDICTORS OF INFANT MORTALITY

Risk

- Previous premature birth
- African American
- Maternal age older than 35 years
- Inter-pregnancy interval less than 33 months

Protectant

- Enrolled in WIC
- 4-year college degree for women older than 22 years of age

QUALITATIVE FINDINGS

African American Women Focus Groups

- ❑ Lack of transportation, flexible jobs, education opportunities, unsafe neighborhoods (day-to-day challenges)
- ❑ Little to no social support, community is a source of judgement
- ❑ Socio-economic differences in quality of care and experiences at clinics

Health and Human Services Professional Interviews

- ❑ Economic uncertainty
- ❑ Lack of transportation
- ❑ Cultural barriers (staff does not reflect population)
- ❑ Reduction in funding

PREMATURE BIRTH

- ❑ Premature birth < 37 gestational weeks
- ❑ Mothers aged 15 to 40 who reside in one of the San Joaquin Valley counties (Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare)
- ❑ Birth between 2009 - 2013

DATA AND APPROACH

- Individual-level data

- Birth Statistical Master Files

- Community-level data

- Census.gov
- CalEnviroScreen
- Regional Opportunity Index

- Approach

- Apply statistical methods to identify individual and community characteristics that are strongly associated with specific health outcomes

PREDICTORS OF PREMATURE BIRTH

Individual

- Black/African American (risk)
- Medi-Cal (risk)
- Smoker (risk)
- Hypertension (risk)
- Short Inter-pregnancy Interval (risk)
- 4-year Degree (protectant)
- Enrolled in WIC (protectant)

Community

- Economic Opportunity (Protectant)
- Poverty (risk)
- Diesel Particulate Matter (risk)

WIC BENEFICIAL TO BIRTH OUTCOMES

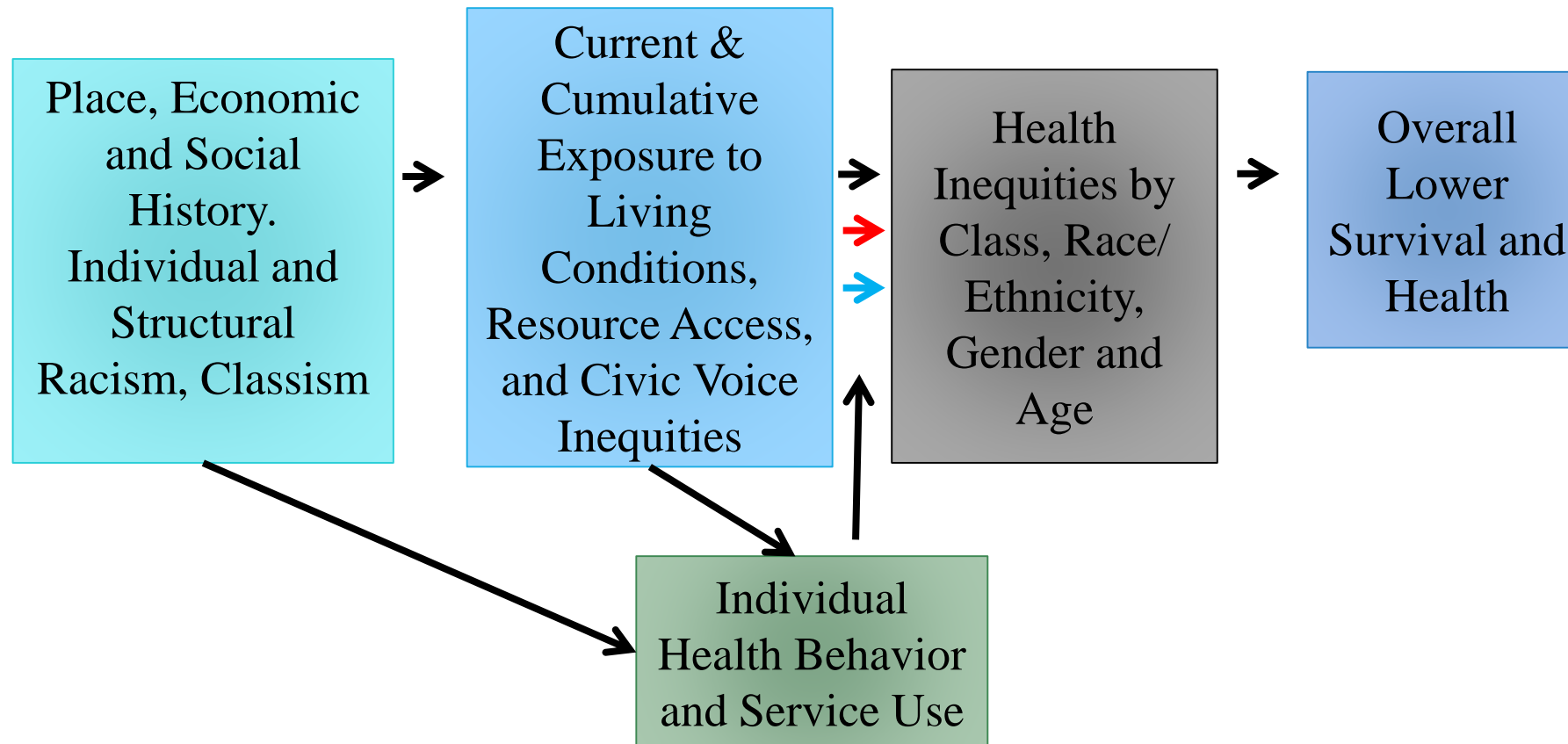
- Adjusting for community and individual-level factors, WIC is a protectant factor against premature birth, low-birth weight, and infant mortality

WHAT ARE THE SOCIAL DETERMINANTS OF HEALTH?

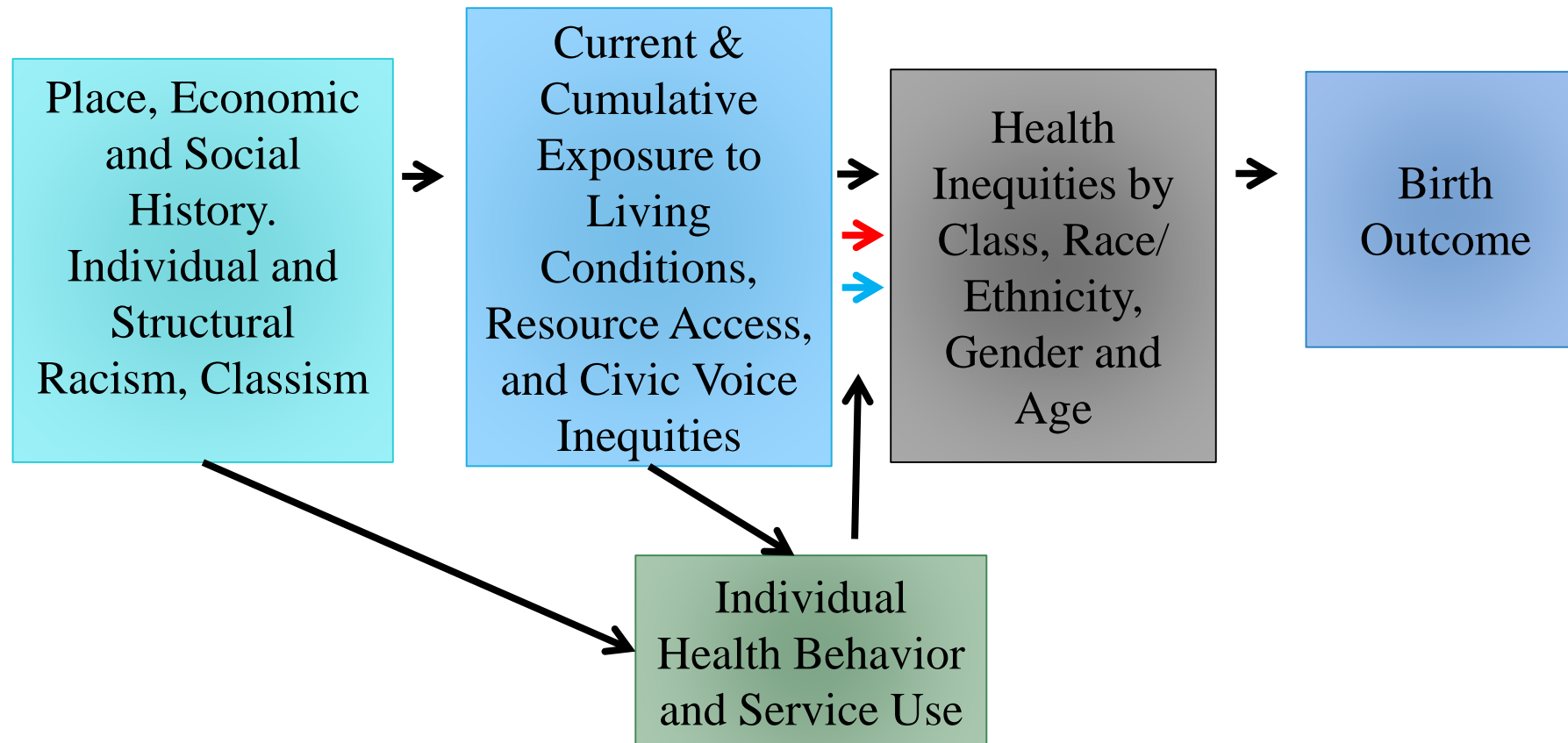
Discuss the following in a group:

1. What are the social determinants of health?
2. How do the social determinants of health contribute to birth outcomes?
3. How do you contribute to health outcomes? How does your organization contribute to health outcomes?

SOCIAL DETERMINANTS OF HEALTH (SDOH)



SDOH FOR YOUNG WOMEN



DISPARITIES AND INEQUITIES

Disparity

- The quantity that separates a group
- Is there a difference in health status rates between population groups?

Inequity

- The unjust distribution of health determinants, outcomes, and resources regardless of social standing
- Is the disparity in rates due to differences in social, economic, environmental or healthcare resources?

DISCUSSION OF DISPARITIES AND INEQUITIES

1. What is a major disparity in your organization?

Who do you serve?

2. What is a major inequity in your organization?

Where are your facilities located?

What services does each facility provide?

SOCIAL DETERMINANTS OF HEALTH AND WIC

- Demographic information of WIC mothers
- Where do WIC mothers live?
- Which determinants of health exist in these communities?
- What are the predictors of WIC births?

WIC MOTHERS OF THE SAN JOAQUIN VALLEY

Percentage of WIC Mothers Birth Race/Ethnicity by Age			
Indicator	19 and younger	20 to 29	30+
White	13%	65%	22%
Hispanic/Latina	16%	57%	27%
African American	18%	61%	20%
Asian/Pacific Islander	11%	63%	26%
Other	18%	62%	19%
Total	16%	59%	26%

WIC MOTHERS OF THE SAN JOAQUIN VALLEY

Percentage of WIC Mothers Birth Race/Ethnicity by Expected Source of Payment

Indicator	Medi-Cal	Private	Other Payer
White	67%	23%	10%
Hispanic/Latina	82%	12%	5%
African American	77%	13%	9%
Asian/Pacific Islander	76%	20%	4%
Other	70%	17%	12%
Total	79%	15%	6%

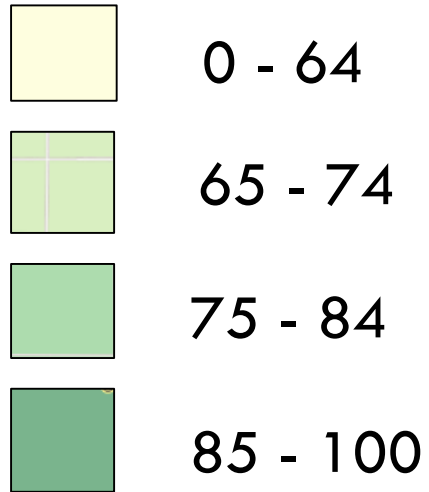
WIC BIRTHS IN THE SAN JOAQUIN VALLEY

Percentage of WIC Mothers Birth Race/Ethnicity by Birth Outcome

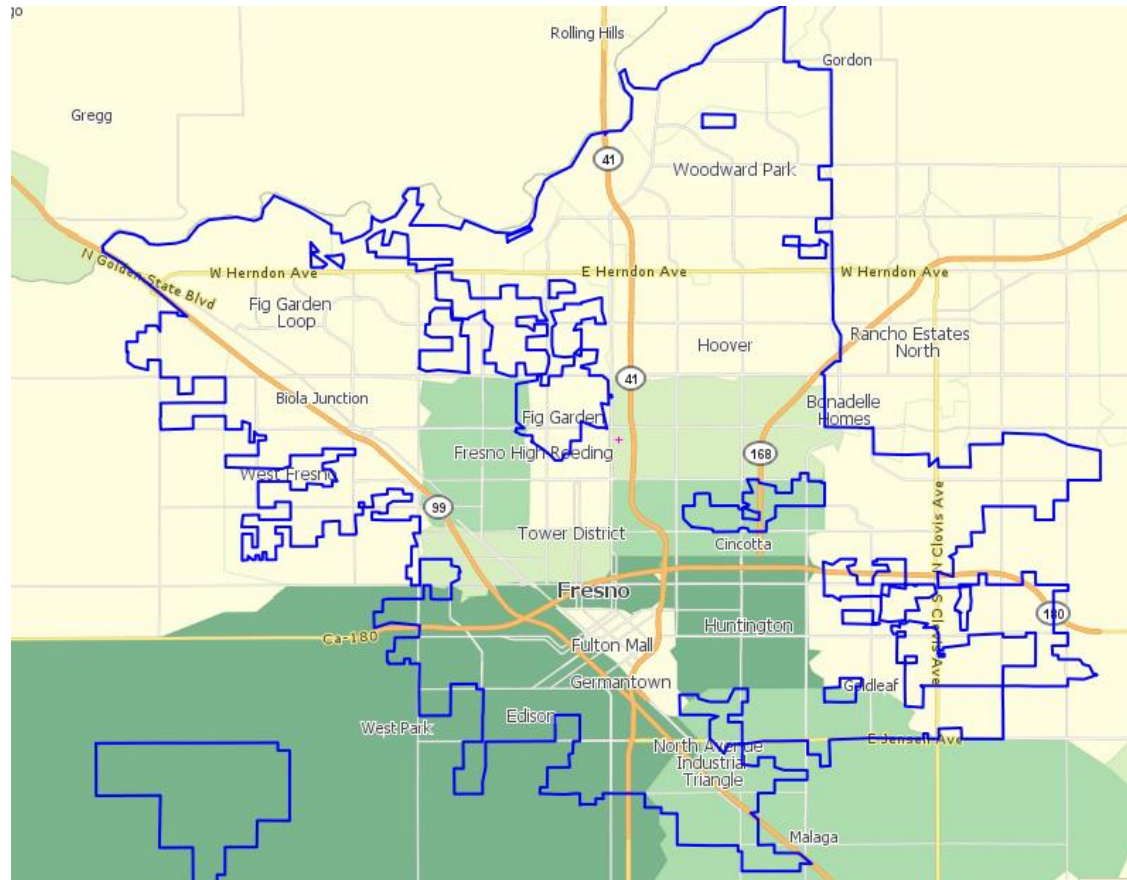
Indicator	Low-birth weight	premature birth
White	7%	10%
Hispanic/Latina	6%	9%
African American	13%	13%
Asian/Pacific Islander	9%	10%
Other	8%	10%
Total	7%	9%

GEOGRAPHIC VARIATION OF WIC BIRTHS

Percentile Rank of WIC Births by Zip Code of Mother's Residence



Note. Fresno City Limits



PREDICTORS OF WIC BIRTHS

- ❑ 20% of variation in WIC births is accounted for by zip codes
- ❑ What does this mean?
 - ❑ This means that we learn a significant amount of information by learning a mother's zip code
 - ❑ Level of poverty
 - ❑ Culture
 - ❑ Economic opportunity
 - ❑ Social circumstance

PREDICTORS OF WIC BIRTHS

Individual

- Race/Ethnicity
- Mother's Age
 - Varied by community
- Insurance Coverage

Community

- Poverty

DISCUSSION #1

1. Are services being provided systematically across facilities? If not, why not?
2. Does this contribute to health disparities/inequities?

DISCUSSION #2

1. What type of referrals are being made and do you refer mothers every time?
2. What are the qualifications for the referral?

DISCUSSION #3

1. Does your facility employ women who represent the community that is being served?

CONCLUSION

- WIC services play an important role in the social determinants of health and for the trajectory of the life course

THANK YOU!

