Engaging Communities in Addressing Social Determinants of Health to Prevent Infant Mortality

Presented by:
Carol Gilbert, Senior Data Analyst
Monica Beltran, Project Coordinator

citymatch

citymatch
The National Organization of Urban MCH Leaders

CityMatCH

Freestanding national membership organization of city and county health departments' maternal and child health (MCH) programs and leaders representing urban communities in the United States

Mission

The mission of City**Mat**CH is to strengthen public health leaders and organizations to **promote equity** and improve the health of urban women, families, and communities.

Today's Agenda

- ✓ Institutes for Equity in Birth Outcomes
- ✓ Becoming Data-Informed & Community Driven
- ✓ Examples from the Field to Address SDoH

5

The Institute for Equity in Birth Outcomes

6

The Equity Institutes

A high-visibility, national movement of urban communities implementing **data-informed**, **community-driven** strategies to reduce inequities in birth outcomes.

Equity Institute Teams

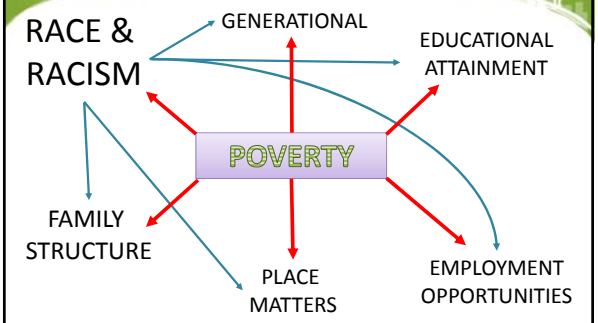
National	Ohio	Detroit
Seattle-King Co., WA Memphis-Shelby Co., TN Orlando-Orange Co., FL West Palm Beach, FL City of San Francisco, CA City of Baltimore, MD	Columbus Cincinnati Cleveland-Cuyahoga Co. Youngstown-Mahoning Co. Butler Co. Toledo-Lucas Co. Summit Co. Canton-Stark Co.	City of Detroit, Michigan
Dayton-Montgomery Co.		

10

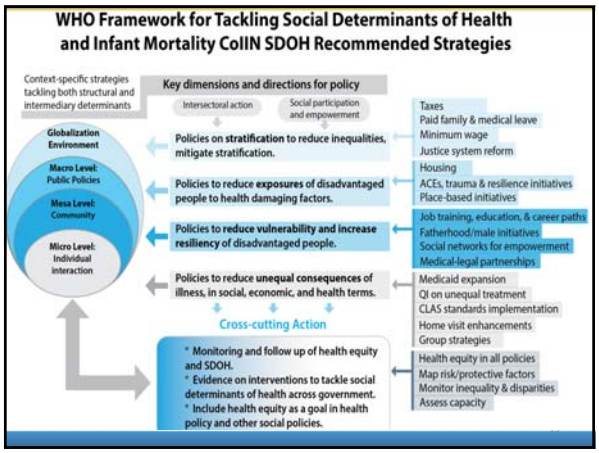
Becoming Data-Informed & Community-Driven

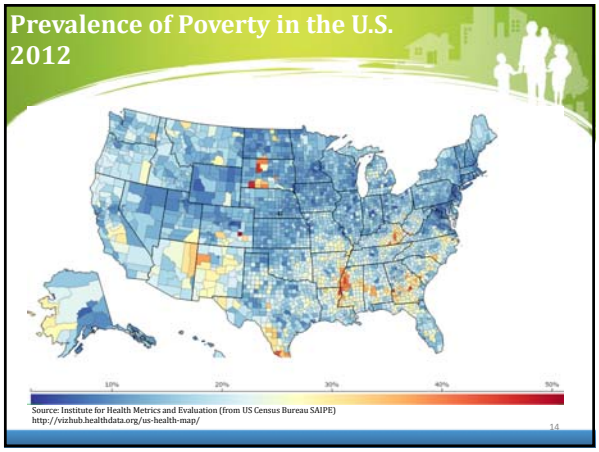
11

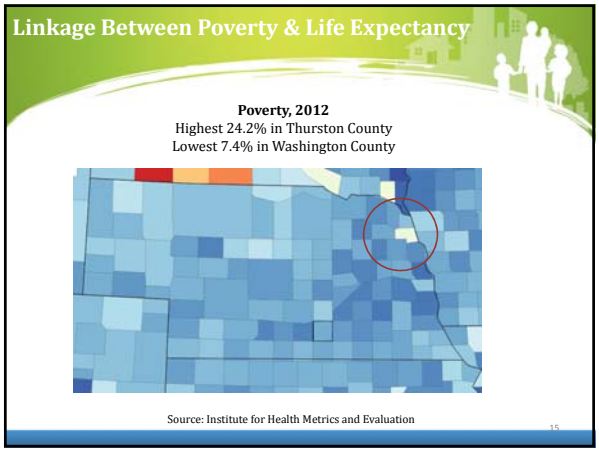
How SDoH Impact Health



12

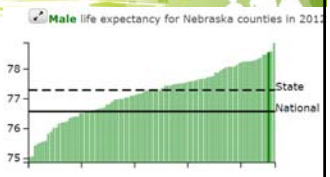

WHO Framework for Tackling Social Determinants of Health and Infant Mortality CoIIN SDOH Recommended Strategies
Context-specific strategies tackling both structural and intermediary determinants
Key dimensions and directions for policy
Intersectoral action
Social participation and empowerment
Globalization Environment
Macro Level: Public Policies
Mesa Level: Community
Micro Level: Individual Interaction
Policies on stratification to reduce inequalities, mitigate stratification.
Policies to reduce exposures of disadvantaged people to health damaging factors.
Policies to reduce vulnerability and increase resiliency of disadvantaged people.
Policies to reduce unequal consequences of illness, in social, economic, and health terms.
Cross-cutting Action
* Monitoring and follow up of health equity and SDOH.
* Evidence on interventions to tackle social determinants of health across government.
* Include health equity as a goal in health policy and other social policies.
Taxes
Paid family & medical leave
Minimum wage
Justice system reform
Housing
ACEs, trauma & resilience initiatives
Place-based initiatives
Job training, education, & career paths
Fatherhood/male initiatives
Social networks for empowerment
Medical-legal partnerships
Medicaid expansion
QI on unequal treatment
CLAS standards implementation
Home visit enhancements
Group strategies
Health equity in all policies
Map risk/protective factors
Monitor inequality & disparities
Assess capacity


Prevalence of Poverty in the U.S. 2012
10%
20%
30%
40%
50%
Source: Institute for Health Metrics and Evaluation (from US Census Bureau SAIPE)
http://vizhub.healthdata.org/us-health-map/
14

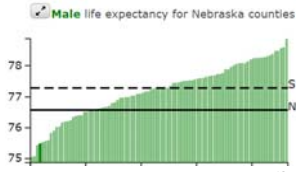

Linkage Between Poverty & Life Expectancy
Poverty, 2012
Highest 24.2% in Thurston County
Lowest 7.4% in Washington County
Source: Institute for Health Metrics and Evaluation
15

Male Life Expectancy, 2012

Washington County
Lowest poverty rate
Life expectancy 78.6 yrs
(3rd from longest)



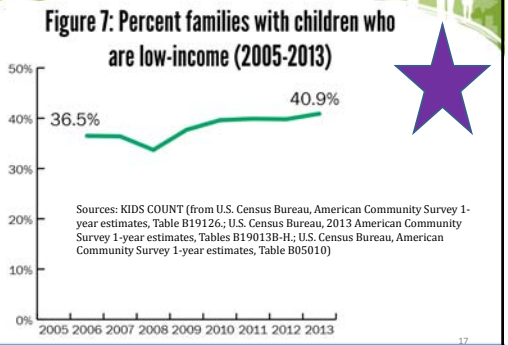
Thurston County
Highest poverty rate
Life expectancy 75.5 yrs
(4th from shortest)



Source: Institute for Health Metrics and Evaluation

16

Nebraska Poverty Trends



Sources: KIDS COUNT (from U.S. Census Bureau, American Community Survey 1-year estimates, Table B19126.; U.S. Census Bureau, 2013 American Community Survey 1-year estimates, Tables B19013B-H.; U.S. Census Bureau, American Community Survey 1-year estimates, Table B05010)

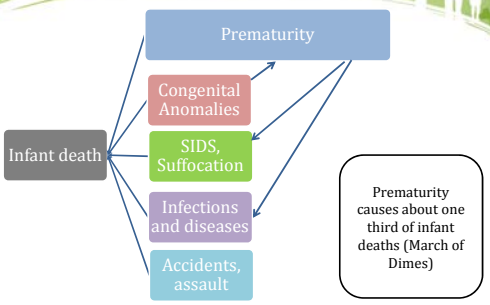
17

How to become Data-Informed

- Use published research /evidence/science
  - to link cause and effect
  - to find out what works
- Use **local** data
  - Disparities can point to causes
  - Place & demographics can point to solutions
- Interpret findings with community input

18

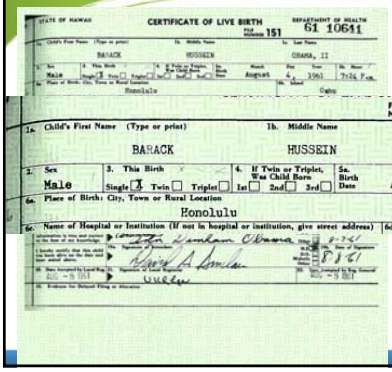
Research on infant mortality



Prematurity causes about one third of infant deaths (March of Dimes)

19

Begin with Vital Records Data



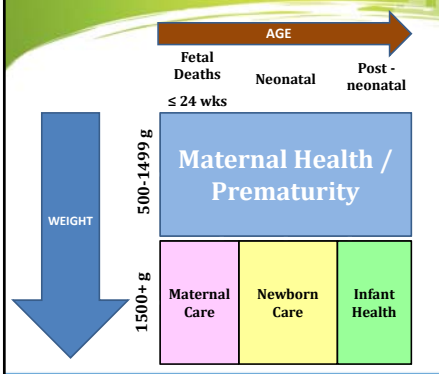
- ✓ Birth certificate
- ✓ EVERYBODY gets one

Vital Records Access / Preparation 20

How can we use vital records to engage the community?

21

Perinatal Periods of Risk approach



The 4 perinatal periods of risk were named to suggest **prevention areas**

22

Perinatal Periods of Risk (PPOR)

Maternal Health/ Prematurity	Chronic Disease Health Behaviors Perinatal Care etc.
Maternal Care	Prenatal Care High Risk Referral Obstetric Care etc.
Newborn Care	Perinatal Management Neonatal Care Pediatric Surgery etc.
Infant Health	Sleep-related Deaths Injuries Infections etc.

23

Perinatal Periods of Risk approach

- Principles behind using PPOR
  - Know the research (science, the evidence base)
  - Use local data
  - Let the community help interpret the data

Use an agreed-upon **reference group**

24

Typical PPOR data

White			Black		
4.1			8.6		
1.8	1.2	2.0	2.0	1.3	2.9
9.1			14.8		

- What do you see?
- What is missing?

* PPOR Fetal and infant deaths per 1,000 live births and fetal deaths

25

What's missing?

What rates can we *expect* to see in each Period of Risk?

PPOR answers this question using a *reference group*, *a real population* of mothers that experience best outcomes:

low fetal and infant mortality rates

26

PPOR Reference Group

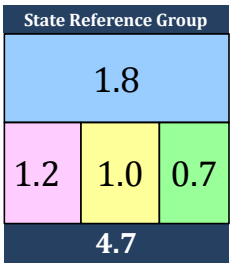
The reference group helps us measure "Inequity"

- *Inequity is a disparity that is* ***unnecessary*** *and* ***unfair***
- Unnecessary deaths are those that could be prevented
- **Preventability** can be estimated by comparing the community's outcomes to the outcomes of a real "reference group"

Missing ingredient: Reference Group

Reference Group Characteristics:

- 20+ years of age
- 16+ years of education
- Non-Hispanic White
- Resident of the State at the time of baby's birth



* per 1000 live births and fetal deaths

28

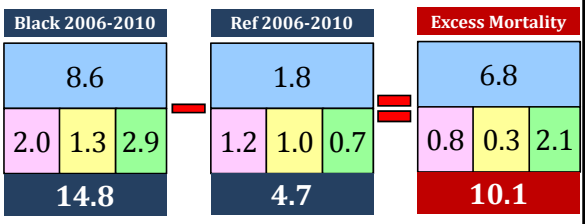
Missing ingredient:

Reference group

The reference group tells us what we should see.
We find that both groups have preventable deaths.

29

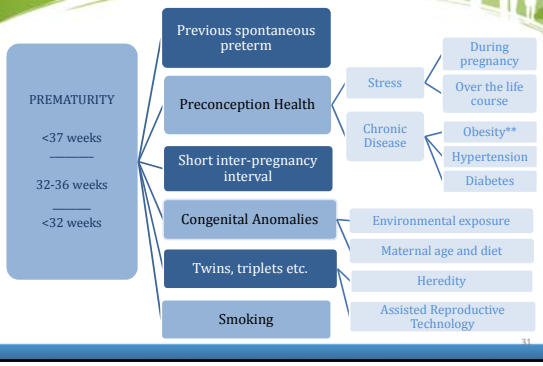
Excess mortality estimates preventability



* per 1000 live births and fetal deaths

30

Risk Factors for Prematurity & LBW



31

Risk Factors on Birth Certificate

Not married at time of baby's birth (SES, social support)
Teen mom age<20
High school or less education (indicator for SES)
Medicaid paid for delivery (indicator for SES)
Received WIC during pregnancy
Twins, triplets etc.
Previous preterm birth
Birth spacing shorter than 18 months
Hypertension before or during pregnancy (includes eclampsia)
Overweight or obese prior to pregnancy
Diabetes before or during pregnancy
Smoking before or during pregnancy
Late or no prenatal care (13 weeks or later)
STD (Syphilis, Chlamydia, or Gonorrhea)

32

Risk Factors from the Census Bureau

- Neighborhood poverty
- Unemployment
- Educational attainment
- Marital status
- Homelessness
- Health insurance status

33

PPOR Final Results-the short list

Important Contributors to Prematurity Among Tiny-Baby County non-Hispanic Black Women	Black % with factor	Ref % with factor	RR for VPTB among Black	PAR for VPTB among Black
Not married at time of baby's birth (SES, social support)	89	6	1.4	25%
Birth spacing shorter than 18 months	36	34	1.4	13%
High school or less education (SES)	58	N.A.	1.3	13%
Previous Preterm Birth	8	2	3.0	13%

34

Pathways to Prevent Prematurity

- Socioeconomic Status (*less than high school education, unmarried*)
  - Mitigating the effects of low SES
  - Reducing prevalence of low SES
- Social support (*not married at time of babies birth*)
  - Strengthening families

35

Group Prenatal Care

- ✓ Improves utilization rates of preventive health services
- ✓ Increases use of family planning postpartum
- ✓ decrease in preterm births—highest among NH Blacks
- ✓ Improved maternal health outcomes among participants
- ✓ Cost-effectiveness compared to usual model of prenatal care

36

Long Acting Reversible Contraception

- ✓ Increases birth spacing.
- ✓ Less than 1% probability of having an unintended pregnancy.
- ✓ Increase acceptability and awareness among patients and providers.

37

Progesterone Therapy

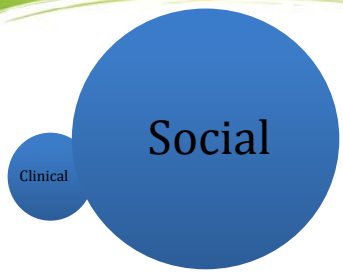
- ✓ Shown to reduce the recurrence of preterm birth.
- ✓ May reduce risk of preterm birth by 33%.
- ✓ OEI Teams working on removing barriers to access.

38

Clinical-Social Dyads (CSDs)

Source: Dr. Arthur R. James

Clinical-Social Dyads (CSDs)



Source: Dr. Arthur R. James

Examples from the Field:

Tools & Policies to Address Social Determinants of Health

41

Partnerships Between State & Local Health Departments

Ohio Institute Equity In Birth Outcomes

42

Support & Promote Data-Informed, Community-Driven Approaches

Provide timely data to local health departments

For more information on MN go to "Collection of Racial/Ethnic Health Data by the Minnesota Departments of Health and Human Services" http://www.health.state.mn.us/ommh/publications/racialethnicdata2011.pdf

43

Support & Promote Data-Informed, Community-Driven Approaches

Invest in data capacity and skills

44

Leverage Initiatives in All Health (and Non-Health) Divisions

Social Determinants of Health cannot only be addressed by Public Health

45

What Works for Health:

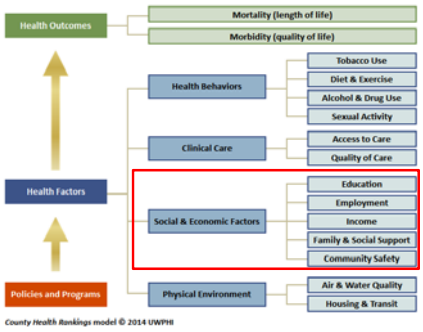
Policies and Programs to Improve Wisconsin's Health

whatworksforhealth.wisc.edu

The Population Health Institute at the University of Wisconsin

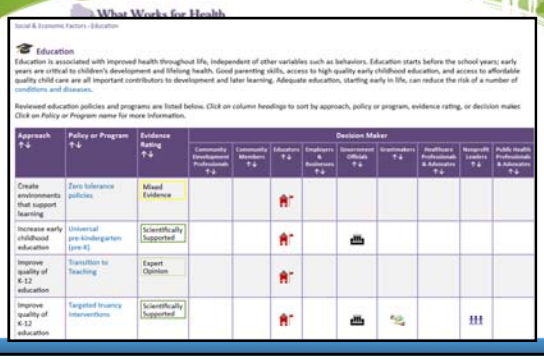
46

What Works for Health: Policies and Programs to Improve Wisconsin's Health



47

What Works for Health: Policies and Programs to Improve Wisconsin's Health



Social & Economic Factors - Education

Education

Education is associated with improved health throughout life, independent of other variables such as behaviors. Education starts before the school years; early years are critical to children's development and lifelong health. Good parenting skills, access to high quality early childhood education, and access to affordable quality child care are all important contributors to development and later learning. Adequate education, starting early in life, can reduce the risk of a number of conditions and diseases.

Reviewed education policies and programs are listed below. *Click on column headings to sort by approach, policy or program, evidence rating, or decision maker. Click on Policy or Program name for more information.*

Approach	Policy or Program	Evidence Rating	Decision Maker								
			Community Development Professionals	Community Members	Educators	Employers & Businesses	Government Officials	Grantmakers	Healthcare Professionals & Advocates	Nonprofit Leaders	Public Health Professionals & Advocates
Create environments that support learning	Zero tolerance policies	Mixed Evidence									
Increase early childhood education	Universal pre-kindergarten (pre-K)	Scientifically Supported									
Improve quality of K-12 education	Transition to Teaching	Expert Opinion									
Improve quality of K-12 education	Targeted truancy interventions	Scientifically Supported									

Policies to Address SDoH

What Works for Health
Education

- ❑ Increase early childhood education
- ❑ Create environments that support learning
- ❑ Establish home visiting or parent education programs
- ❑ Improve the quality of K-12 education
- ❑ Increase education beyond high school
- ❑ Increase high school graduation rates

49

Policies to Address SDoH

What Works for Health
Employment

- ❑ Create supportive work environments
- ❑ Ensure workplace safety
- ❑ Increase workers employability

50

Policies to Address SDoH

What Works for Health
Income

- ❑ Increase or supplement income
- ❑ Support asset development

51

Policies to Address SDoH

What Works for Health
Family & Social Support

- ❑ Build social capital within communities
- ❑ Increase social connectedness among adults/special populations
- ❑ Increase social connectedness among youth
- ❑ Build social capital within families
- ❑ Ensure access to counseling and support

52

Policies to Address SDoH

What Works for Health
Community Safety

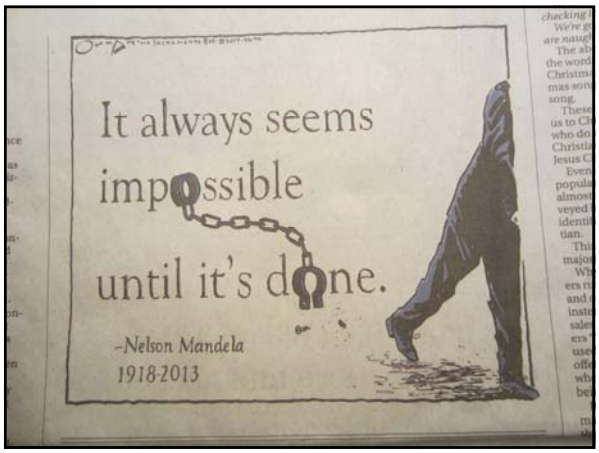
- ❑ Assist youth involved with the justice system
- ❑ Prevent intimate partner violence
- ❑ Prevent neighborhood crime and violence
- ❑ Prevent child maltreatment
- ❑ Ensure sports and recreation safety
- ❑ Support safe travel
- ❑ Reduce home health hazards

53

Summary

- ✓ Institutes for Equity in Birth Outcomes
- ✓ Becoming Data-Informed & Community Driven
- ✓ Examples from the Field to Address SDoH

54



Questions?

56

Thank You!

Carol Gilbert
cgilbert@unmc.edu

Monica Beltran
monica.beltran@unmc.edu

57