

# Using Data to Target Disparities

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CityMatCH

April 8, 2020





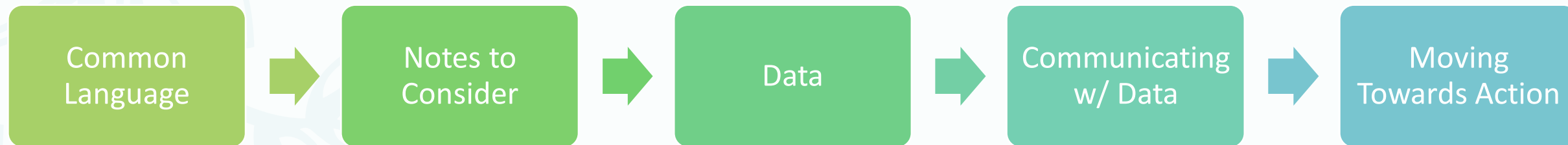
# Hi Ohio!

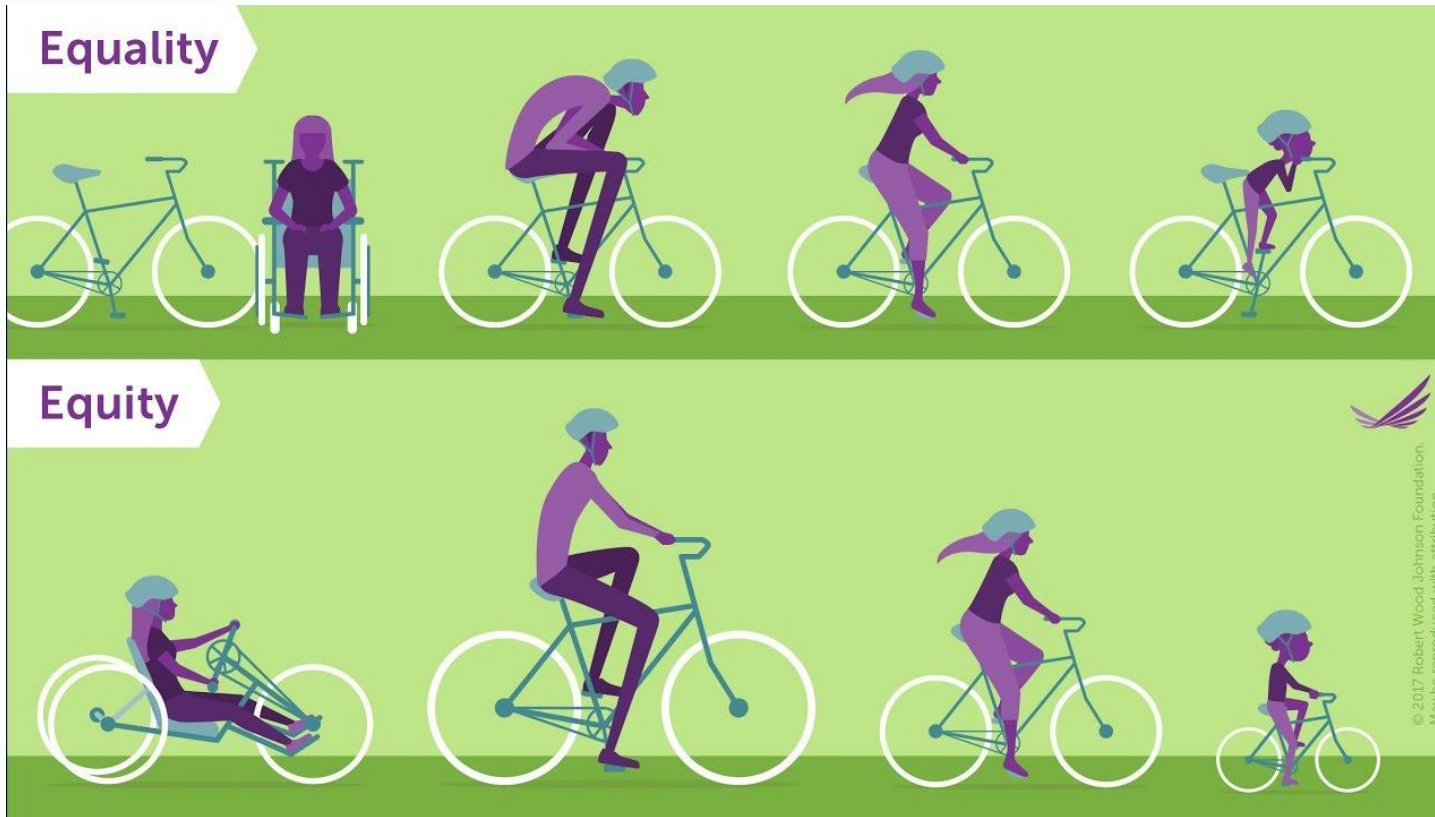
- That's me!
- Omaha, Nebraska, which is on the ancestral home of the Omaha (Umonhon) Tribe (logo to the left!)
- CityMatCH – 4 years
- Why are we here today?



# Today's Map

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## Equity versus Equality

- Equality: giving everyone the same resource, regardless of needs/circumstances
- Equity: giving people the resource based on their needs/circumstances
- Assumption: even if this is new to you, we're all working towards equity; its our mission and its why we're having this conversation



# Using the term “disparities”

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- A difference between groups
  - Usually defined in terms of subtraction or division (e.g rate ratios)
- One group does not “have” the disparity
  - One group has poorer outcomes than another group
- Disparities can be between racial/ethnic groups, geographical locations, age groups, sex/gender, income levels, ability, etc.



# Health equity $\neq$ reducing disparities

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- Reducing disparities is a large part of moving towards equity but they are not synonymous
- Equity requires rectifying institutional racism and systemic oppression so that everyone can achieve full potential moving forward
- Healthy People 2020: health disparities adversely affect people who have **systematically experienced greater obstacles...based on characteristics historically linked to discrimination or exclusion**
  - *Know your history!!!*

# Perspectives matter

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Equity should underscore all of your work

- it is not a separate line item or “bucket.” It should be the basis of each of your activity “buckets” (e.g. smoking cessation bucket, safe sleep bucket, etc)

Emphasis on biological factors leads people to believe that circumstances can't be improved

- “You can't change biology” \*shrug\* → inaction
- also helps blame *people* for poorer outcomes

Emphasis on behavior can be victim blaming

- “Why are you addicted to drugs?” versus “What is making you feel like you have to self medicate? What systems are allowing people to access different medications?”

# Genuinely partner w/ your local community!

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- “Nothing for us without us”
- I DON’T mean your fellow professional friends
- Authentic, continuous relationship to help build trust and increase transparency
- Realistic conversations about local experiences and perspectives
- Opportunity for feedback, testing messages
- Space to share health department/public health activities





A little about  
data!





# Data helps...

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- Monitor progress and outcomes throughout program implementation
- Provide numerical evidence to justify programs, funding, etc
- Discover differences AKA disparities
  - Differences in care access, health outcomes, etc
  - Magnitude of those differences
  - Opportunities for improvement
  - Can look within groups or across groups
- Make the case for continued/future equity work



# Data can be...

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- Qualitative
  - Thematic analysis of stories, long responses, experiences, etc.
- Quantitative
- Both! (Mixed-methods data)
  - Creates more compelling case
  - Qualitative data contextualizes quantitative results
- **Remember that death populations aren't the same as birth populations**
  - Different contexts that could have led to each death
  - Disparities in deaths probably means disparities or differences in access or exposure to risk factors – not all deaths are random

# Contextualizing numbers with numbers

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LA Times article – April 7



CALIFORNIA

## L.A. releases first racial breakdown of coronavirus fatalities; blacks have higher death rate

<https://www.latimes.com/california/story/2020-04-07/l-a-releases-first-racial-breakdown-of-coronavirus-fatalities-african-americans-have-higher-death-rate>

- What we know
  - COVID is bad
  - LA County has preliminary data (still missing race data for some cases)
  - Racial breakdown of deaths
    - *Latino 28%*
    - *White 27%*
    - *Asian 19%*
    - *Black 17%*
    - *Other 9%*



# Contextualizing numbers with numbers

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- To understand the seriousness of the situation and gain a full scope of the disparity, we need to know the population size
  - AKA the denominator!
  - The Latino population makes up nearly half of LA county
  - The Black population makes up ~9% of the population
- Even though 1 in 10 people are Black in LA County, they represent 1 in 5 COVID deaths
  - ^ gives you a better idea of the scope of the problem; the rate

# Supplementation

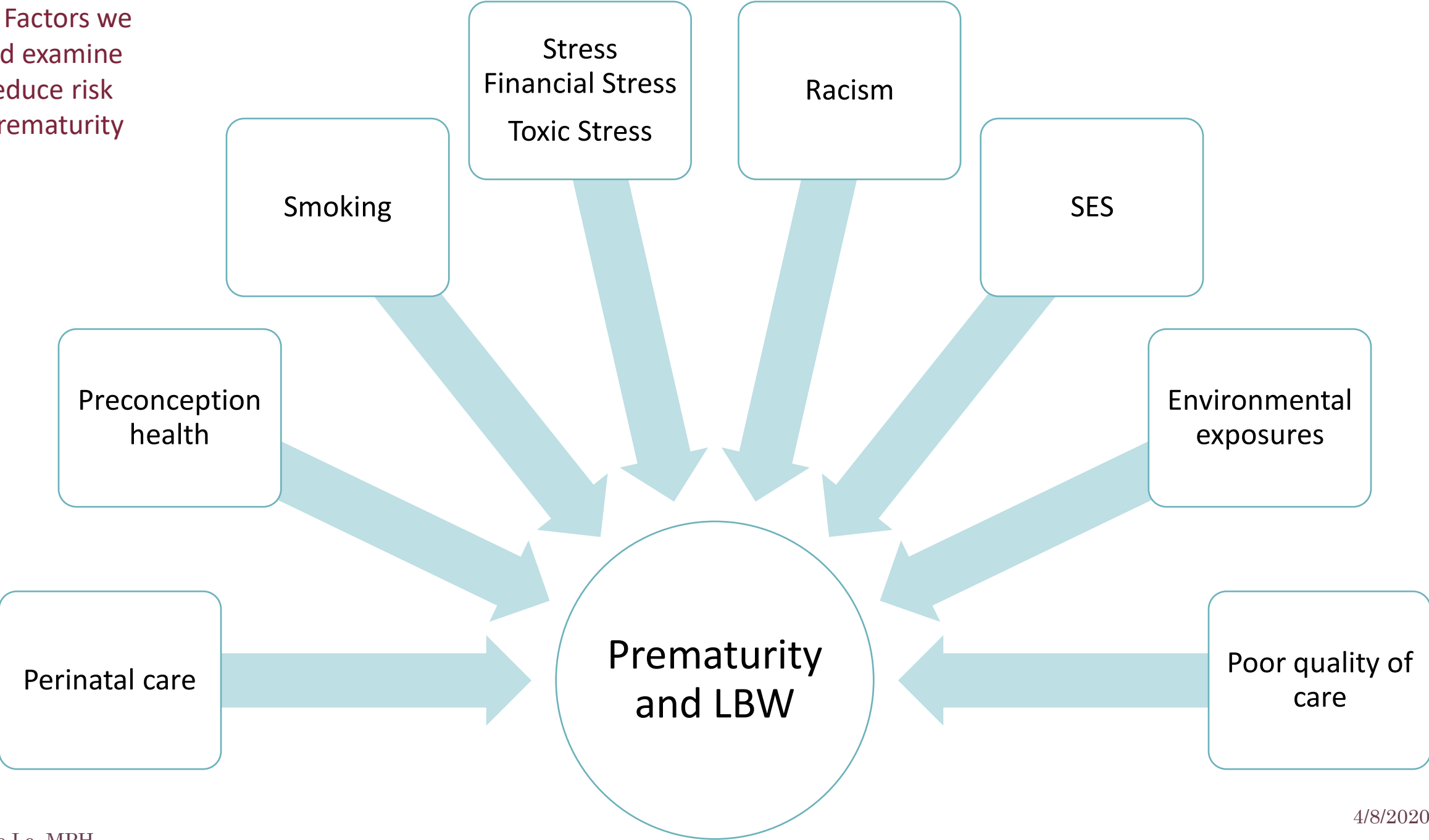
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Cause	Year				
	2013	2014	2015	2016	2017
Prematurity Related	298	291	273	311	314
Congenital Anomalies	204	192	184	193	179
Obstetric Conditions	90	90	93	77	90
External Injury	72	56	100	69	79
Sudden Infant Death Syndrome (SIDS)	90	71	87	75	67

*Data Sources: Source: Ohio Department of Health, Bureau of Vital Statistics, 2017*

- Increasing number of prematurity-related deaths
- Dig deeper:
  - What are risk factors for premature births?
  - What social determinants are at play here?
  - What are some upstream approaches to reduce prematurity?
  - Combine case review data with additional sources

Risk Factors we  
could examine  
to reduce risk  
of prematurity



# Additional data sources (pieces of a puzzle)

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Census

American  
Community  
Survey

PRAMS

BRFSS

Other survey/  
program data

CDC WONDER

FIMR

Vital Stats

NCHS

Hospital Data

Qualitative  
Data

Historical data





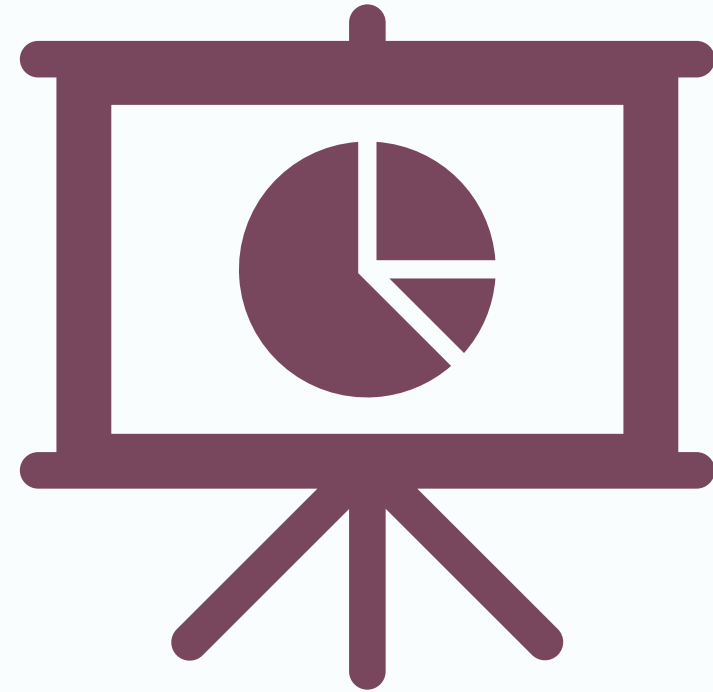
# Asset-based perspectives

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- What strengths exist in communities?
- What assets are there?
  - Built environment/structures (eg accessible public spaces)
  - Interpersonal relationships (eg tight knit community members)
- What is working?
  - Specific methods of communication
  - Gathering spaces
- What are current priorities in the community? Community members may not want to talk about what you want to talk about – this influences their buy in

# Communicating with data to address disparities

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# Narratives & Storytelling



## Contextualize numbers

Helps people understand circumstances beyond people's control  
Reduce blame on individuals  
Understand systems involved



## Powerful & Personal

Tugs at your heartstrings  
Reminds you of why you do this work and why others should care  
Empathy



## Chemical Reaction

Changes the way your brain reacts to the information – you feel it



## Unifying

Its *our* problem - its our community  
Avoid divisive language  
(those people, them, they, foreign)

4/8/2020

# Telling a story with your data

Internally, what is your data telling you?

What story are you wanting to share with others?

How can you incorporate lived experiences, community voices, and other qualitative information?

What are a few data points that support your story?

Is there a call to action?

# Things to consider when communicating

Who is your audience?

- Professionals?
- Community members?
- Policymakers?
- Funders?

What is your purpose?

- Teaching?
- Informing?
- Persuading?
- Decision-making?

What is your strategy?

- Presentation?
- Website?
- Press release?
- Social media campaign?

What you share and how you share your info is determined by who your audience is and your purpose.

# Keep in mind!

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- People have a saturation point
- Not everyone works with or thinks about data all the time, or ever
  - Misunderstand rates, percentages, etc.
- People fill in gaps with what they know
  - Dangerous to leave numbers open to interpretation
  - Could be flat out wrong
  - What role would bias play here?
- Different levels of understanding of numbers, tests, denominators
- Different levels of public health knowledge, familiarity with jargon
- Correlation  $\neq$  causation



# What to do?

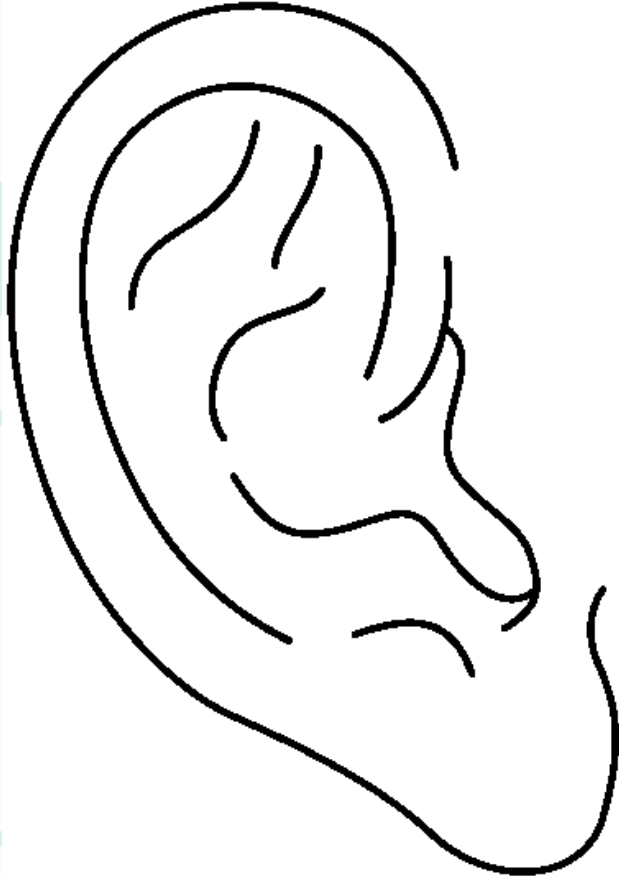
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- Share limited bits of data at a time
  - Pique their interest
  - Or have some backup data on hand
- Limit jargon (including acronyms!)
- Context clues help people interpret information
- Cater to your audience
  - Length of presentation/report/document
  - Terminology
  - Frame – economics? Justice?

Demonstrating  
unequal outcomes  
is **NOT** a  
compelling  
message for  
action.







## **The data says—**

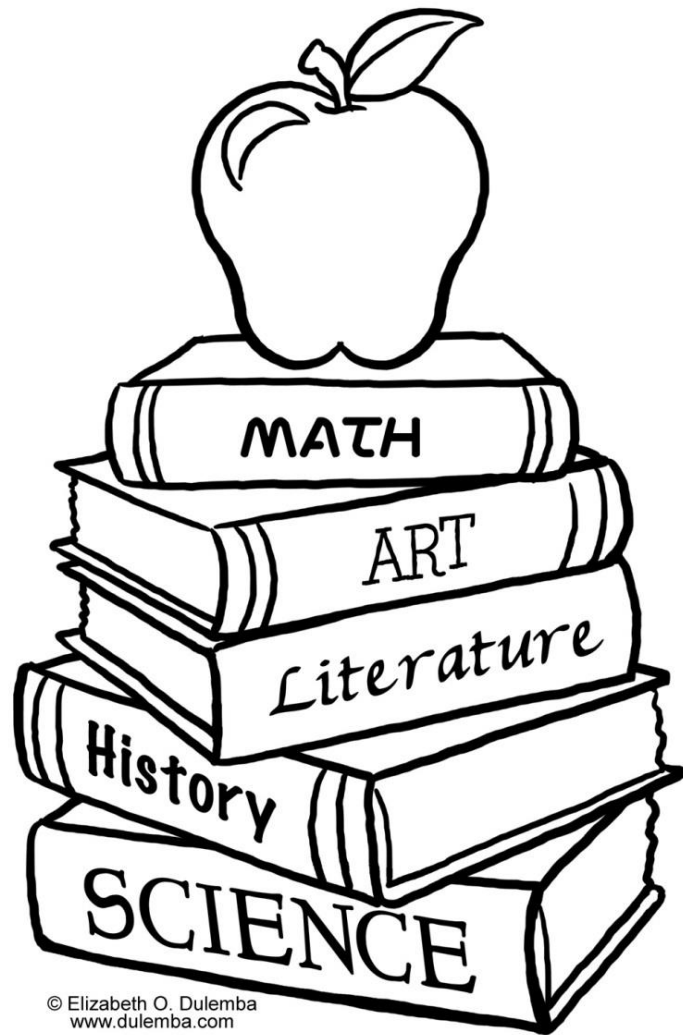
Black babies died at a rate 4.4 times that of White Babies in X County.

## **The community can hear—**

✖ Black people are not taking care of their babies. ✖

Numbers are being manipulated to tell a negative story.

How can you **contextualize** the data point and frame a narrative around it to prevent this knee-jerk interpretation?



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www.dulemba.com

**Emphasize external factors—**  
systems, structural components, and  
environment.

1 out of every 4 young girls has an STI.

**Vs.**

75% of schools don't train young people how  
to keep themselves safe from STIs and avoid  
unintended pregnancy.

**Note: Be careful how you talk about data! “Marriage status” is an indicator, yes, but what does it mean beyond marriage? Social support, extra income, extra help in childcare, etc. *That* is what you focus on**

	Percent of Population with Risk Factor	Crude Population Attributable Risk Percent (potential impact)
<b>Previous Preterm Birth</b>	<b>7.4%</b>	<b>16.5%</b>
Previous Poor Birth Outcome	2.2%	8.7%
Overweight or obese	54.6%	0.0%
Obese	29.5%	0.0%
WIC	68.0%	Protective
<b>Delivery Paid by Medicaid</b>	<b>56.5%</b>	<b>9.5%</b>
Teen Mom (19 or less)	17.8%	Protective
<b>Twins or More</b>	<b>4.2%</b>	<b>22.1%</b>
<b>Birth Spacing &lt; 18 Months</b>	<b>23.1%</b>	<b>9.5%</b>
High School Education or less	63.3%	Protective
<b>Not Married</b>	<b>81.5%</b>	<b>10.0%</b>
Smoking during pregnancy	21.2%	7.8%

A decorative pattern of stylized teal leaves and branches is located on the left side of the slide, extending from the top to the bottom.

# Visualization

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- Maps, charts, and other ways to visualize data
- Data tables aren't best for visual presentations
- Considerations:
  - Color-weak, color-blind, etc. in color schemes
  - Number of data points included in each piece of information shared
  - Icons (like on infographics) to represent concepts
  - If using a table, highlight what you want people to pay attention to
- Online resources for color schemes, map testing, creating infographics

# Communicating with Words

## Text Labels

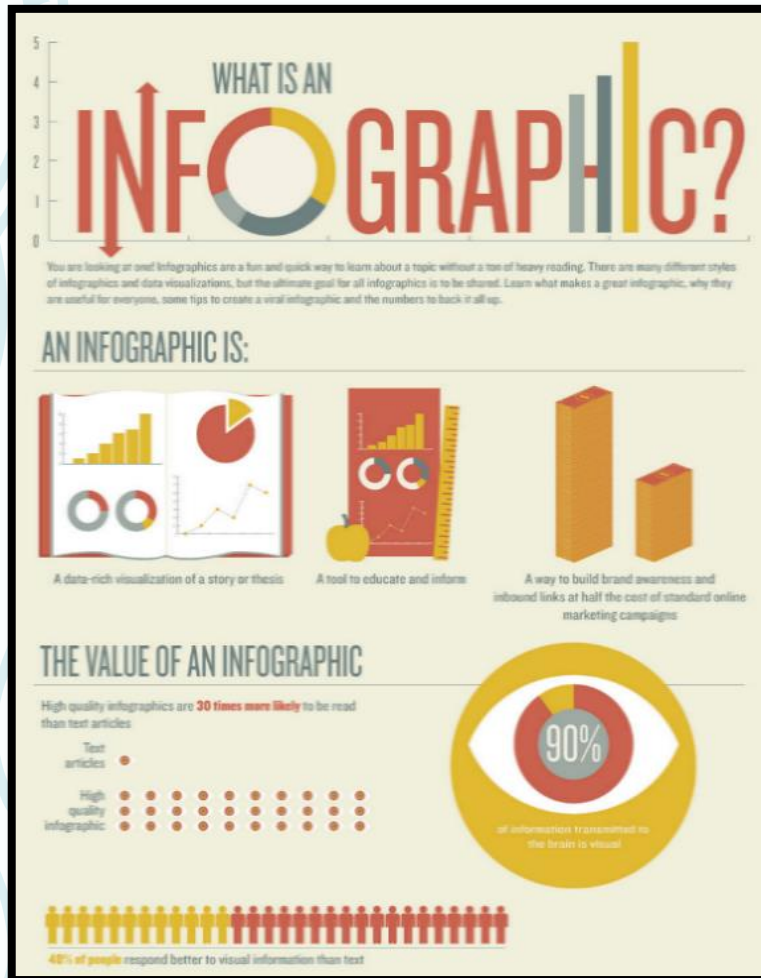
### Hints:

Place labels close to the data.

Use labels next to trend lines or clustered bars instead of further away in a legend.

Use familiar language.

Minimize clutter.



# Communicating with Words

## Verbal Qualifiers

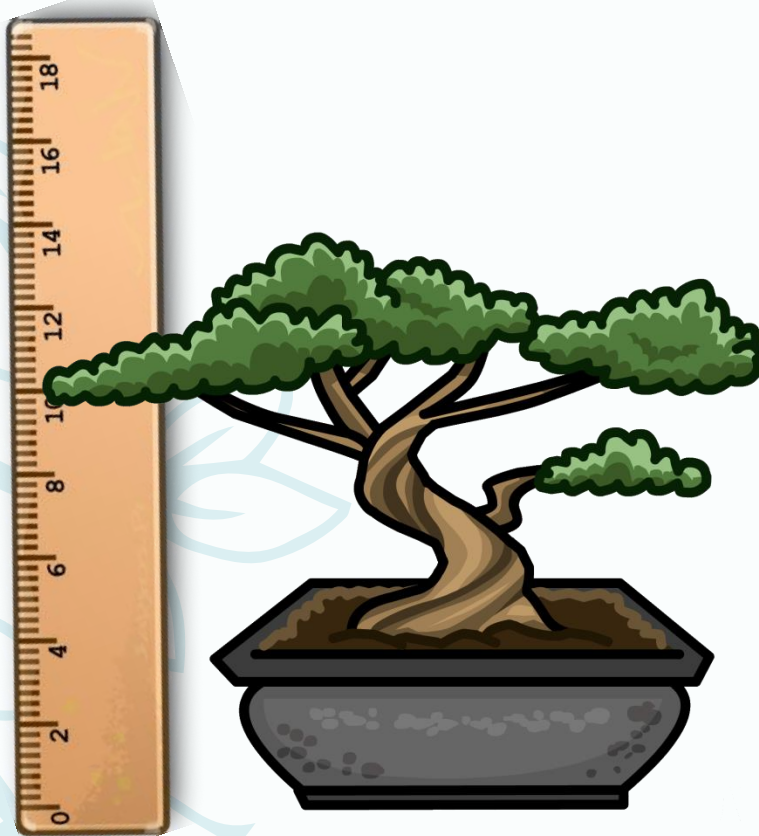
### Hints:

Does your situation lend itself to using everyday terms to describe the relationship between numbers?

Use expressions such as “much higher,” “lower risk,” or “most of the time.”

The audience may still misinterpret your message.

Ground verbal qualifiers with actual numbers.

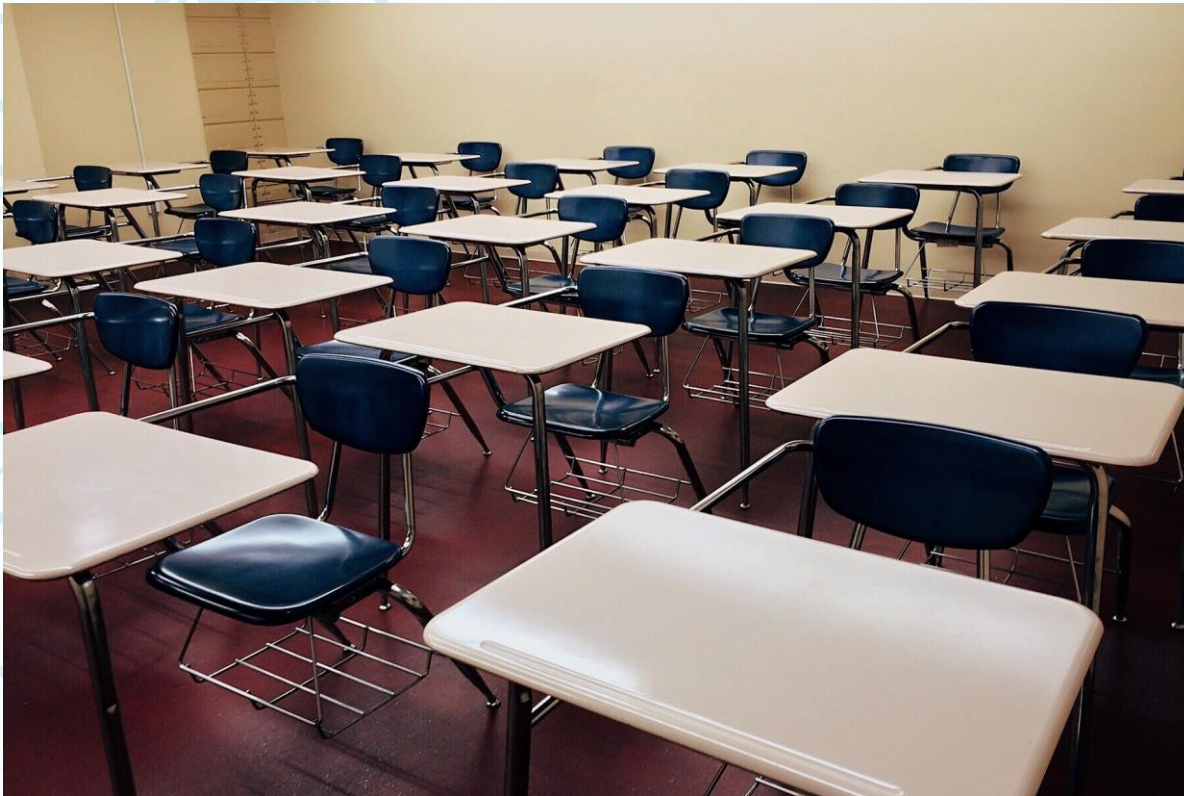


“The chances of X are low; only 5% or 5 in 100 people experience it.”



# Communicating with Words

## Metaphors



### Hints:

Metaphors help statistics come to life.

Equate numbers or rates to something your audience can **relate** to and imagine.

When possible, personalize the data by naming familiar venues, schools, or communities.

Additional example: 597 infant deaths  
= ~24 classrooms of children

# Communicating with Words

## Narratives

### Hints:

Take your audience to another place by telling the story with words, visual images, or both.

Narratives include anecdotes, quotations, specific examples, vignettes, personal stories, testimonials, or case studies.

People prefer narratives or stories.

Narratives help the audience understand the data.





# Communicating with Numbers

## In Tables

### Hints:

Facilitate movement through a table

Make sure headers are clear and easy to understand

Strategically use white space, shading, and borders to help the eyes know where to go

Be consistent in use of places after a decimal point.

Use bold facing or color to draw attention to significant findings.

Not the best to include tables in visual presentations (like ppt) but if you have to, use boxes/different colors to direct people's attention

**Table 2. Number and Rate of Infant Deaths for Ages Less than 1 Year by Race  
Tennessee, 2013-2017**

Year	Blacks			Whites			Black-White Disparity
	Number of Deaths	Live Births	Rate per 1,000 Live Births	Number of Deaths	Live Births	Rate per 1,000 Live Births	Disparity Ratio
2013	196	16,863	11.6	327	60,954	5.4	2.1
2014	212	17,061	12.4	326	62,096	5.2	2.4
2015	184	16,714	11.0	360	61,648	5.8	1.9
2016	198	16,359	12.1	377	61,046	6.2	2.0
2017	213	16,551	12.9	361	60,770	5.9	2.2

Data source: Tennessee Department of Health, Office of Vital Records and Health Statistics, Death Statistical File, 2013-2017.

## Another example of using data tables in ppt

	Percent of Population with Risk Factor	Crude Population Attributable Risk Percent (potential impact)
Previous Preterm Birth	7.4%	16.5%
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High School Education or less	63.3%	Protective
Not Married	81.5%	10.0%
Smoking during pregnancy	21.2%	7.8%

SOURCE NAME (& LINKS)	PURPOSE
<u><a href="#">Adobe Color CC, I want hue</a></u>	Color palettes for color coordination in presentations, charts, etc.
<u><a href="#">Tableau</a></u> <u><a href="#">Tableau Public (online free version)</a></u> <u><a href="#">Piktochart</a></u> <u><a href="#">Canva</a></u>	Infographics, different types of print publications, dashboards (Tableau Public) (Note: some free elements, some cost money)
<u><a href="#">Color Brewer</a></u>	Color advice for maps
<u><a href="#">Color Oracle</a></u>	Colorblindness simulation – downloadable software that puts a filter on your screen to simulate color impairments
<u><a href="#">Stephanie Evergreen's Website/Blog</a></u>	Tips, Ideas for visualization
National Cancer Institute Communicating Workbook: <u><a href="#">"Making Data Talk"</a></u>	PDF of presentation tips
<u><a href="#">CDC: Every day words for Public Health</a></u>	PDF of terminology and phrasing advice
<u><a href="#">Frameworks Institute</a></u> <u><a href="#">Example of their work: Prematurity Summit presentation @ March of Dimes</a></u>	Message framing – Less about data visualization, more about crafting the message/story and verbal communication.



# Lead share benefit

Glynis Shea, Communications Director  
Konopka Institute for Best Practices in Adol



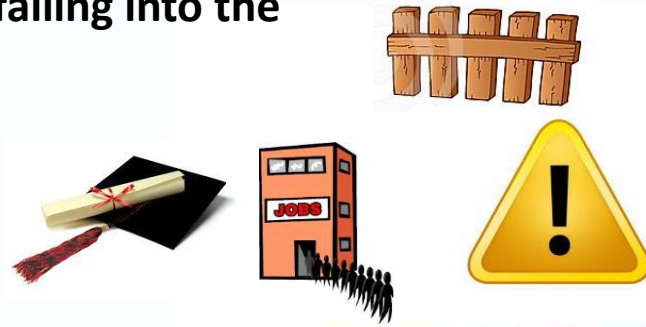


# Moving to Action



# Upstream & Downstream?

**Upstream Strategies**  
to keep more people  
from falling into the  
water



**Prevention  
Vehicles**



**Downstream  
Strategies** to help  
people who are  
already in the water



# Upstream & Downstream?

## Upstream Strategies

Racism, education, housing, labor, justice, transportation, agriculture, environment, etc.

## Prevention Vehicles

Home Visiting, Medical Homes and Neighborhoods, Case Management, WIC, Centering, Baby-friendly Hospitals and Birthing Clinics, Doula Care, etc.



## Downstream Strategies

Family Planning, Maternal Stress Prevention and Management, Tobacco, Alcohol, other Drug Cessation, Progesterone, Kangaroo Care, Safe Sleep, etc.



# Health Impact Pyramid





# Who else can you partner with?

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- Doing the same thing over and over again and expecting new results = crazy
- New partners, new methodologies, new places
- How can existing partners/efforts be improved and expanded upon?
- Culturally informed, linguistically appropriate?
- Community-based interventions convenient for community members?

# Potential intervention areas?

(safe sleep examples)



OTHER PARENT(S)



GRANDPARENTS



OTHER  
CARETAKERS &  
CARETAKER  
FACILITIES



BASIC NEEDS



HEALTH THRU THE  
LIFECOURSE FOR  
EITHER PARENT



INTERCONCEPTION  
HEALTH

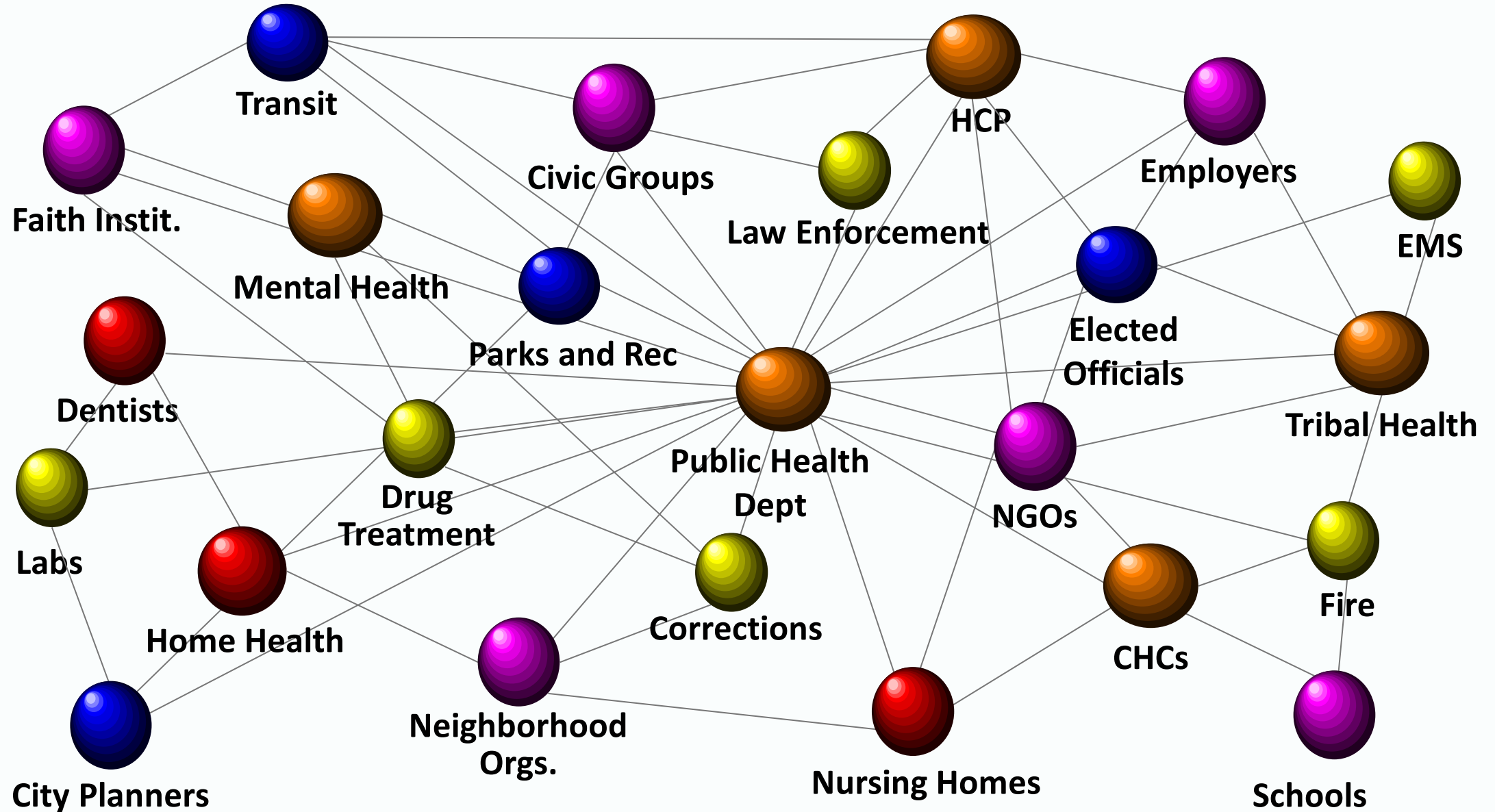


BREASTFEEDING



MENTAL HEALTH


# Public Health System – potential partnerships to engage





# Recap

- Data is necessary to identify differences in outcomes
- Use both qualitative, quantitative
- Be selective, strategic about what you share and how you share it
- Contextualize the information to avoid misinterpretation
- Emphasize systems or societal factors to avoid victim blaming
- Health Impact Pyramid – greatest potential for impact is in addressing socioeconomic factors
- Upstream and downstream strategies
- Imagine new partnerships, interventions, thinking outside of the box
- Racism, not race
- Language matters in how you talk to people & about people!

- 
- Stay true to integrity of data, scientific method, and other academic concepts but also approach with the compassion that this work demands
    - Be cognizant of who you might be excluding (through “insufficient numbers” statistical concerns, for example) -- how can we ensure everyone is a part of the conversation?
    - You don’t have to (you shouldn’t) report unstable numbers but still acknowledge the populations that may be affected
  - These numbers represent lives, lived experiences, daily realities for community members
  - Taking care of most marginalized populations helps take care of everyone
    - In MCH – infant mortality is the canary in the coalmine
    - Indicator of population health – if we can take care of our children, the most vulnerable members of society, we can take care of everyone



Thank you!

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“Prevention is the heart of  
public health. But equity is its  
soul.”

Dr. Margaret Chan

Director-General of the World Health Organization