



# Health Impacts of Sugar-Sweetened Beverages

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# Desired Outcomes

- Learn about sugar-sweetened beverage consumption and health impacts
- Become familiar with diet and obesity-related chronic disease data
- Provide an overview of best practice strategies to address sugar-sweetened beverages

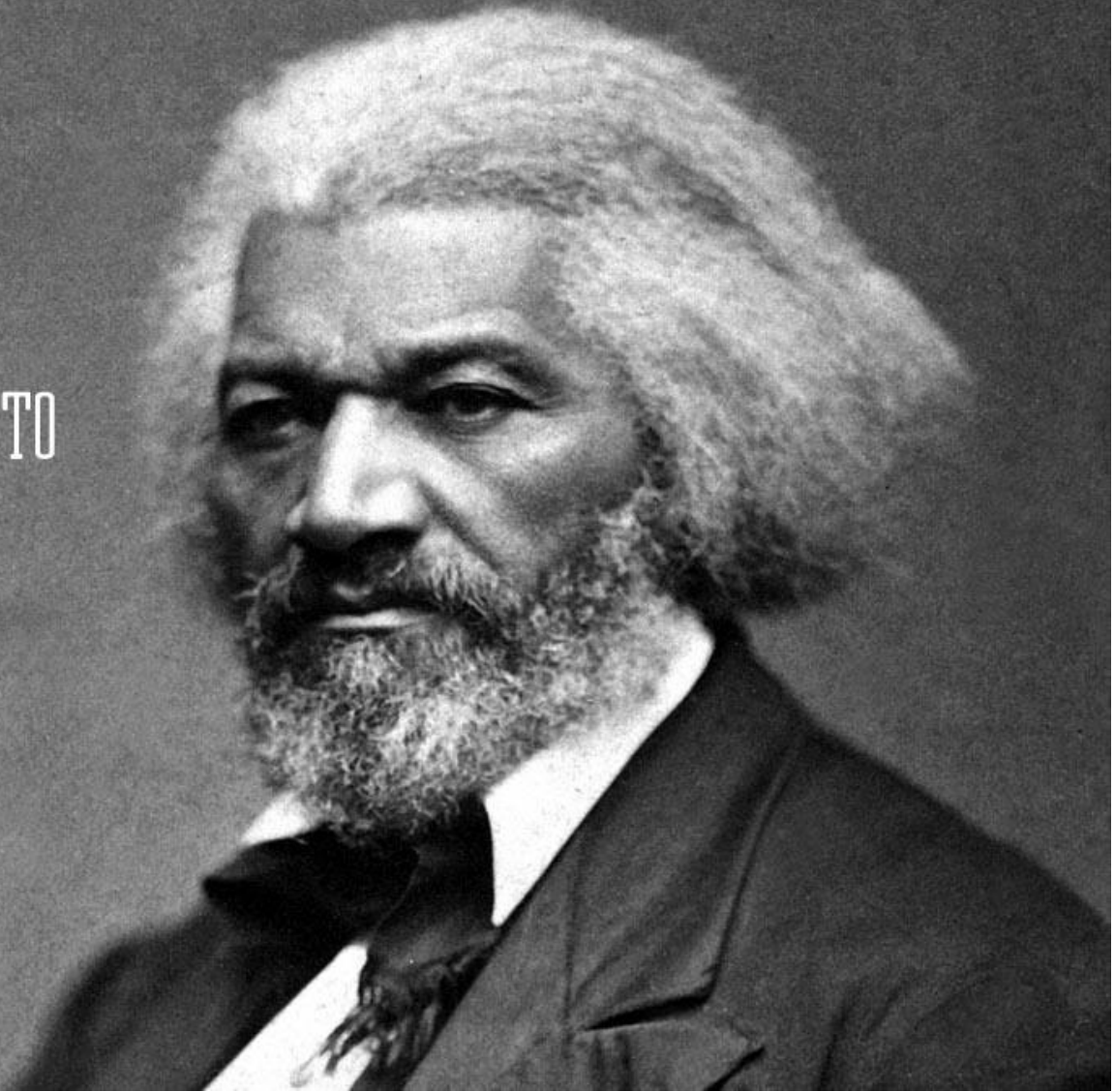


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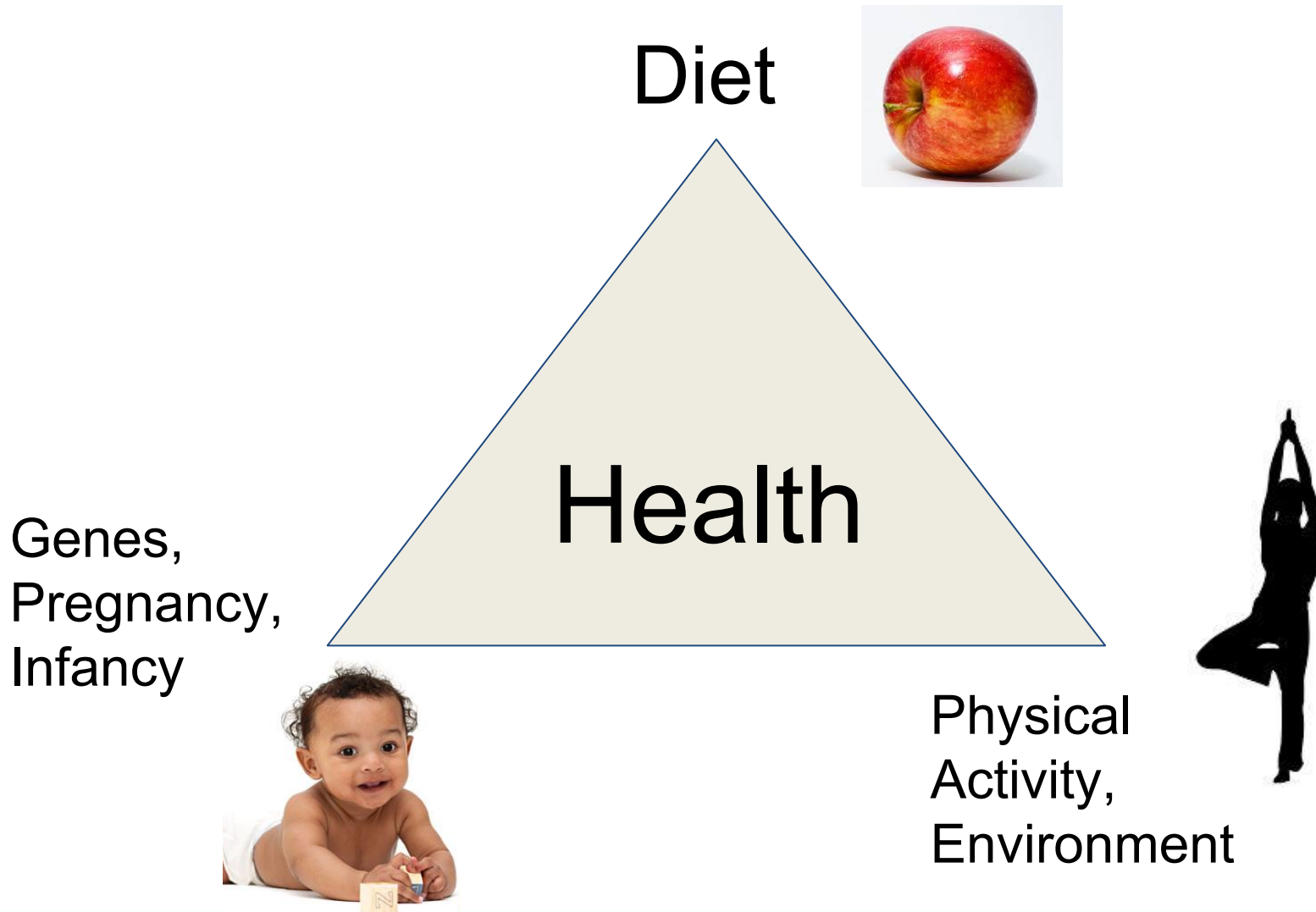
IT IS EASIER TO BUILD  
STRONG CHILDREN THAN TO  
REPAIR BROKEN MEN.

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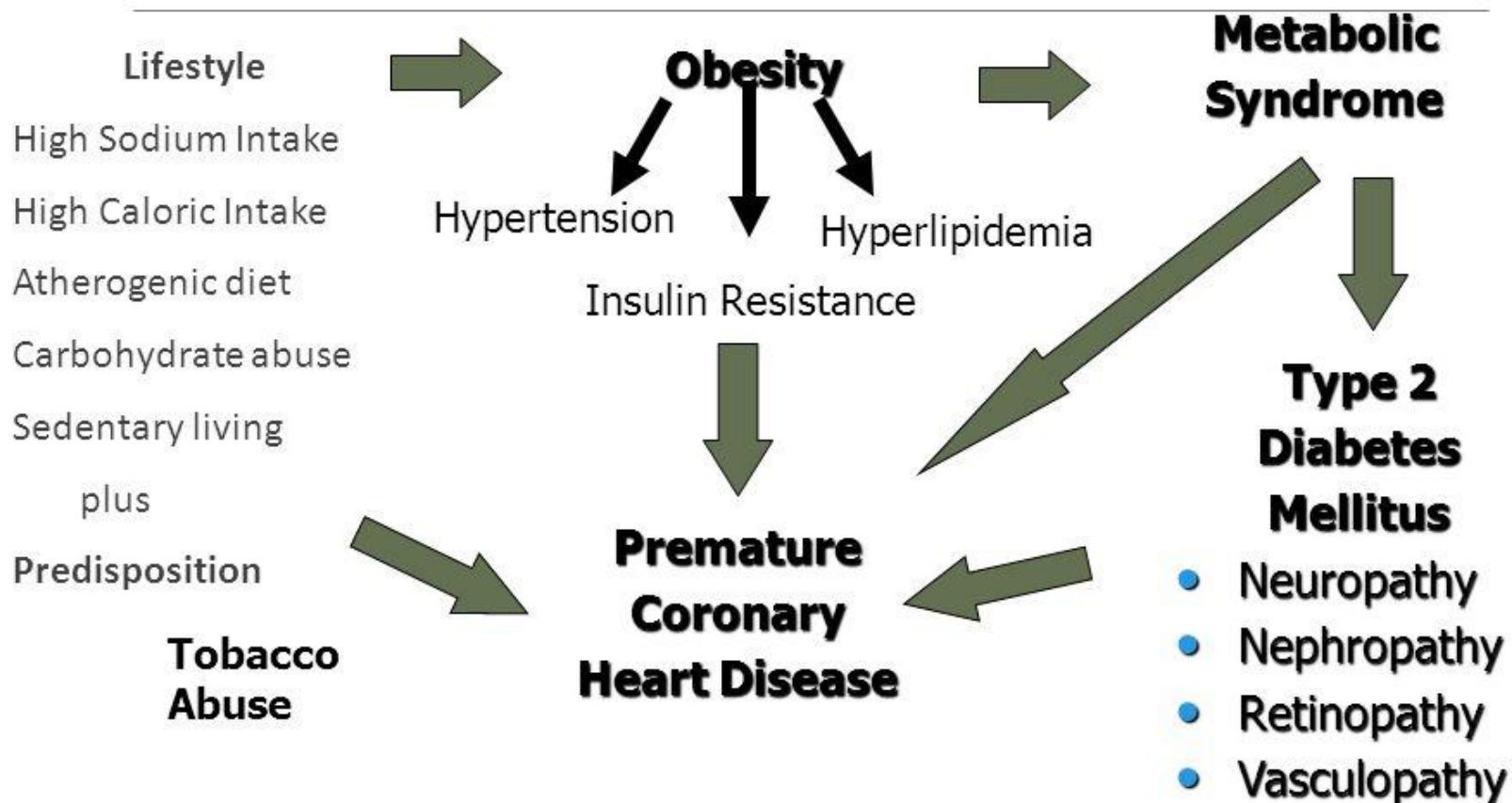
FREDERICK DOUGLASS



# Healthy Eating Prevents Chronic Disease



# An Unhealthy Diet Helps Cause Chronic Disease



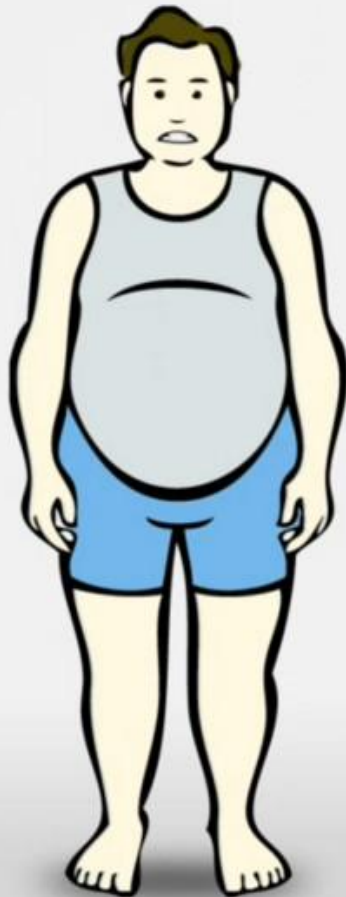
Donald Felitto, MD <http://slideplayer.com/slide/7424381/> accessed 11/24/17





# One Syndrome, Much Damage

## THE METABOLIC SYNDROME



HEART DISEASE



LIPID PROBLEMS



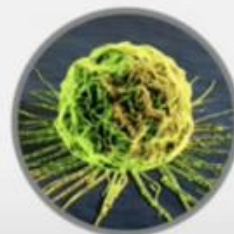
HYPERTENSION



TYPE 2 DIABETES



DEMENTIA



CANCER



POLYCYSTIC  
OVARIAN  
SYNDROME



NON-ALCOHOLIC  
FATTY LIVER  
DISEASE

UCTVPrime

Photo: <http://www.fortmyerschirostudio.com/2016/02/18/a-vicious-cycle-the-trappings-of-metabolic-syndrome/>



# Why Sugar-Sweetened Beverages Matter

- Largest source of added sugar in the US diet
- Empty calories of no nutritional value
- Liquid calories don't make you full
- Empty calories are cheap



# Epidemiology of Diet & Obesity-Related Chronic Diseases

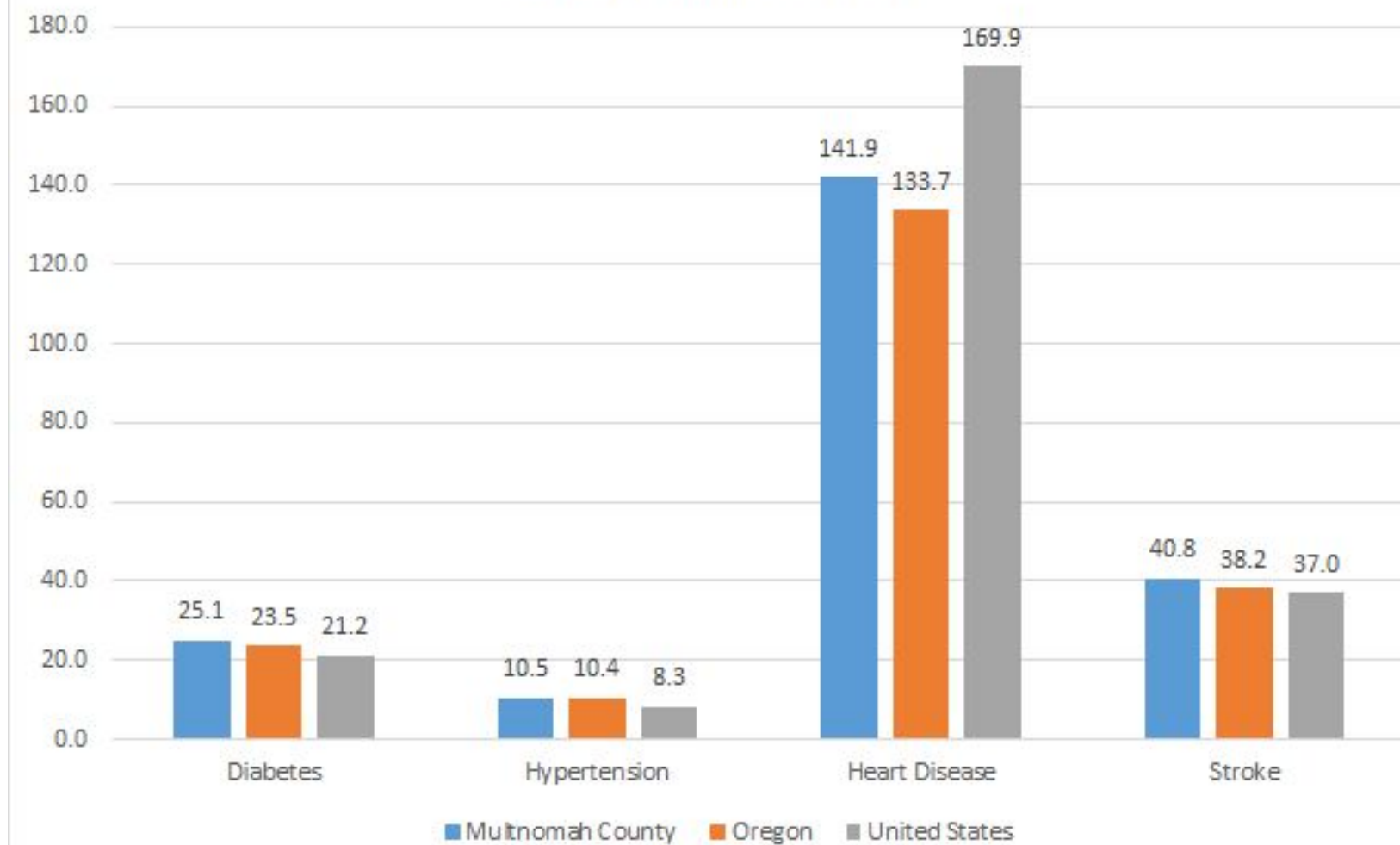
- Obesity/Overweight
  - Metabolic Syndrome
- Diabetes
- Heart Disease
- Cancers
- Stroke
- Disparities





## Age-adjusted Mortality Rates

Per 100,000 people, 2011-2015

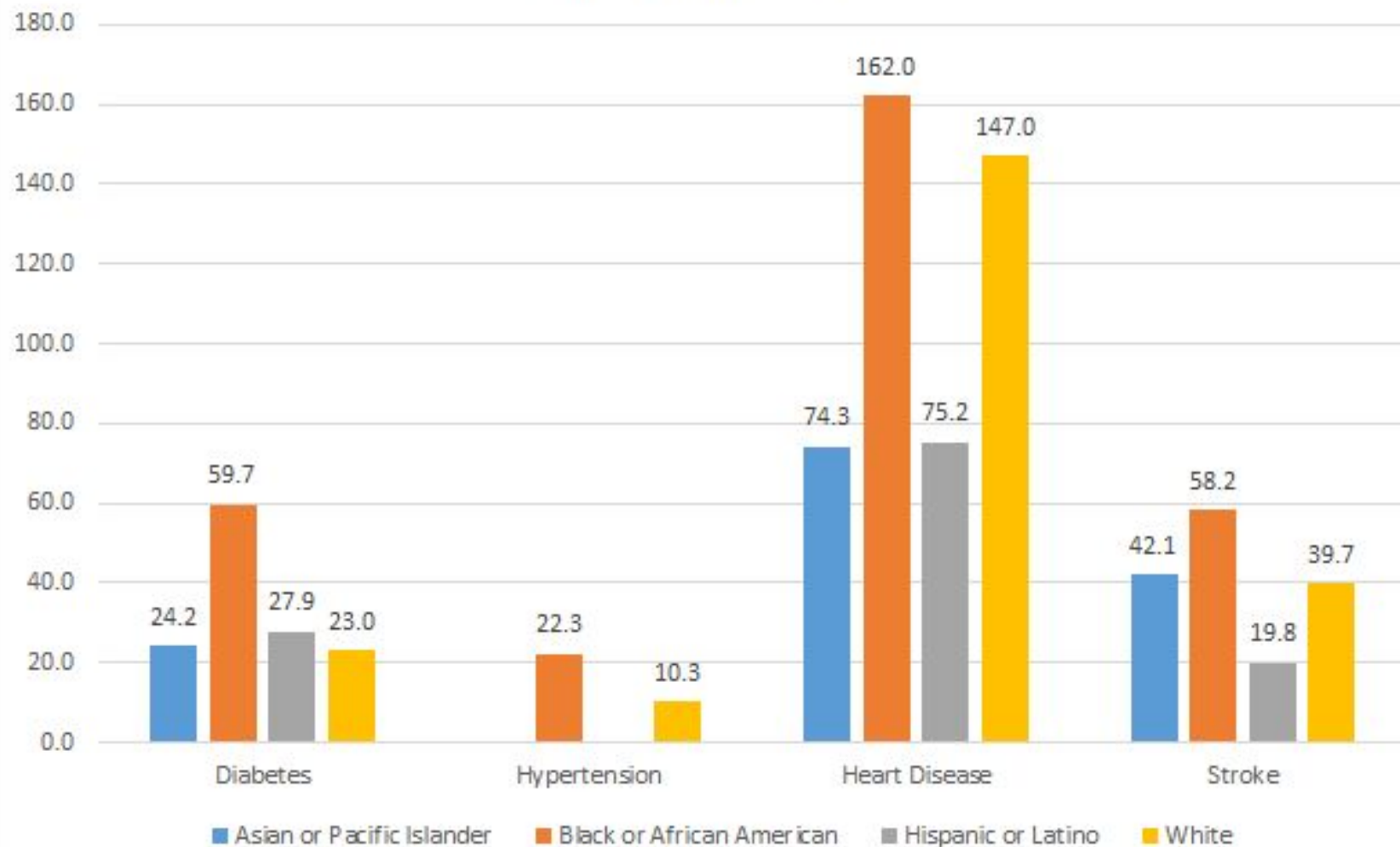


Source: Centers for Disease Control and Prevention WONDER



# Age-adjusted Mortality Rates in Multnomah County

Per 100,000 people, 2011-2015



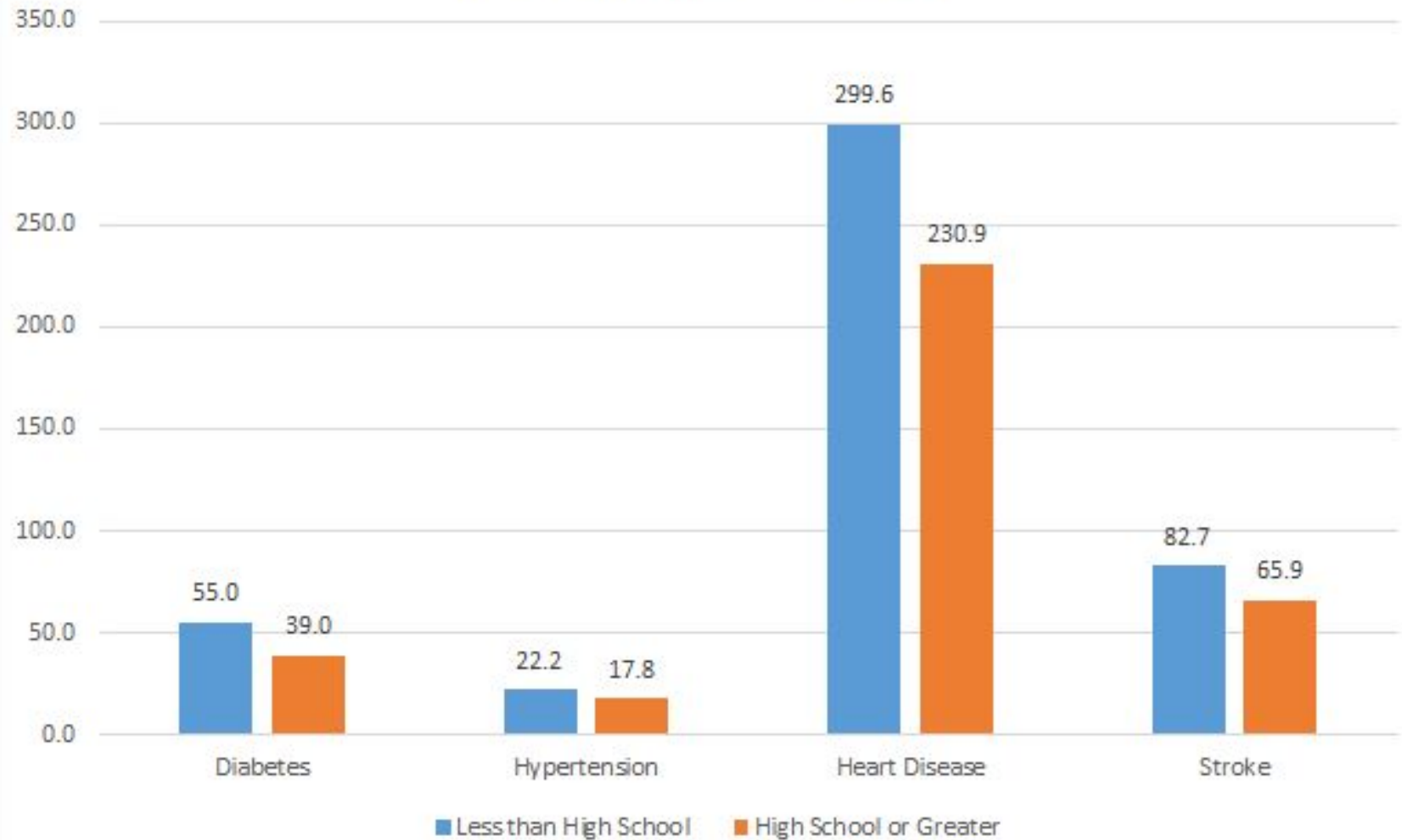
Source: Centers for Disease Control and Prevention WONDER

Note: Primary hypertension not calculated for Asian/Pacific Islander or Hispanic/Latino due to small cell size



# Age-adjusted Mortality Rates in Multnomah County

Per 100,000 people ages 25+, 2011-2015

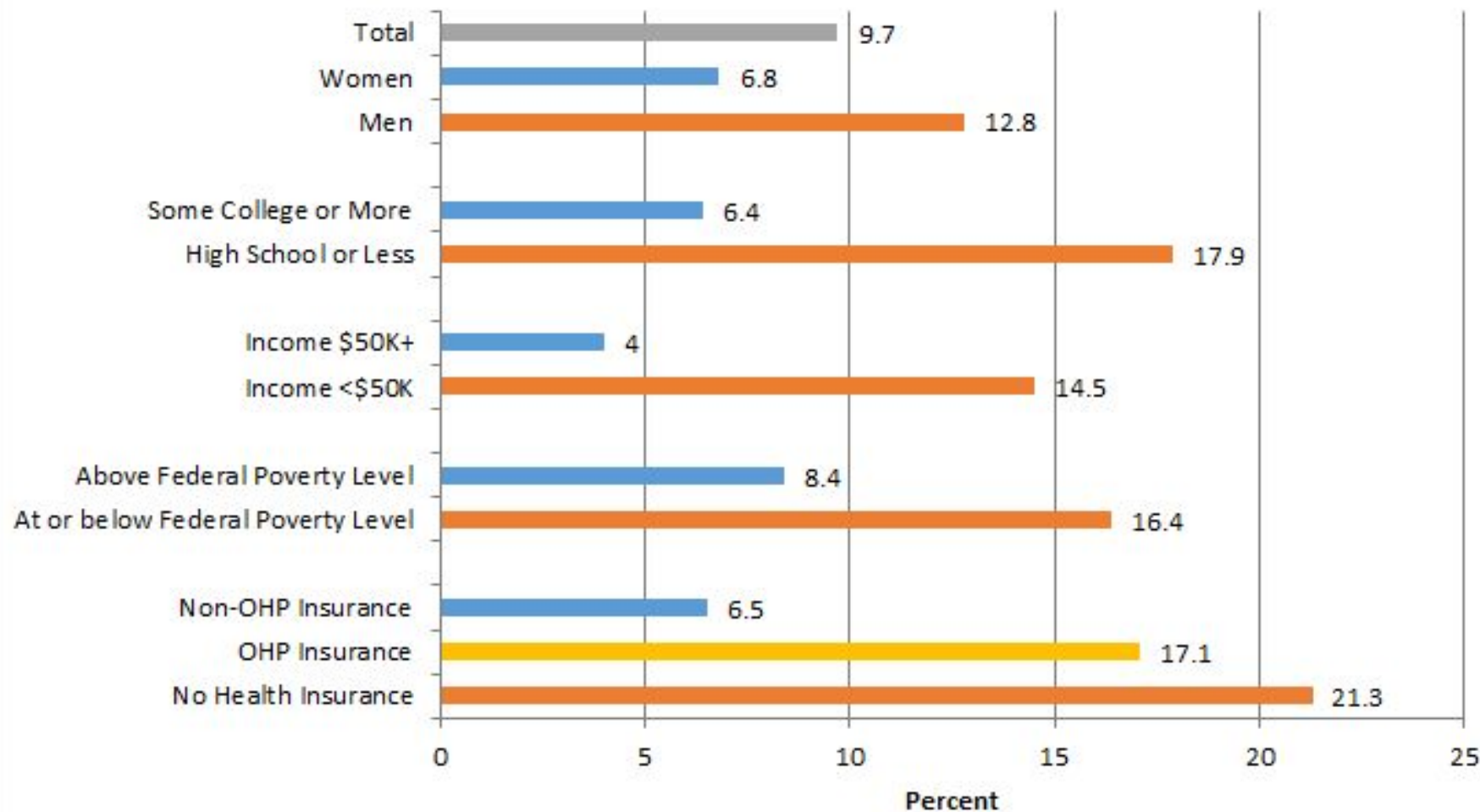


Source: Oregon Health Authority Vital Statistics



# Daily Soda Consumption by Multnomah County Adults

Percent reporting daily soda consumption, 2012-2015



Source: 2012-2015 County Combined Oregon BRFSS



# Obesity & Sugar-Sweetened Beverage Consumption in Multnomah County

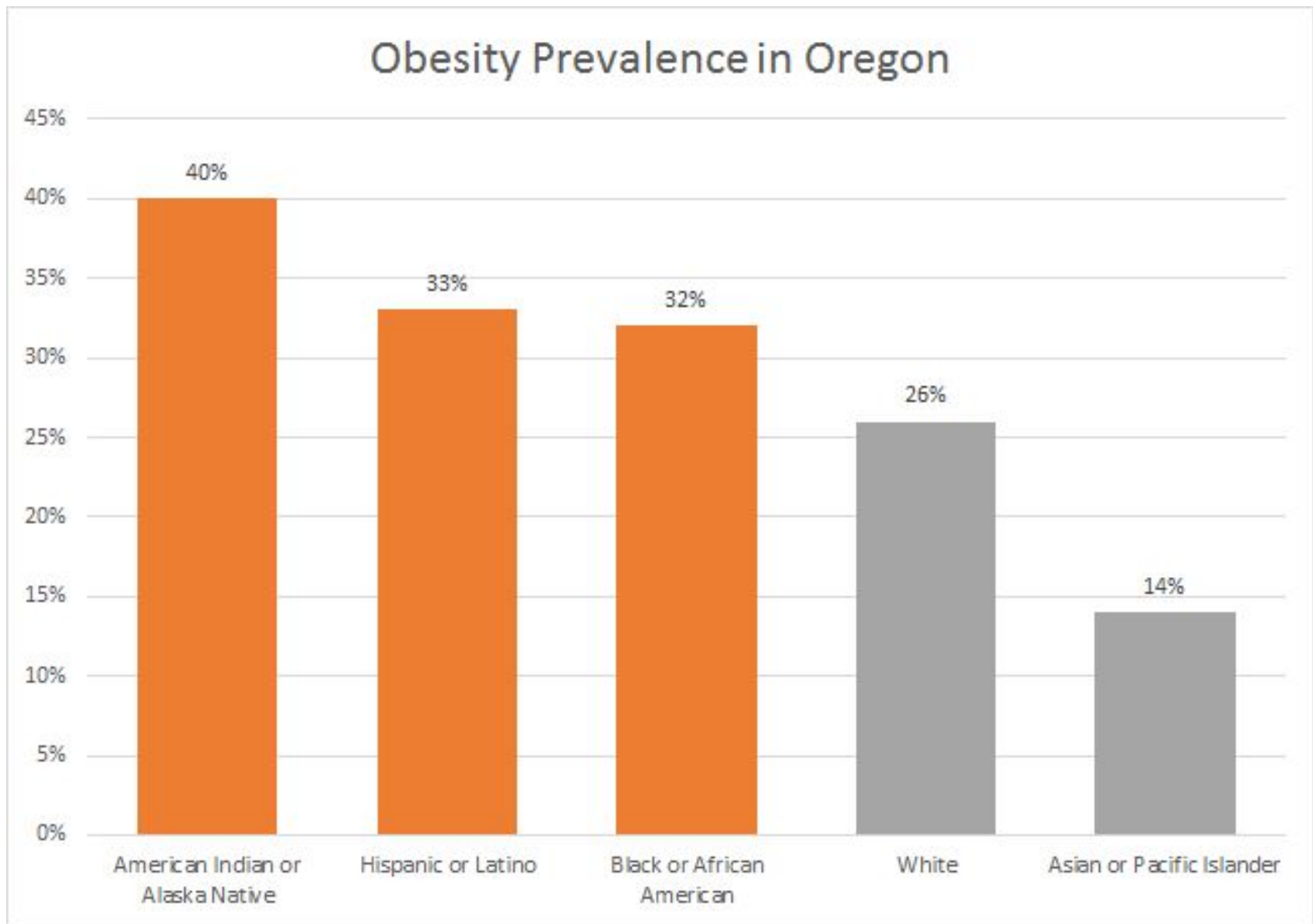
- Almost 11% of 8<sup>th</sup> graders and almost 14% of 11<sup>th</sup>-graders are obese.
- In 2015, about 9% of 8<sup>th</sup> and 11<sup>th</sup> graders reported daily soda consumption.
- Almost 10% of adults report daily soda consumption.



# Disparities in Obesity and SSB Consumption

- Obesity & obesity-related conditions vary by income, race/ethnicity, and educational attainment.
- Similarly, SSB consumption (e.g., soda) also differs by race/ethnicity; measures of class and gender; and by age group





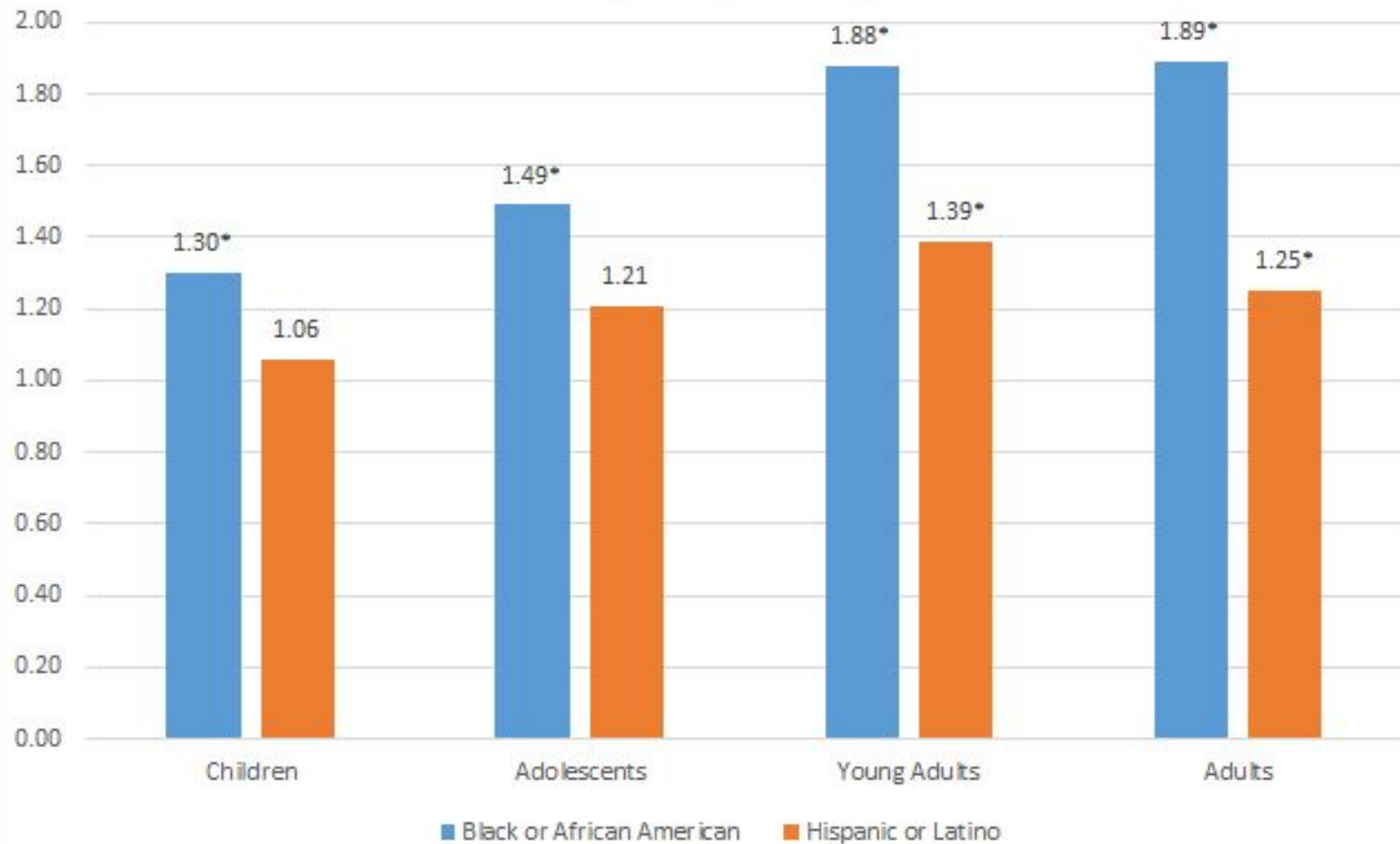
Source: Correspondence with Oregon Health Authority





## Likelihood of SSB Consumption in a Given Day

Odds ratios compared to whites

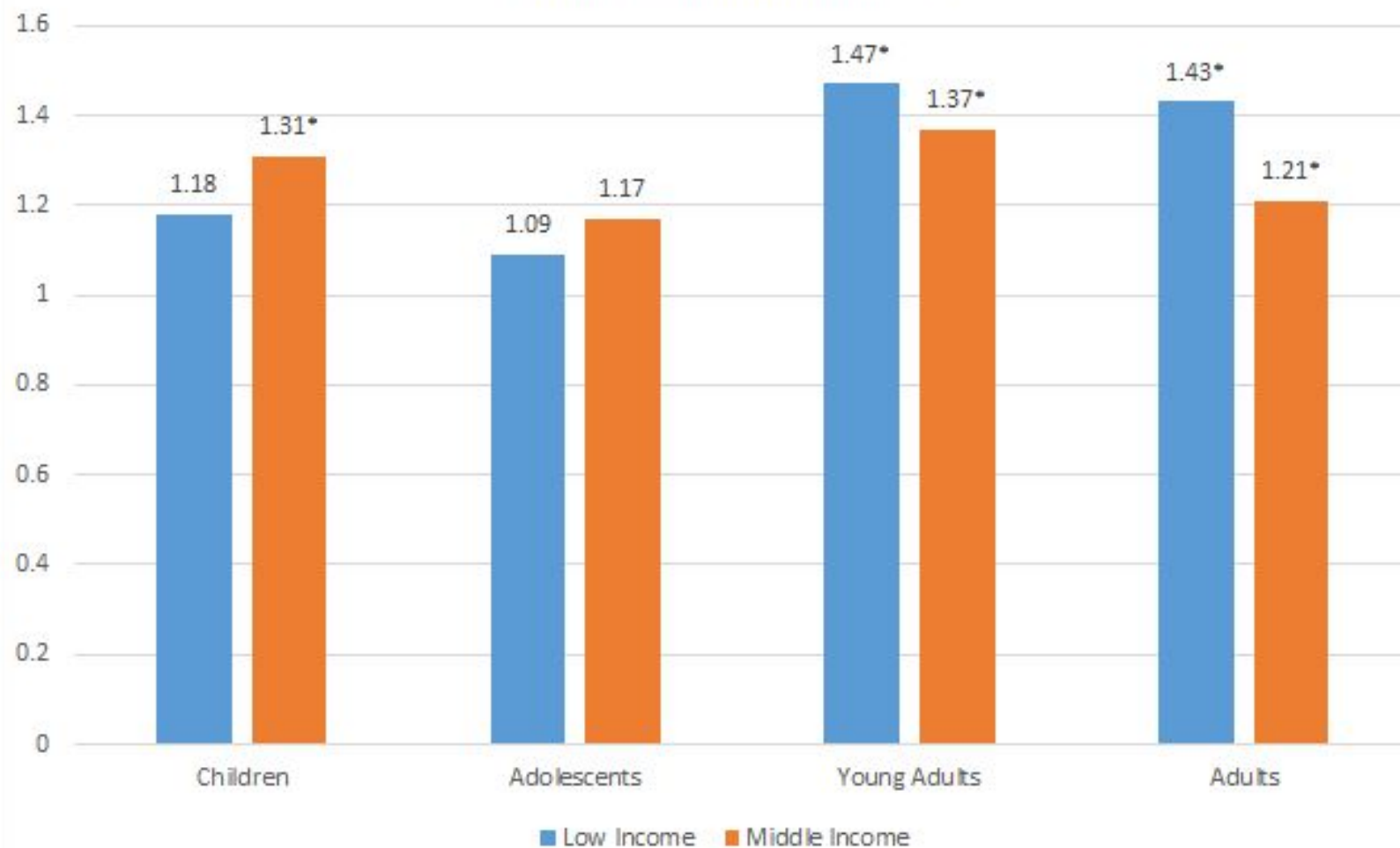


Source: Han and Powell 2013



## Likelihood of SSB Consumption in a Given Day

Odds ratios compared to High Income



Source: Han and Powell 2013



# Trends in Sugar-Sweetened Beverage Consumption in Oregon



# Marketing & Promotion of Sugar-Sweetened Beverages

- In 2013 advertisers spend about \$866 million a year on television, print, and digital marketing aimed at selling sugary drinks.
- Children (ages 6 to 11) and adolescents (ages 12 to 17) are exposed to about 169 and 287 SSB advertisements on television, respectively, per year.



Photo: <http://www.gatorade.com/products/g-series/thirst-quencher/?jump=flow>



“It is unreasonable to expect people to change their behavior easily when so many forces in the social, cultural, and physical environment conspire against such change.”  
– Institute of Medicine



Photo: <https://csts.ua.edu/collections/non-tobacco-collections/obesity/>



# Socioecological Model





# Approaches to Sugar-Sweetened Beverages





# Current Health Department Work to Address Chronic Disease



# With REACH Culture = Health

Racial and Ethnic Approaches to Community Health (REACH) works to make the healthy choice easier for communities of color in Multnomah County.

## CULTURALLY SPECIFIC APPROACHES PUTTING COMMUNITY FIRST WORKS

When we look at our community's strengths, we find solutions that resonate with generations of lived experience. Cultural community groups have been resilient in the face of institutional oppression to help families thrive.

Our culturally specific approaches help community members and organizations make a shift from consumers to creators of health services. This approach values diverse forms of knowledge that can be used to begin to reverse the impacts of historic marginalization.



The Healthy Birth Initiatives (HBI) serves pregnant moms, fathers, and children so African American children can get the best start possible.

African-American home visitors are highly trained and connected to the resources that help African American pregnant women overcome the systemic racism that leads to low birthweight and high infant mortality rates.

HBI has been part of the Healthy Start national model to improve birth outcomes since 1997.

"I was given a home visiting nurse during my pregnancy, she taught me things about my baby's development which helped me get through the stressful concerns that I was having about my pregnancy."  
-Resha, HBI Participant



The REACH program works to make sure the healthy choices families want to make, are easier to make.

REACH builds capacity in organizations to lead policy, system, and environmental changes that improve the social determinants of health for African Americans. This includes increasing access to nutritious foods, increasing economic development opportunities, and reducing exposure to tobacco.

We work with churches, childcares, businesses and local government to make changes that benefit families.

"Our community is moving into a place where we don't have roots, where we are new. My goal is to invite people to what is going on here so they can feel like they belong in this new space."  
-Vincent, Community Liaison



The Community Action Network (CAN) connects the vision of a thriving community with the resources to bring it to life.

Diverse stakeholders including HBI clients, business owners and community organizations unite to focus on Economic Opportunity, Housing, and Family Unity. Addressing these factors reduces racial disparities in birth outcomes for African-Americans.

"We waste time waiting for someone to get it, but we've already done it, the content is on the table. Now is the time to be intentional, and put action behind it."  
-Thelma, HBI Leader

## SOCIAL DETERMINANTS OF HEALTH YOUR NEIGHBORHOOD AFFECTS YOUR HEALTH

Social, environmental and individual factors influence our health and our ability to make healthy choices throughout our lives. To protect and improve our health, we must treat the root causes of illness, not just the symptoms.

Communities of color, more often than not, live in neighborhoods with more of these negative factors that can lead to ill health than whites. Toxic stress, racism and poverty lead to stark racial disparities in health, education, and economic outcomes for people of color.

In Multnomah County, African American babies are two and a half times more likely to die before their first birthday than white babies. African American babies are being born too early, too small and are dying too soon.



Tobacco companies spend \$10 billion annually on advertising in convenience stores. In Multnomah County, the highest concentration of these stores are in communities of color, and 37% are within 1,000 feet of a school.



The lack of efficient public transportation and safe walking routes keeps families from the resources they need to thrive. Communities of color are forced to make extraordinary efforts to reach quality jobs, education, and healthy food.

## REACH'S IMPACT ON THE LIFE COURSE MODEL EACH STAGE IN LIFE - FROM PRENATAL TO ELDER - HAS UNIQUE CHALLENGES AND OPPORTUNITIES THAT AFFECT LIFELONG HEALTH.





**Questions?**