HUNGER’S IMPACT ON HEALTH AND WELL-BEING
Hunger's Impact on Health & Well-being

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Agenda

- Hunger is prevalent
- Hunger impacts diet quality
- Hunger impacts health outcomes
- Hunger screening and referral optimizes care
Hunger by Household Characteristic

One third of U.S. adults with chronic illness cannot afford food, medicine or both

Food Insecurity is Associated with Poorer Nutritional Quality

- Fewer vegetables, fruit and dairy products
- Lower intake of calcium, magnesium, zinc, vitamins A and B-6

Food Insecurity is Associated with Poorer Health Outcomes

- Diabetes, cardiovascular disease and obesity
- Iron deficiency
- Mental illness: anxiety, depression and stress
- Developmental delays, inability to focus
- Irritability and decreased social functioning

As adults children who were born during the Dutch famine had increase prevalence of:

- Obesity
- Diabetes
- High Blood Pressure
- Cardiovascular Disease

Source: Roseboom, Molecular & Cellular Endocrinology 2001; 185: 93-98
Hunger is an Adverse Childhood Experience

- Intimate Partner Violence
- Abuse - physical, mental, sexual
- Neglect
- Parental substance abuse
- Household mental illness
- Household incarceration
- Hunger
- Extreme Poverty

http://www.cdc.gov/ace
Shonokoff, Pediatrics, 2012
ACE Scores Predicts Graded Increase in:

- Heart disease
- Chronic obstructive pulmonary disease
- Alcoholism and drug abuse
- Fetal death
- Depression
- Suicide attempts
- Risk for intimate partner violence
- Multiple sexual partners
- Sexually transmitted diseases
- Unintended pregnancies
- Adolescent pregnancy
Health Outcomes and Brain Development are a Result of Too Much Unbuffered Stress

- impaired immune functioning
- chronic illness
- reduction in neuronal connections
- altered brain function and architecture
- developmental and cognitive deficiencies

http://developingchild.harvard.edu
“In the past 3 months have you worried whether your food would run out before you had money to buy more?”
Screening for Hunger in Clinics in 2011

Prevalence of Food Insecurity 2011

- State of Colorado
- Smoky Hill Clinic
- Westminster Clinic

- Series 1

Graph showing the prevalence of food insecurity in 2011 for the State of Colorado, Smoky Hill Clinic, and Westminster Clinic.
Screening at Kaiser Permanente

Implement screening

• Pediatrics
• Registered Dietitians
• Seniors - Total Health Assessment
• Obstetrics
• New Members
• Chronic care nurses - depression, diabetes

Referral: outreach increased connection from 5% → 78%
Hunger Red Flags

- Development
- Behavior
- Growth
Food Stamps as Medicine
Call to Action

• Increase awareness of hunger prevalence and the health/educational impacts

• Screen

• Connect to all available nutrition programs and resources

• Advocate for programs and policies to eliminate hunger, improve health and educational outcomes
Thanks you

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Focusing on children:
Nutrition assistance in Colorado

Tracy Miller, MSPH, RD
Acting Nutrition Services Branch Chief
Section Manager, Child and Adult Care Food Program
Colorado Department of Public Health & Environment
Uniquely positioned for impact

Economic stability

Health

Food security

School readiness

WIC CACFP
CACFP participation

• Reduced likelihood of underweight among low income children\textsuperscript{1,2}
• Less risk of overweight\textsuperscript{1,2}
• Moderate increase in consumption of milk and vegetables\textsuperscript{2}

WIC Participation

• Less likely to be underweight\textsuperscript{3}
• Less risk of short stature\textsuperscript{3}
• Less likely to have perceived poor or fair health\textsuperscript{3}
• Cognitive & academic benefit\textsuperscript{4}
• Fewer family stressors related to child health risks\textsuperscript{5}
• Better use of health care than non-WIC Medicaid enrolled children\textsuperscript{6}
Food Security & Economic Impact

CACFP
• 4% reduction in household food insecurity\(^1\)
• Reduction in child care costs
• Contributes to quality early childhood experiences

WIC
• 5.5 percentage point reduction in child food insecurity\(^7\)
• 1.5 percentage point reduction in very low child food security\(^7\)
Today’s trends in participation

**CACFP**
- Currently serves 4 million on average daily in the US
- Participation has increased by 9% since 2011
- In Colorado, CACFP participation has been fairly stable with recent increases to about 45,000 participants served on average each day

**WIC**
- Increased steadily to 8.9 million in 2011 in the US
- Since 2011 participation has dropped by 5%
- In Colorado, current participation is near 90,700, which is a 19% decline since 2010
- 2015 Colorado data shows leveling of this trend

Today’s focus: program quality & outreach
How we all work together

Make families aware of all resources

- Community Food Access Points
- CACFP
- WIC
- SNAP
- Summer Food Service Program
How we all work together

Not just food...HEALTHY FOOD!

Provide access to healthy food
Provide consistent nutrition messaging
References

Thank you!

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HUNGER IS A SERIOUS AND OFTEN INVISIBLE PROBLEM IN COLORADO, BUT IT IS SOLVABLE.

THANK YOU FOR TAKING A STAND and attending the Hungry for Change Summit!