

Food Insecurity Effects on Healthcare

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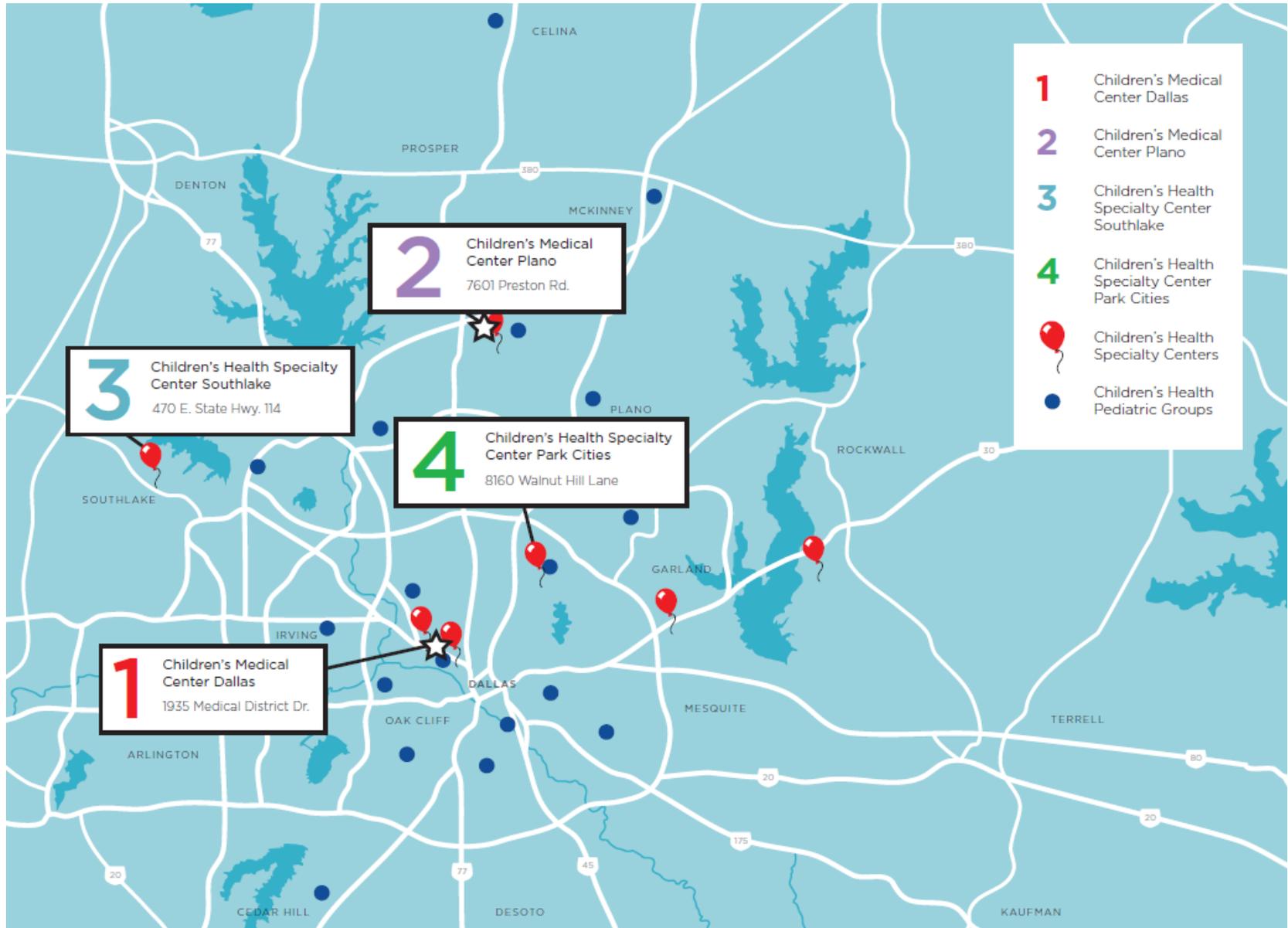
President, Children's Health Pediatric Group

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About Children's Health

- Two full-service hospitals dedicated exclusively to pediatric care: Children's Health in Dallas and Children's Health in Plano
- More than 50 specialties and subspecialties
- Two Children's Health Specialty Centers with outpatient Pediatric Imaging and Surgery Centers
- Almost 20 Children's Health primary care locations
- Affiliated network of nearly 200 private pediatricians
- Children's Health Home Care
- Children's Health TeleMedicine
- Children's Health Research Institute at UT Southwestern
- Licensed HMO (Children's Medical Center Health Plan)

Children's Health Facilities



Food Insecurity Adversely Affects Health Status

- Food Insecurity is associated with 30% increase in hospitalizations of young children compared to Food-secure Children ⁽¹⁾
 - Twice as likely to be in “fair or poor health”
 - Effects attenuated by access to Food Stamps
- Food insecurity also associated with iron deficiency ⁽²⁾
 - Iron deficiency in young children is linked to lower performance in school, potential social deficits, and persistent deficits in cognition ⁽³⁾

1) Cook, et al, 2004

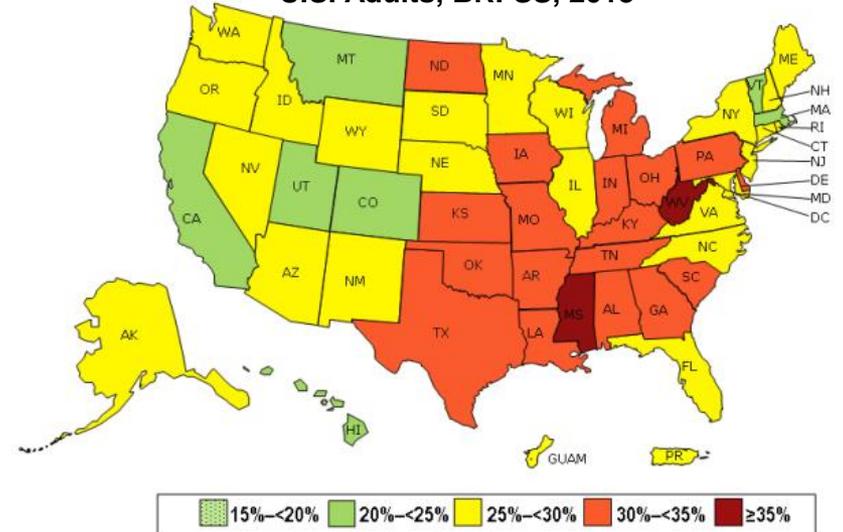
2) Cook and Frank, 2008;

3) Carter et al , 2010

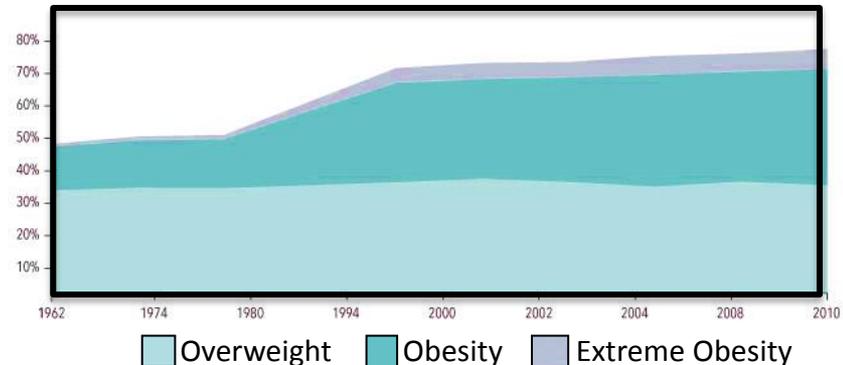
Food Insecurity Affects Weight

- Evidence is unclear as to how food insecurity affects weight (1,2)
 - Logically, food insecurity is linked to underweight
 - Perversely, food insecurity is also linked to obesity
 - Difference likely results from how food insecurity affects the caloric intake and choices

Prevalence⁽³⁾ of Self-Reported Obesity Among U.S. Adults, BRFSS, 2013



Trends⁽⁴⁾ in Overweight and Obesity among Adults, United States, 1962–2010**



1) Larson and Story, 2011

2) Kohn, et al, 2014

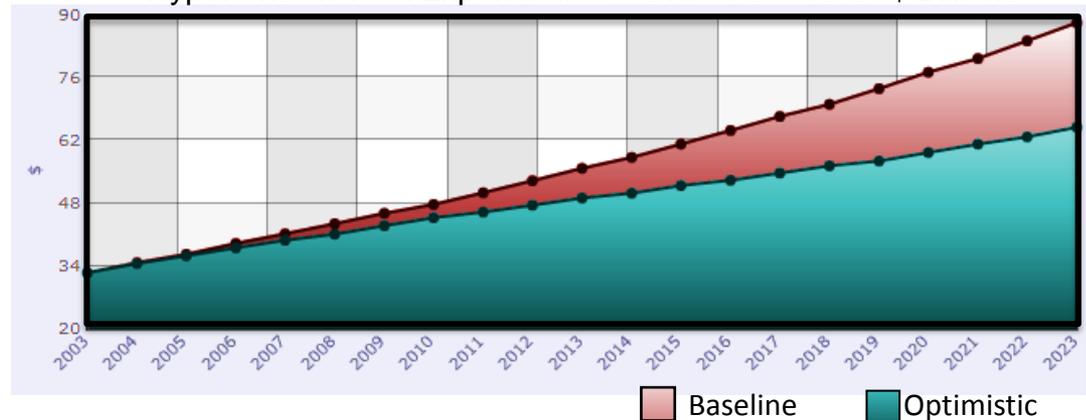
3) Centers for Disease Control and Prevention <http://www.cdc.gov/obesity/data/prevalence-maps.html>

4) National Institutes of Health <http://www.niddk.nih.gov/health-information/health-statistics/Pages/overweight-obesity-statistics.aspx>

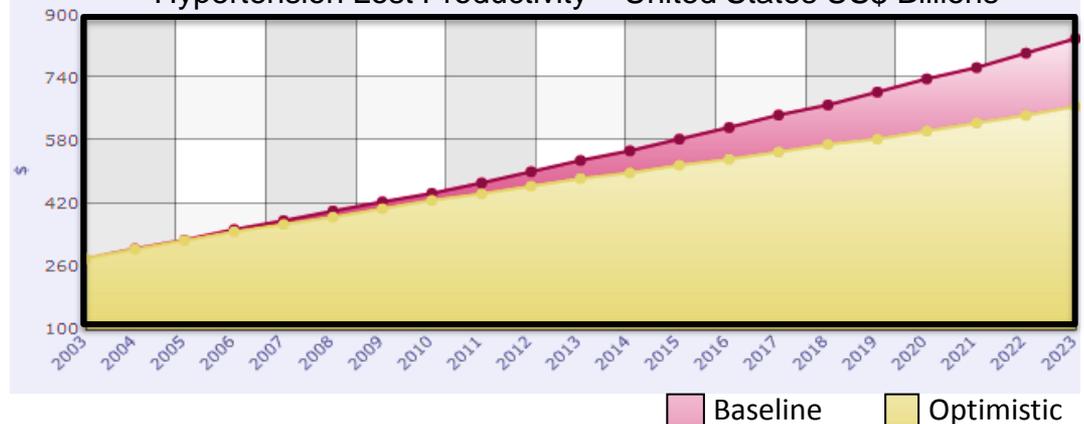
Food Insecurity in Adults Exacerbates Chronic Disease

- NHANES (National Health and Nutrition Examination Survey) demonstrates increased risk of Chronic Conditions including: hypertension, elevated cholesterol, and potentially, diabetes. (1)
 - Decreased Productivity as a result of Chronic Conditions frequently more than treatment costs

Treatment Expenditures⁽²⁾ (Direct Costs)
Hypertension Total Expenditures – United States US\$ Billions



Lost Productivity⁽²⁾ (Indirect Impacts)
Hypertension Lost Productivity – United States US\$ Billions



1) Seligman, et al 2010

2) Milken Institute <http://www.chronicdiseaseimpact.com/ebcd.taf?cat=disease&type=hypertension>

Policy Changes and Incentives are Necessary to Address Food Insecurity

- Continued support of SNAP (Supplemental Nutrition Assistance Program) low income households
- Increased opportunities to provide high nutrient, low cost, balanced meals
 - Increase food distribution centers
 - Address food “deserts” and other structural barriers
- Monetize the positive health effects of improved nutrition and food security

Development of Accountable Care Organizations

- Accountable Care Organization (ACO)¹
 - Accountable Care Organizations (ACOs) are groups of doctors, hospitals, and other health care providers, who come together voluntarily to give coordinated high quality care to their Medicare patients.
 - The goal of coordinated care is to ensure that patients, especially the chronically ill, get the right care at the right time, while avoiding unnecessary duplication of services and preventing medical errors.
 - When an ACO succeeds both in delivering high-quality care and spending health care dollars more wisely, it will **share in the savings** It achieves for the Medicare program.

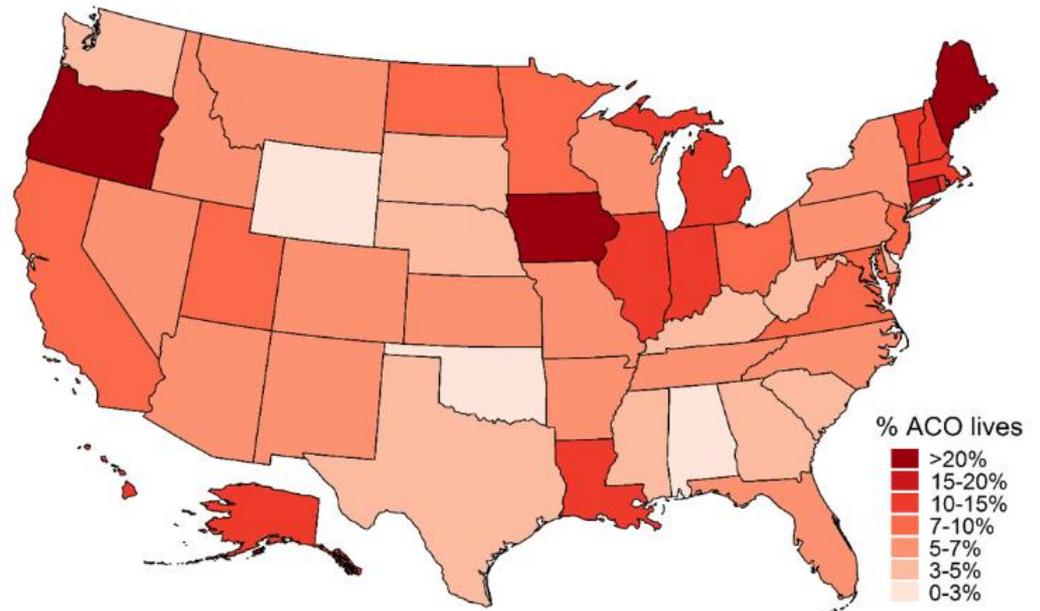
1) CMS <http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/ACO/index.html?redirect=/aco>

Development of Accountable Care Organization

- How do ACO's address rising healthcare costs
 - Key is "Provider" led
 - Difference from HMO
 - Align Quality Metrics, Clinical Pathways and Finances

Estimated percent of population covered by an ACO, by State, January 2015

Source: *Leavitt Partners Center for Accountable Care Intelligence*



Quantifiable Metrics

- Quantifiable, monetized metrics over a contracted period allow ACO's to creatively address health disparities
- Community Benefit mandate of Non Profit Hospitals
- Preventive Interventions can be broad or targeted
 - Value of Physicals, PSA
 - Health and Wellness Alliance for Children
 - Food Insecurity is a measurable, quantifiable driver of health outcomes
- Penalties and Incentives create new relationships
 - Medstar Mobile Healthcare¹
 - Creating Health Neighborhoods (e.g. PCCI)

1) <http://touch.mcall.com/#section/-1/article/p2p-81879282/>

Conclusion

- Food Insecurity has long term developmental, cognitive, and physical effects on health
- Tremendous economic costs as a result of Food insecurity
- Changes in healthcare financing should hopefully drive improvements in policy and financing to better address Food Insecurity

Additional Resources

- North Texas Food Bank
 - www.ntfb.org
 - A Mile in their Shoes
 - » <http://web.ntfb.org/document.doc?id=428>
- USDA
 - MyPlate
 - » <http://www.choosemyplate.gov/>
 - Food Security Survey Model
 - » <http://www.ers.usda.gov/media/476115/youth2006.pdf>