Social Determinants of Health: Impact on Children and Families

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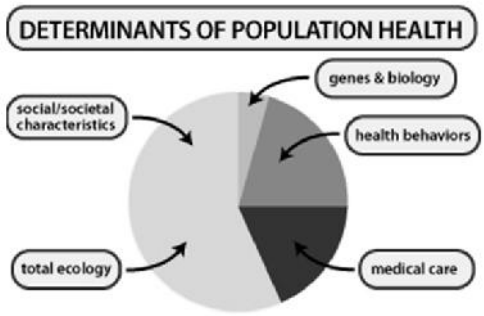
Social Determinants of Health

Conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

What are determinants of health and how are they related to social determinants of health?

Determinants of health are factors that contribute to a person's current state of health. These factors may be biological, socioeconomic, psychosocial, behavioral, or social in nature. Scientists generally recognize five determinants of health of a population:

- Genes / biology:- For example- family history of disease
- Health behaviors: For example- alcohol use, recreational drug use, excess caloric intake, unprotected sex, and smoking
- **Social environment or social characteristics: for example, discrimination, income, and gender**
- **Physical environment or total ecology: for example, where a person lives and crowding conditions**
- **Health services or medical care: for example, access to quality health care and having or not having insurance**



What is the impact of SDOH?

- In general, genes, biology, and health behaviors together account for about 25% of population health.
- Social determinants of health represent the remaining three categories of social environment, physical environment/total ecology, and health services/medical care- account for 75% of health outcomes
- Social determinants of health also interact with and influence individual behaviors as well.
- Children with chronic conditions are at high risk for recurrent hospital admissions and longer lengths of stay, particularly when their families are facing social risk factors CDC, 2015

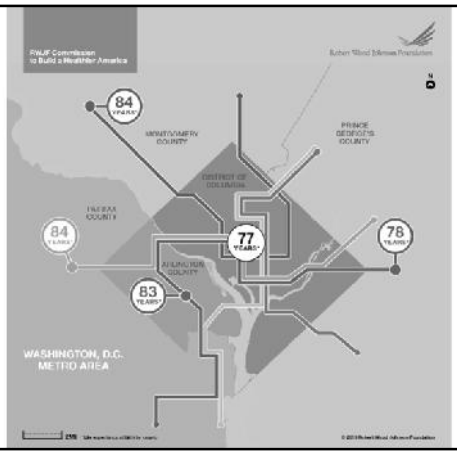
SDOH and Health Equity

- Addressing social determinants of health is a primary approach to achieving health equity.
- Health equity is "when everyone has the opportunity to 'attain their full health potential' and no one is 'disadvantaged from achieving this potential because of their social position or other socially determined circumstance'"
- Health equity has also been defined as "the absence of systematic disparities in health between and within social groups that have different levels of underlying social advantages or disadvantages—that is, different positions in a social hierarchy"

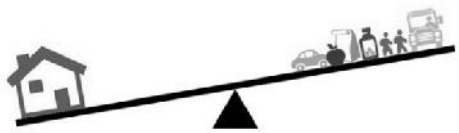
Brennan Ramirez LK, B.E., Metzler M., Promoting Health Equity: 2008, Department of Health and Human Services,: Atlanta, GA.Braveman, P. and S. Gruskin, *Defining equity in health.*, 2003.

"Your longevity and health are more determined by your ZIP code than they are by your genetic code"

Tom Frieden, the director of the Centers for Disease Control and Prevention
2014



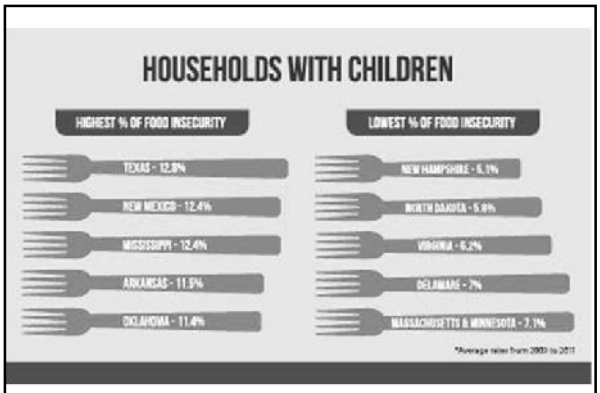
How do social determinants impact health?



One in **four** renters pay **more than 50%** of their income on rent, leaving less money for other important expenses like transportation, food, health care or education.

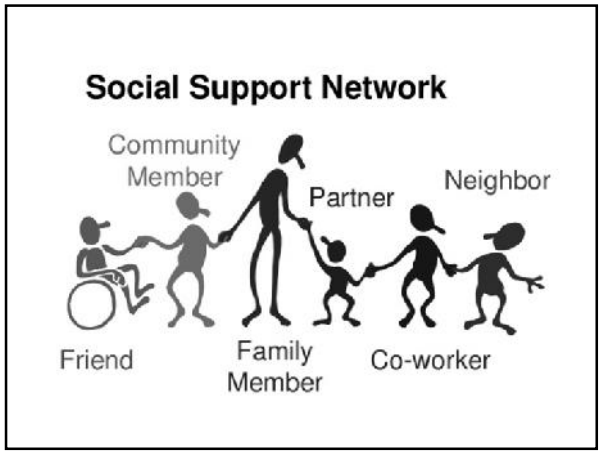
Housing Insecurity

- Nearly 19 million low-income U.S. households pay over half of their income on housing, and more than 600,000 people have no home at all.
- housing insecurity make it difficult for these families to move out of poverty, but its side effects ripple through other aspect of their lives and communities.



Food Insecurity

- In 2015: 42.2 million Americans lived in **food insecure** households, including 29.1 million adults and 13.1 million children
- 13% of households (15.8 million households) were **food insecure**
- 5% of households (6.3 million households) experienced very low **food security**

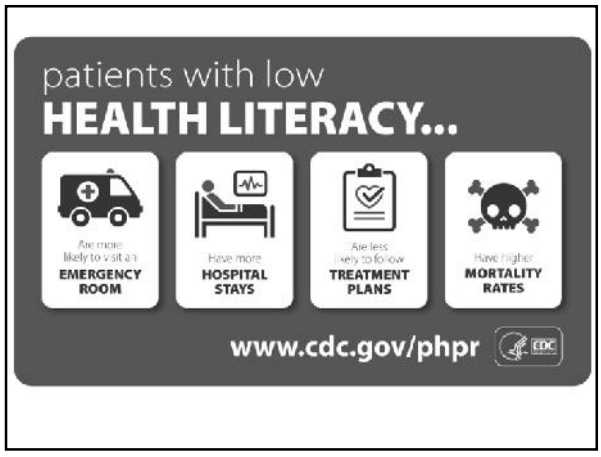


Social Support

- Social support is an important factor in immune, endocrine, and cardiovascular functioning; recovery from illness and injury; and health maintenance
- The precise means by which social support contributes to health and the factors that moderate and mediate this relationship are not completely understood
- (Uchino, Cacioppo, & Kiecolt-Glaser,1996; Wallston, Alagna, DeVellis, & DeVellis, 1983, Stone et al., 1999; Vitaliano et al., 2001).

Health Literacy

- **Health literacy** is the degree to which individuals have the capacity to obtain, process, and understand basic **health** information and services needed to make appropriate **health** decisions.
- A study of low health literate parents of children with type 1 diabetes demonstrated that they were confused by diabetes jargon, preferred hands-on teaching, and wished for information to be communicated in simple language, broken down into key points, and repeated. (Howe et al, 2015)

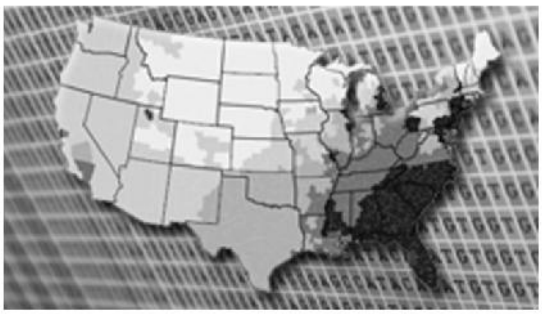


Social Determinants of Health and Children with Diabetes

SDOH, geography and diabetes

- An estimated 12 percent of diabetes risk in a given ZIP code was associated with its neighborhood characteristics, such as healthy food access, nearby exercise facilities, and safety level
- Living in an area with less of these advantages translated to a more than 50 percent higher risk of diabetes than residing in a neighborhood with more privileges.

The Diabetes Belt



Understanding the Social Factors that Contribute to Type 2 Diabetes

- Social Determinants of Health are central to the development and progression of type 2 diabetes
- Incidence and prevalence of type 2 diabetes is socially graded- those with lower income and less education are 2 to 4 times more likely to develop diabetes
- Conventional treatment strategies have typically focused on behavioral modifications, including dietary improvements, increased physical activity, and closely monitored medication
- If future interventions neglect to incorporate a broader social lens- using **upstream approaches-** they will fail to sustainably address the necessary population-based changes essential to mitigate the incidence and long-term effects of this condition
- Hill et al, Perm J, 2013

Upstream Interventions

- **Upstream** interventions and strategies focus on improving fundamental social and economic structures in order to decrease barriers and improve supports that allow people to achieve their full health potential. (National Collaborating Centre for Determinants of Health)

Why should SDOH be central to the practice of pediatric acute care nurse practitioners?

- PENS nurses are intrinsically linked to external communities.
- It is our responsibility to use our knowledge and expertise through education, research and practice to address the social determinants of health and partner with communities to improve assure health equity and the health and well being of all of our patients

What can pediatric nurses do to address social determinants of health in practice?

Screen, Screen, Screen

- **Food Insecurity-**
  - **Adult**- "Are you ever concerned that you will not have enough food at the end of the month?"
  - **Youth**- "Did you worry that food at home would run out before your family got money to buy more?"
- **Housing Insecurity-** "Are there more than 2 people per bedroom?" "Have you temporarily lived with other people because of economic difficulties?" "Have you moved 2 or more times in the previous year?"
- **Social Isolation-** "Do you feel alone or lonely in managing your child's-eg diabetes?"
- **Health Literacy-** Rapid Estimate of Adult Literacy in Medicine (REALM)
- Include in the Electronic Health Record!!!

Co-locate Community Based resources

- Housing programs
- Job training centers
- GED programs
- Food pantries
- Medical legal partnerships

Engage in health policy addressing Social Determinants of Health

- First, nurses must build strong alliances within their professional communities, so they can speak with a unified voice about the issues that matter to them the most.
- Second, nurses must build relationships with existing policy makers, including legislators from both major political parties, at the local and state level.
- Third, nurses must find allies and supporters outside the nursing profession, particularly in business and other influential communities.

IOM, 2010

How will this knowledge change your approach to patient care?

- Exemplar- Child with obesity/ type 2 diabetes
- How do you counsel your patients and families?
- Therapeutic lifestyle changes
  - Decrease caloric intake
  - Increase activity
- Medication adherence

Consequences of the Biomedical and Lifestyle Heart Health Approach

- Removes the issue of the social determinants of health right off the public policy agenda
- Those with low income made to feel that they are responsible for their own poor health (victim blaming).
- Health care providers and the media become complicit in the process of 'poor bashing': Ignoring facts and repeating stereotypes about people who are poor.

Refocusing Approach to Child with Type 2 Diabetes

- For example- Address housing insecurity
- A parent without stable housing may-
  - Have multiple competing demands
  - No steady source of food for the family
  - Suffer with depression
  - Deal with more pressing concerns than shopping for fruits and vegetables
  - Face daily discrimination

Community Engagement is Essential

- View- first hand- the Social Determinants of Health
- Understand the patients' lived environment
- Form collaborative relationships in developing interventions- a skill that is critical in your nursing career – regardless of setting
- Tailor treatment/ interventions to patients' resources – rather than barriers

Exemplar- how I hopped on the SDOH bandwagon

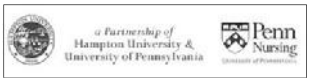
- Providing diabetes care within Children's Hospital
- It is all about health equity!

How can we reduce these disparities?

Reducing Health Disparities in Children with Diabetes: Developing Effective Strategies Guided by our Patients' and Families' Wisdom

Terri H. Lipman, PhD, CRNP, FAAN
Kenneth Ginsburg, MD
Kathryn Murphy, PhD, RN
Rachel Corbin, BA

Funded by the Hampton-Penn Center to Reduce Health Disparities



Purpose- Specific aims

- 1. To examine the extent to which racial disparities exist in diabetes control, outcomes, and treatment in the Diabetes Center for Children (DCC) at CHOP
- 2. To determine how the current system of diabetes care could be delivered in a culturally competent manner
- 3.produce the best outcomes for all patients and reduce disparities between African American and White patients.

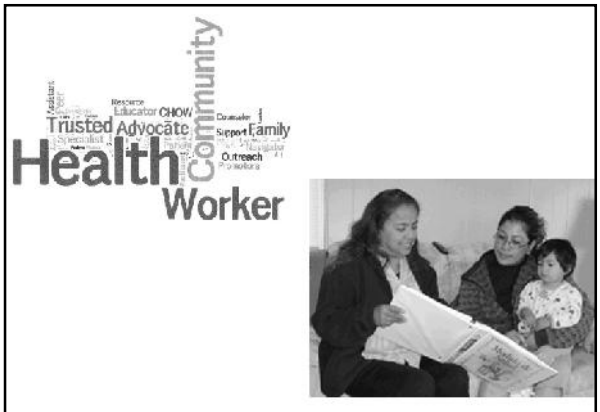
Stage I

- 6 - 10 parent focus groups
  - 4 Black/ 2 White
- Racially concordant, trained facilitators- not a member of the research or health care team- limiting imposition of their own biases
- Series of questions derived by research team from previous data

Focus group questions

- What is your experience in the DCC?
- Do you ever feel judged?
- Where do you receive most of your diabetes information? Who gives you the most trusted information?
- Do you have input into diabetes care?
- Are you given options?
- Have you been told to obtain a yearly eye exam?
- Are people treated equally in the DCC?

Where can we go from here?



Community Health Worker (CHW) Initiative: Enhanced Care Management for Complex Patients

Colin Hawkes, MD; Terri Lipman, PhD CRNP; Rachel Biblow, MSW; Kim Smith-Whitley, MD; Sophia Jan, MD, MSHP; Symme Trachtenberg, MSW; Leigh Wilson, MSW

- CHWs have been historically used to provide culturally-relevant services that address health disparities and families' social determinants of health critical to managing their child's chronic condition.
- Existing studies on CHW interventions for pediatric chronic disease show promising results on
  - reducing hospitalizations and length of stay
  - reducing emergency department visits
  - increasing parental confidence
  - cost savings.

Current care

- Current hospital-based interventions for socially complex children with chronic illnesses have not been effective in improving the health outcomes and are reliant on health care workers (e.g. physicians, nurses, dietitians, social workers) addressing needs outside of their scope of practice.
- It is estimated that even a 25 percent reduction in hospital admissions for CHOP patients with T1D would result in 40 less admissions per year.

Integrator: The Role of Community Health Liaisons

- Identify environmental issues within the community
- Identify issues affecting individuals that may have a systems-wide solution (e.g., food insecurity, transportation barriers, etc.)
- Work with communities to develop action plans
- Educate and Engage clinical team about the community

Example: Provide community tours to health care providers from primary care practices to help them better understand the communities in which their patients live and how social and environmental factors may influence health

Assessment of Diabetes Risk Factors in the Community: A Partnership between Nurse Practitioner and High School Students (2005-2009)

Funded by the Netter Center for Community Partnerships

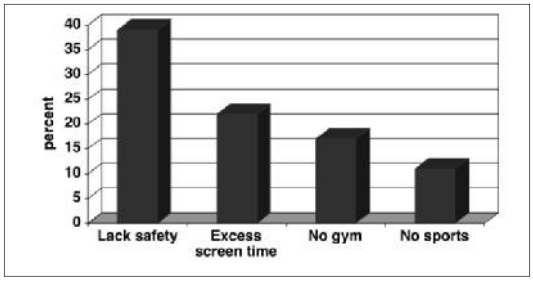
Results of Diabetes Risk Factor Screening (2005-2009)

- 240 children (AA)
- Mean age- 9.5 yr (5 - 14.6 yr)

81/ 240 (30% required referral letters)

- 3% with linear growth failure
- 25% with obesity
- 24% with WC > 95th percentile
- 14% with acanthosis nigricans

Parental Report of Barriers to Exercise in Children



Downstream vs Upstream

- Downstream- "you should make sure your child is active"
- Upstream- Provide – or link families to- free, safe, easily accessible physical activity initiatives for underserved, high risk populations

Case Study

- TS (DOB- 11/11/03)- presented age 8 for evaluation of growth failure
- GHD diagnosed 1/3/13 (9 2/12)
- Poor "compliance" with hGH
- Food insecurity identified- 3/20/14
- Puberty 12/12/14

Ten Tips For Better Health - Donaldson, 1999

1. Don't smoke. If you can, stop. If you can't, cut down.
2. Follow a balanced diet with plenty of fruit and vegetables.
3. Keep physically active.
4. Manage stress by, for example, talking things through and making time to relax.
5. If you drink alcohol, do so in moderation.
6. Cover up in the sun, and protect children from sunburn.
7. Practice safe sex.
8. Take up cancer screening opportunities.
9. Be safe on the roads: follow the Highway Code.
10.Learn the First Aid ABC : airways, breathing, circulation.

Ten Tips for Staying Healthy – Focused on Social Determinants of Health Dave Gordon, 1999

1. Don't be poor. If you can, stop. If you can't, try not to be poor for long.
2. Don't have poor parents.
3. Own a car.
4. Don't work in a stressful, low paid manual job.
5. Don't live in damp, low quality housing.
6. Be able to afford to go on a foreign holiday and sunbathe.
7. Practice not losing your job and don't become unemployed.
8. Take up all benefits you are entitled to, if you are unemployed, retired or sick or disabled.
9. Don't live next to a busy major road or near a polluting factory.
10. Learn how to fill in the complex housing benefit/ asylum application forms before you become homeless and destitute.