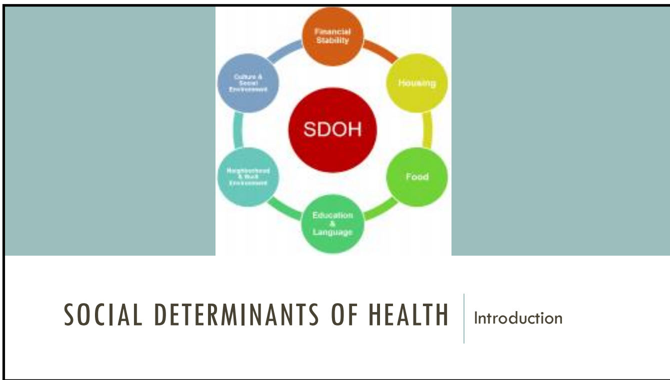


SOCIAL DETERMINANTS OF HEALTH

Introduction

PLEASE COMPLETE PRE-COURSE SURVEY

WHAT IT IS

Societal determinants of health (SDH) are the circumstances in which people are born, grow up, live, work, play and age including the economic systems and health services to address ill health.

Most clinicians are familiar with the effects of social determinants on their patients' health but not always aware of the empiric evidence and how to apply evidence-based findings to clinical practice. With few tools to tackle SDH, most clinicians are reluctant to screen issues that are considered outside their control. Furthermore, medical training has traditionally been ingrained in the biomedical model and less emphasis on social and environmental factors.

THIS COURSE WILL COVER:

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social integration	Health coverage
Income	Transportation	Language	Access to healthy options	Support systems	Provider availability
Expenses	Safety	Early childhood education		Community engagement	Provider linguistic and cultural competency
Debt	Parks	Vocational training		Discrimination	Quality of care
Medical bills	Playgrounds	Higher education		Stress	
Support	Walkability				
	Zip code / geography				

Health Outcomes
Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations

WHY IT MATTERS

All people deserve equal opportunity to make the choices that lead to good health.

WHY -ELSE- IT MATTERS

Understand our patients better, build rapport, understand factors relevant to our demographic of patients

Make our visits more efficient by catering plans to a realistic goal/accurate audience

Identify patients who need enabling services

Inform the development of new programs and partnerships that ultimately improve health outcomes and curb health care spending

Move beyond controlling disease to addressing factors that are root causes of disease

As the effects of SDH begin to take hold well before disease processes appear, addressing these factors offers an opportunity to prevent or delay the development of disease (important new pillar of preventative healthcare)

Value-based payment system starting in 2019 will be using your quality metrics to determine how well performing you are and at certain thresholds can withhold some of your payment.

Understand how population-level approaches enhance and often out-perform individual-level approaches to preventative medicine

And much more!

SOCIAL DETERMINANTS OF HEALTH | FINANCIAL STABILITY

ECONOMIC FACTORS CONTRIBUTING TO HEALTH DISPARITY

Income level/Poverty

Housing stability/quality

Food security/quality

Stable employment

Expenses of living

Debt

Support in times of financial crisis

GETTING TO KNOW FRANKLIN COUNTY

Variables Used

American Community Survey (ACS), 2010-2014 (5-year) data for the following estimates:

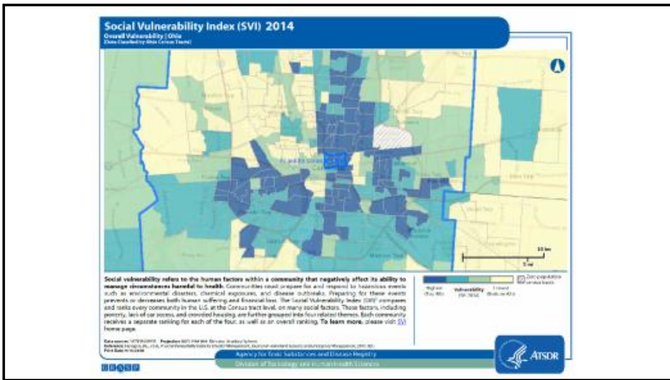
Overall Vulnerability

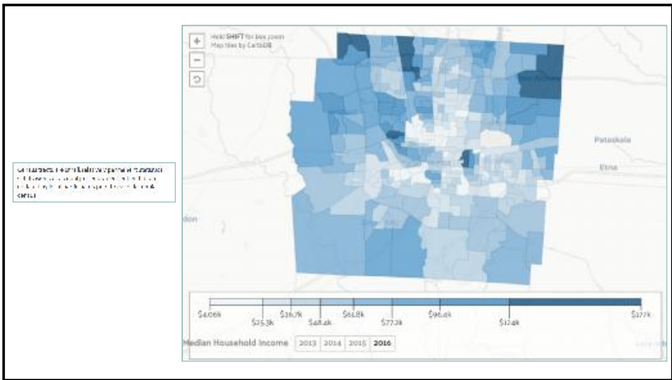
Socioeconomic Status: Below Poverty, Unemployed, Income, No High School Diploma

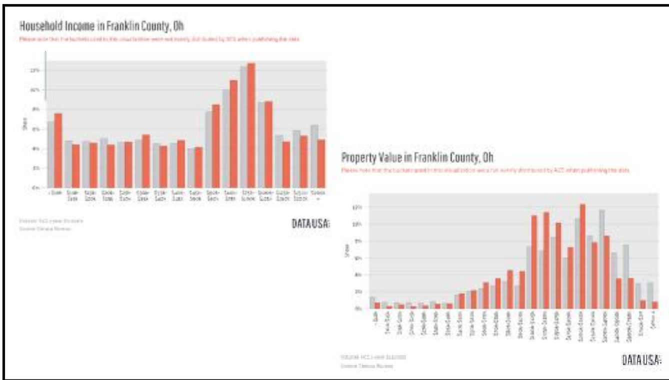
Household Composition & Disability: Aged 65 or Older, Aged 17 or Younger, Civilian with a Disability, Single-Parent Households

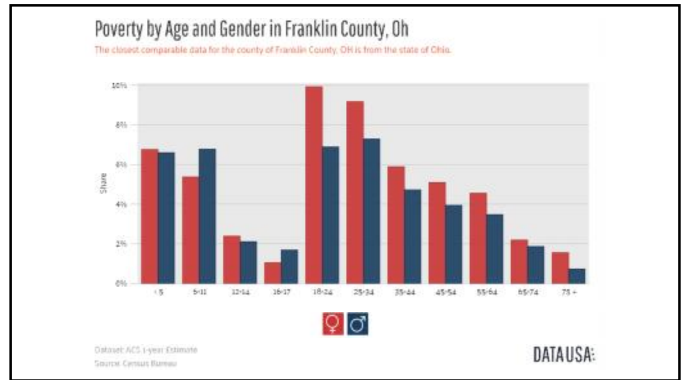
Minority Status & Language: Minority, Speak English "Less than Well"

Housing & Transportation: Multi-Unit Structures, Mobile Homes, Crowding, No Vehicle, Group Quarters









US CENSUS BUREAU: FRANKLIN COUNTY STATS

PERCENTAGE OF FAMILIES AND PEOPLE WHOSE INCOME IN THE PAST 12 MONTHS IS BELOW THE POVERTY LEVEL	
All families	12.5%
With related children of the householder under 18 years	19.4%
With related children of the householder under 5 years only	17.5%
Married couple families	5.1%
With related children of the householder under 18 years	7.5%
With related children of the householder under 5 years only	6.2%
Families with female householder, no husband present	31.8%
With related children of the householder under 18 years	41.0%
With related children of the householder under 5 years only	43.3%
All people	17.1%
Under 18 years	24.5%
Related children of the householder under 18 years	24.2%
Related children of the householder under 5 years	27.4%
Related children of the householder 5 to 17 years	22.8%
18 years and over	14.7%
18 to 64 years	15.7%
65 years and over	8.8%
People in families	14.3%
Unrelated individuals 15 years and over	25.2%

WHY IT MATTERS

Income provides the prerequisites for health...

Shelter

Food

Warmth

Low income and Poverty can...

Cause Stress and Anxiety...

Limit your choices...

Influence behaviors...

THE EVIDENCE SHOWS…

- Just like high blood pressure, diabetes, cholesterol, **poverty** puts sufferers at risk of higher morbidity and mortality through a variety of pathways (increased risk of CVD, diabetes, poor mental health, higher rates of preventable cancer)
- Groups that move out of poverty experience a decrease in disease
- Children who have lived in poverty have increased health risks as adults
- Low income independently increases morbidity and mortality in age matched groups even when corrected for other social determinants of health

EXAMPLES

A 2009 study showed that food insecurity is associated with increased rates of chronic disease, including diabetes, HTN, and cardiovascular disease. (1)

A 2018 study showed that food insecurity is associated with higher mortality rates and these higher rates are especially large for the most severe food insecurity category (odds ratio more than doubled), even when adjusted for other SDH. (2)

A large study in the United States and Finland found an increased risk of nonfatal myocardial infarction and sudden cardiac death in the low-income cohorts that persisted after adjusting for smoking and alcohol. (3)

A separate study found that each $10000 increase in median income of a neighborhood reduced mortality risk in the group by 10%. (3)

A study of newly homeless people age 18-30 in the New York City shelter system found that 6% had diabetes, 17% had hypertension, 17% had asthma, 35% had major depression, and 53% had a substance use disorder—indicating that chronic disease is more common among young people who are newly homeless than among the general population. (4)

A study in Boston found that for 25- to 44-year-olds, the mortality rate was 9 times higher for men who are homeless and 10 times higher for women who are homeless compared to the general population of Massachusetts—and the mortality rate for 45- to 65-year-olds was 5 times higher for people who are homeless. (5)

And many more…

WHAT CAN WE DO?

1. The simple **awareness** that income and social status have such a profound effect on health makes a huge impact in our work with patients

2. **Recognizing & TALKING ABOUT** the additional health risks of patients living in poverty is crucial to developing trusting patient relationships and beginning to problem solve the barriers to achieving good health

3. **Advocating** for our patients and finding ways to help them overcome income and social barriers is increasingly becoming understood as a critical key to **preventative health care**

WHAT CAN WE DO? (CONT.)

4. **All people deserve equal opportunity to make the choices that lead to good health.**

To make this possible, significant **changes are needed** in the areas of health care, education, childcare, housing, business, law, media, community planning, transportation, and agriculture. Making these changes certainly involves new policies from above, but it also requires average Americans with careers in these areas working together to do the following:

- Explore how programs, practices, and policies in these areas affect the health of individuals, families, and communities.
- Establish common goals, complementary roles, and ongoing constructive relationships between the policy makers and employees in each of these areas.
- Maximize communication and collaboration among Federal-, state-, and local-level groups related to social determinants of health.

DISCUSSION: WHAT ELSE CAN WE DO?

RESOURCES

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SOCIAL DETERMINANTS OF HEALTH

Education, Literacy, & Language

TERMS

Education level – the degree to which individuals have received information, training, or systemic instruction in certain areas of knowledge and/or skill

Literacy- the ability to understand and use written language

Numeracy- the ability to understand and work with numbers

Health literacy – the degree to which individuals have the capacity to obtain, process, and understand basic **health** information and services needed to make appropriate **health** decisions

Health numeracy- the degree to which individuals have the capacity to obtain, process, and understand numerical (quantitative, graphical, biostatistical, and probabilistic) **health** information needed to make effective **health** decisions

GETTING TO KNOW FRANKLIN COUNTY

OUR EDUCATIONAL BREAKDOWN

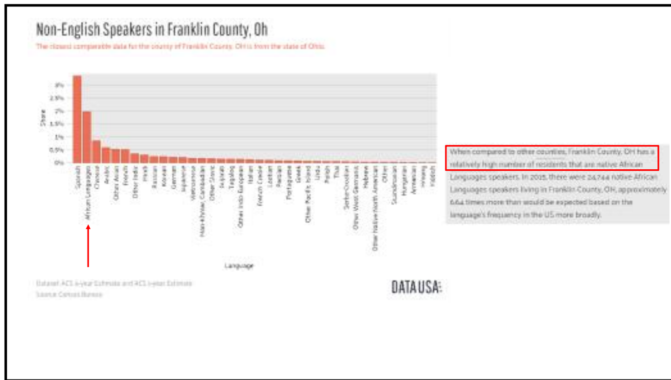
Subject	Franklin County, Ohio					
	Total	Percent	Males	Percent Males	Females	Percent Females
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Population 18 to 24 years	128,318	(X)	63,960	(X)	64,358	(X)
Less than high school graduate	14,110	11.0%	7,974	12.5%	6,136	9.5%
High school graduate (includes equivalency)	31,645	24.7%	17,373	27.2%	14,272	22.2%
Some college or associate's degree	63,969	49.9%	30,542	47.8%	33,427	51.9%
Bachelor's degree or higher	18,594	14.5%	8,071	12.6%	10,523	16.4%
Population 25 years and over	812,175	(X)	388,387	(X)	423,788	(X)
Less than 9th grade	24,987	3.1%	11,730	3.0%	13,257	3.1%
9th to 12th grade, no diploma	53,312	6.6%	26,835	6.9%	26,477	6.2%
High school graduate (includes equivalency)	202,861	25.0%	95,953	24.7%	106,908	25.2%
Some college, no degree	164,352	20.2%	78,742	20.3%	85,610	20.2%
Associate's degree	55,170	6.8%	23,501	6.1%	31,669	7.5%
Bachelor's degree	197,863	24.4%	96,483	24.8%	101,380	23.9%
Graduate or professional degree	113,630	14.0%	55,143	14.2%	58,487	13.8%

Subject	Franklin County, Ohio					
	Total	Percent	Males	Percent Males	Females	Percent Females
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
RACE AND HISPANIC OR LATINO ORIGIN BY EDUCATIONAL ATTAINMENT						
White alone	588,503	(X)	284,381	(X)	304,112	(X)
High school graduate or higher	542,673	92.2%	260,557	91.6%	282,116	92.8%
Bachelor's degree or higher	249,870	42.5%	122,701	43.1%	127,169	41.8%
White alone, not Hispanic or Latino	568,765	(X)	273,978	(X)	294,787	(X)
High school graduate or higher	528,701	93.0%	253,233	92.4%	275,468	93.4%
Bachelor's degree or higher	245,211	43.1%	120,449	44.0%	124,762	42.3%
Black alone	158,481	(X)	72,000	(X)	86,481	(X)
High school graduate or higher	136,048	85.8%	62,298	86.5%	73,750	85.3%
Bachelor's degree or higher	31,418	19.8%	13,709	19.0%	17,709	20.5%
American Indian or Alaska Native alone	1,504	(X)	732	(X)	772	(X)
High school graduate or higher	1,256	83.5%	590	80.6%	666	86.3%
Bachelor's degree or higher	270	18.0%	90	12.3%	180	23.3%
Asian alone	37,516	(X)	18,415	(X)	19,101	(X)
High school graduate or higher	32,665	87.1%	16,248	88.2%	16,417	85.9%
Bachelor's degree or higher	23,416	62.4%	12,220	66.4%	11,196	58.6%
Native Hawaiian and Other Pacific Islander alone	340	(X)	159	(X)	181	(X)
High school graduate or higher	289	85.0%	108	67.9%	181	100.0%
Bachelor's degree or higher	59	17.4%	20	12.6%	39	21.5%

Subject	Franklin County, Ohio					
	Total	Percent	Males	Percent Males	Females	Percent Females
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Hispanic or Latino Origin	31,021	(X)	16,541	(X)	14,480	(X)
High school graduate or higher	21,538	69.4%	11,228	67.9%	10,310	71.2%
Bachelor's degree or higher	6,478	20.9%	3,107	18.8%	3,371	23.3%
POVERTY RATE FOR THE POPULATION 25 YEARS AND OVER FOR WHOM POVERTY STATUS IS DETERMINED BY EDUCATIONAL ATTAINMENT LEVEL						
Less than high school graduate	(X)	34.4%	(X)	31.1%	(X)	37.7%
High school graduate (includes equivalency)	(X)	16.5%	(X)	14.9%	(X)	18.0%
Some college or associate's degree	(X)	11.8%	(X)	9.1%	(X)	14.2%
Bachelor's degree or higher	(X)	4.2%	(X)	3.9%	(X)	4.5%
MEDIAN EARNINGS IN THE PAST 12 MONTHS (IN 2016 INFLATION-ADJUSTED DOLLARS)						
Population 25 years and over with earnings	37,667	(X)	42,258	(X)	33,476	(X)
Less than high school graduate	19,357	(X)	21,534	(X)	15,908	(X)
High school graduate (includes equivalency)	27,590	(X)	31,264	(X)	23,711	(X)
Some college or associate's degree	33,379	(X)	37,127	(X)	30,619	(X)
Bachelor's degree	50,041	(X)	56,525	(X)	42,455	(X)
Graduate or professional degree	65,455	(X)	77,650	(X)	55,942	(X)

PLACE OF BIRTH		
Total population	1,232,118	1,232,118
Native	1,110,546	90.1%
Born in United States	1,099,546	89.2%
State of residence	824,310	66.9%
Different state	275,236	22.3%
Born in Puerto Rico, U.S. Island areas, or born abroad to American parent(s)	11,000	0.9%
Foreign born	121,572	9.9%

LANGUAGE SPOKEN AT HOME		
Population 5 years and over	1,142,909	1,142,909
English only	999,594	87.5%
Language other than English	143,315	12.5%
Speak English less than "very well"	56,805	5.0%
Spanish	41,454	3.3%
Speak English less than "very well"	18,192	1.6%
Other Indo-European languages	33,589	2.9%
Speak English less than "very well"	11,392	1.0%
Asian and Pacific Islander languages	32,860	2.9%
Speak English less than "very well"	14,631	1.3%
Other languages	35,812	3.1%
Speak English less than "very well"	12,590	1.1%



WHY IT MATTERS

THE IMPACT

People with low literacy skills are more likely:

- To be unemployed and poor
- To use medications incorrectly/fail to follow medical instructions
- To fail to understand the risks/benefits of medical procedures & treatments
- To suffer poorer health
- To die earlier

People with higher levels of education:

- Have better access to healthy physical environments
- Tend to smoke less
- Tend to be more physically active
- Tend to have access to healthier foods
- Have lower mortality

WHAT ABOUT HEALTH LITERACY?

One of the few large-scale studies of health literacy in the U.S. categorized four levels of health literacy competency: Below Basic, Basic, Intermediate, and Proficient.

This study found only 12% of adults demonstrated Proficient health literacy skills.

Seniors, who use the most health services, demonstrated the lowest levels of health literacy with just 3% able to complete tasks at a Proficient level.

BEST PRACTICES IN PATIENT INSTRUCTIONS

- For audiences with limited literacy skills, or those in population groups shown to be at risk of limited literacy, text should be written at the 6th grade level or lower. For the general public, text should be written at the 8th grade level or lower.
- Include specific actions users can take. Emphasize the benefits of taking action. For example, "Proper use of asthma inhalers helps you breathe better."
- Find alternatives for complex words, medical jargon, abbreviations, and acronyms. At times there may not be an alternative or you may want to teach patients the terms because their healthcare providers will be using them. In those cases, teach the terms by explaining the concept first in plain language. Then introduce the new word(s). It is also helpful to provide a simple pronunciation guide. For example, "A normal heart beat starts in the upper right chamber of the heart, or atrium (**ay**-tree-yim)."
- Avoid abstract language in giving instructions for actions. For example, instead of "Don't lift anything heavy," use "Don't lift anything heavier than a gallon of milk (about 10 pounds)."
- Where appropriate, use bulleted lists instead of blocks of text to make information more readable. Dense blocks of text can be difficult to read.
- Use varied sentence length to make the material interesting, but keep sentences simple. A general guideline is to limit most sentences to 10-15 words.

EX. 1

Polycystic ovary syndrome (PCOS) is a chronic endocrine disorder in women. With PCOS, the ovaries make follicles, but the follicles do not mature and release a mature egg each month as they should. The immature follicles can turn into fluid-filled sacs called cysts.

The cause is not exactly known. Genes may play a role. The problem appears related to insulin resistance that creates high levels of insulin. These high insulin levels cause too much androgen to be made by the ovaries. More androgen than normal can increase the presence of some masculine features. It also prevents ovulation and leads to enlarged, polycystic ovaries.

EX. 2

Blood thinners increase your risk of bleeding. If you take certain blood thinners, you may need to take extra steps to stay healthy. You may need regular blood tests to check the levels of medicine in your blood. You'll need to be careful not to injure yourself. And you may need to watch your diet for foods that affect blood clotting.

You'll need to make sure to take the medicine exactly as directed by your healthcare provider. Take it at the same time each day. If you miss a dose, call your provider right away to find out how much to take. Never take a double dose. If you take too much, it can cause too much bleeding. It can cause bleeding you can see, on the outside of your body. And it can cause bleeding on the inside of your body that you may not be aware of.

EX. 3

How can I control my diabetes? — You and your doctor will work together to create a plan to keep your diabetes under control. Your plan might include:

Medicines – Most people with diabetes take medicine every day to control their blood sugar. They might also need to check their blood sugar level every day. Plus, many people with diabetes need medicines every day to treat high blood pressure or high cholesterol, or to prevent future health problems.

Lifestyle changes –Here are some things you can do to help keep your blood sugar under control or reduce your health risks:

•Make healthy food choices – Eat lots of fruits, vegetables, whole grains, and low-fat dairy products. Limit the amount of red meat and fried or fatty foods that you eat to 2x a week or less.

•Be active – Walk briskly or do something active for 30 minutes or more on at least 5/7 days of the week.

•Stop smoking – Smoking increases the chance that you will have a heart attack or stroke, or develop cancer.

•Lose weight – Being overweight increases the risk of many health problems.

•Avoid alcohol – Alcohol can increase blood sugar and blood pressure.

TRANSLATOR PATIENT INTERACTIONS– THE IDEAL

- Provide trained, professional medical interpreters (preferably in-person) or bilingual providers to all non-English speaking patients and families.
- Post multilingual signage throughout the clinic, imaging, and lab departments and other areas frequented by patients.
- Provide professionally translated prescriptions, discharge instructions, and any other handouts in a patient's primary language, and review these materials with the patient with the assistance of a medical interpreter.
- Identify clinicians and staff who speak languages other than English, test their proficiency in these languages, and provide additional training to those who are not fluent.
- Create a database of all bilingual providers and staff to be used as a resource for non-English speaking patients and families.
- Refer non-English speaking patients and families to resources that can help them learn English.

PHYSICIANS AS [EFFECTIVE] TEACHERS

1. Ascertain each patient's educational needs & identify barriers to learning
2. Personalize teaching methods & counsel concisely
3. Incorporate education into routine office visits (repetition is key)
4. Use "best practices" to target reading materials to literacy level
5. Strive for the ideal, when possible, with patients needing translator services

DISCUSS

Share an example where you feel you either demonstrated strength or weakness in accommodating for a patient or patient's family education/literacy level.

How did this or could this impact patient health?

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SOCIAL DETERMINANTS OF HEALTH

Neighborhood & Built Environment

PHYSICAL/BUILT ENVIRONMENT

Physical environment is defined as the complex of physical, chemical, and biologic factors (such as climate/air, soil, water, and living things) that act upon an organism or community.

It also includes the things that have been **built**, such as houses, roads, buildings, schools, parks, etc.

These are also the aspects that comprise a **neighborhood.**

WHAT'S IN A NEIGHBORHOOD?

- Houses, apartments
- Cars, buses, bus stops
- Neighbors
- Playgrounds
- Grocery stores
- Fast food restaurants
- Liquor/beer stores
- Cigarette shops
- Healthcare: hospitals, clinics, urgent cares
- Community centers
- Places of worship
- Pharmacies
- Crime, vandalism
- Air, trees, wildlife
- Traffic
- Side walks, roads

THE NEIGHBORHOOD IMPACT

Housing	Transportation	Food deserts, food swamps
Pests/mold/bedbugs Insulation/heating/cooling Feeling of security Structure, stairs, shared units	# of bus stops, time, cost Distance to stop, safety Personal vehicle Road quality	Distance to grocery stores Density/placement of fast food Cost/availability of healthy foods
Walkability	**Air quality**	**Community centers**
Condition of side walks Safety Distance to resources Traffic level	Asthma/lung disease Overcrowding Second hand smoke Local greenery	Places of worship Senior centers Childcare/teen resource centers
Crime & violence	**Schools, Playgrounds**	**Health care access**
Robberies Violent crimes Vandalism	Distance, access Quality Safety	Hospitals, Urgent Care Clinics Pharmacies

WHY IT MATTERS

1. Effective action to combat SDH **must start with sufficient knowledge of the mechanisms influencing health inequities.** Without understanding the factors influencing our patients' health, it is difficult to have an impact on their health.
2. **Screening for and discussing** barriers is crucial to developing trusting patient relationships and problem solving solutions.
3. Partnering with patients and **identifying entry points for intervention** is a critical key of effective health care.

GETTING TO KNOW OUR NEIGHBORHOODS

A QUICK FLASHBACK:

Variables Used

American Community Survey (ACS), 2010-2014 (5-year) data for the following estimates:

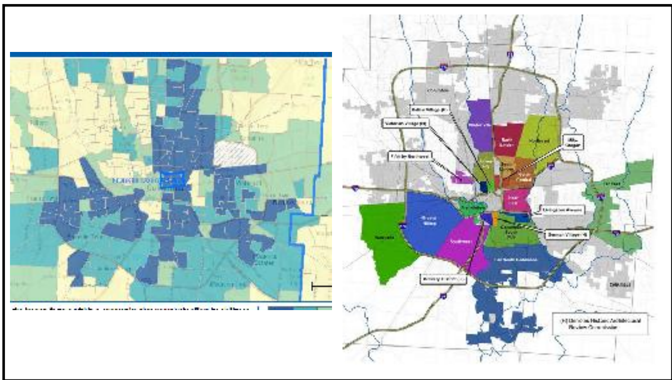
Overall Vulnerability

Socioeconomic Status
- Below Poverty
- Unemployed
- Income
- No High School Diploma

Household Composition & Disability
- Aged 65 or Older
- Aged 17 or Younger
- Civilian with a Disability
- Single-Parent Households

Minority Status & Language
- Minority
- Speak English "Less than Well"

Housing & Transportation
- Multi-Unit Structures
- Mobile Homes
- Crowding
- No Vehicle
- Group Quarters



CONDUCTING A VIRTUAL NEIGHBORHOOD VISIT

You will be given a random address from a neighborhood where our patients commonly live.

Answer the following questions using Google Maps and search nearby, street view, etc. Another excellent resource is http://myneighborhood.columbus.gov/

1. How far is this patient's home from CPE clinic?
2. Is there public transportation? Bus route near home? How many bus rides does it take to get to CPE? And how long does it take?
3. What is the closest hospital to residence? Closest urgent care clinic?
4. How does the crime level/density in this neighborhood compare to other neighborhoods across Columbus?
5. List the nearby social services organizations (including places of worship, senior or teen rec centers, etc):

CONDUCTING A VIRTUAL NEIGHBORHOOD VISIT

6. How many fast food restaurants within 3 mile radius?
7. How many –real- grocery stores within 3 mile radius?
8. How many pharmacy/drug stores within 3 mile radius?
9. How many schools within a 3 mile radius?
10. List parks and recreational facilities within 3 mile radius: (BONUS: what's the price of a nearby gym membership?)
11. Get a street view of the home and block of the above address and take a look. What is your impression of the home and neighborhood? (is the home/apartment building run-down? Cracked sidewalks, street lights, walkability, trash, high traffic level, poor road quality, etc.)

DISCUSS & SHARE

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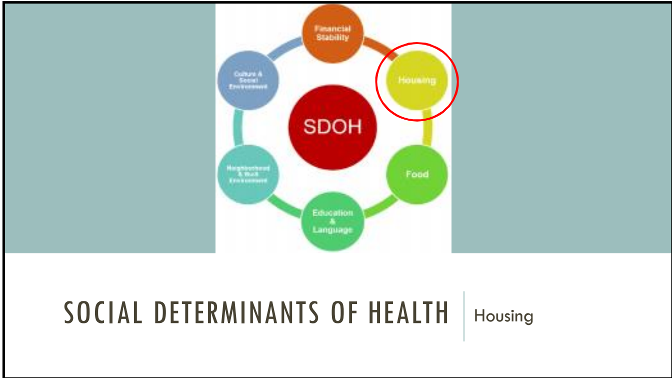


SOCIAL DETERMINANTS OF HEALTH

Housing

A COMMON PATIENT SCENARIO:

A 45-year-old man with previously well-controlled type 2 diabetes mellitus and hypertension is evaluated for recent elevation in blood sugars. Over the past 6 months, his hemoglobin A1C has increased and you also note several elevated blood pressure recordings in his daily log. He readily admits that his medication adherence has worsened, and he has been more reliant on fast food. He attributes these changes to recent financial strain and an inability to afford his monthly medications and fresh food. He has less income from landscaping work in the winter months, and his utility bills have dramatically increased, largely due to costs of heating his poorly insulated home.

On physical examination, his blood pressure is 149/92mmHg and his BMI is 27. His A1C is 8.2%.

In addition to ensuring that he is prescribed generic medications that are available on the local pharmacy's $4 prescription list, what might help your patient improve medication adherence and access to healthier food?

NEIGHBORHOOD & BUILT ENVIRONMENT

Housing

WHAT MAKES A HOUSE A -HEALTHY- HOME

Housing conditions
- Mold, pest infestation, peeling paint, toxin exposures, poor lighting, second hand smoke, insufficient heating/cooling, water quality/availability

Structural features
- Decrepit foundations and furnishing, stairs, shared units, energy inefficiencies, access to green space, intact/unobstructed walkways

Affordability
- Fear of eviction, cost burden, overcrowding, utilities, maintenance

Stability
- Frequent moves, periods of homelessness vs being "precariously housed"

THE IMPACT OF SUBOPTIMAL HOUSING

- Associated with worsening of respiratory diseases due to poor air quality/temperature/humidity and exposures to allergens (mold, dust, cockroaches, mice/rats, etc)
- Many pests can cause significant mental and physical distress in the form of bites and rashes: lice, scabies, bedbugs, fleas
- Flooding, leaky roofs, building maintenance problems, or indoor plumbing problems can lead to significant mold growth that is nearly impossible to eradicate
- Cognitive delay in children due to exposure to neurotoxins such as lead

THE IMPACT OF SUBOPTIMAL HOUSING

- Structural deficiencies resulting in injuries & falls is a particular concern in the elderly population
- Risks for home-related accident and injuries included insufficient lighting, moist and wet floors, missing railings, windows and doors in lousy condition
- Housing instability disrupts school attendance, daycare arrangements, work, social relationships, mental health leading to deleterious effects on education, income, and stress levels
- Dilapidated housing is associated with mental health stressors such as violence and social isolation.
- Low-income and/or ethnic minority communities—already burdened with greater rates of disease, limited access to health care, and other health disparities—are also the populations living with the worst built environment conditions. Studies have shown that negative aspects of the built environment tend to interact with and magnify health disparities, compounding already distressing conditions.

WHAT MIGHT HELP YOUR PATIENT IMPROVE MEDICATION ADHERENCE AND ACCESS TO HEALTHIER FOOD?

a) Refer him to a dietician and/or diabetes educator

b) Refer him to the food bank and department of public welfare to apply for cash assistance and/or Medicaid

c) Referral to a weatherization assistance program to reduce energy bills thereby freeing up money for food and prescriptions

d) Verify that his blood pressure cuff is calibrated correctly

e) Motivational interviewing to improve his medication and diet adherence.

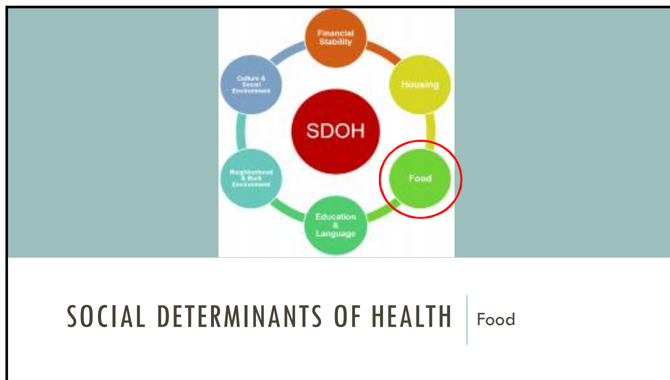
ANSWER: PROBABLY ANY OF THE ABOVE, BUT GETTING CREATIVE PAYS OFF

Did you know?: Weatherization assistance programs include a wide variety of measures to improve energy efficiency and reduce utility costs, including window replacement, heating and cooling system inspection and repair, and repair or replacement of low efficiency electrical appliances. Weatherization and energy efficient programs could provide health benefits for low-income families who suffer disproportionally from house fire, injuries and asthma. Patients may also be referred to a Low-Income Home Energy Assistance Program to help with utility costs during the winter months.

Helpful Resources

Where to apply for weatherization assistance. U.S. Office of Energy & Renewable Energy. Available at: http://energy.gov/eere/wipo/where-apply-weatherization-assistance

Low-Income Home Energy Assistance Program (LIHEAP). U.S. Office of Energy & Renewable Energy. Available at: http://www.acf.hhs.gov/programs/ocs/liheap-state-and-territory-contact-listing



SOCIAL DETERMINANTS OF HEALTH

Food

FOOD INSECURITY

Food security can be defined as sustained access by all people to enough food for an active, healthy life.

Food insecurity occurs when households lack access to adequate food because of limited money or other resources.

Risk factors include: Households with lower incomes and households headed by a minority person, a single parent, a renter, a younger person, or a poorly-educated person are all more likely to be food insecure than their respective counterparts. In addition, households with children are much more likely to be food insecure than those without.

SCREENING

Due to growing evidence of the serious impacts of food insecurity, screening measures were developed by the US Department of Agriculture (USDA) in the form of the "Food Security Survey 6-item screening tool"

This survey estimated that 11% of all households and 18% of those with children are moderately to severely food insecure (3 or more affirmative answers) across America

THE IMPACT: A SUMMARY OF THE IMPACTS

In children-- increased risks of:

Birth defects
Anemia
Lower nutrient intakes
Cognitive problems
Aggression, behavioral problems
Anxiety, depression, suicidal ideation
Asthma
Dental carries

In adults-- increased risks of:

Poorer nutrient intake
Iron deficiency
Depression, anxiety
Diabetes
Hypertension
Hyperlipidemia
Poor sleep

VIDEO

http://www.unnaturalcauses.org/video_clips_detail.php?res_id=409

WHAT CAN WE DO?

Federal Nutrition Programs and Emergency Food Referral Chart

USDA National Hunger Hotline

1-866-3-HUNGRY/866-348-6479 or 1-877-8-HAMBRE/877-842-6273

Monday through Friday (8 a.m. to 8 p.m. ET)

Age of Patient	Name of Program	How It Works	Who Can Apply	Learn More
[illegible]	Supplemental Nutrition Assistance Program	[illegible]	[illegible]	[illegible]
[illegible]	The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	[illegible]	[illegible]	[illegible]
[illegible]	Child and Adult Care Food Program (CACFP)	[illegible]	[illegible]	[illegible]
[illegible]	National School Lunch Program and School Breakfast Program	[illegible]	[illegible]	[illegible]

Age of Patient	Name of Program	How It Works	Who Can Apply	Learn More
[illegible]	Fresh Fruit and Vegetable Program	[illegible]	[illegible]	[illegible]
[illegible]	Afterschool Nutrition Programs	[illegible]	[illegible]	[illegible]
[illegible]	Summer Nutrition Programs	[illegible]	[illegible]	[illegible]
[illegible]	The Emergency Food Assistance Program (TEFAP)	[illegible]	[illegible]	[illegible]

American Academy of Pediatrics

FRAC

https://www.auntbertha.com/

Food pantries, local shelters, assistance programs (and more)

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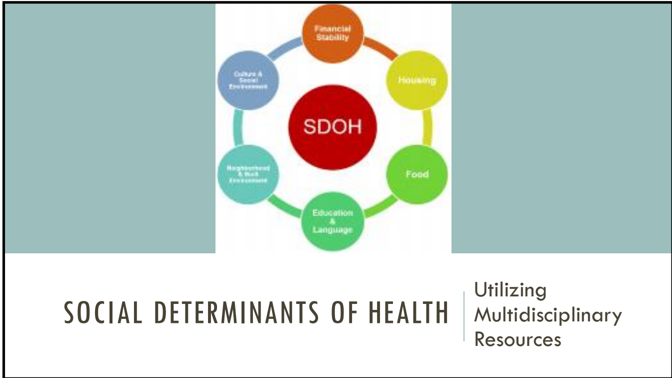

SOCIAL DETERMINANTS OF HEALTH

Utilizing Multidisciplinary Resources

SOCIAL WORK AT CARE POINT EAST

What can SW help with?
Available resources for our patients
Utilizing SW services in clinic: The Do's & Don'ts
Ways to contact SW
Questions

RN CARE COORDINATION AT CARE POINT EAST

What can your Care Coordinator help with? (and what they can't)
CPC+
Helpful resources for our patients
Ways to contact/assigned RN
Questions

PHARMACY AT CARE POINT EAST

What can pharmacy help with?
Available resources for our patients
Determining insurance coverage
Pharmacy visits
Ways to contact pharmacy team
Questions

SOCIAL DETERMINANTS OF HEALTH

Conclusion

CASE 1

A 52-year-old man presents to a neighborhood health center for evaluation of intermittent chest pressure. His symptoms started 2 weeks ago, worsen with exertion, last 10-15 minutes and are associated with shortness of breath and diaphoresis. He has not seen a doctor in many years. He takes no medications, has smoked 1 pack per day for the last 35 years, and denies alcohol or drug use. He currently works as a janitor at a ballpark, and is usually unemployed for 4-5 months each year. He lives in a rented apartment in a run-down part of town. He was adopted and is uncertain of his family medical history. His physical examination reveals BP 160/96, P 74, BMI 39.

Cardiopulmonary exam is normal. 1+ pedal edema is noted with good distal pulses. ECG shows normal sinus rhythm without ST-T change. You are concerned that his chest pain is angina and would like to refer him for further evaluation.

Which of the following risk factors for ischemic heart disease is not included in current risk calculators— Framingham or ASCVD pooled cohort?

a. Age

b. Lack of primary care

c. Hypertension

d. Smoking

e. Low socioeconomic status

f. Cholesterol levels

SOCIOECONOMIC STATUS AS A CVD RISK FACTOR

Low socioeconomic status, including living in low-income neighborhoods, is independently predictive of cardiovascular disease and all-cause mortality (Roux et al)

For individuals from low socioeconomic backgrounds defined as <12 years of education or <$12,000 annual income, Framingham scores underestimated CVD risk by 24% (Franks et al)

What mechanism or pathway could account for its role in cardiovascular diseases? Would this change your management, and how?

CASE 2

A 71-year-old man presents to your clinic for a wellness visit. He is healthy except for knee osteoarthritis and hypertension for which he takes hydrochlorothiazide daily and acetaminophen as needed. His wife of 35 years passed away last year. They did not have children and he has few friends in town. Besides going shopping once a week, he does no other activities. He was a former truck driver, does not smoke, and drinks approximately 4 beers a week. He does not exercise. He has no history of depression and denies feeling sad or hopeless.

His physical examination reveals a BP of 142/74, BMI 32.

Which of the following risk factors has been shown to be more strongly associated with mortality

than hypertension in males >65?

a) Physical inactivity

b) Alcohol use

c) Obesity

d) Social isolation

SOCIAL ISOLATION

A risk factor for a variety of poor health outcomes, including increased mortality

A 2010 meta-analysis (Holt-Lunstad et al) showed stronger social relationships associated with a 50% increased likelihood of survival compared to lean body weight (22%), physical activity (21%) and controlled hypertension (13%)

Prevalence of social isolation in community-dwelling older adults ranges from 10 to 43 %.

What are possible interventions to help mitigate this risk factor?

Consider encouraging participation in community, volunteer or religious organizations in socially isolated adults.

CASE 3

A 45-year-old former machinist at a pipe manufacturing company, currently receiving Social Security Disability Insurance (SSDI) income, presents to your clinic. He fractured his right shoulder 3 years ago after a fall at work, and has been receiving chronic opioid therapy because of daily shoulder and back pain. He was evaluated by orthopedic surgery and had physical therapy with little improvement. He feels depressed due to financial insecurity and inability to work. He is able to earn extra income doing minor maintenance work for a friend who owns an apartment building. He expresses interest in part-time work but fears losing his benefits. He previously tried citalopram and fluoxetine without improvement in his mood, pain, or energy level, and does not want to try another medication. He denies feeling hopeless or suicidal but does endorse insomnia.

The best next step to help him with depression and financial distress is:

a) Refer him to self-help or support groups

b) Refer him to the local Social Security office to inquire about trial work without losing disability benefits

c) Refer him to a comprehensive pain management program

d) Suggest a trial of quetiapine for both depression and insomnia

EMPLOYMENT AND WELLBEING

Social Security rules make it possible for people with disabilities receiving Social Security or Supplemental Security Income (SSI) to work for a limited period of time and still receive monthly payments and Medicare or Medicaid benefits as long as their disability persists.

The trial work period allows a Social Security recipient to test his/her ability to work for at least 9 months. Recipients may still retain benefits under an extended period of eligibility if earnings are under a certain amount per month (eg. $1,070 in 2014)

Has the potential to enhance the number of injured workers returning to the labor market, prevent illness, and increase well-being though evidence regarding the health impact of this thus far is limited

If in doubt, loop social work in to see what the options are!

CASE 4

A 47-year-old man with obesity and type 2 diabetes presents to your clinic for a follow-up visit. His hemoglobin A1C's have ranged 8-9% while taking glipizide and metformin with good adherence. He has had several failed attempts at losing weight. He eats fast food several times a week and cites broken sidewalks as excuse for not walking. He also works long evening and night shifts as a security guard for an office building downtown. He and his wife are searching for a new apartment because of noisy neighbors.

His physical examination reveals a BP 118/72, BMI 45. Your main concern is his elevated A1C and obesity. Though he agrees with your concern, he does not wish to begin insulin therapy.

You should spend this visit discussing:

a) The importance of seeing a dietician

b) Carb counting and exercise options

c) The need to start insulin

d) Access to healthy food sources, distance from fast food restaurants and proximity to recreational facilities when looking for his next apartment

CASE 5

A 38-year-old woman who works as an office manager for a company in an urban center, presents for routine follow up of fibromyalgia, migraine headache and diabetes. She has made several attempts to lose weight but found it difficult to exercise due to limited time in her day for health related activities. Two years ago, she moved to the suburbs and currently commutes 70 minutes to work each way.

On physical examination, her BP is 150/94 and her BMI is 38. You observe normal sensation on foot exam. Labs include: A1C 9.4, creatinine 1.1, and no albuminuria. She has repeatedly deferred eye exam, pap smear and specialist referral due to difficulty in taking time off from her work schedule. She is currently on metformin 1000 mg bid. You plan to add lisinopril and refer her to the diabetes educator to discuss insulin therapy and lifestyle modification.

What other recommendation could play a significant role in her health outcomes?

a) Refer her to an ophthalmologist close to home and schedule a pap smear at her next visit

b) Refer her to a health coach for behavioral counseling

c) Address strategies to minimize her daily commuting time and its impacts

d) Refer her to a multidisciplinary fibromyalgia program to address her pain

THE IMPACT OF TRANSPORTATION

Increased commuting time means less time spent on health-related activities such as exercise and food preparation, as well as worse health outcomes, including higher cardiovascular mortality.

A 2010 study showed men who reported >10 hours per week riding in a car had 82% greater risk of dying from cardiovascular disease than those who reported <4 hours per week (Willliams et al)

CASE 5

A 52-year-old man with diabetes, hypertension, hyperlipidemia, and COPD presents to your clinic for a routine visit. He takes 6 medications in addition to 2 inhalers. He lives with his wife who is disabled from a motor vehicle accident, and they have 2 children in high school. He has smoked 1 pack per day for the past 25 years, but does not drink alcohol. He is working for a small manufacturing company for almost 20 years, but with the weak economy, he constantly fears losing his job. His diabetes and hypertension are well-controlled. Your major concern for this visit is his continued tobacco use. Repeated efforts to quit smoking by using nicotine gum, patches, and bupropion have not been successful. He says, "all the guys at work smoke and it's hard to be the only guy not doing it."

Which factor listed below would most likely increase his ability to stop smoking?

a) Educational materials on how to quit smoking

b) Acupuncture and hypnosis therapy

c) Long-term use of nicotine replacement therapy

d) A smoke-free work place

POLICIES TARGETING HEALTH MATTER

Smoke-free worksite policies help employees reduce or discontinue their use of tobacco

In multiple large studies (including Glasgow et al 2005), implementing smoke-free workplace policies was estimated to be more cost-effective than nicotine replacement therapy

How would you approach a conversation on smoking cessation while taking into account his clearly identified workplace obstacles?

It is necessary to address known obstacles when creating a specific plan for tobacco cessation and habit changing in general

IN CONCLUSION

All people deserve equal opportunity to make the choices that lead to good health.

WE CAN -AND SHOULD- MAKE A DIFFERENCE

1. Effective action to combat SDH **must start with sufficient knowledge of the mechanisms influencing health inequities**. Understanding the factors influencing our patients' health is an essential first step to having a positive impact on their wellness.
2. **Screening for and discussing** barriers is crucial to developing trusting patient relationships and problem solving solutions.
3. Partnering with patients and **identifying entry points for intervention** is a critical key of effective health care.

PLEASE COMPLETE POST-COURSE SURVEY

Thank you!!

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