Social Determinants of Health: A Clinician-Educator's Perspective

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No Disclosures

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Learning Objectives

- Define social determinants of health
- Understand how social determinants of health impact health outcomes of patient populations and costs in the US healthcare system
- Overview of systemic changes needed to incorporate social determinants of health into healthcare delivery
- Case study of how a health care system can tackle social determinants of health screening
- Understand the evidence behind the impact of investing in social support and social risks screening
- Practical tips on having sensitive conversations with the patient around social determinants of health

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What are (the) Social Determinants of Health?

The conditions in which people are born, grow, work, live, age and the wider set of forces and systems shaping the conditions of daily life[1]

Economic stability[2]
Employment/ Income/Expenses
Debt/Medical bills
Support

Neighborhood and physical environment Housing
Transportation Safety
Parks/Playgrounds
Walkability

Education
Literacy
Language
Early childhood education
Vocational training
Higher education

Food[2]
Hunger /Access to healthy options

Community and social context
Social integration
Support systems
Community engagement
Discrimination

Health care system
Health coverage
Provider availability
Provider linguistic and cultural competency
Quality of care

Health outcomes[2]
Mortality
Morbidity
Life expectancy
Health care expenditures
Health status
Functional limitations

1. World Health Organization. Social determinants of health. 2018. www.who.int/social_determinants
2. Daniel H, Bornstein SS, Kane GC; Health and Public Policy Committee of the American College of Physicians, Carney JK, Gantzer HE, Henry TL, Lenchus JD, Li JM, McCandless BM, Nalitt BR, Viswanathan L, Murphy CJ, Azah AM, Marks L. Addressing Social Determinants to Improve Patient Care and Promote Health Equity: An American College of Physicians Position Paper. Ann Intern Med. 2018 Apr 17;168(8):577-578.

Maslow's Hierarchy of Needs

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How Non-Medical Factors Influence Health

>200,000 deaths attributable to low education[1]

>150,000 deaths attributable to racial segregation[1]

>100,000 deaths attributable to low social support[1]

>100,000 deaths attributable to individual poverty[1]

>100,000 deaths attributable to income inequality[1]

US place of birth more strongly associated with life expectancy than race or genetics[2]

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1. Galea S, Tracy M, Hoggatt KJ, Dimaggio C, Karpati A. Estimated deaths attributable to social factors in the United States. Am J Public Health. 2011;101:1456-65. [PMID: 21680937] doi:10.2105/AJPH.2010.300086
2. Centers for Disease Control and Prevention. Vital Signs tele- briefing on heart disease and stroke deaths. 3 September 2013. Accessed at www.cdc.gov/media/releases/2013/t0903-vs-heart -disease.html on 1 November 2017.

How Non-Medical Factors Influence Health: A Cascading Effect

Socioeconomic status (individual wealth, family wealth, education, occupation, social networks/resources) is the primary non-medical factor that affect health/health outcomes.[1]

Non-Medical Factors	Income	Housing	Food	Transportation	Education
Patient Impact	Concentrated low-income neighborhoods, crowding	Unsafe housing; homelessness	Food Deserts	Poor infrastructure to support walking, biking, and public transportation	Under-resourced schools, slow academic progress, high rates of drop-outs
Health Impact	Higher risk for airborne disease and transmission	Risks for asthmatic triggers; risk of TB 40x higher and risk of Hepatitis C 4x higher in homeless	Increase in obesity and associated comorbid conditions; rates of diabetes 5% higher in food deserts counties in US	Missed health appts; 2x higher pedestrian fatalities in low-income neighborhoods; longer wait times for emergency response vehicles in low-income neighborhoods	9-years gap in life expectancy between high-school drop out and college grad

Non-medical Factors and US Healthcare Costs

>300 billion dollars in losses to economy annually[1]

93 billion in excess medical care costs[2]

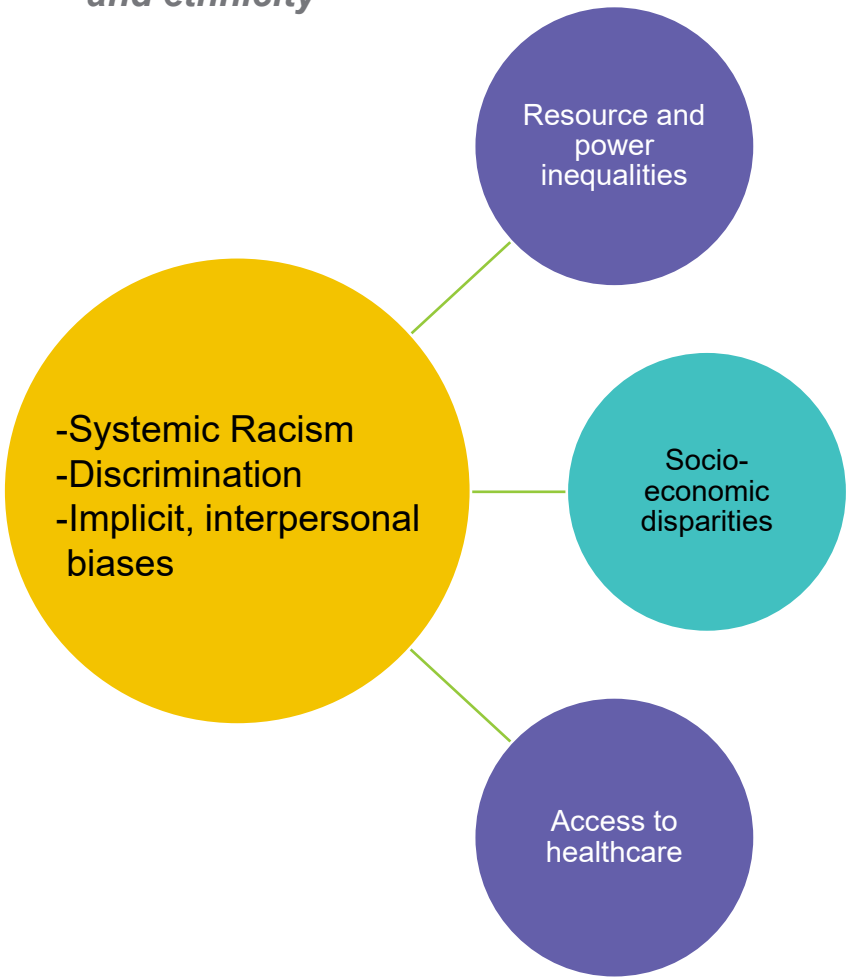
42 billion losses in productivity per year[2]

1. Daniel H, Bornstein SS, Kane GC; Health and Public Policy Committee of the American College of Physicians, Carney JK, Gantzer HE, Henry TL, Lenchus JD, Li JM, McCandless BM, Nalitt BR, Viswanathan L, Murphy CJ, Azah AM, Marks L. Addressing Social Determinants to Improve Patient Care and Promote Health Equity: An American College of Physicians Position Paper. Ann Intern Med. 2018 Apr 17;168(8):577-578

2. Ubri P, Artiga A. Disparities in health and health care: five key questions. The Henry J. Kaiser Family Foundation. 12 August 2016. Ac- cessed at http://kff.org/disparities-policy/issue-brief/disparities-in-health -and-health-care-five-key-questions-and-answers on 8 October 2016.

Racial and Ethnic Health Inequities and Disparities

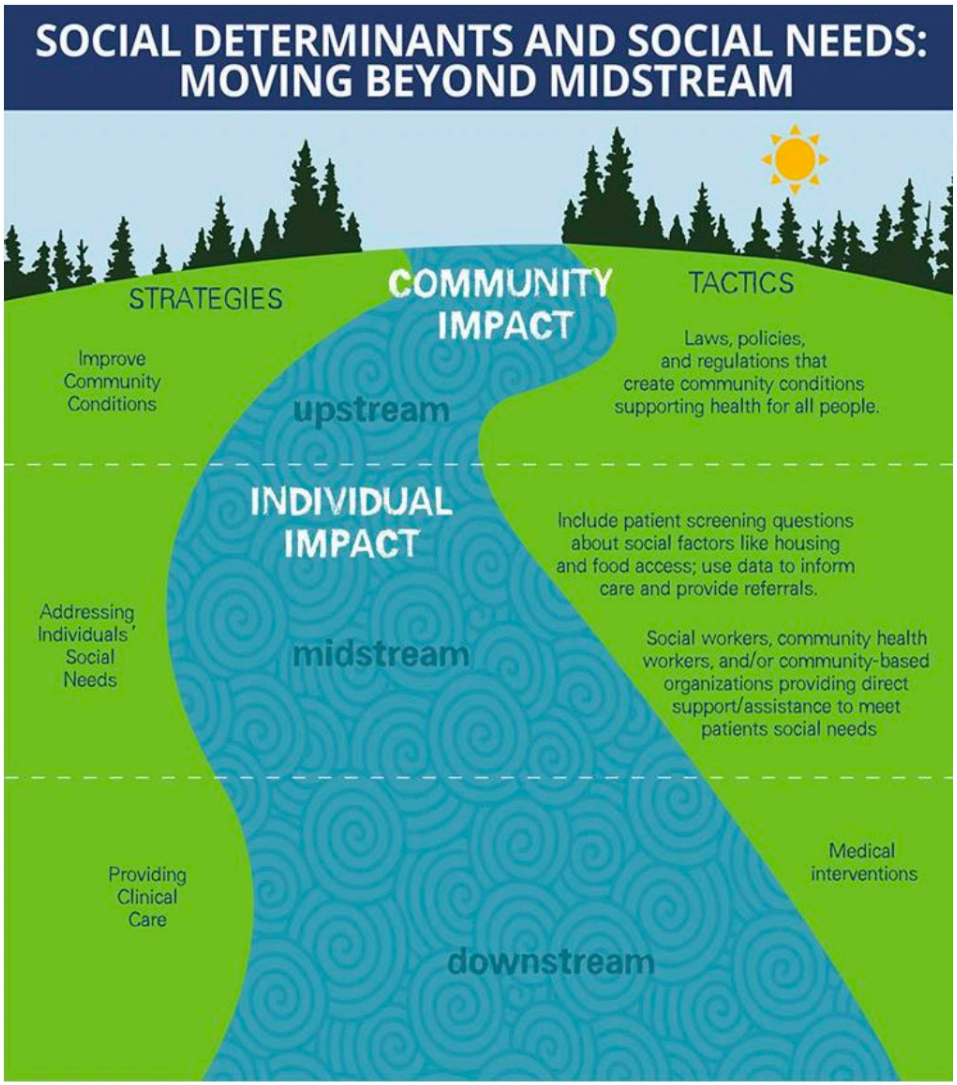
Addressing social determinants of health is key to bridging health inequities due to race and ethnicity



- Latina women have higher incidence of cervical cancer and higher mortality than non-Latina white women[1]
- African American women more likely to die of breast cancer despite lower incidence than non-Latina white women[2]
- African American women more likely to be diagnosed of breast cancer at later stages compared with any other racial or ethnic group[3]

1. Mann L, Foley KL, Tanner AE, Sun CJ, Rhodes SD. Increasing cervical cancer screening among US Hispanics/Latinas: a qualitative systematic review. J Cancer Educ. 2015;30:374-87
2. National Cancer Institute. Cancer health disparities. Updated 11 March 2008. Accessed at www.cancer.gov/about-nci/organization/crchd/cancer-health-disparities-fact-sheet#r9
3. DeSantis CE, Fedewa SA, Goding Sauer A, Kramer JL, Smith RA, Jemal A. Breast cancer statistics, 2015: convergence of incidence rates between black and white wome

What Can *We* do??



Systems Changes Occur At:

- US Healthcare System
- Healthcare Organization/Community Health
- Clinical Care Team

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https://www.healthaffairs.org/do/10.1377/forefront.20190115.234942/full/

US Healthcare Changes Addressing Social Determinants of Health

Changes need to be made on the public policy level to reduce adverse health outcomes from social determinants of health

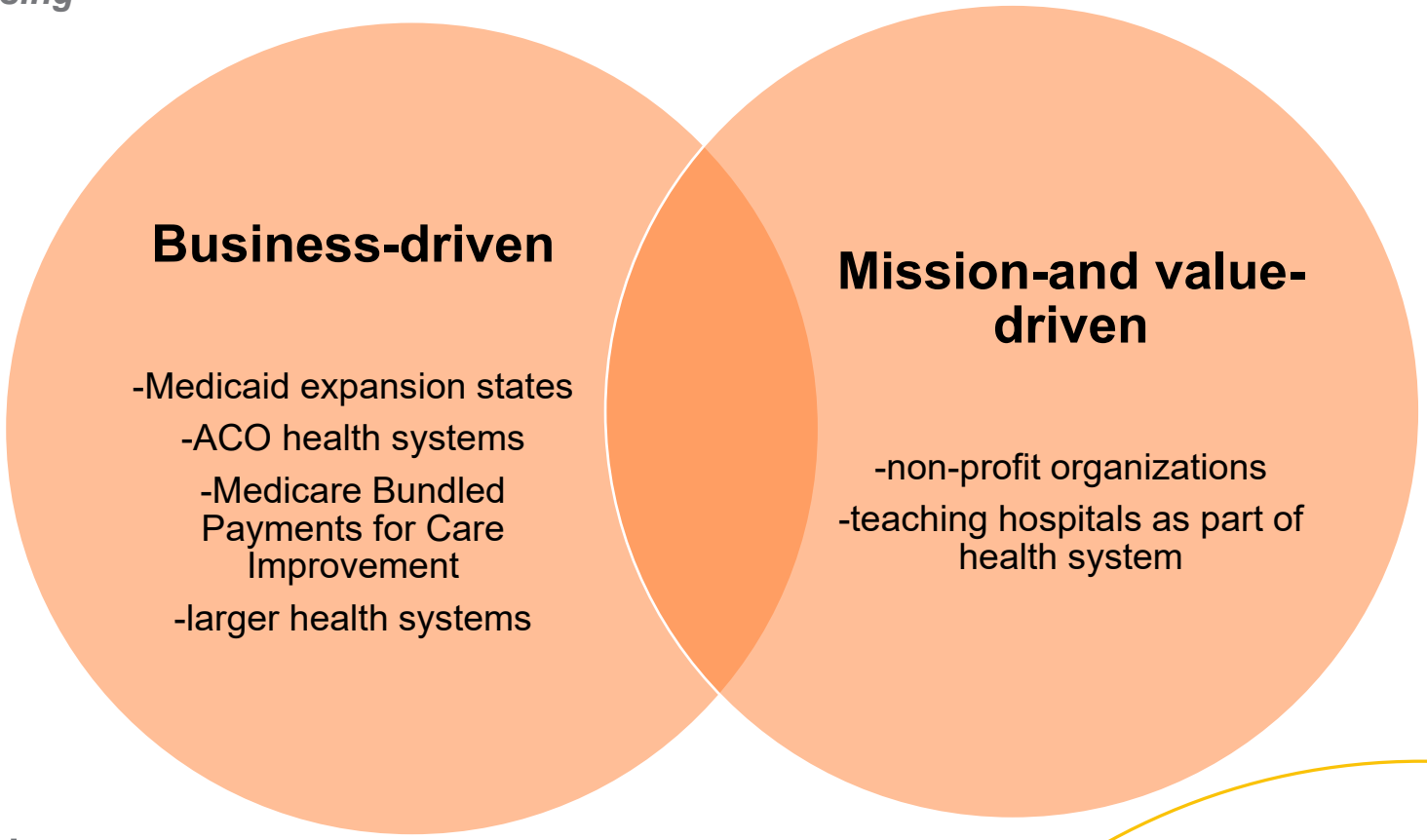
US healthcare system is the most expensive in the world but investment into prevention and social services is small compared to other developed countries[1]

- Funding into social services showed improved housing, nutrition, income support, care coordination
- States with lower ratios of social service spending to medical spending have:
  - Higher rates of myocardial infarction, lung cancer, mental illness[2]

1. Miller G, Roehrig C, Hughes-Cromwick P, Turner A. What is currently spent on prevention as compared to treatment? In: Faust H, Menzel P, eds. Prevention vs. Treatment: What's the Right Balance? New York: Oxford Univ Pr; 2011:37-55.
2. National Academies of Sciences, Engineering, and Medicine; In- stitute of Medicine; Board on Global Health; Committee on Educating Health Professionals to Address the Social Determinants of Health. A Framework for Educating Health Professionals to Address the Social Determinants of Health. Washington, DC: National Acad- emies Pr; 2016

Healthcare Systems and Social Determinants of Health

2017-2019 analysis of health systems' investments into social determinants of health found 78 unique new programs by 57 health systems with 917 hospitals, with largest focus on housing[1]



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1. Horwitz, Leora & Chang, Carol & Arcilla, Harmony & Knickman, James. (2020). Quantifying Health Systems' Investment In Social Determinants Of Health, By Sector, 2017–19: Study analyzes the extent to which US health systems are directly investing in community programs to address social determinants of health.. Health Affairs. 39. 192-198.

Case Example: Healthcare System Investment in Social Determinants of Health: Cedars-Sinai Health System

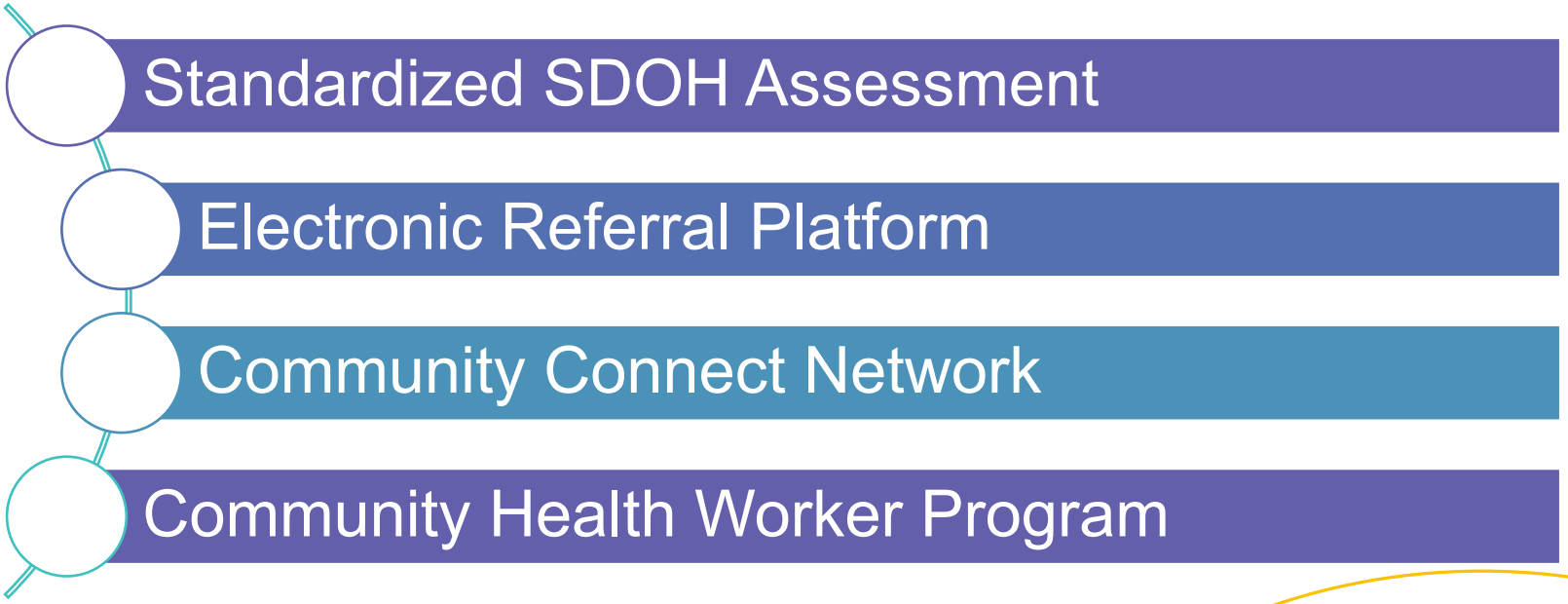
At a Glance:
non-profit academic healthcare organization
main center: 886-bed hospital
academic and research: over 80 residency and fellowship programs
community-based hospital : Marina Del Rey
affiliate hospitals: Huntington Health and Torrance Memorial
California Rehabilitation Institute

Case Example: Cedars-Sinai Community Benefits Screening Initiative

A cross-departmental program that aims to increase patient health by addressing health-related social needs through assessment and linkages to community-based providers

Aims:

1. Implement a cross-departmental system-wide assessment method for SDOH
2. Implement a social service resource and referral platform
3. Deliver targeted interventions to improve care for vulnerable patient populations



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Case Example: Cedars-Sinai Community Benefits Screening Initiative

Thirteen domains identified based on stakeholder input from multi-disciplinary teams

Domain	Assessment	# of Questions
Depression*	PHQ-2/9	2
Postpartum Depression*	Edinburgh Postnatal Depression Scale (EPDS)	10
Transportation	Modified PRAPARE (Epic)	1
Substance Use*	DAST	1 (10 if yes to Q1)
Alcohol Use*	AUDIT-C	3
Food Insecurity	Food Insecurity (Epic)	2
Financial Resource Strain	Financial Resource Strain (Epic)	1
Social Isolation	UCLA 3-Item Scale	3
Intimate Partner Violence	Intimate Partner Violence	1
Housing Instability	PRAPARE	1
Independent Living	CDC Behavioral Risk Factor Surveillance System (BRFSS)	1
Health Literacy	Short Test of Functional Health Literacy in Adults (STOFHLA)	1
Access to Care	Behavioral Risk Factor Survey	1

- Implemented inpatient, outpatient, and Cedars-Sinai Medical Network
- Utilized existing workflows
- Standardized existing screening practices/protocols

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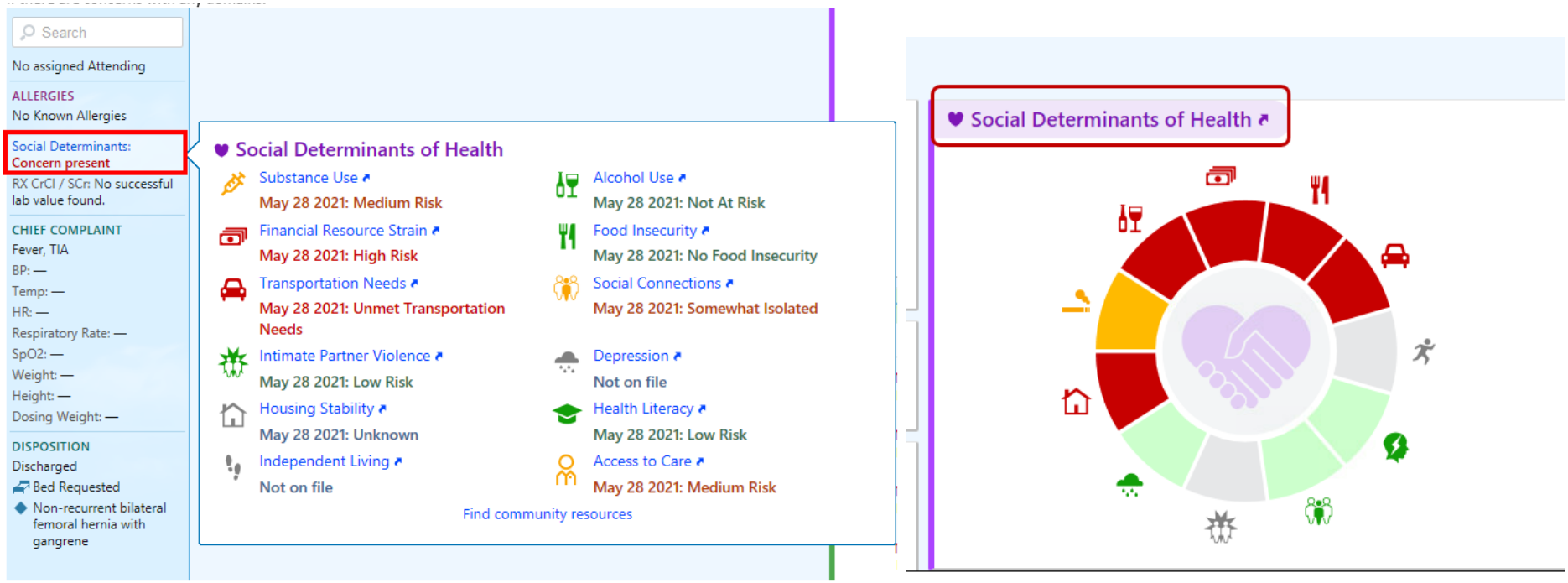
Case Example: Cedars-Sinai Community Benefits Screening Initiative: Leveraging the Electronic Health Record (EHR)



Case Example: Cedars-Sinai Community Benefits Screening Initiative: Current State

Completed Goals	Current State	Future State
• Standardized SDOH screening tool active in EHR • CS Community Resource (findhelp) platform embedded in EHR for staff and My CS-Link for patients • First edition of SDOH data dashboards built • CHW* program launched	• Working with specific teams and departments to standardize SDOH screening workflows • Continue build of community provider network for CBO* referrals (includes some targeted grant making) • Refining SDOH data dashboards and needs • Assessing for CHW program expansion	• Aligning SDOH work with regulatory pressures (CMS proposed screening regulations) • Focusing screening and referral efforts on priority patient pops (population health, bundles, Medicare dual eligible, etc.) • Aligning SDOH data with predictive risk models, health equity dashboards • Operationalizing CHW program w/ expanded staffing

*CHW: Community Health Workers
*CBO: Community Based Organization

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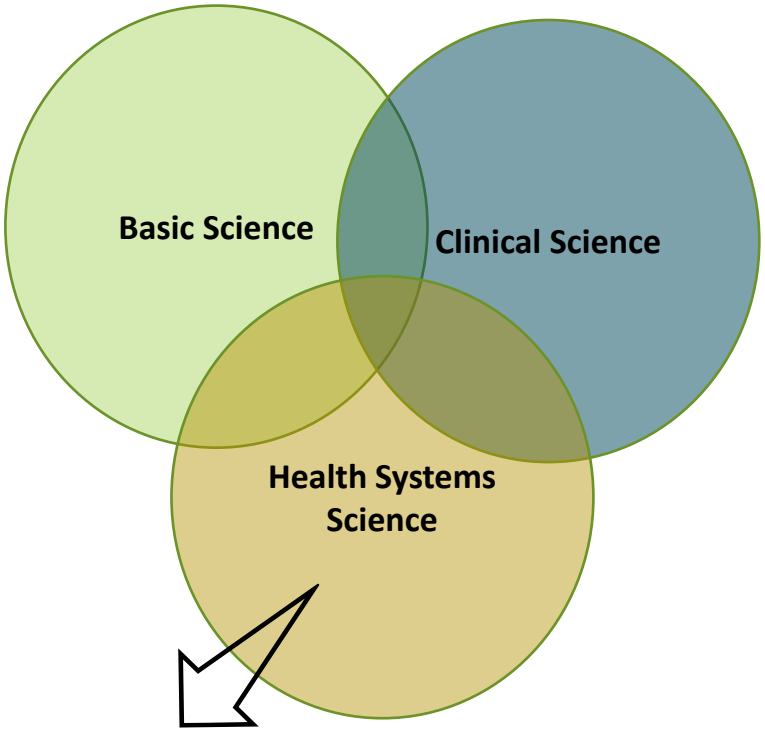
Integration of Social Determinants of Health into Graduate Medical Education

The Three Pillar Model of Medical Education



Population Health, Social Determinants of Health

"The principles, methods, and practice of improving quality, outcomes, and costs of health care delivery for patients and populations within systems of medical care"[1]

[1] Skochelak et al, 2017. Health Systems Science. *AMA.*

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Cedars-Sinai Internal Medicine Residency Program: Social Determinants of Health Curriculum

Adult Learning Principles

- Experiential Learning
- Case-Based Learning
- Discussions around Work Experiences

Breaking down Silos

- Introduction to the Social Determinants of Health Screening Initiative
- Case Management meetings with the inpatient residency service
- Community-based activities: community walks

Pathway in Medical Education

- Engagement with Graduate Medical Education department
- Certificate in Population Health
- Connect with Health Services Researchers

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Clinical Care Team: How to Screen for Social Determinants of Health

Empathic Inquiry, developed by Oregon Primary Care Association (OPCA), aims to create partnership, engagement, and affirmation with patients in screening for social determinants of health[1]

Build a Relationship	Discuss SDOH elements at end of a visit	Ask for permission to discuss
Screen for SDOH	If screening completed via EHR, summarize results; ask for patient input	If visit is the screen, ask opened-ended questions about social factors
Practice Empathy	Reflective listening	Use affirmations

End of Visit:
- Summarize plan
- Ask for permission before making referrals

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1. https://www.orpca.org/initiatives/empathic-inquiry

So… does it work?

Investments into social services and integrated models of health care delivery and social services have positive health outcomes[1]

Multi-dimensional screening for social risk and its effect on health outcomes is an emerging body of evidence[2]

Table 1. Summary of findings in the literature (N = 39).

Findings	Housing Support N (%)	Nutrition Support N (%)	Income Support N (%)	Care Coordination and community outreach N (%)	Other* N (%)	Total N (%)
Positive, significant findings						
Positive health outcomes	5 (42%)	7 (64%)	3 (75%)	2 (22%)	3 (100%)	20(51%)
Reduced costs	1 (8%)	0 (0%)	0 (0%)	4 (44%)	0 (0%)	5 (13%)
Both health outcomes and reduced cost	4 (33%)	0 (0%)	1 (25%)	2 (22%)	0 (0%)	7 (18%)
Other findings						
Mixed results	0(0%)	1 (9%)	0 (0%)	1 (9%)	0 (0%)	2 (5%)
Non-significant effects	1 (8%)	2 (18%)	0 (0%)	0 (0%)	0 (0%)	3 (8%)
Negative health outcomes	1 (8%)	1 (9%)	0 (0%)	0 (0%)	0 (0%)	2 (5%)
Total	12 (100%)	11 (100%)	4 (100%)	9 (100%)	3 (100%)	39 (100%)

***Other studies contained interventions that had major educational components that were associated with improved health outcomes, especially among children.**

1. Taylor LA, Tan AX, Coyle CE, Ndumele C, Rogan E, Canavan M, Curry LA, Bradley EH. Leveraging the Social Determinants of Health: What Works? PLoS One. 2016 Aug 17;11(8)
2. Andermann A. Screening for social determinants of health in clinical care: moving from the margins to the mainstream. Public Health Rev. 2018 Jun 22;39:19

Toolkits and Resources

PRAPARE Toolkit: http://www.nachc.org/research-and-data/prapare/toolkit/

RWJF - A New Way To Talk About The Social Determinants of Health:

https://societyforhealthpsychology.org/wp-content/uploads/2016/08/rwjf63023.pdf

Health Leads Screening Toolkit: https://healthleadsusa.org/resources/the-health-leads-screening-toolkit/

Empathic Inquiry: Oregon Primary Care Association
https://www.orpca.org/initiatives/empathic-inquiry

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8. National Cancer Institute. Cancer health disparities. Updated 11 March 2008. Accessed at www.cancer.gov/about-nci/organization /crchd/cancer-health-disparities-fact-sheet#r3
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