Role of Civil Engineers in Improving Health

C.J. Eisenbarth Hager

St. Luke's Health Initiatives



Health ≠ Healthcare





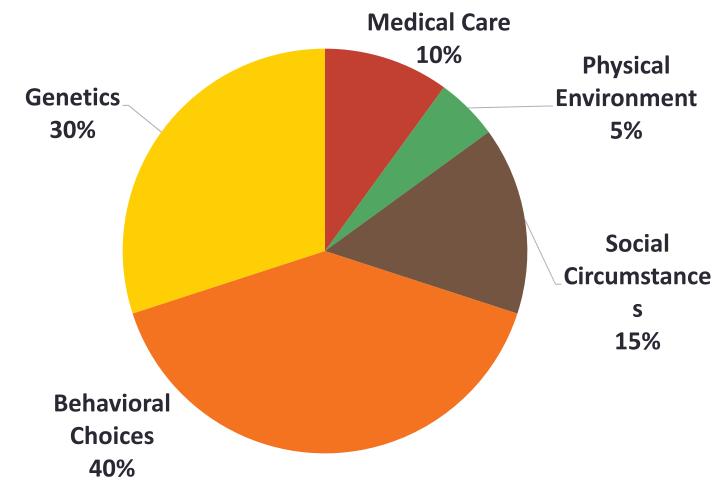
Definition of Health

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.



^{*} Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946.

What influences our health?



^{*} McGinnis, J., Williams-Russo, P. and Knickman, J. The Case For More Active Policy Attention To Health Promotion. Health Affairs, 21, no.2 (2002):78-93



Determinants of Health

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Water
Workplace
AccesstoCare
SocialNetwork
AccesstoCare
Race Employment Education
HousingBeliefSystem
QualityofCare PublicSafetyo
EarlyLifeExperiences
Stresso AirSubstanceUse
Discrimination
Pollution
Income

Water
Workplace
SocialNetwork

AccesstoCare
Friends

AccesstoCare
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^{*} http://www.rwjf.org/en/about-rwjf/newsroom/infographics/minneapolis-map.html



Our zip code is more important to our health than our genetic code.



From 1890 to 1990, life expectancy in the U.S. increased by 30 years.



^{*} Farley, T., & Cohen, D. Prescription for a Health Nation: A New Approach to Improving Our Lives by Fixing Our Everyday World. (2006)

From 1890 to 1990, life expectancy in the U.S. increased by 30 years.

Only 5 years can be linked to better medical care.

* Farley, T., & Cohen, D. Prescription for a Health Nation: A New Approach to Improving Our Lives by Fixing Our Everyday World. (2006)



Today's Health Challenge: Obesity

Charlotte's Light Rail Users:

- Lost 6 pounds
- Reduced obesity risk by 81%



^{*}MacDonald, J., Stokes, R., Cohen, D., Kofner, A. Ridgeway, G. The Effect of Light Rail Transit on Body Mass Index and Physical Activity. American Journal of Preventative Medicine. (2010) 39(2): 105–112.

Medical Care Spending

U.S.: \$2.1 trillion

Arizona: \$35.8 billion



^{*} Centers for Medicare & Medicaid Services. National Health Expenditure Data, 2009. (2014)

What would \$360 million buy in one year?

720 miles of separated bike paths

5 miles of Light Rail

7 miles of Streetcar line



SLHI's Role

To inform, connect and support efforts to improve the health of individuals and communities in Arizona.





What can you do?

- Talk about how your profession affects health
- Support complete streets policies and designs
- Support increased transit options
- General plan
- Reach out to your county's public health department



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For help in reaching a county health department, contact:

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