



Research Week 2020

Why You Should Care About Where

Lily Cook, M.A.

OHSU

Keywords

Geographic Information Systems (GIS); Social Determinants of Health (SDOH); Informatics; Data Analysis

Abstract

What can we understand and predict about our health based on where we live, where we work, and where we've been?

In 1854, Dr. John Snow drew a map showing the relationship between the homes of people who had died from cholera and the location of the water pumps in the area. He mapped health information in order to understand the source of the outbreak, and used his map to show that cholera was caused by drinking contaminated water. Today we continue use location as a context to help us understand and interpret health data - to understand the effect of social determinants; to predict and monitor epidemics; to demonstrate the relationship between our environment and our health.

In 2015, NIH Director Francis Collins tweeted "If DNA is our biological blueprint, then ZNA (zip code at birth) is the blueprint for behavioral & psycho-social makeup." Indeed, zip code is a more powerful determinant of our lifespan than even our genetic code. Why is this? What are the factors involved? How should we make these insights actionable? What is reasonable to conclude about a patient's health based on the community in which they live (and what isn't)?

