Utilizing PHATE: A Population Health–Mapping Tool to Identify Areas of Food Insecurity

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THE INNOVATION

Family physicians have long recognized the importance of the social determinants of health, like adequate access to food, on a patient's health status. Many physicians, however, lack the tools needed to effectively address them.[1] At our health center we used a new population health-mapping tool to identify the geographic distribution of patients who screened positive for food insecurity.

WHO & WHERE

Greater Lawrence Family Health Center is a federally qualified health center located in Lawrence, Massachusetts, serving a predominantly underserved Hispanic patient population of over 60,000 per year. Since 2016, patients are screened for food insecurity with the "Hunger-Vital Sign," a 2-question survey.[2]

PHATE (Population Health Assessment Engine) was commissioned by the American Board of Family Medicine and built by the University of Missouri to allow practices to integrate clinical and social determinant data and improve population health by better understanding how geography affects health. This mapping tool allows users to view community characteristics, neighborhoods served by the clinic, disease and poor-quality hot spots, and relevant, local community organizations. It also creates a Community Vital Sign for each patient, using a neighborhood social deprivation index to assess patient risk for poor outcomes, such as mortality and diabetes.[3,4] The electronic health record (EHR) data come from the PRIME Reg-

istry, a qualified clinical data registry available to all primary care clinicians.[5] For practices not part of PRIME, many PHATE activities can still be performed. Readers interested in accessing PHATE can e-mail help@abfm.org for login information. PHATE is available at the following website: https://registry.theabfm.org/Dashboard/login.aspx.

HOW

Addresses of the 270 patients who screened positive for food insecurity between January and August 2018 on the Hunger Vital Sign were uploaded to PHATE from our EHR. PHATE maps the data enabling visualization of the neighborhoods where food insecure patients live (Supplemental Figure 1, available at http://www.AnnFamMed.org/content/17/4/372/suppl/DC1/), understanding of those neighborhoods' characteristics, and identification of local community resources for patient referral or collaboration on interventions.

LEARNING

PHATE has given us a better understanding of neighborhoods with greater risk of food insecurity in our local community. While the city of Lawrence has high overall rates of poverty and food insecurity, we are now able to target the areas with the most need. Next, we will investigate why these locations experience a differential burden and work with local community organizations to improve access to healthy food. Overall, PHATE is an easy-to-use population health tool that will enable clinicians and their practices to better identify and intervene on social determinants of health.

References

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