Geographies of Chronic Public Health Conditions: A regional and CCDPH analysis

# Background

This report maps measures of chronic health within the Chicago metro region and CCDPH’s jurisdictional area to gain a better understanding of both the geographic patterning of disease and the demographic characteristics of clusters.



# Study areas

The regional analysis is composed of eight counties including Cook, DuPage, Kane, Kendall, Lake (IL), McHenry and Will in Illinois and Lake (IN) in northwestern Indiana. Collectively, these counties span an area of 4,573 square miles (11,845 square kilometers) with a total population of 8.9 million (2018).

To compare the chronic health disparity area, we employ a multiscale and multidisease approach that utilizes three categories of geographies--census tracts; municipal and/or place boundaries; and county boundaries--and five measures of public health (Table 1). At the census tract level (N=4,629), we use global and local measures of spatial autocorrelation to identify a series of chronic disease clusters throughout the metropolitan area. These statistics are then evaluated to better understand both the relative intensity and spatial patterning of clustering across diseases and communities.

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| ***Figure 1a. Composite Prevalence Index (CPI)*** | ***Figure b. Crude Prevalence of Obesity*** |
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| ***Figure c. Crude Prevalence of Diabetes*** | ***Figure d. Crude Prevalence of Hypertension*** |
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| ***Figure e. Crude Prevalence of Obesity*** | ***Figure f. Crude Prevalence of Arthritis*** |
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*Data sources: CDC PLACES, 2020; ACS 5-year estimates 2015-2019; TIGER/Line files (2019)*