

# Targeting Healthy Development in Somerville and Cambridge

The social determinants of health, as defined by the World Health Organization (WHO), are the economic, environmental, and social conditions that determine individual and community health outcomes. Since the 1980s, the WHO has advanced its Healthy Cities initiative, defining a “healthy city” as one that is continuously striving to improve the social determinants of health through comprehensive changes in power and governance, the distribution of economic power, education, as well as strive for more equitable urban and regional planning decisions (WHO Healthy Cities website).

In 2007, the San Francisco Department of Public Health released the Healthy Development Measurement Tool (HDMT). The HDMT is the first comprehensive tool for developers, health promoters and urban planners to reintegrate public health and urban planning in order to create healthier communities. The tool provides a spatial analysis of over 100 community health indicators at the neighborhood level.

The analysis presented here is based on the community health indicators in the Healthy Development Measurement Tool. The block groups are given a score for each indicator: 4 represents the highest or “healthiest” score, while 1 represents the lowest or “unhealthiest” score. In addition to showing vulnerability, this spatial analysis also shows the block groups in which to target development to increase the residents’ health. The large map shows the cumulative score for each block group. The highest score possible is 32, though the highest score achieved in Cambridge and Somerville is 26. The cumulative map shows that the lowest-scoring block groups should be targeted for development that promotes and improves health.

## Indicators and Measurements

The first indicator is access to public transit networks, which is measured here as the mean distance to an MBTA node (per block group). The lower the block group average, the higher the score.

The second indicator is access to healthy foods, which is measured here in two ways. The first measurement is the mean distance to convenience stores (per block group). Convenience stores are known as “unhealthy businesses” since they often do not provide access to fresh foods. Thus, a small average distance to a convenience store receives a lower score because proximity to a convenience food store is seen as unhealthy. The second measure is the mean distance to supermarkets (per block group), which is considered a healthy business because it sells fresh foods like fruits and vegetables. Thus, in contrast to the convenience store measure, a smaller average distance earns a higher score. Access to unhealthy businesses is also measured by the mean distance to liquor stores. Like the convenience store measurement, a low score is an indicator of vulnerability to ill health.

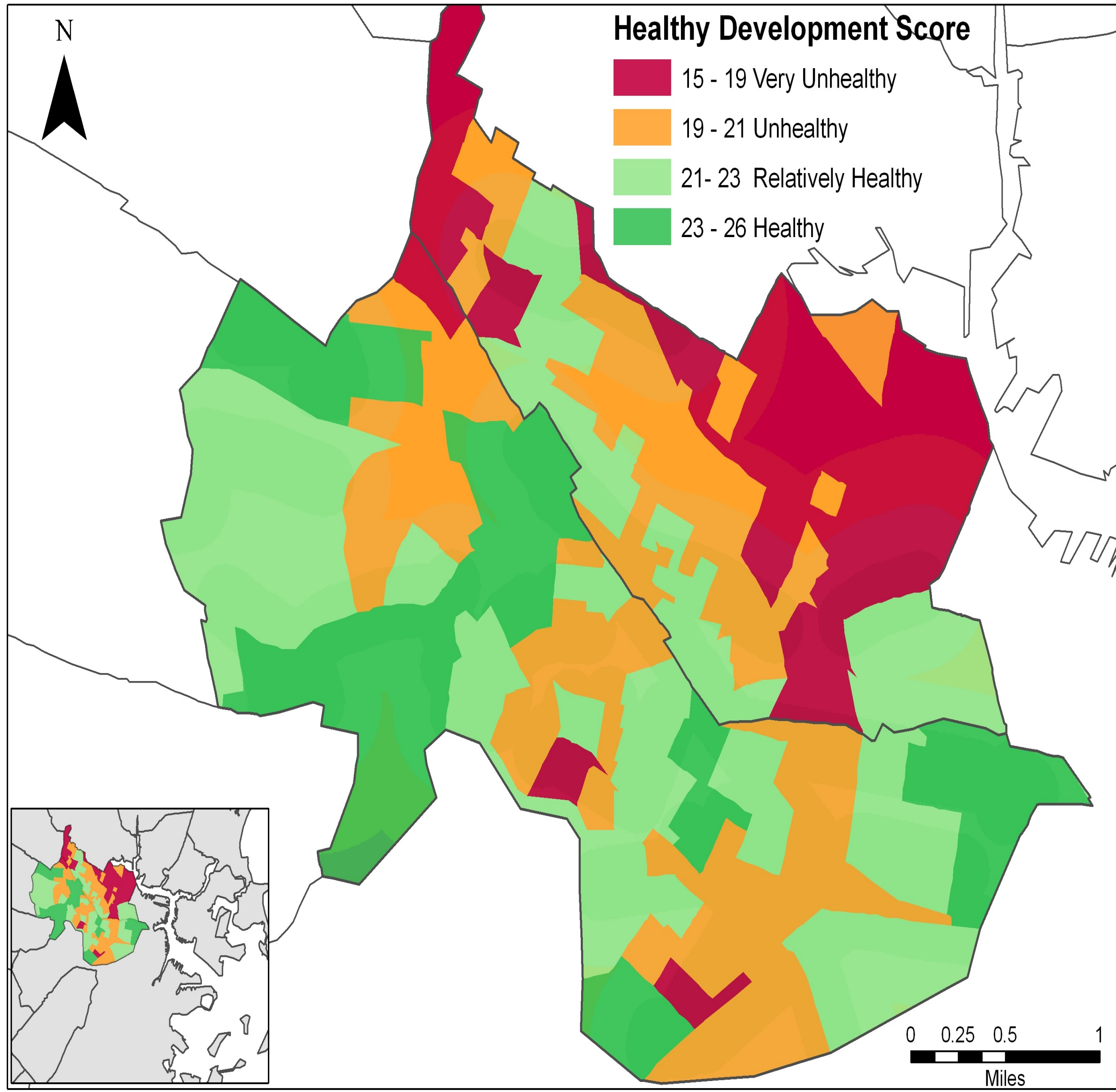
Access to active transit networks is a fourth indicator of community health. This is measured by the average proximity to designated bicycle lanes in Cambridge and Somerville (by block group). Block groups that are more proximal to the lanes receive a higher or healthier score.

A fifth indicator is access to healthcare services., which is measured by proximity to community health clinics. Block groups that are closer to community health clinics receive a higher or healthier score.

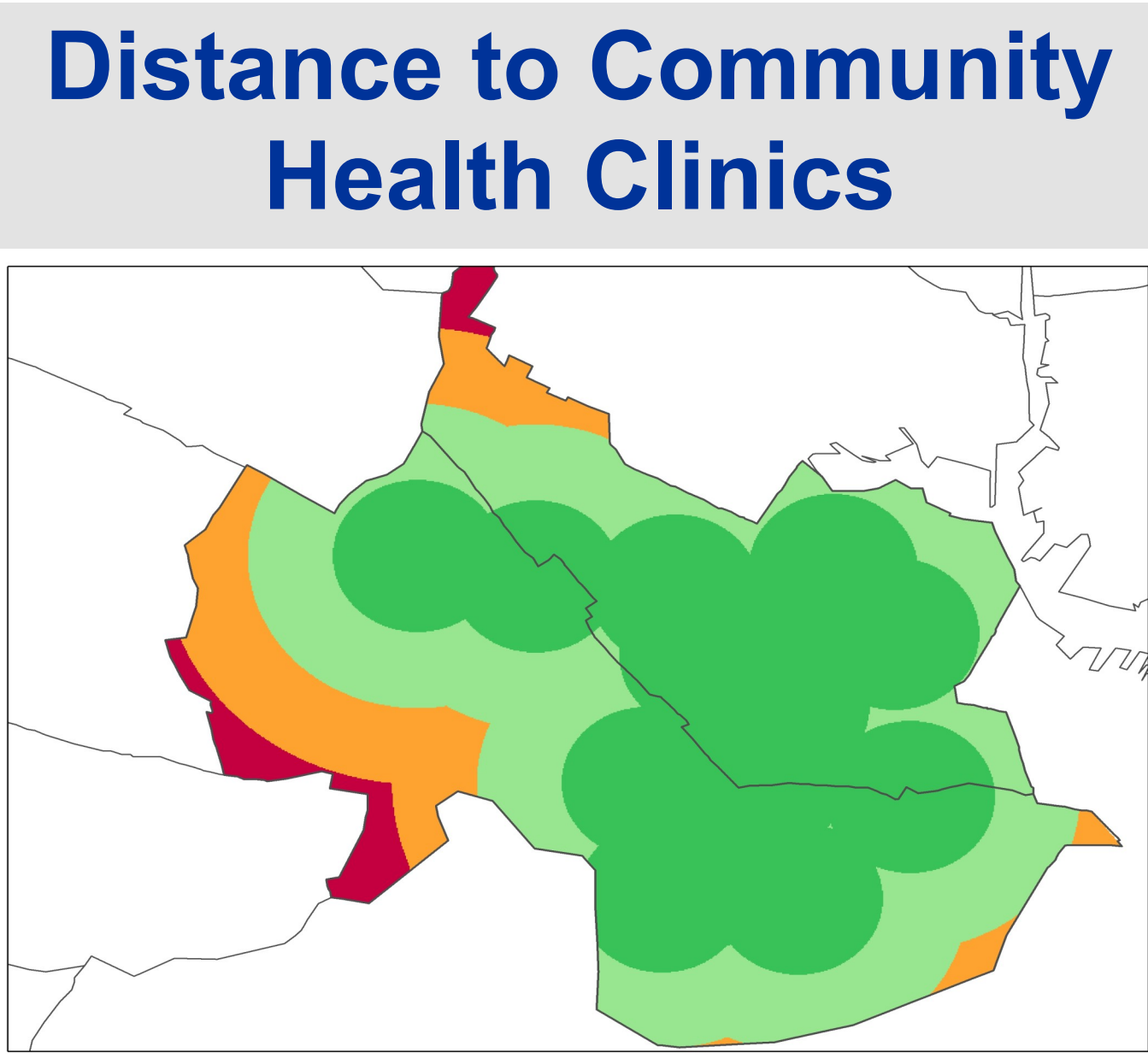
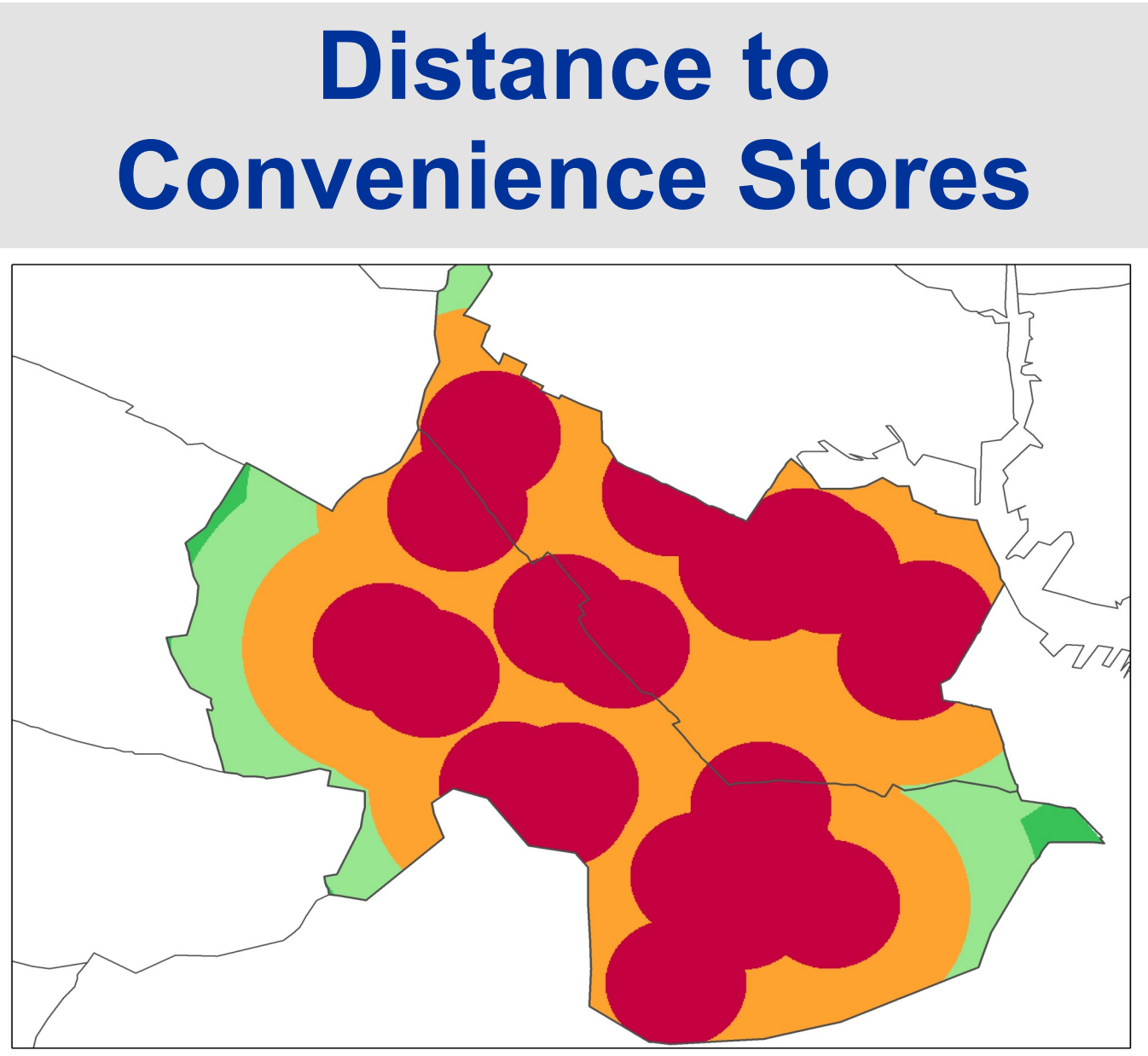
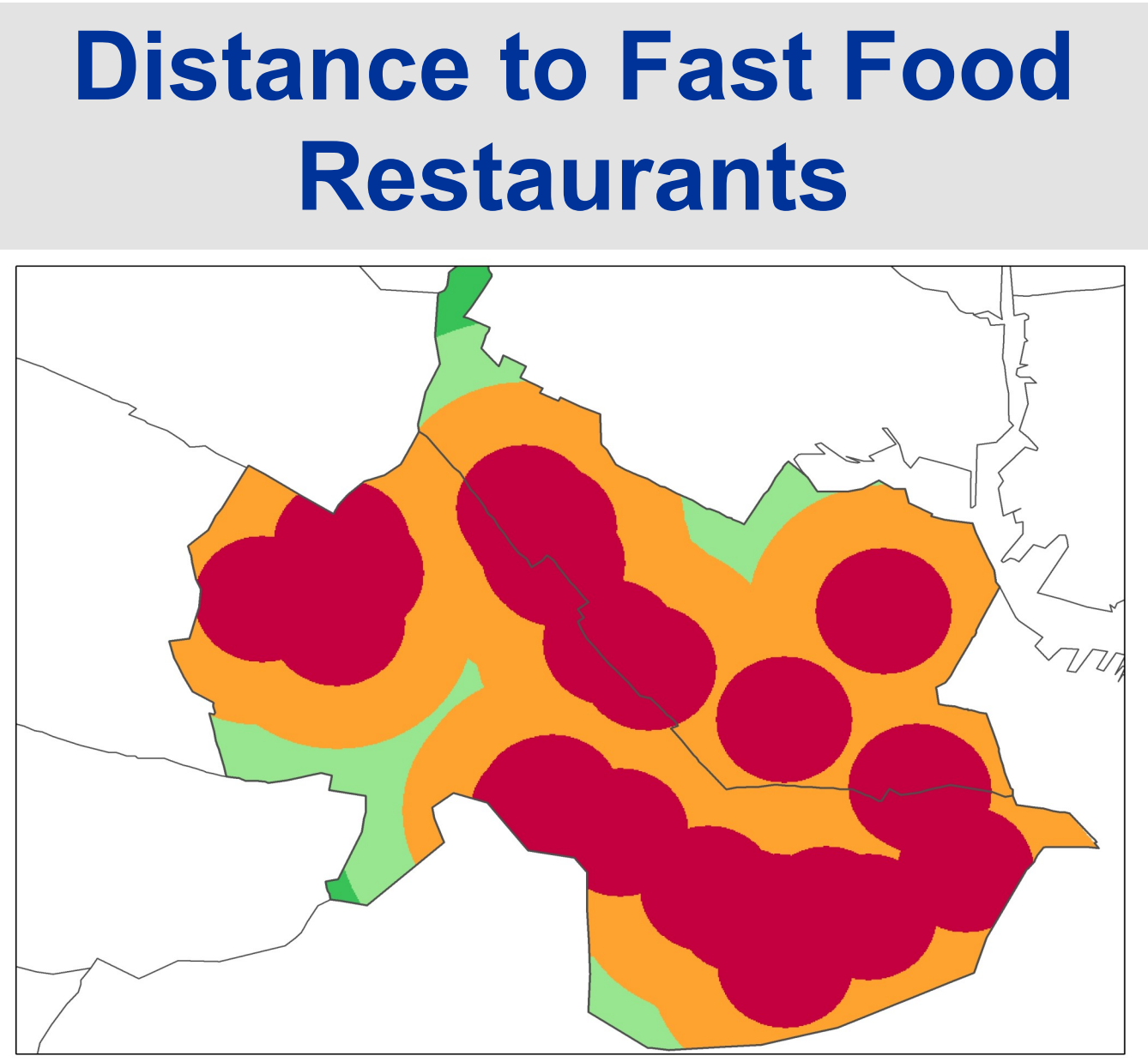
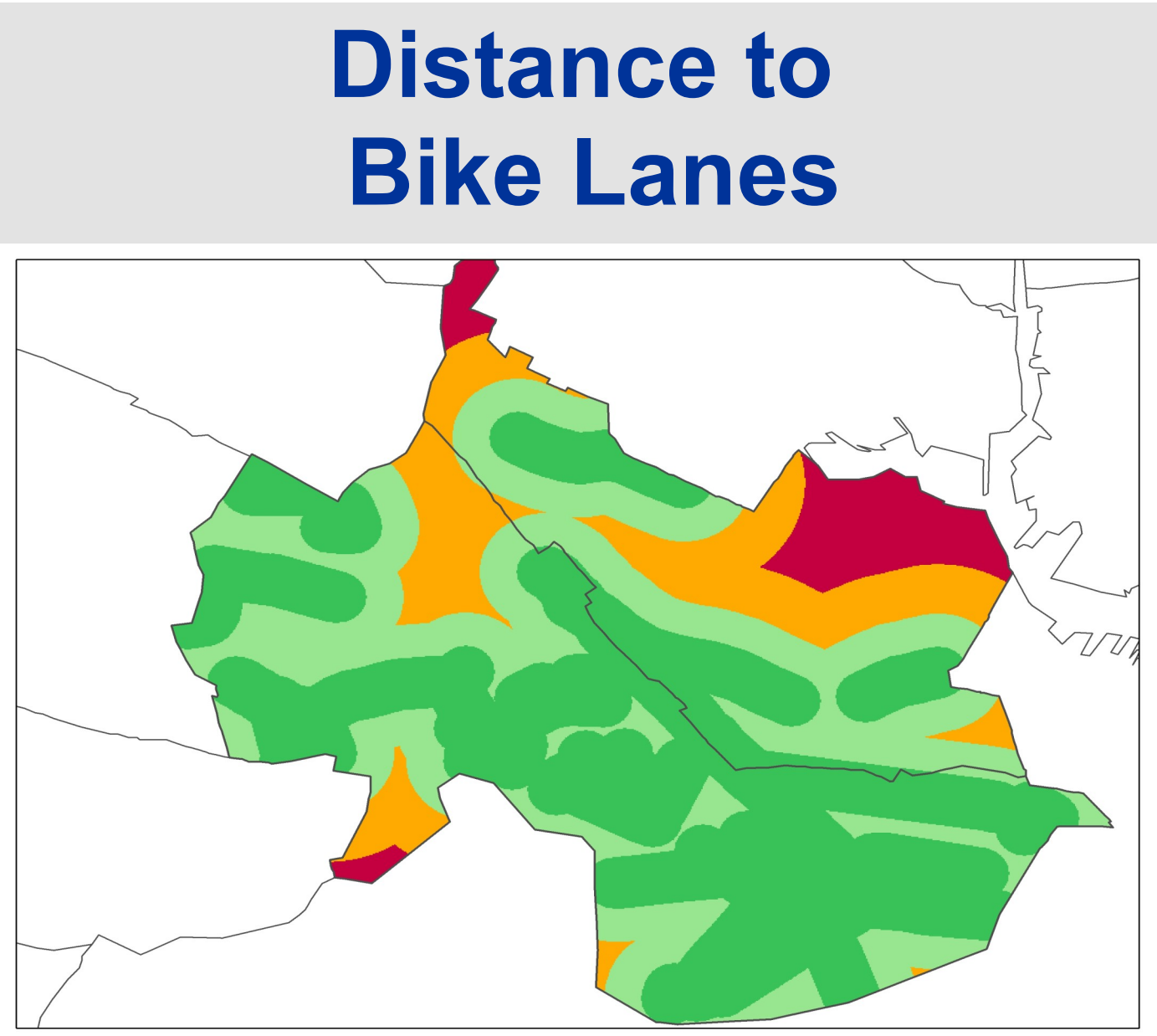
The final indicator category encompasses socio-economic and demographic information. This analysis measured socio-economic information in two ways. First, it measures the proportion of renter occupied housing per block group. The second measurement is of median household income at the same level of analysis.

Together, these measurements demonstrate the block groups that rank poorly or highly in terms of health. Those that rank lowest, shown in red, are most in need of development that promotes health, such as greater access to healthy food or better access to public transit nodes.

However, there is a need for more comprehensive analysis. This analysis uses only six indicators ( and 9 measurements) of over 100 possible community health indicators. Further analysis is needed to understand where and how to target healthy development in Somerville and Cambridge. in order to create healthier communities.



This map shows the cumulative score of health for each block group in Cambridge and Somerville. Of the 32 possible points, 26 was the highest score attained here. This means that *all* block groups need some level of healthy development. However, those ranked as “very unhealthy” scored near or below the median possible score, indicating that these areas should be prioritized for development that promotes healthier communities.



- Healthy
- Relatively Healthy
- Relatively Unhealthy
- Very Unhealthy

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Data Source: MassGIS, city of  
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Census2000  
Projection: NAD1983 State Plane  
MASS Mainland FIPS 2001  
Date: May 2010