

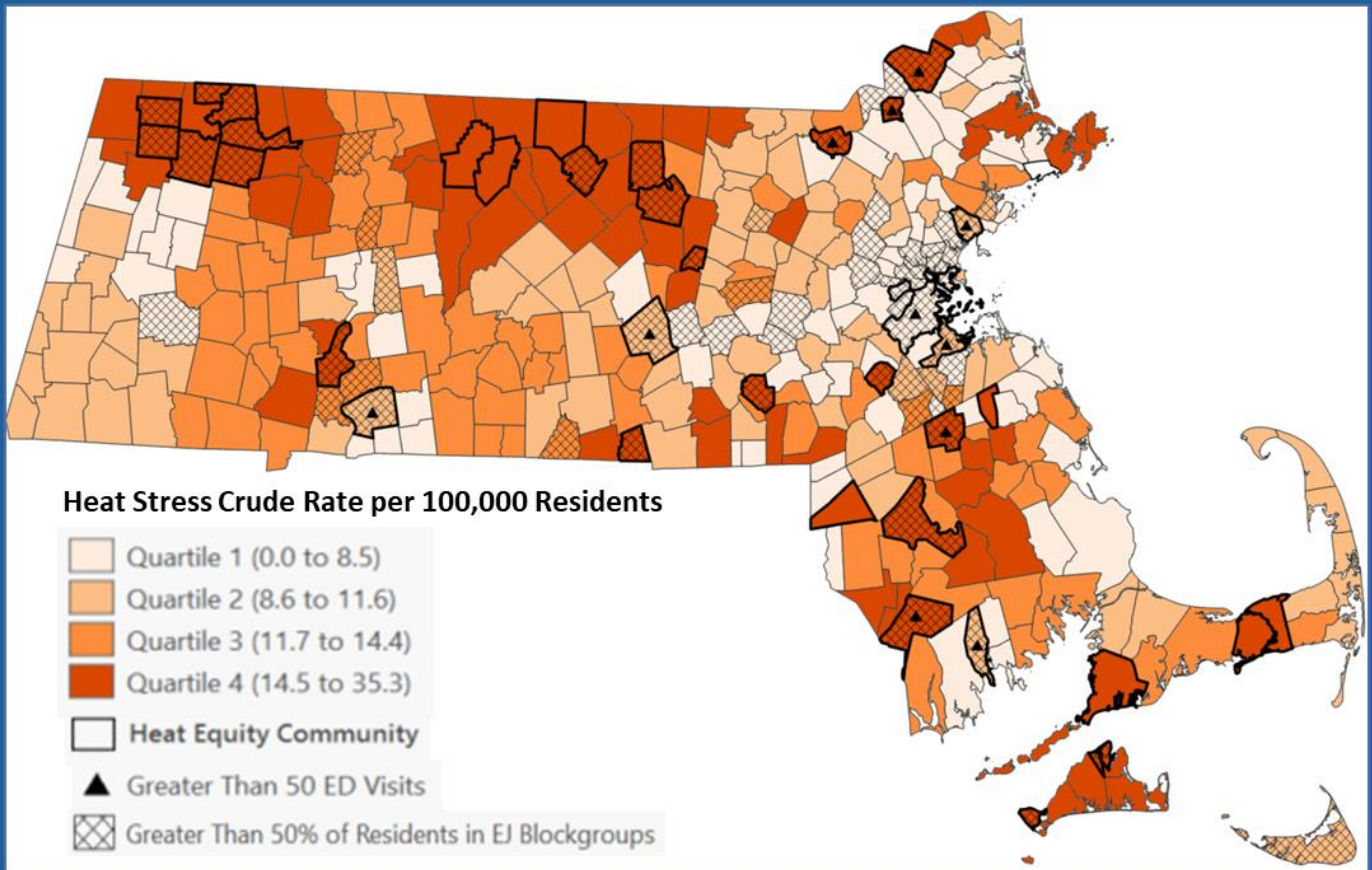
# Identifying and Engaging Heat-vulnerable Communities

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## MASSACHUSETTS HEAT EQUITY COMMUNITY MAP



### BACKGROUND

As climate change progresses, Massachusetts is experiencing more hot days and longer stretches of unhealthy heat.<sup>1</sup> On average, ~800 residents visited emergency departments for heat stress each year between 2017 and 2021.<sup>2</sup>

Understanding that living conditions, community infrastructure, and social determinants of health are known to contribute to the risk of heat stress emergency department visits<sup>3</sup>, we explored heat stress in the context of designated environmental justice and health equity areas.

### METHODS

This two-component analysis assessed data for demonstrated health burden and health equity. CSP calculated crude rates for heat stress emergency department visits per 100,000 residents for each city and town or DPH rural cluster in Massachusetts<sup>2,4</sup>. High Heat Stress communities were identified as those with high crude rates (top quartile or statistically higher than statewide) for, and/or high numbers ( $\geq 50$ ) of ED visits from 2017-2021. We then calculated the percentage of residents living in Massachusetts Environmental Justice (EJ) Blockgroups<sup>5</sup> for each city and town.

Heat Equity Community (HEC) inclusion criteria were: 1) high heat stress and 2) at least 50% of residents living in EJ Blockgroups or designation as an Advancing Health Equity in Massachusetts (AHEM) community.<sup>6</sup>

### RESULTS

From a total of 351 cities and towns in Massachusetts, this analysis identified:

- 94 as High Heat Stress communities
- 37 Heat Equity Communities

For the 37 HECs:

- 29 have 50% or more residents living in MA EJ Blockgroups;
- 22 are AHEM communities;
- 14 met both EJ and AHEM criteria

### DISCUSSION

High heat stress intersecting with health and social equity challenges is a statewide issue. Heat Equity Communities in Massachusetts include large and small cities and towns in both urban and rural settings.

CSP staff have contacted local health and planning officials in these cities and towns. With assistance from the Office of Health Equity, CSP is identifying community organization contacts in HECs with the goal of raising awareness of heat risks and providing heat alert messaging, data and technical assistance to reduce heat-related health impacts.

### REFERENCES

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