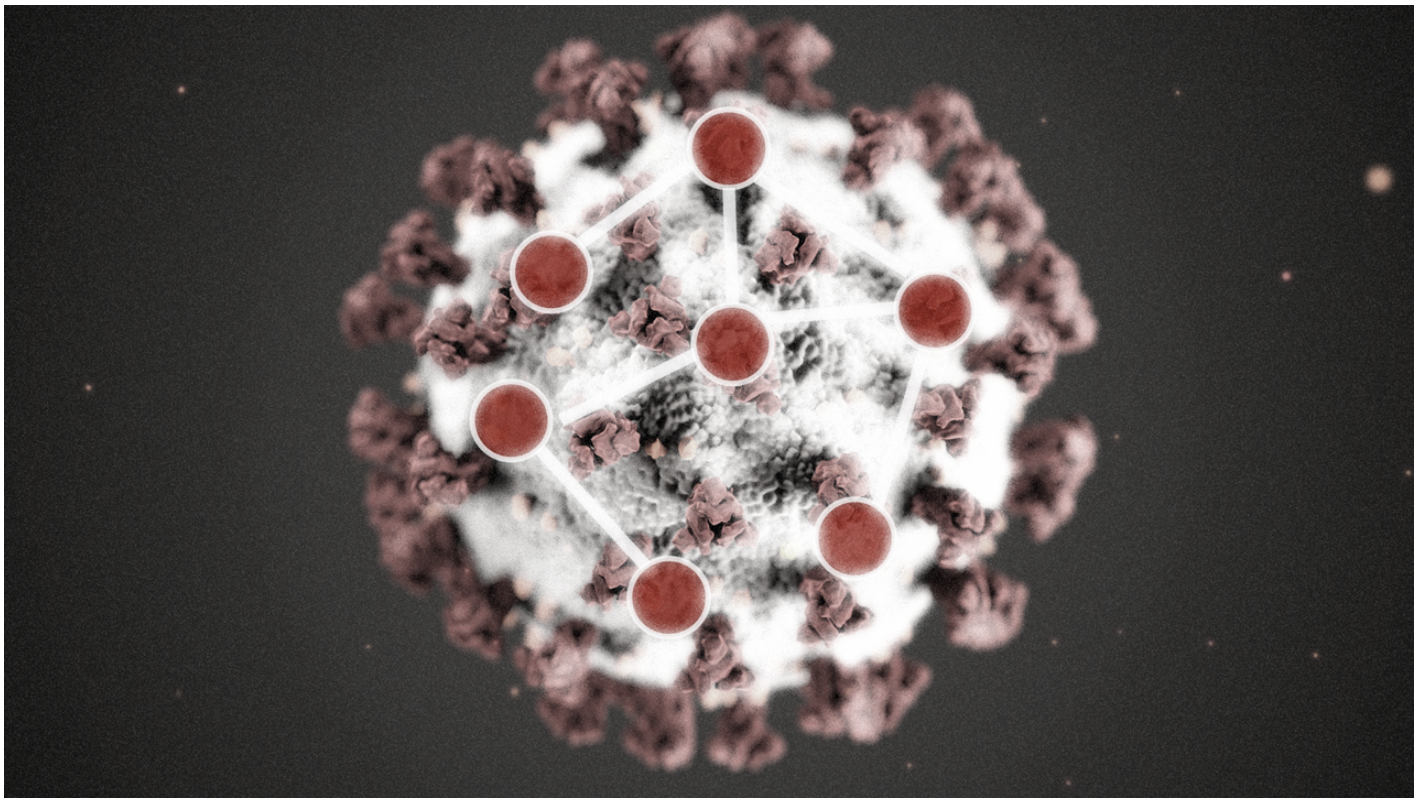

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THE STATE OF THE NATION:
A 50-STATE COVID-19 SURVEY
REPORT #24: THE TRAJECTORY OF HEALTH-RELATED BEHAVIORS IN MASSACHUSETTS

USA, November 2020

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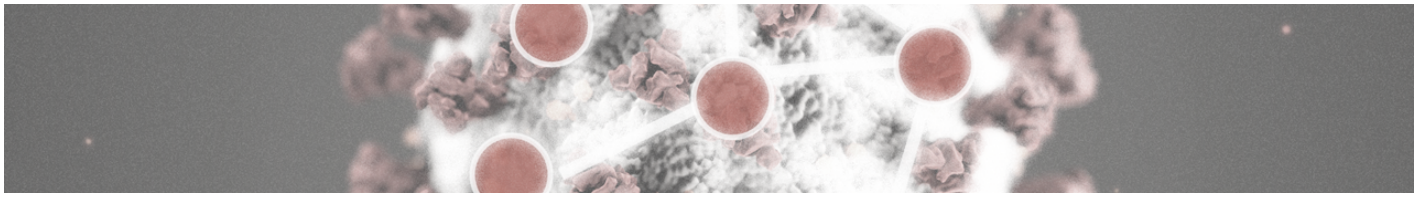

Report of November 13, 2020, v.1

***From*:** The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States

A joint project of:
Northeastern University, Harvard University, Rutgers University, and Northwestern University

Authors: David Lazer (Northeastern University); Mauricio Santillana (Harvard Medical School); Roy H. Perlis (Harvard Medical School); Matthew A. Baum (Harvard University); Katherine Ognyanova (Rutgers University); James Druckman (Northwestern University); Alexi Quintana (Northeastern University); Matthew Simonson (Northeastern University); Adina Gitomer (Northeastern University); Jon Green (Northeastern University); Hanyu Chwe (Northeastern University); Jennifer Lin (Northwestern University), and Ata A. Uslu (Northeastern University)

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COVER MEMO

Summary Memo — November 13, 2020

The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States
Partners: Northeastern University, Harvard University/Harvard Medical School, Rutgers University, and Northwestern University

Authors: David Lazer (Northeastern University); Mauricio Santillana (Harvard Medical School); Roy H. Perlis (Harvard Medical School); Matthew A. Baum (Harvard University); Katherine Ognyanova (Rutgers University); James Druckman (Northwestern University); Alexi Quintana (Northeastern University); Matthew Simonson (Northeastern University); Adina Gitomer (Northeastern University); Jon Green (Northeastern University); Hanyu Chwe (Northeastern University); Jennifer Lin (Northwestern University), and Ata A. Uslu (Northeastern University)

From April through October, we conducted eight waves of a large, 50-state survey, some results of which are presented here. You can find previous reports online at covidstates.org.

Note on methods:

Over eight survey waves, we polled 119,755 individuals across all 50 states plus the District of Columbia. The data was collected between April and October 2020 by PureSpectrum via an online, nonprobability sample, with state-level representative quotas for race/ethnicity, age, and gender. In addition to balancing on these dimensions, we reweighted our data using demographic characteristics to match the U.S. population with respect to race/ethnicity, age, gender, education, and living in urban, suburban, or rural areas. The data collection period for each included survey wave follows here. Late April Wave: 4/17/20-4/26/20, Early May Wave: 5/2/20-5/15/20, Late May Wave: 5/16/20-5/31/20, Late June Wave: 6/12/20-6/28/20, Late July Wave: 7/10/20-7/26/20, August Wave: 8/7/20-8/26/20, September Wave: 9/4/20-9/27/20, October Wave: 10/2/20-10/25/20.

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The trajectory of health-related behaviors in Massachusetts

This report summarizes the trajectory of individual behaviors in Massachusetts related to the spread of COVID-19 - that is, the way individual behavior has changed over the past 7 months in the Commonwealth. These summaries are based on a large-scale survey that our team has regularly conducted in all 50 states since April of this year.

Background

The backdrop of this report is that the current trajectory of COVID-19 in Massachusetts is deeply worrisome. After dropping to a low of 200 cases per day in early July, the pandemic has resurged with a vengeance. Rates of new daily cases roughly doubled between July 1 and October 1, then again from October 1 to November 1, then again – *in just 10 days* – from November 1 to 11, reaching well over 2000 cases a day. If the current growth rate persists, the case counts would exceed 10,000 per day by December. Such numbers will eventually result in many hospitalizations and deaths, and a general caseload that would dramatically and adversely affect healthcare across the board, as Massachusetts hospitals would be under enormous pressure.

The good news, and the bad news, is that human behavior is likely driving the resurgence. This means that infections need not continue to explode in Massachusetts, but also that real changes in behavior (and policy) may be required to bring it back under control. Thus, for example, it is clear that indoor proximity between people, especially in poorly ventilated spaces, is a key enabler of the spread of the disease. Recent research published in *Nature* utilizes cell phone data to highlight the critical role that restaurants and gyms played in spreading the disease this past spring. Winter months will only accentuate how often we are near one another inside, and the holidays pose a particular risk for accelerating the spread. Indeed, the approaching holidays make this precisely the right time to get serious about behavior change — the risk, but also the opportunity, is undeniable.

The increase is by no means limited to Massachusetts—cases nearly everywhere in the US have skyrocketed during this same time. Someone dies of the disease in the US every minute, and this number will increase in the coming weeks. Europe, which responded so aggressively in the spring, now has more cases than the US, and in late October, countries such as Germany, initially very successful at containing COVID-19, began "wave-breaking" shutdowns. Massachusetts is on a similar trajectory, just lagging a few weeks.

Findings

The critical question we address in this report is how have behaviors changed during the pandemic? **Our data confirm a substantial relaxation of many of the behaviors that helped slow the spread of the disease in the spring** (see Figures 1 and 2). For example, take restaurants: in April and May, in Massachusetts, fewer than 5% of respondents reported going to a restaurant in the preceding 24 hours. This number rose to 15% in October. For other kinds of proximity to non-household members in enclosed spaces, the number of people taking part doubled from 22% in April to 45% in October—i.e., twice as many respondents said they had been close to non-household members. Going to a gym jumped from less than 1% to 7%. These patterns are not just the result of individual choices, but of policy decisions, since many of these establishments were closed in the spring.

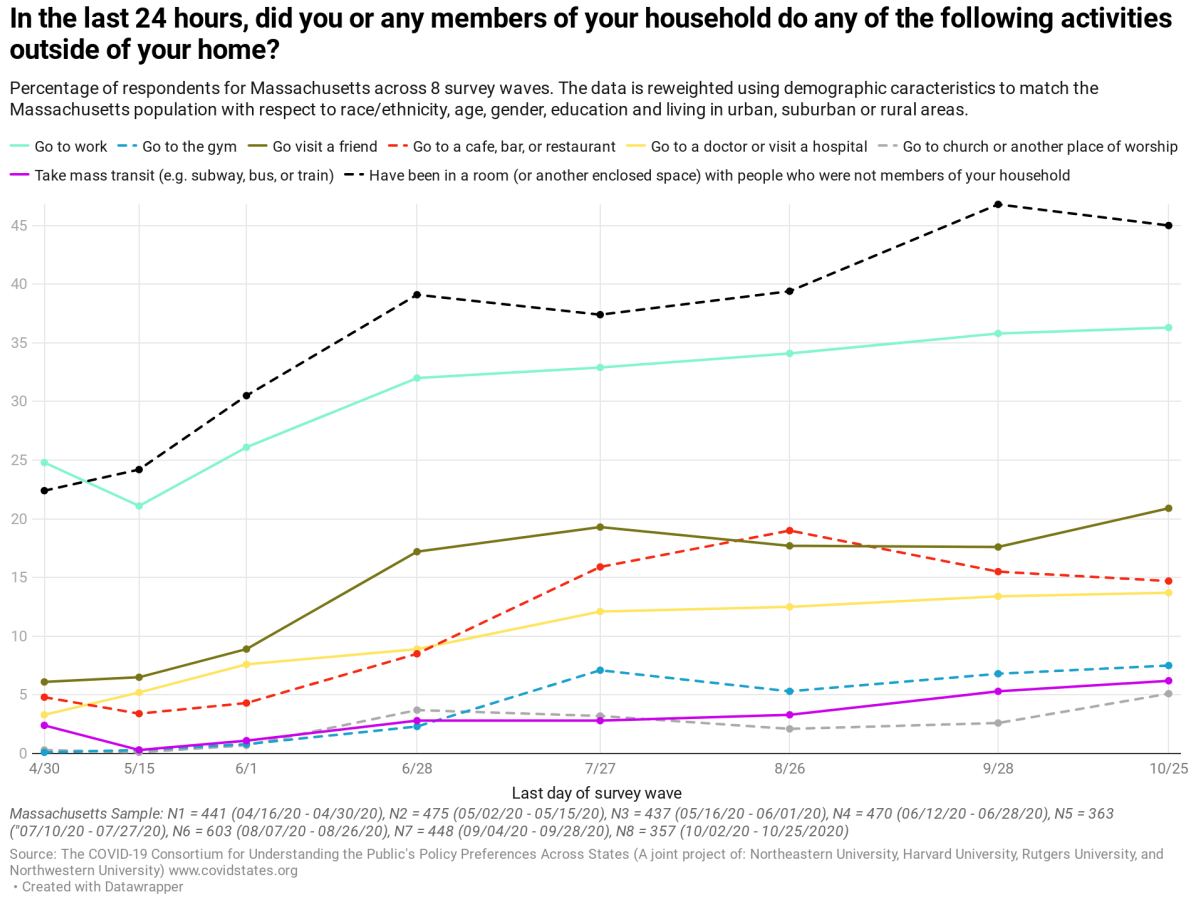

Figure 1. Activities outside the home, over time in MA

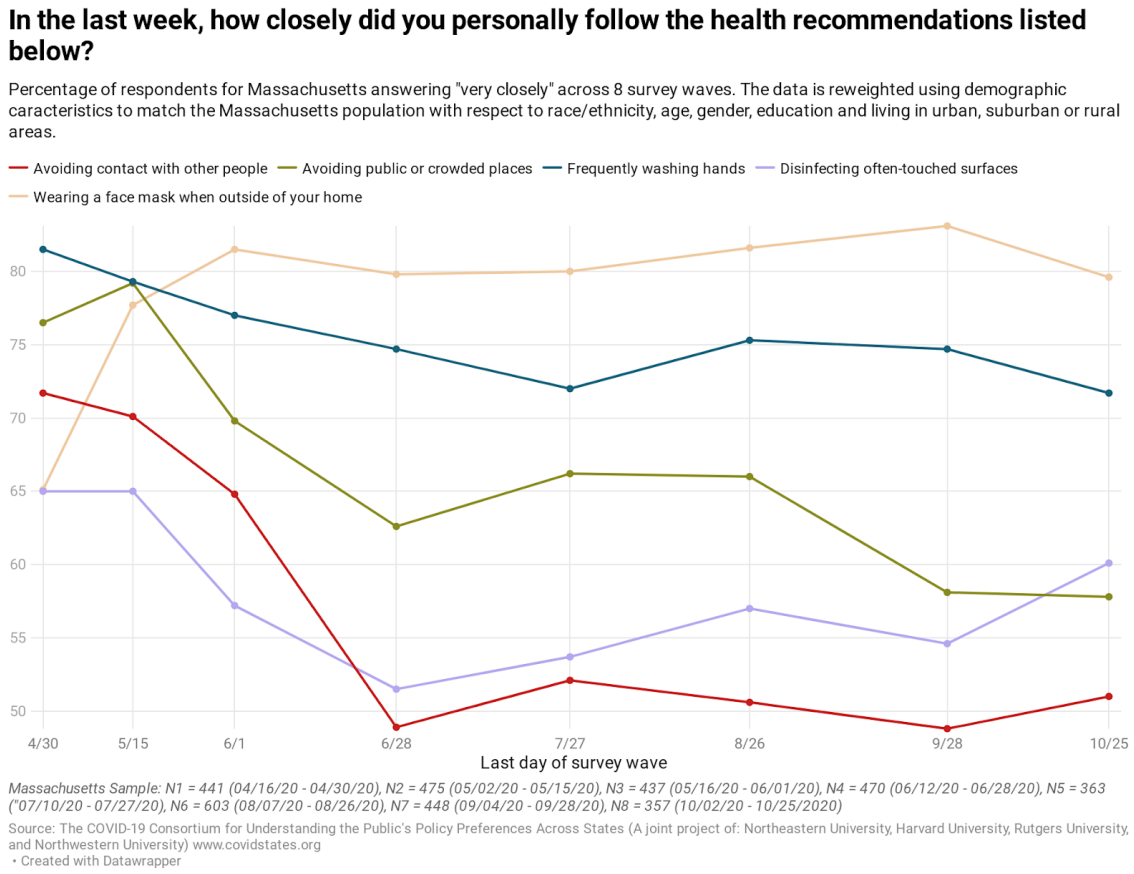

Figure 2. Following key health recommendations, over time in MA

The one important exception to this trend is mask wearing, which has increased, with Massachusetts reporting among the highest levels of adherence anywhere in the country, at about 80% very closely following mask-wearing guidelines. Still: despite all of the experience in the spring, and all of the efforts at educating the public about wearing masks, 1 in 5 respondents continue to report that they are not very closely following guidelines regarding wearing masks. Note also that activities we now recognize to be relatively safe have also increased. For example, "going to a park" has increased from 4% of respondents in April, to 14% in October, and dog walking has remained constant at about 20% of our respondents throughout. Unfortunately, the winter will reduce the former, and make the latter less pleasant. The natural tendency will be for indoor proximity to increase.

The effectiveness of behavior changes in crushing the curve in the spring, and the apparent importance of restaurants, gyms, and other settings that people congregate, highlights the potential for aggressive policy interventions to change our behaviors to reduce the spread. It is unlikely that the current measures of the Massachusetts government will substantially bend the growth curve of the disease. Indeed, it is possible that some measures, such as limiting the hours restaurants are open, might actually make matters worse, because it may result in more people being in a restaurant at any given hour. More aggressive action now might avoid more draconian measures later, when our hospitals are beyond capacity.