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Introduction

The COVID-19 pandemic began to impact Massachusetts, Rhode Island, and New Hampshire in late February and early March of 2020, and has quickly transformed our way of life. As of the writing of this paper, states across the country are under stay-at-home orders, and the national case count has exceeded 605,000¹.

While much is still unknown about the ultimate trajectory the pandemic will take, we have begun to identify a series of trends and expected milestones that will likely

mark progress of the pandemic over the next several years. The objective of this paper is to outline Tufts Health Plan's Commercial Health Insurance division's perspective on the impact of COVID-19 on health care utilization and how we can expect utilization to change as we move through the different phases of the pandemic. All information in this paper should be considered directional, as data available to date is insufficient to support any explicit forecasts.

Progression of Health Care Services Utilization Over Time

Experts have identified four distinct phases of COVID-19 progression², with movement from one phase to the next made possible by the evolution of available clinical responses, including widespread testing; a potential treatment; and ultimately a vaccine. The four phases are also distinguished by their relative impacts on the health care system.

PHASE 1: Flattening the Curve

The current phase of the pandemic is characterized by continued community spread of COVID-19 and the lack of an approved therapy. Without a medical treatment available at this time, the U.S. is engaged in a practice of mass social distancing, enforced across the country by stay-at-home orders, curfews, and restrictions on group gatherings.

Health care system utilization changes during this phase have centered around making hospital capacity available for the expected surge of COVID-19 cases. Early pandemic models³ indicated an alarming dearth of inpatient and ICU beds in many cities relative to the expected case and hospitalization counts. In order to avoid widespread care rationing, hospitals across Massachusetts, Rhode Island, and New Hampshire have canceled or rescheduled most elective procedures and preventive care visits and screenings. It is possible that during this period some patients who require high levels of health system contact may not have access or may choose not to engage, which could lead to downstream utilization impacts as conditions increase in acuity.

Other utilization changes include a dramatic increase in telehealth utilization as people seek screenings for suspected COVID-19 symptoms and attempt to avoid visiting provider offices for non-emergent medical care or for behavioral health care. Significant increase in adoption of telehealth channels by providers is also shifting care away from the office setting.

As this phase continues, we expect to see increased need for behavioral health services, driven primarily by the mental and emotional impacts of social distancing and isolation. Additionally, some traditional approaches to behavioral health care are difficult to transition to a telehealth format, possibly leading to increased symptoms and a subsequent need for more intensive treatment.

PHASE 2: Treatment & Widespread Testing

While we cannot yet know the exact nature of the earliest therapies that will emerge to treat COVID-19, we expect that they will reduce disease acuity for many patients, thereby decreasing the number of people requiring inpatient hospital stays, ventilators, and ICU admission. To date, a number of drug candidates have entered into clinical trials, including antivirals, monoclonal antibodies, immune system modulators, and targeting RNA factors⁴.

Over the last several days, there appears to be some indication that widespread social distancing policies have been working and are likely to result in a reduction in hospitalizations even before a COVID-19 therapy becomes available.

Given the expected success of social distancing, it is likely that we will move into Phase 2 of the COVID-19 pandemic before a treatment is approved. Our ability to make this earlier move will be driven by hospitals having the capacity to treat all new COVID-19 patients and the ability to conduct rapid testing of new infections and to quickly triage and isolate those with COVID-19.

Once we reach these milestones, we expect to see a phased reentry into public life, likely on a regional basis, with a transition from mass to targeted social distancing aimed at the continued protection of those at high-risk for COVID-19 complications. During this period, we expect elective and preventive procedures to remain suppressed, and we expect increased telehealth and behavioral health utilization to remain elevated over pre-COVID-19 levels.

PHASE 3: Preparation

Following our initial return to public life, we will enter Phase 3 of the pandemic. This phase will primarily consist of a continuation of Phase 2, though at this point we would hope that there would be one, if not multiple, medical therapies available for COVID-19.

Depending on the duration of Phase 2, it is also possible that Phase 3 will be characterized in part by patients that had preexisting, chronic conditions prior to the pandemic requiring services for flare ups or increased acuity due to the low levels of health system contact they experienced during social distancing.

During Phase 3, we also expect some health system capacity to become available for elective and preventive services. These services will likely be scheduled based on urgency as providers attempt to clear the backlog of

demand that accumulated during earlier phases of the pandemic.

There have been some indications that providers will operate with extended hours in an effort to recoup financial losses and provide care to those in need. However, providers have not yet confirmed this possibility or issued plans or policies regarding utilization eligibility. There is also the possibility that patients will be reluctant to visit provider offices even after isolation guidelines are lifted.

Phase 3 will endure until we have developed and manufactured a vaccine for COVID-19, a process that is expected to take between 12 and 24 months, if not longer⁵. Given the time horizon for movement to Phase 4, we will have the time and opportunity in Phase 3 to conduct an evaluation of our pandemic response.

During this time, we expect stakeholders across the health care industry to engage in an assessment of our collective pandemic response, identifying areas in which we thought we performed well, changes we made that we believe should persist, and investments we can make to ensure our preparedness for a possible wave 2 of COVID-19 or any future pandemics.

Through a coordinated evaluation of the actions we have taken in the face of COVID-19, we can maximize our community's ability to respond to an event such as this should the necessity arise again.

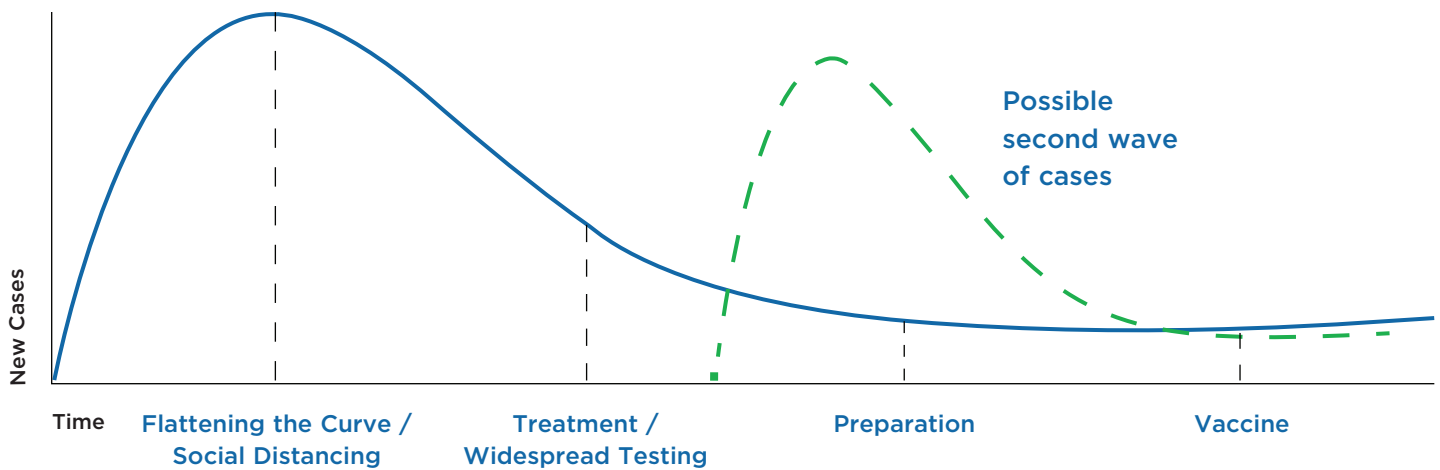
PHASE 4: Vaccine

The development and manufacturing of a broadly-available vaccine will mark the transition to the fourth and final phase of the COVID-19 pandemic.

During Phase 4, we expect a return to pre-COVID-19 rates of inpatient and ICU utilization. We expect providers to increase capacity for elective and preventive services, which could accommodate a rebound in utilization that exceeds pre-COVID-19 rates.

We expect to see the elevated use of telehealth as a percent of overall provider visits persist. Providers that are newly equipped to provide tele-services continue to do so, and patients who registered for telehealth during the pandemic and saw the benefit will incorporate it into their channels of care.

We also expect that some of the patients who began to receive behavioral health services during the pandemic will continue to receive those services, leading to slightly higher volume in the behavioral health system than existed prior to COVID-19.



Impact on Cost

Though many of the health care utilization trends related to COVID-19 are identifiable at this early phase of the pandemic, their magnitude, timing, and duration are not yet known. It is this set of considerations that will ultimately dictate the overall cost impact of COVID-19.

While the primary challenge to understanding and forecasting costs is a lack of data on the trajectory of the pandemic, the data that we do have presents its own issues. Specifically, many of the providers caring for COVID-19 patients have constricted bandwidth, leading to delays in claims submission and incomplete information. Further, much of the early COVID-19 testing was conducted and paid for by state labs or the CDC, reducing the information from which we can extrapolate overall costs of testing.

As the pandemic continues and claims come in with a more regular cadence, we expect to develop a clearer understanding of the cost of testing and treatment.

One caution is that cost of COVID-19 treatment is predicted to be followed by a significant uptick in preventive and elective services. The timing of this increase and the provider capacity are both difficult to predict. In addition, any second wave of infections will alter both the COVID-19 costs and the re-emergence of other services.

Looking Forward

Though we cannot know the long-term impacts of COVID-19 at this time, we do expect there to be some lasting changes to the health care system.

One change that is likely to persist following the COVID-19 pandemic is the increased utilization of telehealth services. During this period of social distancing, both patients and providers have developed increased levels of comfort with telehealth and other digital tools and are garnering first-hand experience with the advantages of at-home care. Over time, we think that these experiences will lead to an enduring shift in the perceived value of telehealth as an integral channel for non-emergent medical and behavioral health care.

Another likely outcome is the increased acceptance of non-emergency room sources of urgent care. Off-hour primary care provider calls and urgent care clinics use will likely rise, as well. This new acceptance, coupled with the expected extension of provider office hours post-social distancing, should increase access for patients.

Finally, the COVID-19 pandemic has the potential to create lasting improvements in health system interoperability, as providers, payers, public health professionals, and policymakers have been forced to cooperate in the face of a global healthcare disaster. It is possible that some of the communication channels and work streams created across organizations could persist, leading to improved health care quality and availability in the future.

In conclusion, while what we know is still limited by needed data, what we intuit from our decades as a health plan is that there will be lasting changes to the health care system as to how we deliver care, seek care and work together to achieve better care.