The War on COVID-19

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Have assembled a team of experts to help operationalize the White House “Opening America” framework

Executive Summary: The War on COVID-19

- **Global cases & deaths continue to rise. Mitigation efforts have led to some level of "flattening", but with severe economic consequences**
  - The US new daily cases are beginning to decline, but still account for 1/3 of global daily new cases
  - MA new daily cases still high, but are seeing frequent periods of declining. Hospital ICU beds only ~50% filled
  - JP Morgan estimating Q2 GDP down ~40% QoQ. MA unemployment ~2x the GFC, with low income workers particularly hard hit
- **Determining when to re-open is dependent on modeling out "supply and demand"**
  - Key supply considerations include availability of beds and healthcare workers (taking into account burden of other illness/need) and therapeutic availability and effectiveness
  - Key demand considerations include a manageable current new case trajectory ("flattened curve"), confidence in ability to track case counts, and anticipated effectiveness of segmentation & worker safeguards
- **If reopening causes a demand imbalance, risk a rolling lockdown scenario**
  - 1918 Spanish Flu data warns of opening too early or with too little preparation – could result in a second, larger spike in cases than the first
  - Spain re-opened once COVID-19 cases reached 20% of their prior peak, but was still too soon – cases rapidly rose and Spain was forced to shut again
- **Critical to design a "back-to-work" plan that does not overload hospitals and keeps people safe**

We can defeat COVID-19 by implementing: (1) strategic population segmentation, (2) effective therapeutic treatments and longer term a vaccine, (3) full adoption of R_T reduction protocols

Source: US Department of Labor, Google

COVID-19 History & Economic Impact: Summary

- Global **cases and deaths continue to rise**, but the US & Europe may be in the **early stage of "flattening"**
- COVID-19 is particularly serious because of its **high hospitalization & death rate** and **high rate of spread (R_0).** Unmitigated spread can quickly overwhelm hospitals
- While mitigation efforts are contributing to the early curve "flattening," they will have a dramatic economic impact in the U.S., with some analysts forecasting **Q2 GDP declines 2-3x that of the great depression**
- **Workers earning less than $40K/year** and employed by **small businesses are most vulnerable**

Mitigation efforts are aiding in the fight against the virus, but are also having a significant impact on the economy, and impact is most severe in low income workers

Source: Bain Capital Partners Analysis

When to Return to Work: Summary

- **Building a dynamic hospital capacity / demand model** based on current infection rate and system readiness for reopening critical to determining when to return to work

- MA new daily cases still trending **around peak**, although have shown signs of "flattening." Managing hospital capacity well so far, with **ICU beds only ~50% filled** with COVID-19 patients

- However, **critical to not reopen too soon** – a demand imbalance could lead to a second peak more severe than the first, as evidenced by St. Louis' re-opening during the 1918 Spanish Flu

Need to focus on developing policies and protocols to keep hospital capacity balanced with demand and minimize the risk of another lockdown

Source: Bain Capital Partners Analysis

The Key 3 Steps to Achieve Hospital Balance & Worker Safety

Segmentation: Sequence segments returning to work according to risk to lower hospitalization rate

Effective Therapeutics: While waiting for vaccine, implement effective treatments to curb hospitalization rate & fatality rate

Reduce R_T: Implement policies & procedures to reduce the rate of spread

Source: Bain Capital Partners analysis

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Timing & Hospital Capacity Constraint Model
Build a dynamic hospital capacity / demand model based on current infection rate and system readiness

Segmentation
Implement segmentation model, sequencing segments returning to work according to risk and ability to safeguard

- **Co-living**
  Develop guidelines for high risk segments living with segments returning to work
- **Enablers**
  Develop guidelines for back-to-school (including childcare) and transportation

Treatment
Identify and rapidly deploy effective therapeutic treatments and longer-term a vaccine

- **Therapeutics**
  While waiting for vaccine, implement effective treatments to curb hosp. rate
- **Vaccine**
  Accelerate vaccine development & prepare for deployment at-scale

Reduce R_T
Implement policies & procedures to reduce the rate of spread

- **Workplace Norms**
  Develop workplace norms to minimize reoccurrence
- **Testing & Tracing**
  Develop massive testing & tracing plan to be used to identify & contain virus spread

United we will win the war against COVID-19

Source: Bain Capital Partners analysis