



Effects of a Resurgence in COVID-19 Cases on Future Pharmaceutical Business Planning

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EXECUTIVE SUMMARY

Fears have arisen regarding a resurgence in COVID-19 cases. Health experts are not sure what is causing a spike in infections occurring in certain areas around the country. The recent resurgence in COVID-19 cases in 33 states have health experts concerned and will undoubtedly cause challenges as states try to reopen their economies. Federal Reserve Chairman Jerome Powell noted continued challenges and uncertainty regarding the US economic recovery from the worst recession since the Great Depression in a June 10, 2020 press conference. Financial markets negatively reacted to all this news on June 11, 2020 with averages across the board significantly falling - DJIA (-6.9%), S&P 500 (-5.9%), and NASDAQ (-5.3%). This white paper analyzes the most likely scenario for a US economic recovery from this COVID-19 induced recession and what this means for future pharmaceutical business planning.

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Given the dynamic nature of this pandemic, please subscribe to the *Axtria Research Hub* (<https://www.axtria.com/axtria-research-hub-pharmaceutical-industry/>) for updates to this white paper and related postings.

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Dow Falls 1,800 on Virus Worries.

Headline of the lead article published the day after market averages plummeted on June 11, 2020 on new coronavirus worries, *The Wall Street Journal*, June 12, 2020¹

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1. A Resurgence in COVID-19 Cases

1.1 Markets React to a Resurgence in COVID-19 Cases

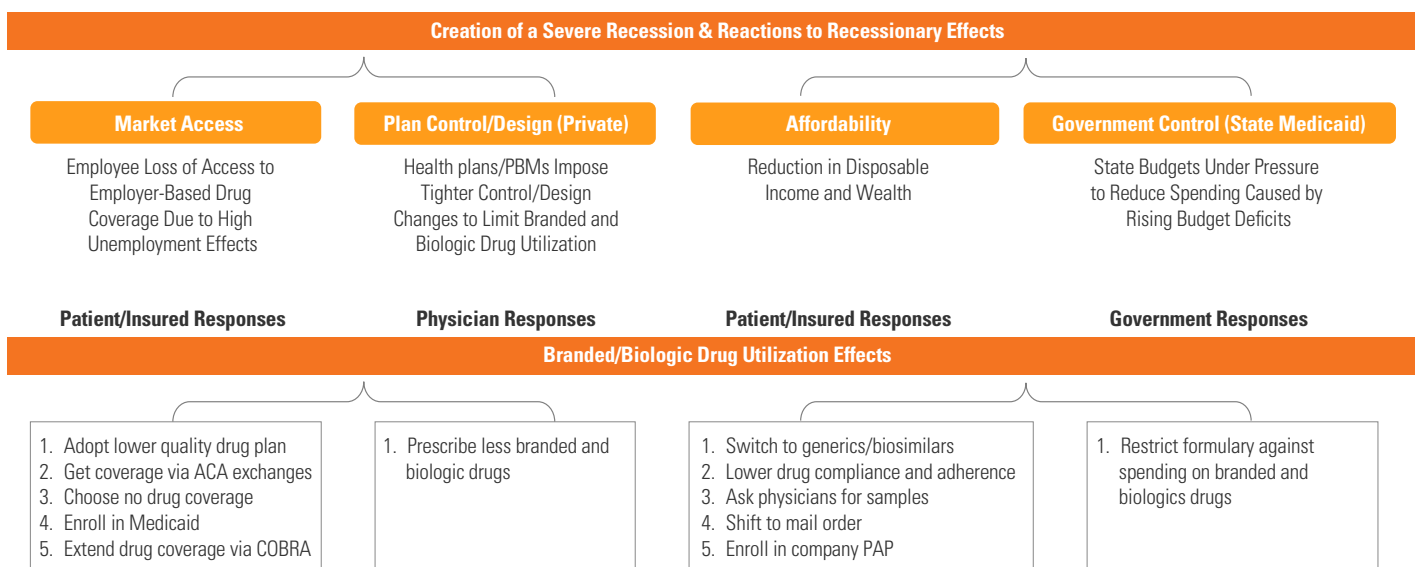
Fears have arisen regarding a resurgence in COVID-19 cases.² Numerous factors could be contributing to a resurgence in COVID-19 cases. Some suggest it is because more tests are being conducted than in prior months while others attribute the increase to more testing as well as other factors, including the effects from local economies reopening, people failing to maintain social distancing and wear protective masks, and the recent mass protests and disturbances in many cities in reaction to the death of George Floyd.² Health experts are not sure what is causing a spike in infections occurring in certain areas around the country.² Increases in COVID-19 cases in Texas, Arizona, Florida, and California have health experts concerned and will undoubtedly cause challenges as states try to reopen their economies.² The number of COVID-19 cases is now increasing in 33 states, causing negative reactions in financial markets, businesses

delaying and/or reconsidering their reopening, and state/local governments contemplating whether to reimpose earlier restrictions seen at the beginning of the pandemic.³⁻⁵

During a June 10, 2020 press conference, Federal Reserve Chairman Jerome Powell noted continued challenges and uncertainty regarding the US economy as it struggles to recover from the worst recession since the Great Depression.¹ Financial markets negatively reacted to all this news on June 11, 2020 with averages across the board significantly falling - DJIA (-6.9%), S&P 500 (-5.9%), and NASDAQ (-5.3%).¹ The historic rise in unemployment will take

a long time to work through, even as the economy begins to reopen, and number of weekly jobless claims continue to fall from their record peak in March 2020.⁶ Household wealth also substantially fell in Q1 2020 by 5.6% from Q4 2019.⁶ While recently polled economists predicted the economy and labor market will be in recovery by Q3 2020,⁷ the extent of combined changes in unemployment, disposable income, and household wealth still means significant adverse effects on branded and biologic drug utilization through market access and affordability pathways as illustrated in **Figure 1**.⁸

Figure 1. Market Access, Plan Control/Design, Affordability, and Government Control Reactions to Recessionary Effects on Drug Utilization⁸



Source: Atria Inc.

1.2 White Paper Objectives

This white paper analyzes two important implications related to a resurgence of COVID-19 cases:

- 1) What is the most likely scenario for the shape of a US economic recovery from this COVID-19 induced recession?
- 2) What are the implications from the resulting shape of the economic recovery and actions pharma companies need to make with respect to future business planning given the resurgence in COVID-19 cases?

2. Implications for Pharmaceutical Business Planning Under a Resurgence in COVID-19 Cases

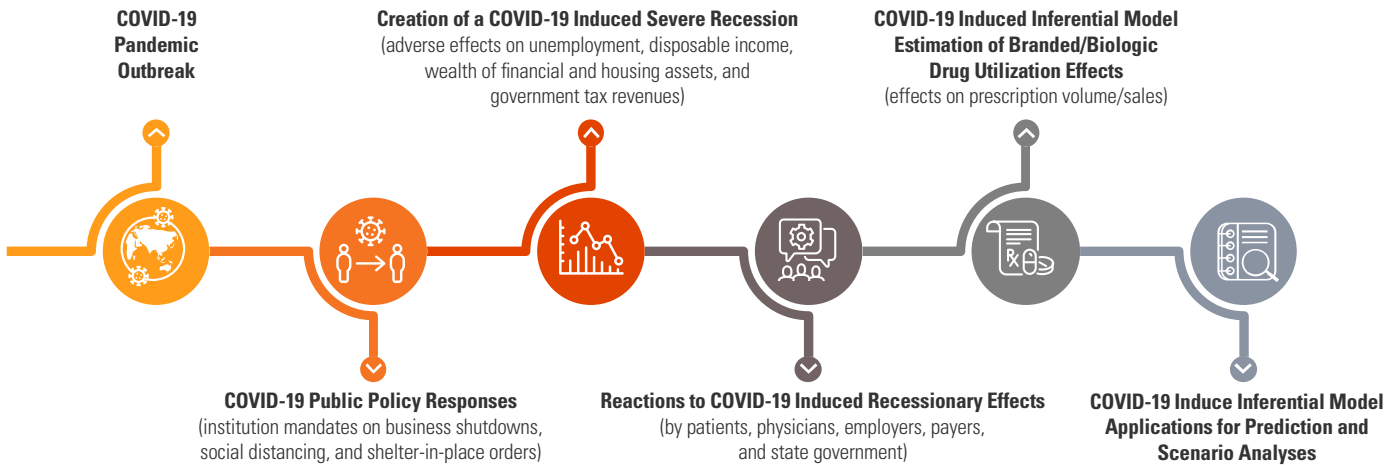
2.1 Shape of the US Economic Recovery

There are four different letters (V, U, W, L) characterizing the shape of the recession cycle.⁹ Initially, when the economy started its dramatic downturn, most economists were suggesting a V-shaped cycle (rapid economic decline, followed by a rapid economic recovery). However, it has been made clear given how the economy has struggled to

recover, even with the injection of massive stimulus spending programs (some to the detriment of facilitating a recovery), that traditional macroeconomic models are not appropriate to predict accurately this recession cycle. This recession

is virus-induced, not economic-induced. The shape of the recession cycle is more a function of the state of COVID-19 in the environment and public policy reactions to the virus, as shown in **Figure 2**.⁸

Figure 2. High Level Pathway Analysis to Measure and Predict COVID-19 Severe Recession Effects on Brand Utilization



Source: Axtria Inc.

Instead, more economists are warming up to the idea of a W-shaped recovery for the following reasons:

- 1) Until a vaccine is found (there is no guarantee one will be found, just as there is no vaccine for Severe Acute Respiratory Syndrome (SARS) or Middle East Respiratory Syndrome (MERS)), our society will continue to have COVID-19 at a low boil in the background. Our society will need to continue with social distancing, wearing face masks, and changes in the business model for many companies (places operating at half capacity, people continuing to work from home, etc.). These changes in how society operates will have sustained adverse economic consequences. Many companies may not be financially able to adapt and thus not reopen even after the imposed lockdowns are withdrawn. Our society will muddle along, via trial and error, testing to see what happens as our society reopens, sometimes forging ahead, and sometimes pulling back. Thus, the W-shape.
- 2) How will a second coronavirus wave interact with the upcoming flu season? Will society need to reinstitute restrictions? Will the Centers for Disease Control and Prevention (CDC) or other bodies increase the importance of flu vaccination? Will greater restrictions be mandated for indoor public places? Will masks be required for workers? Will masks be mandatory at locations where food and beverages are not served, like most stores? An indicator how COVID-19 cases interact with our upcoming flu season would be to

look now at the southern hemisphere, where their weather is entering early winter. How events take shape there could be what our future portends.

- 3) The very high unemployment and adverse economic effects caused by the initial shutdowns and shelter-in-place orders by the first coronavirus wave will take a long time to work its way back toward pre-COVID-19 economic activity levels or not return to pre-COVID-19 levels. The recovery will be uneven. Unfortunately, many jobs may never return. People have adjusted to the use of technology to adapt to a COVID-19 world that will likely continue, even if a vaccine comes about, e.g., ordering food online, getting groceries and shopping online, working from home (which means a reduction in services provided to workers going to an office), etc. In addition, people will be shaken and hesitant to return completely to their "normal" pre-COVID-19 routine, meaning a certain amount of economic activity will never return. People may also begin to save more in anticipation of another coronavirus outbreak and associated shutdowns. This will translate into additional reductions in demand spending and loss of associated income. Thus, market access and affordability effects, as expressed in **Figure 1**, will likely continue for some time for certain segments of the population.
- 4) Other economists have also cautioned about the very high federal budget deficits accumulated through passing the various stimulus programs (about \$3.7 trillion in deficits in this fiscal year).¹⁰ This increase

in debt needs to be serviced, meaning the federal government will have to go into the same financial capital markets as private businesses do for funds.¹⁰ This “crowding out effect” will depress future private investment, which in turn will diminish future economic growth, thereby making for a much longer economic recovery.¹⁰ This concern is echoed in a recent forecast by the International Monetary Fund that US government debt as a percent of GDP will reach 131%, up from 109% in 2019, and the highest level since World War II.¹¹ Other developed economies will experience similar increases in their debt burden, meaning that global financial markets will be pressed to fund both private investment and government debt.¹¹

2.2 Implications and Actions for Future Pharmaceutical Business Planning

The previous section suggests the following implications and actions for future pharmaceutical business planning.

General COVID-19 Related Environmental Trends

- 1) **Assume there will be no vaccine for COVID-19 in the foreseeable future.** This means it is very possible that business shutdowns and related public policy mandates, as initially imposed at the start of the pandemic, could be reinstated as a resurgence in COVID-19 cases hits the US and the rest of the world. Future economic disruptions are likely under this scenario. The result is to continue practicing social distancing, with its associated effects, on business operations, that will persist for some time. At the very least, under a no-vaccine scenario, society will continue to operate under a cloud of uncertainty.
- 2) **Expect individual behavior to be fundamentally and permanently changed.** Assume that society does not return to what existed pre-COVID-19, but rather a “new normal” will be created. Pharma companies must reflect on what that “new normal” looks like and how that manifests itself in the healthcare ecosystem, e.g., more patients will “see” their doctors virtually.
- 3) **Develop a risk-assessment tool to evaluate events related to and affected by a resurgence in COVID-19 cases.** Pharma companies must engage in identifying potential risk areas (assessing their likelihood of occurrence) and the degree of importance such events would have on their business. This means having subnational monitoring mechanisms in place to capture the extent of COVID-19 cases, public policy reactions to changes in the level of COVID-19, and its effect on business operations and key healthcare system stakeholders.

Long-Term Economic Disruptions

- 4) **Prepare for long-term economic disruptions caused by a COVID-19 induced recession.** The four pathways of recessionary effects outlined in **Figure 1** will continue with long-lasting effects on branded/biologic drug utilization. Market access and affordability challenges due to high unemployment will persist. Contrary to the official May 2020 unemployment rate, which slightly decreased from April, the actual rate likely exceeds 20% given anomalies in measurement. Further, some economic implications, such as the loss of many jobs, may very well be permanent. An economic research working paper published in May 2020 from the University of Chicago estimated that *42 percent of recent layoffs will result in permanent job loss.*¹² Pharma companies should fully understand, model, and measure the effects from long-term economic disruptions not only on brand performance but also on patient outcomes and associated leading indicators (e.g., drug adherence).

Changes in the Pharmaceutical Commercial Model

- 5) **Anticipate that permanent changes in pharmaceutical business practices will occur.** For example, the industry will experience some long-term loss of sales representative access to physicians. Thus, a greater proportion of digital discussions, or an increase in patient-physician interactions to virtual engagements, will change the nature of how physician practices operate. Pharma companies must quickly adapt to these environmental changes and develop long-term expertise in the broader applications of technology in the commercial model.
- 6) **Accept that COVID-19 will accelerate changes in the pharma commercial model that were already taking place.** This means organizations must be agile and resilient as the business model more rapidly evolves. Leadership must prepare people to view these necessary changes as opportunities to serve better the needs of patients and all stakeholders involved in the healthcare system, rather than challenges or obstacles for continued success. Holding onto traditional thinking and actions is a recipe for failure. Being an early adopter in instituting these changes will have long-lasting first-mover competitive advantages, and fast followers will benefit more than those slow to adopt.
- 7) **Review the intent, design, and makeup of pharma sales forces.** Numerous sources have recently surveyed and reported that there will be a permanent loss of sales force access to physicians, which virtually stopped during the pandemic. There will be in-person contacts after the pandemic subsides, but a greater proportion of total calls will be virtual

engagements. This means sales productivity assumptions will need to be reevaluated as well as the promotion-response relationship of in-person versus virtual engagements on prescribing. Since gaining physician access will be more difficult, sales reps will need to communicate how the information they provide can improve their practice and treatment of patients to generate better outcomes. Scientific messages from health economic and outcomes research (HEOR) and real-world evidence (RWE) analyses are generally disseminated through medical science liaisons (MSLs). However, sales reps of the future will also likely need to be more scientifically trained, similar to medical science liaisons (MSLs), especially given the industry's shift to specialty medicines. In addition, sales reps must be able to communicate measures of value, outcomes, and relative risk versus benefit in the proper context that are appropriate to be shared via this channel.

- 8) **Plan for an increased possibility of a single-payer system being enacted.** The high unemployment caused by the COVID-19 induced recession via public policy reactions has highlighted the weakness of employer-provided private/commercial health insurance. Calls will increase for a government-provided single-payer system to rectify this issue. A private health insurance system will likely co-exist for those people or employers wanting to pay extra money to avoid the pitfalls of a single-payer system. Further, many businesses, especially smaller ones affected by the business shutdowns, may begin to shift workers toward being covered through the Affordable Care Act (ACA) exchanges as a cost reduction and control measure. These trends in the insurance market will likely have adverse effects on branded/biologic drug utilization through plan

control/design effects in the private and public sectors to reduce spending. An expansion of direct price controls on drugs, such as the importation of an international price index for the reimbursement of Medicare Part B drugs expanded to apply to Medicare Part D drugs, would also be more likely as a result. Pharma companies will also need to expand the notion of value and outcomes-based empirical evidence, using HEOR and RWE, toward measures of social value given even greater government funding of healthcare.

- 9) **Anticipate that the increase in financial distress of physician group practices and hospitals will adversely affect the pharma industry.** Social distancing mandates greatly reduced patients going in to see their physician, putting off routine diagnostic tests, and/or delaying elective surgeries deemed as "non-essential." The result has been a negative financial shock to group practices, hospitals, and healthcare systems. Market reactions in response to this economic shock will be further consolidation of these services and movements toward instituting greater cost-control measures. Pharma companies will need to demonstrate empirically how the utilization of their drugs is aligned to the changing economic incentives of group practices, hospitals, and healthcare systems.

Applications of Analytics and Development of Newer Databases

- 10) **Build an efficient database structure to enable a broader set of analytical applications.** The expansion of digital technologies to account for greater virtual patient and sales rep engagements with healthcare professionals (HCPs), and movement



towards value/outcomes-based analyses, will mean an exponential increase in the generation of data and analyses. Further, techniques will need to be developed to link these newer databases with traditional pharmaceutical commercial data in order to build a complete picture for analysis.

- 11) **Institute early-warning detection systems for changes happening in the pharma commercial environment that require quick adjustments.** This means the use of artificial intelligence (AI) and machine learning (ML) as prediction tools to detect early changes occurring in the pharmaceutical environment.
- 12) **Leverage analytics methods to employ next best action (NBA) decision-making.** The use of NBA can increase the speed of reactions and generate greater options for decision-makers in response to changes in the pharma environment.
- 13) **Develop a first-in-class analytics center of excellence to improve the robustness of decision-making.** Future business questions will be more complex, where the application of advanced analytical methods will be required to develop actionable and successful solutions. The creation of such analytical excellence and its application for all decision-making is a strategic asset that will provide a long-term competitive advantage.¹³
- 14) **Generate expertise in specific higher-order analytical methods to sustain a long-term competitive advantage.** Pharma companies must understand the reasons behind and effects of environmental changes brought about by COVID-19, and most importantly, what actions should be taken. This means alignment between commercial analytical innovation and effective execution of resulting plans will be key. Prior research has empirically measured the positive effects of pharmaceutical commercial innovation and execution on business performance.¹⁴ Developing expertise with these analytical methods will be crucial for long-term success, e.g., optimization, forecasting, prediction, simulation, mathematical, and statistical modeling.¹⁴
- 15) **Expand the use of HEOR and RWE by infusing these methods into the development of sales, marketing, and payer commercial strategy.** Traditionally, the use of these methods has been restricted to clinical trial work and associated demonstration of value. More recently, these methods have found their way into commercial targeting of resources toward physicians to ensure their patients who are most in need of more effective treatments receive drug therapy. This is especially important for patients with rare diseases. The next step, and what is currently lacking, is the infusing of such methods to affect the intent and content of

sales and marketing strategy and operations. The industry's shift toward specialty medicines, especially in areas like oncology, means promotional activity should be more informative rather than persuasive in intent. The dissemination of scientific, clinical, and medical information is what will drive brand success. Pharma companies will need to measure how this informative process not only generates more sales but also and more importantly, how it creates better health and economic outcomes, thus making the company a valued resource.

- 16) **Create highly customized and coordinated promotional campaigns.** Such campaigns seek to tailor content and flow as well as timing and delivery mechanism to maximize customer engagement and sales. Customization is also required as the industry has shifted to the development of personalized medicines, with each patient segment requiring different messages that are salient with the healthcare needs, and the associated drug benefits versus cost/risk for that group.

3. Concluding Remarks

The US is currently experiencing a resurgence of COVID-19 cases around certain areas of the country. Some have called this resurgence a "second wave," while others have merely characterized this as a continuation of the initial outbreak. Whatever the characterization and reason(s) behind the resurgence, the increase in COVID-19 cases should and has caused pharma companies to take note and plan accordingly. This white paper initially outlined a scenario more economists are agreeing to on the shape of the US recovery from the COVID-19 induced recession (W-shaped).

This white paper concluded by listing a set of actions pharma companies should take and how a resurgence in COVID-19 cases affects future business planning. While many unknowns still exist regarding the future of COVID-19, there is likely universal agreement on the following statements:

- 1) COVID-19 has fundamentally altered the healthcare landscape. We will not be returning to a world that existed pre-COVID-19 but rather move toward and operate within a "new normal."
- 2) Pharma companies must be prepared now that the "new normal" environment created by COVID-19 will affect business planning.
- 3) Pharma companies will need to rely on analytics and data to give them insights and solutions into future business problems caused by COVID-19.

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