

Research Brief

An injection of hope

Life after the
COVID-19 vaccine

IBM Institute for
Business Value



An injection of hope

Getting a COVID-19 vaccine offers the promise of an end to isolation. After more than a year of quarantine and social distancing, it instills hope that family vacations, festivals, and care-free dinners with friends are on the horizon. It gives people a reason to look forward and start making plans to socialize once again.

And each day, the numbers seem brighter. At the beginning of April, the United States was vaccinating an average of 3 million people per day.¹ And in March, US President Joe Biden announced that pharmaceutical rivals Johnson & Johnson and Merck would team up to accelerate the manufacture of a single-dose vaccine.² This is expected to help Biden deliver on his promise to produce enough vaccine for every adult in the US by the end of May—two months earlier than previously projected. And the UK's Office for Budget Responsibility set out a scenario that could have all UK adults vaccinated with the first of two necessary doses by the end of June.³

As vaccination rates go up and COVID deaths go down, global consumers are starting to consider what life will look like after a majority of people have been vaccinated. Will the “new normal” people created to cope with pandemic lockdown restrictions be replaced by old routines? Will something entirely different emerge? And how will businesses need to adapt? To better understand people's perspectives on the COVID-19 vaccine, and what they plan to do once they get it, the IBM Institute for Business Value (IBV) surveyed more than 15,000 adults across 9 countries in February 2021.

Overall, we found that most people are confident in the safety, effectiveness, and distribution of the vaccines, which pharmaceutical companies have developed at breakneck speeds. While drug approval processes were shortened and streamlined, it seems that greater transparency has helped drive consumer confidence. Even as new variants of the virus spread, more than half of respondents say they expect the vaccine to keep them protected (see Figure 1).

Globally, two-thirds of unvaccinated people say they plan to receive the vaccine when eligible. The highest proportion of people who intend to get vaccinated are in Brazil and Mexico—two countries that were hit hard by the pandemic. And in the US, where distribution is decentralized, some eager “vaccine hunters” are going so far as to stalk independent pharmacies in hopes of scoring a shot that’s about to expire.⁴

However, roughly 1 in 3 people globally still view the vaccine with distrust and uncertainty. Rather than a guarantee of safety, they see the shot as a new risk to navigate. And as we look across countries, which have very different healthcare systems and distribution plans, distinct perspectives start to emerge. Confidence in the safety, efficiency, and overall rollout of the vaccine are very high in China, India, and the UK—and below average in the US.

Vaccine hesitancy and mistrust are likely driving resistance to the vaccine among respondents in the US, where nearly 30% indicate they won’t receive the vaccine and another 1 in 4 are uncertain. And China faces similar risks. Despite claiming high confidence in the vaccine and the rollout in their country, more than 40% of respondents in China say they will not opt to receive the vaccine or that they are undecided.

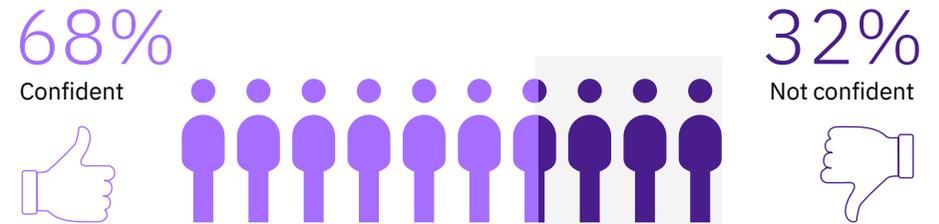
Overall, vaccine reluctance and uncertainty is higher among respondents in suburban and rural areas than urban areas. More people in higher income brackets and with higher educational levels intend to receive the vaccine once eligible.

Figure 1

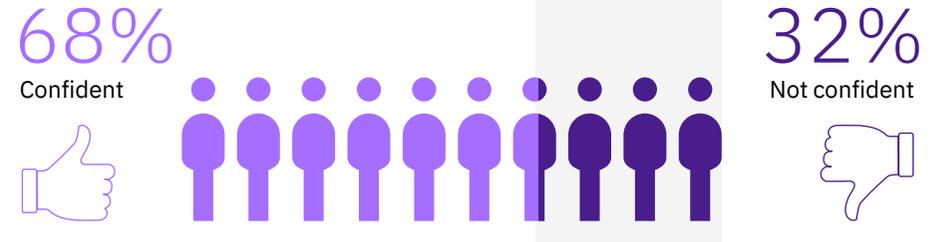
Optimism, uncertainty, and distrust

While most people are confident in the safety and effectiveness of the vaccine, 1 in 3 are not.

Effectiveness of vaccine



Safety of vaccine



Getting the job

It's possible that public uncertainty will wane as more people receive the vaccine. But as of March, vaccination rates are still very low. 17% of global respondents report being partially or fully vaccinated, while 83% have received no doses.

And it's unclear when vaccines will be available to everyone who wants one. Nearly 4 out of 5 respondents who want the vaccine expect to receive it this year—but given the slow pace of global distribution, this seems unlikely. In January, the Economist Intelligence Unit (EIU) projected that immunization programs for the majority of the world's population will continue until mid-2022.⁵

The inequities involved with vaccine distribution are creating additional complications. So far, our research shows that 2.5 times more individuals from the highest income bracket have received the vaccine than those from the bottom bracket. And this follows for countries, as well. According to the EIU report, the US, the UK, and the EU are expected to vaccinate most of their populations by late 2021, but 85 developing countries won't achieve widespread vaccination until 2023—if at all.

However, efforts to level the playing field are underway. Gavi, a global vaccine alliance including the World Health Organization (WHO), UNICEF, and The World Bank, launched its COVAX vaccine campaign in Ghana and Côte d'Ivoire in March, with 247 million doses slated to reach 147 countries by the end of May.⁶

Getting vaccines to remote locations is challenging, given the low temperatures required to maintain their efficacy. In particular, the “last mile” from the distribution site to diverse vaccination centers, which may lack cold storage infrastructure, adds time pressure for healthcare teams. Innovations such as smart temperature trackers, thermal packaging, and freezer farms are some of the tools Gavi is using to make a bigger impact faster.⁷

This is critical, as a slow or uneven rollout puts aspirations for near-term herd immunity at risk. Until enough people worldwide are vaccinated, there is a risk that a vaccine-immune variant could emerge.⁸ The proportion of the population that must be vaccinated against COVID-19 to begin inducing herd immunity is unknown.⁹

However, many epidemiologists have suggested 60 to 70 percent as a reasonable range. Dr. Anthony Fauci, the leading epidemiologist in the US, has indicated the number could be as high as 85%.¹⁰

And individuals are being even more conservative in their personal assessments. Based on our February survey, most respondents say that vaccination levels will need to exceed 70% in order for them to feel comfortable returning to life as it was before the pandemic (see Figure 2). Assuming current rollout rates, that means many people will not regain pre-pandemic comfort levels until well into 2022.

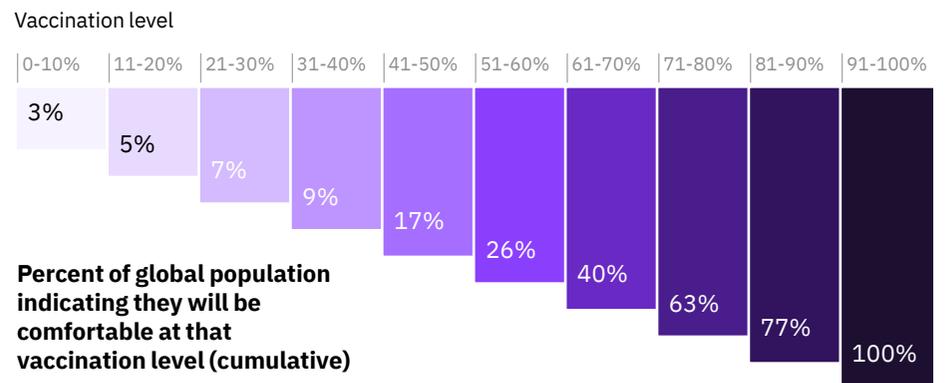
Amid so much uncertainty, consumers are rethinking the way they want to work, socialize, travel, and shop. They're considering more factors before they make their decisions, and some are opting out of non-essential activities entirely.

For businesses, that means the battle for market share has become fiercer, with companies fighting for pieces of a smaller pie. As we've seen throughout the pandemic, some businesses will benefit from these shifting priorities—and others will need to find new ways to compete.¹¹

Figure 2

Better safe than sorry

Vaccination levels will need to exceed 70% before global consumers will feel comfortable resuming their pre-pandemic lifestyles.



The future of work and social interaction

Once people have received the vaccine, the daily routine that came screeching to a halt in 2020 will not be reprised, but rather, rearranged. Whereas crowded trains and concert halls were an accepted part of pre-pandemic life, many people have a new threshold for public interaction and expectations of personal space.

A majority (52%) of respondents say they will change the extent to which they interact with people outside of their household after they are vaccinated. Overall, 30% plan to interact with others less, while 22% say they will interact more. In particular, people who say they were in crowds or large groups almost constantly before the pandemic want to change that lifestyle—40% will scale back interaction.

On the other end of the spectrum, more Gen Z respondents want to spend time with people outside of their households once they get the shot. 27% of Gen Z said they will increase outside interaction, compared to 19% of Gen X and only 16% of those over 55. For their part, Gen X and those over 55 are more interested in returning to old habits. Just over half of those in both age groups want to spend the same amount of time socializing with others as they did pre-pandemic.

When it comes to work, people are less open to change. Overall, 62% of employees want to keep their current work arrangement even after they're immunized. However, this varies based on their current work arrangement. For people who work from home, 44% want to continue doing so after they receive the vaccine, while 35% want to move to a hybrid model. For those working in a hybrid model, 57% want to continue and 43% want to try something new.

On the consumer side, people are ready to scale up their visits to a variety of venues, from restaurants and bars to salons and barbershops, as more people get vaccinated. According to a March 2021 survey of more than 14,000 consumers from the same 9 countries, the venues that can expect the greatest uptick in attendance include: live sporting events, amusement or theme parks, museums and art galleries, live theater events, and movie theaters (see Figure 3).

But this enthusiasm isn't shared across generational lines. Gen Z in particular appears to find social venues less appealing than its elders. On average, 60% of 18-to-24-year-olds plan to visit venues once vaccinated—as compared with 71% of Millennials and 69% of Gen X respondents. This appears to be the continuation of a trend, as Gen Z also reported visiting venues less frequently than those in other age groups during the pandemic.

When combined with Gen Z's desire to interact with more people outside of their household, this begs an important question: Where do Gen Zers want to spend their time in the future?

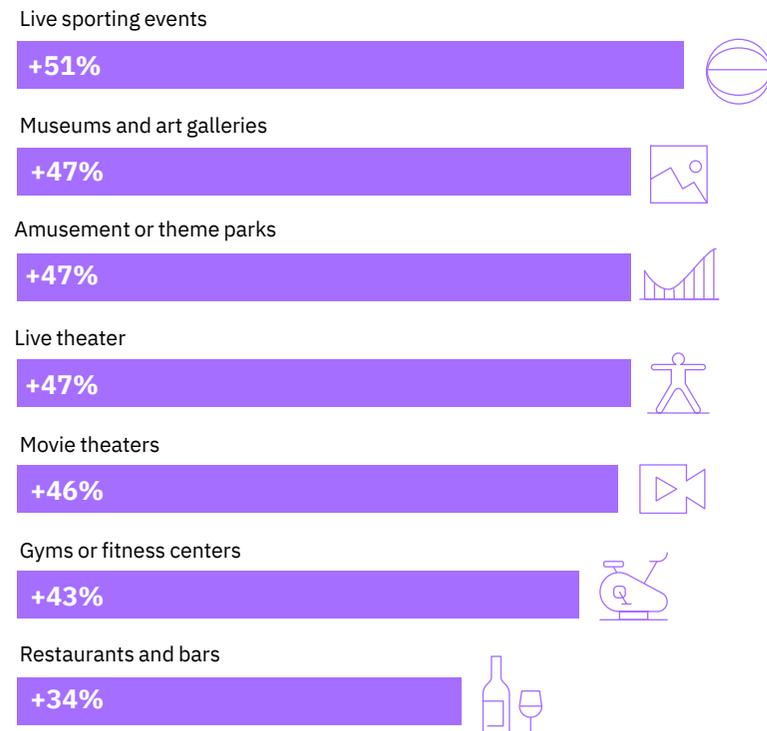
Even before the pandemic, it was clear that people in Gen Z were uniquely tied to their phones. One 2019 study found that Gen Zers spent 55% more time in non-gaming apps than any other generation.¹² But the pandemic may have accelerated a key cultural shift.

The pandemic also amplified the homebody tendencies of Millennials and Gen Z, meaning venues may need to get creative to encourage younger consumers to opt for big nights out over friendly gatherings at home.¹³ And with virtual communication largely supplanting in-person interaction for more than a year of their young lives, Gen Z may have cemented a preference for digital experiences that will outlast COVID-19.

Figure 3

Together again

Once they've received the vaccine, global consumers plan to visit a variety of venues more than they did during the pandemic.



The return of in-store shopping

Retail stores were hit hard by the pandemic, as lockdowns shuttered shops and limited capacity at those that remained open. Shopping malls and centers, in particular, took a blow, with fewer than half of consumers visiting them during the pandemic, according to our March survey.

But it seems the tides are turning for this struggling sector. 73% of respondents that typically visited shopping malls and centers before the pandemic indicated that they will return to those stores once vaccinated (see Figure 4). While consumers will not abandon the online shopping options they've become accustomed to using during the pandemic, they expect to buy items in-store and bring them home much more often.

Some retailers are already seeing the uplift. For example, Target's CEO said customers flocked to the brand's brick-and-mortar stores in January, boosting sales 20.5% over the same time frame last year.¹⁴ In addition to redeeming holiday gift cards, shoppers are looking to freshen up their homes and wardrobes with new items—perhaps in anticipation of hosting guests or hitting the town.

According to our February survey, the biggest shifts toward in-person shopping will be in toys, games, and hobbies, (+121%) and apparel, footwear, and accessories (+76%). In both of these categories, we see larger upticks among Millennials, Gen X, and those over 55, potentially because Gen Z was buying these products online more often before the pandemic.

Across categories, including furniture, personal care, and household products, people expect to use curbside pickup (that is, buying products online and picking them up at the store) less frequently after they're vaccinated. The decline will be steepest in the food and beverage sector. About half of grocery shoppers across all age groups will no longer use curbside pickup as their primary shopping method. If people have to go to the store, it seems they'd rather go inside—as long as they feel safe.

To lure vaccinated consumers to physical stores, retailers can look to in-store promotions and local products. In-store promotion is the most compelling reason for consumers to shop in a physical store, especially for Gen X (54%) and those over 55 (52%).

The ability to purchase local products that are not available online, such as small batch food products and hand-made apparel, is another key driver of in-store shopping—and the top motivation for consumers in China and India. Notably, across the US, the UK, and Germany, an average of 14% of consumers said that nothing will encourage them to return to shopping in physical stores.

While there will be a decline in the proportion of people using online shopping as their primary purchasing method once the vaccine is readily available, at least 1 in 5 consumers plan to primarily shop online in each product category. Convenience is the main reason global consumers continue to shop online, followed by value and the wide variety of products available online. It is also worth noting that nearly 1 in 4 shoppers in the US and the UK say they don't feel safe shopping in-store and that they don't find the in-person shopping experience enjoyable anymore.

This means safety and customer experience could be a top priority for brands and retailers as they navigate the post-pandemic marketplace. However, designing a frictionless shopping experience may be even more important. During the pandemic, consumers across age groups learned to use a variety of digital shopping tools, and many will want to continue using them. Aligning inventory, pricing, and purchase information in-store and online, for example, will be necessary as companies work to create a seamless multi-channel experience. Overall, converging digital touchpoints with physical locations will be key to competitiveness in the future.

Figure 4

Retail therapy

Global consumers are ready to return to malls and shopping centers once they're vaccinated.

Visited during COVID-19

47%



Will visit after getting vaccine

73%



Travel is on the itinerary

In 2020, travel restrictions shut down airports and closed borders, decimating the travel industry. In the US alone, the travel sector lost \$492 billion—a 42% year-over-year decline. International and business travel saw the steepest declines, falling 76% and 70% respectively.¹⁵

While travel has yet to rebound, there are promising signs on the horizon. Our survey found that roughly 1.5 times more vaccinated people expect to take an overnight trip in the next 6 months (see Figure 5). Perhaps unsurprisingly, 25-to-39-year-old respondents are 62% more likely to travel in the first 6 months following their vaccination than people who are over 55.

This implies that, as vaccination efforts ramp up around the world, hotels and resorts can expect to see an influx of eager guests excited to enjoy their immunity. And it's possible that people who plan to travel in the next 6 to 12 months would move that date up if they received a vaccine earlier than expected. However, a sizeable subset of the population plans to stay home indefinitely. Roughly 1 in 4 respondents say they do not plan to travel in 2021, even after they receive the vaccine.

The vaccine will also reinvigorate professional travel, increasing the number of people comfortable travelling for business 2 to 4 times in most countries. Vaccination will have the biggest impact on the comfort level of people in Mexico, Germany, and Brazil. Across geographies, business travelers in the US, India, and China were most comfortable travelling before receiving the vaccine, but even these countries will see a notable vaccine bump.

However, older business travelers are less confident. Only 8% of respondents over 55 are comfortable traveling for business without a vaccine, and just 25% are comfortable after they're vaccinated.

The personal automobile is the big mobility winner, both during the pandemic period and after people receive the vaccine. While 10% of respondents plan to use a personal vehicle less often after getting the shot, 47% say they will use it more. Plane travel will also see a hike in demand, with 30% of people planning to fly more often—though this is offset by the 23% of respondents that plan to fly less.

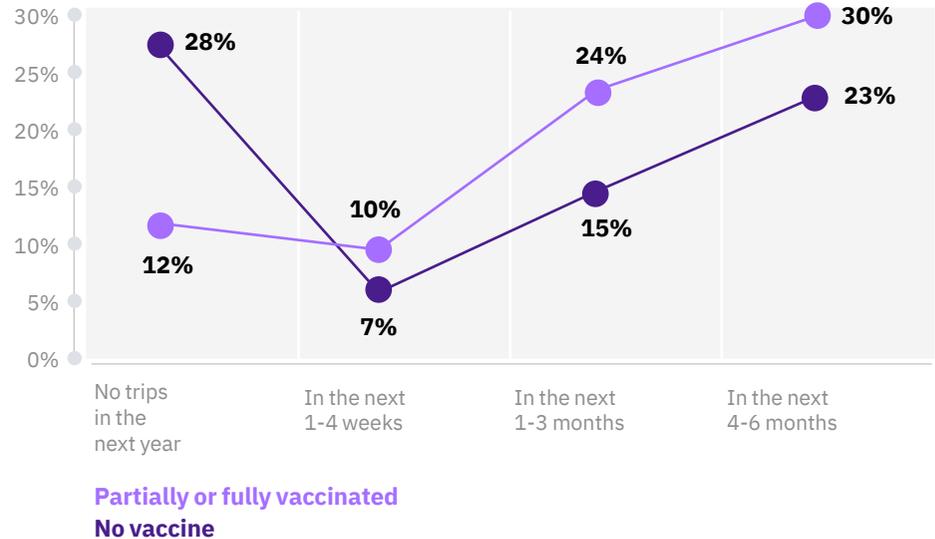
Other forms of transportation will either see a very slight increase or a net reduction in demand as more people become vaccinated. The cruise industry will experience the most significant net decline, with 26% of people saying they will use cruise ships less and only 17% saying they will use them more.

While there are portions of each consumer segment that can be won over with the right approach, companies will be competing for a smaller number of travelers as the year unfolds. Differentiation through the customer experience, loyalty programs, personalization, and other unique offerings could become even more critical for businesses than they were before the pandemic.

Figure 5

That's the ticket

Vaccinated people are roughly 1.5 times more likely to take an overnight trip in the next 6 months.



Uncharted waters

What does this all mean for how we move forward?

For businesses, it signals a need for more customized customer experiences. With so much uncertainty and variation involved, a one-size-fits-all approach will most likely miss the mark.

Organizations need to craft more tailored, segment-specific messages and solutions—understanding that individual consumers will want different things in different contexts. Seamless, personalized experiences may make the difference in a post-vaccine landscape.

From a broader perspective, it uncovers a new social need. Individuals are looking for a way to feel confident that gathering in large groups once again won't lead to a rash of superspreader events.

This is where blockchain could come to the rescue. In early March, the state of New York announced a pilot program to test The Excelsior Pass, built using IBM's Digital Health Pass. It is a blockchain technology that allows individuals to share their health status, such as vaccine records or a recent negative test result, without the need to share the underlying medical and personal information. It's currently being tested at select stadiums and venues in New York.¹⁶

Regardless of how business models may shift in the next few months, the bottom line is this: We aren't going back to normal. We're going forward with different rules, personal preferences, and social norms. And the sooner companies start adapting, the better.

Authors



Jane Cheung

Consumer Industry Research Lead,
IBM Institute for Business Value
<https://www.linkedin.com/in/JaneSCheung/>
jane.cheung@us.ibm.com



Steve Peterson

Global Travel and Transportation Leader,
IBM Institute for Business Value
<https://www.linkedin.com/in/stevenjohnpeterson/>
steve.peterson@us.ibm.com
[@spetersonibm](#)



Dave Zaharchuk

Research Director,
IBM Institute for Business Value
david.zaharchuk@us.ibm.com
[@DaveZaharchuk](#)

Notes and sources

- 1 Stankiewicz, Kevin. "Covid vaccinations hit another record, average now above 3 million daily." CNBC. April 3, 2021. <https://www.cnbc.com/2021/04/03/covid-vaccinations-hit-another-record-average-now-above-3-million-daily.html>
- 2 McGinley, Laurie and Christopher Rowland. "Merck will help make Johnson & Johnson coronavirus vaccine as rivals team up to help Biden accelerate shots." *The Washington Post*. March 3, 2021. <https://www.washingtonpost.com/health/2021/03/02/merck-johnson-and-johnson-covid-vaccine-partnership/>
- 3 Sabbagh, Dan. "All UK adults could get Covid vaccine dose by June if supply speeds up." *The Guardian*. March 3, 2021. <https://www.theguardian.com/society/2021/mar/03/all-uk-adults-could-get-covid-vaccine-dose-by-june-if-supply-speeds-up>
- 4 Andrew, Scottie and Alisha Ebrahimji. "These 'vaccine hunters' are getting their shots ahead of schedule by gaming the system." CNN. February 5, 2021. <https://www.cnn.com/2021/02/01/us/vaccine-hunters-covid-trnd/index.html>
- 5 "More than 85 poor countries will not have widespread access to coronavirus vaccines before 2023." Economist Intelligence Unit. January 27, 2021. <https://www.eiu.com/n/85-poor-countries-will-not-have-access-to-coronavirus-vaccines/>
- 6 Graham-Rowe, Duncan. "The first COVAX vaccinations begin." Gavi. March 1, 2021. <https://www.gavi.org/vaccineswork/first-covax-vaccinations-begin>
- 7 Kleinman, Zoe. "How will we keep the Covid vaccine at a cold enough temperature?" BBC. December 8, 2020. <https://www.bbc.com/news/technology-54889084>
- 8 Lambert, Jonathan. "Global inequity in COVID-19 vaccination is more than a moral problem." *Science News*. February 26, 2021. <https://www.sciencenews.org/article/covid-19-global-inequity-vaccines-deaths-economy-pandemic>
- 9 "Coronavirus disease (COVID-19): Herd immunity, lockdowns and COVID-19." World Health Organization. December 31, 2020. <https://www.who.int/news-room/q-a-detail/herd-immunity-lockdowns-and-covid-19>
- 10 McNeil Jr., Donald G. "How Much Herd Immunity Is Enough?" *The New York Times*. December 24, 2020. <https://www.nytimes.com/2020/12/24/health/herd-immunity-covid-coronavirus.html>
- 11 Anderson, Cindy and Anthony Marshall. "COVID-19 and the future of business." IBM Institute for Business Value. Accessed March 9, 2021. <https://www.ibm.com/thought-leadership/institute-business-value/report/covid-19-future-business>
- 12 Hamilton, Isobel Asher. "Gen Z kids and teens spend radically more time on their phones. Here are their 3 favorite apps." *Business Insider*. October 29, 2019. <https://www.businessinsider.com/new-research-shows-gen-z-loves-twitch-wish-and-snapchat-embargo-1-pm-2019-10>
- 13 Taylor, Charles. "The Growing Importance Of The Home For Young Consumers." *Forbes*. October 2, 2020. <https://www.forbes.com/sites/charles-taylor/2020/10/02/the-growing-importance-of-the-home-for-young-consumers/?sh=5c5cff77f54>
- 14 Repko, Melissa. "Target CEO Brian Cornell says he was surprised by the surge of shoppers in January." CNBC. March 2, 2021. <https://www.cnbc.com/2021/03/02/target-ceo-says-post-holiday-shoppers-flocked-to-stores-in-january.html>
- 15 U.S. Travel Association. "Weekly Coronavirus Impact On Travel Expenditures in the U.S." January 22, 2021. https://www.ustravel.org/sites/default/files/media_root/document/TE_Coronavirus_WeeklyImpacts_01.22.21.pdf
- 16 New York Governor's Press Office. "Governor Cuomo Announces Pilot Program Testing the Excelsior Pass at Madison Square Garden and Barclays Center." March 2, 2021. <https://www.governor.ny.gov/news/governor-cuomo-announces-pilot-program-testing-excelsior-pass-madison-square-garden-and>

The right partner for a changing world

At IBM, we collaborate with our clients, bringing together business insight, advanced research, and technology to give them a distinct advantage in today's rapidly changing environment.

IBM Institute for Business Value

The IBM Institute for Business Value (IBV) delivers trusted, technology-based business insights by combining expertise from industry thinkers, leading academics, and subject matter experts with global research and performance data. The IBV thought leadership portfolio includes research deep dives, benchmarking and performance comparisons, and data visualizations that support business decision making across regions, industries and technologies.

For more information

Follow @IBMIBV on Twitter, and to receive the latest insights by email, visit: ibm.com/ibv

© Copyright IBM Corporation 2021

IBM Corporation
New Orchard Road
Armonk, NY 10504
Produced in the United States of America
April 2021

IBM, the IBM logo, ibm.com are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at "Copyright and trademark information" at: ibm.com/legal/copytrade.shtml.

This document is current as of the initial date of publication and may be changed by IBM at any time. Not all offerings are available in every country in which IBM operates.

THE INFORMATION IN THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT. IBM products are warranted according to the terms and conditions of the agreements under which they are provided.

This report is intended for general guidance only. It is not intended to be a substitute for detailed research or the exercise of professional judgment. IBM shall not be responsible for any loss whatsoever sustained by any organization or person who relies on this publication.

The data used in this report may be derived from third-party sources and IBM does not independently verify, validate or audit such data. The results from the use of such data are provided on an "as is" basis and IBM makes no representations or warranties, express or implied.

