WHAT THE FUTURE: EATING

GAME CHANGERS

Ipsos

How permanent are people's **new food habits?**

32%

of Americans think the quality of the food they eat will get better in the future.

(Source: Ipsos survey conducted Oct. 22-25, 2021,among 1,171 U.S. adults.)

There's an irony to writing about the future of eating during this pandemic since the virus' unique symptom is the loss and/or distortion of taste and smell. For those afflicted, it changes everything about eating — nothing like having your peanut butter suddenly taste like, as one sufferer put it, "1970s bowling alley ashtray." And for most others, it impacts how and where we get our food and even how and where we consume it.

When we think about the future of eating, we're thinking about the extent those disruptions will stick. We're also thinking about synthetic biology and the worlds that opens for new proteins, the availability of key ingredients and the ability to sustainably create food. We're thinking about how grocery and quick-service restaurants are blending more. We're thinking about how virtual, delivery-only or ghost kitchens (page 8), which we first wrote about in our 2018 WTF Food issue, are further blurring the definition of "restaurant." Of course, we're paying much closer attention to the supply chain and how that connects food from producers to retailers and restaurants and, increasingly, right to your doorstep and fridge. One of these days we'll be "printing" foods at home and cutting out more of these middle steps altogether. But we're not quite there yet.

> **"Tomorrow, we might be growing produce in urban vertical farms that are warehoused next to the lab creating our 'meat.'"**

Where we are is in a world where our desire for convenience is in tension with our preference for sustainability, which today at least necessitates a less efficient supply chain. Tomorrow, we might be growing produce in urban vertical farms that are warehoused next to the lab creating our "meat." That might be in the same complex as a ghost kitchen, a grocery store and an intermodal shipping complex. Our entire food supply chain might be local, compact and efficient.

Today, our desire for cheap food is in tension with our preference for healthy food. Tomorrow, synthetic biology might solve both of those issues by enabling less expensive food production, molecularly engineered to marry a cholesterol-free cheeseburger loaded with antioxidants and superfoods we haven't even dreamed of.

Perhaps the pendulum will swing the other way and our newly minted pandemic home-cooking habits will take us further into the idea of "slow foods" that are grown, cooked, served and enjoyed in the Old World ways.

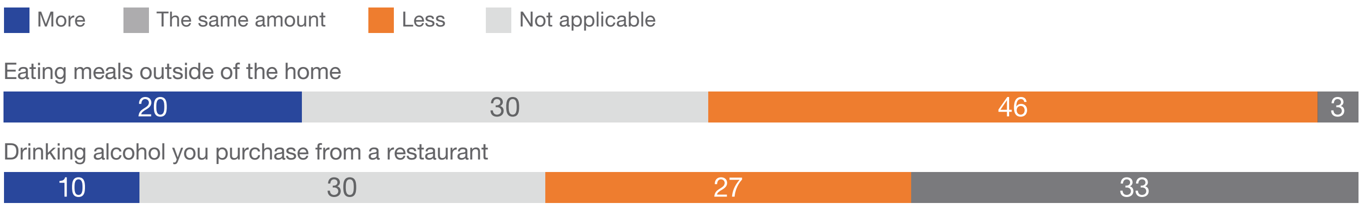
One thing is likely: Whether you have a big dinner or a light snack, the future of all of this, as Weird Al says, is that you'll just eat it. Hopefully you'll be able to taste it, too.

Matt Carmichael *is editor of What the Future and vice president of editorial strategy at Ipsos in North America.*

Americans are eating differently

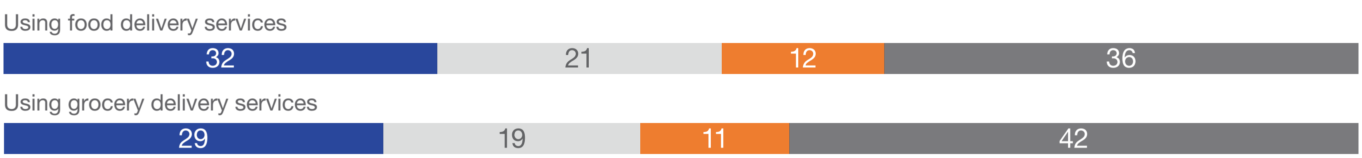
Most have changed their dining-out habits

Q. Compared to before the COVID-19 pandemic began, are you currently using or doing more or less of the following?



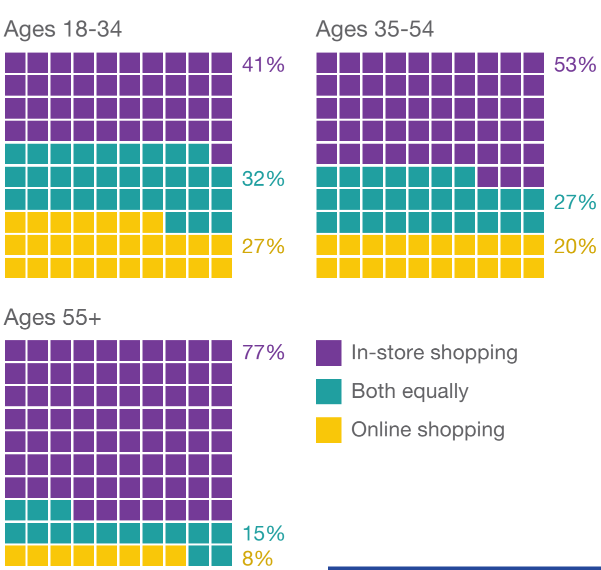
They are cooking at home and snacking as much or more

Those who use food delivery are relying on it more



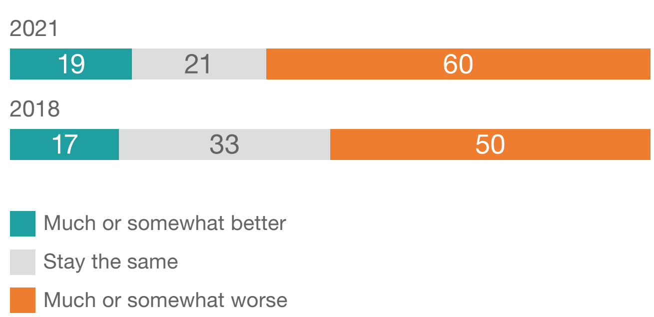
But they would rather food shop at the store

Q. Given the choice between online and in-store shopping for groceries, if both presented zero risk for COVID-19, which would you prefer?



And they're more pessimistic about food prices

Q. Looking into the future, do you think the following will get better or worse? — The cost of the food I eat



(Sources: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults; Ipsos Global Advisor survey conducted Aug. 24-Sep. 7, 2018, among 1,000 U.S. adults.)

The Big Question:

How permanent are people's new food habits?

Question: Will we grow food in the future?

J. Casey Lippmeier

Vice president of innovation, Conagen

What happens in a world where we can create food ingredients normally found in plants and animals?

J. Casey Lippmeier is moving us toward that future at Conagen, a synthetic biology company that uses precision fermentation, like the process used to make beer or yogurt, to expand the possibilities of our food system. That technology has applications for innovation, sustainability, reducing food waste and more. When he thinks **What the Future**, he's thinking way beyond just re-creating things that already exist in nature.

49%

of Americans are interested in plant- and vegetable-protein-based meat substitutes, including 12% who already have tried or currently eat plant-based meat substitutes.

(Source: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults.)

What's driving people to try meatless?

Q. What are the most important reasons why you are interested in trying [or have already tried, or currently eat] meat substitutes, like Impossible or Beyond Meat, that seek to mimic the taste and texture of meat? Select all that apply. (% Selected)

(Source: Ipsos survey conducted Oct. 22-25, 2021, among 759 U.S. adults who are interested in trying or have already tried or currently eat meat substitutes.)

Matt Carmichael: In terms of regulation and labeling, to what extent is your work considered "natural," since you're synthesizing botanicals and things found in nature?

Casey Lippmeier: "Natural" is a funny term. There's a colloquial definition, there's a scientific definition, and there's a political definition. That can make it confusing. There is no legally codified definition for "natural" as it applies to food products. It's more driven by advertising and marketing and consumers themselves, by what they'll accept. In our experience, and other industries seem to agree with this position, if it's made with biology, then you can call it natural.

Carmichael: I was reading about how you're synthesizing rosemary for use in sausages and as a preservative. If you need to grow less of a thing to get the ingredients or the flavor or the benefits out of it, that seems positive for the environment, right?

Lippmeier: It absolutely is. And it's a big part of the selling point to synthetic biology. If you start doing the math, the valuable molecules that are derived [in the lab] from rosemary take up less than 0.001% of the total biomass of the original rosemary plant. That [saves] a lot of land to make very little product. Synthetic biology is great for being able to source things that are extremely rare. We can supply rosemary's rosmarinic acid as a 99% pure product for use as a replacement for artificial preservatives. And it's one that by industry agreement we can refer to as natural.

Carmichael: Are we at a point where the line between food and "supplement" starts to blur? Can we make superfoods where we take a probiotic or an antioxidant or a vitamin and include those in, say, lasagna?

Lippmeier: The short answer is yes. Most vitamins are made by synthetic biology these days, rather than by extraction from a source organism, like a plant. It's probably going to appear in a component of lasagna, in the cheese or in the pasta or something like that. You already see that, right? All flour in the world is fortified with folic acid.

Carmichael: Does your work lead us toward a future where food allergies are a thing of the past or at least greatly reduced?

Lippmeier: Infants aren't born with their own immune systems. They acquire their immune systems from their mothers and over the course of the first 1,000 days of their life. We have molecules we're working on right now to specifically address that food-allergy problem, and even more specifically to do so in those early stages of life.

Carmichael: How do you convince people this is all safe?

Lippmeier: Food is difficult. It's not like pharmaceuticals where everything is driven by clinical evidence, and you accept that there are sometimes nasty side effects. We don't tolerate side effects in food, unless you're talking about alcoholic beverages, I guess. We use science to drive the ingredient creation. We use science to drive the food formulation itself. But when it comes to what people are reading on the back of the label, they want to feel comfortable by it by their own metrics.

Carmichael: Since what you do is essentially fermentation with cooler toys, is it something that eventually becomes sort of home-brewable?

Lippmeier: It already is! There's a group called the Baltimore Underground Science Space. It is a fully staffed, fully equipped synthetic biology lab that is community funded and has its doors open primarily to young student investigators.

I mentored some students that were very tuned in to the problem of pollution from the textiles industry. They wanted to come up with a sustainable, nonpolluting dye for blue jeans to replace indigo. They made a bunch of fabrics out of it, and they showed it at New York's Museum of Modern Art.

Carmichael: As someone who is not in this space, is there something cool going on that I'm not asking you about that I should be?

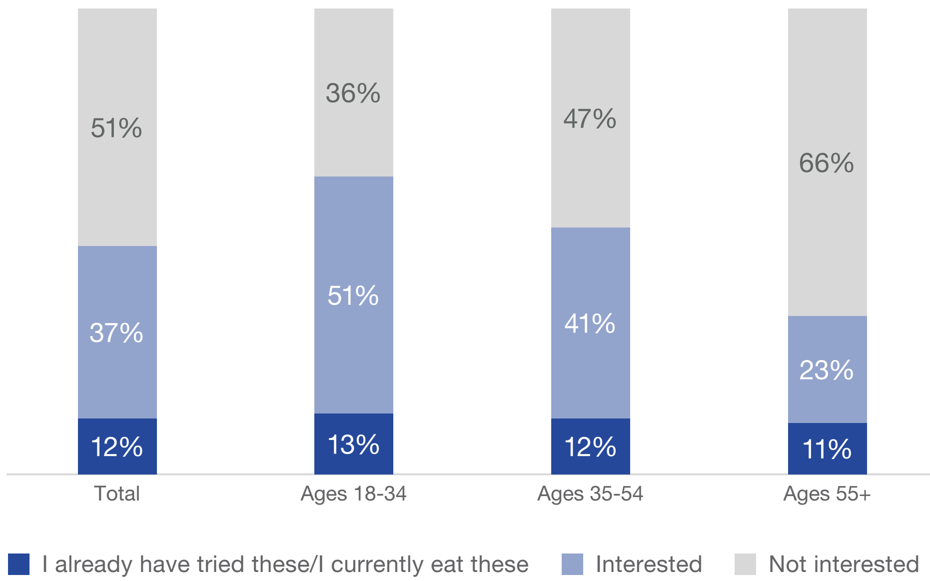
Lippmeier: There was an inspiring paper recently from Google. It refers to something called the AlphaFold project that basically used Google's massive computing power to unleash an artificially intelligent algorithm onto the problem of predicting the structure of proteins. [Lippmeier excitedly nerds out for a while explaining this.]

Carmichael: Is that a time- or a money-saving moon landing? What does the ability to predict the protein structure change for you?

Lippmeier: Instead of having 10 Ph.Ds dedicating 20 years of their lives to figuring out how the enzymes of a certain mysterious biochemical pathway work, we have Google saying, "Oh, it works like this," in five minutes or less.

Who is most interested in going meatless?

Q. New kinds of plant- and vegetable-protein-based meat alternatives, such as Impossible and Beyond Meat, that offer the same taste and texture of meat have become more widespread in the past few years. How interested, if at all, are you in trying these meat substitutes?



(Source: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults.)

"'Natural' is a funny term. There's a colloquial definition, there's a scientific definition and there's a political definition. That can make it confusing."

Carmichael: Right. That is a time saver.

Lippmeier: But then what is the next step? There are chemistries out there that are hypothetically possible. We have no way to arrive at them in a practical way. But with the ability to predict these structures and then extrapolate an activity from them, you could imagine that this AI could work in reverse. You ask it, "Hey, here's a chemistry [experiment] that I would like to perform to design an enzyme that doesn't exist in nature." That tool shouldn't be so far away. That opens a universe where suddenly we can do any chemistry that anyone could ever imagine, on demand by computer prediction, basically.

That will open a wild, new frontier. We will have mastered a level of control over the environment that was just unimaginable.

Carmichael: And then what happens?

Lippmeier: What happens when we're masters of the universe? I don't know. I mean, at that point, we're going to have to start getting into beaming our consciousness across space and time. I mean, that's the only thing I can imagine beyond that.

***Matt Carmichael** is the editor of What the Future and VP of Editorial strategy for Ipsos North America.*

How can food brands better link **synthetic biology to purpose?**

Much of the work in synthetic biology today as it relates to food is in creating alternative versions of foods that already exist, like burgers and nuggets.

These efforts are focused on getting new products to look, smell, taste and feel like their analogs, but free from allergies, animal farming or environmental impacts. These are hugely important considerations for food buyers, to be sure. And it's easier to make a leap from cheeseburger to something pretty close to a cheeseburger than it is to go from cheeseburger to an innovation like, "Here's the meat of an animal that we imagined wholly in the lab."

These aren't, however, the only purchase considerations. Ipsos data shows that for most people (71%) sustainability and ethical practices are at least as important as traditional factors such as price, size, and quality when purchasing food products.

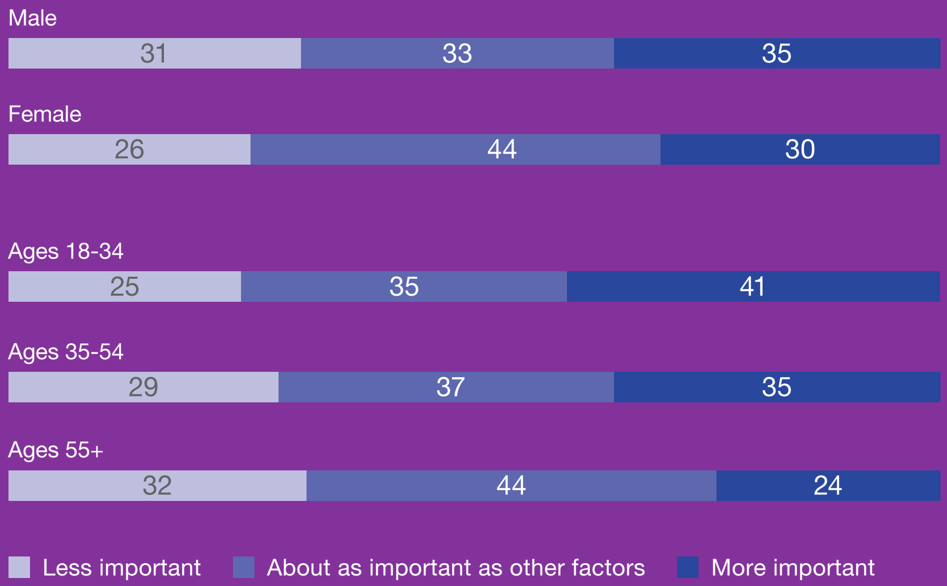
Most people (56%) say they purchased a food product labeled as sustainable or ethically sourced in the past three months. That's much higher than any other retail category.

In general, Ipsos data shows that sustainability is a very important issue for people, but that they don't know how they can make a big impact themselves. In the U.S., where many feel the governmental "system is broken," they are looking to companies to help take a lead in solving problems with the environment and climate.

These are considerations companies and brands should bake into their process, not just in packaging and marketing, but earlier in the innovation stages.

Who cares more about purpose-based products?

Q. When purchasing food items specifically, how important are sustainability and ethical practices to you? (% Selected)



(Source: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults.)

Here are three questions brands can ask as they think about their future food products:

1. Is there a broader purpose-driven initiative our product can align with authentically?

2. What is our competition doing, and what does the market expect when it comes to purpose-driven initiatives?

3. Should we set different expectations for purpose-driven initiatives with our engineered food products?

For example, while creating alternative meat products, a brand might consider how to align potential personal health benefits with animal welfare factors. Or, as Conagen is doing, the environmental benefits of synthesizing key ingredients without the waste of growing and harvesting the foods that contain those ingredients naturally.

Once the products are developed, the marketing and packaging can then link these concepts for the consumers who will enjoy the purpose-driven benefits, and a tasty burger to boot.

***Debbie Fineberg** is a vice president in Ipsos' Innovation service line.*

Question: How will delivery drive food convenience in the future?

Kevin Vasconi

Chief information officer for The Wendy's Company

69%

of Americans are willing to order from a virtual restaurant if they are already familiar with the brand; 56% would be willing to order from a virtual restaurant if it was a brand that hadn't had a physical location before.

(Source: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults.)

Food delivery became a go-to over the pandemic and consumers are hooked.

Now, restaurant chains like The Wendy's Company and even grocers are investing in delivery-centric ghost kitchens and other technology to make getting food even more convenient. When Wendy's Chief Information Officer Kevin Vasconi thinks **What the Future**, he's focused on what it means to deliver high-quality food in a convenient manner at an attractive price.

Kate MacArthur: Wendy's is planning to open 700 ghost kitchens. What trends were you seeing that made you decide to make this investment?

Kevin Vasconi: Look at how consumer behavior changed at quick-service restaurants or even broadly within retail. We learned from the master, Amazon. There's an Amazon package that shows up in my house at least once a day, sometimes twice a day. The consumer now has this expectation that "I should be able to have delivery for even more products." Your choices for food before the pandemic were basically pizza and maybe Chinese food. Now we can have all kinds of conversations. Is it a quality experience? Is it convenient? Is it at a

"We learned from the master, Amazon. The consumer now has this expectation that 'I should be able to have delivery for even more products.' Your choices for food before the pandemic were basically pizza and maybe Chinese food."

price that has value? But the sea change in the industry, for all retail, is that delivery is here to stay and consumers love delivery.

MacArthur: Consumers tell us what they want most is convenience. How do you see that continuing in delivery vs. drive-thru as we get beyond the pandemic?

Vasconi: There's a time and a place for the service method. What consumers have discovered is that they can have it all and they can make it work into their day and they can make it their choice. There's this underlying theme of "I want convenience, but I also want choice. And I want that choice to be on my terms, when I want it and I want it across a very large product mix."

MacArthur: When you consider delivery fees and tips, it can add $10, $12 more to bill. What does that mean for how people value the convenience of delivery? How long are they willing to pay for that?

Vasconi: Where that question gets really interesting is when we get past COVID. The willingness of younger consumers to pay a delivery fee is amazing to me. I have college-aged kids, and they don't even think twice about it. But I look at my generation, and we're not willing to pay that. I think it's somewhat generational.

How much does brand matter for virtual restaurants?

Q. Think about if a company started a virtual restaurant. This restaurant has no retail locations (there is no seating and no drive-thru). The restaurant will deliver hot and cold food to you that you order from a website or app. (% Agree)

(Source: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults.)

“Grocery stores are really good at selling groceries, and with the right partners, they may be really good at being a restaurant. But I think you’re going to see a shake-out in some of that stuff.”

MacArthur: We’re seeing a move toward brands using AI to remember your past purchases and choices from past orders, which relates to first-party data. How can brands provide these kinds of AI options and still give customers control or a sense of comfort about sharing their personal data?

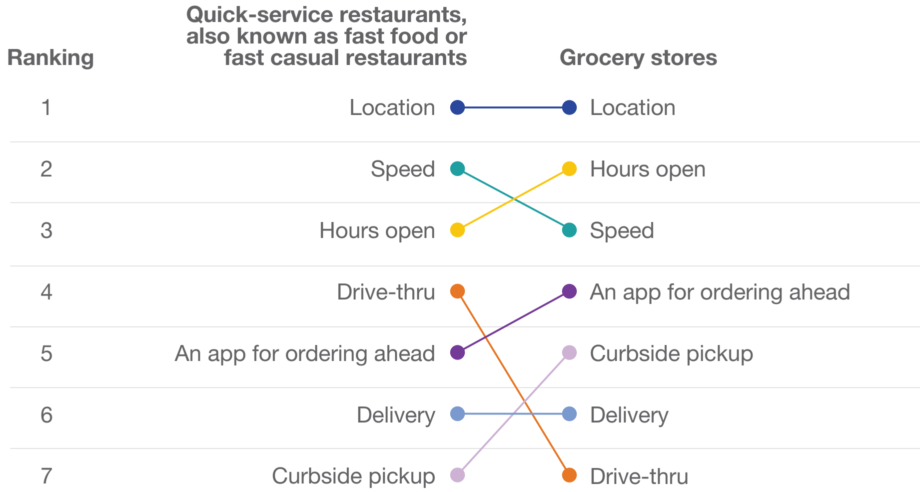
Vasconi: That’s why you want to have a relationship with a company, and that’s why you want to have a relationship with a brand, because you’ll trust them and know what their policies are. The other thing I think is hugely powerful and respects the consumer’s data is opt-in. I might be willing to give my license plate to a company that’s transparent to me and that I know will protect my data if that helps them register my frequent orders, and I can get through the drive-thru 30 seconds faster. But I might not. It goes back to customer choice.

MacArthur: We’re also seeing companies invest in permanent, outdoor dining structures as demand for indoor dining waned. Where do you see that going, particularly for fast-food chains?

Vasconi: I think the whole industry will continue to adapt. Indoor dining is still popular. If you go to a Wendy’s at lunchtime, there are a lot of people that want to eat in the dining room. The interesting thing about the behavior that’ll change in the dining room is how do people order?

What makes getting food convenient?

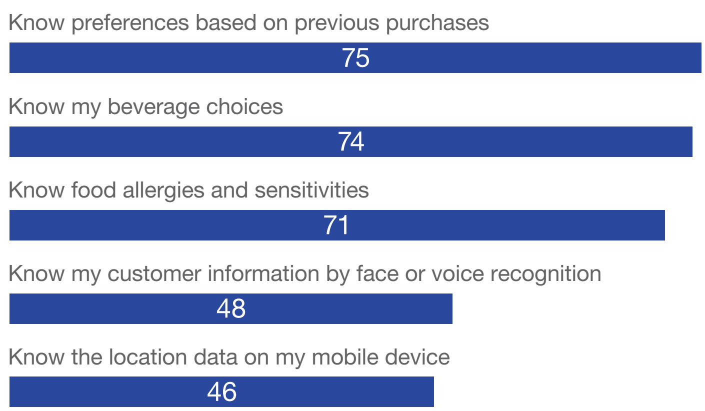
Q. Thinking about […] what defines convenience for you?



(Source: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults.)

How personal are food shoppers willing to get for better personalization?

Q. To what degree are you comfortable with sharing the following data or information in advance with restaurant or food service apps to get faster and more customized service? (% Comfortable)



(Source: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults.)

You don’t have to go up to the counter and order anymore. You can order before you even walk in the restaurant. You can order from a kiosk in a restaurant. If you’re in line and you think the line is too long, you can pull out your device and order from an app. There are some interesting dynamics of consumer behavior inside the dining room that we may, in fact, see a resurgence if it’s the quickest, easiest way for you to get your food.

MacArthur: We’re also seeing the lines blurring across retail types. There are grocery stores putting restaurants in stores, convenience stores putting restaurants in drive-thrus, restaurants doing ghost kitchens. What does this mean for the consumer and what they expect and how you try to understand their expectations, since they can go anywhere now?

Vasconi: Grocery stores are really good at selling groceries, and with the right partners, they may be really good at being a restaurant. But I think you’re going to see a shake-out in some of that stuff. I’m all about trying new things.

Kate MacArthur *is deputy editor of What the Future and deputy editor of editorial for Ipsos in North America.*

What will diners' new delivery habit **mean for restaurants?**

The pandemic altered Americans' reliance on food delivery, which will likely remain a necessity for customers. Yet while some restaurants and grocers have invested heavily in delivery and curbside pickup, others have begun to pull back on these services. Ongoing customer demand sits in tension with the reality of executing on a hybrid business, which many restaurants aren't equipped to support and sustain.

Ipsos data shows that one-third of Americans use third-party delivery companies at least some of the time. This figure has remained stable, even as dining in at restaurants rose by half to 57% from two months earlier. Furthermore, nearly four in ten Americans plan to use delivery as much as they do now after receiving the COVID-19 vaccine, with another one in ten planning to increase their usage.

Consumers continued use of delivery apps has been driven primarily by convenience (60%). This will remain important as more workers navigate hybrid work lifestyles. They will find a more competitive food landscape has emerged. Many companies across industries have quickly adapted to the sharp demand for food delivery.

Some restaurants opened ghost kitchens, facilities set up for delivery only, to cut overhead costs and stay in business during the pandemic. The Washington City Paper recently announced that it is hiring a food critic to review restaurants focused exclusively on takeout. Even supermarkets such as the Giant chain, which began accepting SNAP benefits for online orders and partnered with Instacart to provide a 30-minute delivery service, have incorporated delivery into their businesses.

While food delivery is no longer the "essential work" that it was during the pandemic, its convenience and relative ease of use will continue to make it a staple in the lives of many. Restaurants and grocery companies that cut off these services as customers return in-store will do so to the detriment of their customer loyalty and market share.

***Johnny Sawyer** is a senior research analyst at Ipsos.*

What drives diners to delivery apps?

Q. Why do you choose to use delivery apps? (% Total)

(Source: Ipsos survey conducted Apr. 29-30, 2021, among 496 U.S. adults who use delivery apps.)

Question: How will the hybridization of grocery shopping evolve?

Nichele Lindstrom

Vice president of e-commerce at Whole Foods Market

Grocery shopping changed dramatically over the pandemic as people embraced shopping apps and curbside pickup or delivery.

To Nichele Lindstrom, vice president of e-commerce at Amazon-owned Whole Foods Market, the pandemic “changed everything.” Yet many people never stopped shopping in stores, and the majority still prefer to buy food at a physical store. When Lindstrom thinks **What the Future**, she’s thinking about how online and in-store shopping offers flexibility that is an “and,” rather than an “or.”

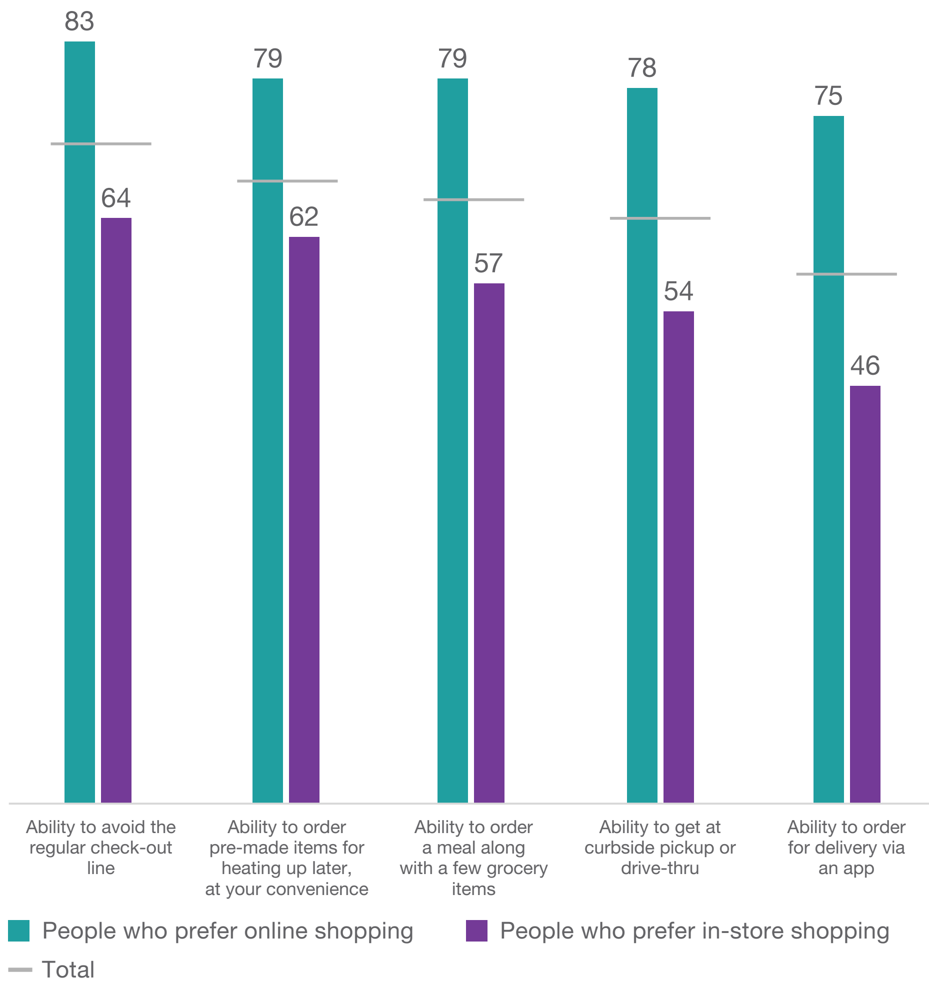
91%

of Americans believe their access to grocery delivery will stay the same or get better in the future.

(Source: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults.)

Which grocery takeout improvements would have the most sway with certain shoppers?

Q. If you could buy prepared foods for take home or delivery from a grocery store, would the following make you more likely or less likely to purchase from one of these outlets? (% Likely)



(Source: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults.)

Kate MacArthur: What are you seeing in people's grocery shopping patterns between in-store and online?

Nichele Lindstrom: It's what is the "moment of need" that drives you to one or the other. That optionality in that moment is what has fundamentally changed and opened this whole new space for customers to be flexible and still have the convenience.

MacArthur: From the shopper perspective, how do you provide outstanding service online?

Lindstrom: Ideally, when you land on our online store, you should have that sense of the local beer selection or the seasonal produce and that sense of discovery that you have when you go to a physical store. If we're featuring that beautiful, seasonal produce when you walk into the door of the Whole Foods store, it should feel the same when you "walk" online. It's something that we're continuing to focus on and experiment in to try to find new ways to do that.

MacArthur: What does the future of convenience look like?

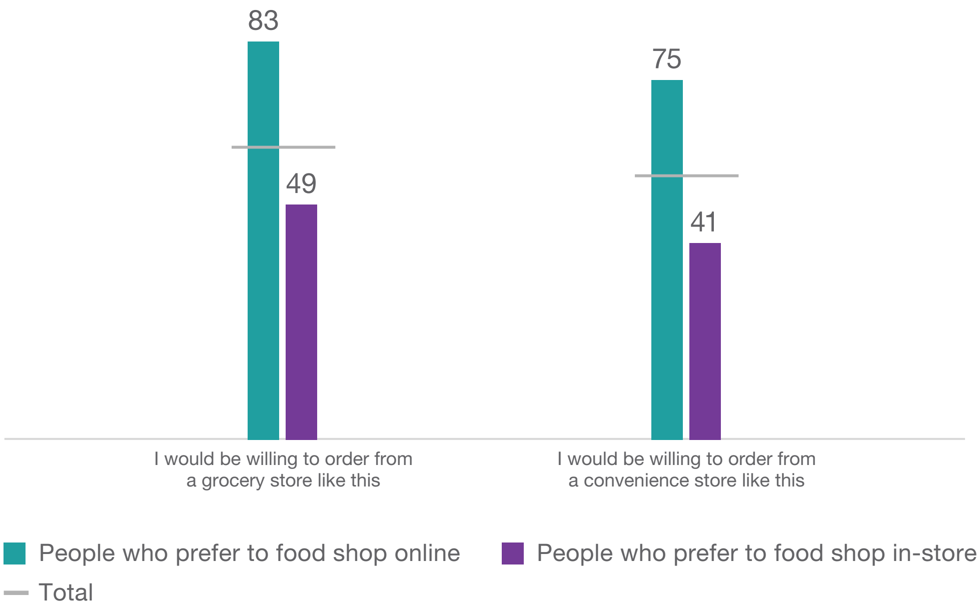
Lindstrom: We think the future is all about that choice and giving customers the option to pick what works for them in that moment. From an in-store perspective, we're continuing to open a ton of stores. Then at the same time, it's expanding things like free pickup. It's continuing to offer delivery and then offering even more new services like restaurant-style ordering for pizza and sushi and sandwiches through a program we just launched called Lunch and Dinner To-Go.

MacArthur: We're seeing a blending between the features of grocery, restaurant and retail. The only thing we don't have, at least that I've seen, is a drive-thru where I can order and pick it up.

Lindstrom: That's the beauty of delivery, but then also, we're about to open two physical locations with what's called "just walk-out technology." It's powered by Amazon, so you can walk in, you can pick up your items and then

Who is most open to ordering from virtual restaurants?

Q. Think about if a company started a virtual restaurant. This restaurant has no retail locations (there is no seating and no drive-thru). The restaurant will deliver hot and cold food to you that you order from a website or app. (% Agree)



(Source: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults.)

"We think the future is all about that choice and giving customers the option to pick what works for them in that moment."

you literally just walk out. The mindset where you remove that friction, whether it's things like drive-thru or just walk out, that's exactly where it's going.

MacArthur: As a person who does this for a living and is a shopper, what's the thing you really want to see happen?

Lindstrom: My very personal dream as a working mom is drive-thru! I want that. But in all seriousness, the thing that you're seeing today that I want to see continue to expand and grow is this idea of the overarching awareness of things like quality and knowing where products come from, with the added benefit of convenience and seamless integration.

It's that idea of being able to shop in-store or online as need requires with that added wrapper of things like supply chain responsibility, the continued focus on workers' rights, knowing where products come from and having access to local selection, which we know that customers love. When you can get the products that you feel really good about buying —with convenience—that becomes greater than the sum of the parts.

MacArthur: What are the best ways for artificial intelligence to serve shoppers?

Lindstrom: Particularly in the online space, it's about smart recommendations and things like bringing together your online shopping history and your in-store shopping history, combined with dietary preferences and needs to make it easy to either find the products you already love or new products that you haven't even thought of.

MacArthur: We're seeing more options for last-minute shopping. How do you solve that for a shopper?

Lindstrom: We're experimenting on how to solve it. We call it this idea next-level retail. We've got a location in Manhattan West with a convenience-style market that we built at street level of that location for that quick, grab-and-go item that customers want, but maybe don't have time to go into the full store. You also see it with our prepared foods in most stores, where if you just want to walk in, get your pizza and be done, you can do that. With this idea of next-level retail, we layer in that experience and feeling of the physical location.

For example, there's a hydroponic growing system in the Manhattan West store that grows a special type of basil that we then use in the prepared foods.

MacArthur: What is a store in the future?

Lindstrom: It's really a third space and part of a community where it's not just a store, but it's a place to meet friends and family and grab a bite and grocery shop and grab a package all in one stop. We're purposely building stores to have that sense of place, and you'll continue to see that as we iterate on store design.

***Kate MacArthur** is deputy editor of What the Future and deputy editor of editorial for Ipsos in North America.*

What does the new ‘eating at home’ mean for grocers and restaurants?

Americans have adjusted what and how they eat during COVID-19, along with where they get it.

Ipsos research shows that 55% of Americans say they are cooking more than before the pandemic. About three in ten are also using more food and grocery delivery. This opens the door for grocers to further their competition with restaurants.

This is especially relevant for younger adults ages 18-34, who eat everywhere but have always been bigger fans of restaurants than other age groups.

For instance, more grocers might invest in “grocerants” or restaurants with strong culinary credentials inside the stores. Walmart recently opened its first U.S. virtual food court in New York where customers can combine items from 25 menus and shop the store while they wait for their order.

Also expect expansion of virtual or ghost kitchens where grocers share food production space in-store to enable rapid takeout and delivery or restaurant-quality meals from the store. 7-Eleven recently unveiled a concept store in Florida incorporating a Fusion Fresh restaurant, the Wine Cellar, a nitro cold-brew and iced tea bar, and a car wash.

As restaurants and retailers jockey for share with new services and partnerships, it is important to keep people at the center of their plans. Most investments can be put to the test early on:

1. Get customer reaction to new ideas that come to market, whether yours or your competitors. Employ mystery shoppers, geo-triggered surveys, self-guided shops and user observation to find out what works and what doesn’t.

2. To test innovative ideas in early stages, consider research that uses 3D augmented reality that can be done qualitatively or with quantitative scale online to test ideas in full context rather than flat-dimensional concepts, and before the expense of building out in-store.

3. Shoppers also want grocers to make it easy to get takeout, as Ipsos research shows. That means skipping the checkout line to having the ability to add grocery items to their order and drive-thru. Just don’t lose sight of the primary purpose as 59% of shoppers would prefer to shop in-store.

Importantly, getting food for any meal is anybody’s game now, and food retailers need to remain flexible to compete.

***Wendy Wallner** is a senior vice president at Ipsos.*

Does who operates the virtual restaurant matter?

Q. Think about if a company started a virtual restaurant. This restaurant has no retail locations (there is no seating and no drive-thru). The restaurant will deliver hot and cold food to you that you order from a website or app. Please indicate how much do you agree or disagree with each of the following statements. I would be willing to... (% Agree)

(Source: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults.)

Question: What's keeping us from making our food supply chain better?

Marina Mayer

Editor-in-chief, Food Logistics

If the pandemic showed us anything, it's that how our food gets to us is almost as important as what we eat in the first place.

But how will the supply chain evolve to address the tensions between our "on-demand" economy and conflicting desire for sustainability, for locally-produced, but also cheap and accessible food? As the editor-in-chief of both Food Logistics and Supply & Demand Chain Executive, Marina Mayer is thinking **What the Future** of the supply chain day in and day out. Here's where she thinks it's headed.

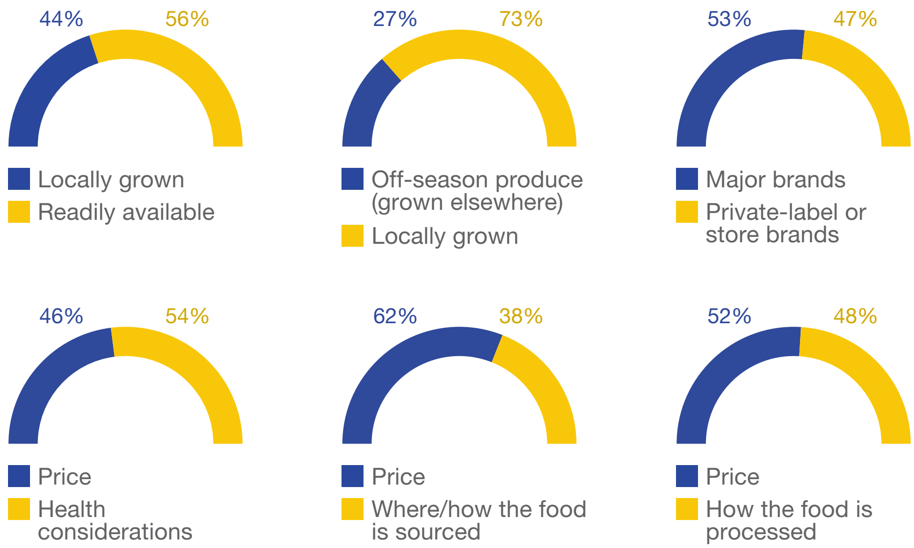
56%

of Americans purchased a food product within the past three months that was labeled as sustainable or ethically sourced.

(Source: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults.)

What are people's priorities for what they buy?

Q. For each of the following pairs, please select the one item that you feel is more important to you when purchasing groceries.



(Source: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults.)

"Price is just cyclical, but the 'readily available' thing, that's where the root of all of this starts. People want it right away."

Matt Carmichael: Will the current supply chain issues be systemic or will they go away once the pandemic leaves us?

Marina Mayer: I think the issues will always be here, just in different forms. People are still stockpiling. People are still buying food and other things online. It's hard to revert to old ways. There's great technology out there. The problem is that it doesn't solve all problems at all times.

Carmichael: Do advances in indoor and lab-grown food (plants as well as meat) start to redefine "local" and shorten supply chains?

Mayer: It does bring in a localization aspect because farms are usually out in the middle of nowhere, but if you're bringing it indoors you can build that anywhere. We've seen companies who have built their indoor farm attached to a grocery store. That's what a lot of companies need to do to shorten that supply chain and maintain the freshness of their foods.

Carmichael: We surveyed about which is more important, locally grown or readily available, and found that locally grown is very important, but price and availability are important considerations, too. How do you balance these considerations in the supply chain of the future?

Mayer: The availability part is what's throwing things out of whack because now customers want things right away. That's creating this uphill battle for us. Price is just cyclical, but the "readily available" thing, that's where the root of all of this starts. People want it right away. They also want it fresh, but they don't care so much about that. They just want it.

Carmichael: How is the industry dealing with that new "to my doorstep" leg of the chain?

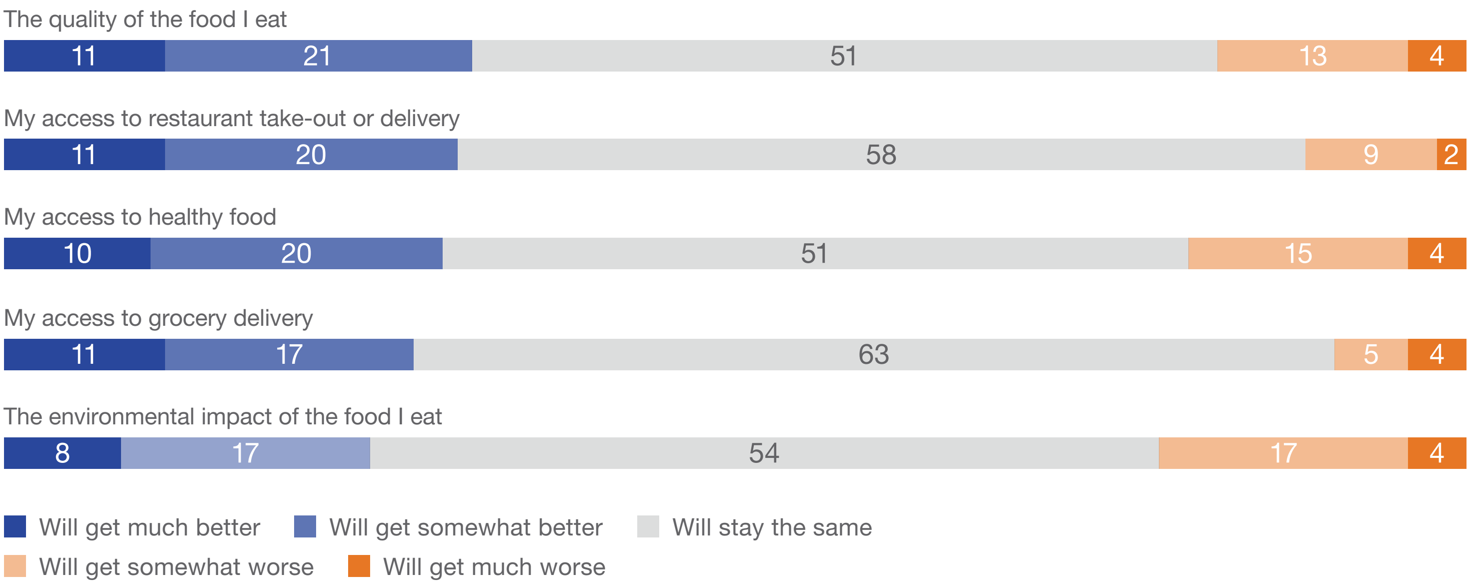
Mayer: Initially, it struggled because it was introduced basically overnight. I think a lot of companies thought it would be temporary, and now it's not. Retailers struggle with a lot of different challenges, all similar in nature. The kicker is that they're competing with other trucks and companies that have already been doing this, like UPS and FedEx. So, if retailers don't hire somebody else to do these things for them, then they have to create a fleet, as Walmart did. Walmart said, "Hey, this is a problem. It's not going to go away. We're just going to create this supply chain arm in our company and just fix it."

Carmichael: In the end, price trumps all considerations. How do we keep the economics and affordability and the equitability of food as the supply chain evolves?

Mayer: Localization is key to that because it means less road to travel, fewer hands to touch [product] in between. There are a lot of third-party providers now that say, "You just need to produce it. We'll take it from there." That is where the challenge is for some of these smaller companies who've been doing everything themselves — they don't realize that there are other ways to do these things.

What are people's outlooks about getting food in the future?

Q. Looking into the future, do you think the following will get better or worse?



(Source: Ipsos survey conducted Oct. 22-25, 2021, among 1,171 U.S. adults.)

Carmichael: In recent years, there's been a renaissance of locally grown, farm-to-table, etc., but it seems like the world is pivoting back to an advantage for the larger companies that can scale operations and invest in the technology at the farm, itself. Do you see that pendulum swinging back?

Mayer: Yes. It's also the larger corporations that are doing more with sustainability. That matters to consumers. People still want to know the values of the companies where they're buying from to correlate with their own values.

Carmichael: What needs to change for the supply chain to become more sustainable?

Mayer: People aren't really talking about it enough, but when you put a lot more trucks on the road to deliver a lot more shipments to somebody's door, you're burning more fuel, and it's undoing sustainability progress.

Carmichael: How important is further localization and lab creation of meat and plants and technology to help with traceability to the supply chain industry?

Mayer: Traceability is becoming more and more important. The challenge is that it seems to be more useful for the companies that are producing and shipping these products than it is to the consumers. Consumers will say, "I want to know where my meat comes from," but they're not going to actually physically take the time to scan whatever it is and view the journey.

Carmichael: What changes do you foresee in how the supply chain can impact the incredible amount of food waste?

Mayer: Food waste has always been an issue and will always be an issue. It's getting better because a lot of trucks have put in solutions and sensors that can literally say, "Hey, this truck is under temperature or above temperature." But then you have stuff that's stuck on ships in ports.

Carmichael: Labor shortages have been an issue in the trucking industry for quite some time. How bullish are supply chain-related companies on automated driving?

Mayer: They are [bullish], but then there are a lot of drivers out there who are pushing back, even though there's a driver shortage. It's a chicken or egg thing. They have to figure out how to fix this, and they have to fix it, like, yesterday.

Matt Carmichael *is the editor of What the Future and VP of Editorial strategy for Ipsos North America.*

"We've seen companies who have built their indoor farm attached to a grocery store in a food desert. That's what a lot of companies need to do to shorten that supply chain and maintain the freshness of their foods."

What can grocers learn about keeping relevant **amid supply chain uncertainty?**

The pandemic has changed habits of food consumption, as well as caused supply chain chaos.

Stores are having a hard time keeping items in stock. At the time of this writing, there is a Midwest shortage of, oddly enough, whipped cream cheese. But to what degree are shoppers noticing and how forgiving are they? To find out more about the implications of this ongoing reality, Ipsos recently surveyed 1,000 grocery consumers on their grocery experiences.

Among the findings, two-thirds (65%) of Americans say that grocery stock availability is worse today than before the pandemic. Nearly half (47%) of households with children reported that their primary grocery store is out of one or more of their desired items at least half of the time. Out-of-stocks cause consumers to divert their business elsewhere, sometimes for good.

For example, almost one in five (18%) of households with children changed where they primarily buy groceries because of dissatisfaction with inventory or unsatisfactory online order substitutions. Clearly, the stakes could not be higher for grocers when it comes to staying competitive around inventory.

While some of these findings should be alarming to brands, they also represent critical opportunities for those that prioritize understanding their customers as well as executing strategies and tactics to keep them loyal despite ongoing supply chain challenges.

Here are tips for staying relevant with consumers amid the uncertainty:

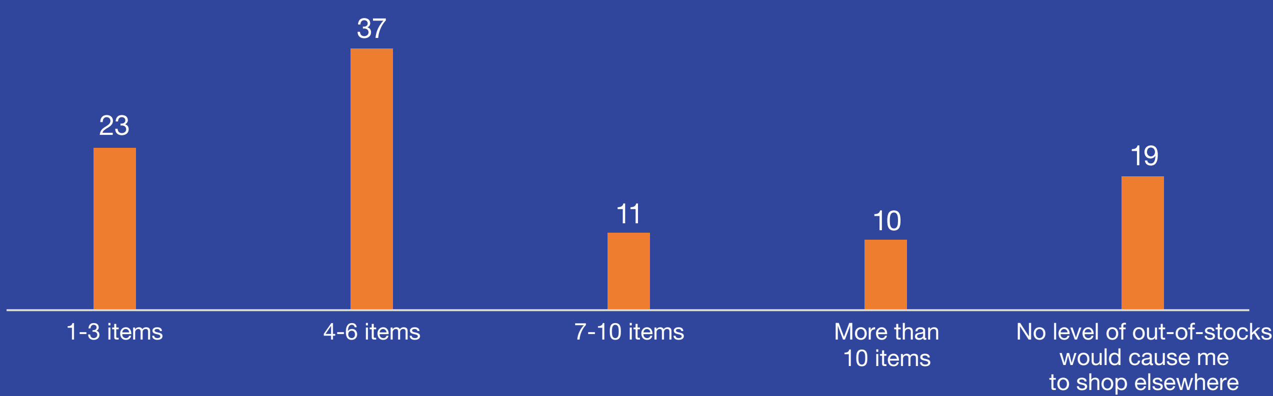
- Surveying your customers regularly and performing impact analyses to predict what will drive their likelihood of continuing doing business with you and recommending you to others, including for inventory and product selection.
- Electronically intercept customers leaving your stores using geolocation technology to ask them about their experiences in finding all their desired items and more.
- Perform mystery shops, both in-store and online/curbside pickup, to assess store-level execution around stock availability and substitutions. Track improvement over time.

Grocery retailers have much to consider about how to navigate operational and customer experience strategy related to product availability in an ever-changing environment.

***Mike J. Murphy** is a vice president in Ipsos' Channel Performance service line.*

Where will shoppers draw the line on out-of-stock items?

Q. When you shop in-store/order online for curbside pickup/order online for delivery, how many items from your shopping list can the store be out of to cause you to shop elsewhere for your next order? (% Selected)



(Source: Ipsos survey conducted Jun. 17-21, 2021, among 982 U.S. adults who shop in-store or online for curbside pickup or delivery.)

Download and share this report at: future.ipsos.com
For full results and methodology, visit ipsos.com/en-us

future.ipsos.com

GAME CHANGERS