

## *Impact of Coronavirus (COVID19) Vaccine on Food Service*

### Executive Summary

In February 2020, the Meat Demand Monitor (MDM) project was launched collecting data from over 2,000 U.S. consumers each month. The MDM project is funded in-part by the beef and pork checkoffs and tracks U.S. consumer preferences, views, and demand for meat with separate analysis for retail and food service channels. In this report, additional insights from the MDM surveys conducted in October are outlined. The focus of this special report is on resident expectations around availability of a COVID19 vaccine and the subsequent impact this would have on dine-in meals at restaurants.

Key insights include:

- The first quarter of 2021 is the most commonly stated period when an available vaccine is expected.
- A minority of 20% would immediately have more dine-in meals and a near majority (45%) would slowly begin to have more dine-in meals. However, 35% do not expect an available vaccine to change their dine-in activity.
- Household characteristics of those more likely to immediately increase dine-in meals, rather than no change in away-from-home activity, includes being under 55 years of age, being male, having kids in the home, having a 4-year college degree, and having a household income over \$100,000.
- Respondents indicating higher prevalence of beef or pork in yesterday's meals are more likely to indicate an immediate increase in dine-in meals.

The foregoing provides additional details on the above summary points. This includes figures with predicted probabilities of dine-in meal impact to help readers visualize these results.

Overall, these findings should increase understanding of how varied segments of the very diverse U.S. population may respond as a COVID19 vaccine becomes available. As a broad statement, it appears younger, more educated, higher-income cohorts may be the first to increase their on-site, away-from-home consumption. It is also important to note current households including beef and pork at higher rates in prior day meals are projected to also increase dine-in activity. Given the magnitude of impacts to-date on both domestic retail and food service channels from this pandemic, hopefully this knowledge in turn will enable enhanced planning for ongoing dynamics in where U.S. residents consume their meals.



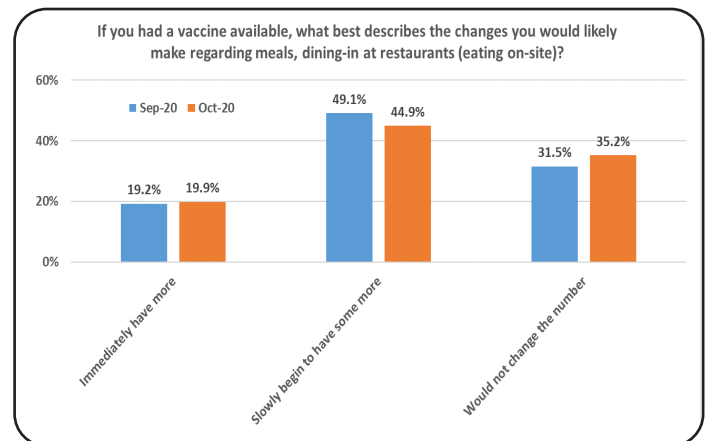
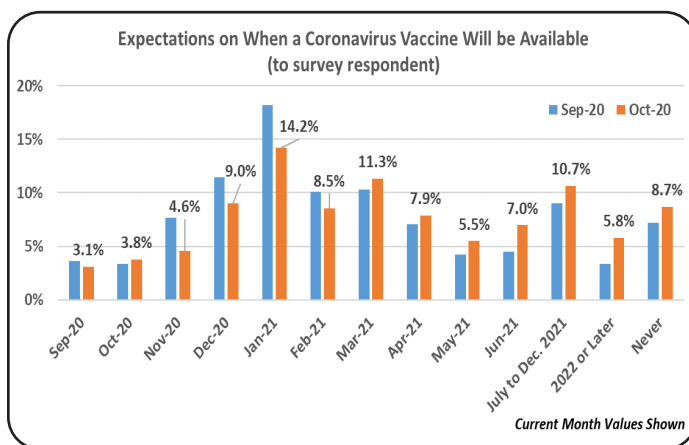
## Survey Questions

First it is useful to directly document the ad hoc questions focused on vaccine availability which underpin this report. Beginning in September these questions were asked consistent with growing social discussions around vaccine progress in recognition of the possible impacts on meat demand.

The first question was: “There is significant interest around the development of an available coronavirus vaccine. What best describes your expectations regarding when a vaccine will be available to you?” A drop-down list of 13 presented answers began with “September 2020” and ended with “Never, I do not believe a vaccine will be developed and available to me.”

The second question was: “If you had a vaccine available, what best describes the changes you would likely make regarding meals, dining-in at restaurants (eating on-site)?” Three candidate answers were presented as “immediately have more dine-in meals at restaurants,” “slowly begin to have some more dine-in meals at restaurants,” and “would not change the number of dine-in meals at restaurants.”

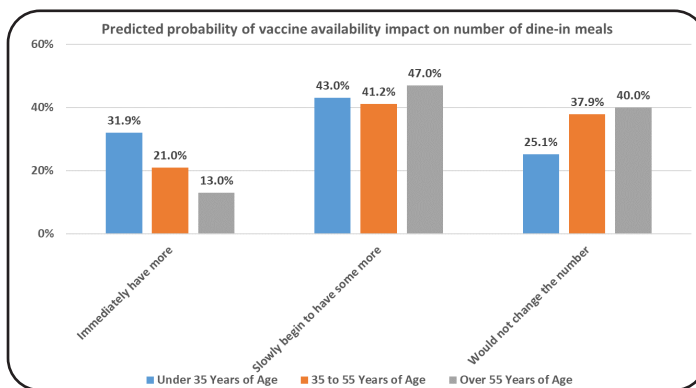
The two figures below were also included in the base October MDM report (see page 3) and show responses collected first in September and then in October. While the most common response aligns with vaccine availability in the first quarter of 2021, overall expected availability was pushed back over these two months of survey data collection. As for impact on food service meals, respondents conveyed a measured response to vaccine availability. In October, 20% indicated vaccine availability would result immediately in more dine-in meals, 45% suggested a slow increase to have some additional dine-in meals, and the remaining 35% responded they would not change the number of dine-in meals. The observed variation in these responses motivates the further assessment provided in this report.



## Analysis and Graphical Results

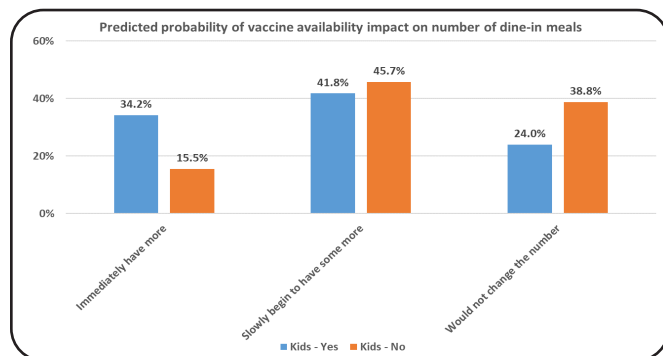
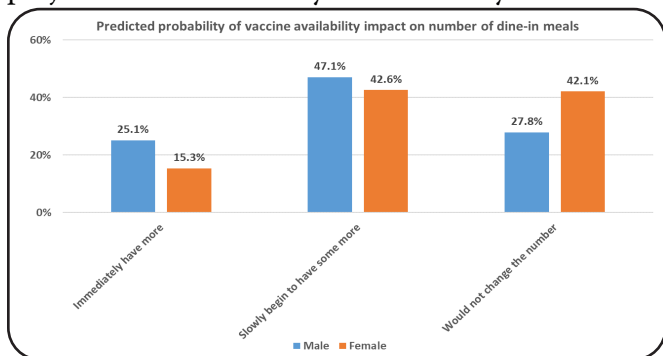
Since our question on vaccine availability impacts provided respondents with three distinct responses, a multinomial logit model is used to examine the factors aligned with expected dine-in meal effects. Specifically, a multinomial logit model was estimated in SAS to identify socio-economic and other respondent characteristics that significantly impacted the odds of indicating immediately more or slowly some more dine-in meals, relative to a base case response of no change in dine-in meals. Coefficient estimates from these models are not overly helpful on their own and odds-ratios often reported can also easily be confusing.

Accordingly here, figures are provided conveying the predicted probabilities of each dine-in meal response. Given probabilities sum to 100%, these figures are likely more intuitive for readers and practitioners. The following figures are provided for variables found to have a significant (0.10 level) and meaningful impact.

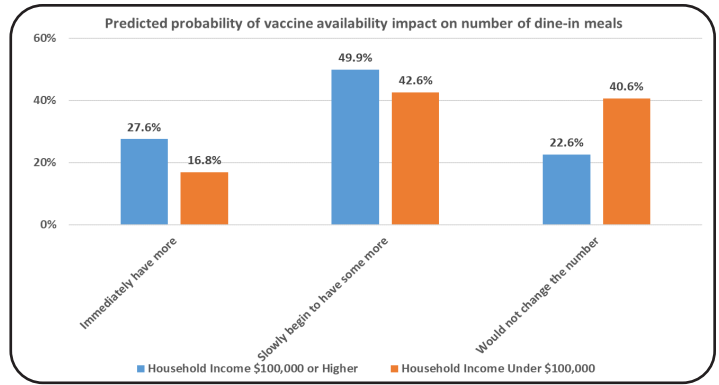
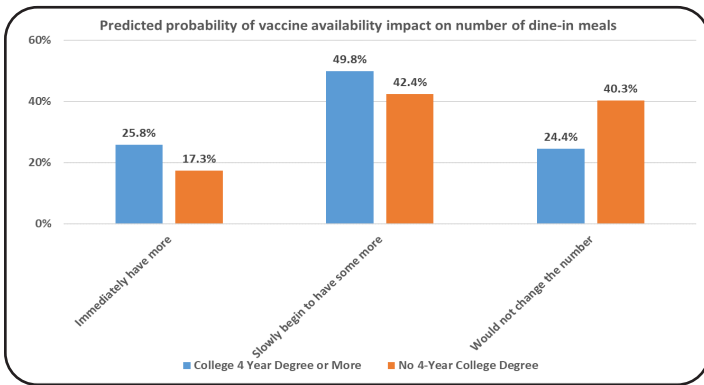


First consider the impact of age. Younger respondents under the age of 35 are more likely to indicate an immediate increase in dine-in activity than no change in behavior. Specifically, 32% are projected to immediately increase the number of dine-in meals, 43% expected to slowly increase activity, and 25% make no change. Comparing this to those over 55 years of age we see 13% are projected to immediately increase dine-in activity, 47% slowly increase, and 40% to not change. Combined this suggests restaurants positioned to offer meals desired more by younger decision-makers may benefit first from vaccine availability.

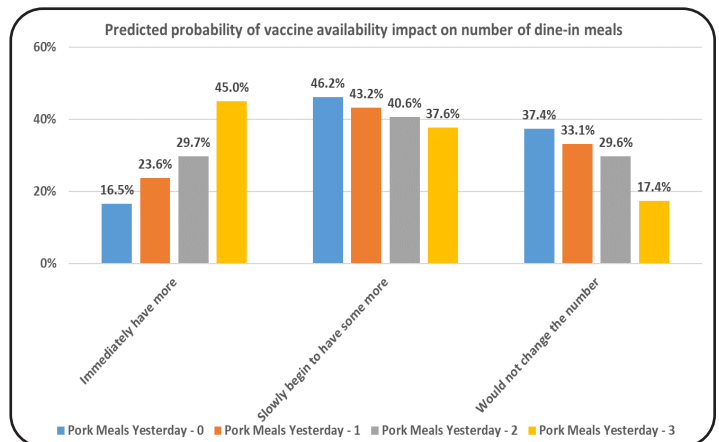
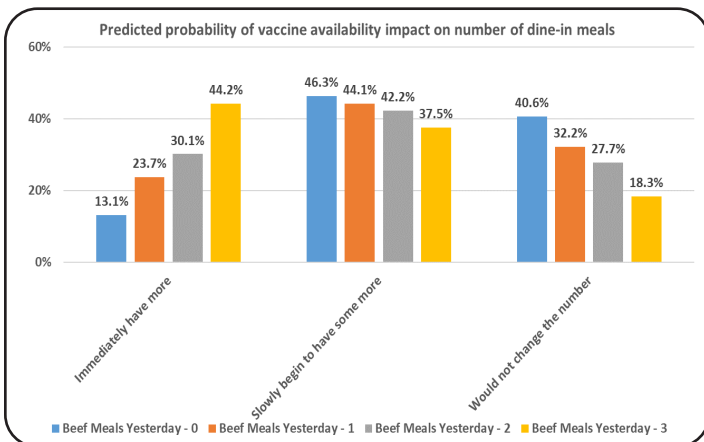
We then turn our attention to the impact of gender and children being in the household. One-fourth of male respondents are projected to immediately increase dine-in meals versus only 15% of females. The effect of children under the age of 12 in the home is even stronger as over one-third of respondents with children are projected to immediately increase away-from-home meals versus 16% for those without children at home.



One-half of respondents with a 4-year (or more) college degree expect to slowly have more dine-in meals with the remaining half about equally split between immediately having more away-from-home meals and not changing activity. Conversely, those without a 4-year degree are much less likely (17%) to indicate an immediate increase in dine-in meals and more likely (40%) to not change behavior. This education pattern is broadly repeated for income. One-half of households with incomes of \$100,000 or higher expect a slow increase while 28% are projected to immediately increase to more meals. Meanwhile, of those with incomes below \$100,000, 41% are projected to not change away-from-home meals and 43% may slowly have more.



The final consideration in this assessment was the impact of prior-day meal composition. Specifically, the impact of beef and pork being included in prior-day meals is captured regularly in the Meat Demand Monitor. For each respondent, diary-type recall questions yield an estimate for the number of prior-day meals that included each protein. A clear take-home point is respondents who currently include beef or pork in more of their meals are projected to be more likely to immediately increase the number of dine-in meals they have at restaurants. While only a minority of households consumed beef (10%) or pork (7%) in two or three meals the prior day in October, this does suggest the industry should be ready for these “loyal, heavy consumers” to help lead a recovery in away-from-home meals once a vaccine is available.



## Endnotes

1) MDM project details including survey instruments and individual monthly reports are available here:  
<https://www.agmanager.info/livestock-meat/meat-demand/monthly-meat-demand-monitor-survey-data>



Meat Demand Monitor

Glynn Tonsor, Kansas State University, [gtonsor@ksu.edu](mailto:gtonsor@ksu.edu)

Jayson Lusk, Purdue University, [jlusk@purdue.edu](mailto:jlusk@purdue.edu)

Additional MDM Project details are available at: <https://www.agmanager.info/>

Additional MDM Project details including survey questions, past report releases, and a description of methods are available online at:  
<https://www.agmanager.info/livestock-meat/meat-demand/monthly-meat-demand-monitor-survey-data>

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**Funded in part by  
the Beef Checkoff.**

