What happens to healthcare costs when going to the doctor becomes normal again?

Milliman

Welcome

AGENDA

- Introduction
- Key takeaways
- Deferred care experience to date
- Looking forward
- Modeling considerations
- Modeling the potential impacts on 2020 and 2021
- Q&A

Introduction

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Key takeaways

2020

Potential reductions to medical costs due to deferrals and potential return:

-2%
to
-33%

2021

Potential changes to medical costs due to deferrals and potential return:

+14%
if a vaccine in late 2020 leads to high returns

-32%
if a continual apprehension from the public and providers persists

Note: Estimates exclude costs for COVID-19-related services

Deferred care experience to date

What is deferred care?

Fewer healthcare services for a population than expected based on historical patterns for a similar population

- Excluding services for COVID-19 care (these are new this year)

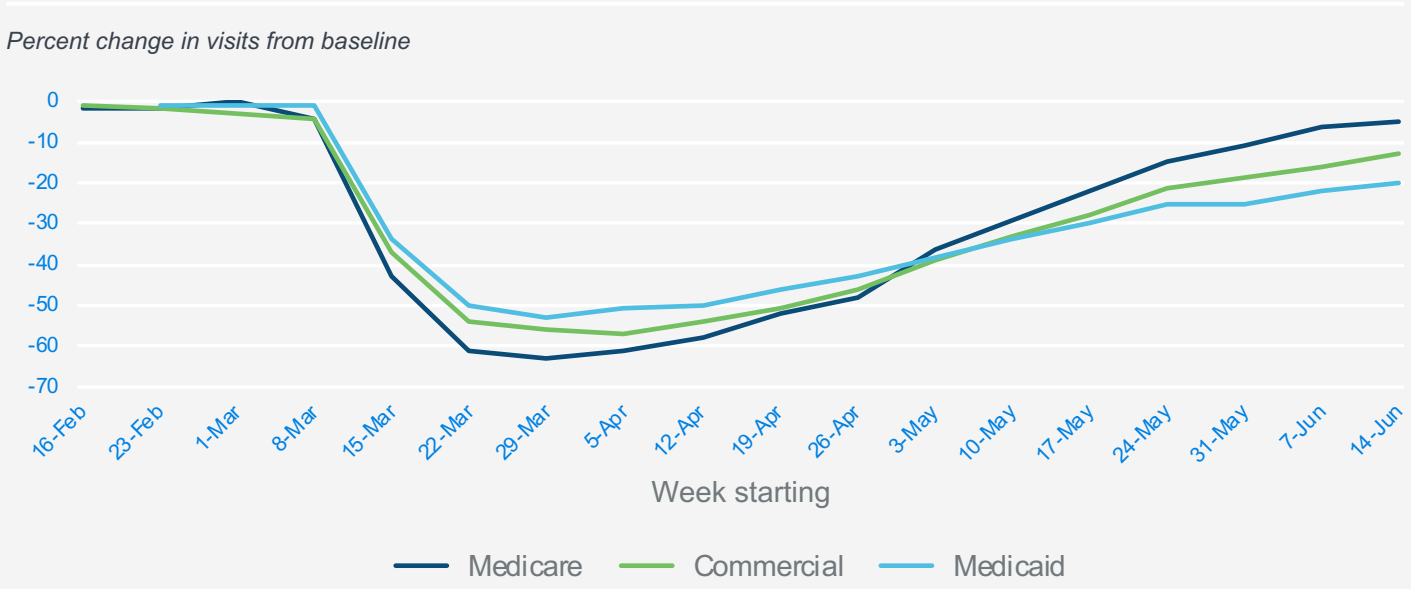
Based on anecdotal reports from health care payers and providers, 30-70% estimated reduction in care during the initial phase of COVID-19 restrictions – mid-March through April 2020

- Office visits show some rebound through mid-June despite declining telehealth, but systematic information is not available for most service categories

Note (Right): Data are presented as a percentage change in the number of visits of any type (in-person and telemedicine) in a given week from the baseline week (March 1–7). Note that type of insurance is observed at the time of a visit; therefore, some observed changes could be driven by patients losing their private insurance and becoming uninsured or by patients enrolling in Medicaid. Many children have Medicaid, and some of these changes could be driven not by type of insurance but rather by the differential impact of the pandemic on children versus adults (see next graph).

Source (Right): Ateev Mehrotra et al., The Impact of the COVID-19 Pandemic on Outpatient Visits: Practices Are Adapting to the New Normal (Commonwealth Fund, June 2020). https://doi.org/10.26099/2v5t-9y63

Since the nadir of visits in late March, there has been a substantial rebound in visits among people covered by Medicare. The rebound among people covered by Medicaid has lagged.



Why has COVID-19 led to less healthcare?

Some usual care is not needed (foregone)

Accident Type/Cost	Before Order (2/27 – 3/19/2019)	Before Order (2/27 – 3/19/2020)	"After" Order (3/21 – 4/11/2019)	After Order (3/21 – 4/11/2020)
Collision	1,151	1,056	1,128	450
Injury/fatality	509	496	448	237
% Reduction before/after			N.S	**52%** (p<0.01)

Change in rates of collisions and injury/fatal accidents before and after the Governor's shelter-in-place order. The before period (2/27-3/19/2020) was compared to the equivalent period in 2019 and after the order (3/21-4/11/2020). A similar "after" period in 2019 was used for comparison.

Source: Shilling, Fraser and Waetjen, David. Road Ecology Center, University of California, Davis. April 2020. Special Report(Update): Impact of COVID19 Mitigation on Numbers and Costs of California Traffic Crashes. April 1, 2020 (updated April 15, 2020). https://roadecology.ucdavis.edu/files/content/projects/COVID_CHIPs_Impacts_updated_415_0.pdf

Why else has COVID-19 led to less care?

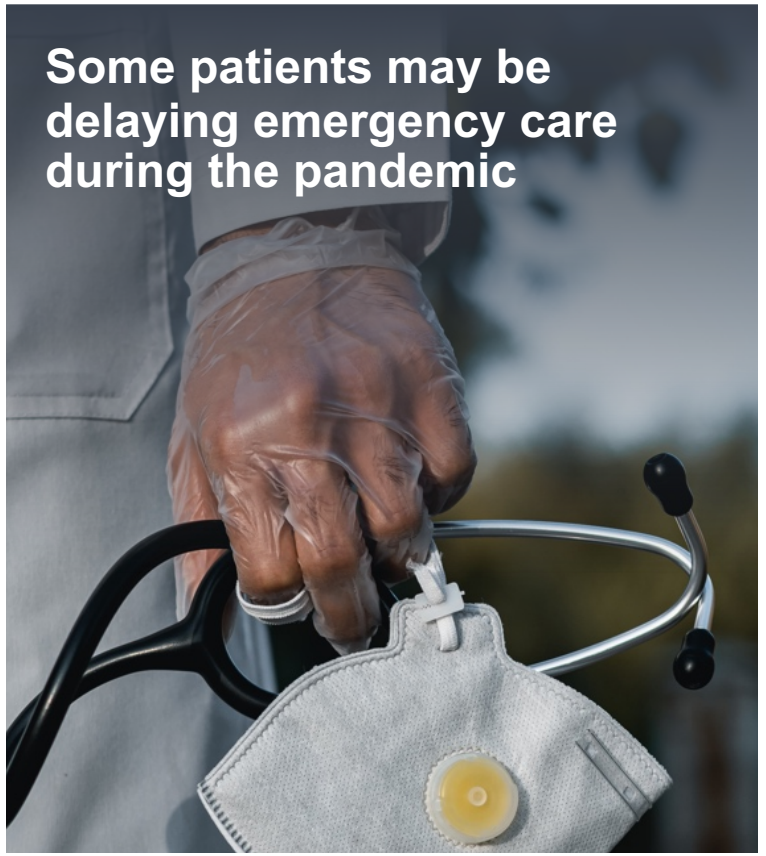
Some usual, necessary acute care is not received (foregone)

Emergency department visits declined

A decline in visits for serious conditions might result in complications or death

42%*

*U.S. emergency department visits March 29–April 25, 2020, compared with March 31–April 27, 2019



Source: English, Roseanne, et al. Impact of the COVID-19 Pandemic on Emergency Department Visits — United States, January 1, 2019–May 30, 2020. Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report (MMWR). June 12, 2020. Vol. 69(23);699–704. https://www.cdc.gov/mmwr/volumes/69/wr/mm6923e1.htm

And…why else has COVID-19 led to less care?

Some usual elective/non-essential care is skipped or postponed – by provider or patient

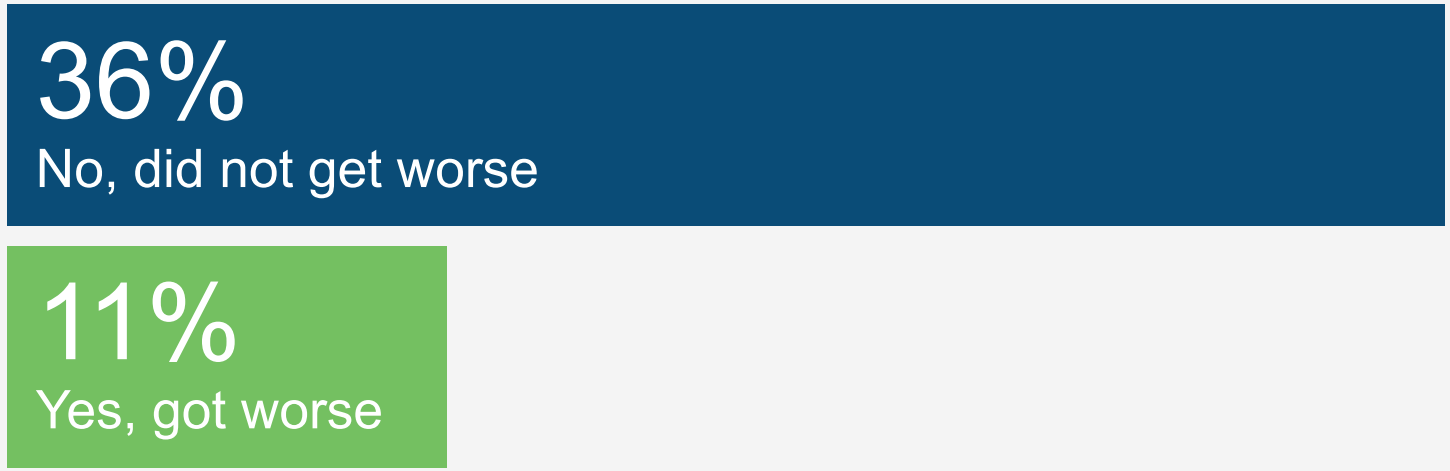
About half of the public says they have skipped or postponed medical care because of the coronavirus outbreak

In the past three months, have you or a family member in your household skipped or postponed any type of medical care because of the coronavirus outbreak?

52%	No
48%	Yes
1%	DK/Ref

Asked of the 48% who skipped or postponed medical care:

Did your condition or a family member's condition get worse as a result of skipping or postponing medical care?



Note: For second question, percentages based on total.

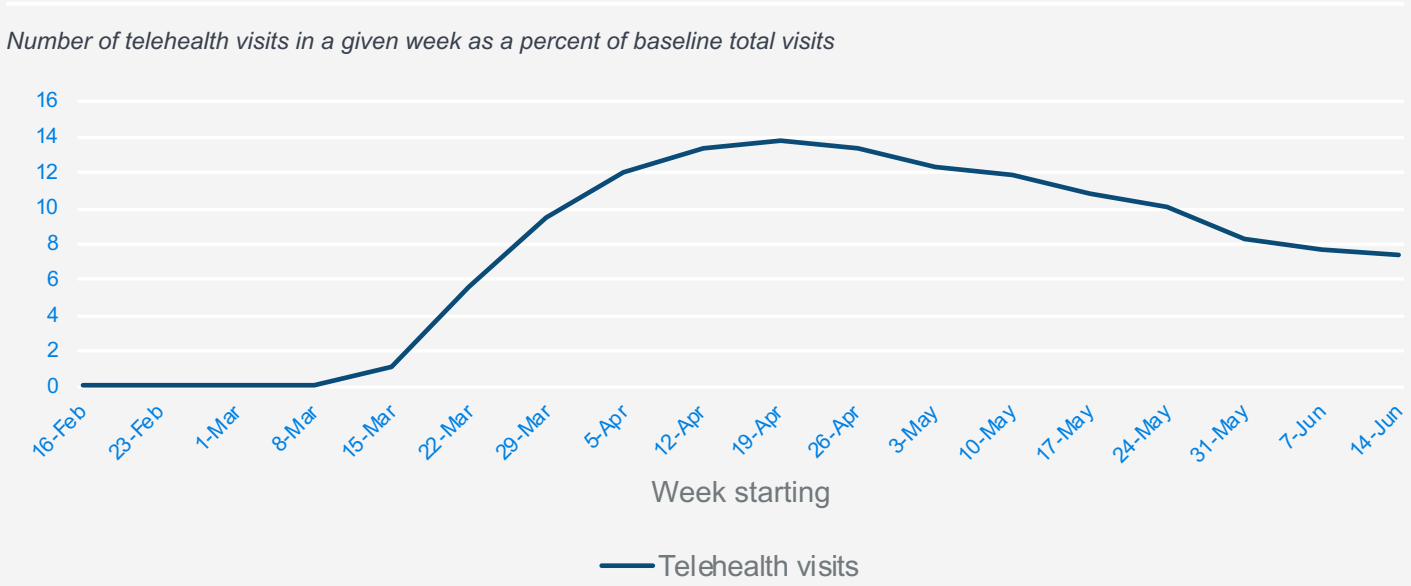
Source: Hamel, Liz et al. May 2020. Impact of Coronavirus on Personal Health, Economic and Food Security, and Medicaid. Henry Kaiser Family Foundation (KFF). KFF Health Tracking Poll. May 27, 2020. https://www.kff.org/report-section/kff-health-tracking-poll-may-2020-health-and-economic-impacts/

Telehealth has partially offset fewer in-person visits

Medicare leads with flexibilities…many other payers follow along

- Medicare introduced **broader flexibility** for telehealth payment
- Telehealth **visits increased considerably** in the early stages of the pandemic but have **since decreased**
- **Uncertainty** regarding payment rates may hinder ongoing telehealth use

The number of telemedicine visits (as a percentage of visits during the baseline week) rose rapidly through mid-April but has since been steadily declining.



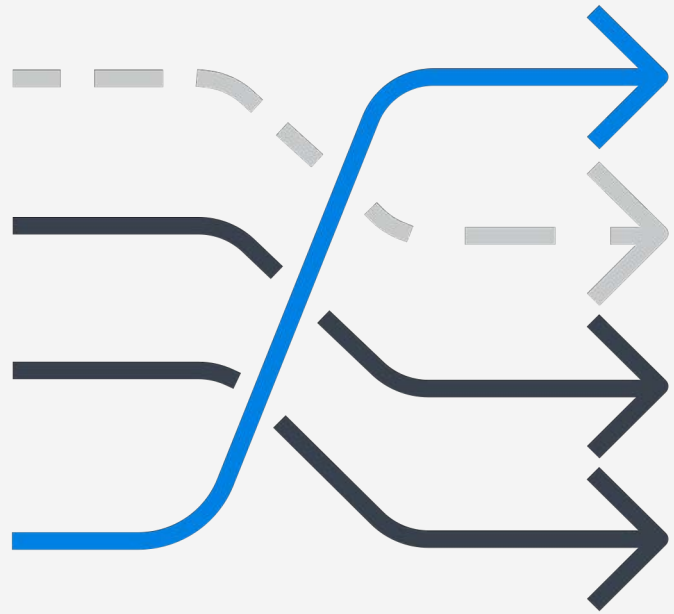
Source (Right): Ateev Mehrotra et al., The Impact of the COVID-19 Pandemic on Outpatient Visits: Practices Are Adapting to the New Normal (Commonwealth Fund, June 2020). https://doi.org/10.26099/2v5t-9y63

Looking forward

Can’t we look to the past?

As COVID-19 progresses, it is becoming increasingly clear that the disease is different from other past events that may support analysis and modeling; therefore, we cannot rely heavily on these past events to model the future

- Past pandemics
- Natural disasters
- Utilization in healthcare shortage areas
- Utilization changes after loss or gain of healthcare coverage

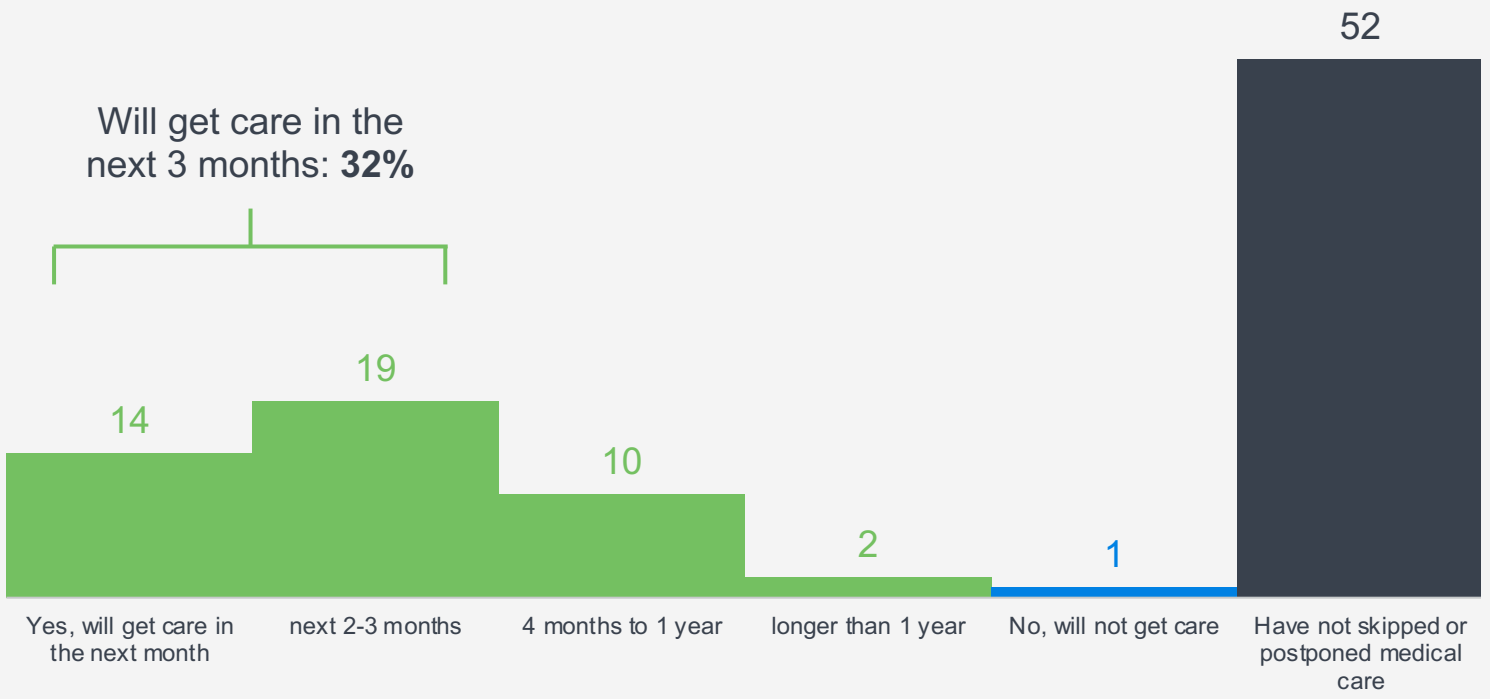


When will delayed care return?

Some skipped/postponed care will return; the portion not returning is foregone

About a third say they skipped or postponed medical care due to the coronavirus but will get needed care in next few months

Asked of the 48% who skipped or postponed medical care: Thinking about the care you or your family member skipped or postponed, do you think you will eventually get this care, or not? **IF YES:** Will that be in the next month, within two to three months, within four months to one year, or longer that that?



Note: Percentages based on total.

Source: Hamel, Liz et al. May 2020. Impact of Coronavirus on Personal Health, Economic and Food Security, and Medicaid. Henry Kaiser Family Foundation (KFF). KFF Health Tracking Poll. May 27, 2020. https://www.kff.org/report-section/kff-health-tracking-poll-may-2020-health-and-economic-impacts/

Modeling considerations

On to modeling for 2020-2021

We incorporate:

- Amount of usual care not provided and the duration of deferred care
- Amount of care that returns, including the timeline and shape of the return

Results impact 2020 and possibly 2021 (and beyond)

- Subject to significant uncertainty due to limited information on COVID-19
- Subject to significant change over time as new information emerges
- Will vary significantly by geography and for different payers and providers within geographic areas
- Impact will vary by type of coverage and by member/patient demographics

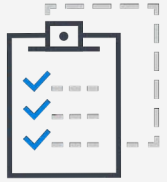
Looking under the hood

- Approximately 120 major healthcare service categories
- Medicare and commercial markets
- Deferral assumptions at five levels of lockdown strength, representing strength of social distancing, stay at home requirements, and other measures intended to limit the spread of COVID-19
  - **Level 1** - Open non-essential businesses with social distancing recommended, elective procedures permitted
  - **Level 5** - Strict stay at home orders, no non-essential businesses open, elective procedures not permitted, in-person non-essential medical care delayed
- Return assumptions as a percentage of deferrals

What care are we talking about?

Clinical review of Medicare and commercial historical claims data

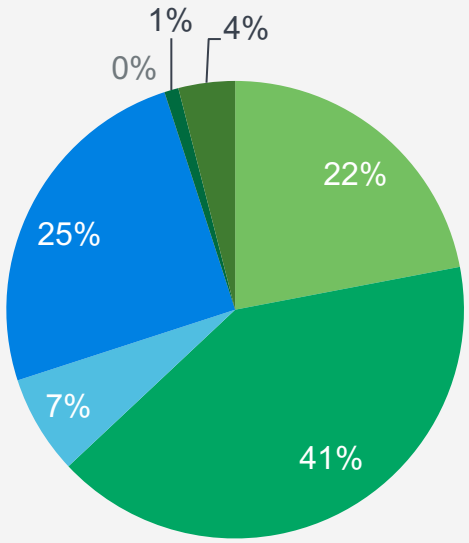
- Service category assumptions:
  - **Inpatient cases** – DRG level, stratified by emergent versus elective admissions
  - **Emergency department and observation cases** – Principal diagnosis code category level, considering classification as emergent or non-emergent
  - **Outpatient and office surgery cases** – Main procedure code category level
  - **Outpatient and office-administered drugs** – Drug category level
  - **Specialty visits** – Provider specialty level
  - **All other** – Detailed service category level (e.g., general diagnostic imaging, advanced diagnostic imaging, professional laboratory/pathology, mammography, primary care visits, immunizations, etc.)
- Clinical assumptions at a lockdown level are the same for each market



Market service mix matters

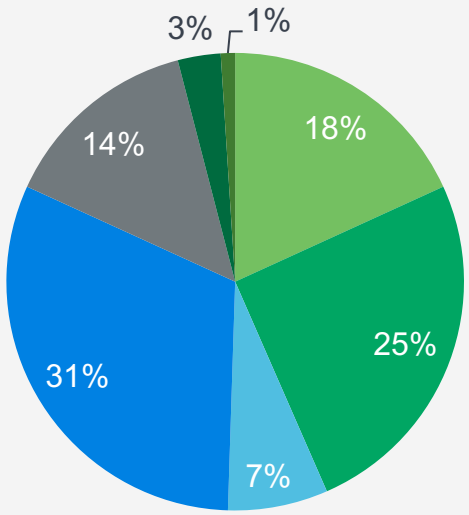
For example…

Inpatient admission cost distribution - Medicare



Emergency Surgical
Emergency Medical
Non-Emergency Medical
Non-Emergency Surgical
Maternity/Newborn
Psych/Substance Abuse
Rehab

Inpatient admission cost distribution - Commercial



Emergency Surgical
Emergency Medical
Non-Emergency Medical
Non-Emergency Surgical
Maternity/Newborn
Psych/Substance Abuse
Rehab

What else matters?

Relative influence on lockdown level and returns varies by time, locality, and market

Governmental

- Executive directives – most states in March-April, 2020 regardless of local COVID-19 infection rate; currently targeted based on percentage of available hospital beds in communities

Medical

- Provider capacity – may be lower than usual due to COVID-19 safety precautions; may be higher than usual if providers expand to expedite the return of care
- Widespread vaccination timeline

Provider/Public Health Organizations

- Guidance – CDC and others, balancing potential for patient harm with degree of community COVID-19 transmission

Community

- Community spread of COVID-19 – Northeast surge in March-April 2020; current surge in South and West
- Effective level of social distancing
- Patient fear – care has not rebounded as expected after elective surgery was permitted to resume

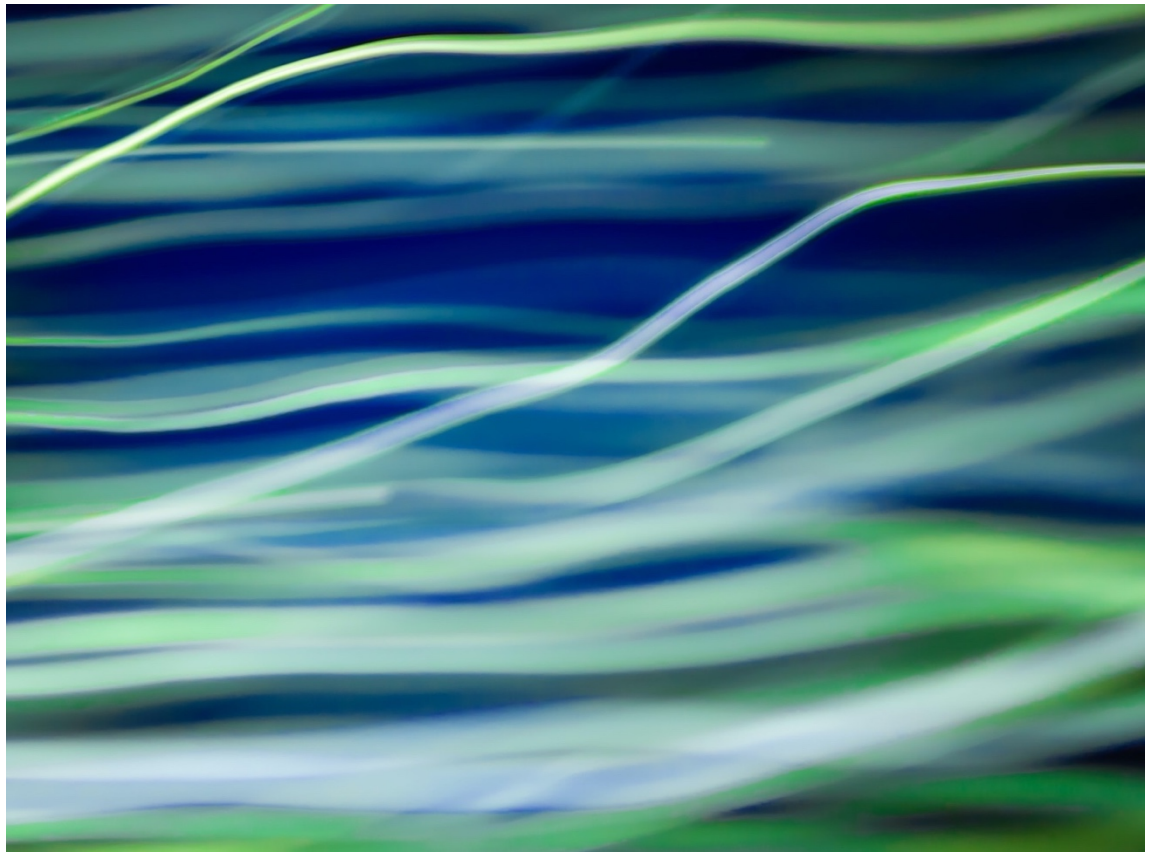
What have we not considered?

- Prescription drugs
- COVID-19 testing and treatment
- Impact of COVID-19 care deferral and social distancing on health status and future health care needs
  - Cancer screening and treatment
  - Reduced childhood vaccinations
  - Substance abuse & mental health services
  - Longer-term morbidity and mortality impacts from care deferral
- Long-term changes in practice patterns

Modeling the potential impacts on 2020 and 2021

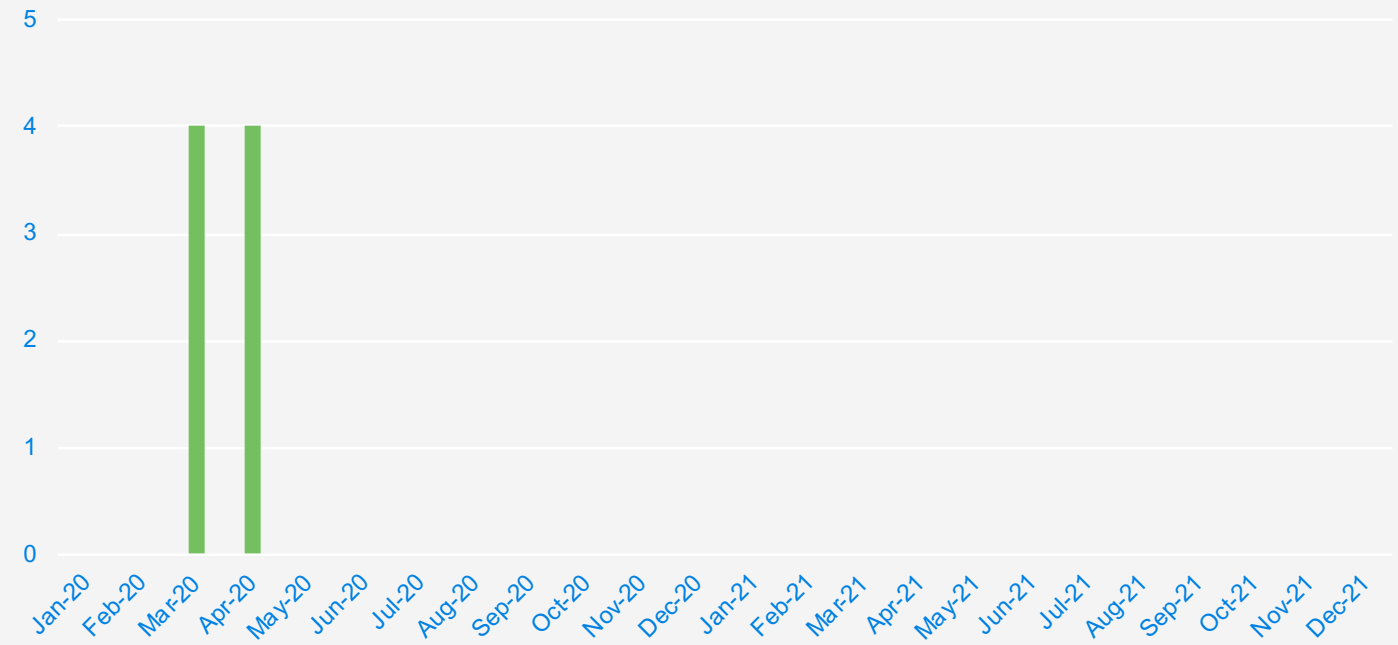
Estimation of financial impacts for 2020 and 2021

- Six sample scenarios reflect a variety of potential outcomes
  - Full Resolution in 2020
  - Winter 2020 Vaccine (two variations based on intensity of deferrals)
  - “Second Wave,” Summer Vaccine (two variations based on timing of returned care)
  - Continual Wave
- Five regions modeled represent various levels of lockdown strength, cases and emerging experience
  - Charts that follow represent only one of the modeled regions



Scenario 1

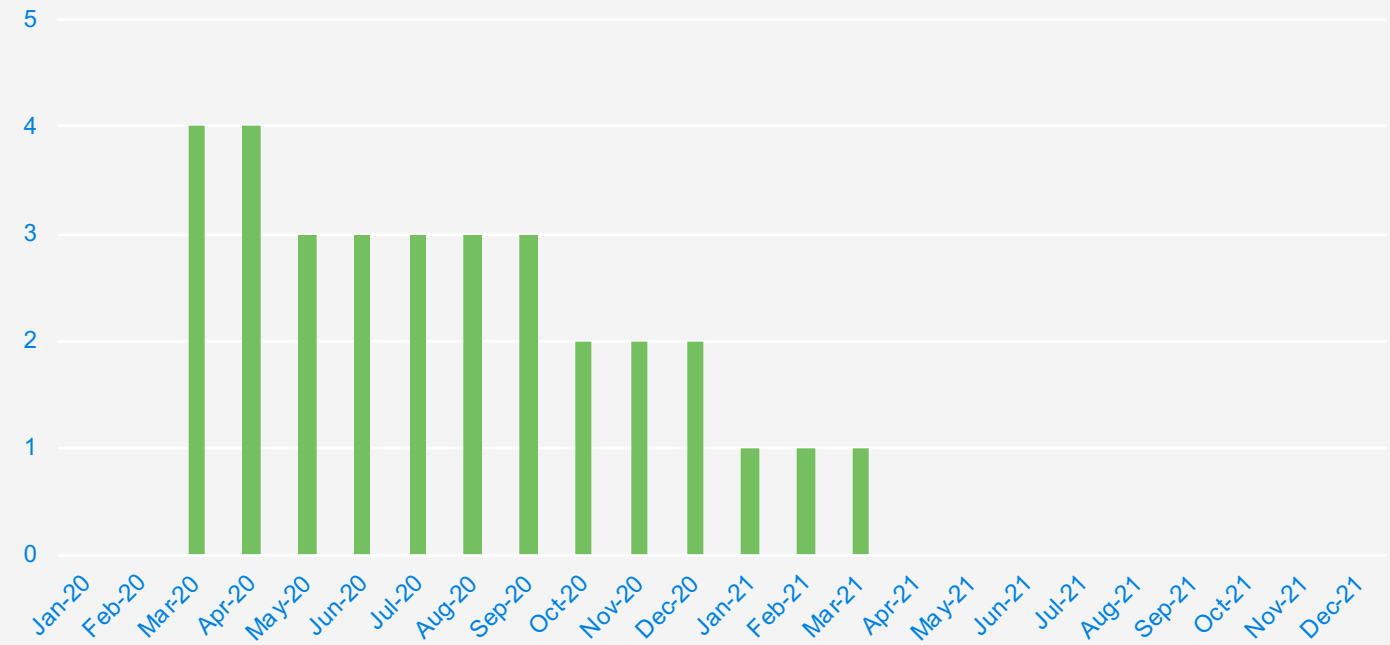
Full resolution in 2020



- Returns occur during the remainder of 2020
- No additional deferrals are assumed for 2021
- Estimated impact on 2020 medical costs: -2% to -5%
- Estimated impact on 2021 medical costs: 0%

Scenario 2

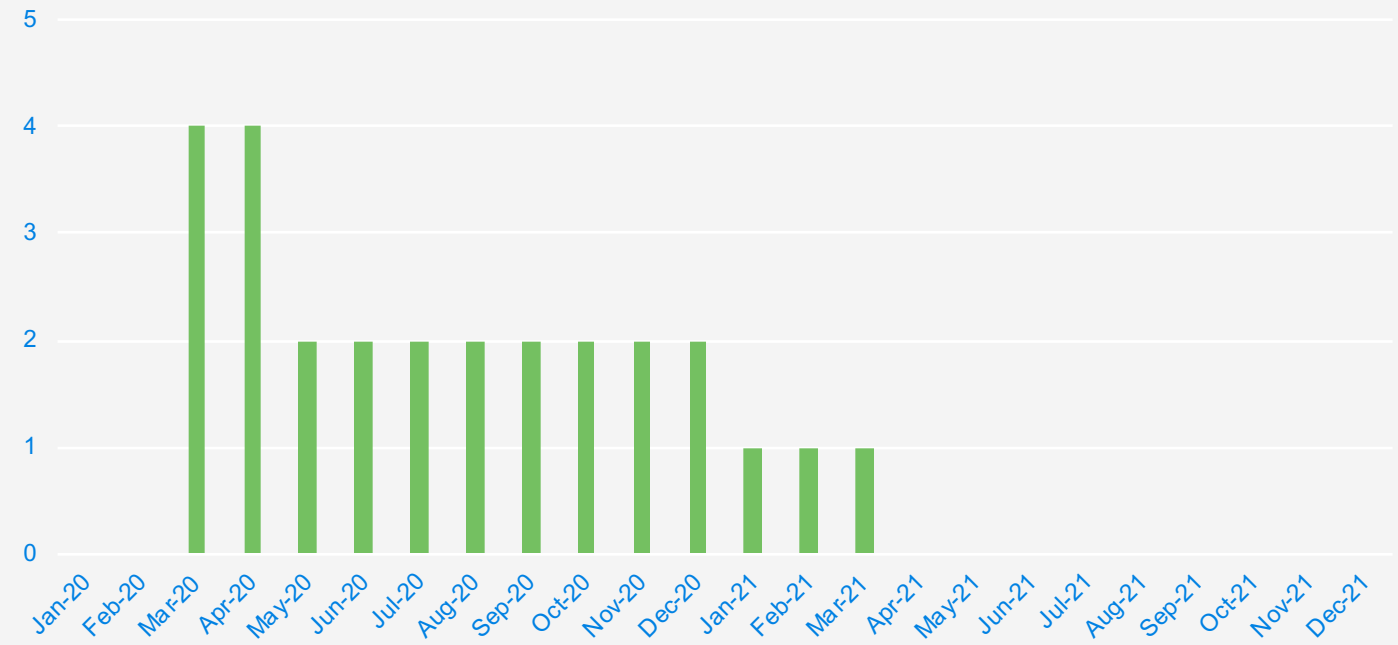
Winter 2020 vaccine



- Few returns occur in 2020
- Most returns occur in 2021
- Estimated impact on 2020 medical costs: -12% to -27%
- Estimated impact on 2021 medical costs: +6% to +14%

Scenario 3

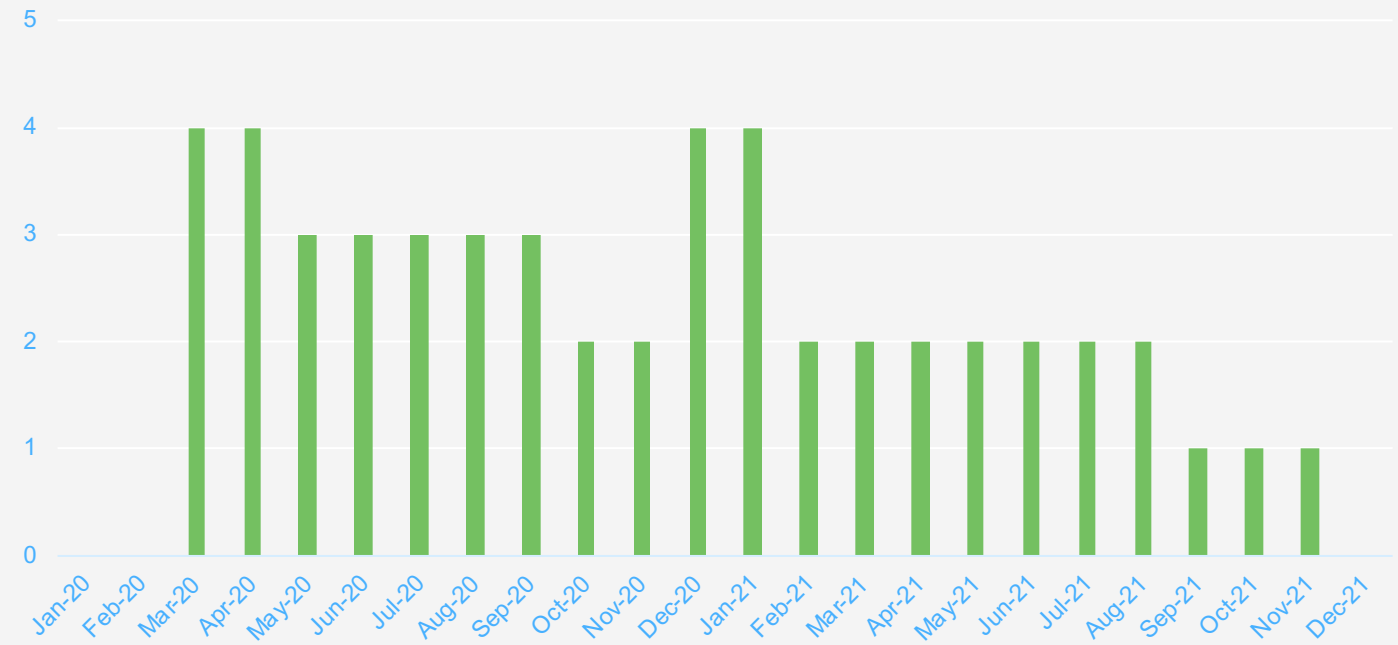
Winter 2020 vaccine (lower deferral intensity)



- Estimated impact on 2020 medical costs: -6% to -16%
- Estimated impact on 2021 medical costs: +2% to +7%

Scenario 4

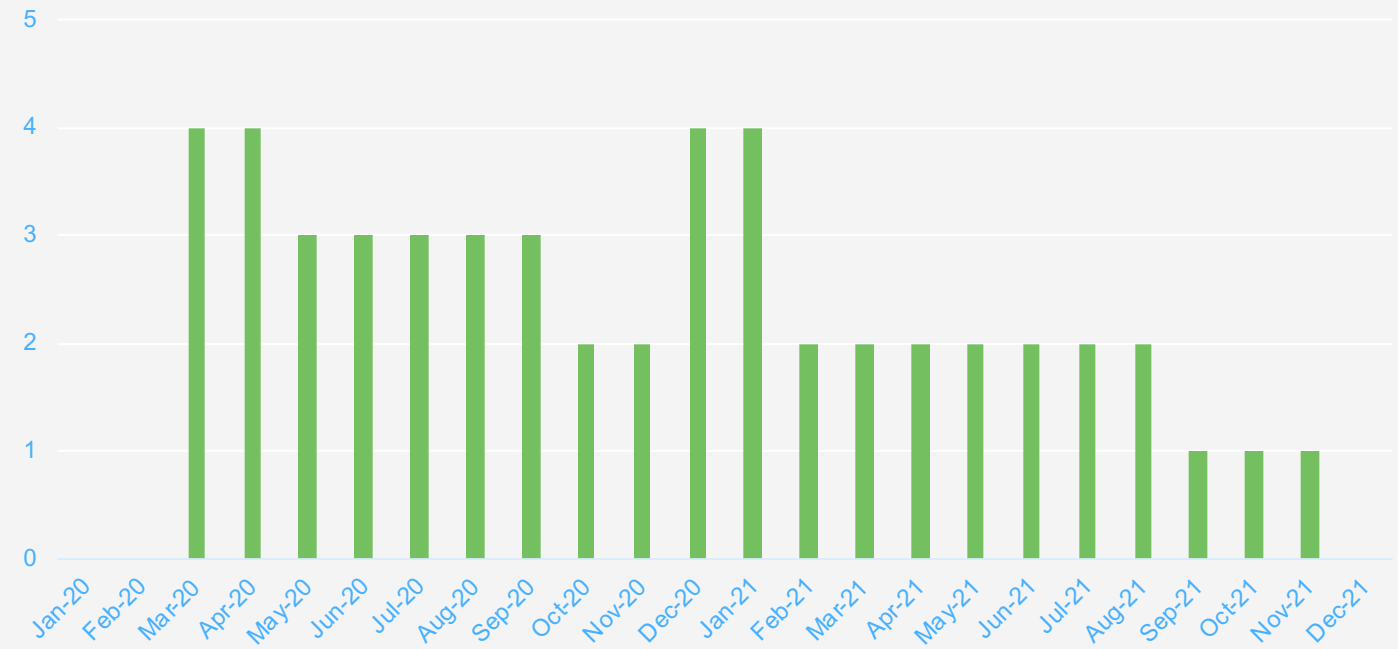
"Second wave," summer vaccine



- Very few returns occur in 2020
- Some returns occur in 2021
- Estimated impact on 2020 medical costs: -16% to -29%
- Estimated impact on 2021 medical costs: -5% to +4%

Scenario 5

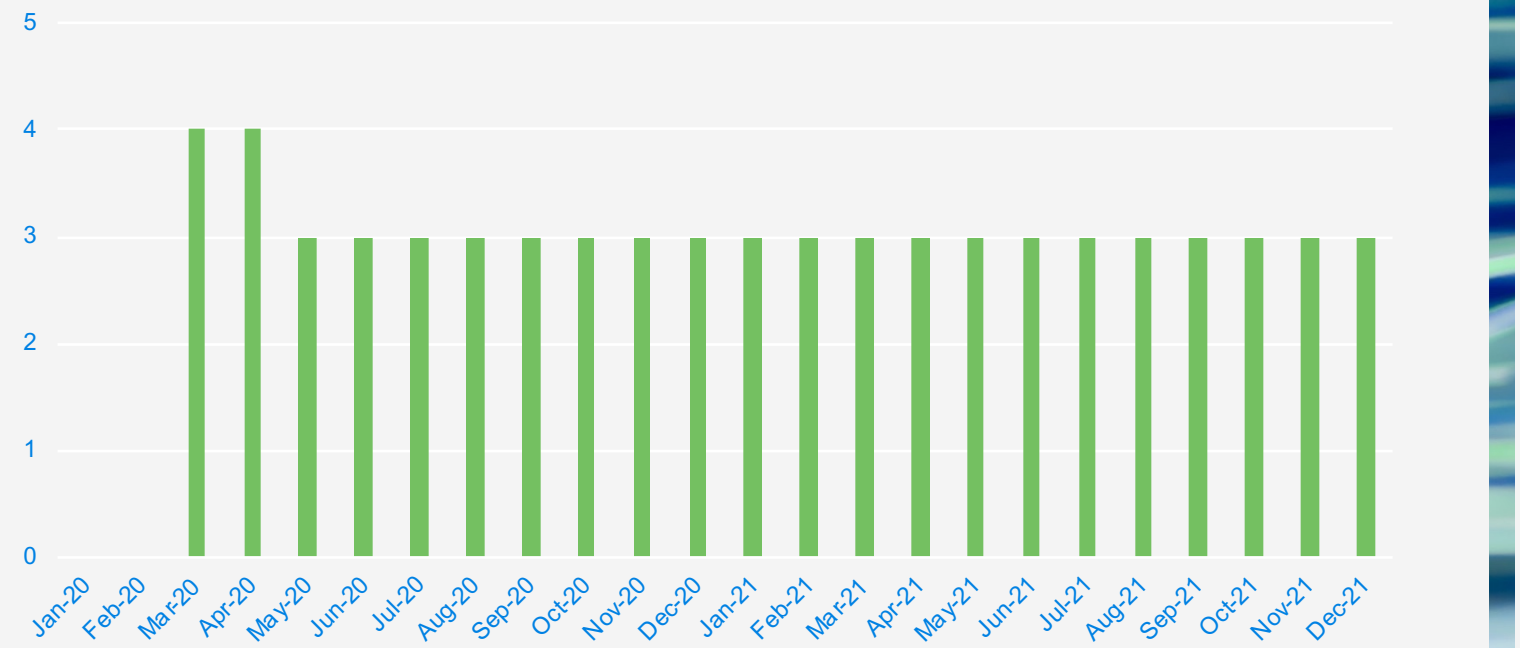
"Second wave," summer vaccine
(slower return of deferred care)



- Similar to previous scenario, but fewer returns in 2021
- Estimated impact on 2020 medical costs: -16% to -29%
- Estimated impact on 2021 medical costs: -14% to -16%

Scenario 6

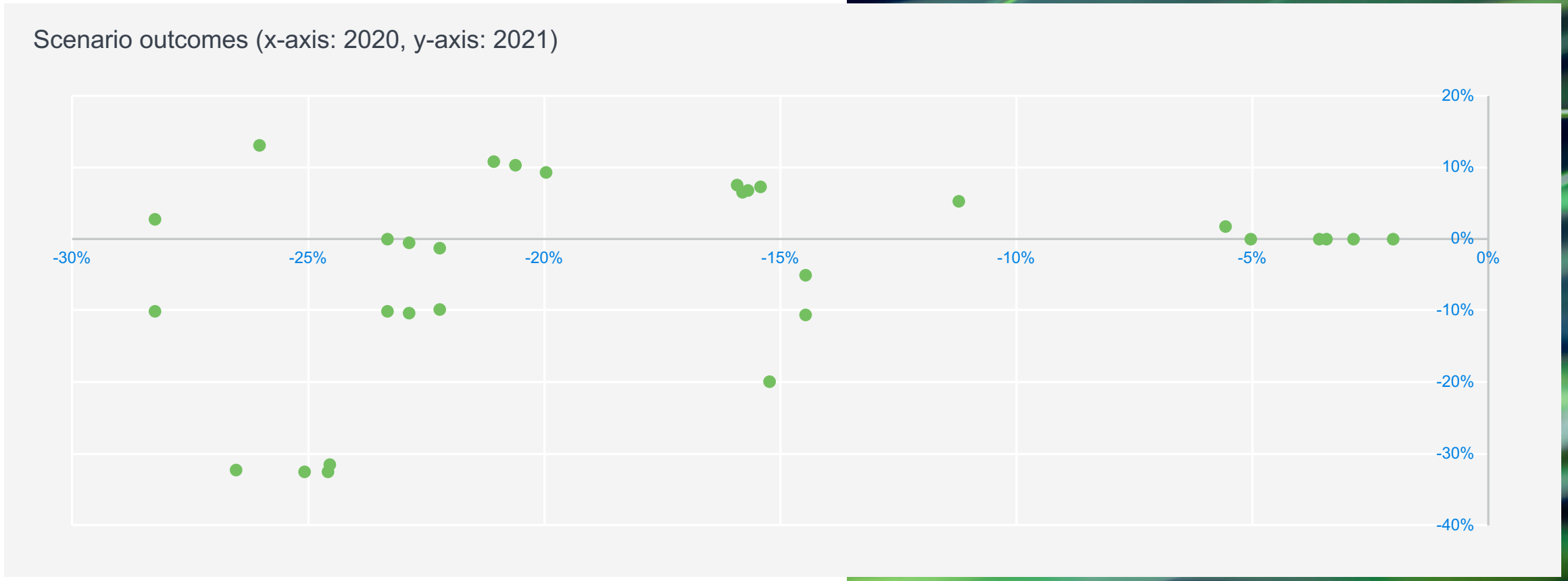
Continual wave



- Persistent level of deferrals well into 2021
- Very few returns occur in 2020
- No returns occur in 2021
- Estimated impact on 2020 medical costs: -19% to -33%
- Estimated impact on 2021 medical costs: -20% to -32%

Summary of scenario outcomes

The possibilities are many



Data reliance and limitations

- Our estimates rely on a number of key assumptions that are subject to extreme uncertainty given the limited experience available at this time. These assumptions include the overall confirmed COVID-19 infection rate and amount of community spread; governmental directives on providing elective healthcare services; provider capacity within communities; availability of telehealth flexibilities and telehealth services; timing, efficacy, and uptake of a COVID-19 vaccine; effective level of social distancing; patient avoidance of healthcare by risk of severe COVID-19 infection; and the timeframe for returning care which may be influenced by the duration of deferral. The assumptions supporting the conclusions outlined in this presentation are based on a combination of publicly available data and Milliman's proprietary claim data, and represent our best estimates as of July 8, 2020. Many of these assumptions will likely change over the coming weeks as COVID-19 experience manifests.
- Scientific knowledge of these items is incomplete and new data on the spread of COVID-19 in the United States is constantly emerging. In addition, actions taken by governmental authorities and the healthcare system related to the COVID-19 pandemic are rapidly changing. We expect these assumptions to change as more information becomes available, and our team of consultants closely monitors the impact of COVID-19 to ensure our projections are calibrated to the most current information. Due to the limited information available on the pandemic, any analysis is subject to a substantially greater-than-usual level of uncertainty.
- This presentation examines cost impact to the United States nationwide over calendar year 2020 and 2021. Member cost sharing and prescription drug costs are not considered. COVID-19 may cause long-term healthcare issues for survivors, and these costs are not included in this model nor are the costs of any disease-modifying therapies that may emerge as treatments for COVID-19.
- Pedro Alcocer and Edward Jhu are members of the American Academy of Actuaries, and meet its qualification standards to provide this analysis.