



Project Citadel

Using Behavioral Economics to
help Community Based Health
Plans protect their members

January 21, 2021
3p-4p EST



- 01** Constantly Changing Vaccination Environment
- 02** Guidance from Dr. Mark Fendrick
- 03** Wellth Experience applying Behavioral Economics in Healthcare
- 04** Project Citadel Offering and Overview
- 05** Q&A
- 06** Resources

Today's Presenters



Mark Fendrick, MD
Director, Center for Value-Based Insurance Design
University of Michigan, Ann Arbor



Matthew Loper
CEO & Co-Founder
Wellth



Dinesh Apte
Chief Commercial Officer
Wellth

Section 1

Current Status of Vaccine Rollout

Problem: Widespread Adherence to the COVID-19 Vaccine(s) will be crucial to achieve herd immunity



Providers focused on delivery

Key provider administrators (e.g. chain pharmacies, large hospitals) are managing countless moving parts in an effort to deliver with unprecedented scale and velocity. They are not focused on or equipped to motivate patients to receive vaccines.



Patients need access, clarity & motivation

Patients have to navigate a noisy environment within a difficult time replete with misinformation to complete vaccine doses. A common standard designed to motivate all adult patients to complete vaccine cycles, and confirm their completion, is essential.



The clock is ticking

An effective patient facing experience must be delivered in weeks not months, necessitating leverage of existing expertise, standards and technology platforms.

Problem (cont.): There are a number of factors that will prevent widespread vaccine adherence

Ease of Access

“... foresee hitches if people get their first dose at, say, Walgreens and go to CVS for their second, or, worse still, if they **cross state borders, moving from one health department’s registration system to another.**”

Large Degree of Coordination Required

“According to a recent analysis, **three out of every four Americans would need to receive a vaccine** that prevents at least 80 percent of infections for that vaccine to extinguish this coronavirus pandemic on its own.”

“In the past decade, **the United States has never managed to vaccinate more than half of adults for seasonal influenza in any single year**; in most years, coverage hovers around 40 percent.”

Difficulty Accessing Disadvantaged Populations

“**The flu vaccination rates among Black people, Latinos, and high-risk adults aged 18 to 49 are generally even lower...** even though **Medicaid covered the cost** and the Centers for Disease Control and Prevention managed the distribution to state, local, and tribal authorities.”

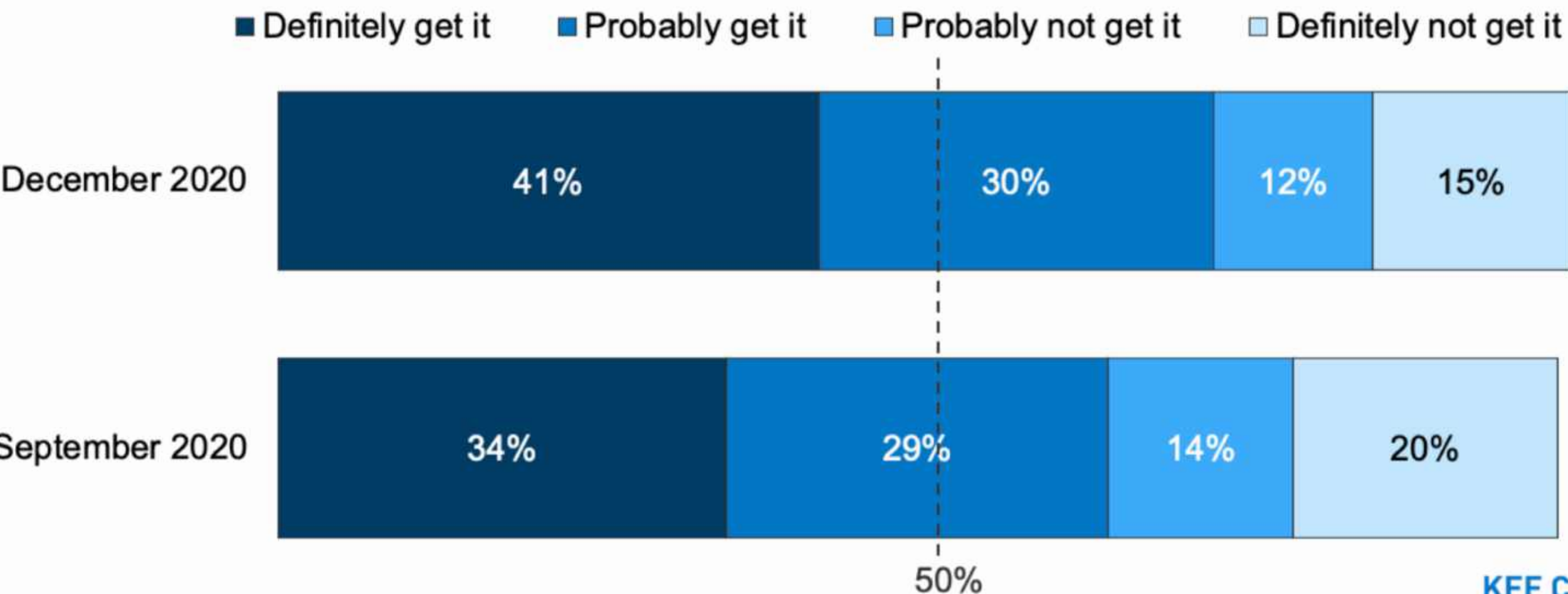
Free is Not Enough

“... skepticism about a rushed vaccine, among other factors, still presents a significant challenge for officials who **will need to convince the public that any approved coronavirus vaccine is safe.**”

Some (limited) good news - Increases in “Definitely will Get Vaccine” Cohort

Figure 1
Share Saying They Would Get A COVID-19 Vaccine If It Were Free And Deemed Safe By Scientists Has Increased Since September

If a COVID-19 vaccine was determined to be safe by scientists and available for free to everyone who wanted it, would you...?

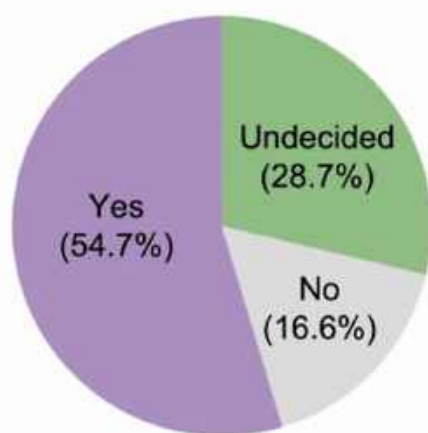


SOURCE: KFF COVID-19 Vaccine Monitor (KFF Health Tracking Poll, Nov. 30-Dec. 8, 2020); KFF/The Undeclared Survey on Race and Health (conducted Aug. 20-Sept. 14, 2020). See topline for full question wording.

KFF COVID-19
Vaccine Monitor

Data Continues to Indicate Concern & Hesitancy Even Within Major ACHP Health System and Hospital Staff (December 15 2020)

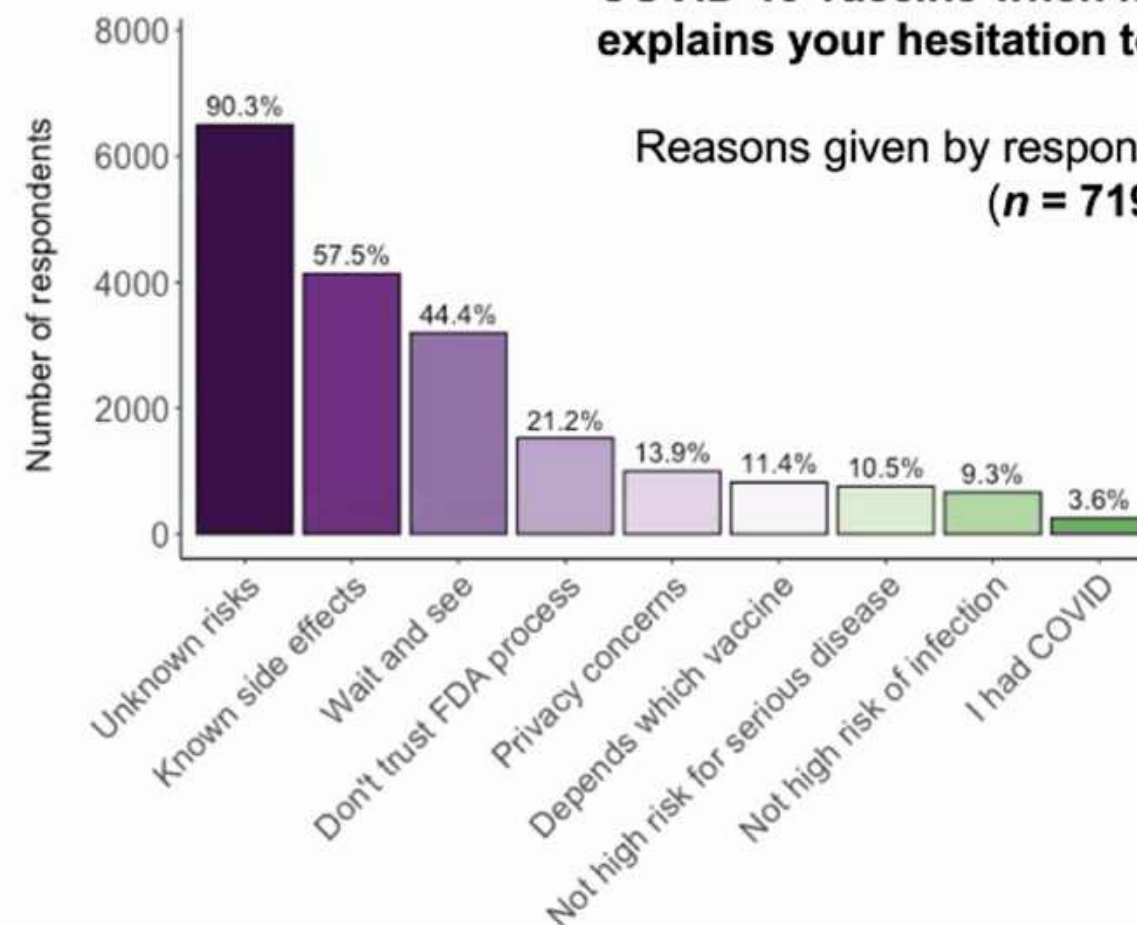
Intent of Geisinger employees to receive a COVID-19 vaccine (N = 15,958)



- 59% response rate
- No substantial, consistent differences by job role

Geisinger

“Geisinger strongly encourages all personnel to take an FDA-authorized COVID-19 vaccine when it is available to them. Which reason(s) best explains your hesitation to do so? Check all that apply.”



Reasons given by respondents who said No or Undecided to getting a vaccine
(n = 7193; mean number of reasons = 2.7)

New Emerging Issues (Jan 17) – Hesitancy, Access issues, Variants, floated rollout strategies

Los Angeles Times CALIFORNIA [Subscribe Now \\$1/8 weeks](#)

Some healthcare workers refuse to take COVID-19 vaccine, even with priority access

KEY BACKGROUND:

A [recent survey](#) by the Kaiser Family Foundation found that 29% of healthcare workers were hesitant to receive the vaccine, citing concerns related to potential side effects and a lack of faith in the government to ensure the vaccines were safe.

BREAKING | Jan 2, 2021, 01:42pm EST | 2,312,550 views

Large Numbers Of Health Care And Frontline Workers Are Refusing Covid-19 Vaccine



Tommy Beer Forbes Staff [+](#)
Business

Health

CDC warns highly transmissible coronavirus variant to become dominant in U.S.

UK bans travel from South America over Brazil variant fears

January 14, 2021

HEALTHCARE & PHARMA JANUARY 16, 2021 / 7:03 PM / UPDATED A DAY AGO

U.S. COVID-19 vaccine supplies strain to meet wider eligibility, second doses

Section 2

Dr. Mark Fendrick Addresses Second Shot Problem

Goal Today is to Discuss Solving the Two Dose Problem

HEALTH • COVID-19 VACCINE

What could happen if people skip the second dose of the COVID vaccine

BY DAVID Z. MORRIS

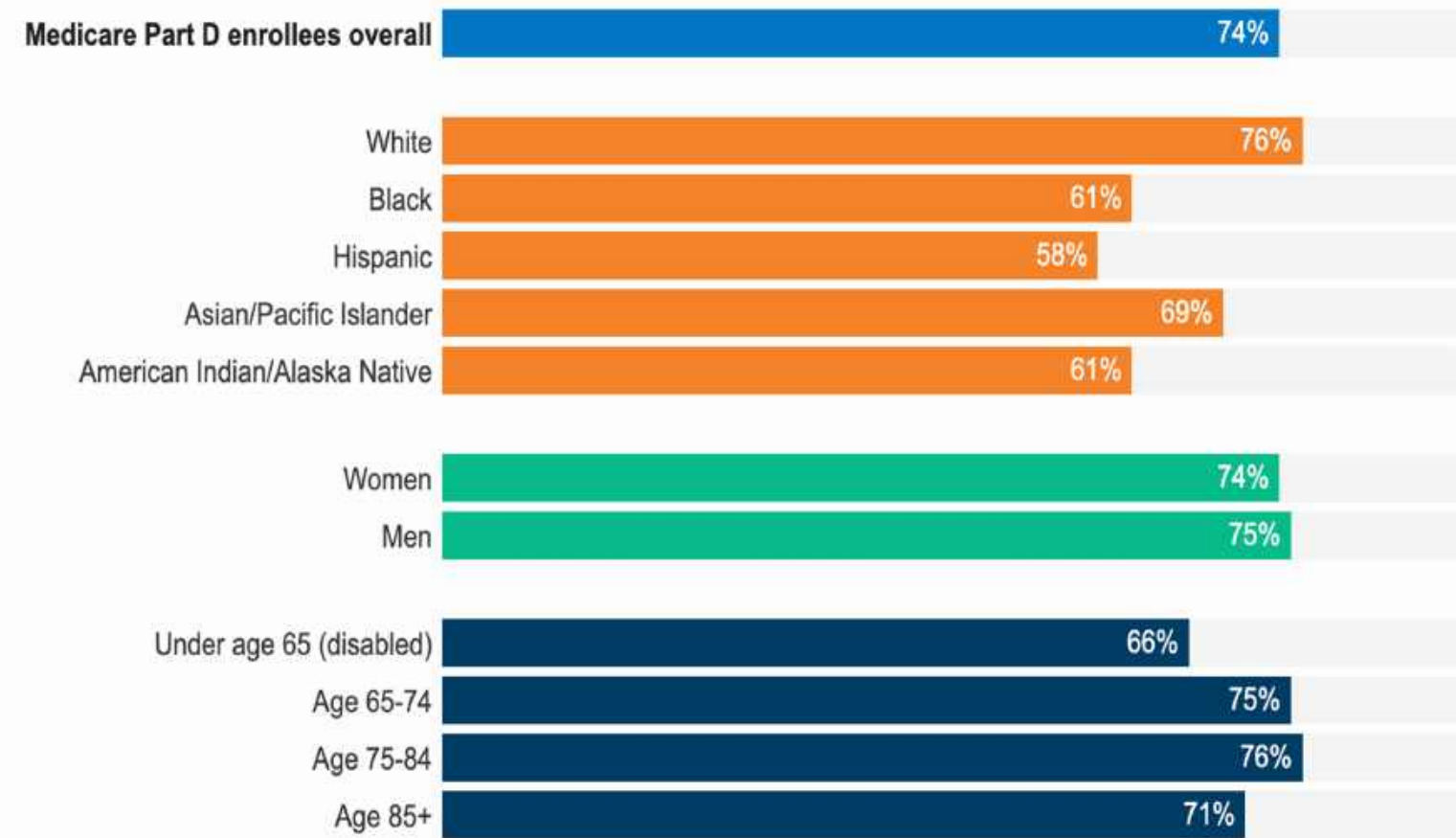
December 24, 2020 2:00 PM EST

Success for the huge COVID-19 U.S. vaccination program now underway hinges on people getting two doses, separated by three to four weeks. But a recent study suggests that many people may fail to get their second injection, which is necessary to build maximum immunity.

Historical 2-Dose Problem – Even If Free, Uptake Sub-Optimal

Figure 1
A Smaller Share of Medicare Beneficiaries of Color, Those Under Age 65 with Long-Term Disabilities, and Low-Income Beneficiaries Received the Second Shingles Shot

Share Receiving Second Shingles Shot Within 6 Months of First Shot in 2018



The NEW ENGLAND
JOURNAL of MEDICINE

SPECIAL ARTICLE

Full Coverage for Preventive Medications after Myocardial Infarction

Niteesh K. Choudhry, M.D., Ph.D., Jerry Avorn, M.D., Robert J. Glynn, Sc.D., Ph.D., Elliott M. Antman, M.D., Sebastian Schneeweiss, M.D., Sc.D., Michele Toscano, M.S., Lonny Reisman, M.D., Joaquim Fernandes, M.S., Claire Spettell, Ph.D., Joy L. Lee, M.S., Raisa Levin, M.S., Troyen Brennan, M.D., J.D., M.P.H., *et al.*, for the Post-Myocardial Infarction Free Rx Event and Economic Evaluation (MI FREEE) Trial

CONCLUSIONS

The elimination of copayments for drugs prescribed after myocardial infarction did not significantly reduce rates of the trial's primary outcome. Enhanced prescription coverage improved medication adherence and rates of first major vascular events and decreased patient spending without increasing overall health costs. (Funded by Aetna and the Commonwealth Fund; MI FREEE ClinicalTrials.gov number, [NCT00566774](https://clinicaltrials.gov/ct2/show/study/NCT00566774))

Factors that Contribute to the Two Dose Problem

- Side Effects
- Scheduling
- Transportation
- Mis-Information

Section 3

Wellth's Experience Using Behavioral Economics in Healthcare

Wellth is the leading digital health company applying Behavioral Economics

When healthcare orgs need to improve patient behavior, they go to Wellth:



- Wellth solves fundamental **behavioral gaps**
 - specializes in intrinsic and extrinsic motivation within healthcare
- Our core expertise is with the hardest patients: the vulnerable, the medically underserved, the hesitant, as well as socioeconomically challenged demographic segments
- Programs boost motivation, provide critical information, and help with environmental barriers while also being simple, fun and rewarding.
- Everything is agnostic to provider, location, vaccine type, demographic

Leading Payers and Providers

Wellth works with some of the largest payers and providers to support patients across a wide range of disease states and demographics achieve better outcomes



ResMed

Wellth works with the world's largest CPAP manufacturer to help new patients build the habit of using their devices every night



DaVita

Wellth works with the world's largest dialysis provider to ensure patients show up for their weekly dialysis appointments.

In order to be effective, incentives must be designed with in-depth Behavioral Economic expertise

Simply “paying people to do things” doesn’t always work. In order to be effective, incentives must:

1. Be communicated clearly and framed correctly

- **Behavioral Science is complex and nuanced**
Simply ‘paying people to get the shot’ may not be effective, or even worse, produce unintended consequences if the incentive is not carefully designed
- **A balance between intrinsic and extrinsic motivations** produces optimal outcomes

2. Leverage key Behavioral Economic concepts

- **Endowment Effect**
We value what we already own more than what we possibly might get
- **Loss Aversion**
The threat of loss looms twice as large as an equivalent gain
- **Present Bias/Hyperbolic Discounting**
We value immediate gratification way more than value in the future

3. Be salient to the behavior & reinforce it as it happens

- **Salience**
A technology platform is needed to continually reinforce intrinsic and extrinsic motivators to drive the behavior then give immediate rewards once the behavior happens

Applying these Principles

Improving member health, one check-in at a time



Reminders

Reminders help to reinforce habits and provide cues for regular routines.



Rewards and Motivations

We tailor messages to what motivates each member, be it family, financial incentives, or community.



AI and Analytics

Wellth's integrated AI systems can count and identify pills, read glucometer readings, and more for real-time feedback—and intervention—when something changes.



Maria's Wellth Member Journey



Maria, 58

Female

Speaks Spanish

Bronx, NY

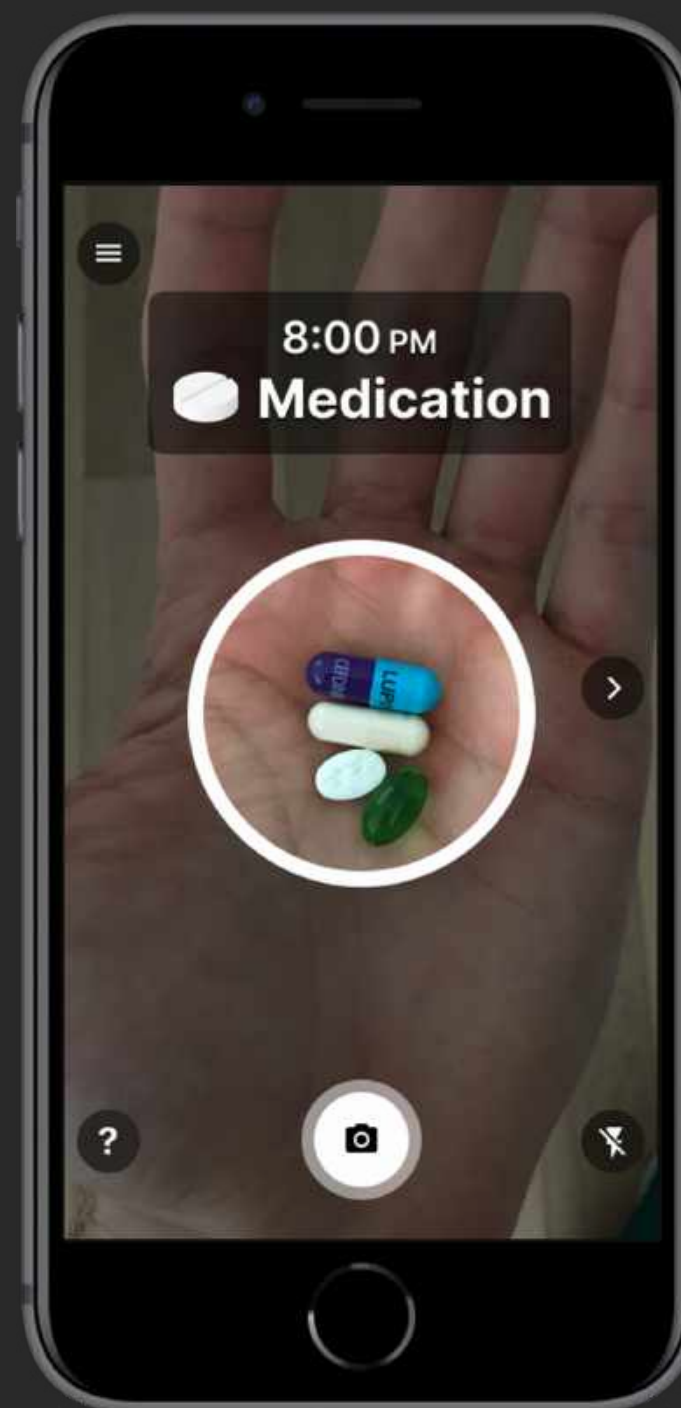
Verified Phone Number ✓

Verified Email Address ✓

👤 Type 2 Diabetes

👤 Last month HbA1c: 8.8

🔍 Typically takes 4 pills at 9am





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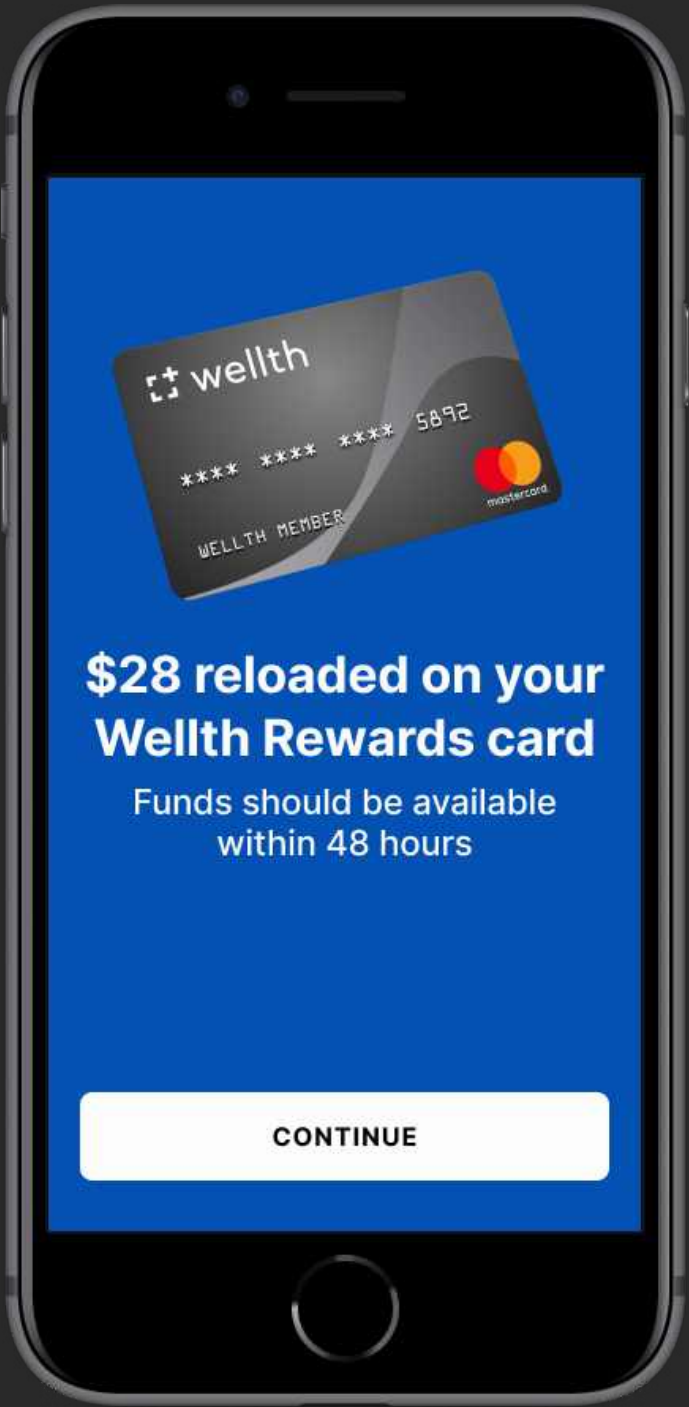
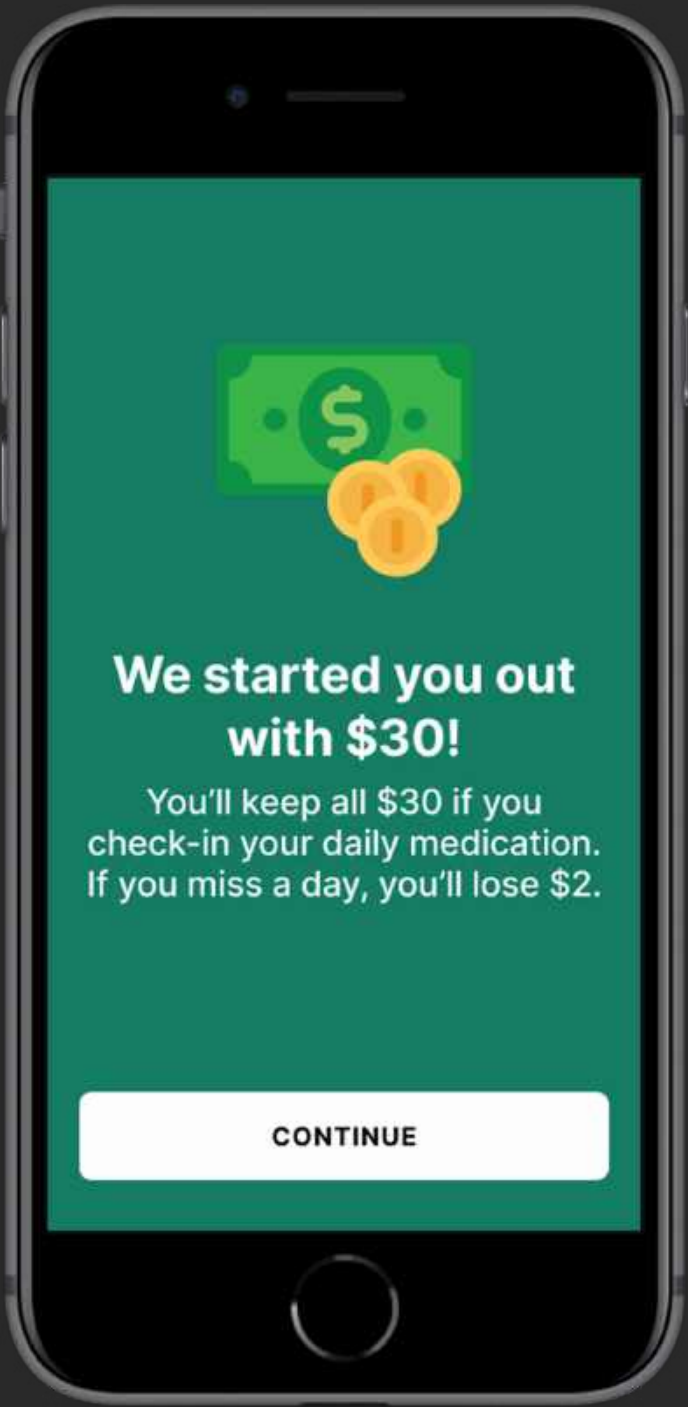
Type 2 Diabetes

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Motivated by relatedness/community

Spends on groceries + little self-treats





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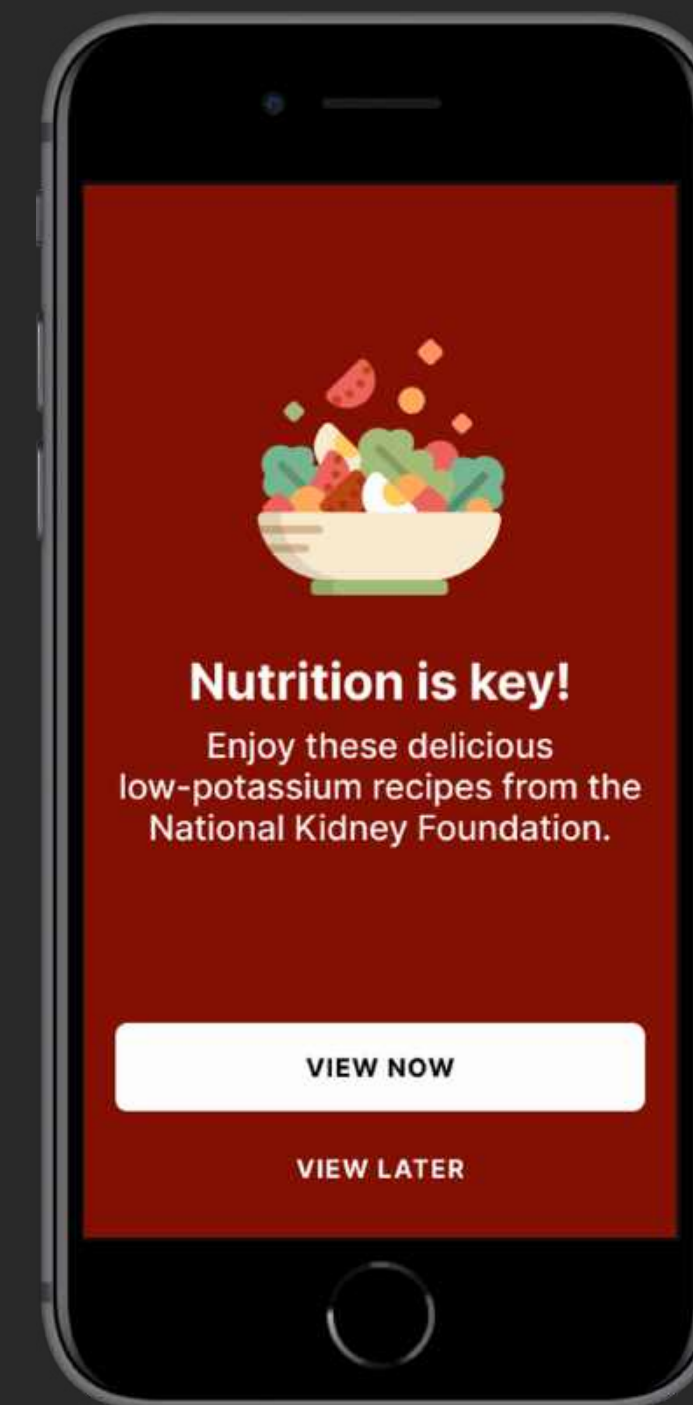
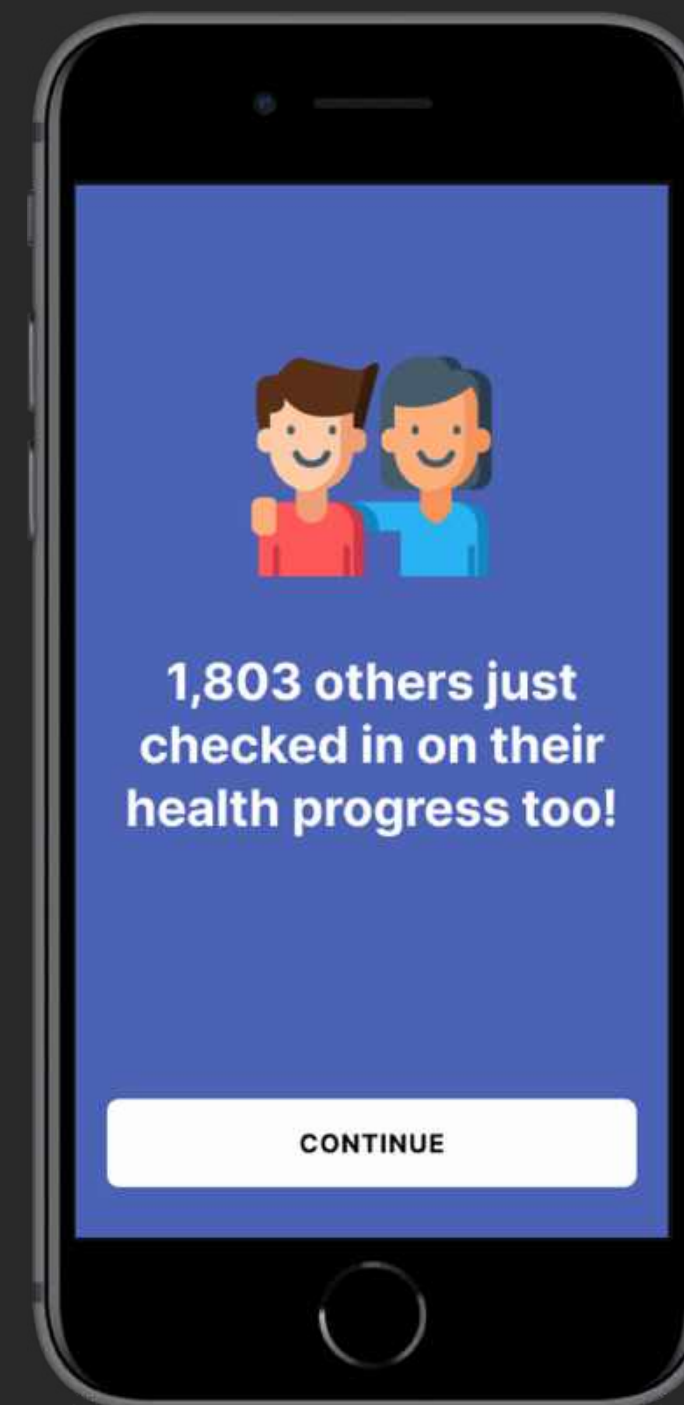
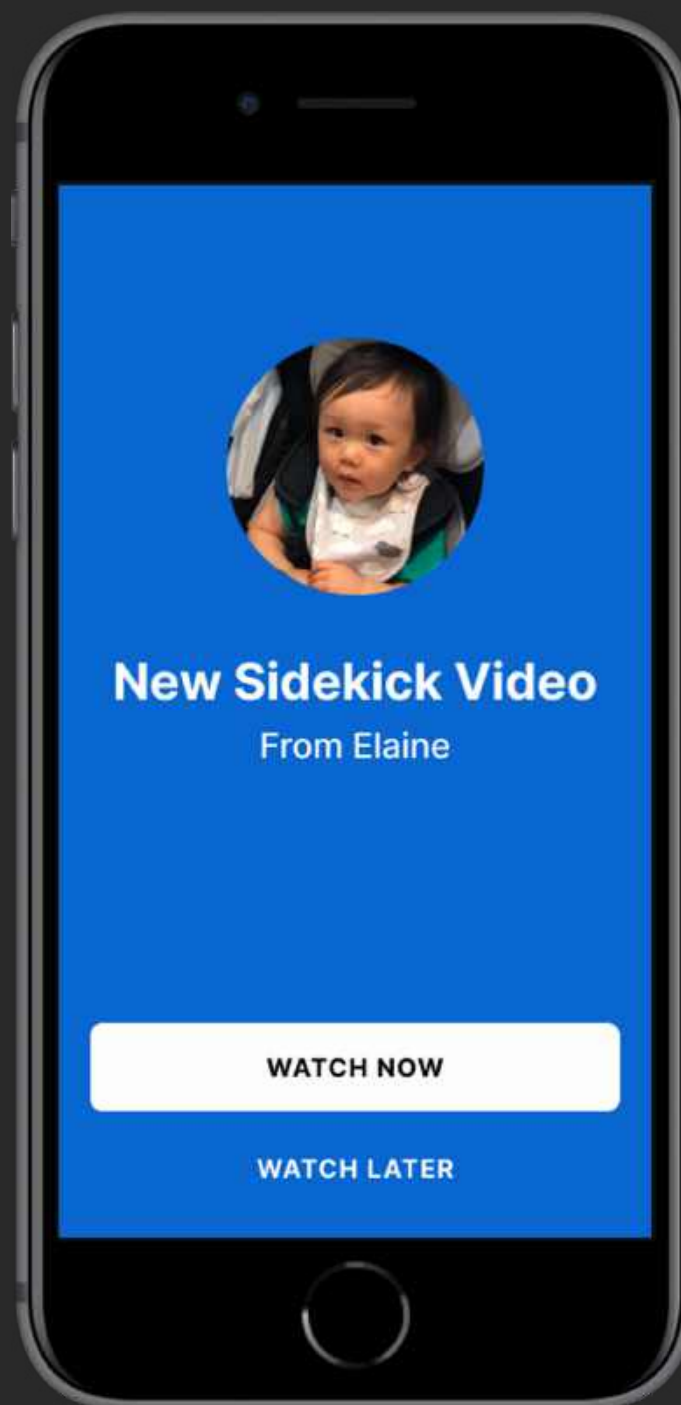
💡 Motivated by relatedness/community

💡 Spends on groceries + little self-treats

📖 Engages with little nudges



📖 Less adherent on Saturdays



Wellth's Results Yield Strong Clinical and Quality Outcomes

89 %

Average Daily Adherence

Care plan behaviors include:

- Medications
- Glucometer Readings
- Blood Pressure Readings
- Inhalers and Injectables
- Low sodium meals
- Appointment adherence

1.29 reduction in A1c levels in an at-risk T2D Medicaid population and 92% decrease in avoidable ER utilization (24 reduced to 2)

45% reduction to readmissions over 90 days post heart attack

94% Adherence to Non-Incentivized Medication Adherence Task in ACHP Health Plan MA population

+88 Net Promoter Score which correlates to improved CAHPS scores

Project Citadel Overview

Some Incentives Being Rolled out - Not Enough To Change Behavior

Associated Press

Instacart, Trader Joe's, Dollar General plan financial incentives to encourage workers to get vaccinated

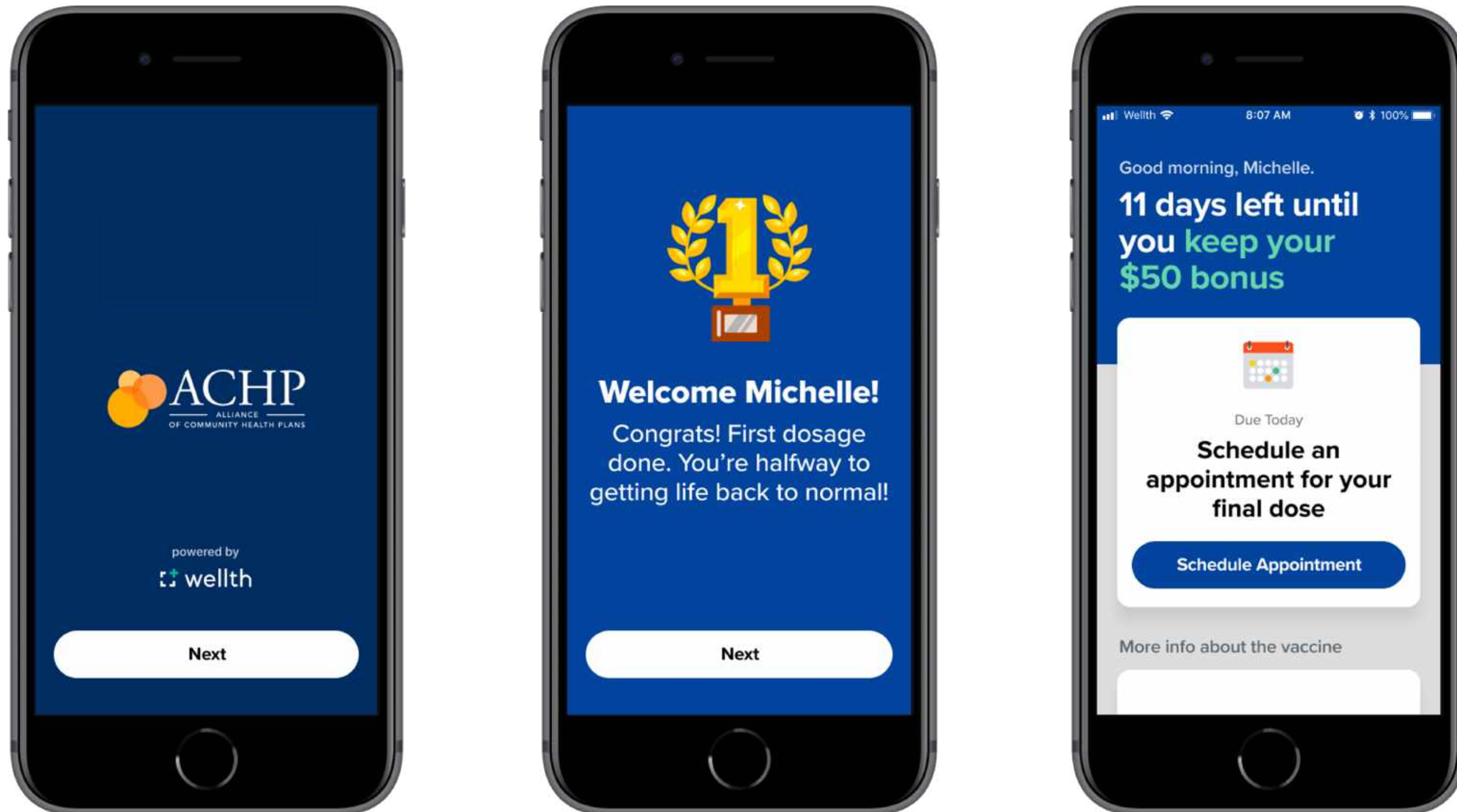
Published: Jan. 15, 2021 at 1:10 a.m. ET

A separate SHRM survey last month found that while about two-thirds of U.S. employers planned to encourage employees to get vaccinated, only 3% have decided to require it for at least some workers. That could change, since 55% of employers said they were unsure if they would eventually require it, according to survey of 955 members of SHRM, an organization of about 300,000 human resource professionals.

the all-important second dose. Studies show that 35%-60% of adults fail to get the second dose of a two-shot vaccine course, and herd immunity will be substantially delayed if many get just one of the two required injections of the Pfizer or Moderna vaccines. The Johnson & Johnson vaccine requires a single injection, so this concern could diminish later in 2021 if that vaccine proves effective.

An incentive would be better timed for later in 2021 when there is no vaccine shortage. If an employer offers an incentive for the COVID vaccine, it should be continued for any future required booster shots, as discontinuing an incentive can lead to a decline in the desired behavior.

Project Citadel: Leveraging Principles of Behavioral Economics To Keep Communities Safe



1

Educate, Incentivize, Inform - Help members understand where they are in vaccination queue - importance to maintain vigilance

2

Keep the 2nd dose and the resulting quality of life gains salient. Identify and mitigate motivational and environmental barriers (including misinformation!). Address individual concerns and societal barriers.

3

Maximize follow-through by converting momentum into key behavior while maintaining a sense of control.

4

Michelle **gets her life back** facilitated by Wellth's central certification, and proceeds to help others follow-through as well.



Intent / Behavior Gap



AIR /
HOTEL

FAMILY /
FRIENDS

RESTAURANT
S

WORK

SCHOOL

CHURCH

GYMS

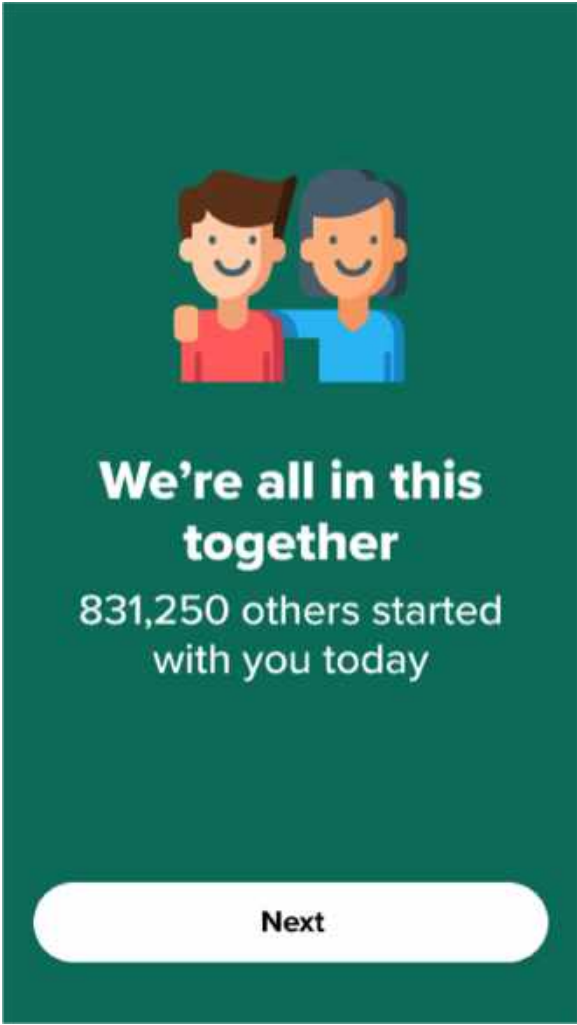
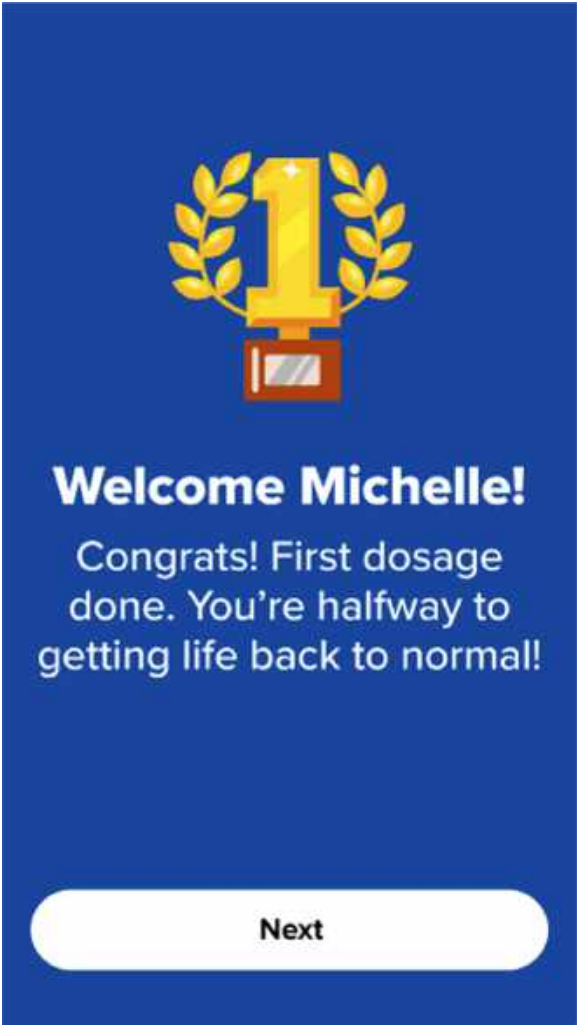
DATING APPS

Through the use of applied behavioral science and technology, the platform ensures the completion of both vaccine doses by overcoming key behavioral and environmental challenges.



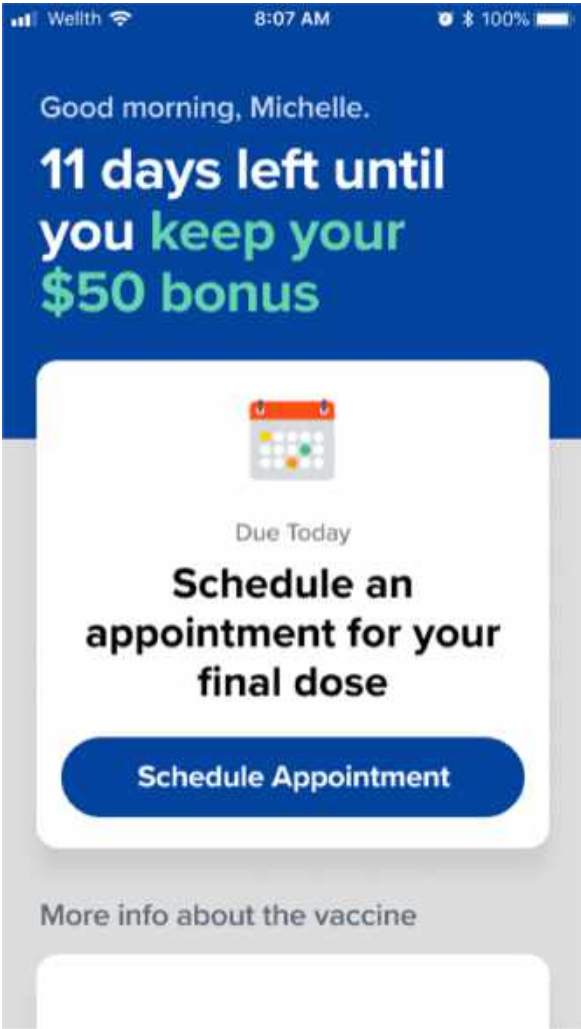
1

Build immediate **momentum** through “get life back” intrinsic motivation coupled with endowed financial rewards, tied to simple, fun education on what’s next and why it’s important.



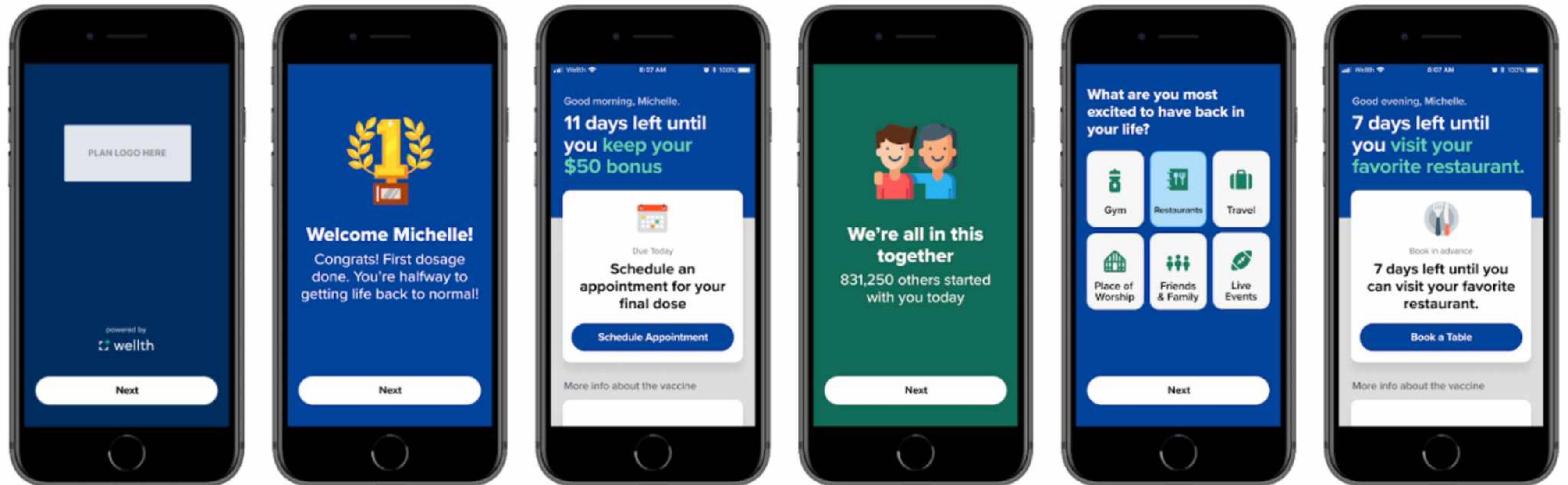
2

Keep the 2nd dose and the resulting quality of life gains salient. Identify and mitigate motivational and environmental barriers (including misinformation!).



Wellth uses insights from user behavior to tailor personalized messaging.

A Flexible Journey for your Members that Allows for Changing Situations



Benefits to Health Payer - Ability to Adjust to Changing Circumstances & Improve Health Equity

- **Safety:** reduction in community transmission and reduced strain on currently overburdened medical systems
- **Reduce COVID infections and hospitalizations** among most vulnerable
- Opportunity to **educate and personalize** the intrinsic and extrinsic motivators for individuals
- **Site agnostic** understanding of vaccination rates within your patient population in near real time – and information regardless of the site of 1st or 2nd vaccine
- **Guidance** around hesitancy and a channel for vaccine education including addressing **social and societal factors** leading to hesitancy
- Limit marketing from competitors and data capture from competitive entities
- *Ability to guide members when vaccines are **available for their “cohort”**
- **Rewards for people who are hurting financially and spent in your communities**
- Once people are engaged - **ability to opt into continued program around building behaviors (med adherence, chronic condition management etc).**

Wellth Project Citadel Platform Capabilities

Description of Platform Capabilities

Functionality across mobile, tablet, or personal computing device

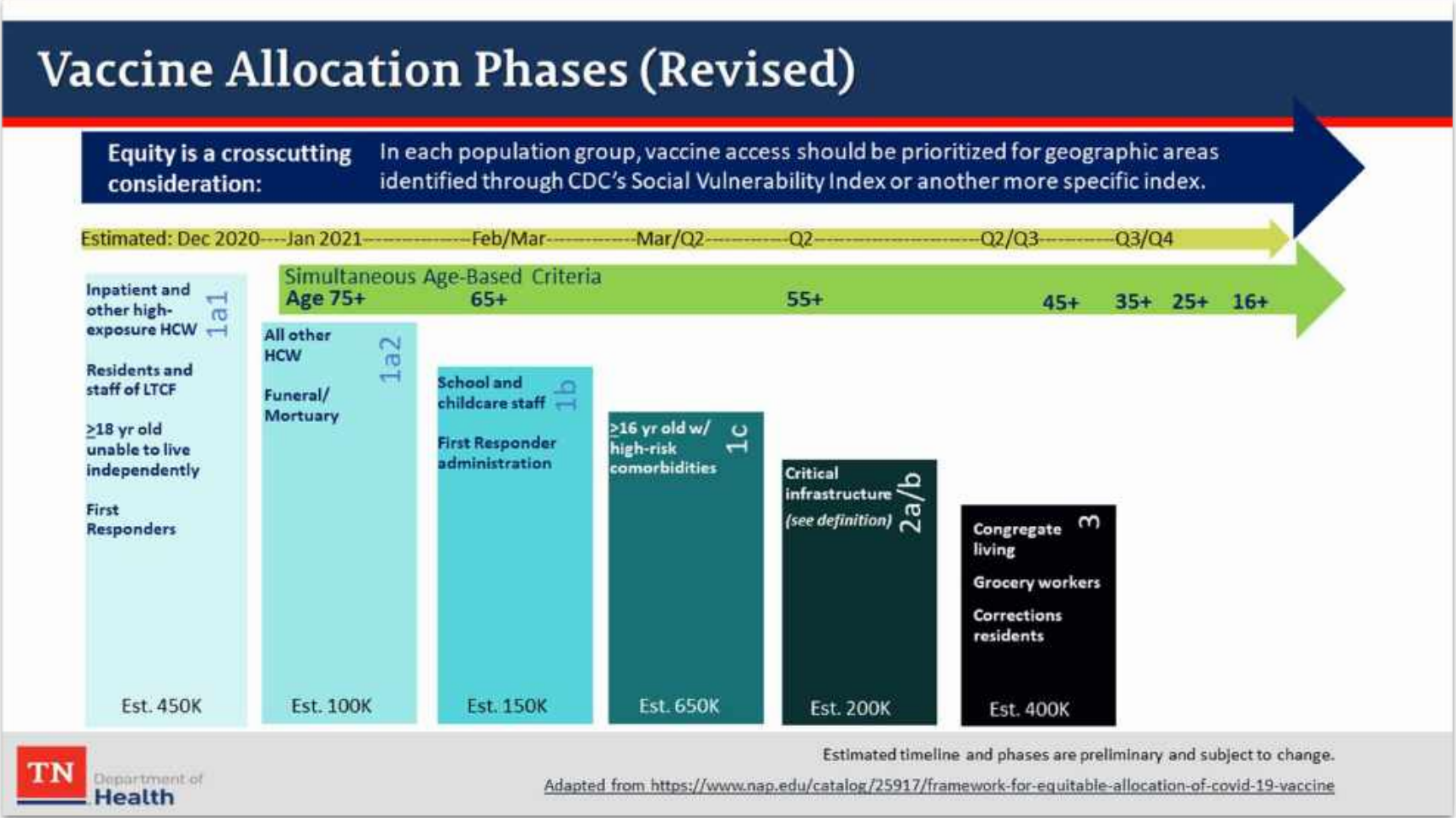
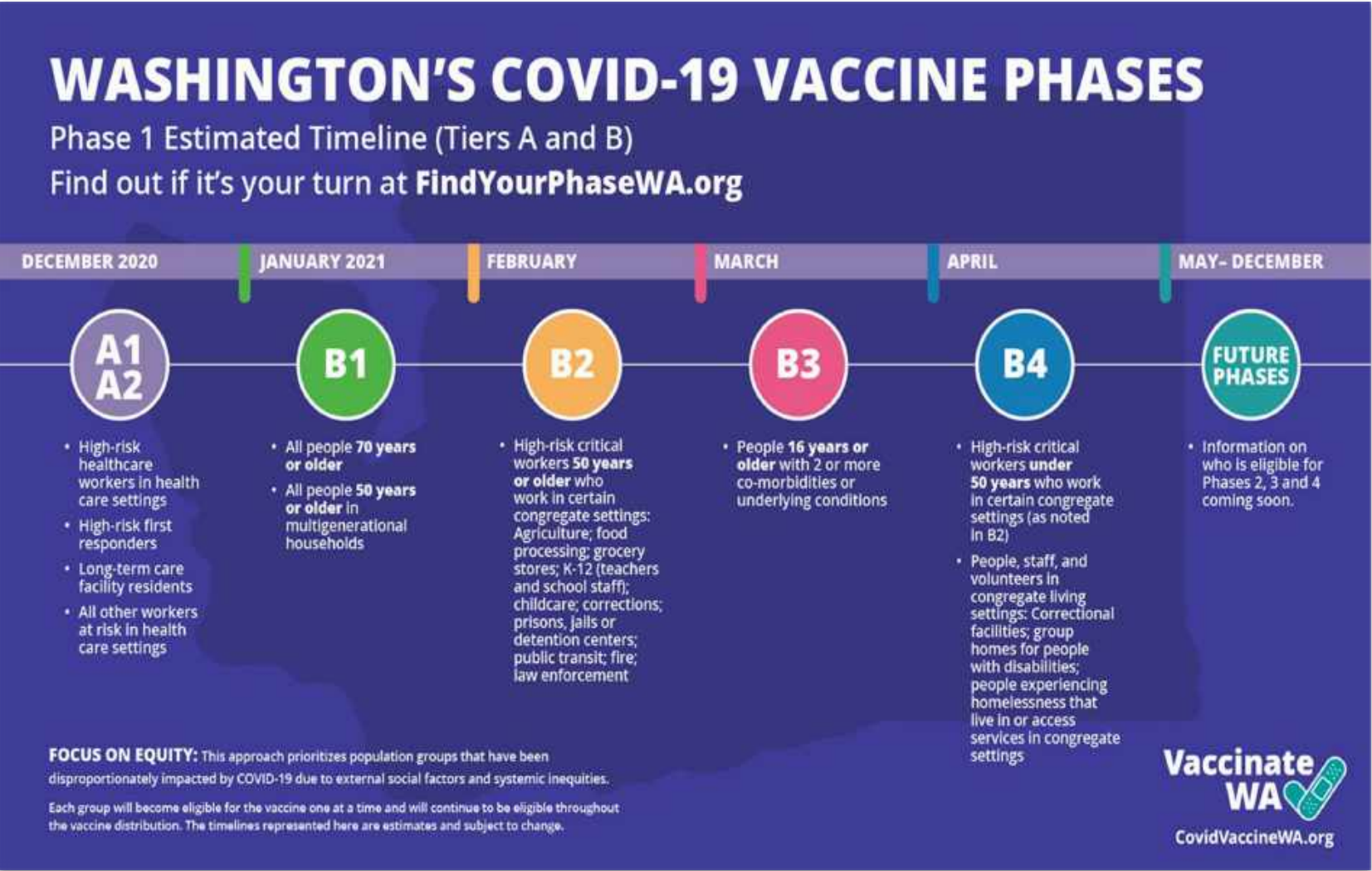
Pre-first dose:

- Identification and verification of the individuals utilizing the platform and the individuals' eligibility
- Eligibility ping to notify individuals they are now eligible to receive the first dose vaccine
- Identification of first dose information & cataloging via photo-text verification

Post-first dose:

- Individualized member experience denoting intrinsic motivations:
 - Desire to see family
 - Return to work
 - Attend live events
 - Meet at church
 - Eat in restaurants and bars, etc.
- Education about how the vaccine works and its potential
- Education about anticipated normal/safe side effects
- Reminders on scheduling second dose and its timing based on the first doses information
- Facilitate second dose appointment scheduling
- Connection to additional resources and external support services should individuals be concerned
- Updates as needed to misinformation or rumors that could hinder second dose
- Reporting on estimates of second dose completion rates
- **Reward fulfillment from second dose verification (and other potential activities)**
- Update on availability of the vaccine (where available)

Proposed Rollout (Varying in Real Time)



Pricing Model - Completely Turn Key

Cost

Required Fees	Optional
<ul style="list-style-type: none">• <i>\$75k Setup and Configuration - (includes co-branded web based platform)</i>• <i>\$1 per member data management fee</i>• <i>\$50 per member reward (pass through to member for successful 2nd vaccination)</i>• <i>\$5 Success fee to Wellth for verified second dose</i>	<ul style="list-style-type: none">• <i>Wellth live agent or automated outbound outreach calls to inform and enroll health plan members</i>• <i>Co-branded promotional mailer materials mailed to members on behalf of health plan (Proofs will be provided as part of setup and configuration fee)</i>• <i>Targeted advertising to members using web and social media channels</i>

*****If SMS notification is desired/required - potential additional costs***

- 01 Need critical mass of plans to say yes by January 30th 2021 to proceed
- 02 No matter what – capabilities being built into the Wellth Platform (fully at risk pricing)
- 03 Being as upfront as humanly possible – because ability to do high volumes of follow ups difficult
- 04 We will adjust pricing down as much as possible based on volumes if we hit threshold.
- 05 Appreciate ACHP and all of you taking the time, we want to help and be part of the solution, so we can all get our lives back

Tremendous Thank you



Questions

Thank you

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Dinesh Apte

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Sources

1: Problem (cont.): There are a number of factors that will prevent widespread vaccine adherence

<https://www.cdc.gov/flu/fluview/index.htm>

<https://www.commonwealthfund.org/publications/issue-briefs/2020/dec/how-prepared-are-states-vaccinate-public-covid-19>

<https://khn.org/morning-breakout/what-side-effects-should-you-expect-from-the-covid-shot/>

[https://www.ajpmonline.org/article/S0749-3797\(20\)30284-1/fulltext](https://www.ajpmonline.org/article/S0749-3797(20)30284-1/fulltext)

<https://www.nytimes.com/2020/11/17/health/gallup-poll-coronavirus-vaccine.html>

<https://amp-theatlantic-com.cdn.ampproject.org/c/s/amp.theatlantic.com/amp/article/6171>

https://www.washingtonpost.com/health/two-shots-covid-vaccine/2020/11/27/b852a19a-2f24-11eb-bae0-50bb17126614_story.html



 wellth

Leading Experts Pointing Towards Behavioral Economics Approach



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December 13, 2020

How can we make sure people get the second COVID-19 vaccine dose?

Home | IHPI News | How Can We Make Sure People Get The Second COVID 19 Vaccine Dose?

Ending the pandemic could depend on following the evidence about what it takes to support & encourage preventive health care



Mark Fendrick, M.D.
Value-based insurance design

What about cash incentives?

In addition to customized messaging, Fendrick feels that small financial rewards like a \$50 gift card would further increase vaccine uptake.

While some experts have suggested paying people to get the first vaccine dose, Fendrick lands on the side of enrolling people in a no cost adherence support program *after* they receive their first dose, but paying the financial reward after they complete the 2-dose regimen.

“We need to focus the rewards for those who have made the effort to get both doses and for fulfilling their broader societal role in reducing the disease’s impact.”

No National Data on Second Dose Adherence for Vaccine (Too Early)



Injectons Of Second Coronavirus Vaccine Doses Have Begun • 4:01

There is already a longstanding dilemma with vaccines that require multiple doses. Research shows that introducing one extra step leads to fewer people following through, says Dr. A Mark Fendrick, who directs the University of Michigan's Center for Value-Based Insurance Design.


"Since last summer, I've been concerned about this two shot problem," he says. Fendrick says the good news is that one of the biggest barriers, money, has largely been removed since the vaccine is being given for free, but there are still many other hurdles, whether that's taking time off work, concerns about extra side effects or a sense of "complacency that one is enough."

He recommends giving people personalized reminders about getting the shot and small financial rewards for completing the final dose. "We can't let the last leg of this remarkable COVID vaccine journey, this so-called two dose problem, stop us from the quest to get our lives back," he says.

The concept of incentivizing COVID-19 vaccination back in Late 2020

BROOKINGS

AI TRANSITION 2021 CITIES & REGIONS GLOBAL DEV INTL AFFAIRS U.S. ECONOMY U.S. POL.



Want herd immunity? Pay people to take the vaccine

Robert E. Litan · Tuesday, August 18, 2020

For media inquiries, contact:
Shannon Meraw
SMeraw@brookings.edu
202.797.6414

When I was a child, doctors giving vaccine shots used to hand out candy or a little toy to take the sting and fear out of the shot. A similar idea could rescue the U.S. economy when one or more COVID vaccines are approved by the FDA and widely available for mass uptake.

John Delaney @JohnDelaney · Nov 20

Pay everyone \$1500 to get vaccine

It is a stimulus check & big vaccine incentive rolled into one

Result: more people get vaccine, it saves lives, helps people financially, and the \$400 B pays for itself w/ economic boost from ending pandemic

RT if you agree [#vaccinestimulus](#)

2.7K 19.7K 71K

CMS.gov
Centers for Medicare & Medicaid Services

Medicare Medicaid/CHIP Medicare-Medicaid Coordination Private Insurance Innovation Center Regulations & Guidance Research, Statistics, Data & Systems Outreach & Education

Home > Medicare > COVID-19 > Beneficiary Incentives for COVID-19 Vaccine Shots

COVID-19

[Enrollment for Administering COVID-19 Vaccine Shots](#)

[Coding for COVID-19 Vaccine Shots](#)

[Medicare COVID-19 Vaccine Shot Payment](#)

Beneficiary Incentives for COVID-19 Vaccine Shots

Can you offer incentives to your patients?

CMS will be providing more information regarding whether beneficiary incentives will be permitted in connection with COVID-19 vaccination during the public health emergency.

Current controversy

Good reasons to vaccinate: mandatory or payment for risk?

Julian Savulescu^{1, 2, 3}

Author affiliations +

Abstract

Mandatory vaccination, including for COVID-19, can be ethically justified if the threat to public health is grave, the confidence in safety and effectiveness is high, the expected utility of mandatory vaccination is greater than the alternatives, and the penalties or costs for non-compliance are proportionate. I describe an algorithm for justified mandatory vaccination. Penalties or costs could include withholding of benefits, imposition of fines, provision of community service or loss of freedoms. I argue that under conditions of risk or perceived risk of a novel vaccination, a system of payment for risk in vaccination may be superior. I defend a payment model against various objections, including that it constitutes coercion and undermines solidarity. I argue that payment can be in cash or in kind, and opportunity for altruistic vaccinations can be preserved by offering people who have been vaccinated the opportunity to donate any cash payment back to the health service.

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<http://dx.doi.org/10.1136/medethics-2020-106821>