

# Using financial incentives to increase COVID-19 vaccine uptake

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NC DEPARTMENT OF  
HEALTH AND  
HUMAN SERVICES  
Office of Communications



UNC  
GILLINGS SCHOOL OF  
GLOBAL PUBLIC HEALTH



# Funding

## **Dr. Wong**

Center for Medicare and Medicaid Services  
NC Department of Health and Human Services

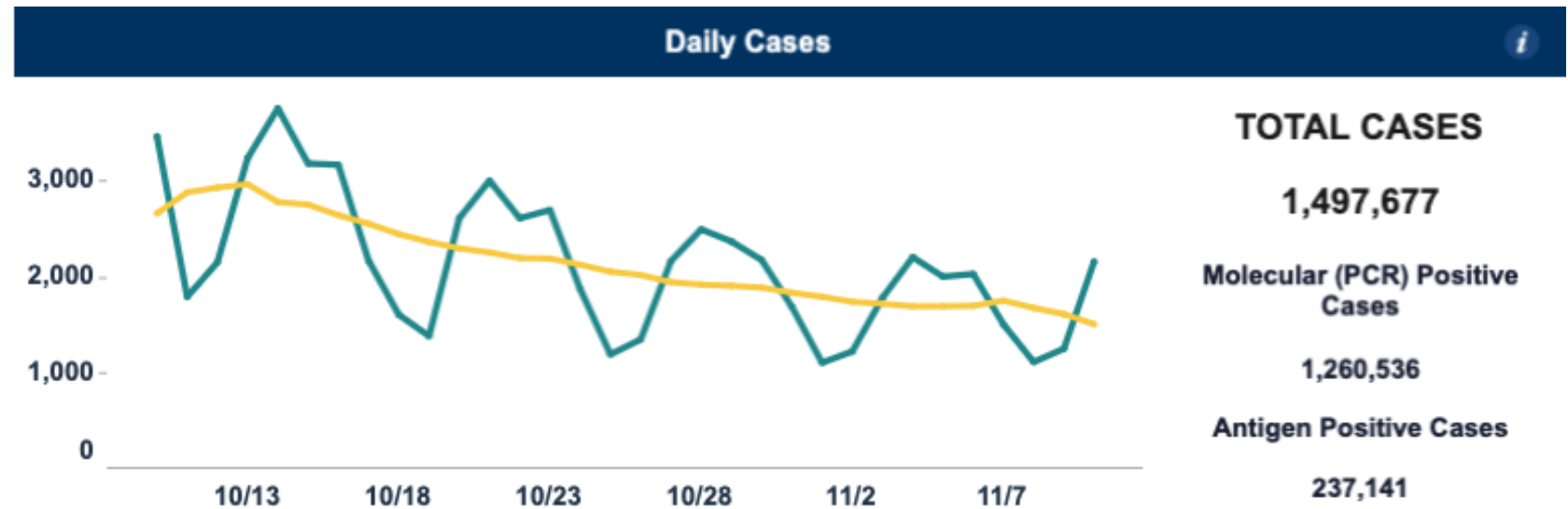
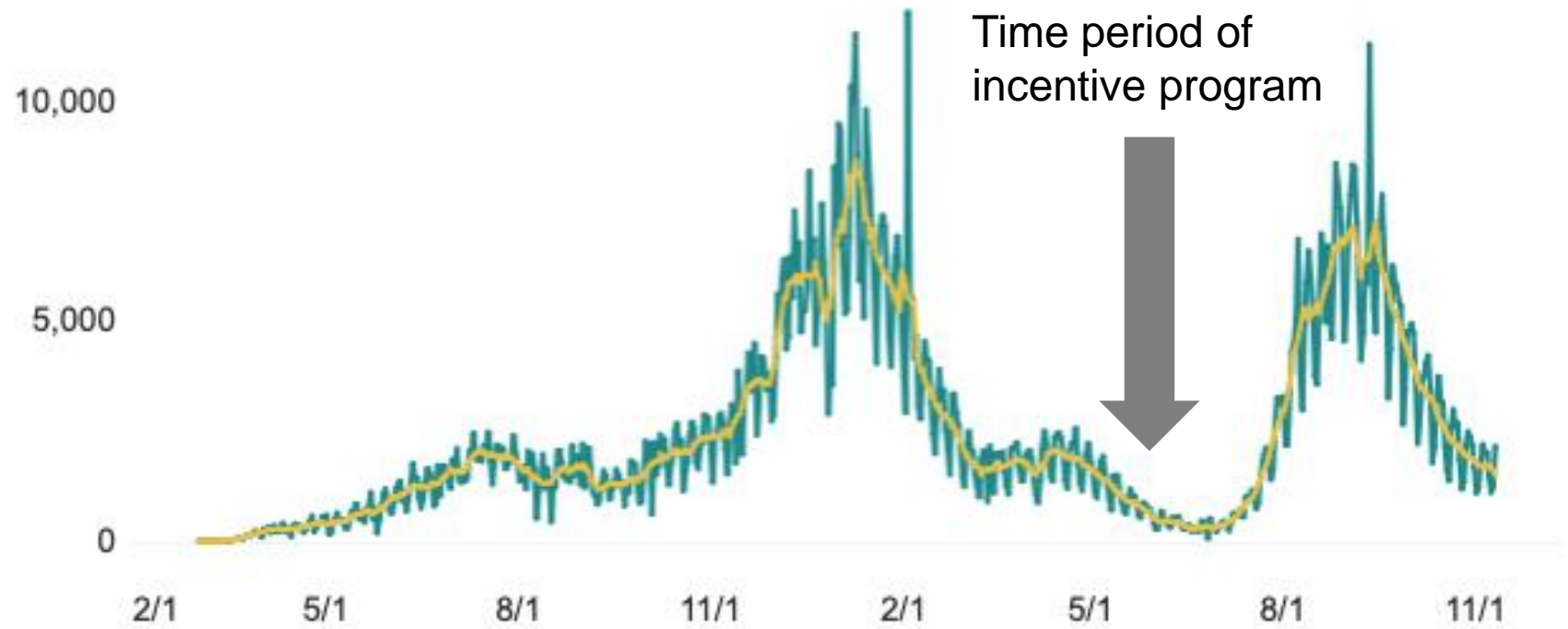


## **Dr. Brewer**

American Academy of Pediatrics  
American Cancer Society  
Centers for Disease Control & Prevention  
Food & Drug Administration  
Gillings Fdn  
GlaxoSmithKline  
Merck & Co.  
National Cancer Institute  
Pfizer Fdn  
Robert Wood Johnson Fdn  
State of North Carolina  
World Health Organization

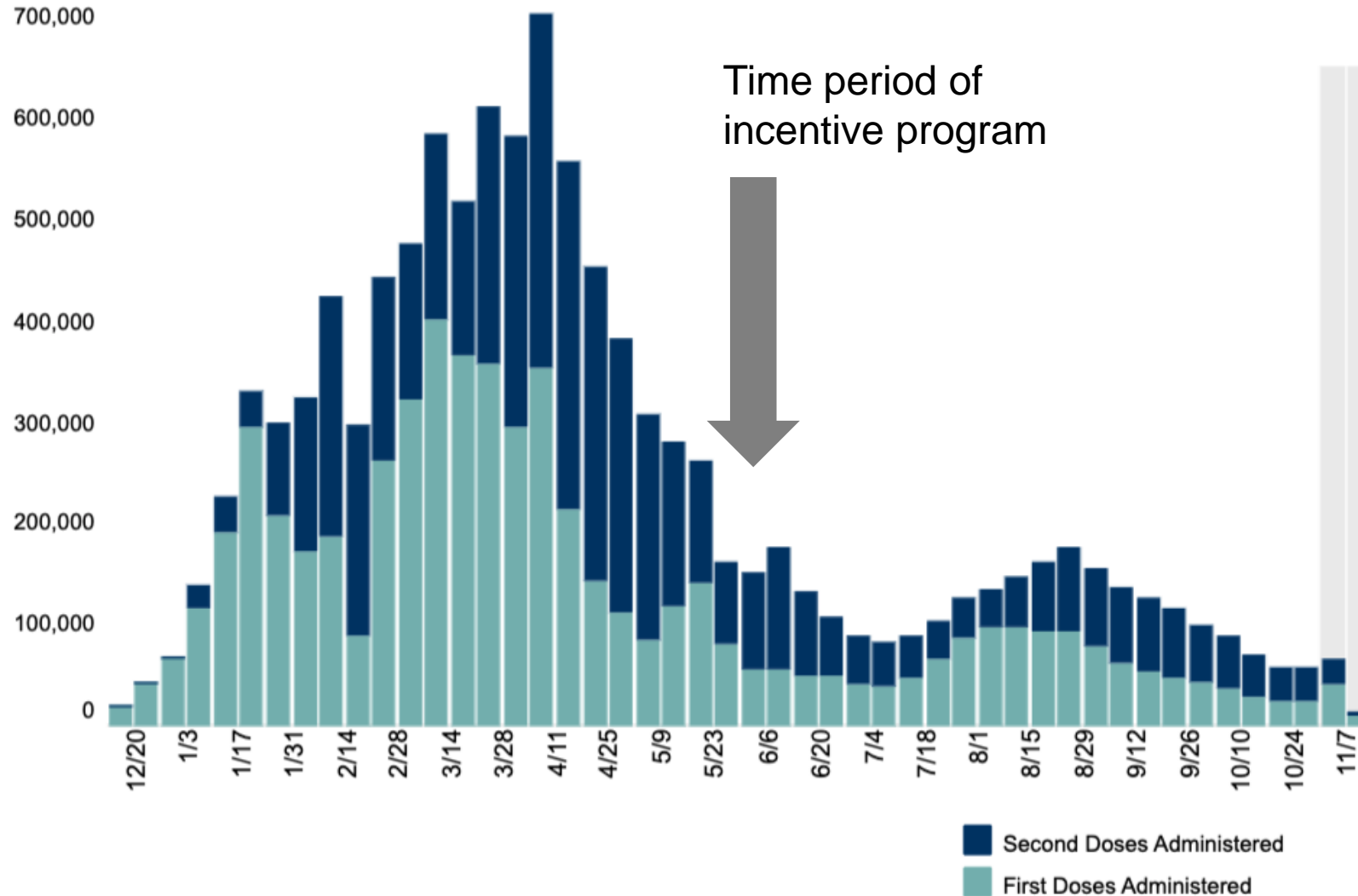
# COVID-19 IN NC

# DAILY COVID-19 CASES IN NORTH CAROLINA

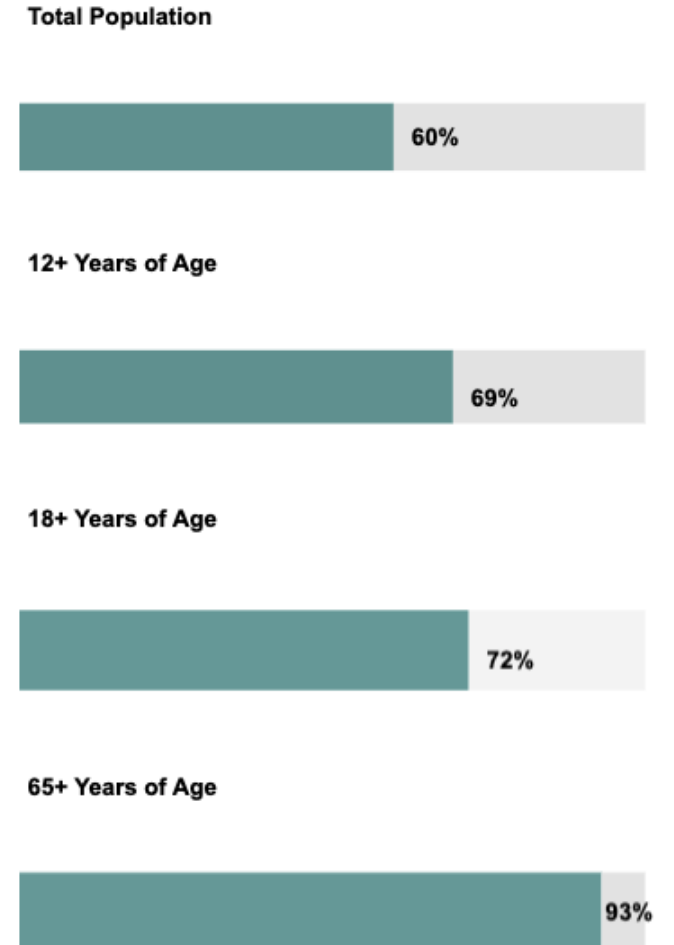


<https://covid19.ncdhhs.gov/dashboard>

# COVID-19 VACCINATIONS IN NORTH CAROLINA



Percent of Population Vaccinated with at Least One Dose



Data as of Nov 11, 2021

# MULTIPLE STRATEGIES USED TO INCREASE DEMAND FOR VACCINES

**Goal:** To vaccinate as many North Carolinians as quickly and fairly as possible



## Universal Eligibility

All North Carolinians 12+ eligible for vaccination



## Healthier Together

Regional infrastructure to engage and support CBOs and local partnerships



## Communications Strategies

Trusted messengers, researched based messages, paid media



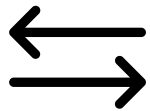
## Increasing Access Points

Encouraging walk in clinics, adding new providers, vendors to fill gaps



## Data

Data transparency / dashboard, data-driven community outreach



## Navigation Help to Vaccines

Call center, scheduling tool, vaccine finder for 12+ to get Pfizer



## Special Population Outreach

Childcare, K-12, Homebound, Migrant Farm Workers, Homeless



## Matchmaking Employers

Economic Development Partnership of NC Liaisons, Occupational Health



## CHWs/ CBOs Outreach

Promote vaccine outreach and accessibility



## Incentives

Suite of state-sponsored & inspired incentive programs to address access and motivation



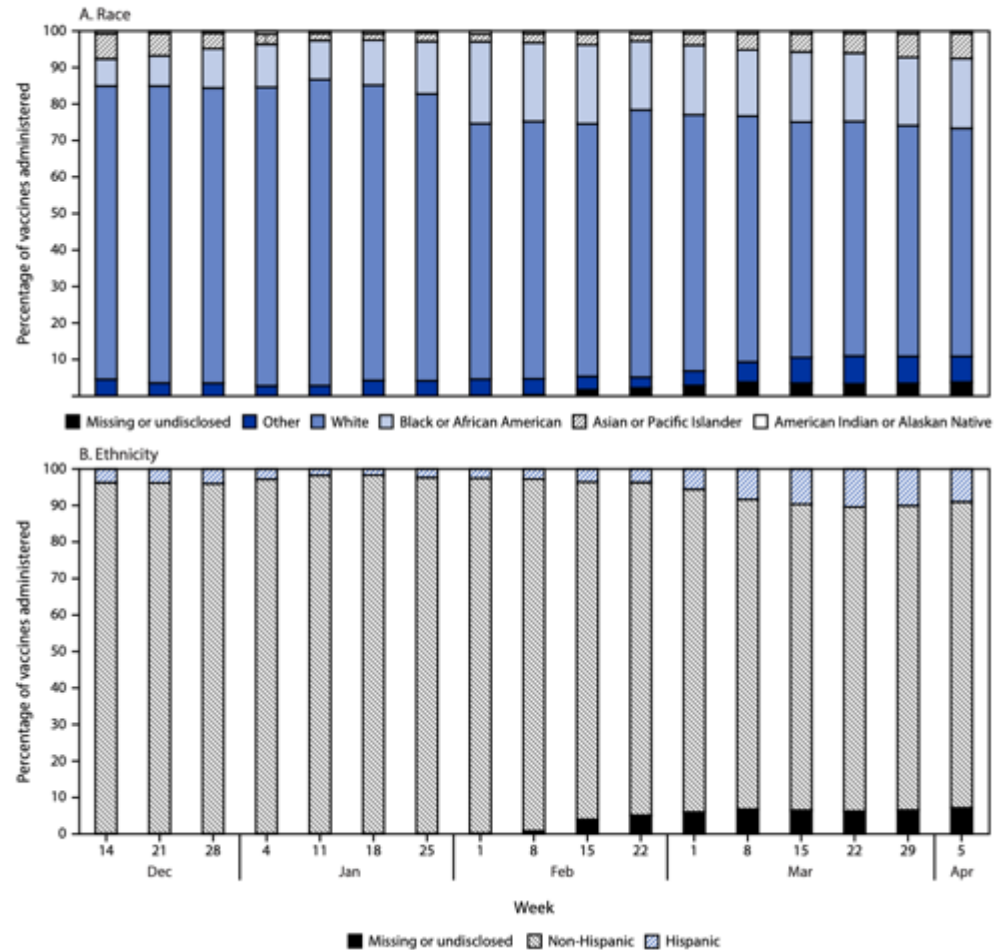
## North Carolina increased COVID-19 vaccination among Black and Hispanic people

Strategies included:

- ★ **Identifying** affected communities
- ★ **Prioritizing** vaccine doses for these communities
- ★ **Engaging** health care providers and trusted messengers
- ★ **Promoting** community partnerships

# Equitable Vaccine Distribution Efforts in NC

FIGURE 2. Percentage of COVID-19 vaccine doses (n = 2,815,774) administered, by race (A) and ethnicity (B)\* and week† — North Carolina, December 14, 2020–April 6, 2021



The proportion of vaccinations administered to Black and Hispanic people increased in NC

Increase in the proportion of vaccines administered from December 14, 2020–January 3, 2021 to March 29–April 6, 2021 for:

- Black persons, from 9.2% → **18.7%** (population proportion = 22.3%)
- Hispanic persons, from 3.9% → **9.9%** (population proportion = 8%)



# **NC COVID-19 INCENTIVES PROGRAM**

# INCENTIVE PROGRAM: SUMMER CASH CARDS

NC DHHS offered **\$25 cash cards** for Covid-19 vaccination



## Vaccine Receipt

*\$25 gift card for receiving first dose of vaccine at participating vaccine site*

- Individual must be age 18 or older
- Individual received gift card only for first dose



## Transport

*\$25 gift card for transporting individuals to a vaccine site*

- Individual must be 18 or older
- Provides ride to the vaccine site and return trip
- One gift card per trip, even if multiple individuals are transported
- No gift cards for paid transporters (e.g., taxi)

# \$25 Cash Cards

**Pilot Period:** May 26 – June 8, 2021

Cards available at multiple vaccine events and sites in 4 NC counties

- Rockingham
- Guilford
- Rowan
- Mecklenburg



Your **FREE COVID-19** vaccine comes with more than peace of mind:

A **\$25 SUMMER CARD** to cover your time and transportation.

*At participating locations only.*



BRINGING SUMMER **BACK**

[YourSpotYourShot.nc.gov](https://YourSpotYourShot.nc.gov)



# OTHER INCENTIVES USED IN NORTH CAROLINA

- To motivate those who remained unvaccinated and thank those who did
- Four NC adults won **\$1 million prize each**
- Four NC teens won a **\$125,000 scholarship** that can be used at any post-secondary institution via a savings account in the NC 529 Plan



A poster for a "Free COVID-19 Vaccination" event. It features a woman in a blue surgical mask and a white glove, with a white cotton glove on her arm. A black Cadillac SUV is shown in the foreground. A Visa gift card is also visible. The text includes the date "SATURDAY, MAY 22, 2021", the time "10AM - 2PM", and details about a \$10 gift card incentive and a car drawing on August 1, 2021. The event is held at Center Grove Missionary Baptist Church, 511 Center Grove Church Road, Red Springs NC 28377, in partnership with Pastor Rev. Dr. Hurley B. Williams, Jr. and Ottendorf Laboratories.



# SURVEY OF \$25 CASH CARD VACCINE RECIPIENTS

- **Onsite surveys** at vaccine sites in all 4 pilot counties by North Carolina Central University ACCORD Team
- **401 surveys** during the pilot period
- **Outcomes**
  - How important was “**getting the \$25 summer cash card**” for your decision to get a COVID-19 vaccine today?
  - How important was “**someone driving me here today**” for your decision to get a COVID-19 vaccine today?



## NCCU ACCORD – NCDHHS SURVEY (VAC4-INCTV)

Thank you for taking this survey. It will help us better understand what our communities think about the COVID-19 vaccine. You may skip questions or stop at any time.

1. How important were each of these for your decision to get a COVID-19 vaccine today?

|  | Very Important                   | Somewhat Important               | A little Important               | Not important at all  |
|--|----------------------------------|----------------------------------|----------------------------------|-----------------------|
| Getting the \$25 summer cash card                        | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| This vaccine event was convenient                        | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| Encouragement from friends or family to get vaccinated   | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| Someone driving me here today                            | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| Recommended by my health care provider to get vaccinated | <input type="radio"/>            | <input type="radio"/>            | <input checked="" type="radio"/> | <input type="radio"/> |
| Protection the vaccine gives me against COVID-19         | <input type="radio"/>            | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> |
| Helping protect my friends and family from COVID-19      | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |

2. Did you wait to get vaccinated until you found a vaccine event that gave a cash card?

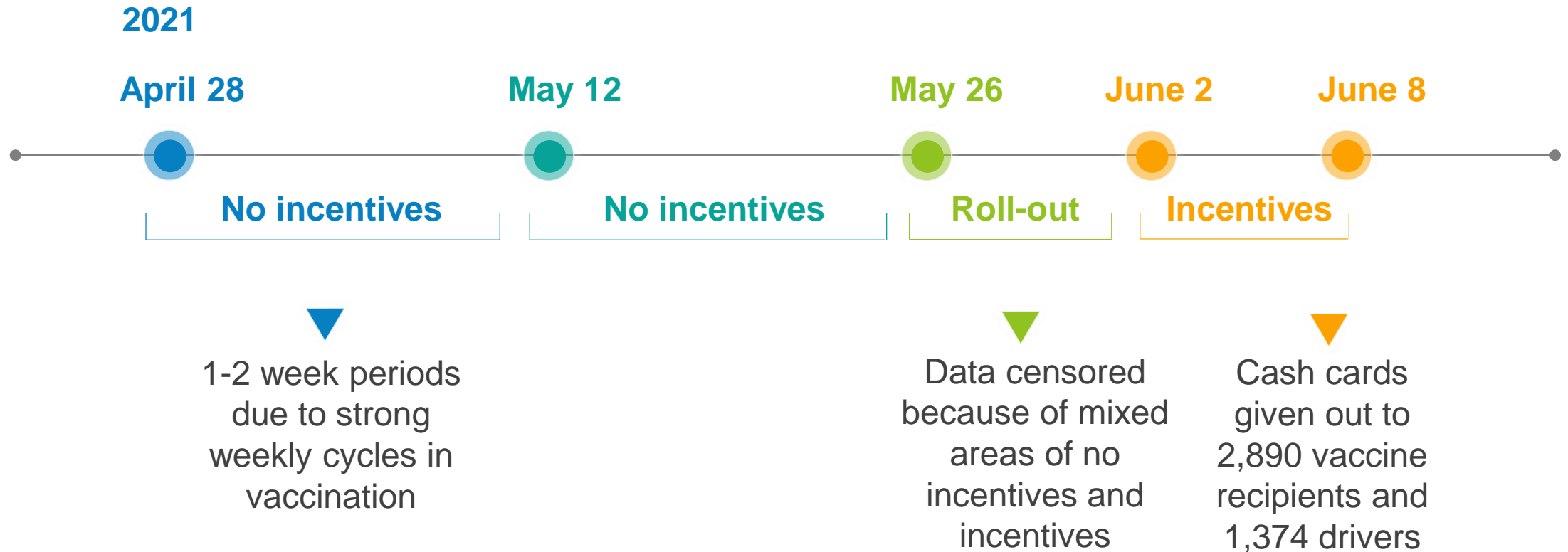
9. Race and ethnicity? (Check all that apply.)

# SURVEY: IMPORTANCE OF INCENTIVES AND TRANSPORTATION ASSISTANCE

|                        | Financial incentive was important | Transportation help was important |
|------------------------|-----------------------------------|-----------------------------------|
| <b>Race/ethnicity</b>  |                                   |                                   |
| White (ref)            | 32%                               | 39%                               |
| Black                  | 40%                               | <b>53%*</b>                       |
| Hispanic               | <b>48%*</b>                       | <b>62%*</b>                       |
| Other                  | <b>68%*</b>                       | 55%                               |
| <b>Income (annual)</b> |                                   |                                   |
| <\$20,000              | <b>54%*</b>                       | <b>72%*</b>                       |
| \$20,000-\$39,999      | <b>49%*</b>                       | <b>54%*</b>                       |
| \$40k-\$59,999         | 33%                               | 30%                               |
| ≥\$60,000 (ref)        | 33%                               | 30%                               |
| Declined to answer     | 41%                               | 63%                               |
| <b>Age (in years)</b>  |                                   |                                   |
| 18-29 (ref)            | 40%                               | 41%                               |
| 30-39                  | 33%                               | 40%                               |
| 40-49                  | 46%                               | 55%                               |
| ≥50                    | 48%                               | 66%                               |

\* $p < .05$

# TIMELINE OF \$25 CASH CARD PILOT PROGRAM



# IMPACT OF FINANCIAL INCENTIVES ON COVID-19 VACCINE UPTAKE

- Analyzed 4,099,860 doses in NC COVID-19 Vaccine Management System
- Uptake fell by half without incentive, **but only by a quarter with incentives**

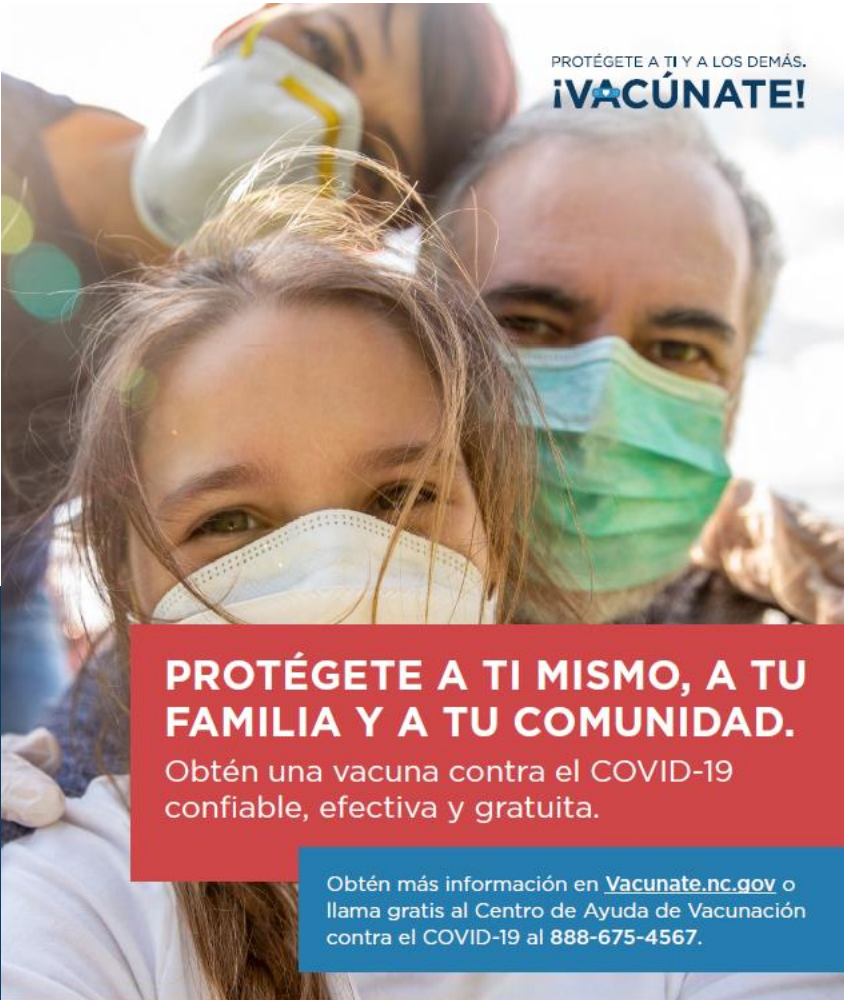
|                        | No incentives                      |                                |              | Incentives                    |              |
|------------------------|------------------------------------|--------------------------------|--------------|-------------------------------|--------------|
|                        | Apr 28-May 11<br>Vacc rate/100,000 | May 12-25<br>Vacc rate/100,000 | Change       | June 2-8<br>Vacc rate/100,000 | Change       |
| <b>Incentive sites</b> | 0.82                               | 1.20                           | <b>46%*</b>  | 0.88                          | <b>-26%</b>  |
| <b>Rest of county</b>  | 5.65                               | 5.11                           | <b>-10%*</b> | 2.50                          | <b>-51%*</b> |
| <b>Rest of state</b>   | 23.26                              | 23.67                          | <b>2%*</b>   | 12.18                         | <b>-49%*</b> |



# IMPACT OF GUARANTEED FINANCIAL INCENTIVES IN NC

- **Supported equity among**
  - People with lower incomes
  - People of color
- **Slowed drop in uptake**
  - Cut the decrease in half

YOU HAVE A  
**SPOT.**  
TAKE YOUR  
**SHOT.**



PROTÉGETE A TI Y A LOS DEMÁS.  
**¡VACÚNATE!**

**PROTÉGETE A TI MISMO, A TU FAMILIA Y A TU COMUNIDAD.**  
Obtén una vacuna contra el COVID-19 confiable, efectiva y gratuita.

Obtén más información en [Vacunate.nc.gov](https://www.vacunate.nc.gov) o llama gratis al Centro de Ayuda de Vacunación contra el COVID-19 al 888-675-4567.

Departamento de Salud y Servicios Humanos de Carolina del Norte • [Vacunate.nc.gov](https://www.vacunate.nc.gov)  
NCDHHS es un proveedor y empleador que ofrece oportunidad igual a todos. • 09/2021

# PSYCHOLOGY OF INCENTIVES

What  
makes  
incentives  
effective?

Known

Valued

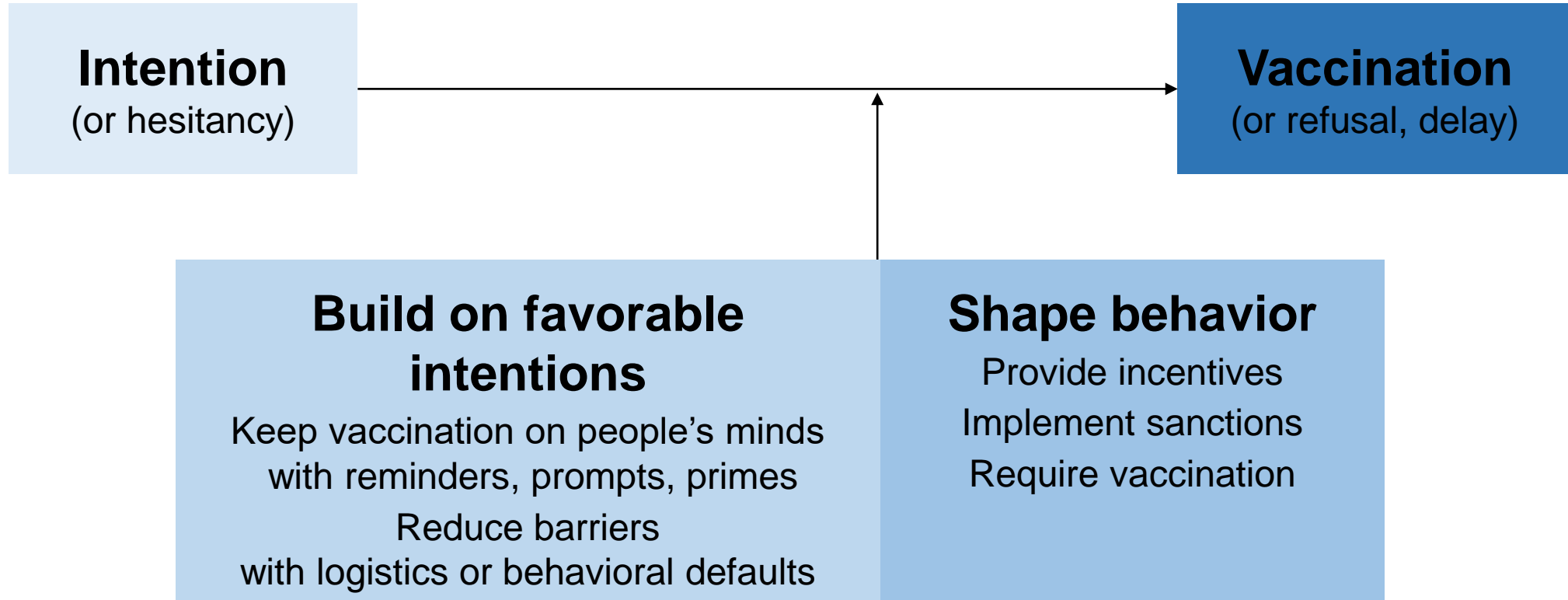
Contingent

Certain

Immediate

# Proposition 3. Direct behavior change influences vaccination

▶ Clear evidence from interventions



## Increasing Vaccination: Putting Psychological Science Into Action

Noel T. Brewer<sup>1,2</sup>, Gretchen B. Chapman<sup>3</sup>, Alexander J. Rothman<sup>4</sup>, Julie Leask<sup>5,6</sup>, and Allison Kempe<sup>7,8,9</sup>

<sup>1</sup>Department of Health Behavior, Gillings School of Global Public Health, University of North Carolina; <sup>2</sup>Lineberger Comprehensive Cancer Center, University of North Carolina; <sup>3</sup>Department of Social and Decision Sciences, Carnegie Mellon University; <sup>4</sup>Department of Psychology, University of Minnesota; <sup>5</sup>Faculty of Nursing and Midwifery, University of Sydney; <sup>6</sup>Faculty of Medicine, University of Sydney; <sup>7</sup>Adult and Child Consortium for Health Outcomes Research and Delivery Science (ACCORDS), University of Colorado School of Medicine; <sup>8</sup>Department of Pediatrics, University of Colorado Anschutz Medical Campus; and <sup>9</sup>Department of Pediatrics, Children's Hospital Colorado, Aurora, Colorado

### Summary

Vaccination is one of the great achievements of the 20th century, yet persistent public health problems of inadequate, delayed, and unstable vaccination uptake. Psychology offers three general propositions and intervening to increase uptake where vaccines are available and affordable. The first proposition is that *thoughts and feelings* can motivate getting vaccinated. Hundreds of studies have shown that risk beliefs about infectious disease correlate reliably with getting vaccinated; low confidence in vaccine efficacy and about safety correlate reliably with not getting vaccinated. We were surprised to find that few interventions successfully changed what people think and feel about vaccines, and those few that succeeded did so in increasing uptake. The second proposition is that *social processes* can motivate getting vaccinated. Research has shown that social norms are associated with vaccination, but few interventions using normative messages increase vaccination uptake. Many experimental studies have relied on interventions to demonstrate that altruism and free riding (i.e., taking advantage of the protection provided by others) predict intended behavior, but few randomized trials have tested strategies to change social processes to increase uptake. The third proposition is that interventions can *facilitate vaccination directly* by leveraging environmental change, what people think and feel. These interventions are by far the most plentiful and effective. To increase vaccine uptake, these interventions build on existing favorable intentions by facilitating reminders, prompts, and primes) and reducing barriers (through logistics and healthy defaults); they also shape behavior (through incentives, sanctions, and requirements). Although identification of psychological principles that shape thoughts and feelings to motivate vaccination is a work in progress, psychological principles are being used in the design of systems and policies to directly facilitate action.



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## WHAT WORKS TO INCREASE VACCINATION UPTAKE

### Data for action: achieving high uptake of COVID-19 vaccines

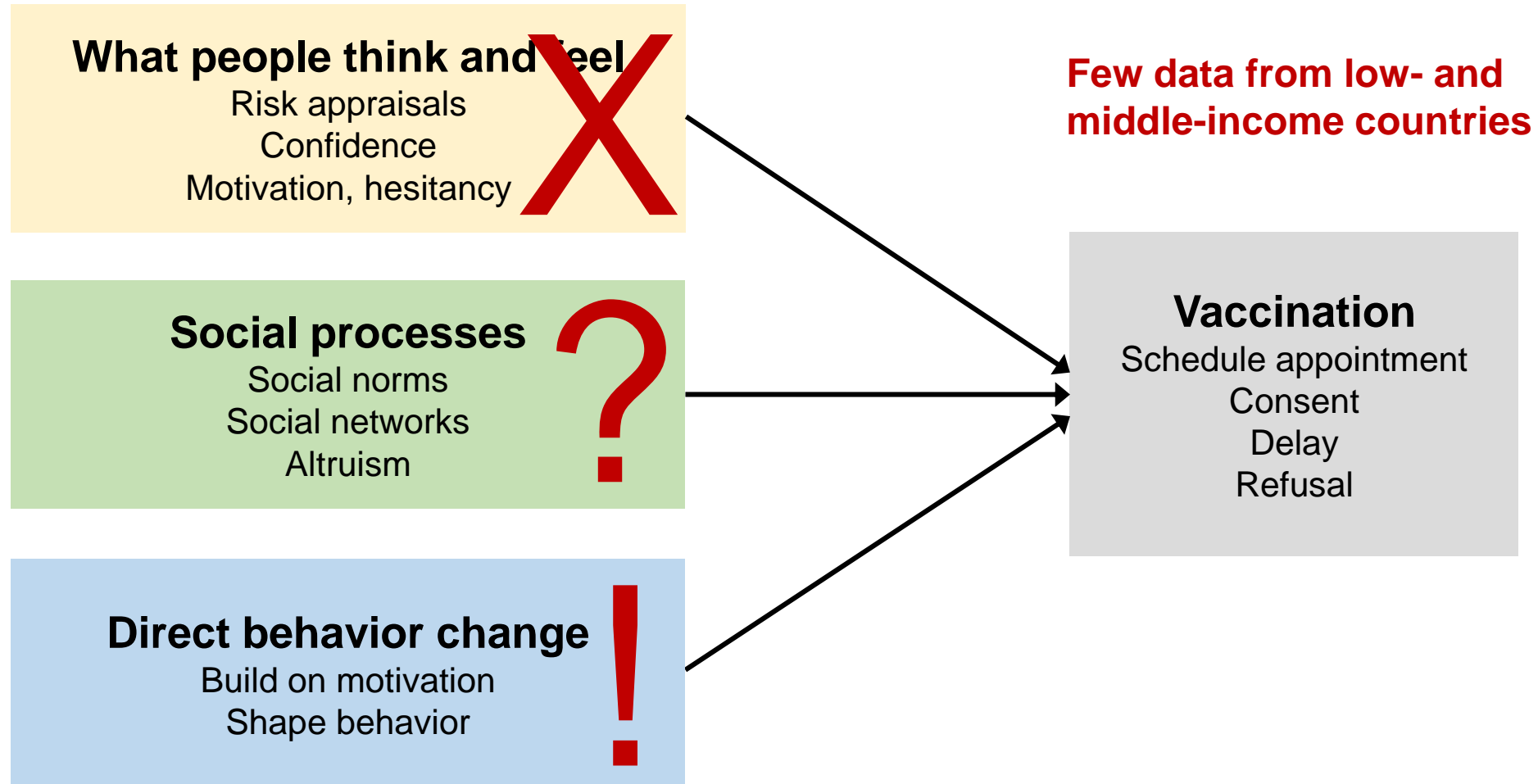
INTERIM GUIDANCE  
3 FEBRUARY 2021



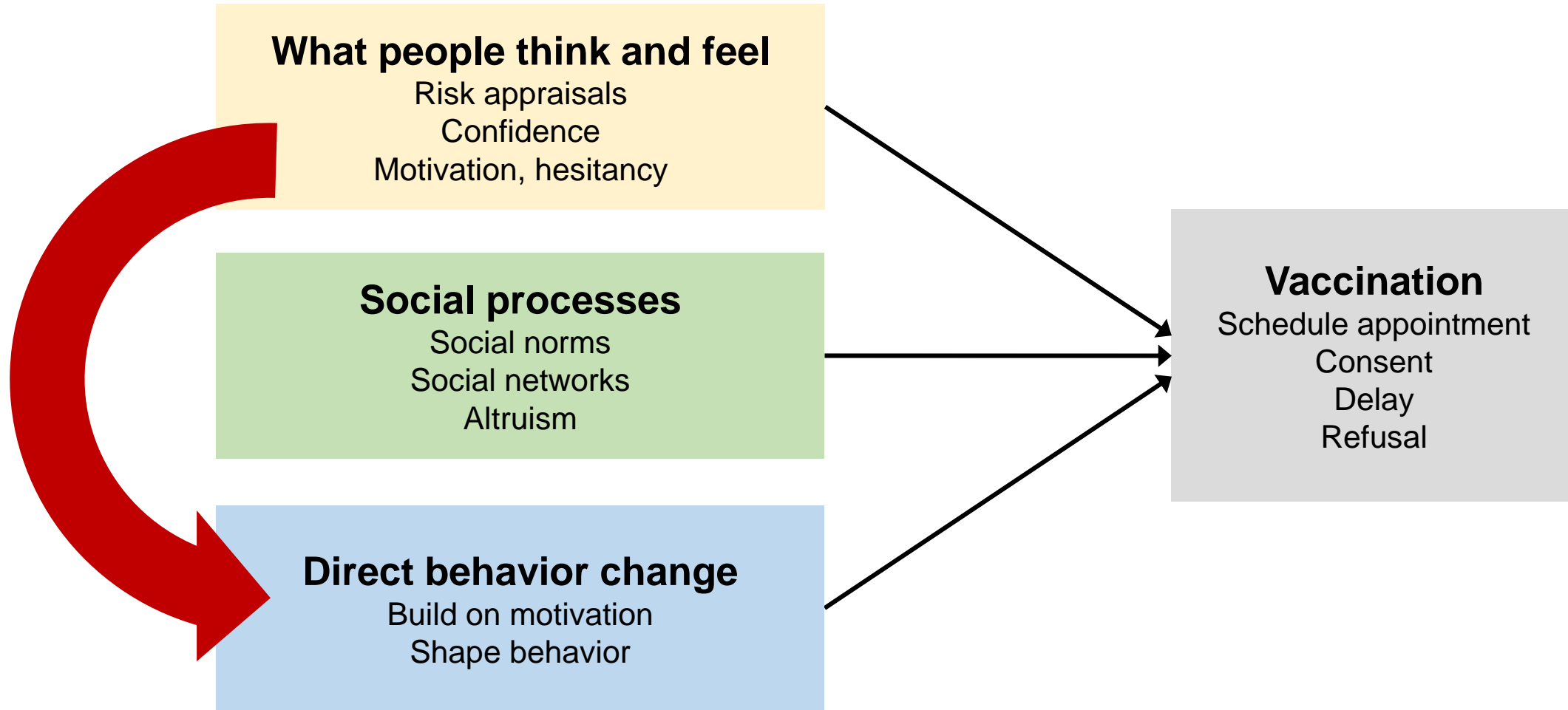
#### Vaccination uptake

- Schedule appointment
- Consent
- Delay
- Refusal

# Increasing Vaccination Model



# Increasing Vaccination Model



# Questions?



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