COVID Hot Topics

Discovery Session
March 22, 2021
4 PM EST
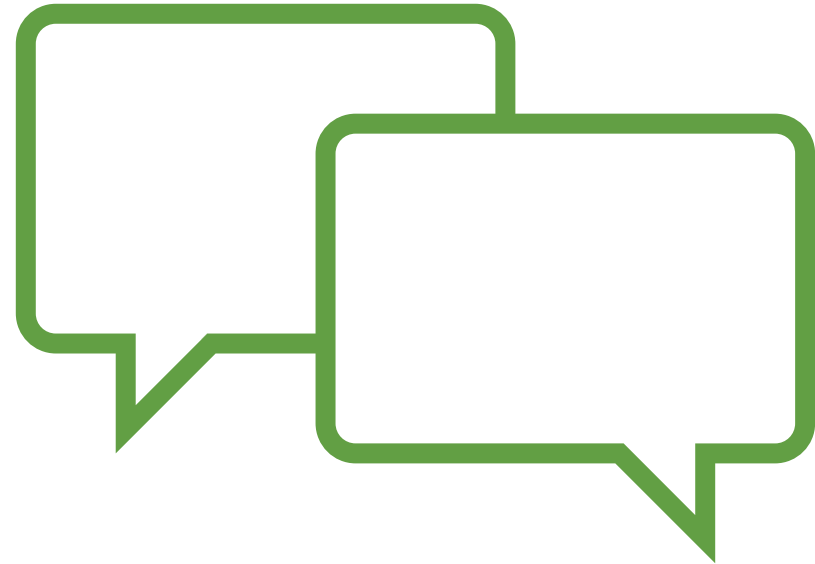
AIRA Discovery Session
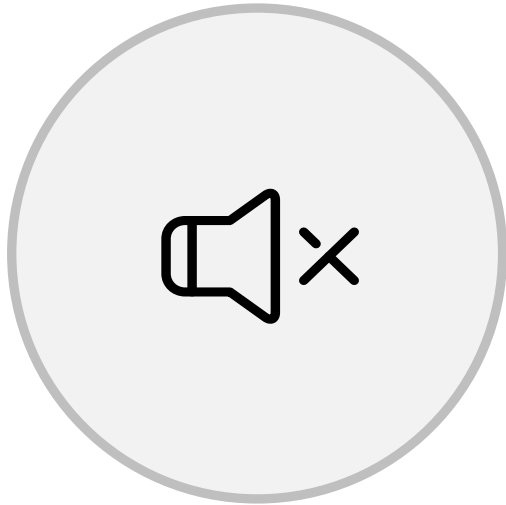
All phone lines
are muted

This meeting is being recorded
and will be posted on the
AIRA repository

Technical Support

If you experience any technical issues during the meeting, please contact **Sarah Stein** via direct message in the Chat.

Today's Speakers

- Mary Beth Kurilo, AIRA
- Nathan Bunker, AIRA
- Lauren Shaw, CDC
- Bhavini Murthy, CDC
- Panelists
  - Baskar Krishnamoorthy, FL
  - Cristi Bramer, MI
  - Jackie Logan, TN
  - Miriam Muscoplat, MN

Mary Beth Kurilo

AIRA

IIS COVID-19 Data Quality

March 22, 2021

Overview

- Messaging Data Quality As A Shared Effort

- Current Data – Where Do We Stand?

- Getting The Message Out

Increasing Data Literacy

- AIRA worked with AIM and IIS/Immunization Program Leadership to develop internal **Talking Points for COVID-19 Data Quality (DQ)**
  - Released in February 2021, they focus on:
    - **Key Messages**
    - **Completeness**
    - **Accuracy**
    - **Timeliness**
- Another data literacy one-pager is in the works

Key DQ Messages

Scale

The COVID-19 immunization campaign is larger than any vaccine campaign in history.

Process

Data in immunization information systems (IIS) is consolidated from hundreds of data sources.

Participation

Partners at all levels have a role in improving/ assuring data quality.

Challenges: DQ is a broadly shared responsibility across many partners (existing and new), reporting has short turnaround, corrections process is needed, 'boom or bust' nature of public health resources.

Strengths: IIS have built a strong foundation over many decades. IIS are rising to meet the challenges of COVID-19 and strengthening their systems and partnerships in the process.

What Are We Seeing in the COVID-19 Data?

CVX and MVX

- **97.1% of the time CVX and MVX align**
  - 2.6% of the time CVX is without MVX (or with OTH/UNK MVX)
  - Only 0.3% of the time do CVX and MVX misalign on a given record

CVX and NDC

- When NDC is present (52% of the time)…
  - **98.7% of the time CVX and NDC align**
  - 1.27% of the time they do not
    - This is primarily one jurisdiction actively working on the problem

What Are We Seeing With Lot Numbers?

Lot Numbers

• **97% of all records over last 7 days have lot number**

Based on an AIRA analysis in late Jan/early Feb, ~94% of those showed an exact match to known lot numbers

What Are We Seeing With Second Dose?

Second Dose

- **88% of all who've had sufficient time have received 2nd dose**
  - of those 95.6% are occurring within an 8 day window (+ or - 4 days from recommended interval of 21 or 28 days)
  - another 2.8% of all second doses are occurring within a 42 day window
- Of the 12% not receiving their second dose (yet)
  - 8.6% are still within the window, while 3.4% have been classified as having missed their second dose
    - *Although they can still get it and don't need to restart!*

High Priority Data Quality Topics

All IIS receive weekly reports from CDC on:

- Race/Ethnicity Capture
- Recipient County Code
- Administering State

The most recent reports display race/ethnicity data from 58 IIS

- Data is unavailable for 3 IIS due to policy restrictions

Reminder: An information request went out to the community on **Race/Ethnicity data capture**, and was published on the **AIRA Repository on February 17, 2021**:
https://repository.immregistries.org/resource/capture-of-race-and-ethnicity-data/

High Priority Data Quality: Race/Ethnicity

Complete Percent of Race Capture (N=58)

- 46 of 58 IIS improved capture when comparing all time to most recent 7 days
- Range of capture of complete percent for most recent 7 days included:
  - 0-25%: 4 IIS
  - 26-50%: 2 IIS
  - **51-75%: 11 IIS**
  - **76-100%: 41 IIS**

Complete Percent of Ethnicity Capture (N=58)

- 44 of 58 IIS improved capture when comparing all time to most recent 7 days
- Range of capture of complete percent for most recent 7 days included:
  - 0-25%: 6 IIS
  - 26-50%: 2 IIS
  - **51-75%: 21 IIS**
  - **76-100%: 29 IIS**

High Priority Data Quality: CDS, Corrections

Clinical Decision Support (CDS)

- As new vaccines are approved, it's important to mark doses as unknown (UNK) rather than invalid (INV) if you can't determine validity until you've implemented updated CDS
    - In other words, don't default to INV

Updates and Deletes

- Start thinking/tracking what needs to be corrected if you haven't already
    - We know many have already begun this work

What Else We're Hearing Re: Data Quality

- Some IIS were reporting that their **FEMA contacts** were requesting that IIS capture disability status at the point of COVID-19 administration. AIRA we did some outreach to CDC about this topic:
  - The IIS support branch has heard of this and have been working to encourage FEMA to collect this important information in another avenue since this is not information IIS collect, nor is it part of our HL7 exchange specification
  - For further follow up, contact **Jan Hicks-Thomson, IISSB Subject Matter Expert**, at hbv8@cdc.gov

What is the World Seeing?

- **2.5 million doses** administered on average per day last week
- Biden announced we reached the **100 million vaccinations goal** on Friday, March 19

The Vaccination Progress Report

7-day average daily doses administered by week as of 3/18/2021*

DOSES PER DAY								
0.9 M	1.1 M	1.3 M	1.5 M	1.7 M	1.4 M	1.9 M	2.2 M	2.5 M
JAN 13–19	JAN 20–26	JAN 27– FEB 2	FEB 3–9	FEB 10–16	FEB 17–23	FEB 24– MAR 2	MAR 5–11	MAR 12–18

*7-day average from March 3 – March 9 was 2.2M
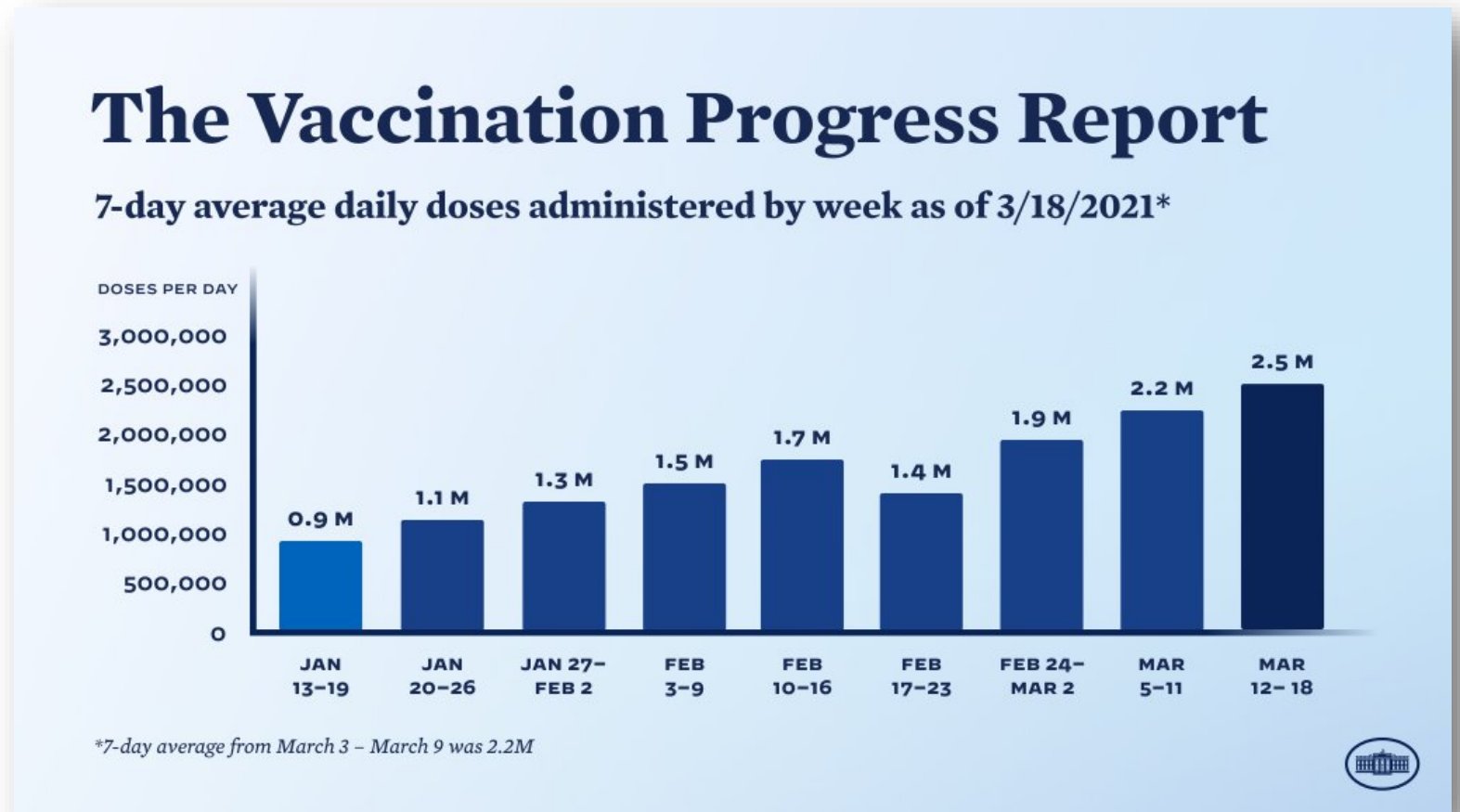
Ways AIRA Can Support/Echo Your Messages

- AIRA teams meet weekly with the **EHR Association**
- AIRA can reach out to pharmacies, health systems, EHR vendors as needed
- AIRA staff are available to provide **onboarding and troubleshooting support**
  - Working with CDC to shape a more formal **Onboarding Shared Service** offering that will improve readiness of partners through testing, quality assurance, and warm hand-offs to your onboarding team
  - **The vision:** AIRA provides outreach and testing support to get provider orgs 80% of the way there, IIS take them the final 20%...

What Else Can/Should AIRA Do to Provide Support to Our Members?

- Tell us in:
  - Discussion/Q&A later in this session!
  - Webinar chat
  - Email: info@immregistries.org
  - Phone calls to any AIRA staff

Take Home Messages

IIS ARE MANAGING AN ENORMOUS AMOUNT OF HIGH-QUALITY DATA

WE'RE SEEING IMPROVEMENTS, REFLECTING YOUR HARD WORK, AND BROADER DATA USE

YOUR WORK IS GREATLY APPRECIATED!

Thank You

*For all you **have done**, **are doing**, and **will do** to get us through this!!!*

Improving Data Quality for Race/Ethnicity

Nathan Bunker, AIRA

Data Quality for Race/Ethnicity

- Can multiple races be sent?
  - Yes, current IG supports sending zero or more race codes.
- Should we require race?
  - The national standards for race/ethnicity are RE (required but may be empty) .
  - But our senior leadership is wanting to make these mandatory.
  - Should we make these fields mandatory (R) or not?

Improving Data Quality

- Completeness
  - All consented patients
  - Complete vaccine histories
- Correctness
  - Accurate patient information
  - Accurate vaccine histories.

Requirement at Which Level?

- Operational
  - Partners must have process to collect
  - EHR systems must support messaging
  - Minimum standards are set for levels of completeness
  - Processes in place to regularly measure and follow up
  - Improvement is continuous and permanent

- Message
  - IIS tightens message requirements
  - No patient or immunization data is excepted unless it meets new minimum standard
  - Can show immediate improvement in completeness

HL7 Impacts of Requiring

- Standards alignment
  - IIS may strengthen requirements and still claim conformance.
  - May result in a "Deviates from standard" when measured.
  - Not recommended without careful consideration.
- Data quality
  - Good data are either not submitted or accepted.
  - Submitters create default (fake) data to meet requirements.

Mitigating Impacts of Requiring

- To reduce the negative impacts of requiring a field:
  - Indicate to partners what do in situations when data is missing.
  - Create data quality processes to identify fake/inaccurate data.
- Must also implement all operational level requirements.

Recommended Language

- Operational Level Requirements
  - Requirements that push for holistic improvement to data quality.
  - Continuous and permanent improvement.
- Messaging Level Requirements
  - Easy to implement for IIS.
  - Big negative impacts on data quality will need to be mitigated.

Lauren Shaw & Bhavini Murthy

CDC

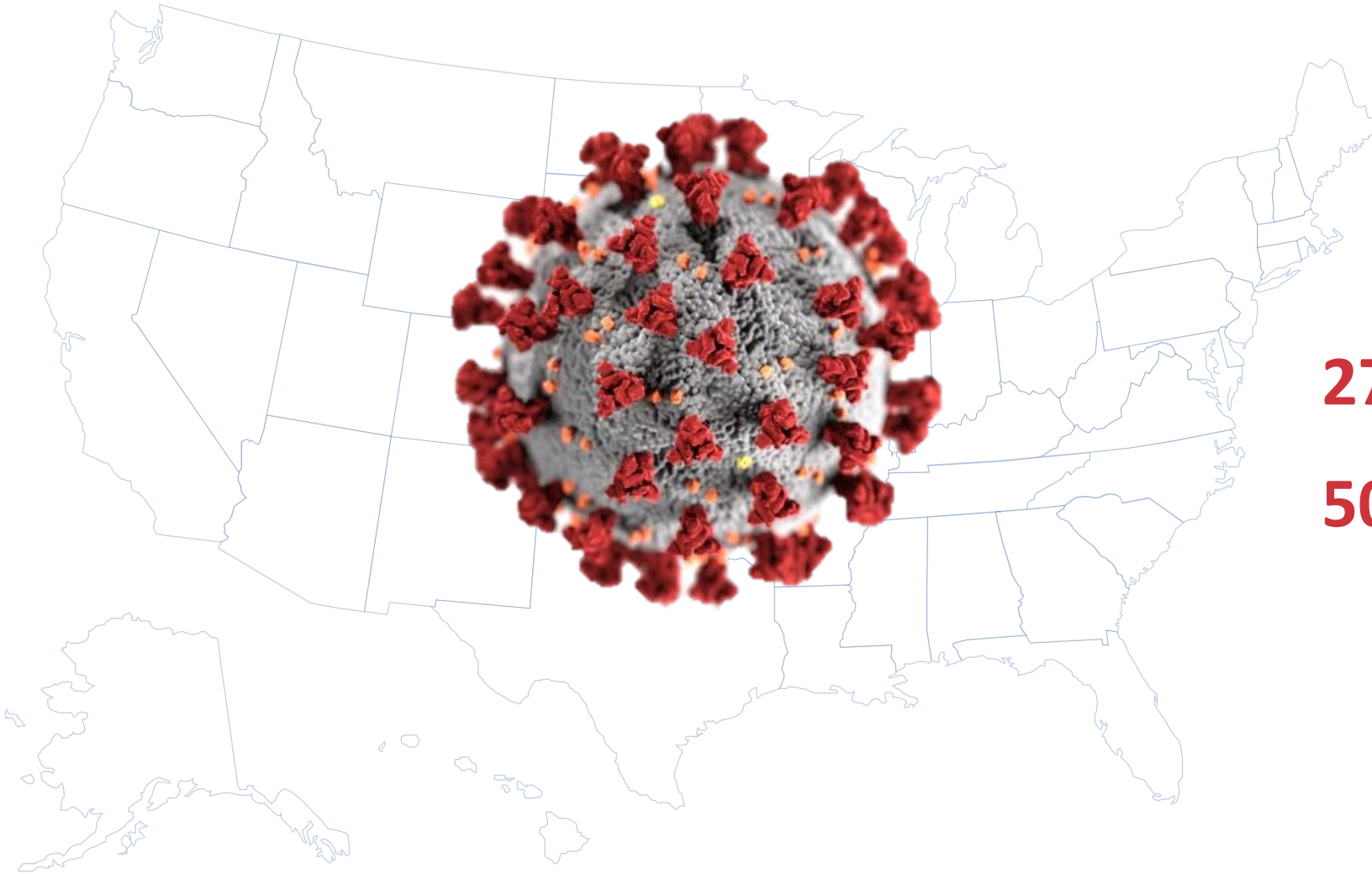**AIRA Discovery Session: COVID Hot Topics**

Data Quality for Race and Ethnicity

Lauren Shaw, MS

Bhavini Murthy, MD, MPH

Immunization Services Division

27 Million Cases

500,000 Deaths

COVID-19 Data Quality Report – Race/Ethnicity

- **Provided weekly to awardees**

- **Technical assistance available**

Ethnicity

Administration records that contain valid values for ethnicity help answer health equity questions. This information is used to generate views on CDC COVID Data Tracker.

- Data sharing restrictions for Race/Ethnicity data: Known policy issues in the jurisdiction
- Plan for improvement: TBD

	Percent of Total Records		
	All Time	Past 7 Days	Targets and Tips
Unknown	89.69%	91.94%	Values over the past 7 days >50% could indicate • A coding and/or data entry problem by one or more large providers • The need for systematic provider education • A technical issue[1]
Policy	0.00%	0.00%	Values over the past 7 days >0 for a jurisdiction with no data sharing restrictions could indicate • A coding problem for one or more providers • A technical issue
All remaining Ethnicity code values	10.31%	8.06%	Values should reflect expectations for the jurisdiction and populations vaccinated. Tips to increase reporting of meaningful values include: • Partnering with local contacts or chapters of AAP, AAFP, APhA, HIMSS[2] to promote the importance of reporting and improvement strategies • Working through local immunization coalitions to encourage capture of ethnicity data within the clinical workflow

Combined Race/Ethnicity Analytic Variable – A Two Step Process

1. **Evaluate Ethnicity**

Combined Race/Ethnicity Value

= Hispanic → **Hispanic**

= Unknown → **Unknown**

= Policy → **Policy**

= Non-Hispanic → **2. Evaluate Race**

- All 6 race fields are Policy
- All 6 race fields are Unknown
- Two or more races are indicated → **Non-Hispanic Multiracial**
- A single race is selected →

One of the following values:
- Non-Hispanic Black or African American
- Non-Hispanic Asian
- Non-Hispanic American Indian or Alaskan Native (AI/AN)
- Non-Hispanic Native Hawaiian or Other Pacific Islander (NH/PI)
- Non-Hispanic White
- Non-Hispanic Other Race

Demographic Characteristics for COVID-19 Vaccination in IISs

Race/Ethnicity	Dec 15 , 2020 – Jan 15, 2021 n (%)	Feb 15, 2021 – Mar 15, 2021 n (%)
White, non-Hispanic	5,108,565 (33.4)	21,353,804 (42.1)
Hispanic/Latino	901,571 (5.9)	2,511,138 (4.9)
Black, non-Hispanic	438,884 (2.9)	2,631,699 (5.2)
Asian, non-Hispanic	516,276 (3.4)	1,118,118 (2.2)
AI/AN, non-Hispanic	185,303 (1.2)	375,116 (0.7)
NH/PI, non-Hispanic	28,278 (0.2)	71,604 (0.1)
Other, non-Hispanic	573,437 (3.7)	800,439 (1.6)
Multiple, non-Hispanic	583,447 (3.8)	1,499,704 (3.0)
Unknown	6,971,220 (45.5)	20,402,146 (40.2)

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Completeness of Data

Missing race/ethnicity

45% ➡ 40%

Dec 15, 2020 – Jan 15, 2021

Feb 15, 2021 – Mar 15, 2021

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Issues

In 2000, the Office of Management and Budget (OMB) began recommending that all federal agencies begin to use an option for multiple races to be selected by respondents.

IISs use HL7 code, which has "other" as a category.

There is no valid US Census Bureau denominator for race classified as "other."

Next Steps

1. Work with the IIS community to explore HL7 changes for the race value set.

2. Develop and implement a strategy to comply with OMB classification of race and ethnicity.

Acknowledgments

Vaccine Task Force Evaluation and Analysis Team

- Elizabeth Zell, Mstat
- Betsy Gunnels, MS
- LaTreace Harris, MPH
- Lynn Gibbs-Scharf, MPH

CDC COVID-19 Response Team

For more information, please contact Lauren Shaw at lkshaw@cdc.gov or LCDR Bhavini Murthy at bmurthy@cdc.gov.

For more information, contact CDC
1-800-CDC-INFO (232-4636)
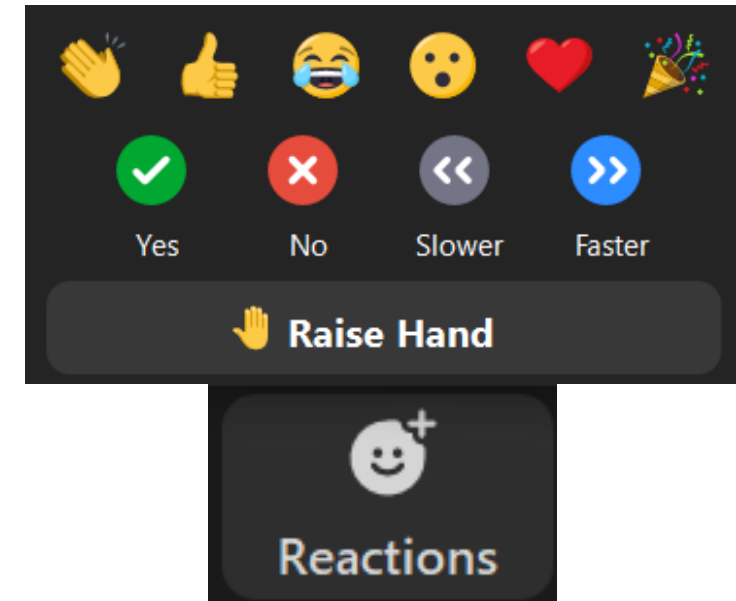TTY: 1-888-232-6348   www.cdc.gov

Panel

- Baskar Krishnamoorthy (FL)
- Cristi Bramer (MI)
- Jackie Logan (TN)
- Miriam Muscoplat (MN)

Questions

- How do I ask a question?
- Three options
  - Unmute in Zoom
  - Type question into the chat box
  - Click on the reactions button at the bottom of the screen and select the "raise hand" option from the pop-up

Thank you to our presenters, and thanks to all of you for joining us!

A brief evaluation survey will be sent out following this webinar

The next Discovery Session will be on April 26, 2021