Welcome!

We will start shortly.

Sign up here for updates and alerts from CORI.

cori.centerforhealthsecurity.org/

CORI Community of Practice Summer Series: Creating A Culture of Continuous Improvement in Outbreak Response

A Collaborative Partnership between the Center for Outbreak Response Innovation (CORI) and State and Local Health Departments

Community of Practice Meeting

Agenda

- Introductions
- Series Overview
- Partner Project Spotlight: TN Department of Health
- CORI Project Spotlight: New RedCap Template
- Discussion
- Next Steps

Community of Practice Meeting

Logistics:

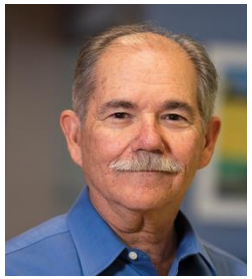
- Please enter any question in the chat for the duration of the meeting
- Cameras may remain on to encourage collaboration
- This session will be recorded and distributed to partners
- *Please remain muted unless talking*

Introductions

Caitlin Rivers, PhD
Director

Crystal Watson, DrPH
Deputy Director

Alison Kelly
Chief of Staff



Eric Toner, MD
Senior Scholar

Lucia Millen, MPH
Associate Scholar

Sut Soneja, PhD
Associate Scientist

Elizabeth Cambell, PhD
Assistant Scientist

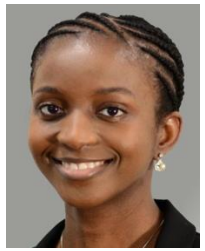
Denise Cardo
Contributing Scholar

Haley Farrie, MPH
Senior Analyst

Ameaka Fatima, PharmD, MPH
Senior Analyst

Hannah Goodtree, MPH
Analyst

Sarah Gillani, MPH
Analyst



Oluremilekun Oyefolu, MD, MPH
Post Doctoral Fellow

Sarah S. Firestone,
Research Program Manager

Amanda Hart
Senior Program Coordinator

Athena White
Communications Manager

Sharell Bryant,
Program Operations Coordinator

Tommy O'Keefe, DBA(c),
Financial Manager

Series Overview

Purpose & Goals

The Community of Practice (CoP) Summer Series is designed to enhance the collective capacity of health departments to respond to outbreaks swiftly and effectively using modeling, analytics, and decision support tools.

- Facilitate real-time sharing of best practices and lessons-learned for modeling, analytics and outbreak response decision-making.
- Promote the development of an expanded network of state, tribal, local, and territorial health departments and collaborative problem-solving for complex outbreak scenarios.
- Enhance the dissemination of resources and tools across jurisdictions.
- Improve overall preparedness and response capabilities among participating health departments.
- Develop a culture of continuous improvement for outbreak response by sharing lessons learned and actionable solutions

Topic Areas

Outbreak response tools (e.g., RedCap Projects, dashboards, and response template protocols, press releases, and more.)

Modeling and analytic tools (e.g., models and analyses developed by other health departments, infectious disease modelers, etc.)

Decision support tools (e.g., risk assessments, guidance documents)

Quality improvement principles

Audience

The CoP will primarily serve epidemiologists, data analysts, outbreak response teams, emergency preparedness personnel, and decision-makers from local, state, and territorial health departments. *The CoP is limited to existing CORI health department partners at this time to serve as a pilot for a potentially larger CoP for health department outbreak response in the future.*

Roles

CORI

- Develop, coordinate, and facilitate all meetings, as well as any outputs generated as a result of the CoP.
- Work with partners to develop the evidence-base for the use of modeling in outbreak responses.
- Facilitate collection and distribution of tools and resources.
- Facilitate specific collaborative projects to focus on common outbreak processes or challenges, as driven by partner interests and needs.

Members

- Note: CoP members are encouraged to participate in the following ways, depending on their availability and interests
- Share operational challenges during outbreak responses and resources needed to enhance outbreak preparedness and response, modeling, and analytics.
- Share lessons learned from their responses and tools they have developed and found helpful.
- Provide feedback on outbreak response guidelines, protocols, and tools being developed by their peers.

Activities and Structure

Four interactive summer sessions (60 minutes each) on the topic areas requested by partners

News and Updates: Briefings on emerging outbreaks and response strategies through the CORI digest and risk assessments for critical diseases.

Resource Library: A centralized repository for guidelines, protocols, and tools.

Collaborative Projects: Joint initiatives to address common challenges

Summer Schedule

Summer Series Theme: *Data Collection, Analysis, and Visualization Tools for Decision-making*

- **Key Topics & Presenters**
  - RedCap for Outbreak Response: TN Department of Health & CORI
  - Surveillance Indicator Dashboard: Carnegie Mellon University DELPHI Group
  - Measles Outbreak Simulation Dashboard: University of Texas at Austin
  - Presenters: Minnesota Department of Health & University of Minnesota
- **Dates**
  - Friday, April 25 12:00- 1:00
  - Friday, June 6th 12:00-1:00
  - Friday, July 18th 12:00-1:00
  - Friday, August 15th 12:00-1:00

Partner Presentations

Department of Health

REDCap for Measles Response:

Development Tricks & Deployment Takeaways

April 25, 2025

Project Development

Sarah Winders
Vaccine Preventable Diseases Deputy Director
Tennessee Department of Health

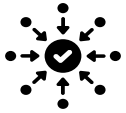
REDCap Project Overview

Each record is either a case or a contact

can move from contact ⟶ case

Staff from the state & local health departments have access

External code for IIS matching and upload of results



Captures <u>all</u> info in one place

immunization history, contact tracing, lab, clinical, epi classifications

Survey for active daily monitoring

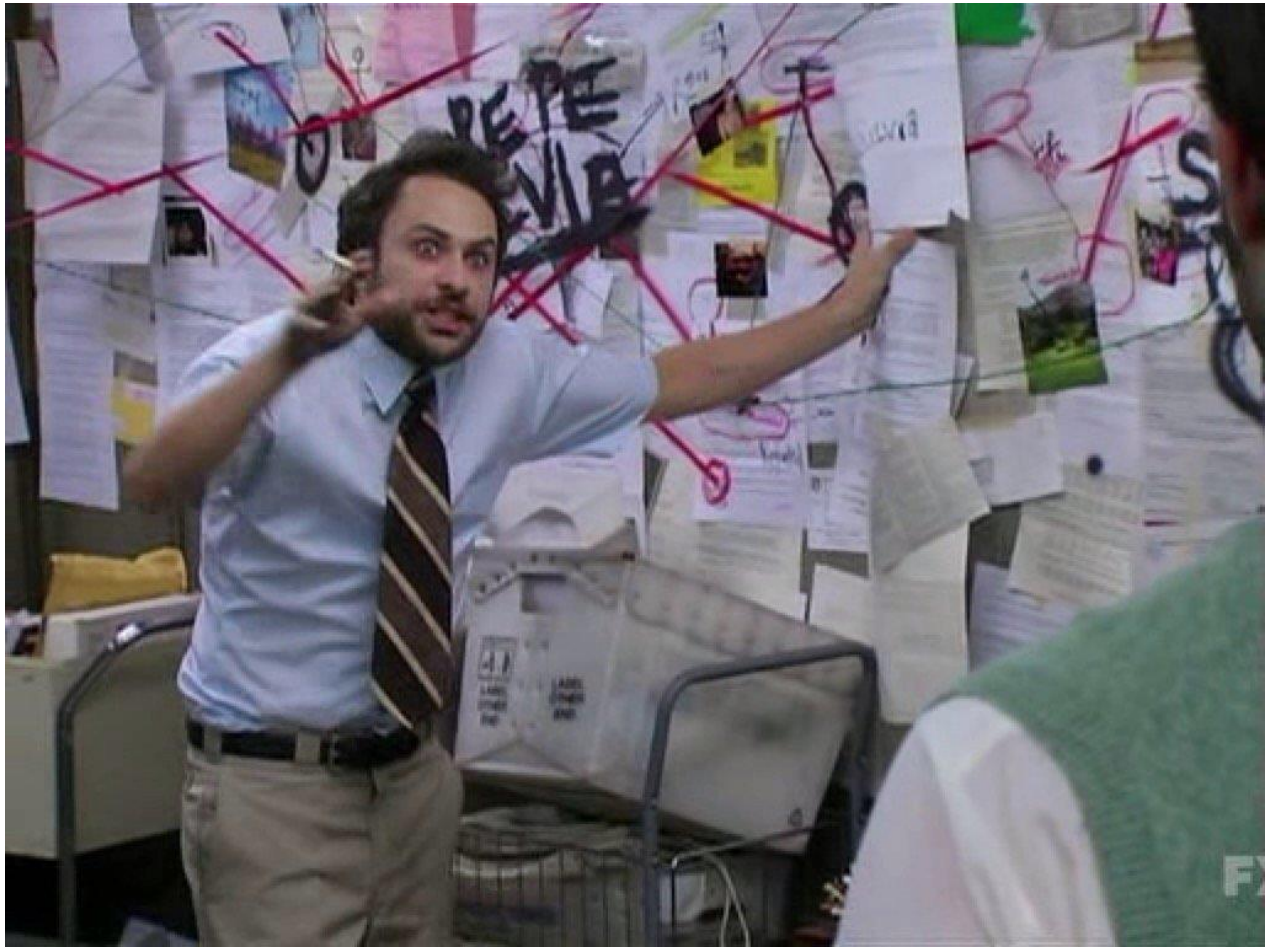
self-completed survey or PH phone call

Data connected to Tableau for visualizations & dashboard for website

Dynamic Response – A Relay Race

Adding contacts to REDCap	**Healthcare exposed patients line lists**		**Data Entry Team**
Immunization History	**Data Management**		**IIS Epis**
Contact Notifications	**Data Entry Team**		**Local Public Health Staff**
Qualify for Monitoring	**Local Public Health Staff**		**Data Management & Daily Monitoring**

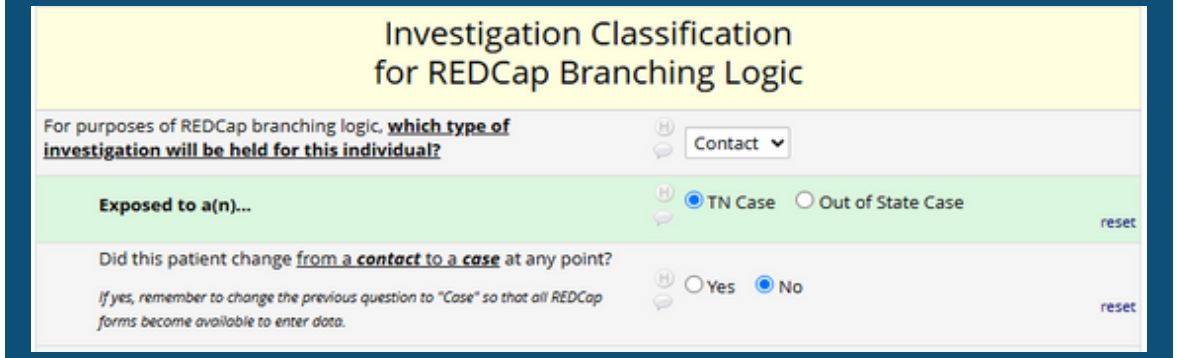
BTS – Project Development



Cases & Contacts

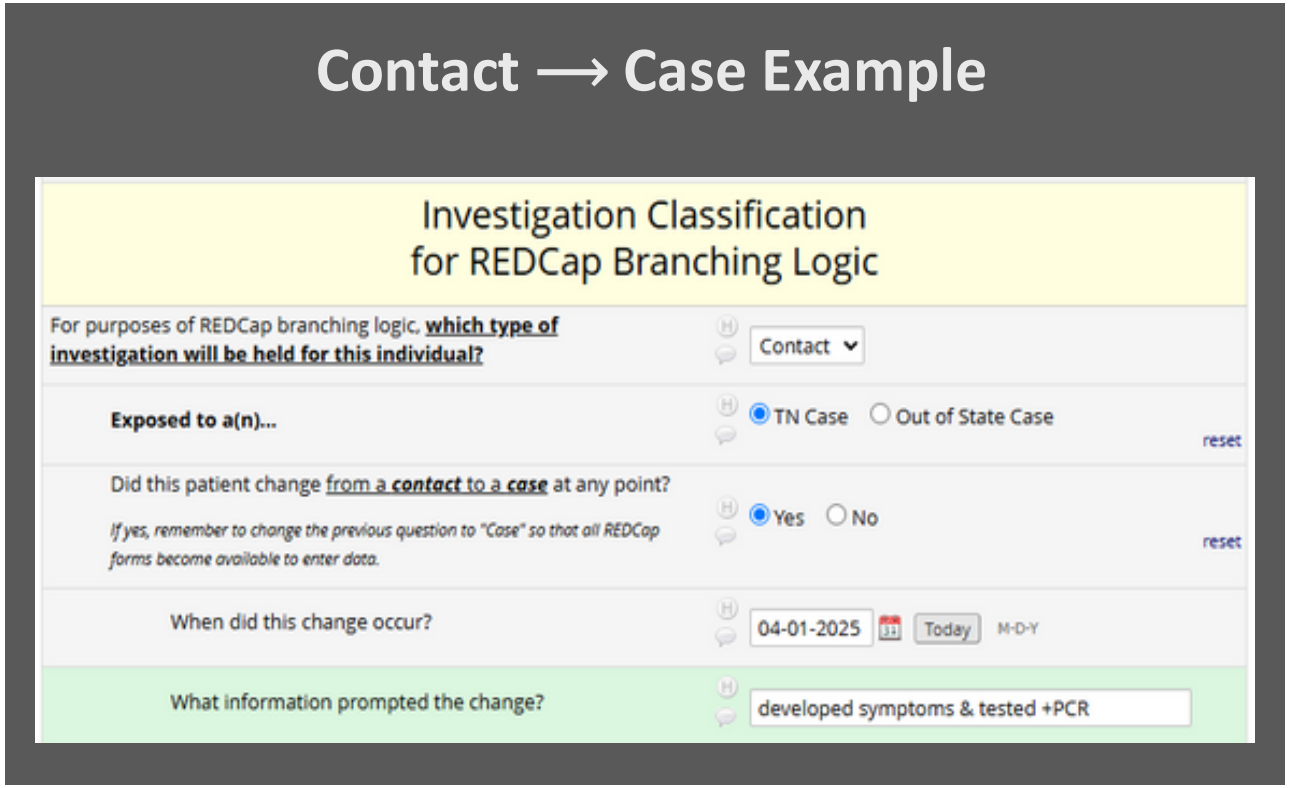
Case Example

Contact Example

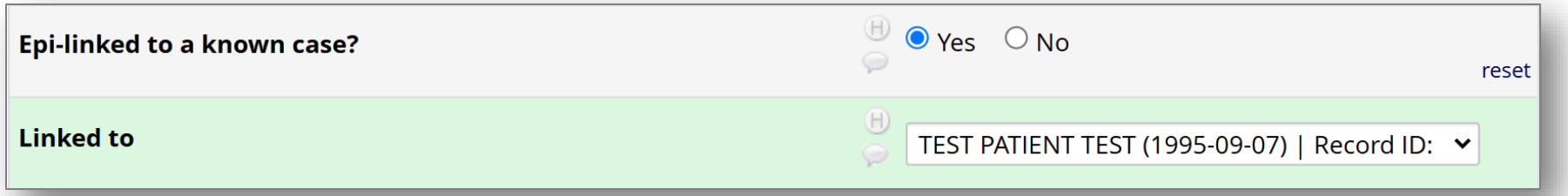


Cases & Contacts

Contact ⟶ Case Example



Link Contacts to Cases



Note:

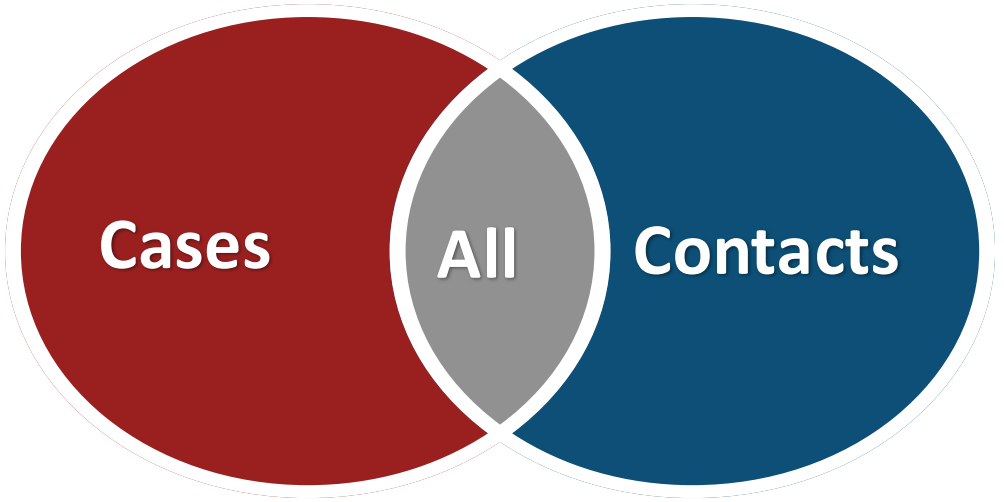
this dropdown is a SQL field, which usually needs coded by a REDCap administrator

sql

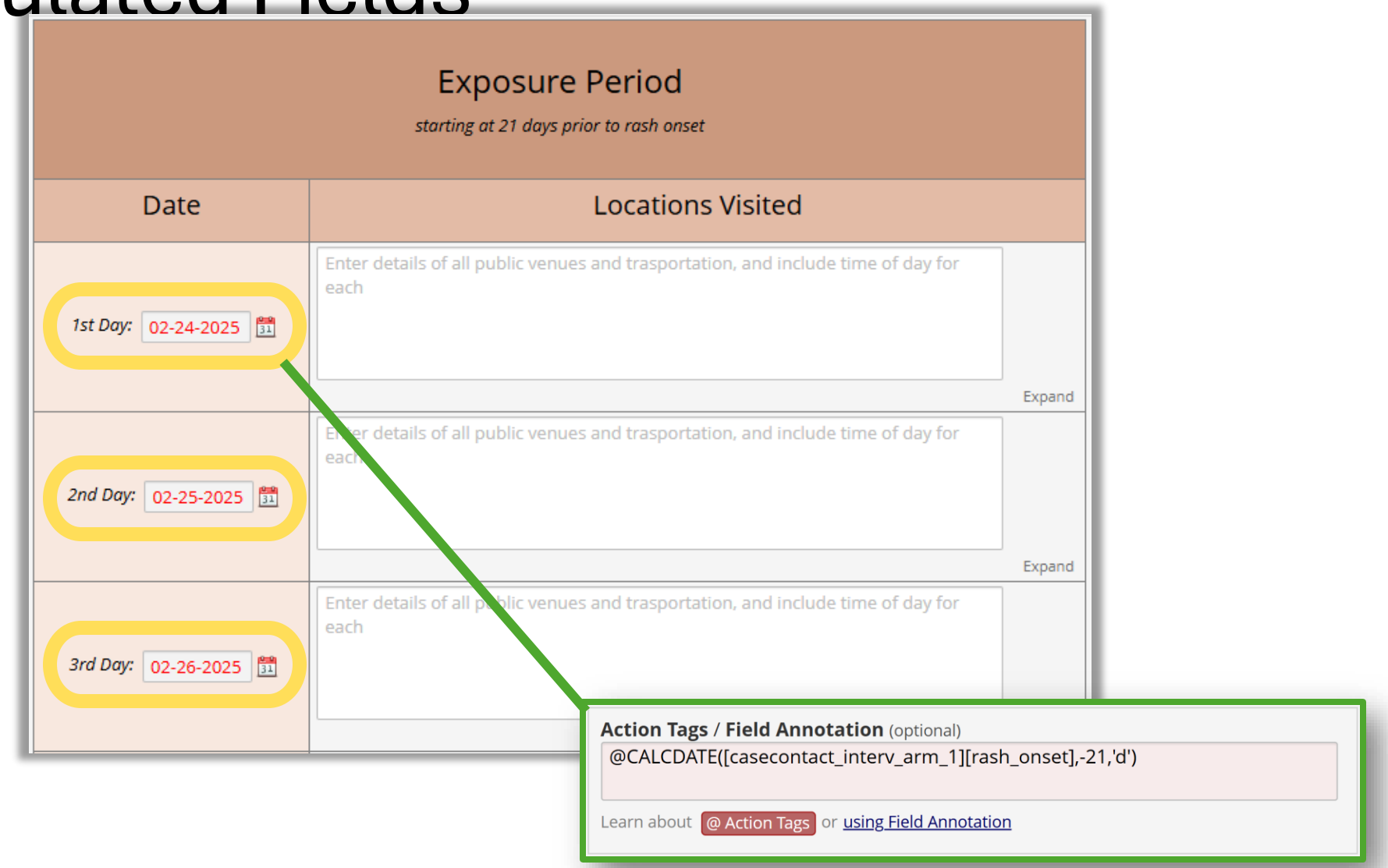
```
SELECT a.record, CONCAT_WS(' | ', CONCAT_WS(' ', max(if(a.field_name =
'firstname', a.value, NULL)), max(if(a.field_name = 'lastname', a.value, NULL)),
CONCAT('(',max(if(a.field_name = 'dob', a.value, NULL)),')')), CONCAT('Record
ID: ', max(if(a.field_name = 'record_id', a.value, NULL))), max(if(a.field_name =
'address_tn_region', a.value, NULL)), max(if(a.field_name = 'pt_case_status',
a.value, NULL)) ) as value FROM redcap_data a WHERE a.project_id=3019
AND a.event_id=7968 GROUP BY a.record ORDER BY value;
```

Form Display Logic

- Initial Reporting Source
- Demographics & Contact Info
- Immunization History
- Initial Symptom Info
- Measles Complications
- Contact Tracing
- Lab Tests
- Exposure, Prior Immunity & PEP
- Quarantine/Furlough Algorithm
- Daily Monitoring Survey
- Upload Documents
- Final Case Classification



Calculated Fields



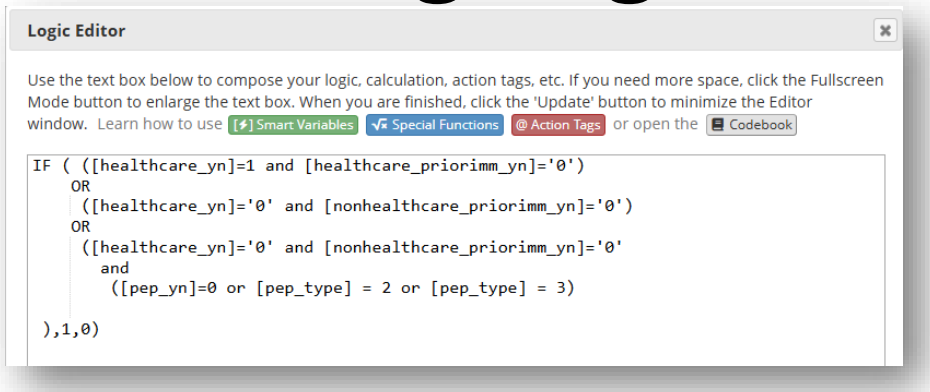
Calculated Fields / Branching Logic

Step 1

Active Monitoring Flag

(Calculated Field, Hidden)

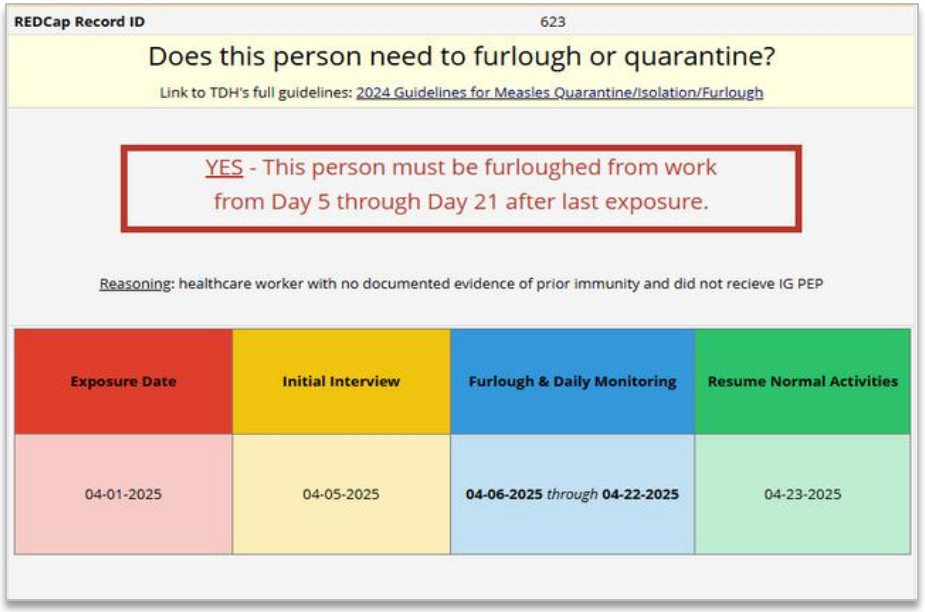
1 – Qualifies for monitoring
0 – Does NOT qualify



Step 2

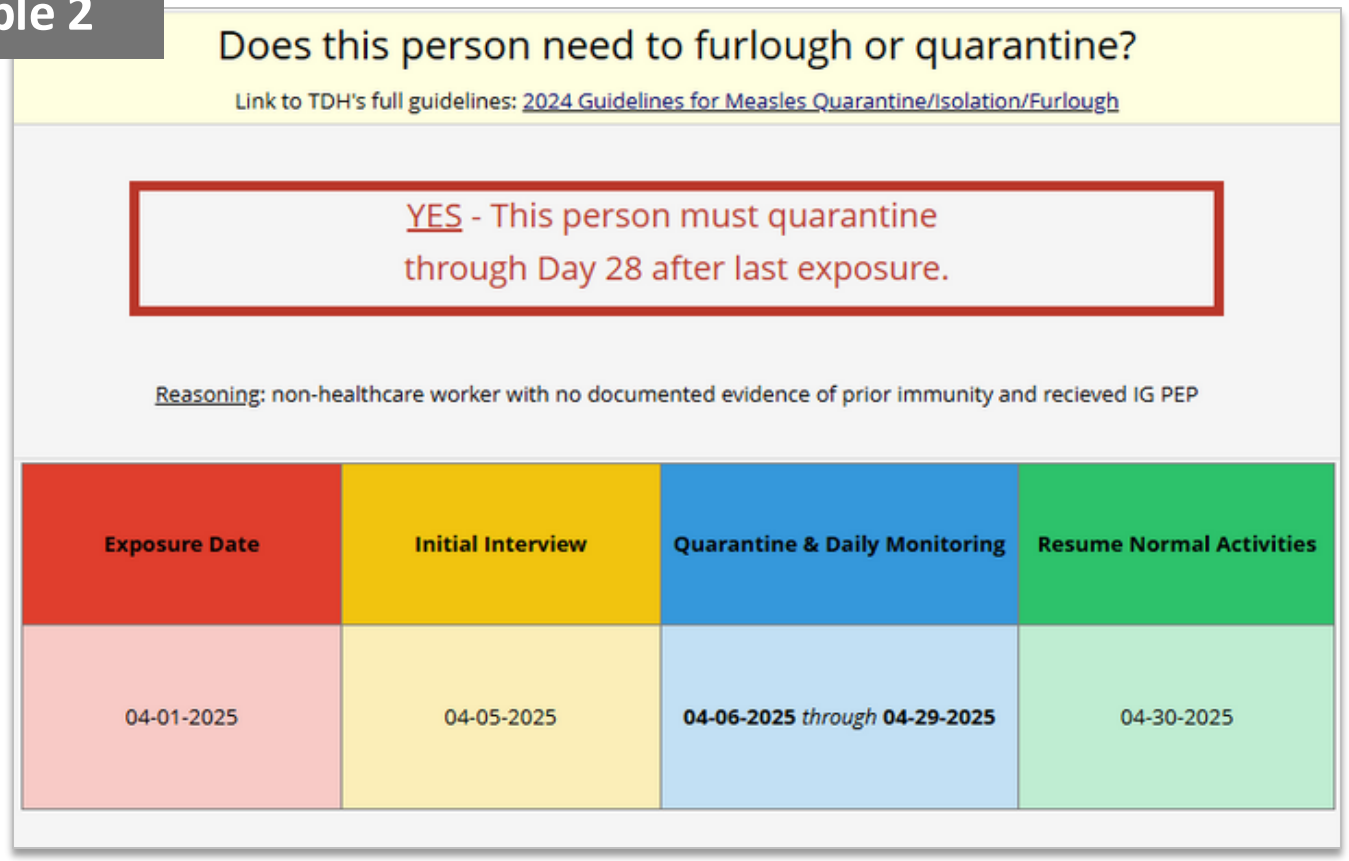
Multiple Versions of Algorithm Table

(Branching Logic based on Calculated Field)



Calculated Fields / Branching Logic

Example 2



Does this person need to furlough or quarantine?

Link to TDH's full guidelines: 2024 Guidelines for Measles Quarantine/Isolation/Furlough

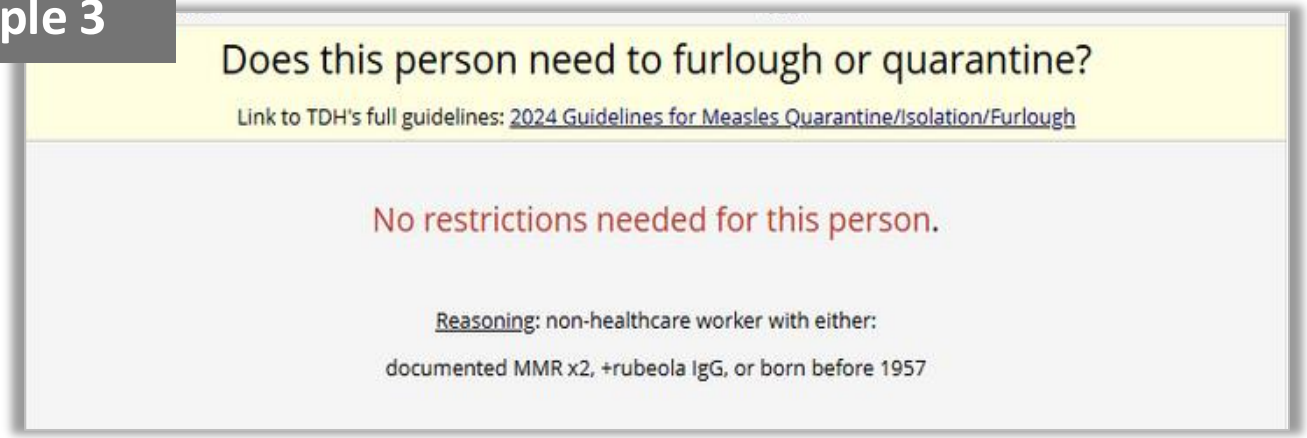
YES - This person must quarantine through Day 28 after last exposure.

Reasoning: non-healthcare worker with no documented evidence of prior immunity and recieved IG PEP

Exposure Date	Initial Interview	Quarantine & Daily Monitoring	Resume Normal Activities
04-01-2025	04-05-2025	**04-06-2025** *through* **04-29-2025**	04-30-2025

Calculated Fields / Branching Logic

Example 3



Vaccine History – IIS Match

Example 1

Automatic TennIIS Data Pull
Vaccination History

TennIIS Vaccination History

TennIIS Match Type	Exact: Name, DOB, Address
Vacc Hx Available?	Measles Vaccination History Found

Patient SIIS ID: 6069350

Name	[redacted]
DOB	[redacted]
Address	[redacted]

Dose	Vaccination Date	Description
1	05-14-1993	MMR
2	03-22-2000	MMR
3	_____	_____

Vaccine History – IIS Match

Example 2

Automatic TennIIS Data Pull

Vaccination History

TennIIS Vaccination History

This is a possible TennIIS patient match, please confirm vaccination history.

TennIIS Match Type Possible: Name, DOB

Vacc Hx Available? Measles Vaccination History Found

Patient SIIS ID: 2845249

Name [redacted]

DOB [redacted]

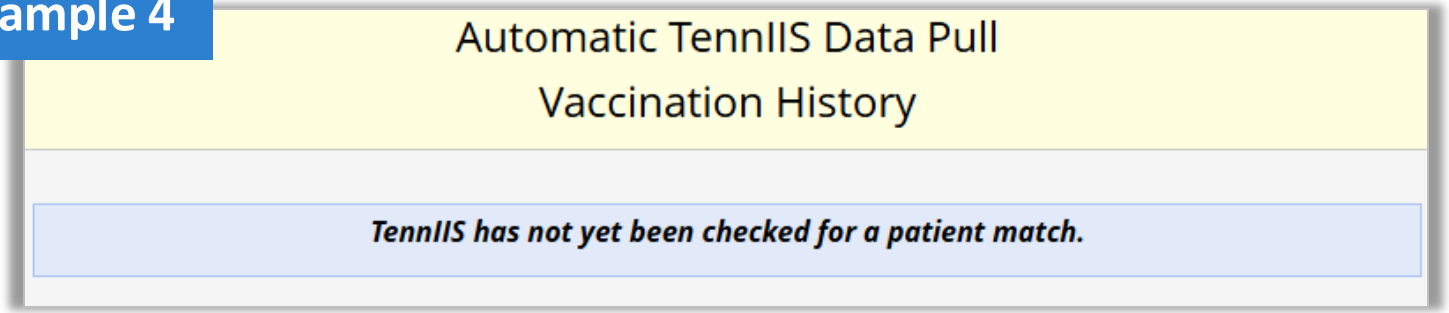
Address [redacted]

Dose	Vaccination Date	Description
1	01-18-2000	MMR
2	09-02-2003	MMR
3	_____	_____

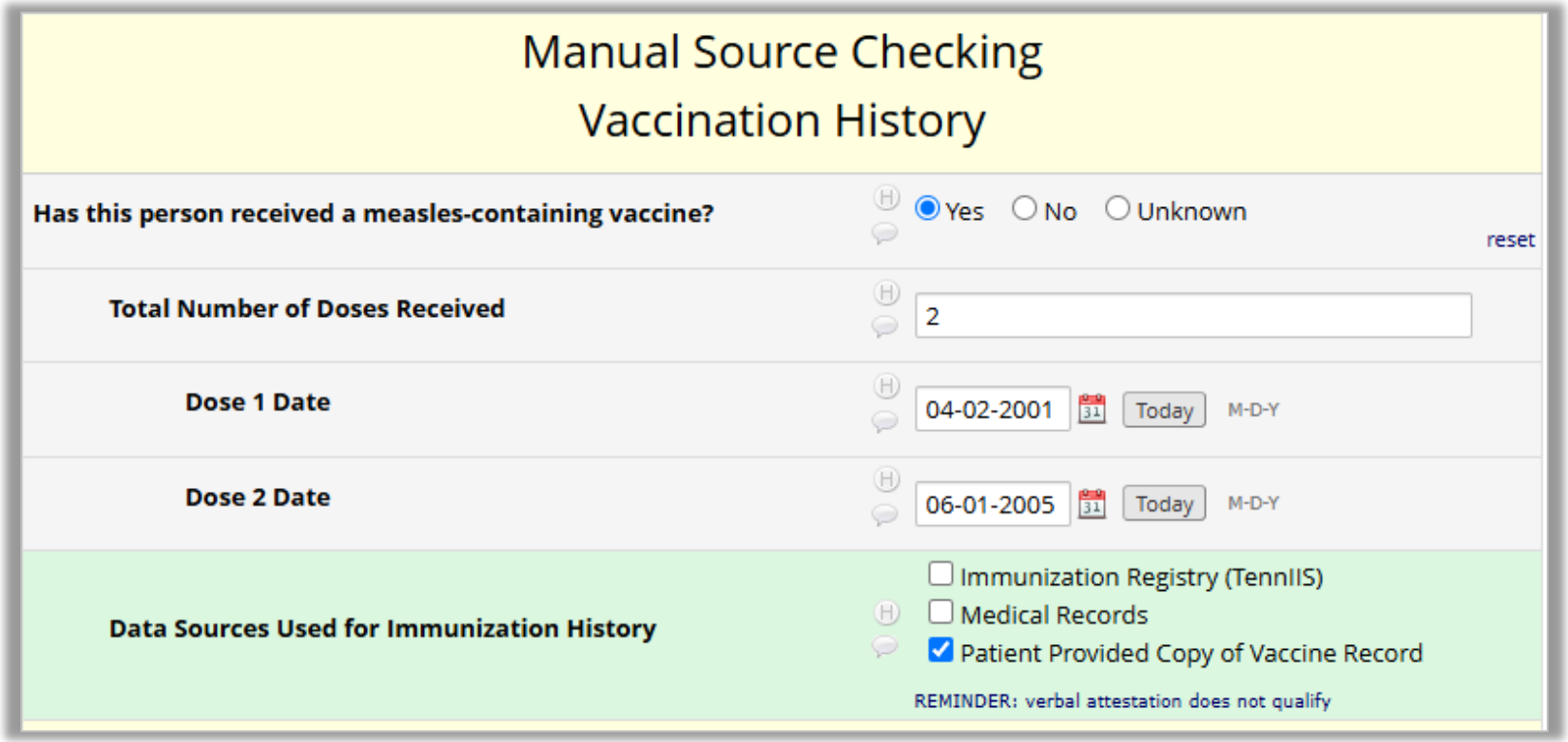
Vaccine History – IIS Match

Example 3

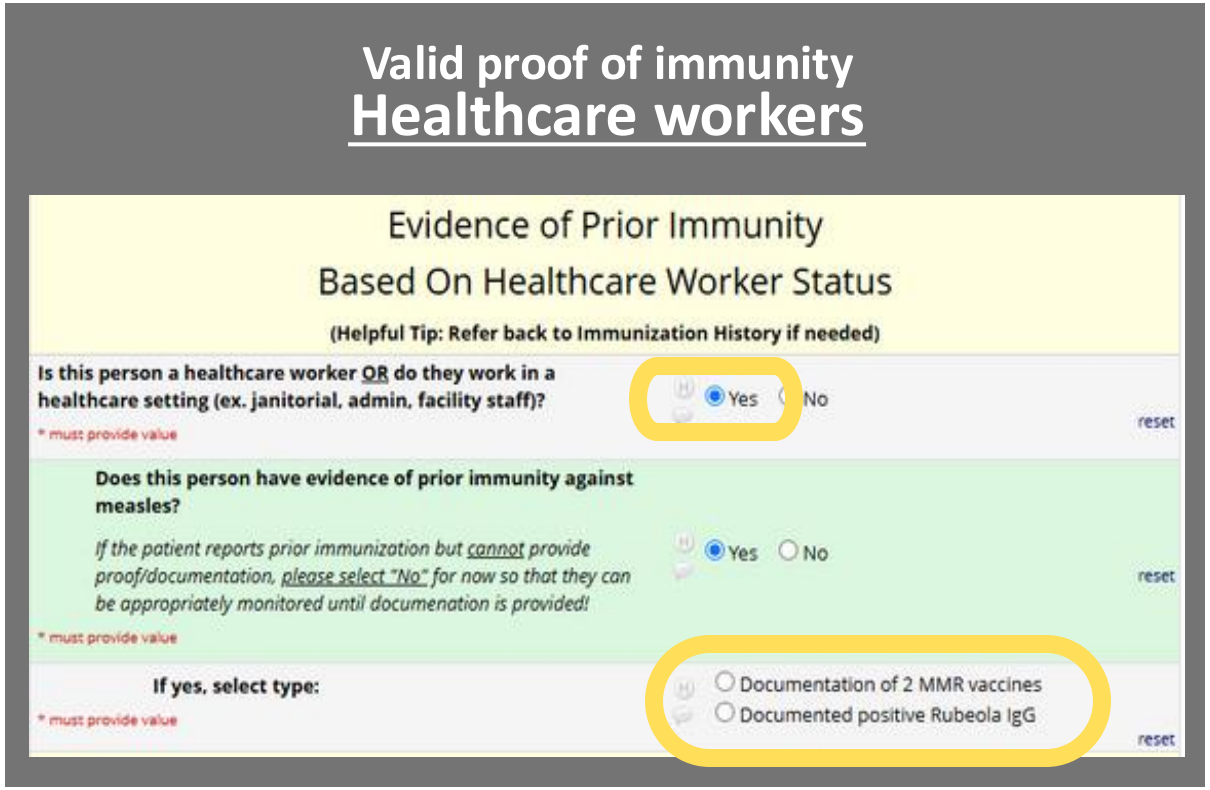
Example 4



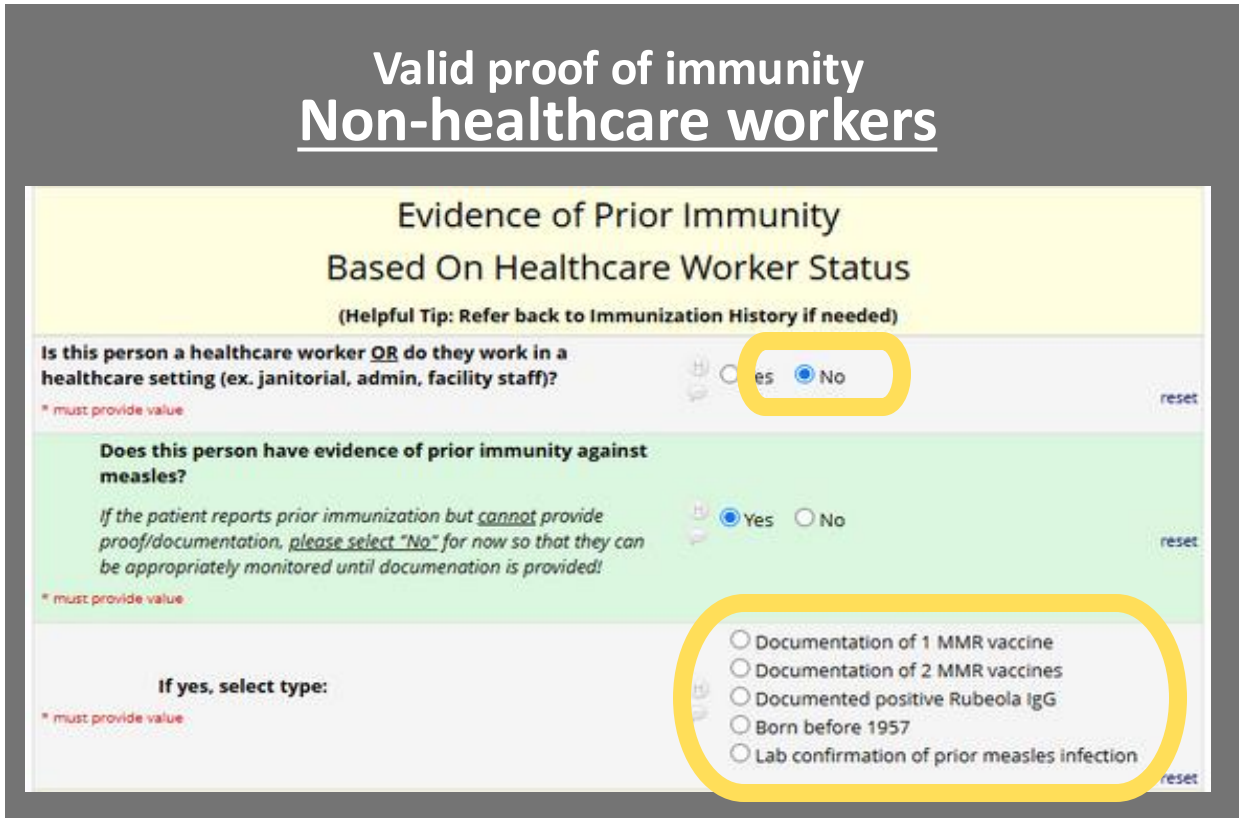
Vaccine History – Manual Data Entry



Branching Logic



Branching Logic



Daily Monitoring Survey

Text Consent:

Since this individual meets criteria for active/daily monitoring...

Do they consent to receive daily texts containing a link to a survey to complete which will ask if they have experienced any new symptoms?

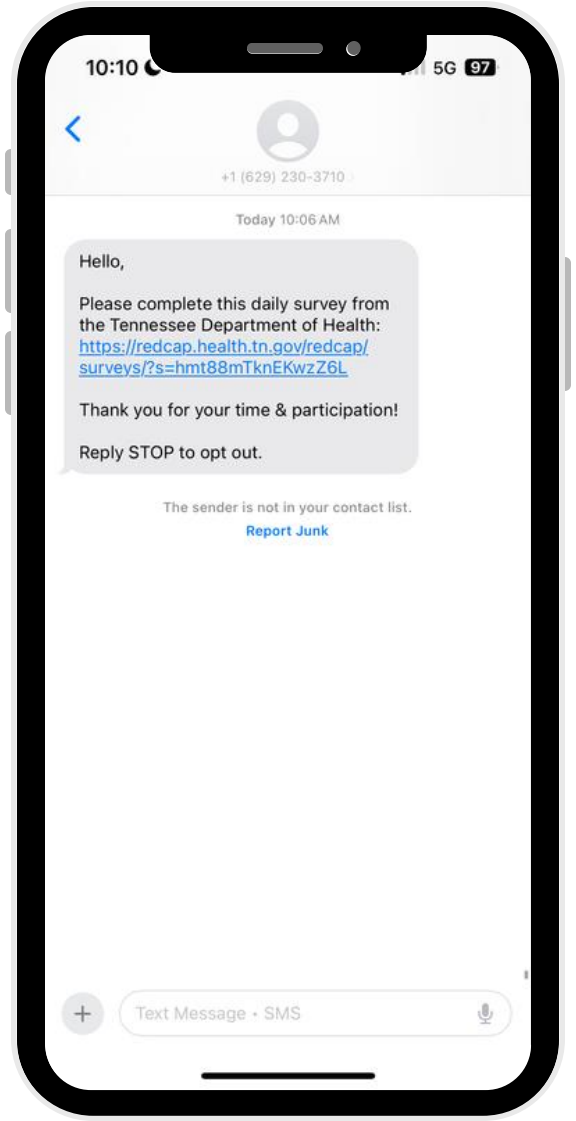
Texts will be sent at 10:00AM Central each day of their monitoring period, and a reminder text will be sent at 3:00PM if they have not responded.

If yes, please make sure the phone number on the Demographics page is up-to-date.

For reference, this is the phone number they can expect to receive these texts from: (629)-230-3710

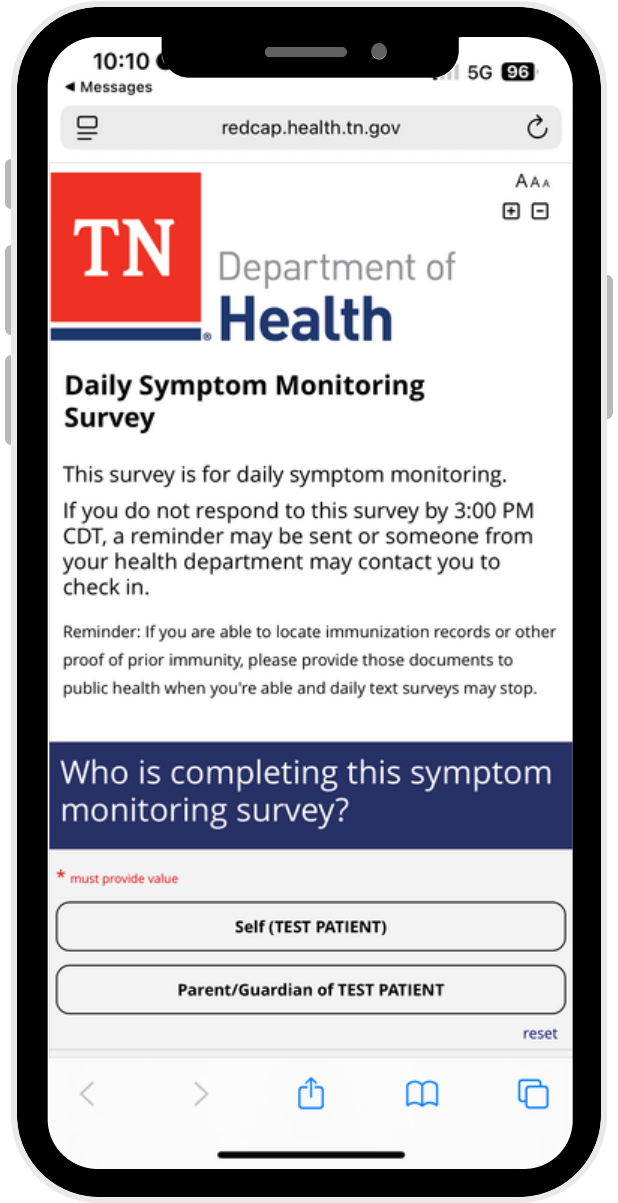
- (●) Yes, they are agreeable to a texted daily survey
- ( ) No, they prefer a daily phone call check-in
- ( ) No, they have requested to not be contacted again

reset



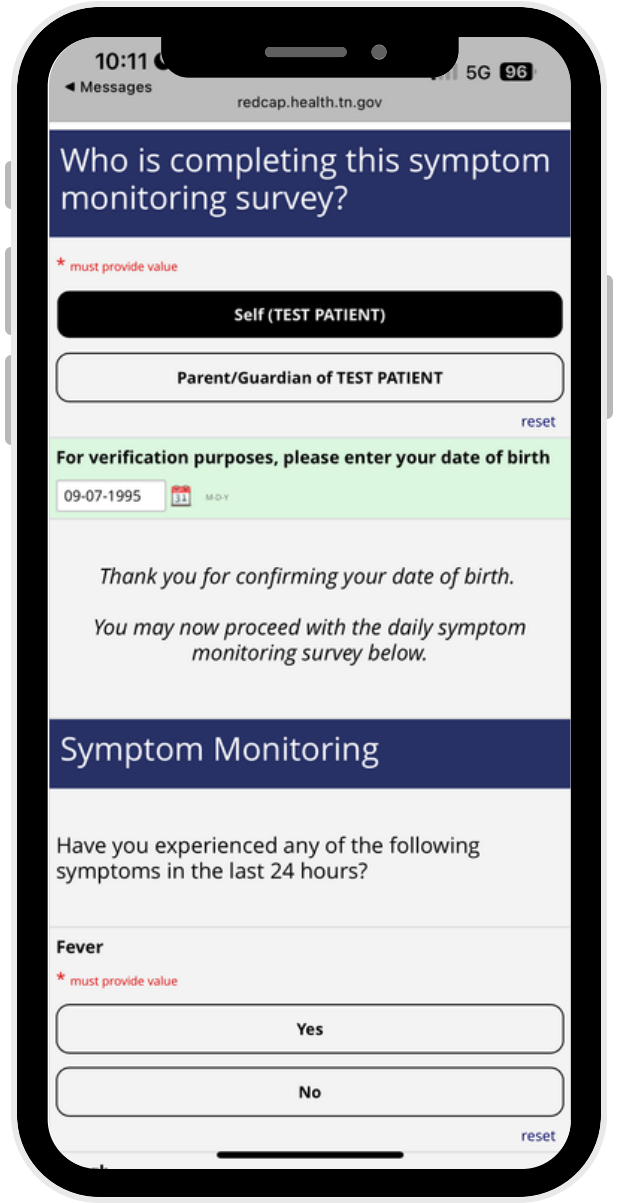
Daily Monitoring Survey

1. **Click on survey link in text message**
2. **Survey opens in browser**
3. **Respondent – self or parent/guardian**
4. Date of birth verification
5. Symptoms – yes/no
6. Date/time stamp
7. Submit



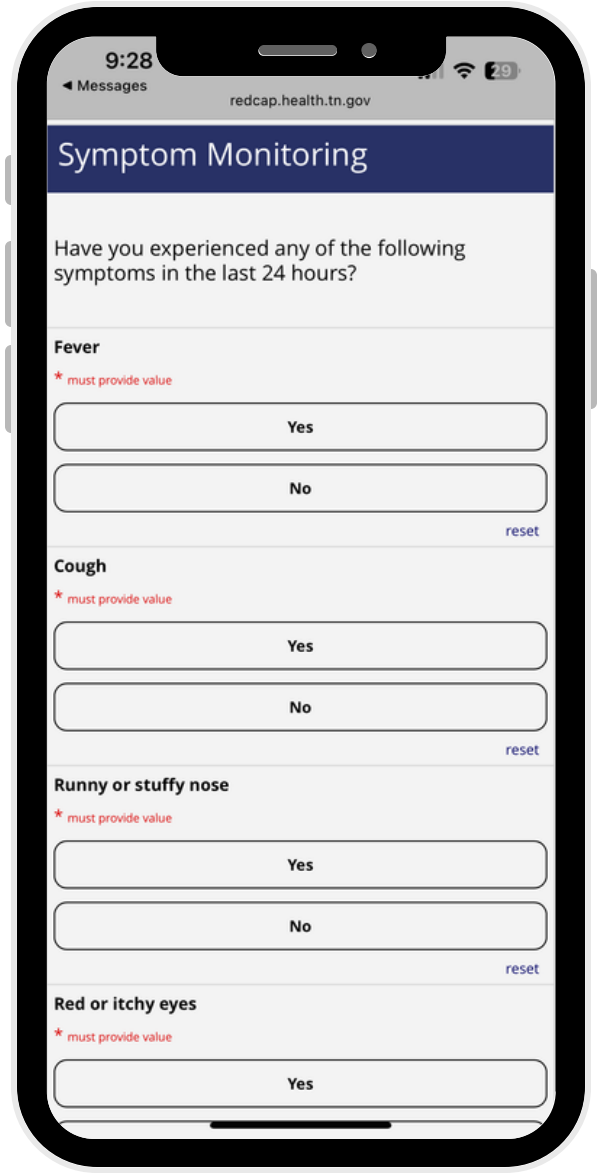
Daily Monitoring Survey

1. Click on survey link in text message
2. Survey opens in browser
3. Respondent – self or parent/guardian
4. **Date of birth verification**
5. Symptoms – yes/no
6. Date/time stamp
7. Submit



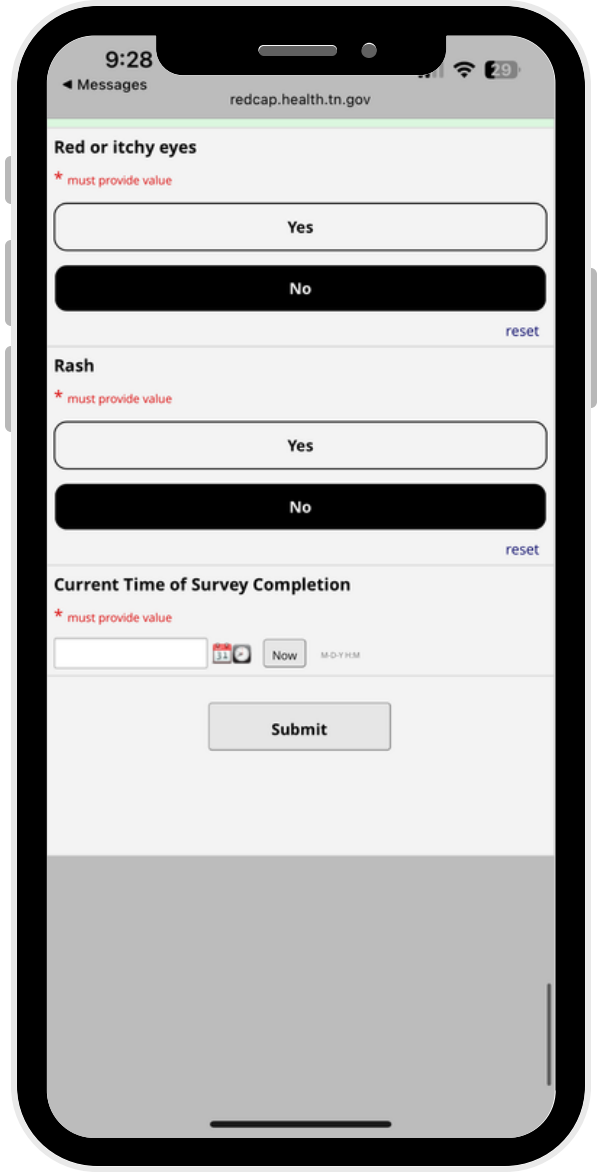
Daily Monitoring Survey

1. Click on survey link in text message
2. Survey opens in browser
3. Respondent – self or parent/guardian
4. Date of birth verification
5. **Symptoms – yes/no**
6. Date/time stamp
7. Submit



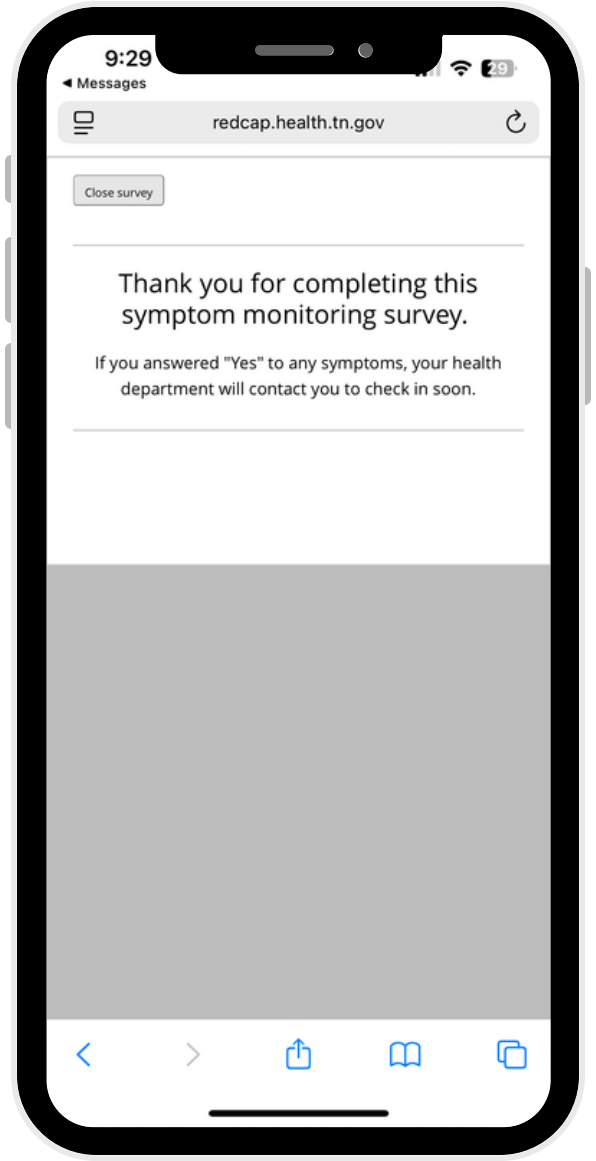
Daily Monitoring Survey

1. Click on survey link in text message
2. Survey opens in browser
3. Respondent – self or parent/guardian
4. Date of birth verification
5. Symptoms – yes/no
6. **Date/time stamp**
7. Submit



Daily Monitoring Survey

1. Click on survey link in text message
2. Survey opens in browser
3. Respondent – self or parent/guardian
4. Date of birth verification
5. Symptoms – yes/no
6. Date/time stamp
7. **Submit**



Alerts for Symptomatic Respondents

To: amanda.hartley@tn.gov;ep.response@tn.gov;sarah.winders@tn.gov

Subject **REDCAP ALERT** Measles Daily Monitoring Survey Respondent REPORTED SYMPTOMS [secure email]

Message:

ALERT: The following individual has completed their texted survey and reported experiencing symptoms on their daily monitoring survey

Note for Weekend Coverage Staff Monitoring EP.response@tn.gov inbox:

- Ensure the region/metro is aware & will be following up with the patient via phone call to confirm symptoms and gather further details
- If testing will be pursued for this patient, specimen collection can be completed Monday
- Action Item: Please reply to this email and CC Sarah Winders & Amanda Hartley with updates (no need to enter data into REDCap over the weekend)

REDCap ID: [record_id]

Name: [lastname], [firstname]

Region: [address_tn_region]

Survey Info:

Who completed the survey: [survey_person]

Time Completed: [surveytime]

Fever	[fever]
Cough	[cough]
Conjunctivitis	[conjunctivitis]
Coryza	[coryza]
Rash	[rash]

Lessons from Deployment

Kimberly Garret
Regional Immunization Nurse
Mid Cumberland Regional Health Department

Pros:

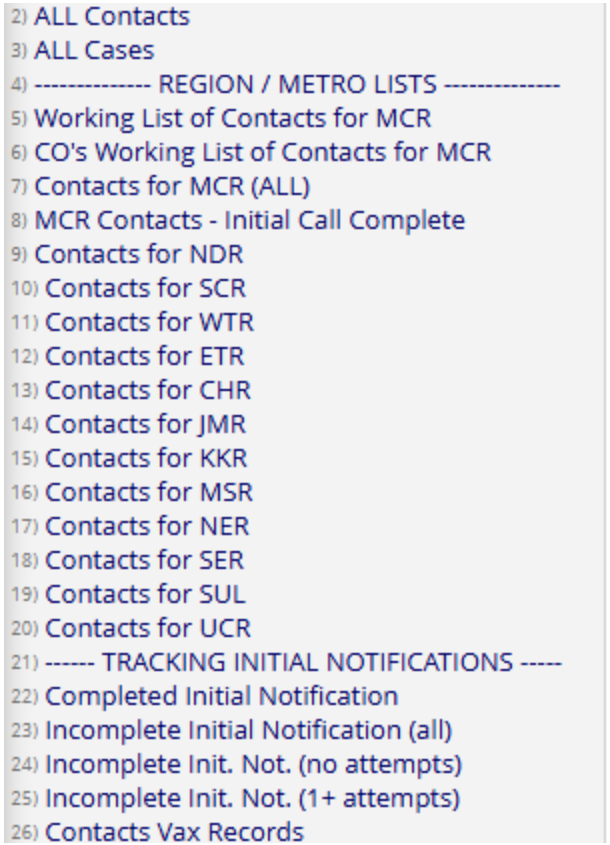
-Face sheet shows number of attempts made to reach contacts

Search | Table not displaying properly [?]

Event Name	Initial Notification/Interview with Patient Complete	Contact Attempt #1 Notes	Contact Attempt #2 Notes	Contact Attempt #3 Notes	Needs Accurint Search
	Yes				Yes
Case/Contact Interview (Arm 1: Add Case or Contact)	Unchecked	LM to call back. KGARRETT RN 3-21-25	left message. KG 3-22	Accurint request. Text message sent for callback. 3/23/25. JTRN	Checked
Case/Contact Interview (Arm 1: Add Case or Contact)	Unchecked	left vm 3/21 @ 1557 W. Jones, RN	Left VM. 3-22 KG	03/23/25-Accurint request. Text message sent for callback. JTRN	Unchecked
Case/Contact Interview (Arm 1: Add Case or Contact)	Unchecked	called 3/21@1635. Mailbox full - unable to leave message. W. Jones, RN	3/22 Went straight to VM and mailbox is full. KG	reached back out to #259, as this contact accompanied #259 to ED. #259 relayed information to this contact. Advised that we will send letter to address on file to #259, which she has agreed to give to this contact.	Unchecked
Case/Contact Interview (Arm 1: Add Case or Contact)	Unchecked	left vm 3/21 @ 1630.	left VM 3/22. KG	reached back out to #259, as this contact accompanied #259 to ED. #259 relayed information to this contact. Advised that we will send letter to address on file to #259, which she has agreed to give to this contact.	Unchecked
Case/Contact Interview (Arm 1: Add Case or Contact)	Unchecked	3-22 Attempted to call and kept ringing not able to leave message. KG	reached back out to #259, as this contact accompanied #259 to ED. #259 relayed information to this contact on 3/21/25. Advised that we will send letter to address on file to #259, which she has agreed to give to this contact.	will send letter 3/24.	Unchecked
Case/Contact Interview (Arm 1: Add Case or Contact)	Unchecked	Attempted to call and just kept ringing unable to leave VM. KG 3-22	reached back out to #259, as this contact accompanied #259 to ED. #259 relayed information to this contact. Advised that we will send letter to address on file to #259, which she has agreed to give to this contact.	will send letter 3/24.	Unchecked
Case/Contact Interview (Arm		3/22/2025 11:43 left	3/23/25 - text sent @ 1349. W.	Text sent 3/24/25 ACB	

Pros:

- Quickly able to filter out checked and unchecked contacts
- User friendly
- Easily upload immunization records, titers and medical records



Cons:

-September 2024 project didn’t have the attempts made columns on the face sheet, that was resolved for the recent case.

Thank you!

RedCap Template Spotlight

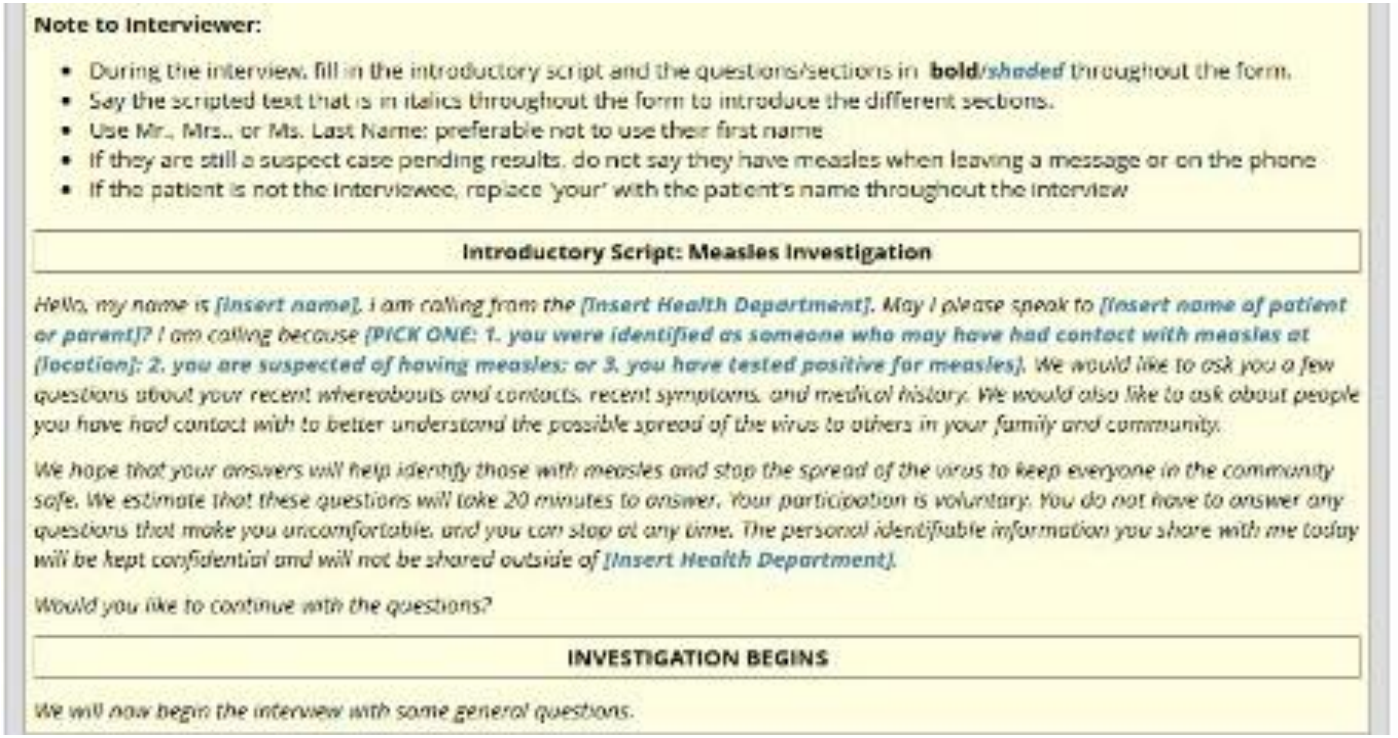
Available REDCap Tools

- Case Investigation Form
- Contact Monitoring Form
- Compatible Power Bi Dashboard

- Developed using CDC case investigation and contact monitoring guidance
- Publicly available and adaptable to local needs

Features

- Integrated script
- Pre-configured templates
- Standardized data fields
- Call logs
- Batch upload
- Automated email notifications
- Dashboard for real-time data visualization



Note to Interviewer:

- During the interview, fill in the introductory script and the questions/sections in **bold**/*shaded* throughout the form.
- Say the scripted text that is in italics throughout the form to introduce the different sections.
- Use Mr., Mrs., or Ms. Last Name: preferable not to use their first name
- If they are still a suspect case pending results, do not say they have measles when leaving a message or on the phone
- If the patient is not the interviewee, replace 'your' with the patient's name throughout the interview

Introductory Script: Measles Investigation

Hello, my name is [insert name], I am calling from the [Insert Health Department]. May I please speak to [insert name of patient or parent]? I am calling because [PICK ONE: 1. you were identified as someone who may have had contact with measles at [location]; 2. you are suspected of having measles; or 3. you have tested positive for measles]. We would like to ask you a few questions about your recent whereabouts and contacts, recent symptoms, and medical history. We would also like to ask about people you have had contact with to better understand the possible spread of the virus to others in your family and community.

We hope that your answers will help identify those with measles and stop the spread of the virus to keep everyone in the community safe. We estimate that these questions will take 20 minutes to answer. Your participation is voluntary. You do not have to answer any questions that make you uncomfortable, and you can stop at any time. The personal identifiable information you share with me today will be kept confidential and will not be shared outside of [Insert Health Department].

Would you like to continue with the questions?

INVESTIGATION BEGINS

We will now begin the interview with some general questions.

Discussion

Partner Discussion

Topic areas:

- Audience poll questions (QR Code)
  - Link here: https://PollEv.com/surveys/s5vJfXnf0Ibh38tgt8JbY/respond
- Questions for presenters

Next Steps

Next steps

- **Short Feedback Survey**
  - Link here: https://jh.qualtrics.com/jfe/form/SV_erLt7DpMyQ6DHUy
  - Survey will close EOD
- **Follow-up Email**
  - Meeting recording
  - Slides
  - Template files from TN Department of Health
  - Poll Results
- **Upcoming CoP Dates (all times EST)**
  - Friday, June 6th 12:00-1:00
  - Friday, July 18th 12:00-1:00
  - Friday, August 15th 12:00-1:00

Thank you.

Sign up here for updates and alerts from CORI.

cori.centerforhealthsecurity.org/