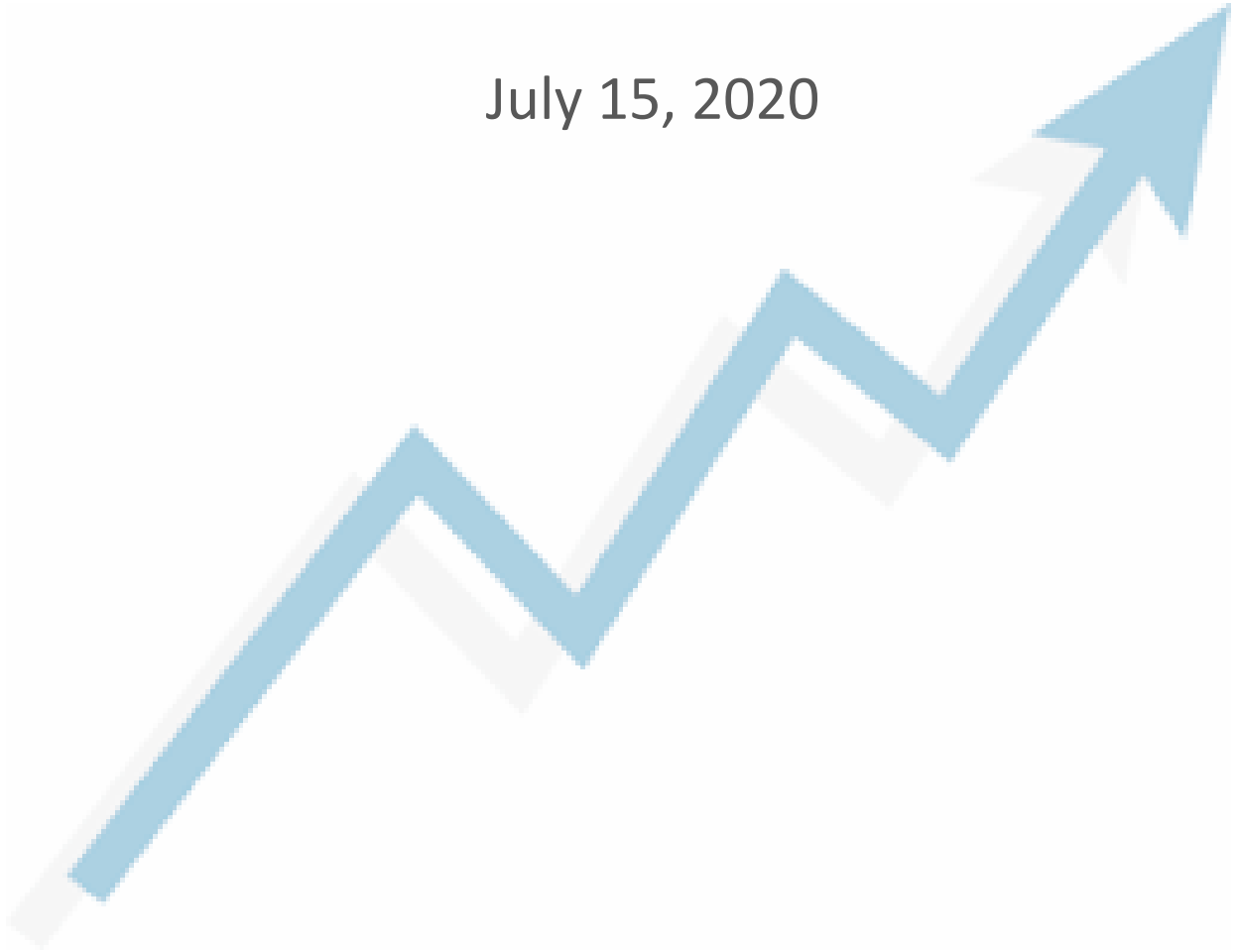
COVID-19 Case Investigation Targets

July 15, 2020



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Outline

- What are the targets?
- Purpose behind the targets
- Michigan data to date
  - Example of a LHD-specific data dashboard
- How are targets being measured?
  - Guidance on completion of the COVID Case Report Form (CRF)
- Technical assistance from MDHHS
- Open Discussion

What are the Targets?

COVID-19 Case Investigation Targets

- **Target 1** – Interview Attempted on 90% of cases within 1 day of referral to MDSS
- **Target 2** – Interview Completed on 75% of cases within 1 day of referral to MDSS
- **Target 3** – Contacts Elicited on 50% of cases within 1 day of referral to the MDSS (or no contacts or refused to provide contacts)
- **Target 4** – Race AND Hispanic Ethnicity AND Arab Ethnicity documented within 7 days of referral to the MDSS

Purpose

Purpose of the Targets

Time is of the essence.

Identifying contacts and ensuring they do not interact with others is critical to protect communities from further spread. If communities are unable to effectively isolate patients and ensure contacts can separate themselves from others, rapid community spread of COVID-19 is likely to increase to the point that strict mitigation strategies will again be needed to contain the virus.

Contact tracers need to:

- Immediately identify and interview people with SARS CoV-2 infections and COVID-19 (i.e., disease)
- Support isolation of those who are infected
- Warn contacts of their exposure, assess their symptoms and risk, and provide instructions for next steps
- Link those with symptoms to testing and care

https://www.cdc.gov/coronavirus/2019-ncov/php/principles-contact-tracing.html

Purpose of the Targets

Ongoing monitoring and assessment of contact tracing efforts will be needed.

Public health agencies and their partners will need to monitor some key components of their programs to improve performance as needed. Potential metrics routinely reviewed could include the following process and outcome measures:

- Case interviewing: Time to interview from symptom onset and from diagnosis; proportion interviewed; median number of contacts elicited; proportion with no contacts elicited.
- Contact notification: Proportion of contacts notified; time from first potential exposure to notification.
- Contact follow-up: Daily proportion of contacts whose status is evaluated; proportion of contacts with symptoms evaluated within 24 hours of onset of symptoms; proportion of contacts who complete their full self-monitoring period
- Contact tracing efficacy: Percent of new COVID-19 cases arising among contacts during self-monitoring period.

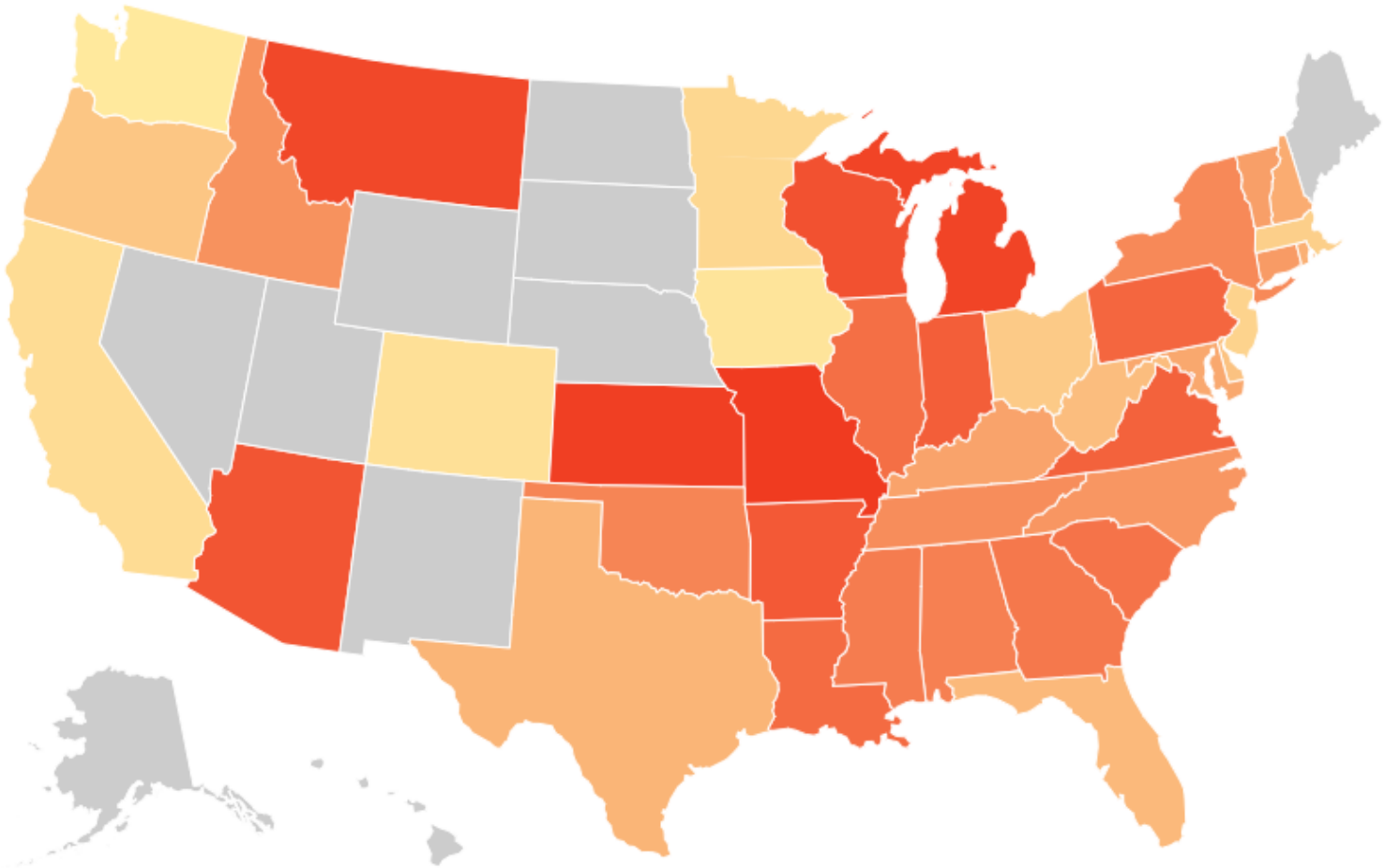
https://www.cdc.gov/coronavirus/2019-ncov/php/principles-contact-tracing.html

Othering & Belonging Institute

Showing Racial Disparities in COVID-19 Cases

Last Updated: May 17, 2020

COVID-19's impact in the United States is immense, but the virus's impact has been disproportionately experienced in black and Hispanic/Latinx communities. The map below displays and ranks each state by the extent to which the racial differences in COVID-19 rates of infection and deaths have diverged from each state's general population. The redder the state, the greater the COVID-19 racial disparity.



Equity Rank	State
41	MO
40	KS
39	MI
38	MT
37	DC
36	WI
35	AZ
34	AR
33	IN
32	VA
31	PA

Prev Next

Show Infection Disparity | Showing Death Disparity

Michigan Dashboard

How is the State doing towards the targets?

COVID-19, State of Michigan: Investigation and Tracing TA Metrics

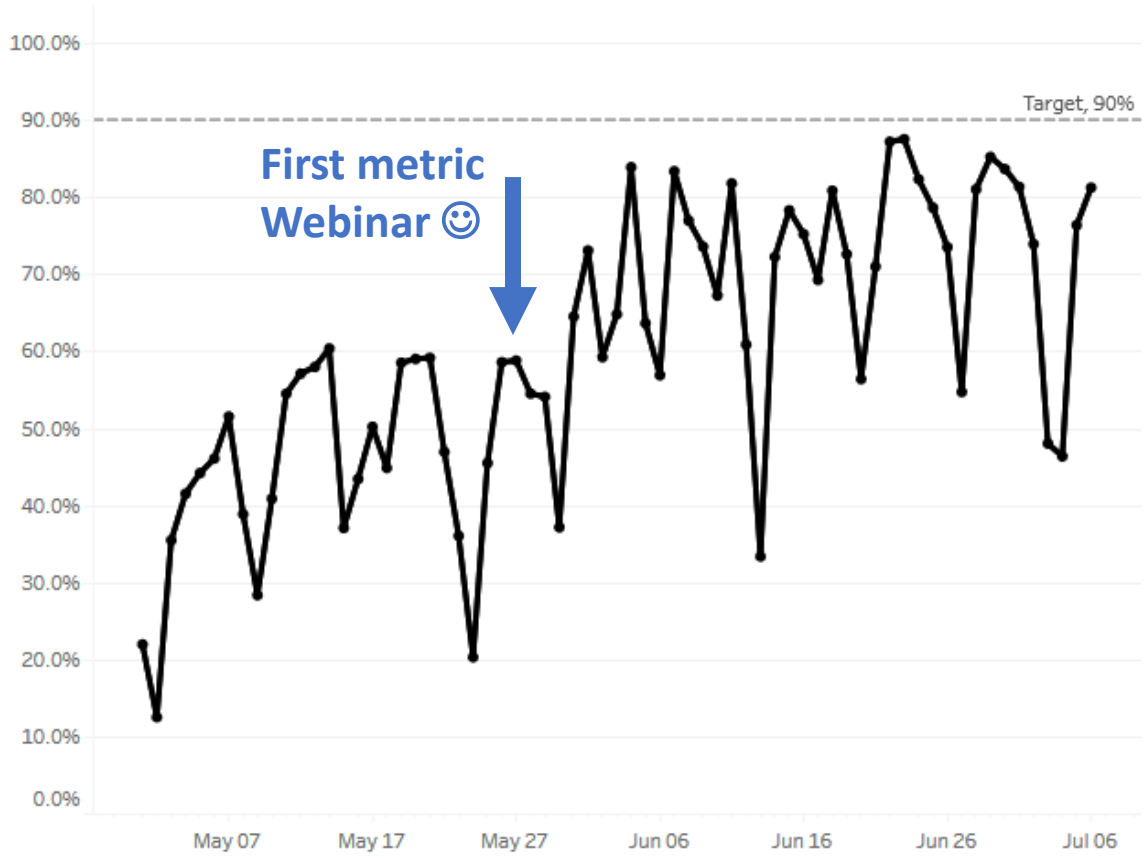
Select Chart Type
- (•) Line Chart: Daily Trends
- ( ) Scatterplot

View by
- ( ) Region Grouping
- (•) Region
- ( ) Jurisdiction

Select Metric: % interview attempted in first day

7-day rolling average: No

5/1/2020 — 7/6/2020 — Michigan



Case Investigation Metrics, 7-day average - Referred on July 6, 2020

Target: Within first day

Weekend: Include

Sort by: Cases — Desc

Jurisdiction	Cases	Contacts / case*	Interview attempted in firs day, 90% goal	Interview completed in first day, 75% goal	At least 1 contact elicited in first day, 50% goal	Race / eth. documented within week, 75% goal
State of Michigan	2,652	3.45	70.4%	52.3%	49.1%	63.9%

Case Investigation Metrics, 7-day average - Referred on July 6, 2020

Target: Within first day

Weekend: Exclude

Sort by: Cases — Desc

Jurisdiction	Cases	Contacts / case*	Interview attempted in firs day, 90% goal	Interview completed in first day, 75% goal	At least 1 contact elicited in first day, 50% goal	Race / eth. documented within week, 75% goal
State of Michigan	1,646	3.54	79.6%	60.6%	56.8%	63.2%

Example of an LHD 'Dashboard'

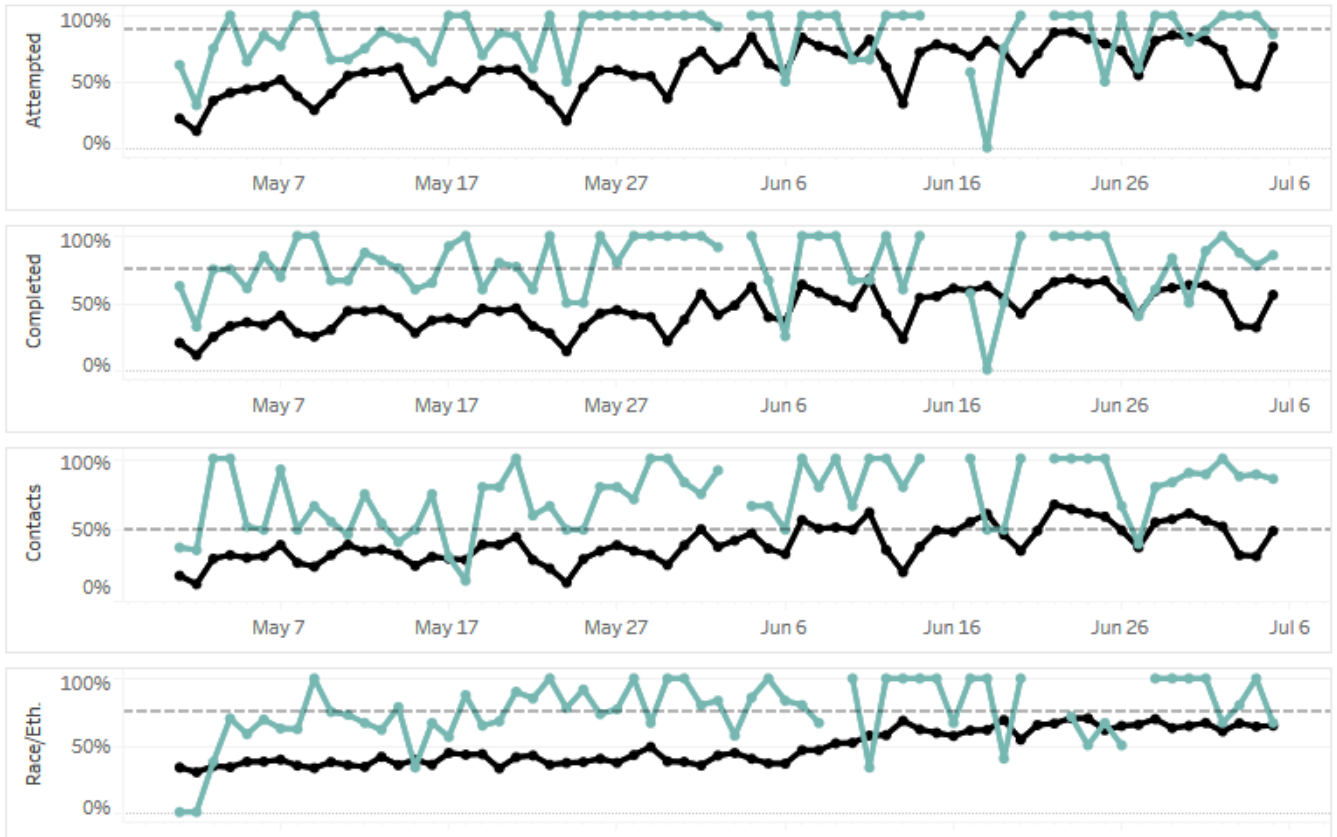
7-day rolling average
- (•) No
- ( ) Yes

Case Completion Target:
- (•) Within first day
- ( ) Within second day

Jurisdiction: (Multiple values)

Chart 1: Percent of newly referred cases ***attempted*** to be investigated within one day
Chart 2: Percent of newly referred cases ***successfully investigated*** within one day
Chart 3: Percent of newly referred cases with at least one contact identified, or marked as "no contacts", within one day
Chart 4: Percent of newly referred cases with race and ethnicity documented within one week

5/1/2020 — 7/5/2020



Jurisdiction
- County A
- State of Michigan

Case Investigation Metrics, 7-day average - Referred on July 6, 2020

Target: Within first day
Weekend: Exclude
Sort by: Cases — Desc

Jurisdiction	Cases	Contacts / Case*	Interview attempted in first day, 90% goal	Interview completed in first day, 75% goal	At least 1 contact elicited in first day, 50% goal	Race / eth. documented wit week, 75% goal
State of Michigan	1,646	3.54	79.6%	60.6%	56.8%	63.2%
County A	29	4.37	86.2%	72.4%	79.3%	82.4%

Example of an LHD 'Dashboard'

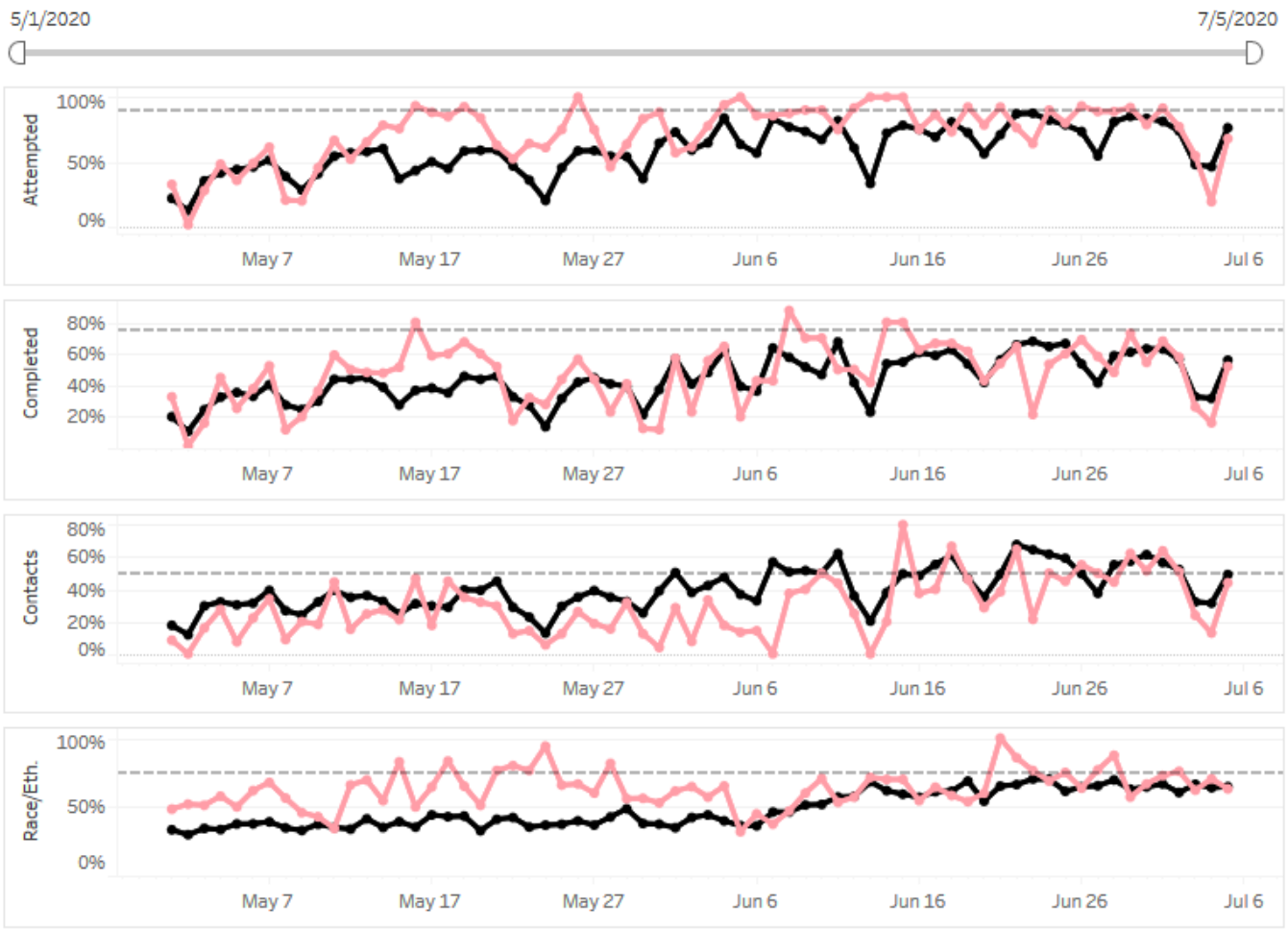
7-day rolling average
- (•) No
- ( ) Yes

Case Completion Target:
- (•) Within first day
- ( ) Within second day

Jurisdiction: (Multiple values)

Chart 1: Percent of newly referred cases ***attempted*** to be investigated within one day
Chart 2: Percent of newly referred cases ***successfully investigated*** within one day
Chart 3: Percent of newly referred cases with at least one contact identified, or marked as "no contacts", within one day
Chart 4: Percent of newly referred cases with race and ethnicity documented within one week

5/1/2020 — 7/5/2020



Jurisdiction
- County B
- State of Michigan

Case Investigation Metrics, 7-day average - Referred on July 6, 2020

Target: Within first day
Weekend: Exclude
Sort by: Cases — Desc

Jurisdiction	Cases	Contacts / Case*	Interview attempted in first day, 90% goal	Interview completed in first day, 75% goal	At least 1 contact elicited in first day, 50% goal	Race / eth. documented wit week, 75% goal
State of Michigan	1,646	3.54	79.6%	60.6%	56.8%	63.2%
County B	174	2.92	84.5%	59.8%	52.3%	64.1%

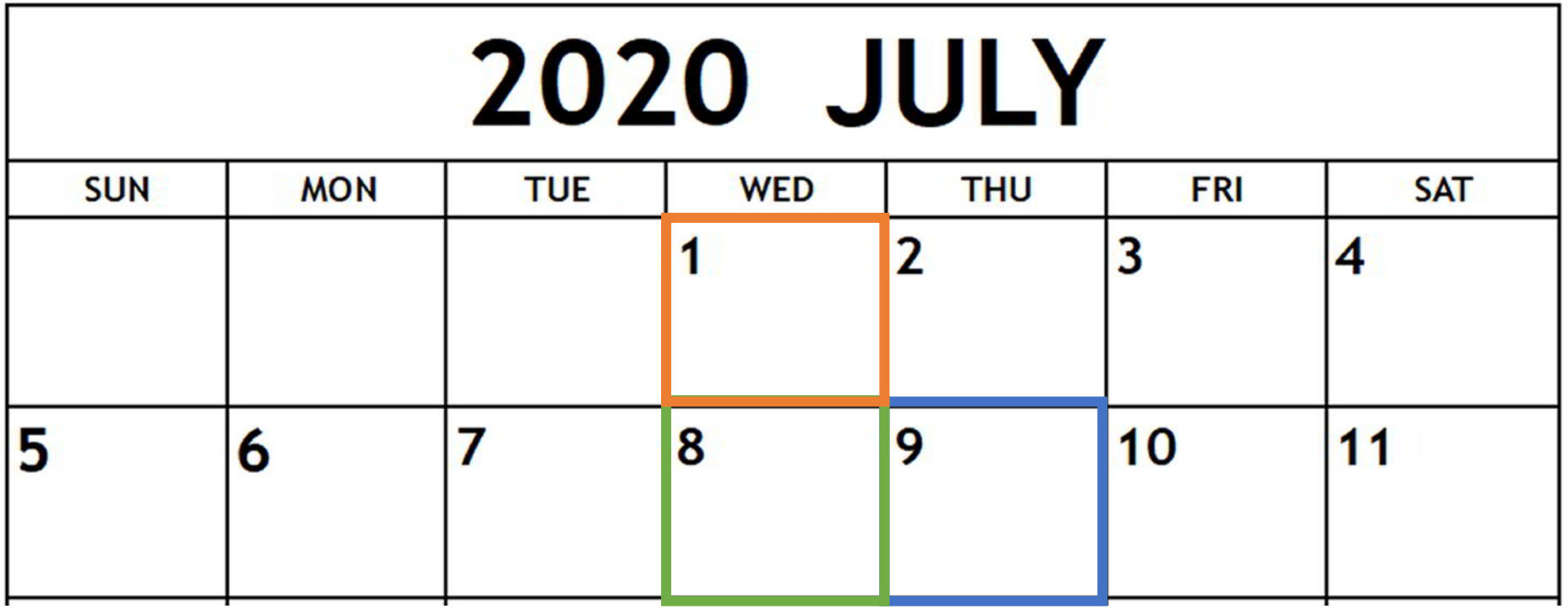
Source: Michigan Disease Surveillance System

* Contacts/case referred as of: 7/3/20

How are targets being measured?

Process of extracting data from MDSS

- Each evening, a statewide MDSS disease-specific search is run for COVID cases referred to MDSS the previous day
- Data extracted the evening of 7.11 are used to assess targets 1-3 for cases with a 7.10 referral
- For target 4 we pull records with a referral date 8 days prior (on 7.11 we measure the data included in case reports referred on 7.3)
- Data queried:
  - Condition- Novel Coronavirus COVID-19
  - Case Status- Confirmed
  - Investigation Status- Active, Completed, Completed Follow-up, New, Review



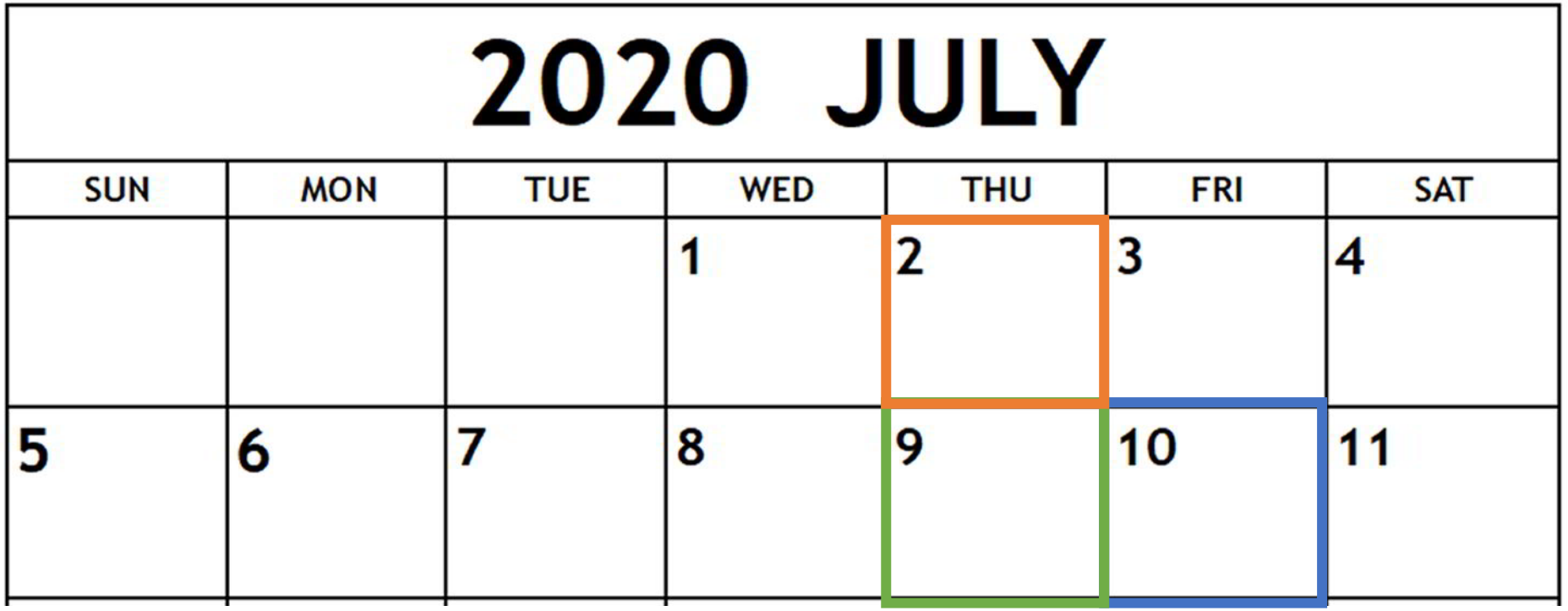
Data are pulled form the MDSS in the evening of 7.9

Targets 1-3 are measured for cases with a 7.8 referral date

Target 4 is measured for cases with a 7.1 referral date

The dataset to evaluate these metrics is frozen.

The metrics calculated on 7.9 are permanent and will not change over time



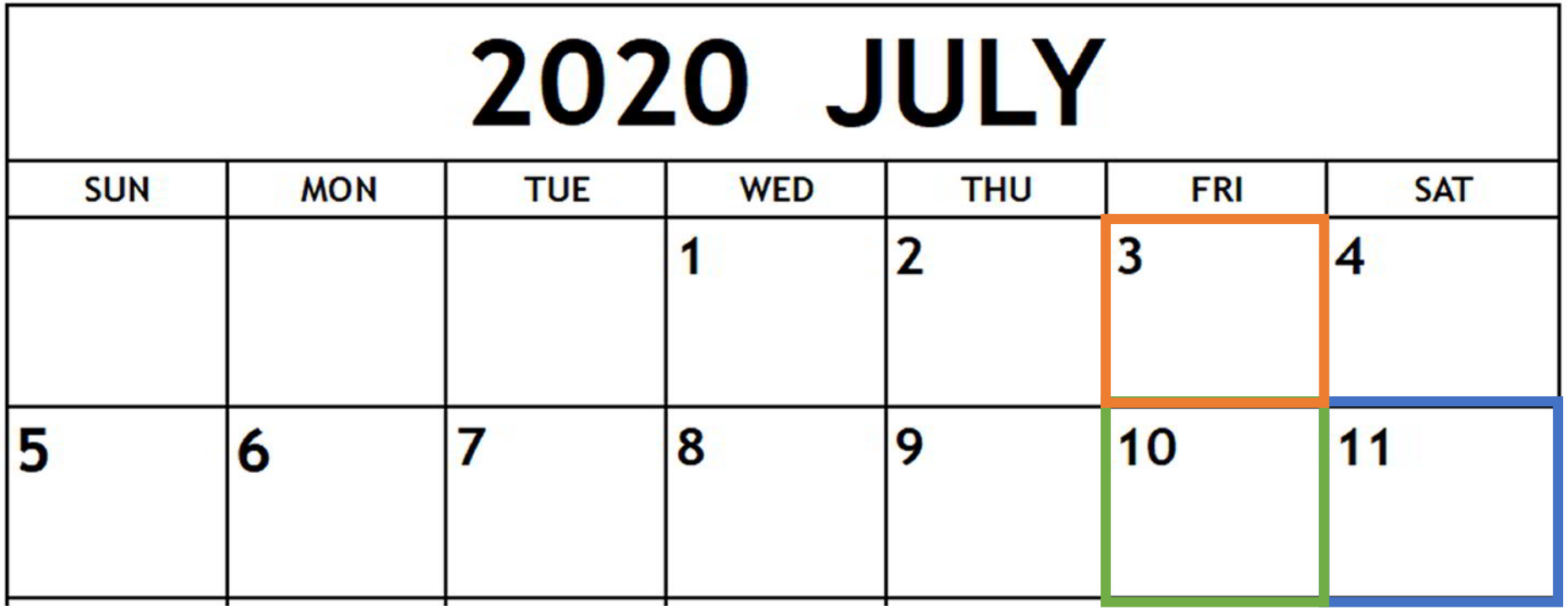
Data are pulled form the MDSS in the evening of 7.10

Targets 1-3 are measured for cases with a 7.19 referral date

Target 4 is measured for cases with a 7.2 referral date

The dataset to evaluate these metrics is frozen.

The metrics calculated on 7.10 are permanent and will not change over time



Data are pulled form the MDSS in the evening of 7.11

Targets 1-3 are measured for cases with a 7.10 referral date

Target 4 is measured for cases with a 7.3 referral date

The dataset to evaluate these metrics is frozen.

The metrics calculated on 7.11 are permanent and will not change over time

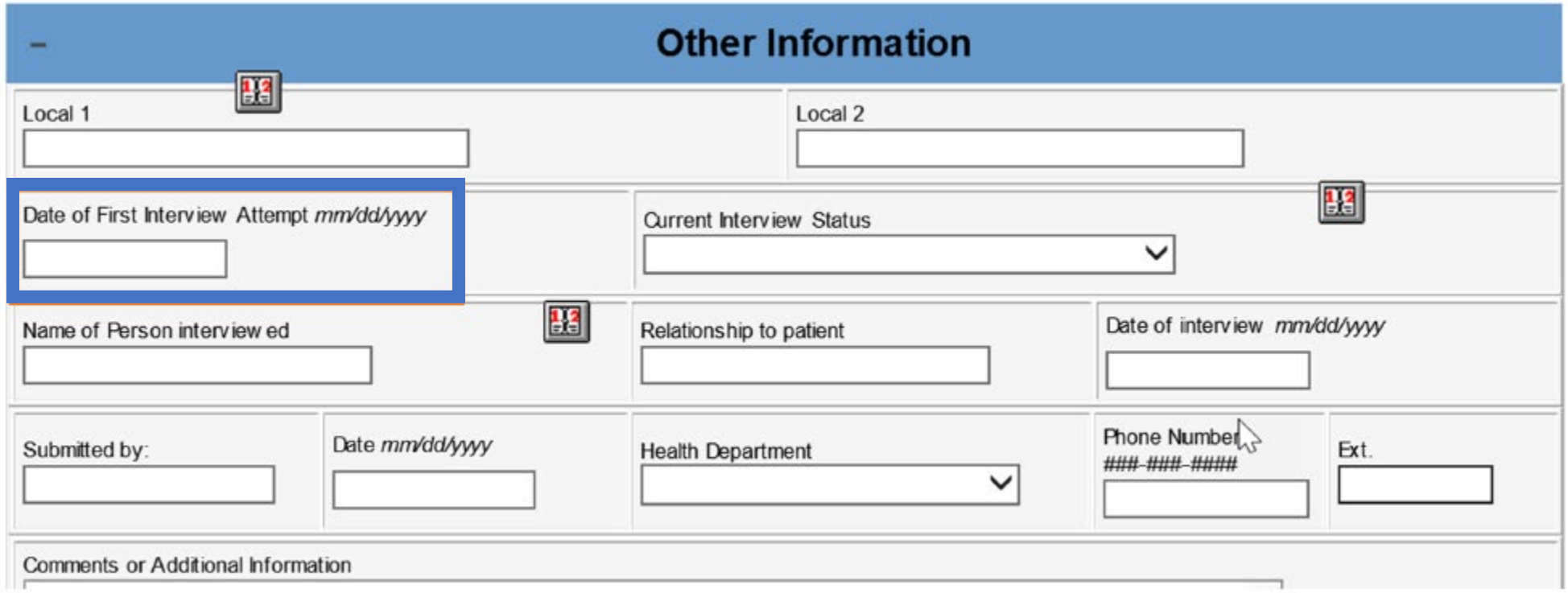
Process of extracting data from MDSS

* Target 1
* Target 2
* Target 3
* Target 4

- Data elements pulled include:
  - Onset Date
  - Referral Date
  - State Prison Case (to remove from LHD numbers)
  - Home Phone Number
  - Race, Hispanic Ethnicity, Arab Ethnicity*
  - Subject has no close contacts?*
  - Subject has refused to provide contacts*
  - Contact County Health Department (as a proxy for contact being documented)*
  - Date of First Interview Attempt*
  - Current Interview Status
  - Date of Interview*

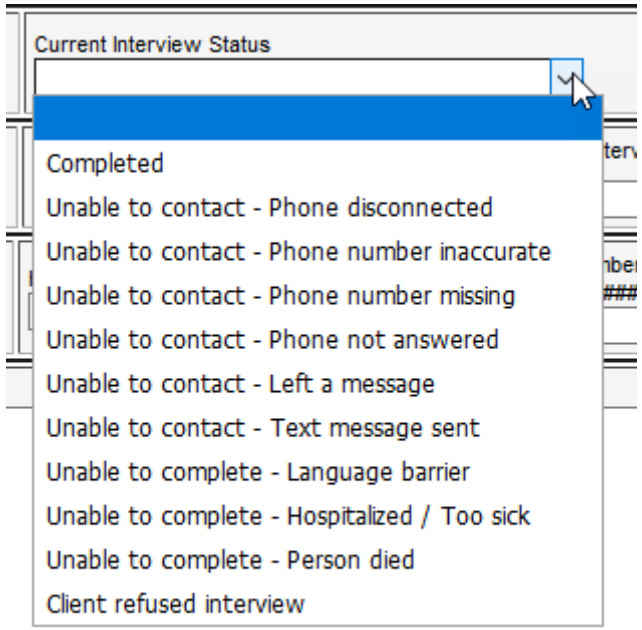
Target 1 – Interview Attempt within 1 day

- Interview Attempted on 90% of cases within 1 calendar day of referral to the MDSS



Target 1 – Interview Attempt within 1 day

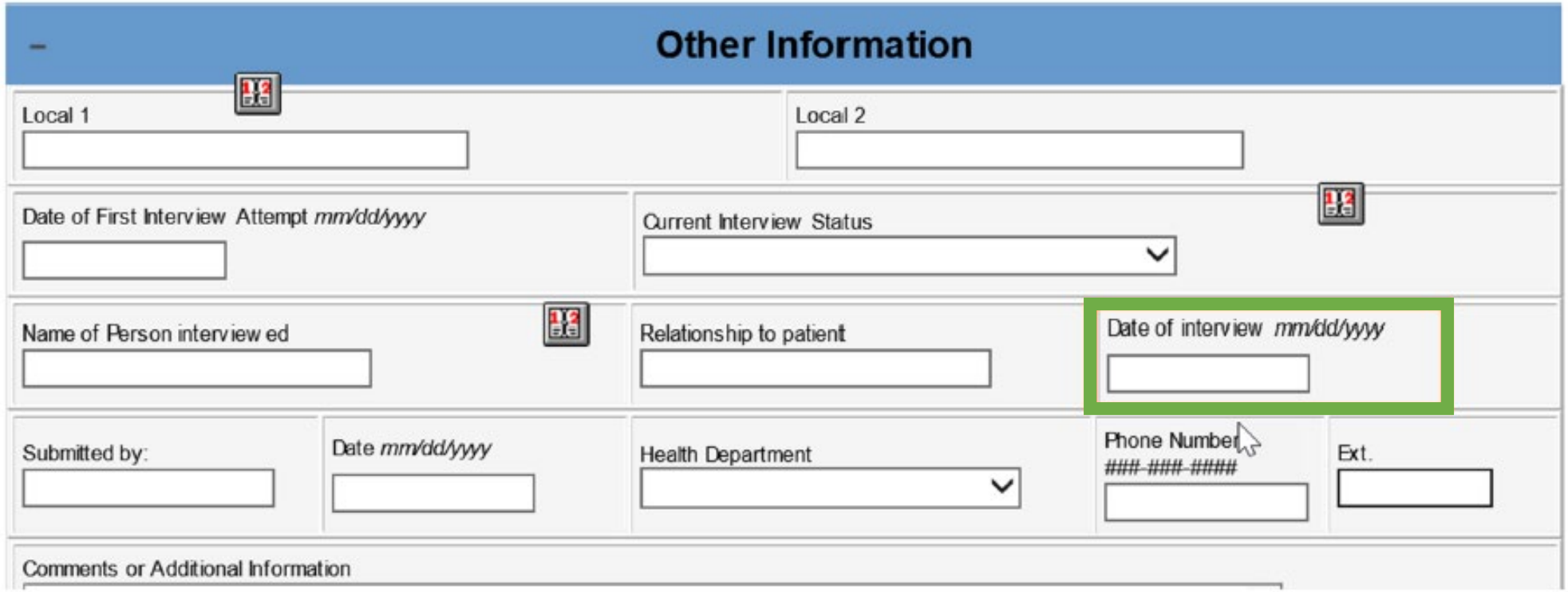
- Date of first interview attempt is when an investigator genuinely attempts outreach to the case



- Use the current interview status drop down →
  - Lets us know what the barriers are to completing interviews
- If no phone number or bad phone number, that counts!
  - Mark the date in which the investigator tried to investigate
- If interview attempt is to a proxy (family member, director of nursing, charge nurse), that is okay too!

Target 2 – Interview Completion within 1 day

- COVID-19 Case Interview Completed on 75% of cases within 1 calendar day of referral to the MDSS



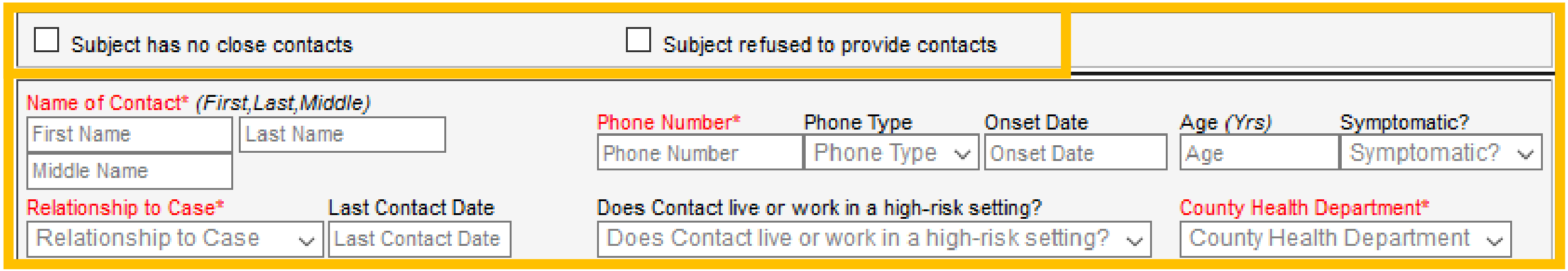
Target 2 – Interview Completion within 1 day

- Investigator has talked to case or case proxy and was able to document some information in the case report form

- If an interview attempt was successful, feel free to mark a date of interview
  - Even though you may continue to engage with the case and if the case remains open in the MDSS

Target 3 – Contact Elicitation within 1 day

- At least one contact elicited on 50% of COVID-19 cases reported to the MDSS **OR** “subject has no close contacts” checked **OR** “subject refused to provide contacts” checked within 1 day of referral to the MDSS



Target 3 – Contact Elicitation within 1 day

- *Idea is to measure the number of truly usable contacts for the purposes of contact tracing*

- What if case provides contacts but missing required fields?
  - should we use ‘dummy variables’?
    - E.g. ‘husband’, 999-999-9999
  - Mark “no close contacts”, document elicited contact info in the notes section

- What if case completes interview but refuses to provide contacts?
  - Mark “subject refused to provide close contacts”

- What if the contacts are already known COVID cases?
  - Mark “No close contacts” because you wouldn’t trace these individuals

Guidance on Completing the Contact Information Section

If you cannot complete required fields:

- DO – Document contacts with incomplete information in the notes section
- DON'T – Please avoid entering 'dummy' data in the standard contacts fields

Name of Contact (First, Middle, Last) - this information helps us to verify we are speaking to the correct person.

- DO – Get fill First and Last names for each contact
- DON'T – Please avoid using non-descriptive names like 'son', 'wife', etc.

Phone Number – An accurate phone number for the contact is needed to perform outreach.

- DO – Get a specific phone number for each individual contact when possible (i.e. get a separate phone number for spouses or household members that are not children).
- DON'T – Please avoid using 111-111-1111 or 999-999-9999. Please also avoid entering the phone number for the case in this field.

Phone Type – The phone type helps determine if the contact can be reached by text or not.

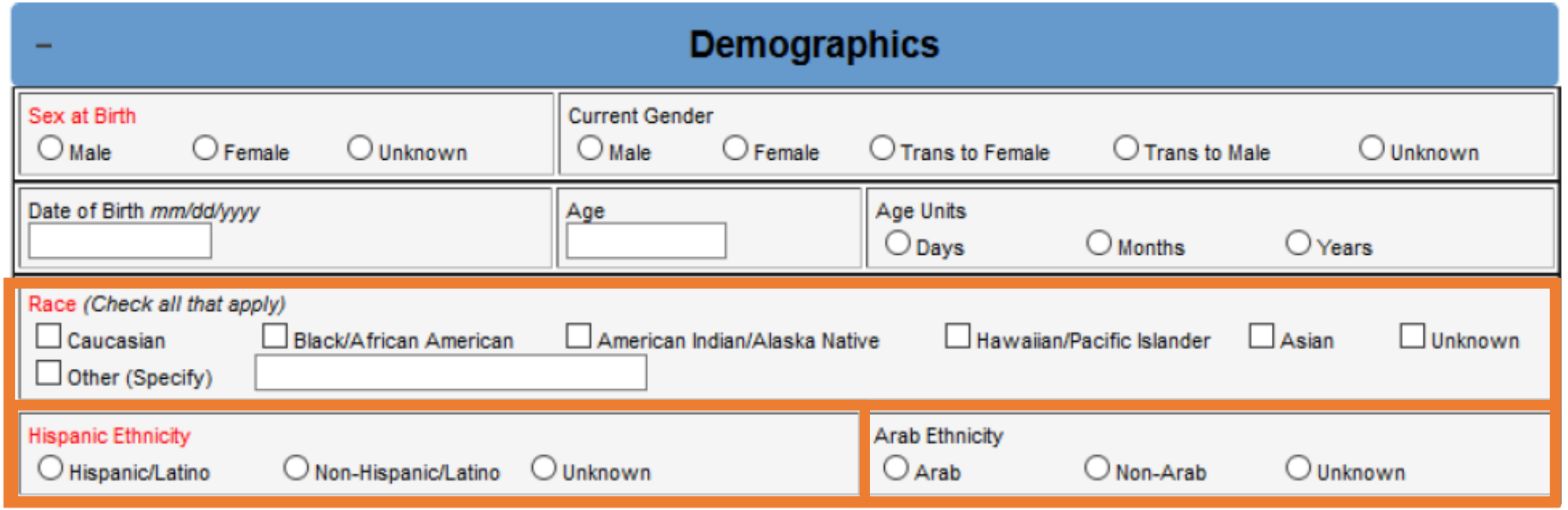
Age (Yrs) – Age is important for verifying we are speaking to the right person and identifying the contact as a minor or as an adult.

- DO – Please document age as accurately as possible. Leave blank if age is unknown.
- DON'T – Please avoid putting 0 or 99 if age is unknown.

Last Contact Date – The last contact date helps to identify how long the symptom monitoring period should be (14 days from last contact).

Target 4 – Race and Ethnicity within 1 day

- Race AND Hispanic AND Arab ethnicity documented on 75% of COVID-19 cases reported to the MDSS within 7 days of referral to the MDSS



If any one is unknown or blank, the metric will not be met.

Limitations to the Metrics

"And this projected sales increase has a margin of error of 100%."

Limitations

- MDSS data are dynamic (cases might be determined to be not a case later or after investigation are residents of a different jurisdiction)
- Case referred previously, but now has a laboratory result merged with case that changes case definition
- Interview partially completed
- Case is a resident of a nursing home and nursing home is unresponsive
- Delays in interview because of weekends/holidays
- Race/ethnicity information not routinely coming across in ELRs
- Contact tracing is happening at the setting-level (e.g. work site, healthcare facility) but individual contacts not being added to MDSS case report form
- MDSS stability/latency issues
- Probably many more…

Related Thoughts

Related Thoughts

- Prioritize investigation of new referrals and persons reported from high risk settings
- Consider using the Current Interview Status field to help quantify barriers to case investigation
  - Are phone numbers missing, inaccurate, or are persons not answering?
- Use person-locating software (TLO, LexisNexis) to find better contact information?
- Messaging campaigns to encourage folks to speak to investigators/tracers
- LHD staff dedicated to particular congregate care settings to expedite collection of information using proxy interview?
- Remote access to electronic medical records for hospitalized persons?

Technical Assistance

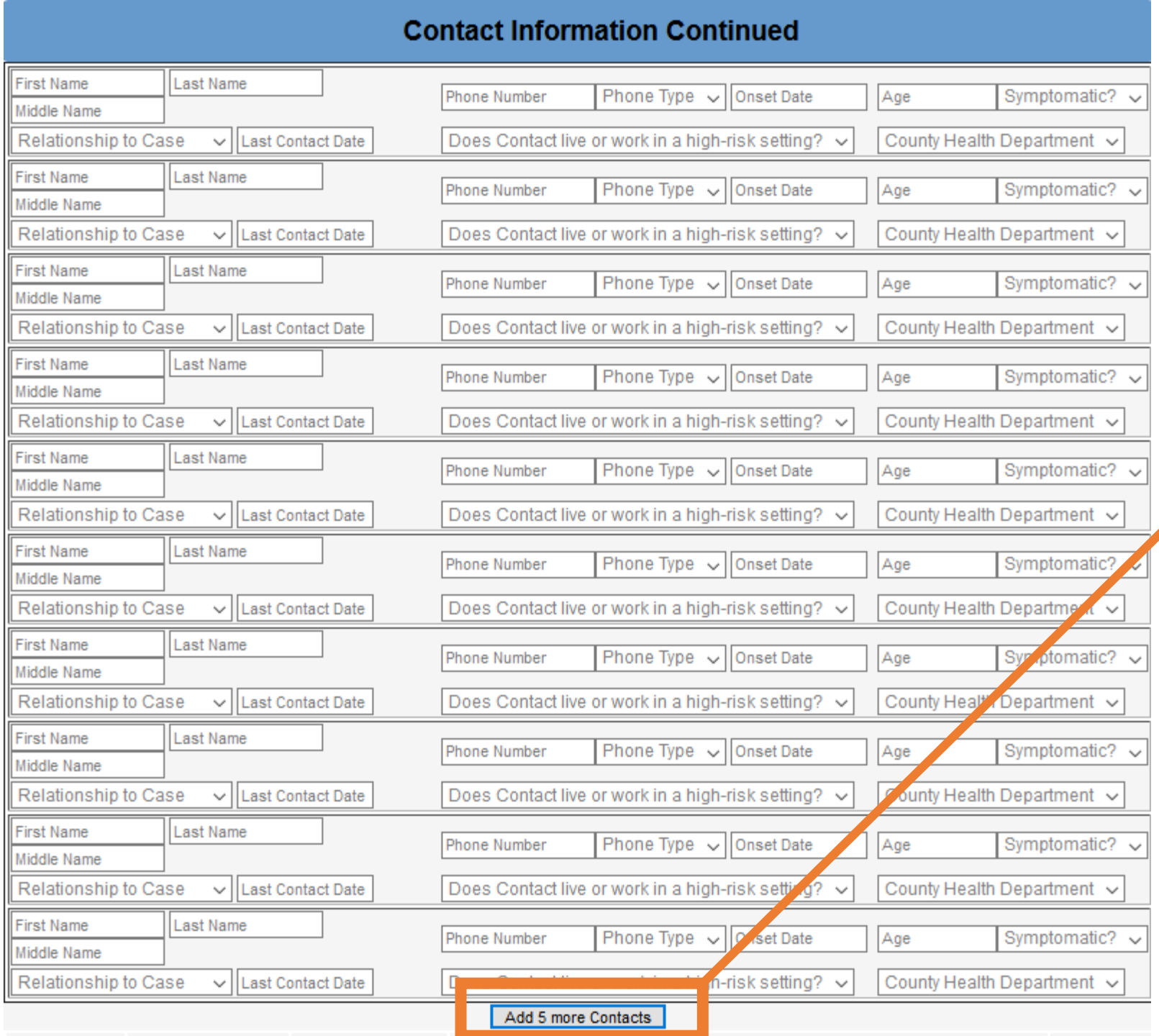
Needs Assessment by MDHHS

- MDHHS may reach out regarding LHD metrics
- Idea is to make sure the metrics are understood and that there is not a workforce capacity barrier
- If there is a capacity barrier, MDHHS has a team of internal staff that stand ready to help with case investigation and have done so for some LHDs for several weeks now
- If not a capacity issue, we would love to better understand the barriers and/or limitations to the metrics at the local level to help us improve our evaluation process
- **Team:** Jill Diesel, Mirissa Bosch, Shona Smith, Macey Ladisky, Katie Macomber, Joe Coyle

MDHHS Technical Assistance

- We will go over metric definitions, review the LHDs dashboard, have an open discussion about successes and barriers
- MDHHS will follow-up with notes from the meeting
- 2+ weeks post-call, MDHHS will follow-up with the LHD to summarize how their data has changed since the call

Miscellaneous Plugs



You now have the ability to add up to 100 contacts in the MDSS Case Report Form

Exposure Source *(check all that apply)*

- ☐ Case is associated with a known cluster or outbreak — If checked, outbreak name
- ☐ Case is a health care contact to a known COVID-19 lab-confirmed case-patient — If checked, contact MDSS Investigation ID(s)
- ☐ Case is a community contact to a known COVID-19 lab-confirmed case-patient — If checked, contact MDSS Investigation ID(s)
- ☐ Case is a household contact to a known COVID-19 lab-confirmed case-patient — If checked, contact MDSS Investigation ID(s)
- ☐ Source of case's COVID-19 infection is unknown (no other exposure sources checked above)

If case is associated with a known cluster or outbreak, please select the category that best describes the outbreak:

- ○ LTC/SNF/assisted living/adult day care/group home
- ○ Agricultural/food processing/migrant camp (e.g. farm, meat packing, hatchery, etc.)
- ○ Restaurant/bar
- ○ Primary or secondary school/College or university (e.g. classroom, dorms, boarding schools, before/afterschool programs, etc.)
- ○ Childcare/Youth programs (e.g. daycares, day/overnight camps, extracurricular activities, sports programs, etc.)
- ○ Workplace (e.g. manufacturing, construction, office-building, retail, etc.)
- ○ Jail/prison/detention center
- ○ Healthcare (e.g. inpatient, outpatient, dental practices, dialysis, etc.)
- ○ Shelters/settings that provide services for people experiencing homelessness
- ○ Community exposure (e.g. nail/hair salon, spa, gym, non-worksite retail, religious services, public beach/pool, etc.)
- ○ Social gathering (e.g. birthday party, graduation party, wedding, funeral, etc.)
- ○ Community event/mass gathering (e.g. concert, rally, protest, parade, etc.)
- ○ Other, (specify)
- ○ Not Applicable

Exposure Information - In the 14 days prior to illness onset (or positive test result) did the patient have any of the following exposures where they may have acquired their infection.

Spent time at worksite	○ Yes ○ No ○ Unknown	if yes, specify
Spent time at adult congregate care facility (SNF, assisted living, LTC, etc)	○ Yes ○ No ○ Unknown	if yes, specify
Spent time at a school, university, or childcare center	○ Yes ○ No ○ Unknown	if yes, specify
Spent time at a correctional facility	○ Yes ○ No ○ Unknown	if yes, specify

Attended a community event or mass gathering (e.g. concert, rally, protest, parade, etc.)

○ Yes ○ No ○ Unknown

Does this case have a known source of COVID exposure?

TraceForce

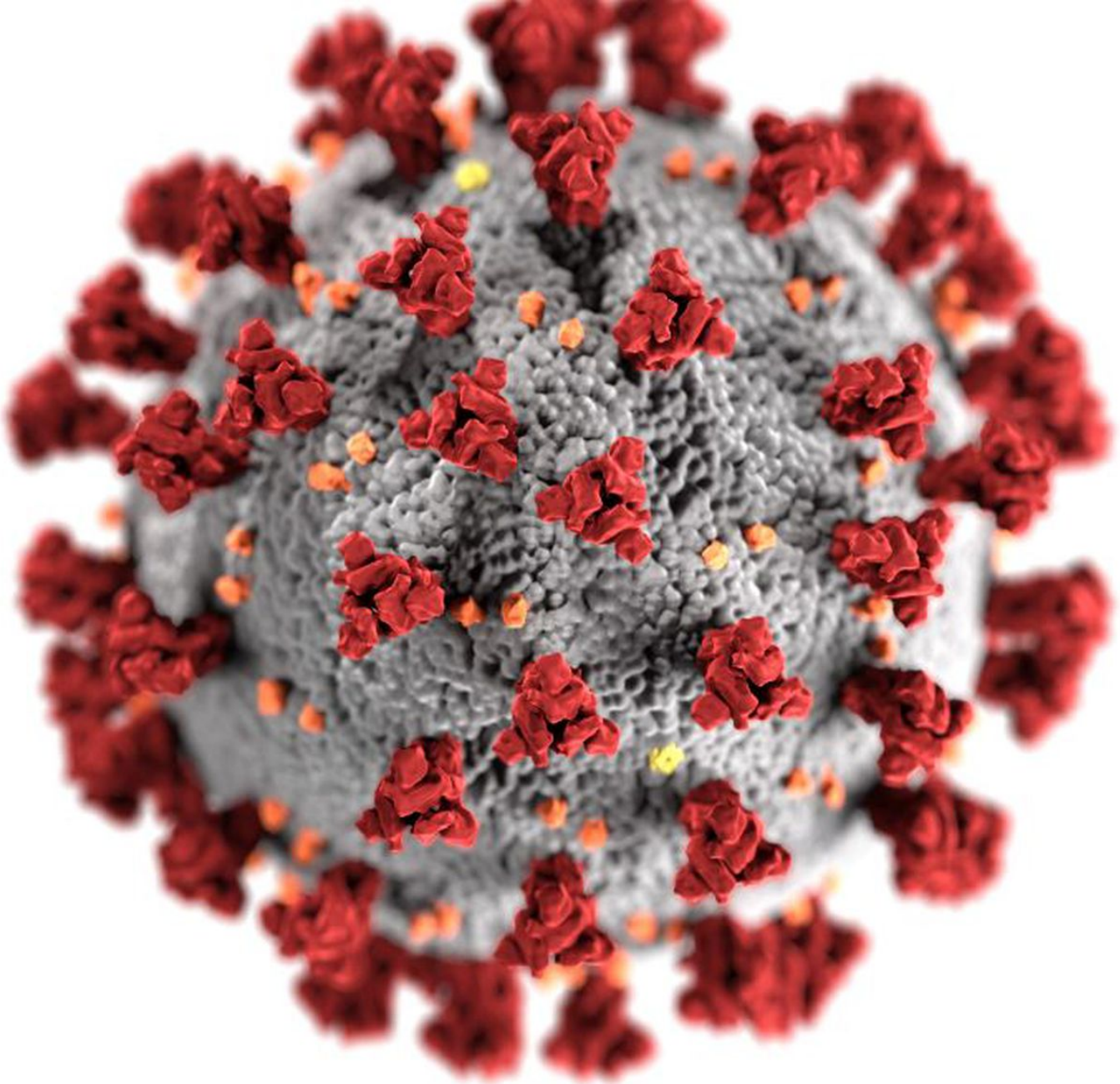
- MDHHS-developed contact tracing platform that is available to LHDs
- Pros:
  - Can use your own internal staff OR tap into statewide volunteer pool on demand
  - Contacts documented in MDSS automatically port over to TraceForce
  - Symptomatic contacts automatically generate new COVID cases in MDSS
  - Simplify interjurisdictional referrals
  - Enroll contacts in automated text messaging surveys vs. phone calling
  - It’s not OMS
  - No Cost
- 22 LHDs are currently using TraceForce (16 using the Statewide volunteers, 6 using the LHD User Role)
- Please reach out to Matt Buck, Joe Coyle, Katie Macomber, or your regional epi if you’d like to learn more

LHD Case Investigation and Contact Tracing Calls

- Recurring meeting on Fridays from 1-2PM
- Some targeted discussion and presentations, but mostly an open forum for LHDs to share best practices and ask questions
- Help us better understand LHD needs for future development of systems (MDSS, OMS, TF)
- Development of standard procedures (e.g. interjurisdictional contact referral)
- If you don’t have the meeting on your calendar e-mail Joe Coyle at CoyleJ@michigan.gov

Open Discussion

Thank you!



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