




MEMORANDUM

Date: April 8, 2021

To: The Honorable Chairman and Members
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator 

Re: **Benefits and Results from Contact Tracing and Case Investigation**

Introduction

Case investigation and contact tracing are a critical public health tool for Pima County. The Contact Investigation and Contact Tracing process has allowed the Health Department to recognize clusters of infections occurring in nursing homes, senior housing, prisons, Greek and off-campus student housing, workplaces, churches schools and veteran services organizations. Using this information, the Health Department was able to strategically deploy resources including testing, personal protective equipment (PPE) and technical assistance that in many cases contained or blunted the spread of infection.

Most infections in Pima County, as in the rest of Arizona and U.S., are occurring across a broad range of community household and occupational settings and in small family and social gatherings. So there is not a single hot spot or group of hot spots that can be targeted. It is in these setting where the case investigation/contact tracing process may be most useful in identifying contacts with significant risk exposures requiring notification, referral for testing and quarantine recommendations.

Maximus Contract

Our contractor, Maximus, has been a key element of the Health Department's case investigation and contact tracing efforts.

It is based on the importance of Maximus to Pima County's overall case investigation and contact tracing process that I have brought the proposed \$5 million amendment to this contract and extends the termination date to January 5, 2022. Especially as vaccine coverage continues to aggressively expand and the number of cases continue to drop, it is critical that that the County not reduce its investment in this critical system. Only continuing to aggressively pursue both vaccination and the contact tracing, can we hope to return to a pre-pandemic social and economic normalcy.

Of the original \$10 million contract as of the end of February 2021 approximately \$6.52 million had been spent. The three months, December 2020, January and February 2021, averaged an approximate monthly expenditure of \$1.04 million; hence, the contract would

be fully expended by the end of May 2021. There is a continuing need for Maximus' services throughout the remainder of 2021; hence, the additional expenditure authority added to the contract of \$5 million.

Case Investigation and Contact Tracing Since the Beginning of January 2021

The process begins with communication attempts made with all COVID cases transmitted from the state to Pima County. These communications include multiple telephone call attempts, text messaging, and even mailings to non-responsive individuals. The primary limitation for these efforts is the willingness of respondents to engage and secondarily the accuracy and quality of the contact information as provided by the state and optimized locally.

To date, more than 35,232 cases have been referred to Maximus by the Health Department for investigation and subsequent contact tracing. Of those, our contractor has been able to successfully engage with 13,562 (38 percent) infected individuals not only to identify possible contacts, but to also provide instruction on the isolation process, and to offer supportive services that will facilitate adherence to the isolation recommendation (e.g. referrals for PPE, food bank, housing). Follow-up monitoring suggests that 76 percent (10,291/13,562) of cases we connect with through this effort are generally compliance with the health department's isolation recommendations.

By identifying and successfully engaging with COVID cases, those infected individuals have identified 21,701 close contacts. These are individuals who are at risk for COVID infection due to having prolonged (≥ 15 -minute duration) contact at close proximity (within 6 feet distance). The goal is to contact each one of these individuals by telephone, text message or mail in order to complete a more thorough telephone risk assessment and to refer for COVID testing. Again, the limiting factor is the quality of the contact information that is provided by the cases at the time of interview and the willingness of the contact to participate in the survey. These high-risk contacts are provided education about the need for testing and the quarantine process and are referred for other supportive services when the need is identified. On follow-up monitoring 38 percent of contacts report substantial adherence quarantine recommendations.

Key Findings Supporting Public Health Advisories

The longitudinal analyses of these data allow us to assess impact of policy actions taken by the Board and others. (Attachment 1) Based on these data for instance we are able discern that the number of cases reporting contact with known cases has remained relatively flat at just under 50 percent, indicating for half of cases occur in settings where individuals know they are coming into contact with potentially infected persons. Likewise, these data suggest that the various actions of the Board specifically those the proclamations (that limited bar and restaurant occupancy and recommended against gathering of ten or greater) were

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generally adhered to and likely had a beneficial impact on the trend of infection in this community. This is also the case for the Public Health Advisory issued by the Health Department advising to "shelter in place" and recommending against travel. These self-reported behaviors are now trending in the wrong direction, coinciding temporally with date the Governor lifted occupancy restrictions on businesses.

The important findings of the contact tracing/case investigation data is charted in this attachment and include the number of cases reporting bar or restaurant attendance in the last 14 days. The trend line in this category is down. The two vertical axes relate to the Board of Supervisors proclamation regarding mask wearing and when the Governor lifted occupancy limits. As you can see in the cases for bar and restaurant attendance, there is a relatively sharp decrease in the number of cases post-County mask requirements and an uptick after the Governor lifted occupancy restrictions.

For event attendance in cases in the past 14 days with 10 or more people, the trend line is more pronounced in a downward trend. Again, the Board's mask proclamation and resolution and occupancy limits are shown on this graph, showing a continuing downward trend initially after the mask resolution, but a sharp increase after occupancy limits were lifted by the Governor.

This information is helpful in guiding policy decisions regarding public health strategies to reduce the frequency and probability of continuing COVID-19 infection. Also attached is more detailed analysis (Attachment 2) regarding all contact tracing cases. This data is for the time period of the eight weeks of 2021 showing the number of notifications and positive COVID-19 tests, the number of cases investigated and the number of contacts traced, field investigation completed, referrals to care resource coordinators and the number of school contacts. The data and analysis contained in the contact tracing and case investigation assistance provided by our contactor, Maximus, is essential to containing and minimizing the spread of COVID-19.

CHH/dym

Attachments

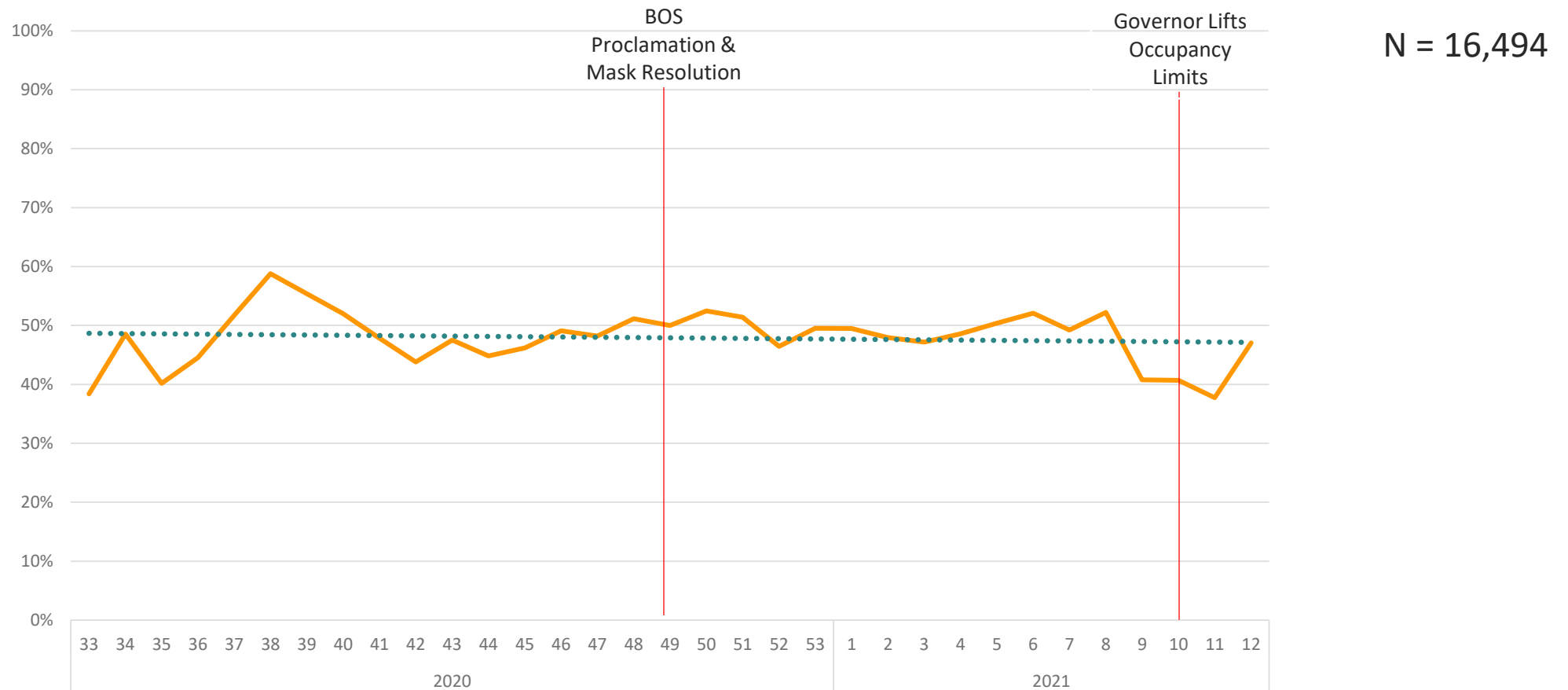
c: Jan Leshner, Chief Deputy County Administrator
Francisco García, MD, MPH, Deputy County Administrator & Chief Medical Officer
Health and Community Services
Terry Cullen, MD, MS, Public Health Director, Pima County Health Department
Heather McGovern, Epidemiology Program Manager, Pima County Health Department

ATTACHMENT 1

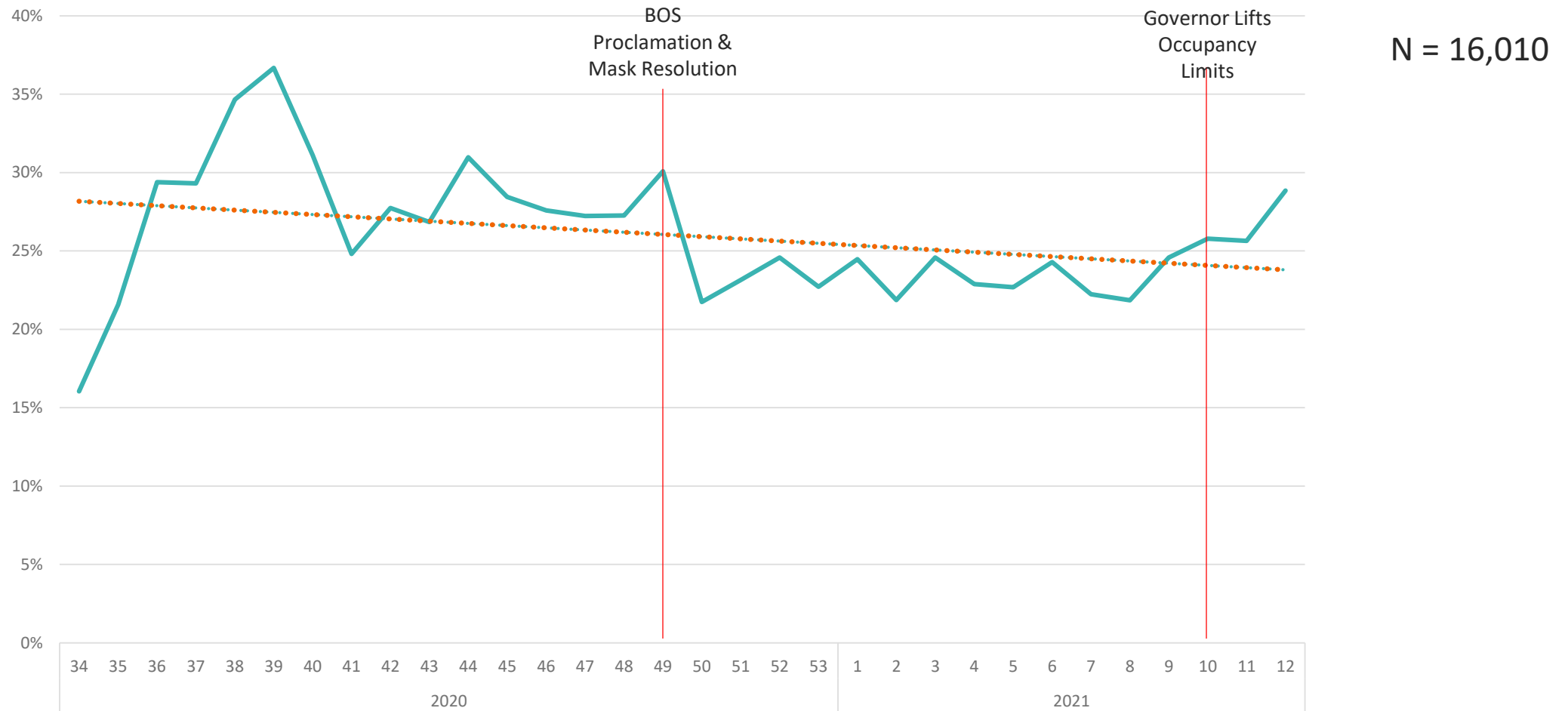
Case Investigation Trend Data



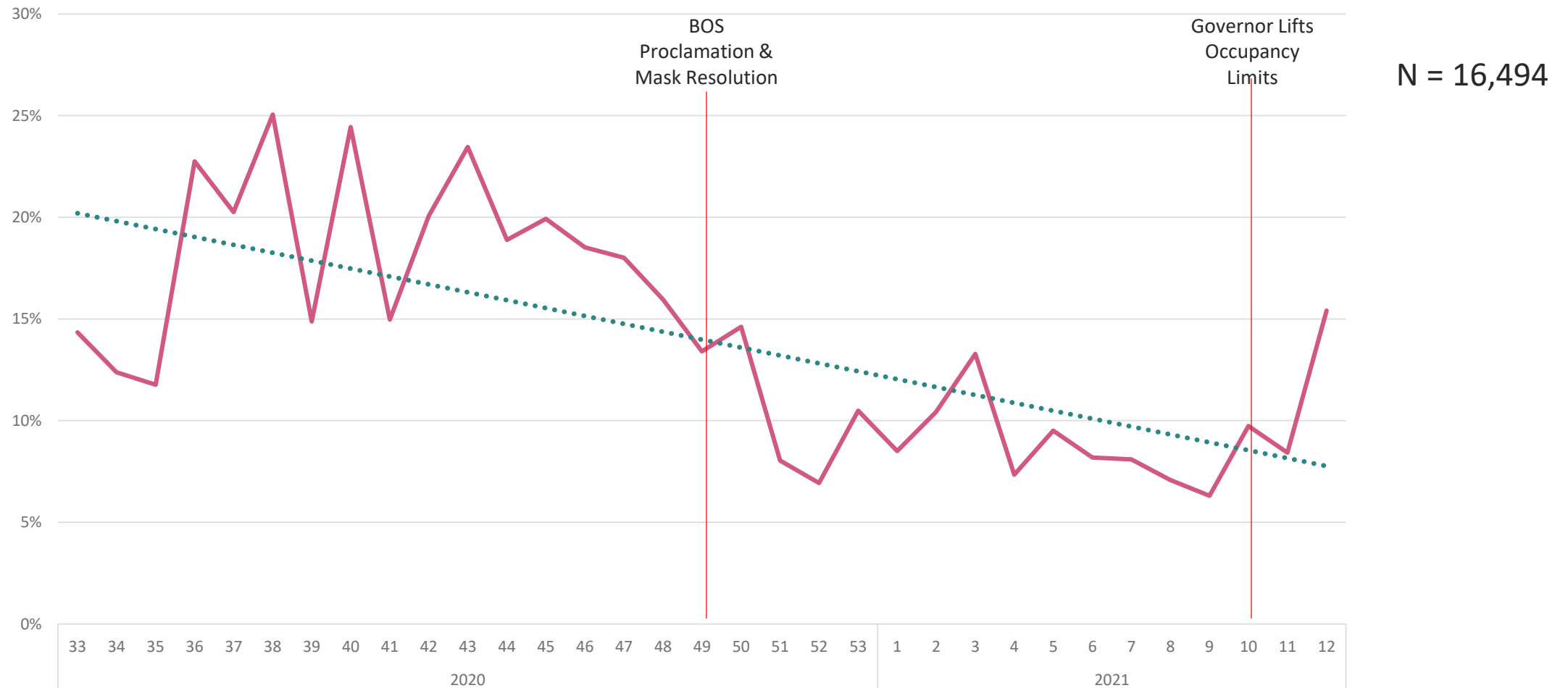
% of cases reporting contact with known COVID case in past 14 days (weekly, through 3/20/21)



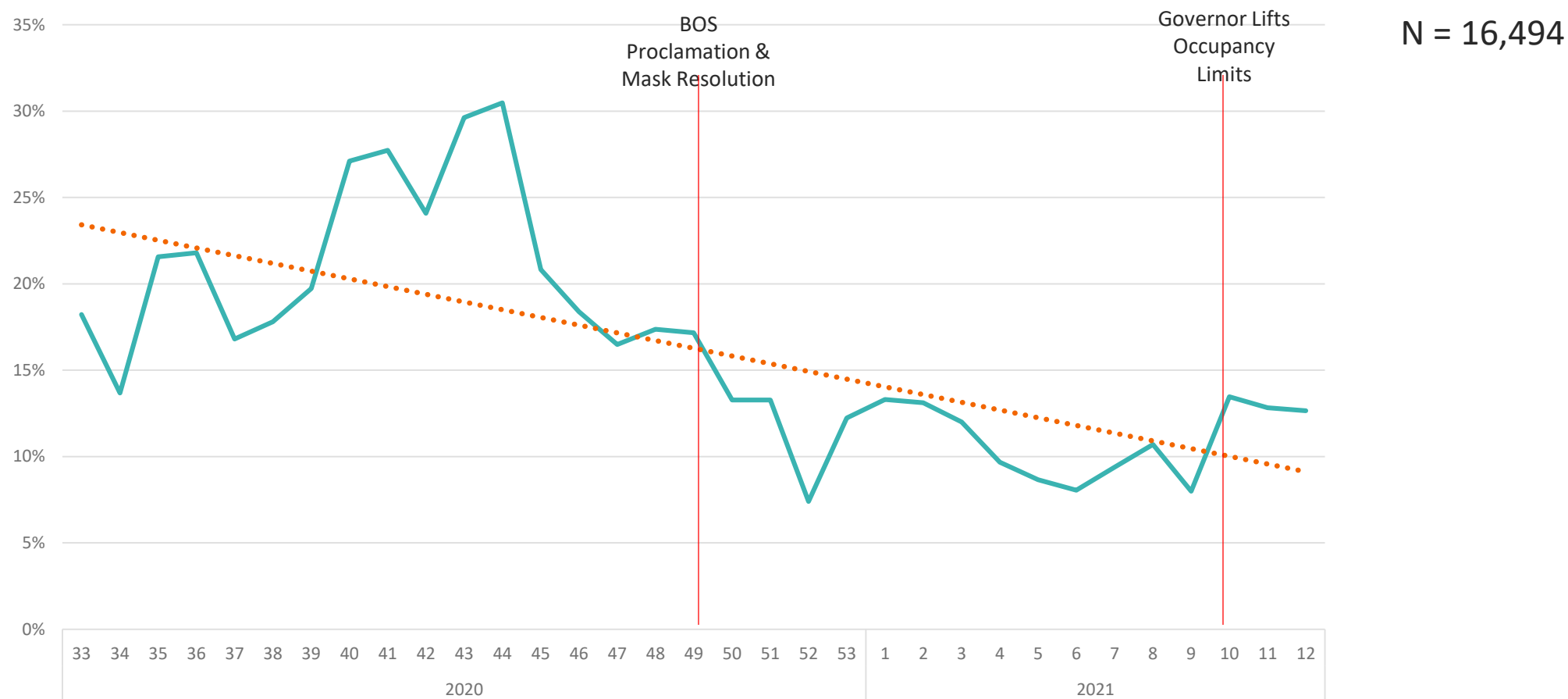
% of cases reporting bar or restaurant attendance in past 14 days (weekly, through 3/20/21)



% of cases reporting event attendance in past 14 days with 10 or more people (weekly, through 3/20/21)



% of cases reporting travel past 14 days (weekly, through 3/20/21)



ATTACHMENT 2



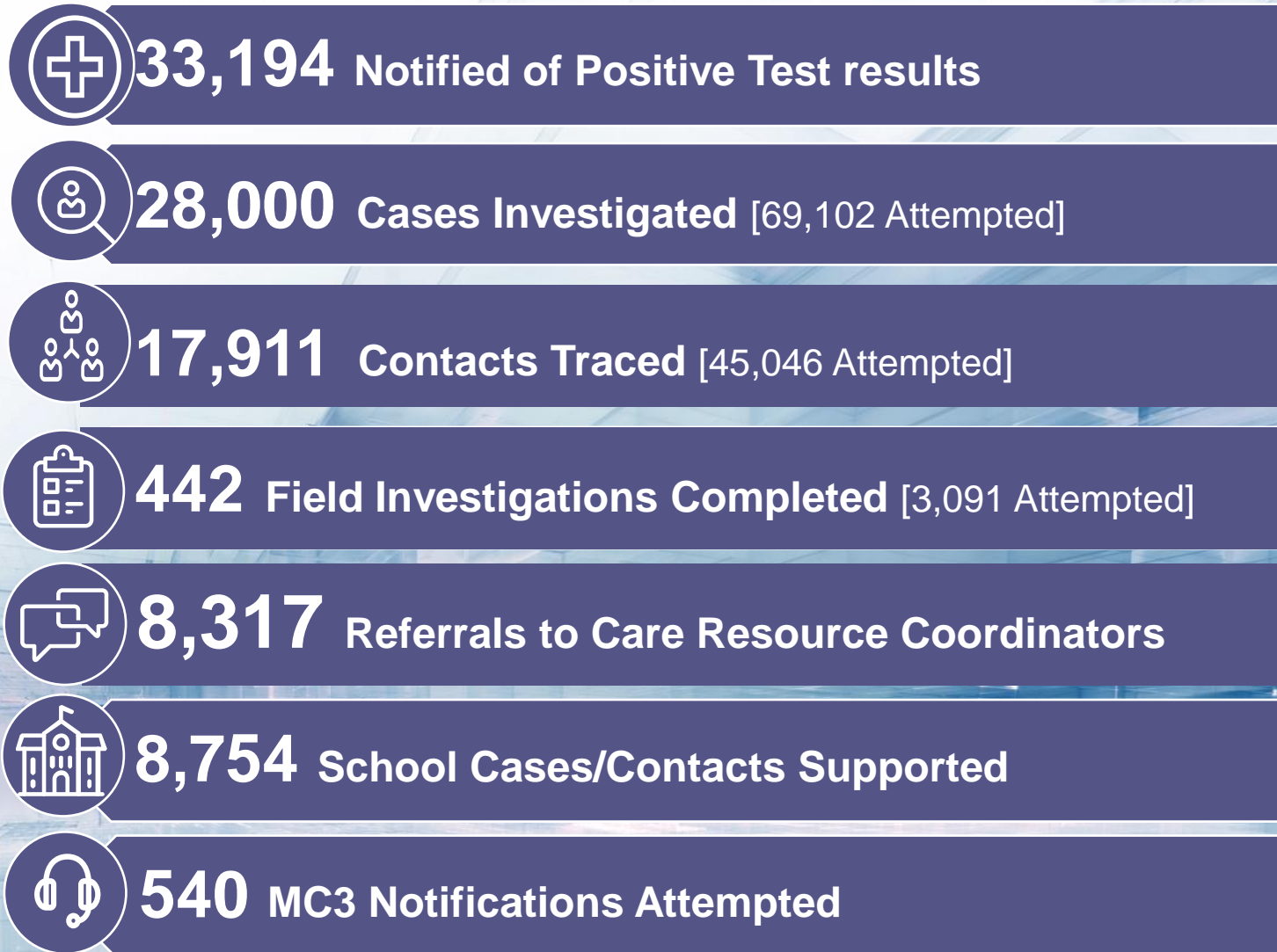
MAXIMUS®

PIMA COUNTY CONTACT TRACING

Monthly Executive Status Report

March 09, 2021

Partnering with Pima County to “Slow the Spread”

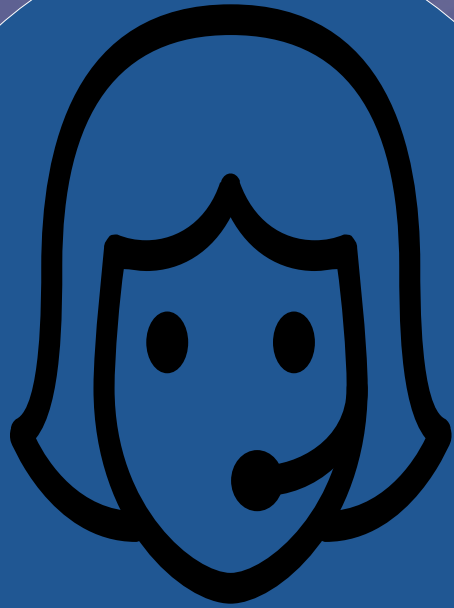


Over **88,000**
Pima County
Citizens
EDUCATED on
COVID-19
Protocol

Being part of a greater good is what drives me. I enjoy feeling like I am doing something to help preserve public health. When getting a call from a case just to thank us for all our hard work and to let us know, "we helped her recover and not feel so alone" makes not only my day but also my week. I am so grateful for this opportunity.

-Annie Thomas-McClure (Case Investigator)





PIMA County Staffing

Case Investigators

Staff Total: 45
 $\Delta +4$



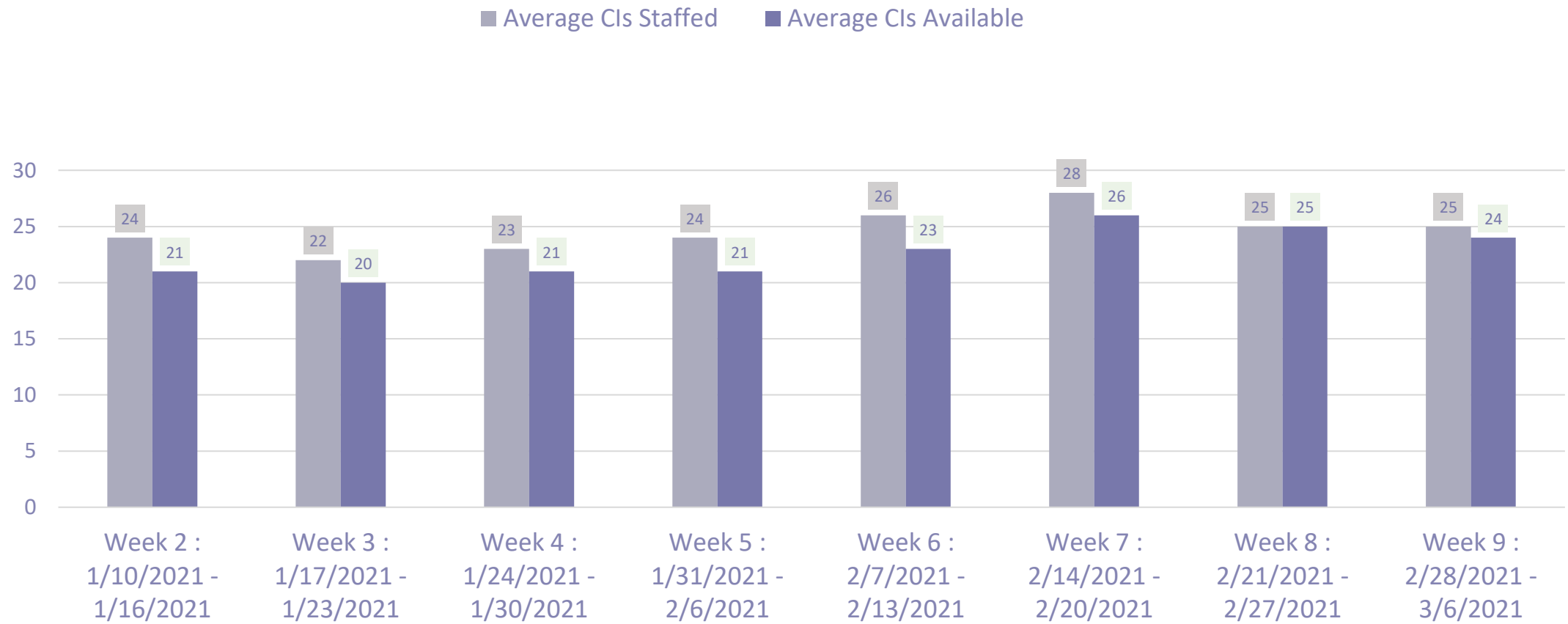
**Total Staff:
117**

Contact Tracers

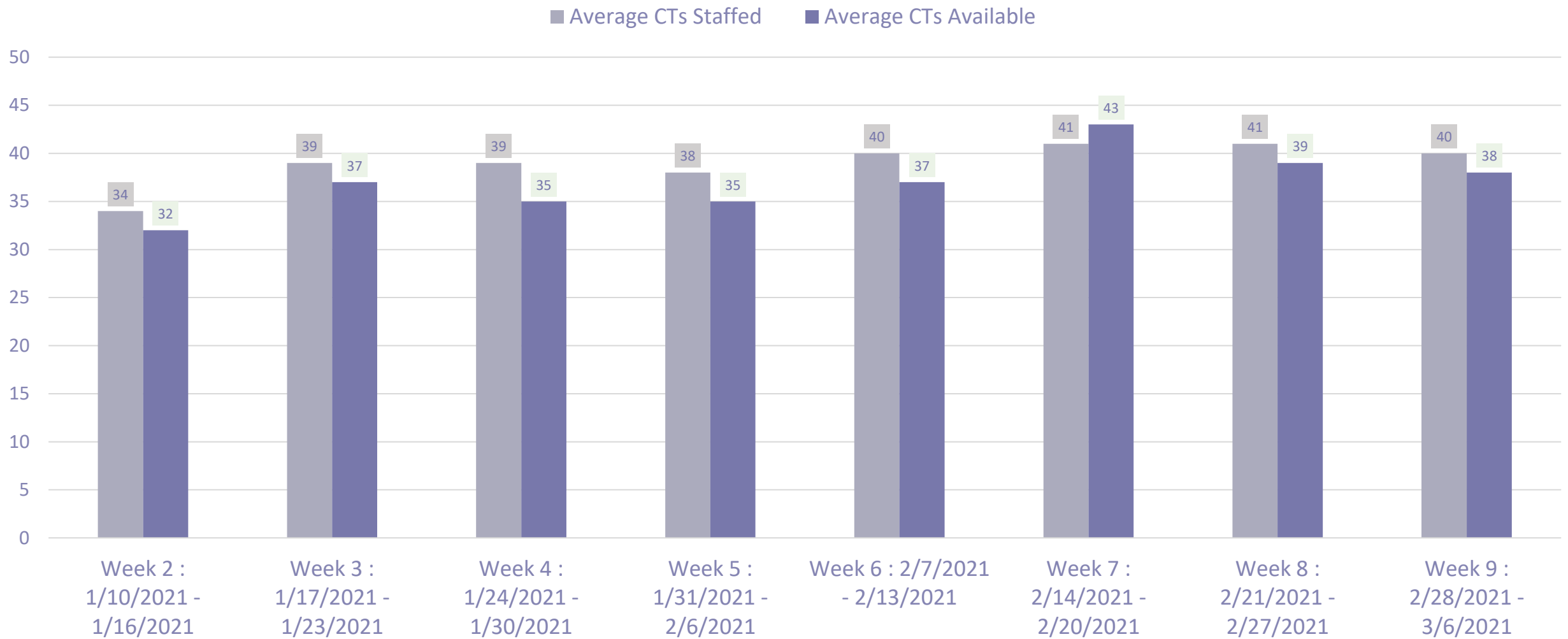
Staff Total: 66
 $\Delta +7$

Field Investigators

Staff Total: 6
 $\Delta 0$

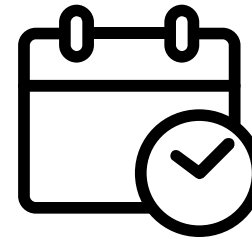
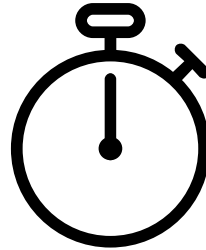
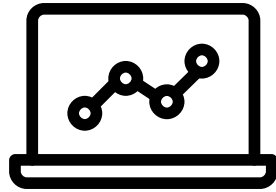


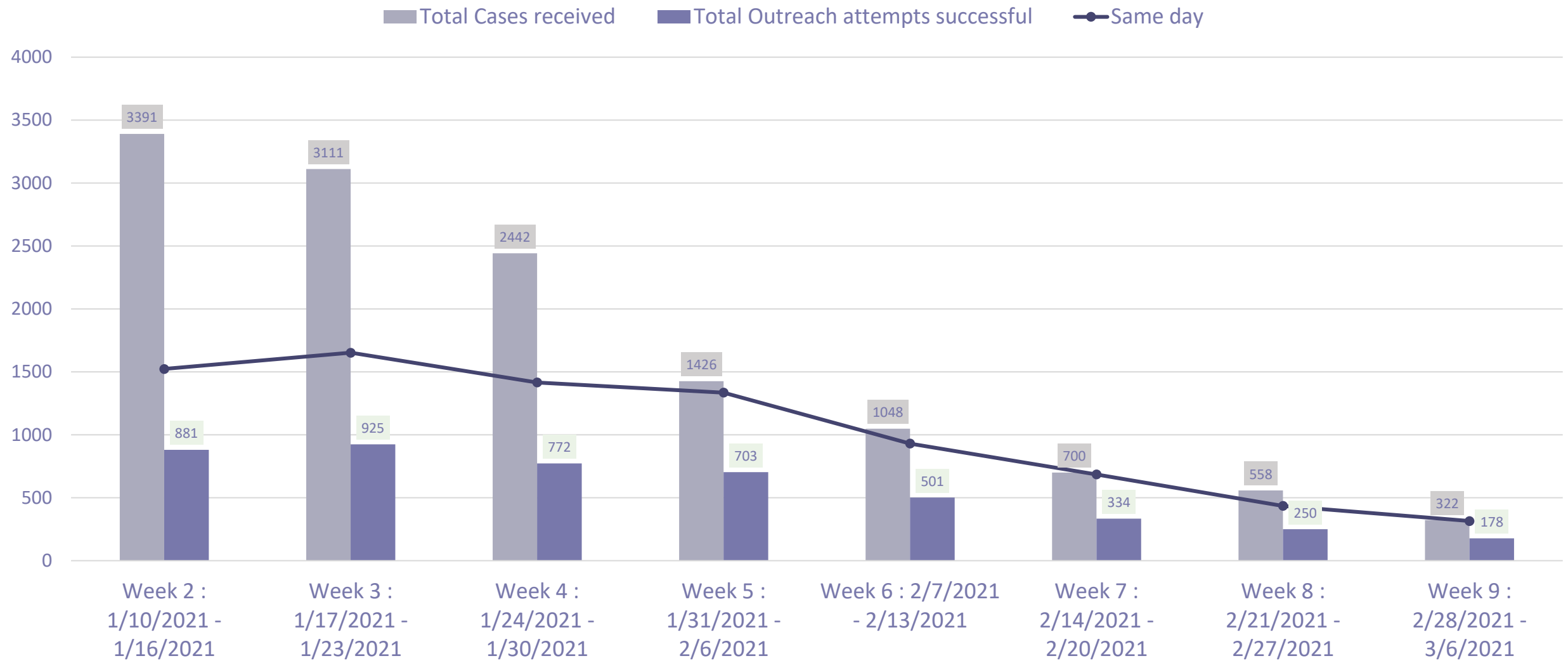
Total # of CIs and Average # of CIs Scheduled Daily



Total # of CTs and Average # of CTs Scheduled Daily

Project Performance





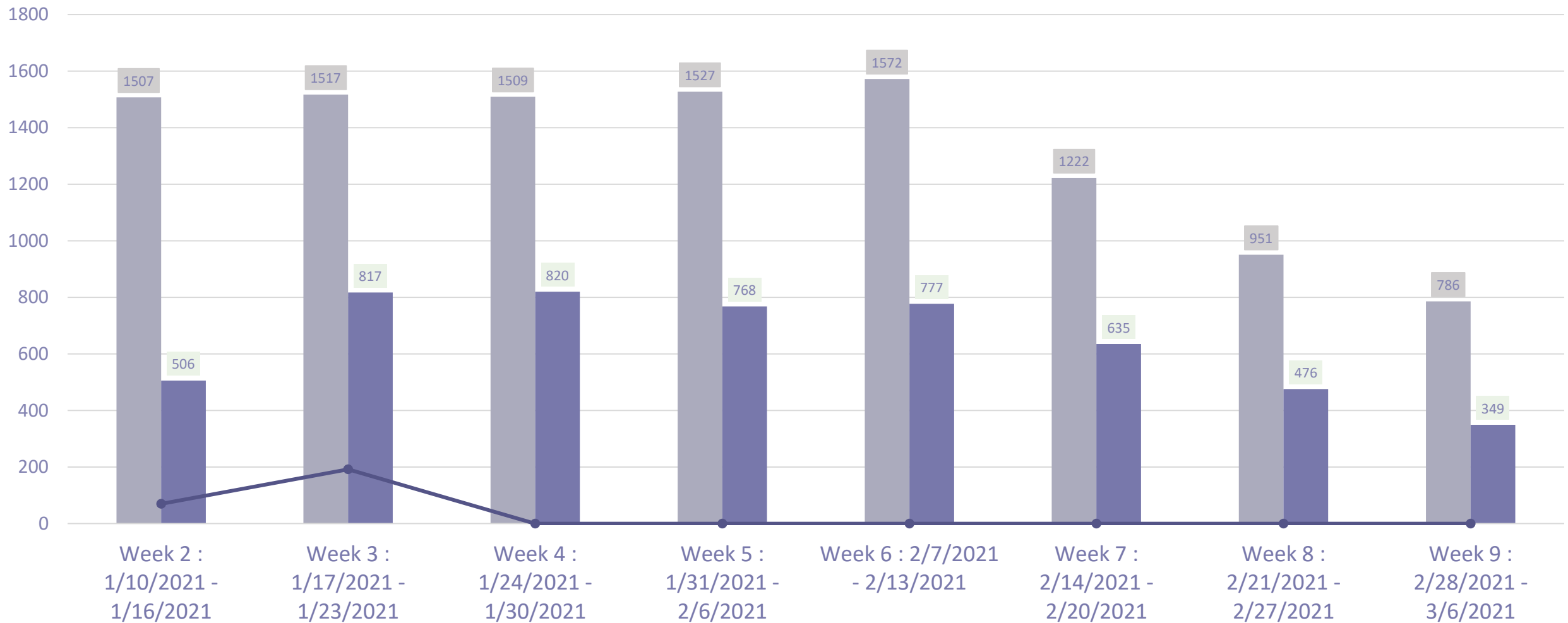
Positive Notification Outreach

Made contact with case

■ Total # of Cases Assigned

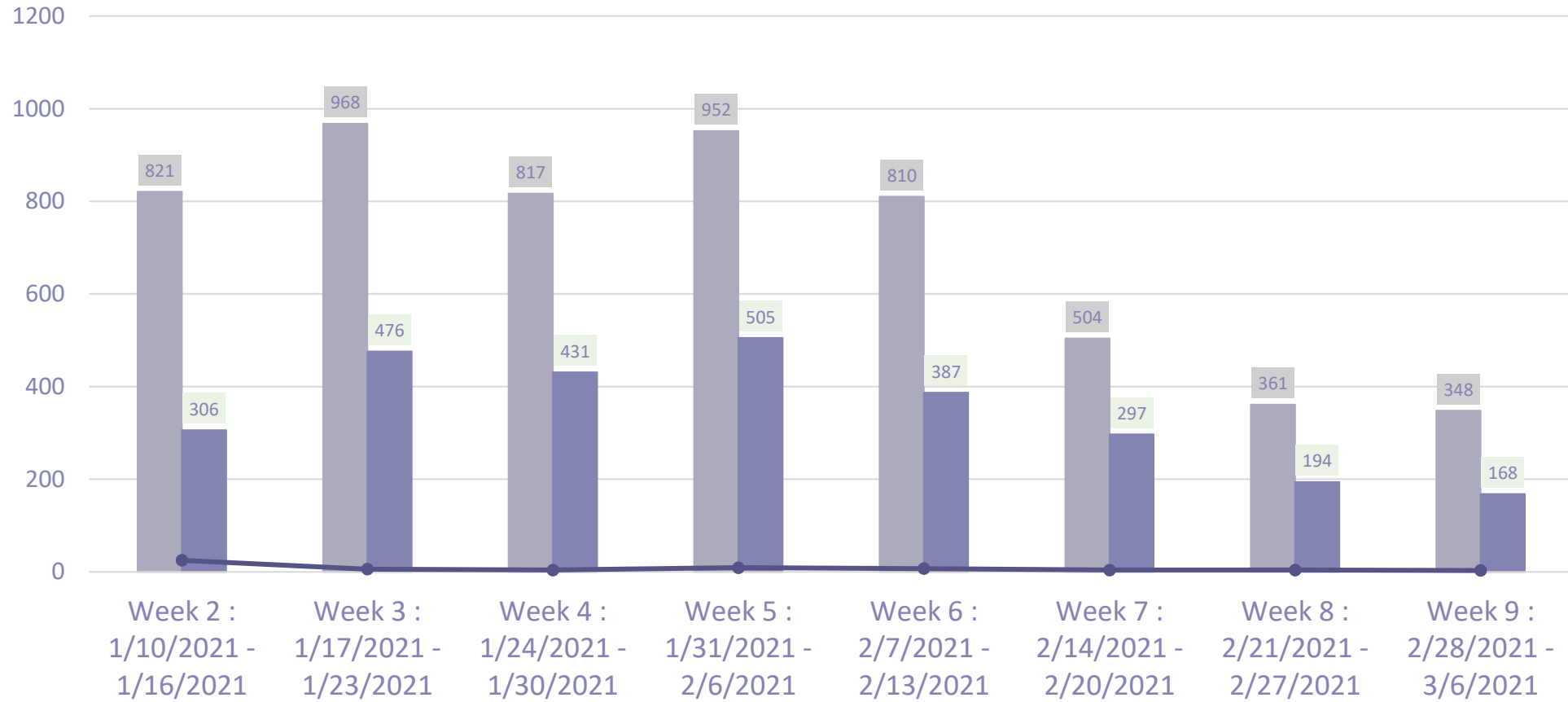
■ Total # of Investigations Complete

● Total # of Cases Left in Qualtrics “New Queue” at EOD



Cases Investigated

■ Total # of Contacts Assigned ■ Total # of Tracing Complete ● Total # of Contacts Left in Qualtrics “New Queue” at EOD

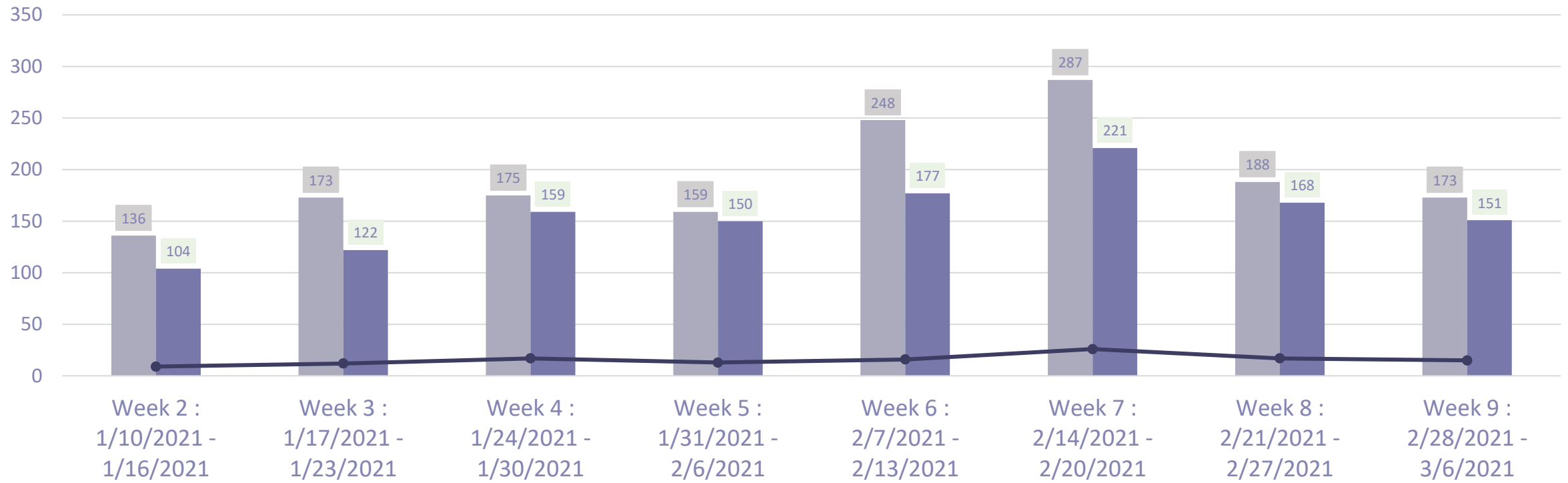


Contacts Traced

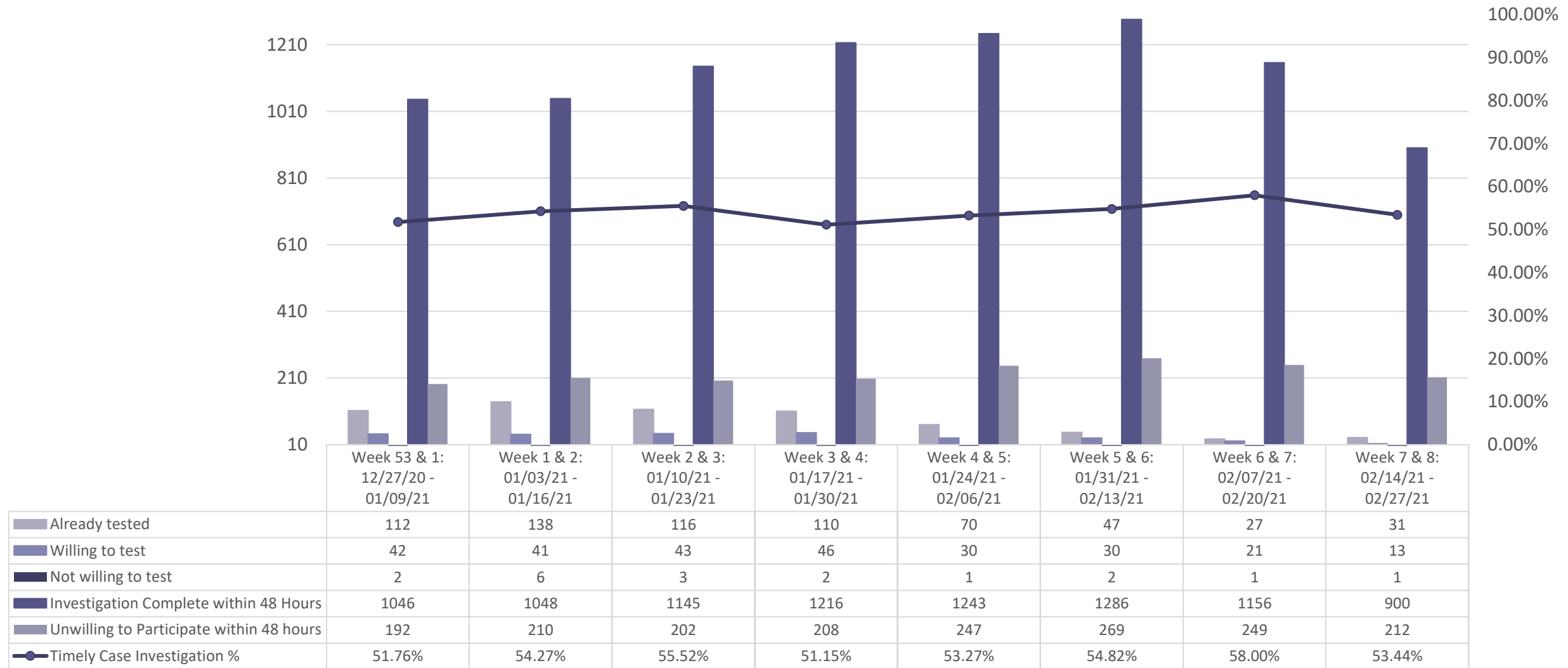
Cases Actually Assigned

Cases outcome from Attempted

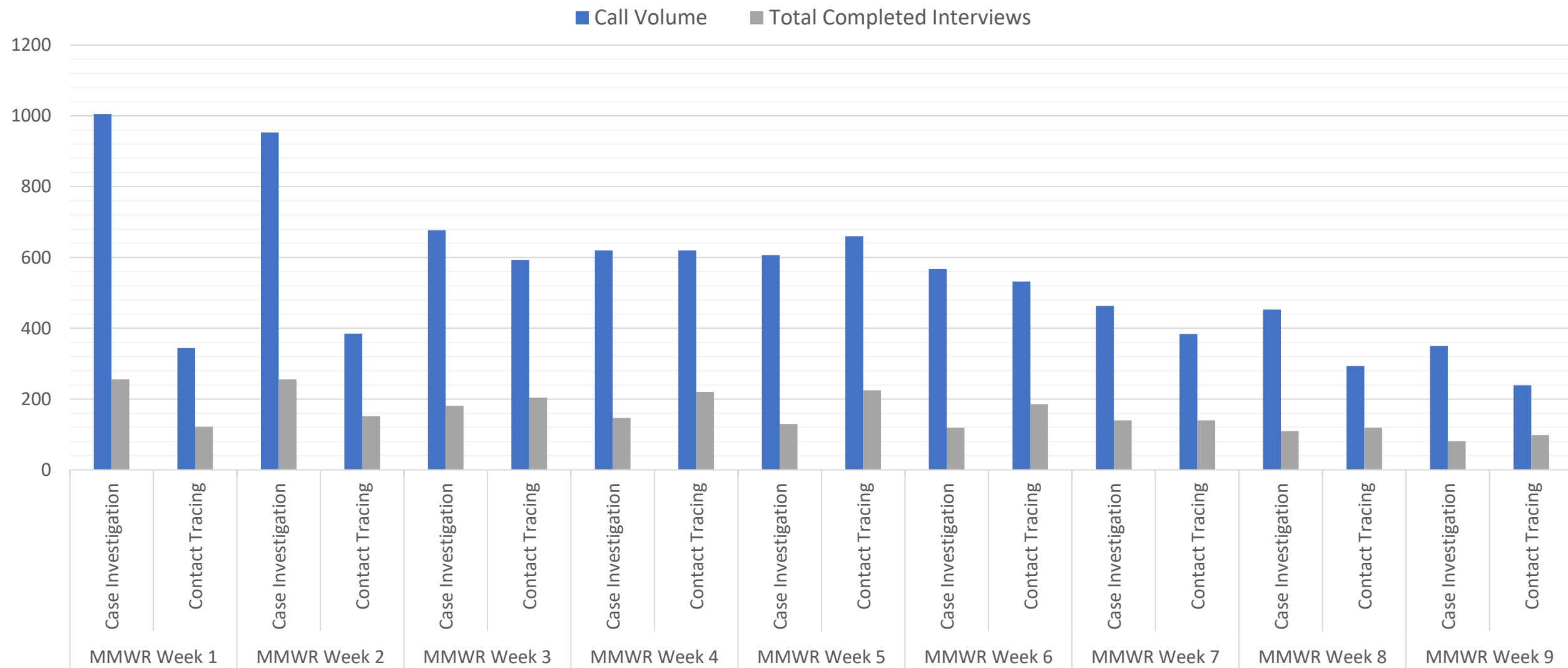
Case Investigation Completed after FI



Contact Investigations Completed After Field Investigation

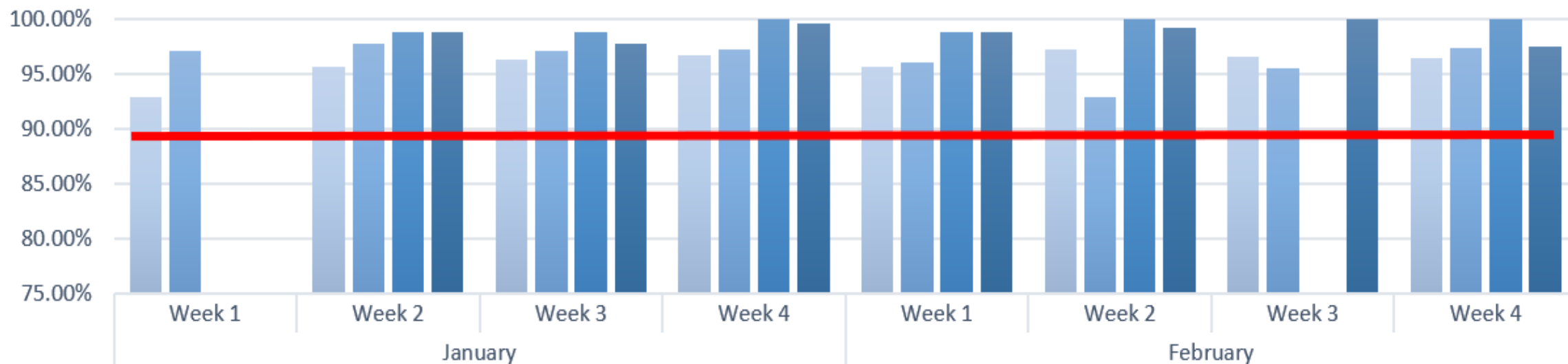


Timely Case Investigation

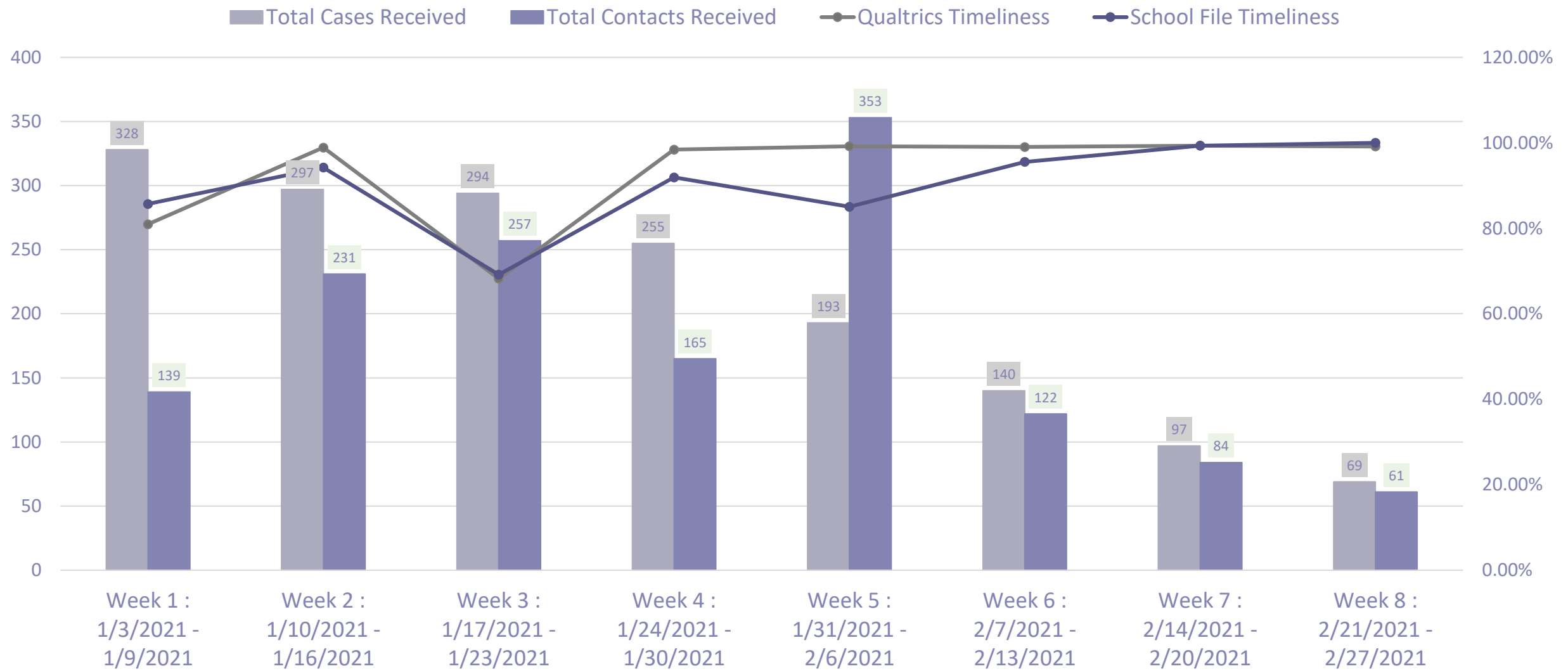


Inbound Calls Resulting in Completed Interviews

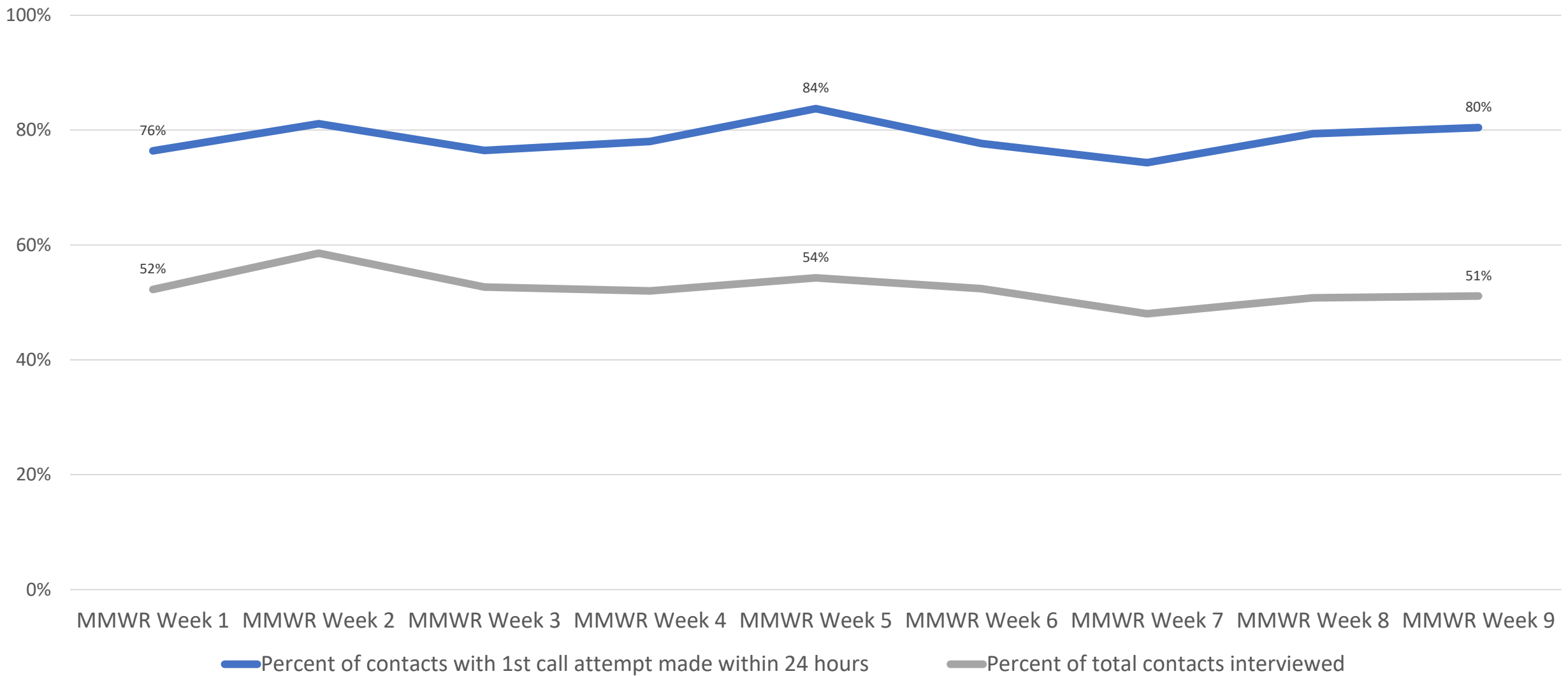
Pima County - Quality Assurance Trending of Overall Accuracy



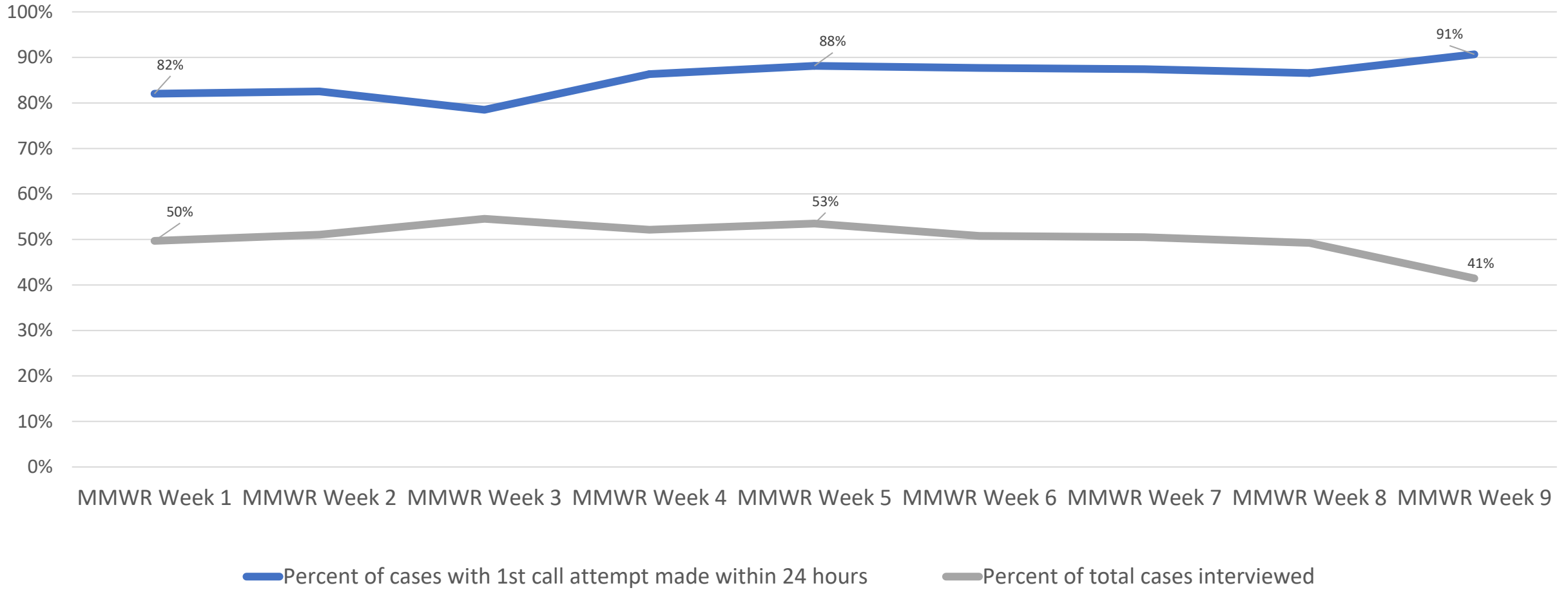
Trending Quality



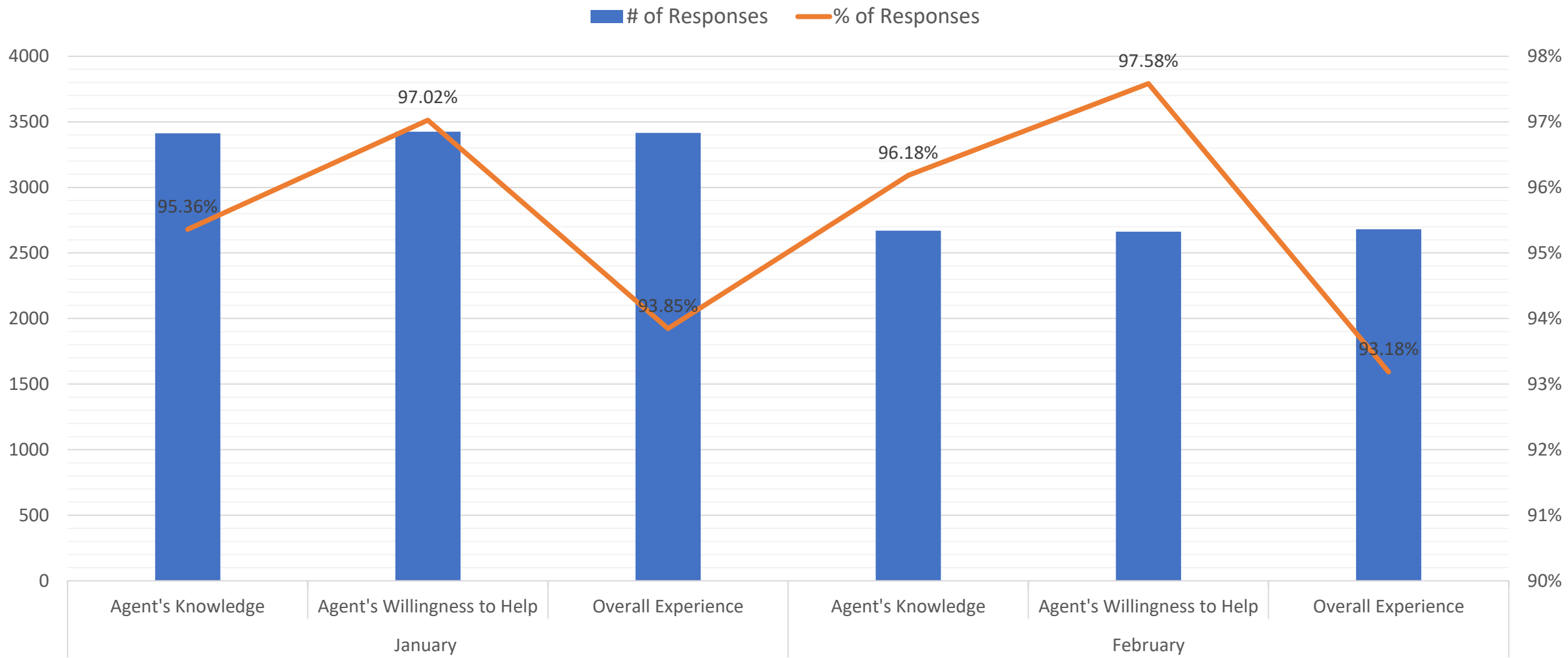
School Case Investigation/Contact Tracing Report



Outreach Efforts for Contacts by MMWR Week



Outreach Efforts for Cases by MMWR Week



Post Call Survey Results for Response 4 & 5

Accomplishments

ConTESSA Change

Spanish Translations

Vaccine Scripting

MAB Education Addition & Scripting

Quarantine Guidance

Upcoming Efforts

DSO Variable Changes

NCV Outside of Qualtrics

Additional Follow-up Initiative on MAB

Continued Attention to TON Efforts