# Encouraging Participation and Cooperation in Contact Tracing: Lessons from Survey Research (2020)

## DETAILS

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# ENCOURAGING PARTICIPATION AND COOPERATION IN CONTACT TRACING

## Lessons from Survey Research

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SEAN is interested in your feedback. Was this rapid expert consultation useful? For further inquiries regarding this rapid expert consultation or to send comments, contact sean@nas.edu or (202) 334-3440.

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## EXECUTIVE SUMMARY

This rapid expert consultation is intended to help decision makers in local public health departments and local governments increase participation and cooperation in contact tracing related to COVID-19. The document focuses on contact tracing methods that involve phone, text, or email interviews with people who have tested positive and with others they may have exposed to the virus.

Contact tracing shares important features with the collection of survey data, as well as the taking of the U.S. Census. Therefore, this rapid expert consultation suggests proven strategies from survey research that decision makers can use to encourage participation in and cooperation with contact tracing efforts along two fronts: encouraging individuals to respond to outreach from health department officials regarding participation in contact tracing and case investigation, and encouraging those who do participate to share information about people whom they may have exposed to COVID-19. These strategies are summarized in Box 1.

**BOX 1**

**Strategies from Survey Research with Potential Application to COVID-19 Contact Tracing**

- **Providing advance notice.** In survey research, letting people know ahead of time that they may be contacted legitimizes the communications they will receive. Similarly, a rapid series of notifications starting as soon as individuals are tested for COVID-19 could prepare them to receive communications from the local health department and know that those communications are legitimate.

- **Partnering with trusted sponsors.** Having requests for participation come from the most trusted sources possible—such as local clinics and health care providers, racial and ethnic media, tribal elders, or clergy—can double the rate of participation in surveys.

- **Offering relevant incentives.** Even small prepaid incentives have been shown to increase survey response rates. For contact tracing, in-kind incentives such as masks, hand sanitizer, groceries, or household supplies might also increase participation.

- **Enhancing interviewers' skills.** Skilled interviewers are essential to establishing trust and rapport in ways that increase the openness of survey respondents. Techniques used to enhance the effectiveness of survey interviewers—practice and role playing with experienced interviewers, including practice in responding flexibly to interviewees, and efforts to help interviewers believe in the legitimacy of the survey—could be applied to contact tracing.

- **Developing messaging that appeals to people's motivations.** People are motivated to participate in surveys by what affects them and the people they care about. Describing the benefits of participation in concrete terms is helpful in increasing participation rates.

- **Accepting partial information.** People do not always know or feel comfortable sharing information about others in their social networks. People could be encouraged to provide just enough detail about their connections to allow contact tracing efforts to proceed.

## INTRODUCTION

States and localities across the United States are in various stages of planning for and implementing contact tracing activities so they can isolate the sick or infected from the well by determining who has been in close contact with people with confirmed COVID-19 infections. Determining who has potentially been exposed, testing those individuals, and isolating new cases uncovered through that testing helps contain and thereby limit COVID-19 infection. This is an essential path to a safe and functional society and economy until the nation achieves herd immunity. Communities that can successfully implement contact tracing will face fewer economic and social constraints due to the virus [1].

Local public health departments have a long history of conducting contact tracing and disease investigation. COVID-19 is presenting them with many familiar challenges, and some new ones, as they seek to reduce transmission of the virus through contact tracing. In particular, the urgency and scale of these efforts are placing extraordinary demands on the capacity of health departments and the local governments that house them.

This rapid expert consultation is designed to support decision makers in local health departments and local governments in their efforts to meet these challenges. It draws largely on research on the collection of survey data, highlighting lessons learned from that body of work that may be considered for enhancing the capacity of local health departments to encourage participation and cooperation in contact tracing. Because the goal of contact tracing is to limit disease spread, rapid follow-up is key. Thus, this document focuses on increasing cooperation with phone, text, email, or in-person interviews with people who have tested positive for the virus and subsequent interviews with others they may have exposed.[*] It should be noted that, while this document does not address testing, the availability of COVID-19 testing and prompt test seeking by individuals who have symptoms or may have been exposed to the virus also are critical to the success of contact tracing and control of the pandemic.

## CHALLENGES TO PARTICIPATION AND COOPERATION

Contact tracing succeeds when local public health departments rapidly locate people who have tested positive and persuade them to participate in the investigation of their cases. Local public health departments face challenges to participation and cooperation at several critical steps of the contact tracing and disease investigation process. Specifically, people may be unwilling or hesitant to:

- **Respond to communications from the public health department.** For various reasons, some people do not respond at all to phone calls from their health department. Further, the phone number being used may not be correct, the timing of the call may be inconvenient, or people may simply not pick up the phone. Some people may be suspicious or fearful of any government agency.
- **Share information about their own exposure and condition.** People who do respond may lack knowledge about COVID-19 or mistrust the test results, particularly if they are asymptomatic. They also may feel uncomfortable taking what they perceive as a risk by disclosing sensitive information about themselves, including revealing that they may have contracted the virus through illegal or discouraged behavior, or they may worry about how the information will be used.

[*]Digital contact tracing, which involves obtaining and analyzing data from such sources as mobile phones, GPS systems in cars, and credit card records, is another method of contact tracing. Although some states are beginning to use digital contact tracing, it is much less common in the United States than in other countries, and it is not addressed in this document. This document also does not address anonymous exposure notifications that come from sources other than health departments.

- **Share the names of others they may have exposed to the virus so those people can be informed and tested for COVID-19 infection.** Still others may hesitate to reveal information about people whom they may have exposed to the virus because they fear retribution or stigma, because they are hesitant to inconvenience or restrict the liberty of those they may have exposed, or because they are concerned about implicating others in behavior that may have been illegal or stigmatizing. They also may not have or be able to recall that information.

These challenges may be exacerbated when people feel overwhelmed by the news that they have tested positive; by the information they have received about isolation and medical and social services; and by questions they may have about their symptoms, behaviors, and needs. People who have tested positive may also be ill themselves or caring for ill family members or concerned about losing their jobs.

Like contact tracing, surveys rely on the cooperation of the public, and survey research has yielded some valuable lessons about how to enhance response rates that could potentially be applied to address the challenges outlined above. The following sections identify some of the key lessons from this research that local governments might translate into strategies for (1) encouraging individuals to respond to outreach from the health department regarding their participation in contact tracing, and (2) encouraging those who do participate to share information about others they may have inadvertently exposed to COVID-19.

It is important for decision makers seeking strategies for enhancing the effectiveness of contact tracing to bear in mind that COVID-19 is disproportionately affecting nonwhite and low-income individuals, who may lack legal documentation or English proficiency. The strategies described below are largely relevant for these groups, and where the survey literature offers specific approaches for engaging marginalized populations, those approaches also are described.

Before proceeding, it also is important to note that survey research and contact tracing differ in several key respects. First, survey participation does not usually provide a direct health benefit, whereas contact tracing offers an immediate health benefit to people's close connections. In addition, while survey research rarely needs to be so timely that each day matters, the effectiveness of contact tracing depends on timeliness. And finally, surveys strive for a probability sample, whereas the sample in contact tracing is conditional on the infectious person and is not at all random. These differences mean that some of the strategies discussed below may require adaptation to be appropriate in the context of contact tracing.

## STRATEGIES FOR ENCOURAGING INDIVIDUALS TO PARTICIPATE

### Providing Advance Notice

Survey researchers typically use advance notification to let potential respondents know that they have been selected for a survey and that an interviewer will call them or visit their home [2]. Letting people know ahead of time that they will be contacted legitimizes the communications they will receive.

> *Examples of potential applications to COVID-19 contact tracing: At testing sites, people could receive a letter explaining what they can expect if their results are positive, including what to expect from the contact tracing process and why it is important, along with a simple form they can use to track the places they have been and the people they have talked to. Subsequently, they could be thanked immediately via postal mail, text, or email for being tested and informed that they may receive a request from a contact tracer if their result is positive. Such a series of advance notifications could prepare people to receive communications from the local health department and know that those communications are legitimate.*

### Partnering with Trusted Sponsors

Survey researchers have found that requests for participation are more likely to be successful if they come from the most trusted sources possible. Indeed, having a trusted sponsor can double the rate of survey participation [3]. Familiar and trusted sources and influencers, such as clergy, community-based organizations, local clinics or health care providers, media directed to particular racial and ethnic groups [4], and tribal elders, are especially important in helping people feel comfortable with responding to requests for participation.

*Examples of potential applications to COVID-19 contact tracing: Local governments could use their relationships with and knowledge of the communities they serve to identify and recruit appropriate trusted sponsors. Community partners and sponsors also could help translate requests and related materials into the appropriate languages.*

### Offering Relevant Incentives

Even small, prepaid incentives (e.g., $2 or $5) have been shown to increase survey response rates [5]. In-kind incentives can also increase participation, though they may be less effective than monetary incentives [6]. While incentives require capital expenditures, those potential costs can be weighed against the benefits of increased efficiency and participation rates.

*Examples of potential applications to COVID-19 contact tracing: Monetary incentives could accompany contact tracing requests that are mailed or delivered in person at the time of testing. In-kind incentives might include offering free, on-demand testing for the family members and close connections of people who have tested positive, or providing different types of supports for people who must quarantine as a result of potential exposure (e.g., masks; hand sanitizer; delivery of food, groceries, or household supplies; connections to health and social services). Other countries offer gift bags containing these types of incentives.*

## STRATEGIES FOR ENCOURAGING RESPONDENTS TO SHARE INFORMATION ABOUT THEIR CONTACTS

### Enhancing Interviewers' Skills

Skilled interviewers are essential to establishing trust and rapport in ways that increase respondents' openness [7]. Survey research has shown that racial and ethnic match is not essential to encouraging cooperation and that skilled interviewers can establish trust and rapport even if they do not have direct experience with a particular population group [8]. Language match, on the other hand, is important, and can be accomplished by using interviewers who speak the appropriate languages and by providing real-time translation assistance and interpreters.

New survey interviewers require adequate time to feel comfortable in their roles, along with training and mentoring to improve their skills of listening appropriately to the concerns expressed by respondents and attempting to address those concerns [9]. Survey research has shown that training can enhance these skills through practice and role playing with experienced interviewers. This practice can encompass maintaining neutrality and confidentiality, responding flexibly to interviewees and helping them recall events and behaviors, applying techniques for asking about sensitive behaviors (see Box 2) [10], and helping interviewers believe in the legitimacy of the survey.

*Examples of potential applications to COVID-19 contact tracing: The experience in Massachusetts shows that lay people with community ties can be quickly hired and trained to conduct contact tracing interviews [11]. Census 2020 workers who have already been trained in field interviewing procedures offer a readily available workforce and could be retrained as COVID-19 contact tracers.*

## Developing Messaging That Appeals to People's Motivations

**BOX 2**
**Survey Techniques for Asking about Sensitive Behaviors**

Survey researchers have developed specialized ways of asking about sensitive, stigmatizing, or illegal behaviors, including:

- using forgiving wording before asking about the behavior in question, such as "There are many reasons why people…" or "Many people…";
- assuming interviewees have done the behavior in question, such as "How many times have you_____in the past month?";
- presenting a list of behaviors—including those in question—and asking interviewees which they have done at least once in a specific timeframe; and
- using familiar wording for sensitive behaviors, rather than clinical or academic wording.

Two broader approaches that can increase response and truthfulness with respect to sensitive behaviors are (1) using self-administered questions answered on the internet, by texting, or through the use of telephone-based computer-assisted self-interviewing technology; and (2) conducting confidential interviews where other people cannot overhear.

People are motivated to participate in surveys by what affects them and the people they care about [12]. From the U.S. Census, researchers know that describing the benefits of participation in concrete terms (e.g., how much additional funding the community will receive by participating in the Census) is helpful in increasing participation rates [13]. Messaging around the Census is tailored to the concerns and motivations of specific population groups. For example, outreach materials to Latinx and immigrant populations [14] emphasize that the information they provide will be confidential and will not be shared with immigration or law enforcement agencies.

*Examples of potential applications to COVID-19 contact tracing: Individuals who participate could be reminded that they will receive frequent follow-up communications about their own symptoms and health. Local health departments also could stress that individuals who have tested positive for COVID-19 are protecting their families, friends, and communities by helping to keep them safe from infection. Health departments could use the best available estimates to specify how many lives could be saved if the public were to cooperate with contact tracing.*

*Messaging around the Census to Latinx and immigrant populations could inform work on messaging around COVID-19 contact tracing designed to reduce concerns that information collected for contact tracing might be shared or used for other purposes.*

## Accepting Partial Information

For many people, providing the full names, addresses, and phone numbers of their close connections is undesirable or infeasible because they believe the information is too sensitive, they do not know the information, or they cannot recall it. Researchers performing network analysis have found that people are much more amenable to providing initials than full names for their friends and family [15].

*Examples of potential applications to COVID-19 contact tracing: Although comprehensive information is critical to contact tracing, some information is better than none. Providing tools*

*and cues to improve recall (e.g., a timeline or calendar and cues related to such activities or events as grocery shopping, work, or social gatherings) could yield additional information. However, people also could be encouraged to provide just enough detail about their connections, such as a cell phone number or email address, to allow contact tracing efforts to proceed.*

## OTHER STRATEGIES FROM SURVEY RESEARCH TO CONSIDER

Local public health departments may already be using many of the strategies outlined above. Two other approaches from survey research may have potential application to contact tracing because they have been shown to increase response rates in survey research.

### Multi-staged, Mailing-Based Survey Recruitment

Although digital modes of contact (email, text) are appealing for their speed, they tend to yield low participation rates. For example, the average weekly response rate to the U.S. Census Bureau's digitally recruited Household Pulse Survey is 3 percent [16]. In contrast, well-executed mail-based surveys can achieve significantly higher response rates. For example, the address-recruited Health Information National Trends Survey [17] and National Household Education Survey Screener [18] achieved response rates of 40 and 59 percent, respectively.

The practice of using multi-staged, mailing-based recruitment to maximize participation while attempting to contain costs involves digital outreach to individuals with known email or cell phone numbers and follow-up with an overnight mailing if no response is received within 24 hours. This practice is well established in, for example, the University of Southern California's Understanding America Study and NORC's AmeriSpeak Panel.

### Respondent-Driven Sampling Methods

One survey technique uses social networks to enhance participation in a way that is applicable to contact tracing. In respondent-driven sampling, initial respondents help recruit people from their social networks to participate in a survey. The technique is used in populations that have both strong social ties and significant privacy concerns—perhaps related to stigmatized or illegal behavior—that affect survey participation and rates of response [19]. Respondent-driven sampling typically includes a primary incentive for individuals who participate in the survey and a secondary incentive for recruiting others. Respondents give recruitment "coupons" or "seeds" to people in their social networks. These coupons contain information about the survey and are digitally linked to the original respondent. People who receive these coupons "redeem" them to be included in the survey and confidentially attributed to the respondent's network. This method has helped increase participation in surveys among "hidden" populations [20]. In the context of contact tracing, these coupons might be given to infected individuals who are especially hesitant to identify others they may have exposed or who say they would prefer to notify their connections themselves.

## CONCLUSION

COVID-19 contact tracing is at once urgent and challenging—even for experienced and well-resourced public health departments. Insights from survey research and Census taking offer a different perspective on and tested strategies for increasing participation and cooperation that could be useful as local public health departments and governments seek to address the challenges of contact tracing.

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