



Contact Tracing In Communities of Color: Strategies for the COVID-19 Pandemic

— May 2020 —



The Challenges

A key factor in the plan to re-open the U.S. and ease social distancing policies is the ability of health officials to identify persons who have had contact with individuals who test positive for COVID-19.¹ Contact tracing and notification are public health interventions proven to reduce the spread of disease.² Contact tracing includes identifying exposed individuals, ensuring appropriate testing, following up with exposed individuals to determine disease status, and linking those who test positive to appropriate treatment.

Contact tracing has been used to combat many diseases, primarily infectious diseases such as tuberculosis and Ebola, viruses such as the Human Immunodeficiency Virus (HIV), and other sexually transmitted infections (STI).

The scale of COVID-19 infections in the U.S., along with other characteristics of the disease—such as length of the asymptomatic period and infectiousness—requires a level of contact tracing beyond what the current U.S. public health infrastructure can support. Public health officials have estimated that between 100,000 and 300,000 contact tracers are needed nationwide to effectively curb the spread of COVID-19.³ Unfortunately, due to funding cuts in the last decade, state and local health departments have experienced a significant reduction in workforce. As a result, health departments at the city, county, and state levels require substantially increased resources to meet current needs for contact tracing.

While some technology-based solutions are under development, public health departments need expanded capacity in their contact tracing workforce, coordination, and training. Expanding workforce capacity requires a combination of volunteer and paid staff to meet demands for labor. Public health departments also need to rely on both information technologies and experience to adequately coordinate more staff. To ensure adequate interview techniques, integrating cultural humility, comprehensive training, and ongoing support of new staff are essential for contact tracing to succeed.

Contact Tracing in Communities of Color

Communities of color are disproportionately impacted by COVID-19, with higher incidence of cases, higher rates of severe cases, and higher mortality rates observed among ethnic and racial minorities.⁴ These higher rates are the result of several risk factors.

COVID-19 Disproportionately impacts communities of color because of:



- Higher prevalence of underlying health conditions such as diabetes and heart disease.
- Inability to practice social distancing in densely-populated urban areas.
- Persons working jobs that cannot be done from home (essential workers).
- Reduced access to quality nutrition.
- Reduced access to health care and social services.
- Limited access to technology and/or the internet.

While it has been estimated that about 30 percent of the U.S. population can work from home, this proportion is significantly lower in communities of color, with the majority of jobs requiring a physical presence without providing paid leave or health insurance.⁵ Access to medical services is often lower in communities of color, and a historical legacy of mistreatment and unethical behavior has resulted in distrust in the health system and the use of health-related technology in these vulnerable populations.

To design a public health response that protects all Americans, everyone who has come into contact with confirmed cases and everyone who is at high risk need to be identified and tested. However, inherent biases in our society impact the overall design of the pandemic response for contact tracing efforts. Biases can influence where testing sites are located and how easy it may be for community members to access the sites. Many drive-in centers are inaccessible to people without a car. While a number of technology-based solutions have been proposed to assist with national contact tracing efforts (such as symptom self-screening digital applications or social distancing applications), reaching into racial and ethnic minority communities may be more difficult with only digital communication technologies. Similarly, decisions made about the location of testing sites must include input from representatives of the entire community. In at-risk minority communities, in-person contact tracing methods that are less-dependent on technology are likely required.

Solutions

To address current national needs in all communities, Abt recommends a comprehensive COVID-19 contact tracing program employing proven technical assistance services and evaluation methods to support state and local health departments responding to the pandemic.

Step 1: Engage Communities of Color

A number of programs exist that have established connections in communities of color. The Ryan White program, part of the Health Services and Resources Administration (HRSA) HIV/AIDS Bureau, provides funding for outreach and service navigation for uninsured and underinsured persons with HIV. These activities are often performed by community health workers (CHWs), who may be peers, other lay persons, or medical personnel. The CHW workforce has established relationships with medical services and facilities as well as other community resources. Evaluations of CHW programs have demonstrated their effectiveness in engaging communities of color and getting persons linked to needed medical and social services.⁶ HRSA recently awarded \$90M to Ryan White sites under the CARES Act to provide COVID-19-related services to Ryan White clients.



The Massachusetts state government is collaborating with Partners in Health to conduct contact tracing for COVID-19, with the goal of using 1,000 persons as contact tracers to follow up and prevent spread of the disease. Jurisdictions have also targeted vulnerable communities with increased testing efforts, including mobile testing in low-income housing projects.

A critical component of a successful contact tracing campaign is obtaining support in the communities where contact tracing efforts are conducted. To scale up contact tracing quickly and effectively, communities need to build on existing relationships with communities of color to reach vulnerable populations.

While social and digital media communication plans should be included in the effort to obtain community-wide support of public health efforts, tracing in communities of color will benefit from more traditional community engagement efforts. Direct engagement with social, political, and religious leaders in the community must be employed. Effective contact tracing efforts depend on support from the general community. With established community support, members will be more likely to respond to contact tracing efforts, provide accurate information, and help identify other members of the community potentially exposed to the COVID-19 virus.

Community Stakeholder Engagement



- Faith-based communities
- School systems: COVID-19 training for teachers and school nurses
- Family resource centers
- Domestic violence shelters
- Homeless shelters
- Food pantries
- Medication for Opioid Use Disorder and Syringe Services programs – places where people connect with providers
- Community health organizations (Veterans Administration facilities, private sector, federally qualified health centers)
- Ryan White HIV/AIDS Program Providers

Facilitating access to and coordination among all of these public/private service provider entities will support a more robust contact tracing effort in communities of color.

Step 2: Recruit Contact Tracing Staff

As exemplified in Massachusetts' contact tracing efforts, the scale of contact tracing programs requires substantial staffing increases. Identification of skilled and capable staff in large numbers is a significant challenge. In some areas, primary care centers have deployed medical and nursing students to assist primary healthcare providers. State and local governments could employ a similar model to identify staff for expansive contact tracing efforts by partnering with local schools of public health and neighboring universities. However, especially in disenfranchised communities, reliance on local medical, nursing, and/or public health academic institutions may not be a possibility. An existing community of health care workers, "promotoras," and volunteers could provide a readily available source of contact tracing staff. In

addition, broad hiring announcements with detailed hiring requirements, as in the case of Massachusetts, can prove useful. To meet this need, public health departments need substantial staff identification, hiring, and onboarding support.

Step 3: Developing Training Materials

Once state and local health departments identify and hire a sufficient number of staff to conduct tracing, the departments need to deploy detailed training materials quickly. The Centers for Disease Control and Prevention (CDC) has developed training modules for COVID-19 contact tracing efforts, as has Johns Hopkins University.^{7,8} All training materials developed for individual contact tracing efforts must ensure staff members collect and correctly record tracing data and do so consistently. Training materials should also address important social and cultural humility education essential for conducting contact tracing activities in communities of color. As part of community engagement strategies, community stakeholders may contribute to the development of culturally competent materials.

Training materials needed for successful tracing include:

- Tracing record forms.
- Data entry procedures.
- Reference guides/materials.
- Personal protective equipment (PPE) application/use/maintenance.
- Cultural sensitivity/ humility.
- Materials to be left with tracing subjects.

Establish Learning Collaboratives

Learning collaboratives are effective ways for individuals and groups to share information, new procedures, and lessons learned. They offer a means of refining critical thinking strategies, sharpening oral communication skills, developing self-management skills, and promoting a more rapid and open exchange of ideas. The use of learning collaboratives provides a mechanism for peer-to-peer learning, facilitating higher staff engagement, and may serve as a support structure for contact tracing staff and administrative leadership. Similarly, use of learning collaboratives provides a natural forum to give staff feedback and develop actionable quality improvement measures resulting from program evaluations and lessons learned.

Principles of cultural competency



1. Define culture broadly.
2. Value clients' cultural beliefs.
3. Recognize complexity in language interpretation.
4. Facilitate learning between providers and communities.
5. Involve the community in defining and addressing service needs.
6. Collaborate with other agencies.
7. Professionalize staff hiring and training.
8. Institutionalize cultural competence.

Citation: Cultural competence <https://npin.cdc.gov/pages/cultural-competence#4>

Step 4: Coordination

The coordination of contact tracing activities within and among communities is essential to ensure effective use of staff and IT resources in response to the pandemic. In addition to existing staff and infrastructure, public health departments require increased support to facilitate communication among contact tracing teams, to manage data sharing needs, and to collect and process contact tracing information. The departments also need additional support for the coordination of contact tracing efforts from initial contact to follow-up appointments, and for testing and linkage activities. Facilitating coordination among community stakeholders and engagement efforts is equally important. These added demands represent an enormous increase to existing capacity at public health departments. Rapid and effective deployment of staff and data applications requires not only additional funding, but also technical assistance (e.g., staff training, database development, and staff coordination) to support leadership at public health departments: at all levels of government.

Step 5: Monitoring and Evaluation

Thorough monitoring and evaluation of contact tracing program activities will provide critical knowledge to public health officials. A mixed-methods evaluation strategy for COVID-19 contact tracing programs will enable state and local public health officials to identify effective tracing and testing tactics, compile lessons learned, and collect rapid feedback to support measurable program improvements. Rapid integration of evaluation lessons will be critical to changing the course of the pandemic. The monitoring and evaluation strategy should rely on well-established methods while being responsive to the changing needs of the contact tracing program. Such a monitoring and evaluation strategy could include:

- Social and digital media monitoring.
- Feedback from community stakeholder interviews.
- Feedback from contact tracer interviews.
- Contact tracing data performance analytics.
- Brief surveys of contact tracing respondents.



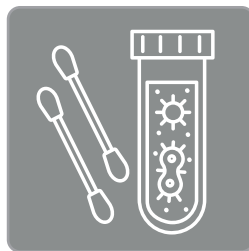
Responding to the Evolving Public Health Environment – Additional Considerations

The environment in which the public health community combats the pandemic continues to evolve. With substantial uncertainty around the availability of adequate testing supplies, PPE, and healthy staff members, numerous factors limit the current public health response to the pandemic. A number of conditions must be met to establish an effective and safe contact tracing program for communities of color.



Availability of Testing

The availability of accurate, rapid testing in disenfranchised communities is vital to ensuring that potential contacts have access to free or low-cost options. While large insurers are currently providing free or low-cost testing and treatment, other options need to be available to those without coverage. State and local public health entities in some areas provide tests using mobile vans and community-based facilities to ensure the availability of tests in communities where uninsured or underinsured rates are high. An ICD-10 code structure for COVID-19 was implemented with an effective date of April 1, 2020, which allows billing and classification of testing and treatment for the virus. These codes are used in medical record systems and can be a source for tracking service utilization. Expanding these codes to include contact tracing as a reimbursable activity would provide timely data for billing and program planning at the local, state, and national levels. Among the uninsured, use of these codes would still provide valuable tracking data and give tracing providers a mechanism for reimbursement if federal programs are eventually established.



Safety of Contact Tracers

The safety of contact tracing staff is also a key consideration, encompassing both protection from the virus and other harm related to conducting in-person field work. While some tracing can be done remotely, field work may be needed to effectively reach vulnerable populations and complete follow up. The lack of PPE continues to be an issue for first responders and other medical personnel working with COVID-19 patients, and must be addressed for those who will do contact tracing in the field. States and local governments have been working to secure the equipment and should include the needs of contact tracers in their planning.

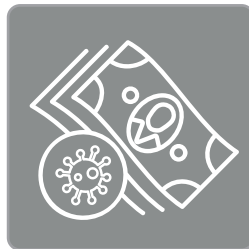
The CDC Passport to Partner Services is required training for all certified Disease Intervention Specialists (DIS). It contains modules on safety in the field, which could be adapted for contact tracers.⁹ A number of best practices have been established for DIS and CHWs, which include sharing detailed maps of where tracers plan to spend their day, routine electronic check-ins, working with partners in the field, and establishing key contacts in communities.



Training resources for contact tracers in communities of color should include strategies that have been proven to be effective in reaching these populations. Specifically, taking steps to assure confidentiality during in-person interactions such as contact tracing is essential to reduce the stigma for CHWs engaging communities of color. A number of evidence-based interventions exist that CHWs and other peer navigators have used during outreach, education, and linkage to care for HIV services. HRSA funded a Special Projects of National Significance project that examined interventions for engaging and retaining women of color in HIV treatment,¹⁰ and CDC has a compendium of evidence-based interventions for linkage to, retention in, and re-engagement in HIV care that includes strategies targeted to communities of color.¹¹ Lessons learned from these types of proven methods can be adapted to contact tracing in communities of color to ensure effective engagement and follow up.

Funding Contact Tracing

Funding for this large-scale contact tracing effort will require resources for ensuring a skilled work force that has effective training and tools to reach vulnerable populations. Recent estimates have identified an additional \$4.5B in federal funding to support nationwide contact tracing needs.¹² Federal, state, and local programs use current funding mechanisms for COVID-19 activities. They include the Public Health Emergency Preparedness grant, administered by CDC, which is providing more than \$560M to jurisdictions for COVID-19 response activities with CARES Act funding. Similarly, HRSA provides approximately \$90 per client to Ryan White grantees from the CARES Act to focus on services for Ryan White HIV/AIDS Program (RWHAP) clients, who are disproportionately from communities of color. In 2018, more than 70 percent of RWHAP clients were from communities of color.¹³ This “reimbursement for service” approach could serve as a model for funding contact tracing activities in these communities. Results from RWHAP programs have shown this reimbursement model significantly reduces infectious disease.



prevalence in communities of color. Other state and local funding sources will be needed to deploy contact tracing activities in vulnerable communities and scale up infrastructure to support testing and follow up on exposed cases.

In Summary

In support of efforts to re-open the country, an effective and comprehensive multi-step contact tracing program in all communities will be a necessity to limit further impact of the COVID-19 pandemic. Using proven, evidence-based methods, Abt Associates stands ready to assist federal, state, and local governments in their efforts to protect the public's health.



About Abt Associates

Abt Associates is a consulting and research firm with a 55-year record of improving the quality of people's lives worldwide. Over four decades, Abt has worked on multiple fronts to combat infectious diseases, including avian influenza, H1N1 influenza, TB, malaria, and Zika. For clients including CDC, U.S. Agency for International Development, and the World Health Organization, we deliver evidence-based, leading-edge solutions. Our staff crosses geographies, methods, and disciplines to bring the best thinking to global challenges.

Our communications campaigns and messaging have helped reduce avoidable disease transmission. Our national preparedness roadmaps and training have enabled the U.S. and other countries to plan for

spikes in demand for healthcare. Our critical research has informed policy and practices to assess vaccine effectiveness and quickly implement data collection at the start of a pandemic. Our innovative digital tools include a real-time safety monitoring system for CDC for mass vaccination during pandemic influenza. Please see below for details about our experience and our impact in protecting millions of lives every year. Learn more about our newest [COVID-19 research initiative](#). You can also find other relevant COVID-19 information on [our website](#).



Endnotes

- 1 <https://www.whitehouse.gov/openingamerica/>
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- 7 <https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/index.html>
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- 10 Xavier J and Cajina A. The Special Projects of National Significance Women of Color Initiative. AIDS Patient Care and STDs, January 2015; 29 (Supplement 1): S1-S3.
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- 12 NACCHO Position Statement. Building COVID-19 Contact Tracing Capacity in Health Departments to Support Reopening American Society Safely. April 2020.
- 13 Health Resources and Services Administration. Ryan White HIV/AIDS Program Annual Client-Level Data Report 2018. <http://hab.hrsa.gov/data/data-reports>. Published December 2019.



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