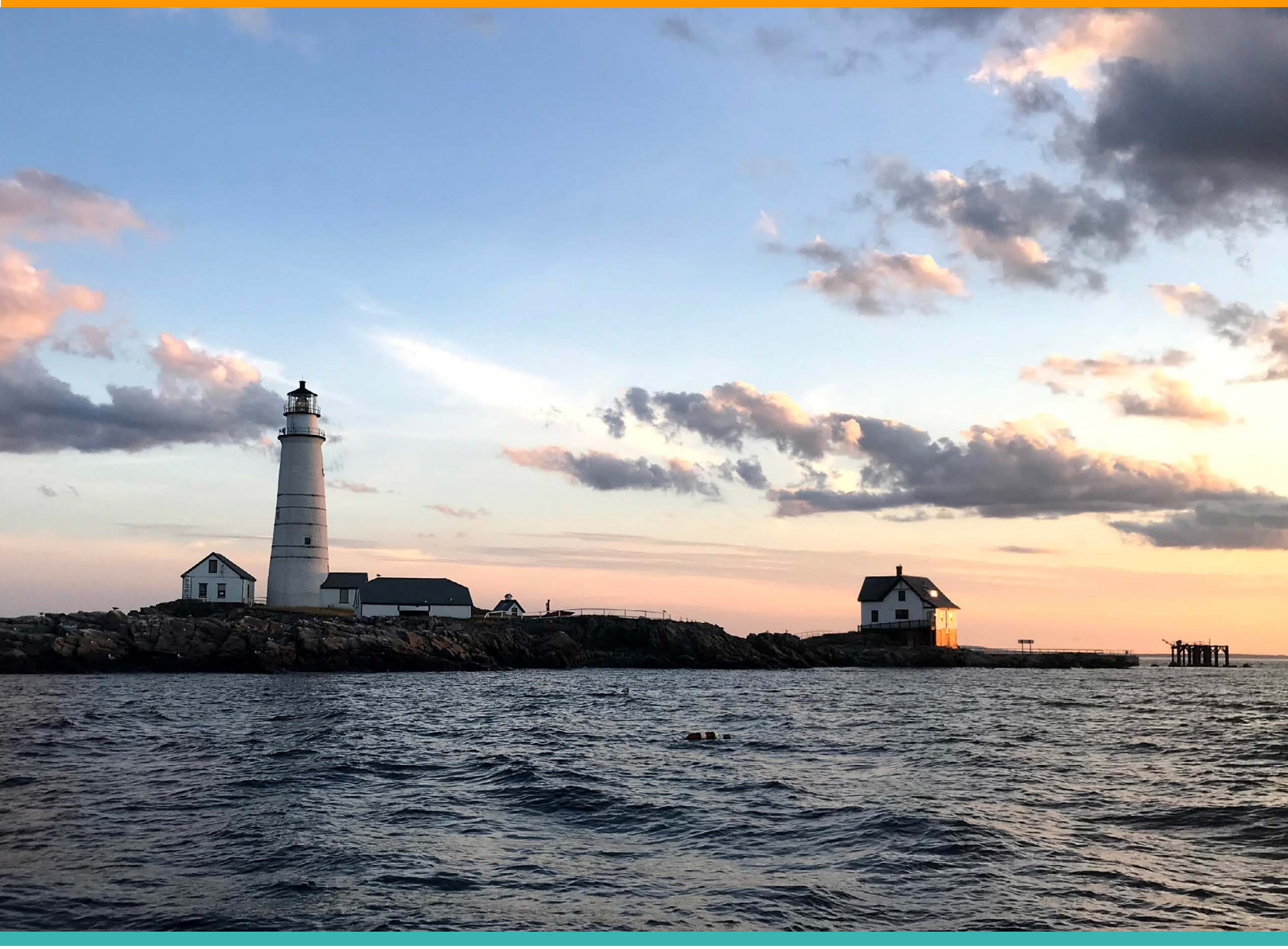
The Massachusetts CTC Care Resource Coordination Program

SOCIAL SUPPORT AS A PILLAR OF COVID-19 RESPONSE



Community Tracing Collaborative

Partners In Health

Community Tracing Collaborative
Partners In Health

May 2021

CASE STUDIES ON CARE RESOURCE COORDINATION IN COVID-19

Dr. Joia Mukherjee, PIH's chief medical officer, said at the Massachusetts State House in a press conference with Governor Baker that expanded contact tracing in Massachusetts will help "shine a light" on the COVID-19 pandemic. *Photo courtesy of Massachusetts' Governor's Office*

This case study is part of a PIH series on care resource coordination for COVID-19. Care Resource Coordination facilitates the social, material, and other supports that COVID-19 cases and contacts need to safely isolate or quarantine. Today, millions in the U.S. struggle to meet basic needs and not everyone can quarantine and isolate equally. Resource coordination is an essential part of an equitable pandemic response and can be applied far beyond COVID-19.

Each case study in this series is an example of how resource coordination programs have been designed and rolled out in a specific context and is written in collaboration with the program. Implementers reflect on successes, challenges, and share key lessons learned from their experience. There is some variation in terminology across case studies in the series, reflecting each program's unique work. For example, "care resource coordinators", "resource navigators", and "community health workers" can all fulfill a similar function: identifying needs and coordinating resource provision.

In **Massachusetts**, resource coordination is done by **Care Resource Coordinators (CRCs)** in the **Community Tracing Collaborative (CTC)**. This case study describes the CRC program's operations, then analyzes key factors to its success, as well as challenges and lessons learned. **The Massachusetts CRC Program is a model for programs seeking to integrate resource coordination into contact tracing systems.**

BACKGROUND

In April 2020, the Commonwealth of Massachusetts and Governor Charlie Baker created a statewide COVID-19 contact tracing program to support local health departments' contact tracing efforts. The **Community Tracing Collaborative** (CTC) is a partnership between the Massachusetts Department of Public Health (DPH), Massachusetts Health Connector, Partners In Health (PIH), and Accenture. The CTC dramatically scaled up the state's capacity to reach Massachusetts residents who test positive for COVID-19, to collect their close contacts, and, importantly, to enable safe isolation and quarantine—all critical actions to respond to the pandemic (*Figure 1*).

This case study focuses on a unique and essential component of the CTC's approach to contact tracing: the Care Resource Coordination (CRC) program. Wraparound social supports are critical to slowing the spread of COVID-19 and improving individual health outcomes. The CTC's CRC program ensures these supports reach those who need them to promote safe isolation and quarantine. The CTC was a pioneer among national tracing programs in its efforts to integrate and scale CRC services early in the pandemic.

THE COMMUNITY TRACING COLLABORATIVE

The MA CTC program is designed to supplement, rather than replace, the state's local health departments (LHD) in contact tracing, case investigation, and supported isolation and quarantine. Each of MA's 351 LHDs determines how much support from the CTC it needs at a given time. In some towns, the LHD assigns all case investigation and contact tracing efforts to the CTC, whereas in others the LHD manages all their cases locally. A team of Local Health Liaisons (LHLs) on the CTC regularly connects with LHDs and collaborates on how the CTC can support their community. By January 2021, during the peak of the second surge, the CTC was assigned to call approximately 60-70% of COVID-19 cases in Massachusetts.

BOX 1

Program Overview

MASSACHUSETTS: 6.8 million residents

CTC PEAK STAFFING LEVELS (January 2021):

- Total Staff: 2,100
- Contact Tracers and Case Investigators: 1,850
- Community Health Center Contact Tracers: 50
- Care Resource Coordinators: 190
- Supervisors: 80

CARE RESOURCE COORDINATION MODEL:
Centrally coordinated, integrated with contact tracing

IT PLATFORM:

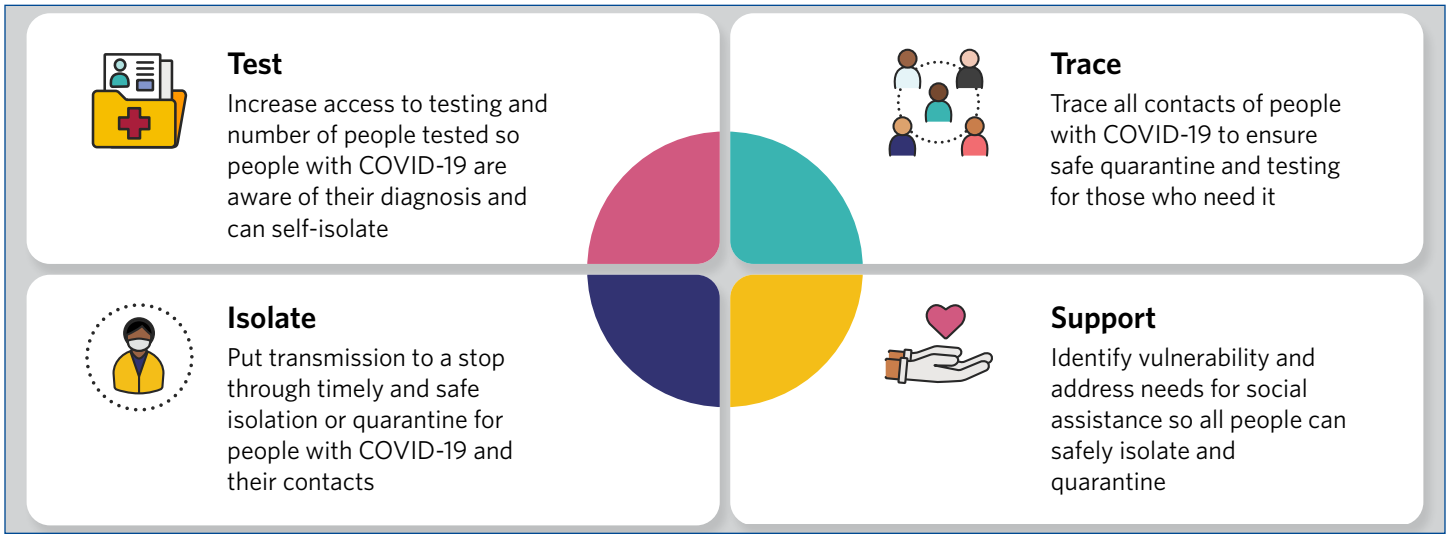
- External Customer Relationship Management (CRM) platform: Salesforce
- Internal communication: Microsoft Teams

PROGRAM IMPACT: As of March 2021:

- 17% of cases and contacts at the CTC were referred to a CRC for support (April 2020-February 2021)
- ~90,000 people supported through the CRC program (May 2020-March 2021)

TOP SERVICE NEEDS:
The most common referral type, by a significant margin, is for food. A large "Other" category demonstrates the wide variety of needs that households have during times of vulnerability.

FIGURE 1: The CTC's comprehensive four-pronged approach to addressing the COVID-19 pandemic in Massachusetts



CARE RESOURCE COORDINATION PROGRAM MODEL

CENTRALLY COORDINATED, LOCALLY IMPLEMENTED

In Massachusetts, the CRC program is integrated directly with contact tracing and case investigation and fits within the CTCs overarching operational and management structure. The CRC Program is its own team within the CTC, and the CRCs are assigned to sub-teams based on their geographic expertise to work with cases and contacts within this region.

TEAM COMPOSITION

The CRCs are specifically hired for their place-based knowledge and experience working in MA. At its staffing peak, the CRC cadre spoke more than 19 languages and included experienced professionals in social work, nursing, psychology, public health, and other disciplines. During an early hiring push, the CTC actively worked with the Massachusetts Association of Community Health Workers to recruit CRCs. Additionally, the CTC collaborated with many local Federally Qualified Community Health Centers who assigned staff (often their CHWs) to work as CRCs. CRCs are geographically assigned, with consideration of their experience and familiarity, to three primary geographies in Massachusetts: West, East, and Metro Boston. They work within their teams, through outreach to the communities, to develop extensive resource libraries and form strong and effective local partnerships. Their diverse lived and professional experience makes it possible for CRCs to quickly identify resource pathways and to problem-solve complex referrals. The CTC also cultivates a collaborative environment that encourages peer-to-peer guidance and problem-solving.

BOX 2

CRC Pledge:

All CRCs make this pledge upon starting their role in the CTC:

As CRCs, our commitment is to accompany patients on their journey to health and wellness and link them to available social supports. Where they don't exist, we need to use data and patient stories to advocate for systems change. Health is a human right we are all entitled to, irrespective of our zip code. COVID-19 reveals the historical and ongoing legacy of structural violence and inequality. Part of treating COVID-19, is treating the social determinants of health conditions in the places where people live, learn, work, and play. ***As CRCs, that's our pledge to support the 5th S* in MA and STOP COVID-19.***

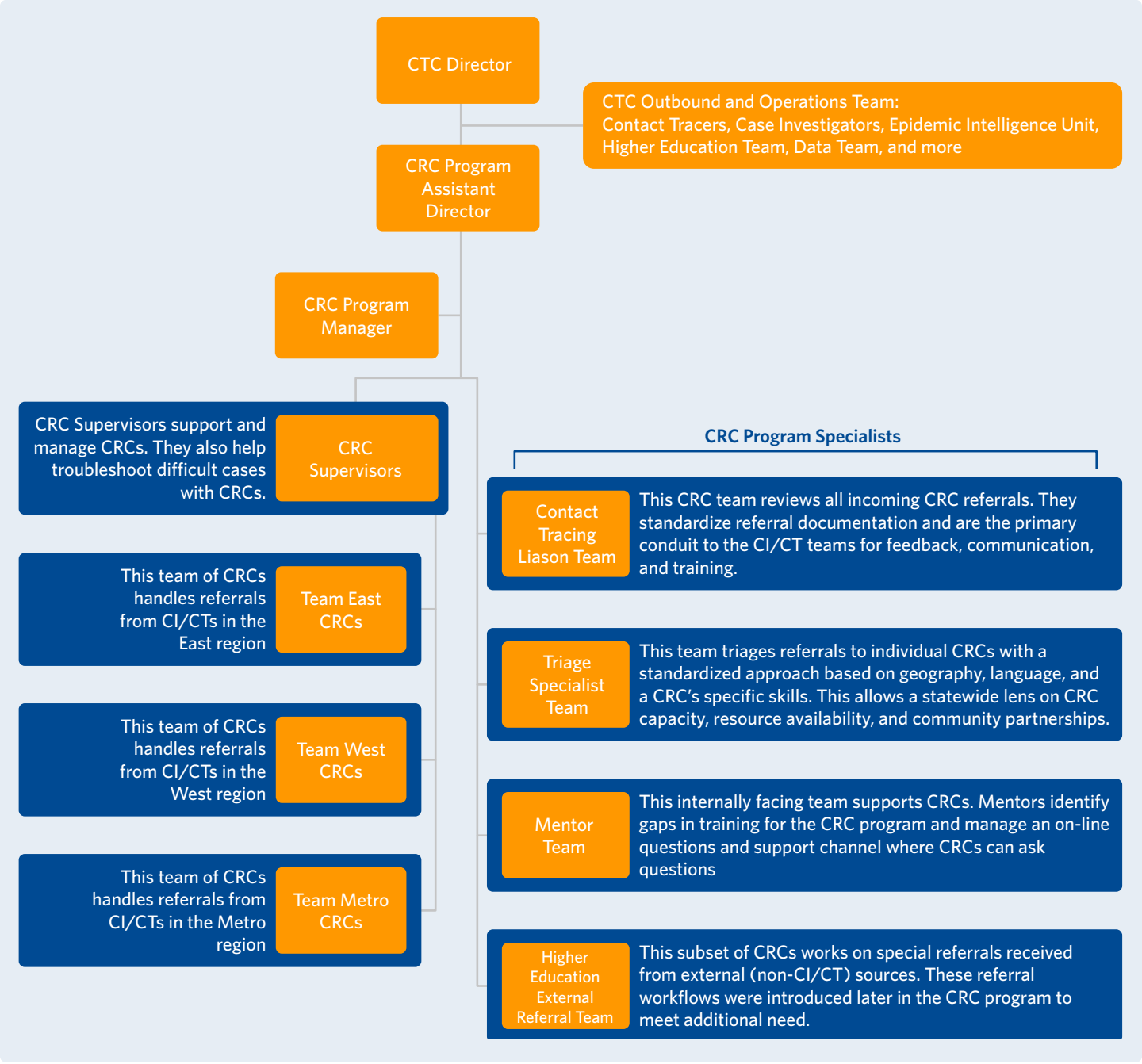
*PIH looks at health system strengthening as a mix of five fundamental ingredients: staff, stuff, space, systems, and social support. Removing any one item would result in a weaker health system overall. The 5th S refers to "social support," providing basic necessities and resources to ensure effective care.

Care resource coordinator Michelle Baum speaks every day with people in Massachusetts who have tested positive for COVID-19 or are at high risk for infection. A key part of her job is connecting people with social resources in their community, so they can safely isolate and reduce spread of the disease. *Photo courtesy of Michelle Baum*

CRC PROGRAM ROLES AND RESPONSIBILITIES

In addition to the CRCs, the CRC program introduced a core team of Program Specialists to support and ensure high program quality and function. These teams enable additional internal support to ensure high quality service and enable the CRCs to reach cases and contacts sooner. The roles and responsibilities of the CRC teams are shown in *Figure 2*.

FIGURE 2: Organizational Chart of the CRC Program and high-level relationship within the CTC



PROGRAM OPERATIONS

SCREENING AND REFERRAL PROCESSES

Case Investigators (CIs) and Contact Tracers (CTs) conduct a remote structured home assessment for every case and contact during the first interaction (*Appendix A*). **The home assessment is directly entered into the CTC's IT system. It walks through specific needs an individual or household may require to safely isolate or quarantine.** CI/CTs also document access to primary care, household size, and self-reported ability to safely isolate and quarantine. All CI/CTs are trained in conducting and documenting the home assessment.

If a vulnerability or social support need is identified during the home assessment, a CI/CT gains **verbal consent** from the case/contact and sends a referral to a CRC by 'Assigning a Task' in the CRM, the electronic system used by the CTC. Contact tracers do not connect cases/contacts to services directly, with the exception of referrals for testing (*Table 2*). Having the referral process in the CRM ensures that a case or contact's communication record with the CTC is comprehensive and that any staff member following up on a particular case or contact can quickly understand all relevant background. **CI/CTs can mark CRC referrals as 'high priority' within the 'task function' in the CRM, and are trained on what needs might be high priority** (*Appendix B*). The CRC team reviews priority and triages as described below, but this **early opportunity to flag referrals** allows for urgent needs to be attended to as quickly as possible.

TRIAGE AND ALLOCATION

After a CI/CT assigns a task to a CRC, the Contact Tracing Liaison team performs pre-triage, which includes: 1) making corrections to referrals, and 2) providing feedback to CT, CI, and supervisors to inform training needs, and improve referral quality. After pre-triage, Triage Specialists use predefined criteria to sort referrals into queues based on geographic regions and assign referrals to CRCs on shift (*Table 1*).

TABLE 1: Triage Criteria for Prioritization and Allocation of Referrals to CRC

URGENCY *(how quickly does the referral need to be addressed)*	**Priority**	▸ **High Priority:** Urgent need for food (1 day or less), Isolation and Recovery Center, safety concern, medication, household with vulnerable people (people with comorbidities, elderly, children, people who are pregnant). Triage specialists assign high priority referrals as soon as possible and directly message the CRC to make sure they are aware. ▸ **Lower Priority:** PPE, PCP, cleaning supplies, non-essential household items, financial assistance (due to length of time to receive financial support).
ALLOCATION CONSIDERATIONS *(which CRC should handle the referral)*	**Geographic Region**	East, West, or Metro Boston
	Capacity	▸ Number of open referrals a CRC has (average number of open referrals to manage is 8, however an experienced CRC typically manage 12-15+). ▸ Number of new referrals that day (4-6 assigned to a CRC each day). ▸ Triage Specialists message CRCs to see if they are ready to receive new referrals, and how many new referrals they can take.
	Language	Is there a CRC available who speaks the same language? If there are not enough multi-language speakers to reach every referral in their preferred language, language matches are prioritized for complex referrals.
	Skill Set	Is there a CRC available who has a particular skill set match? For complex or unique needs, is there someone on another team who could cross-cover?
	Schedule	Is the CRC working tomorrow? On last day of a CRC's week, triage specialists consider their caseload, and whether they will be able to make outreach during their shift to minimize handovers.

CRC ASSESSMENT OF NEEDS AND CONNECTION TO SUPPORT

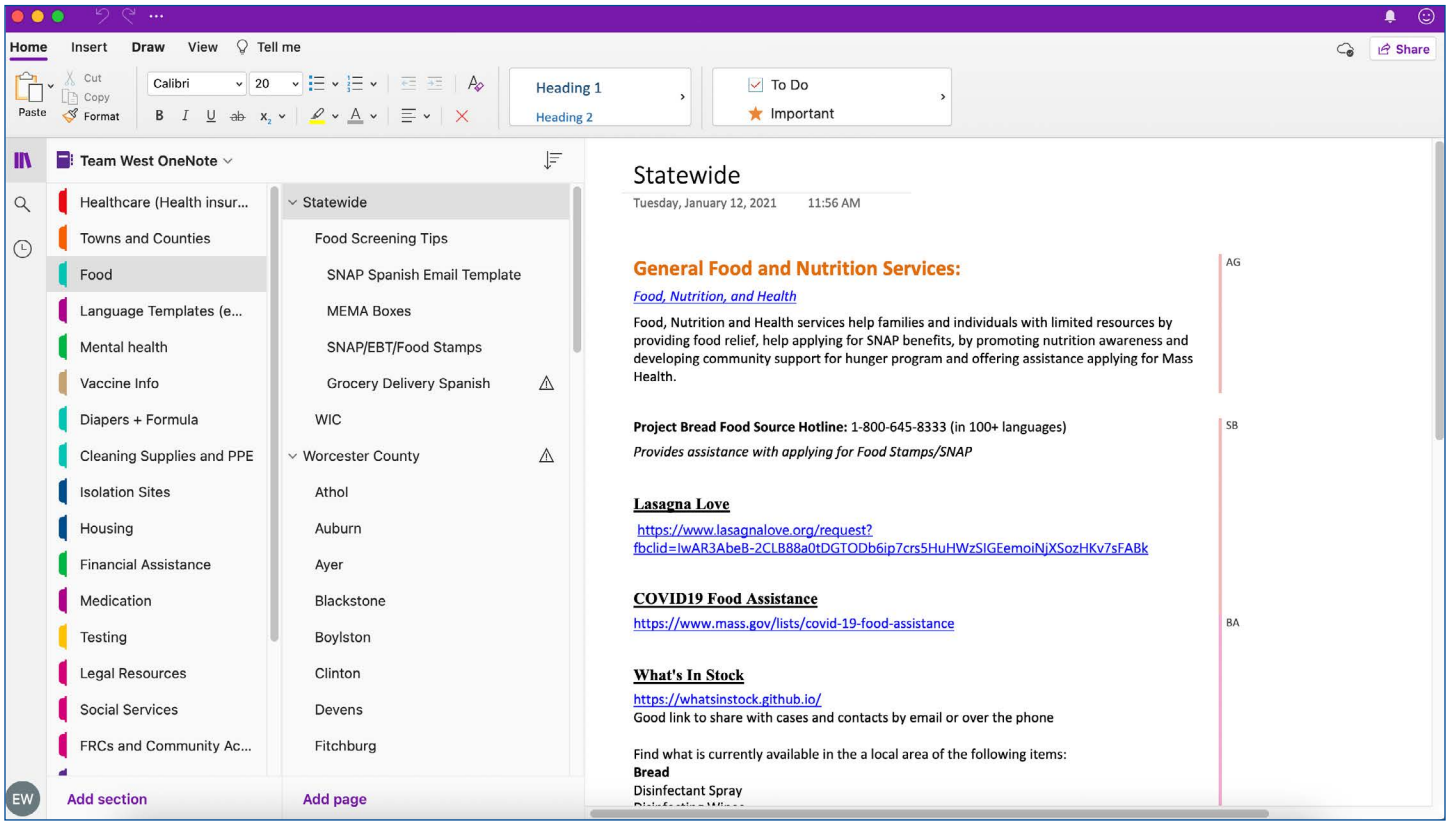
After a CRC is assigned a referral, they conduct a more detailed, unscripted needs assessment call to gather information to determine eligibility for individual programs, prioritize resource needs, and build rapport and trust with the case or contact. After this secondary screening, the CRC reviews available CTC CRC resource lists and protocols to determine what supports to connect the individual to. CRCs consider geography, language, and eligibility when planning supports.

After identifying an appropriate resource provider or program available in their community, the CRC obtains **verbal consent** from the case or contact before connecting them to the service. The CRCs use a warm-handoff approach, meaning they actively connect the case/contact with the resource via three-way calls. This increases the likelihood of a successful referral. Once the referral is complete, the CRC fills out a 'referral outcome' within the CRM system for each type of referral (e.g., food, housing) made.

The CRC resource lists used to determine available supports are geographically and thematically organized. Initially, resources lists were crowd-sourced from the CRCs' collective prior experiences in their communities, then supplemented by CRCs who mapped existing resources across the state. CRCs then worked in partnership with local organizations to develop pathways to quickly connect cases or contacts with individual organizations. Pathways include a specific system CRCs can follow to directly refer cases/contacts to the organization (i.e., specific phone line, Google form, shareable spreadsheet, etc.). To facilitate smooth referrals, many local organizations have an assigned point person on the CRC team to make sure the CRC team follows the appropriate procedures and are aware of any changes to the program. While developing resource pathways, CRCs ask organizations a standardized series of questions to ensure the pathway follows privacy and confidentiality guidelines (*Appendix E*).

CRCs continue to research and identify new resources and organizations throughout Massachusetts to support cases and contacts in isolation/quarantine. The resources identified are frequently updated and added to documentation for the CRCs, utilizing a digital note taking application, organized by geographic team (West, East, Metro), then by referral type (i.e., food, housing, PCP), then by county in that region (*Figure 3*). Cataloguing resources in this order allows CRCs to store, search for, and update resources, creating readily accessible referral pathways, based on geography and need.

FIGURE 3: Example of the CRC Resource digital note taking application for Team West



CRCs address both short-term needs (e.g., food provision during the isolation/quarantine period) and long-term needs (e.g., enrollment in the Supplemental Nutrition Assistance Program (SNAP)). Long-term connections weave a safety net that lasts long after an isolation or quarantine period ends. The primary needs referred to and addressed by CRCs are outlined in *Table 2*.

TABLE 2: Categories of need and corresponding resources provided by CRCs

CATEGORY	UNDERLYING ISSUE/NEED	RESOURCE PROVIDED/SERVICE LINKED
Food	Acute or chronic food insecurity	Food delivery, infant formula delivery, SNAP enrollment
Housing	Overcrowded housing, threatened evictions, need for funds for rent	Isolation Recovery Center placement, rental and utility assistance
Financial Assistance	Inability to meet needs due to loss of income or other financial factors	Financial assistance through city/town resources, rental assistance, community action agencies, emergency relief funds, unemployment assistance, small business loans
Household Items	Inability to meet needs while isolating	Provision of diapers, PPE, cleaning supplies, other critical items
Medication	Inability to meet needs while isolating	Refill and delivery of prescription medications
Healthcare Access	Lack of Primary Care Providers, access to key services, caregivers	Resource navigation, access to mental health services
Testing*	Inability to access testing after referral (contacts)	Support in navigating testing systems or procuring home-based testing
Other	Miscellaneous social support needs	Internet access for remote learning, social network connection for those living alone, navigation of services for domestic violence
Vaccination	Barriers to access registration systems or vaccine sites	Added in January to support access to vaccination (e.g., transport) as more community members become eligible

*CI/CTs directly refer all exposed contacts to testing sites for COVID-19 testing. Contacts who face challenges accessing testing (whether they do not have a PCP, transportation, childcare, or a range of other reasons) are referred to a CRC to address the underlying barrier to accessible testing. CRCs are also able to order a home-based COVID-19 test with verbal permission from the contact.

BOX 3

Expanding Access to CRC Services

Over time, as the benefits of CRC support were apparent, the CRC program expanded to accept referrals from sources beyond the CTC CTs/CIs:

- **Local Public Health Referrals:** LHD can refer cases/contacts to CRCs who they are following for contact tracing (i.e., the CTC only provides CRC support while LHD continues epidemiologic/surveillance support). A specific group of CRCs work on external LHD referrals, in close partnership with the Local Health Liaison (LHL) team and LHD / health department staff members.
- **Self-Referrals:** As the program's reputation grew, the CTC began receiving calls from community members requesting CRC support, often individuals whose friends or family had worked with a CRC. The CRC team supports these individuals when needed.
- **Higher Education Referrals:** As the CTC began conducting contact tracing for a variety of higher education institutions across the state, the CRC Program identified two CRCs per region to work on referrals from these institutions. Many higher education referrals use specific pathways developed by the university or college, so having a small group of CRCs trained on completing these types of referrals is beneficial.

FOLLOW-UP WITH CASES AND CONTACTS

Throughout the isolation and quarantine period, both the referring CI/CT and the assigned CRC make follow-up calls to the case or contact:

- **CI/CT follow-up and monitoring:** A CI or CT makes follow-up calls to cases/contact during isolation/quarantine to assess for new symptoms or evaluate for additional needs. This is a critical piece of the CTC model as the team accompanies individuals through isolation and quarantine. Often, resource needs emerge on follow-up calls, as individuals may not always anticipate their needs during the initial call and as trust is built. In these cases, CI/CTs refer to CRCs through the same process described earlier. Up to half of CRC referrals occur during follow-up calls with a case/contact.
- **CRC follow-up and monitoring:** After a CRC makes initial referrals, the CRC follows-up with the household throughout the isolation and quarantine period to check-in, assess for additional resource needs (particularly long-term needs), and confirm that individuals successfully accessed the resources they were referred to. CRCs document all interactions in their notes within the CRM system so the CI/CT is aware of referral progress.

MONITORING AND EVALUATION

Monitoring and evaluation data drive decisions and program delivery for all aspects of CTC operations. Data both communicate the need for the CRC program and support the program to effectively function and respond to changes in staffing, resource supply and demand, and the pandemic.

Routine metrics used in the CRC program are shown in *Table 3*. Note that these metrics are disaggregated by type of need, race, ethnicity, gender, language, geography, and household size.

TABLE 3: Key Metrics for the CRC program

TYPE	METRIC	PURPOSE
Need for CRCs / Demand	Percent of cases/contacts referred to a CRC	Understand scope of need and vulnerability
	Percent of cases/contacts self-reporting inability to self-isolate or quarantine	Understand self-reported need for support to isolate or quarantine
Outcomes	Short term: Percent of referrals completed (or partially completed) for short term outcomes, which refer to fulfillment of immediate needs during the isolation and quarantine period (e.g., food delivery, diapers provided, etc.)	Assess program ability to fulfill outcomes in the immediate term, during isolation and quarantine
	Long-term: Percent of referrals completed if a CRC successfully connected an individual to an organization or application for long-term benefits (e.g., rental assistance, housing, financial assistance, SNAP, WIC, etc.)	Assess program ability to fulfill outcomes in the longer term, linking identified individuals with benefits programs they may be eligible for
	Median # of specific agencies or providers tried (and range)	Understand the legwork required to find resources across specific communities and for specific needs
	Median # of days from referral to short term outcome (and range)	Understand the program's ability to fulfill referrals quickly
Program capacity	# of referrals per FTE per day	Understand staffing capacity, efficiency, and bottlenecks for program planning, budgeting, and improvement
	# of referrals per FTE per week	

ENABLERS OF SUCCESS

The CTC and CRC program rapidly launched to meet an immediate need for contact tracing at the start of the pandemic, and evolved over time to meet emerging needs and streamline processes. Key enablers of the CRC program's success include:

1. **Close integration with CI/CTs:** The CTC was deliberately designed to encompass both CI/CTs and CRCs to allow for close communication and collaboration between teams. This enables referrals to move quickly and efficiently from CI/CTs to CRCs and allows the CRC program to work with CI/CTs to improve needs assessments and referral quality. Ultimately, this creates a program with an integrated, person-centered approach to case and contact needs.
2. **Nimble and adaptive CRC organizational structures:** The CRC program structure evolved over time to meet needs and improve efficiencies. Initially, CRCs were integrated into geographically organized CI/CT teams. Each team of CI/CTs had a lead CRC, called a Resource Navigator, who was the designated CRC point of contact for that team. Resource Navigators supported CRCs to troubleshoot complicated cases, answer questions about referral pathways or CRM use, and facilitate cross-team learning and exchange. They also liaised with community organizations in their region to identify and establish referral pathways. A few months into the pandemic, the CRCs were moved into a singular team within the CTC. This shift enabled the CRCs to collaborate and work together more effectively, share lessons and resources, and streamline data analysis and communications. Resource Navigators became direct supervisors for the CRC units. After a few months in this structure, in response to evolving needs and to capitalize on individual expertise, the CRC program adapted again to introduce the Program Specialist teams (contact tracing liaisons, triage specialists, mentor specialists and Supervisors) (*Figure 2*). This helped balance workload and maximize efficiency.
3. **Support for team members to innovate and iterate over time:** Over time, CRCs and CI/CTs identified common challenges they encountered during their calls with cases and contacts. In response, the CRC program created Thematic Working Groups (TWGs) to support

Care resource coordinator Alexander Miamen connecting cases and contacts to resources needed to safely isolate or quarantine at home. *Photo courtesy of Alexander Miamen*

initiatives rooted in equity across all CTC workstreams and to develop resources, trainings, best practices, and protocols for all CTC staff (*Appendix D*). TWGs are formed as needs arise and dissolved once the project is complete. The TWGs are made up of CRCs and CI/CTs who are experts in relevant subject matter. TWGs have included: Immigration, Independent Living (disabilities), Mental Health, Violence Prevention (domestic and sexual violence), Recovery and Isolation Centers, SOGIE (Sexual Orientation Gender Identity Expression), and Social Support (long term benefits).

4. **A focus on diversity and equity in all aspects of operations:** The CTC recognizes the historical and ongoing legacies of structural violence and inequality that were laid bare by the COVID-19 pandemic. The program is intentionally designed to build strong, diverse, multidisciplinary teams to test, trace, protect, and support communities across MA. Cultural, geographic, and linguistic diversity is especially important for the Care Resource Coordination team, as is deep experience and familiarity with local context and communities. The CRC team was established to provide connections to the existing social safety net in Massachusetts for the individuals hardest hit by the pandemic and often excluded from traditional support pathways.
5. **Data informed program operations:** The CRC program uses data to inform operations and improve quality. In addition, the CTC uses CRC data to monitor and inform its program operations. This was triggered during the fall surge when CRC metrics were incorporated into regular data review. Along with volume and speed of contact tracing, CTC leadership reviewed CRC referral volume, referral source, and patterns of referrals. This change was triggered when, during the surge, there was a noticeable dip in the percent of cases and contacts referred to the CRCs (although an increase in absolute number). This was likely multi-factorial as CI/CTs were pressed for time, but was ultimately shown to be primarily caused by a decrease in the frequency of monitoring calls during isolation/quarantine. Prior to the surge, up to half of referrals were identified during follow-up calls, often enhanced with longitudinal calls from the same staff member—indicating that trust was also playing a role. The proportion of cases/contacts referred to CRCs increased immediately when the frequency of monitoring calls increased again as the CTC increased staffing to meet the needs of the surge in late 2020.
6. **Data informed external communication:** In addition to refining program operations based on monitoring and evaluation data, the CRC program also uses data to advocate for systemic change. For example, in collaboration with the CTC Data Team, the CRC presented quantitative data and qualitative experience related to food referrals to the CTC leadership, and later, the state's food security task force. This data showed that food is the number one need for people in isolation and quarantine, accounting for the majority of the referrals sent to the CRCs. Unfortunately, the availability of food assistance was hindered by supply chain issues, unpredictable resource availability, lack of delivery options (particularly on nights and weekends), as well as lack of culturally appropriate food options. Following this presentation, the food security task force at the state level, working through Massachusetts Emergency Management Agency (MEMA) and the Department of Transitional Assistance, funded a statewide food security program to support all towns to provide food when needed for people in isolation/quarantine.
7. **Building trust through monitoring and support calls to identify and address additional needs:** The CTC has found that once an individual's basic needs around food, shelter, and safety have been met, CRCs are able to build trust and form relationships to support an individual throughout isolation and quarantine. It may take until a CRC's third or fourth call before someone feels comfortable discussing worries about long-term security and wellness and is ready to connect with public assistance and community organizations for long-term needs.
8. **Partnerships with local organizations:** The CRC program has found success in strong partnerships at both local and state levels. Partnerships with local organizations and groups allowed the development of an extensive set of resource pathways. In addition, the CTC formed a range of partnerships across the state, at many different levels, to ensure collaboration and effective programing (*Appendix C*). Early on, the CTC worked with local health and government officials, community-based organizations, faith-based groups, and others to connect to communities and understand how the CTC could address community needs and barriers. The CTC participated in virtual town halls in multiple languages and platforms to improve outreach and establish trust in vulnerable communities. Partnerships with the Massachusetts League of Community Health Centers and the Massachusetts Association of Community Health Workers, who have deep expertise about community-based resources in MA, were invaluable in starting the program. The CRC team consulted with the Public Health Institute of Western MA who helped develop regional care pathways and partnerships, ensuring that CRC work integrated with existing structures.

ADDRESSING CHALLENGES

The CTC CRC program addresses challenges with a combination of partnerships, innovation, communication, and flexibility. Lessons learned include:

1. **When case volumes and local needs fluctuate due to changes in the pandemic, adjust staffing and adapt training to meet the need:** The nature of the pandemic requires constant adjustment and iteration. The CTC hired hundreds of people per week for the first few weeks after launch, while simultaneously building the leadership structure, program, and protocols. Throughout the pandemic, significant ongoing adjustments in staffing, operations, protocols, and trainings were necessary to adapt and respond to the needs of Massachusetts, Local Departments of Health, and communities. The rapid and constant change demands an extreme degree of flexibility and nimbleness from the program and the staff.
2. **When resources are patchworked and social safety nets fragmented, use updated, organized resource lists and collaborate with local health, community-based organizations, and state agencies to develop pathways:** The social safety nets that the CRC program taps into across the state are inconsistent and differ widely. From town to town, there are varied numbers and types of resources that may fluctuate over time, particularly as COVID-19 numbers rise and fall. The CTC CRC program relies on existing community resources, many of which are stretched beyond their means during this pandemic. Long delays in everything from hotlines (1-2 hours) to rental assistances (6+ months) has prevented the team from providing warm handovers and has discouraged people from seeking help. Food is the best example of a resource that varies significantly geographically, because needs are fulfilled by organizations and structures primarily based in communities, versus other resources that are more likely to be standard across the state (e.g., rental assistance). To address this, the CRC program has taken the following steps to address the fragmented social safety nets: development of resource lists, informal communication between CRCs to update each other when a resource is unavailable, and follow up with cases to ensure they eventually get through to an organization when a warm-handoff is not possible. In addition, the CRC team communicates closely with state agencies and local health around food supply and logistics.
3. **Recognize that in some cases, the structural barriers cannot be overcome, and an emergency fund may be necessary:** Food is medicine and the quality, timing, and type of food matter. The CTC works hard to identify culturally appropriate food providers and to ensure that food can be accessed and delivered during evening and weekend hours. Delivery poses a problem for other resources as well, including diapers and baby formula; families who depend on the Special Supplemental Support Program for Women, Infants, and Children (WIC) cannot have formula delivered through this common federally funded, state-administered program; diaper pantries also rarely deliver. The CRC team has a small back-up emergency fund for dire circumstances for food, formula, and diapers that has been critical for urgent needs.
4. **When groups are ineligible or unable to access support, advocate, develop supportive language, and develop lists of eligible organizations:** Individuals who are undocumented have been exquisitely maginalized during the pandemic and are not eligible to receive some social support offered through certain state and federal benefits programs. Language also presents a significant challenge to many individuals trying to navigate complex systems – administrative processes, applications, and other access systems are often exclusively in English or only available in a few select languages. The CTC and CRC program utilizes an external language line and prioritized hiring a multilingual staff to address this challenge. The CRC program also translated resource documents to help individuals navigate long-term benefit applications (i.e., MassHealth, SNAP, WIC, etc.).

CRC LONG-TERM VISION

The CTC was financed by a grant under the Commonwealth of Massachusetts to address the needs during the COVID-19 pandemic, and it is anticipated to complete in mid-2021. This presents an opportunity for the team to explore options and ideas of ways to incorporate the CRC philosophy, functionality, system, and lessons learned within the public health system in Massachusetts. The team anticipates these ideas to be varied, from housing CRC functionality within statewide programs to incorporating it into localized systems such as community health or local public health systems. As part of their core mandate, local public health systems have previously, and will continue to be, engaged in contact tracing for infectious diseases (including COVID-19), supporting outbreak response, and connecting with individuals, businesses, and organizations in the community. Moving forward, the incorporation of CRC functionality into the local public health system would facilitate connections to resources, visibility into needs in the community, and a structure for strengthening social support resources. Such an initiative, wherever it might be housed, could start to tackle the fragmentation of the social safety net in the United States and provide a long-term positive outcome from the contact tracing experience in Massachusetts during the pandemic.

CONCLUSION: LOOKING AHEAD

Perhaps the greatest success of the CTC's CRC efforts is the sheer number of people who have been supported through safe isolation and quarantine: over 100,000 between May 2020 and May 2021. This is more than a program metric. This number represents thousands of people who had to worry less about their own or their loved ones' health or loss of income. This number represents thousands of additional cases of COVID-19 averted. When the CTC launched and emphasized the CRC program as an essential element of effective COVID-19 response, it was an outlier. Many other programs around the country prioritized testing, tracing, and data surveillance, with less focus on supporting cases and contacts in safe isolation and quarantine. Implicit in this lies an assumption that a contact traced leads to cases averted, but misses the key reality that many cases and contacts need material support to isolate/quarantine. The pandemic laid bare the significant inequities built into our society that not only put some individuals at greater risk of contracting a disease, but also prevent them from being able to stay home. Staying home is an act of privilege. The Massachusetts CTC helped to change the national dialogue around contact tracing as an important piece of an effective public health response to COVID-19.

For additional information, please contact:

https://www.mass.gov/covid-19-community-tracing-collaborative-resources

CONTRIBUTING AUTHORS

Annie Glenn, Partners In Health; Jenae Logan, MSc, Partners In Health; Shada A. Rouhani, MD, MPH, Partners In Health, Brigham and Women's Hospital; Hannah Lieberman, MPH, Partners In Health; Anne Moller, MBA, Partners In Health; Odessa Holt, MPH, MSW, Partners In Health; Ashley Damewood, MSc, Partners In Health; John C. Welch, DNP, Partners In Health, Boston Children's Hospital; Emily Wroe, MD, MPH, Partners In Health, Brigham and Women's Hospital

Cover: Boston Light in outer Boston Harbor, Massachusetts. *Photo by Emily Dally / Partners In Health*

APPENDIX

APPENDIX A: HOME ASSESSMENT SCRIPT AND INSTRUCTIONS FOR CI/CTs

Do this section for cases and contacts staying at home for isolation/quarantine

Next, I'd like to talk about helping you stay safe during your illness. I have some questions about your home that I would like to ask you. If you or your family need help to stay home safely, we will try to connect you to help and support within your community, but we cannot guarantee that your community has the resources that you need. I will ask you some questions in order to identify needs that you might have. If you think of others, please tell me at any time. We can also talk about what isolation means and how to reduce the risk that nobody catches the virus from you. If we discover areas where you might need help, we can refer you to one of our Care Resource Coordinators. This team does their best to connect you to resources, but we want to emphasize that sometimes it can be hard to get to everyone, either because of really high volumes or if communities don't have the resources, but we are going to do our best.

Where are you planning to isolate?

If relevant: How are you planning to travel there?

Each section maps on to the items for social support referral in the CRM. Please consult the ***Social Support Referral Guidelines*** *for suggested questions and priority level.*

FOOD

(The purpose of this section is to prevent people from breaking quarantine or isolation to access food or baby formula)

Over the next 2-3 weeks, how do you plan to get food and groceries? For example, can someone bring you food or can you have it delivered? Will you have reliable access to food for you and your family during isolation/quarantine?

Do you need help enrolling in SNAP benefits? SNAP provides a monthly benefit to buy nutritious foods for eligible people. More people than ever are utilizing programs like SNAP for emergency food relief, so we ask this of every Case and Contact.

ADLS & MOBILITY

If you need assistance with your daily activities such as bathing, moving around your house and preparing meals, do you have someone to help you?

If no caregiver available, ask:

Are you able to meet your daily needs while in isolation or quarantine such as preparing meals, cleaning, taking medications, with a plan to call for help if needed?

Are you able to manage your medications on your own?

HOUSING

I'd like to ask you a few questions about your living situation.

- Do you have a separate room for sleeping and daily activities where you can stay away from others in your household?
- Do you have a separate bathroom that you can use? If no, do you or someone you live with have the ability to clean bathroom after each use?
- Do you have the ability to make your food separately from the others in the household?

MEDICATION

Let's talk about any medication needs you might have for the next 2-3 weeks.

- Do you anticipate any difficulties with delivery of medications in the next few weeks?

SAFETY CONCERNS

(See domestic violence, Elder and Child abuse protocols for language)

How are you and your family coping during this time?

PCP REFERRALS (PRIMARY CARE PROVIDER)

Next I'll be gathering some information about your access to healthcare.

- Do you have a PCP?
- Do you have a way to get to your appointments or for testing?

TRANSPORTATION

Do you have reliable access to transportation (in case you need to access medical care)?

INTERNET/IT SUPPORT

Do you have reliable access to a phone service or internet that will last for next 2-3 weeks on case of an emergency?

TESTING

(For contacts) Are you able to access a testing site near you without using public transportation?

OTHER

- Do you have concerns about child care or elder care during this time?
- Do you need help with any work-related discrimination or issues due to isolation?
- Do you feel you are safely able to isolate at home? *(This question is very important. Please make sure to ask this question and mark the answer in the CRM. It is important that we know if people are able to isolate at home.)*

Thank you for answering my questions. To reiterate, I cannot guarantee what will happen next, but by providing this information, the resource coordinator will have a sense of your situation.

Indicate if person is referred to resource coordinator. Make sure to ask for their consent before doing so. Indicate Social Assistance Needs from the list. Don't forget to send one task for all needs to the resource coordinator.

APPENDIX B: GUIDANCE FOR CI/CTs ON SOCIAL SUPPORT REFERRALS

Issue Area	Questions to Ask/Consider	Examples of How to Document Needs in Task Comments	Examples of When to Mark a Task as High Priority
Food *The purpose is to keep people from breaking quarantine out of necessity*	How many days of food do they have? Do they need assistance with grocery delivery? Are they able to afford to have groceries delivered? How many adult(s) and children? How many babies? Do they need infant formula? How much do they have?	4.29.20 Case Needs: 1) Food: 3 adults, 2 children, 1 baby. Will run out in 3-4 days. 2) Financial assistance for food/delivery	Food supply low, AND no money to purchase for delivery before they run out, AND in quarantine or isolation. No or very little baby formula
Support for Chronic Medical Condition/ At-risk Household Members *The purpose of this sections is to understand how other illness/es impact their isolation/quarantine period. They may have already identified underlying illnesses for themselves. What do they need to stay home? What needs to happen to keep other at-risk household members healthy?*	Do they have what they need? (medications (see below), equipment, supplies) Are they following with a physician? Are others living in the home with high risk medical conditions?	4.29.20 1) Needs medical supplies 2) Needs connection to their PCP *(also select 'Find a PCP')*	Has no or low quantity medical supplies to safely I/Q such as bandages, oxygen, BP cuff, glucometer, nebulizer High-risk family in household Case is caregiver and positive
Lack of Mobility or Support (Activities of Daily Living (ADL))	Does case/contact need assistance with activities of daily life (ADL)? Is ADL support a new need? Or due to limited caregiver access? Specific mobility needs?	4.29.20 Contact has not been able to take care of themselves, caregiver has COVID-19 4.29.20 Case is unable to bring out the trash	Case needs support with ADL AND no caregiver available Caregiver is COVID-19+ AND unable to support family members with ADL/ mobility issues

Issue Area	Questions to Ask/Consider	Examples of How to Document Needs in Task Comments	Examples of When to Mark a Task as High Priority
Specific household items	Does the household have enough PPE and cleaning materials for safe isolation/ quarantine? Other essential household items needed? Specifications? Quantities? Personal care/feminine hygiene? TP? Does the case/contact have money for household items?	4.29.20 Case lives in a multigenerational home, young children and 1 immunocompromised relative 1) PPE: masks, gloves 2) Cleaning supplies: hand soap	COVID-19 case, no PPE AND living with at-risk household members
Social Connectedness	Case lonely or showing signs of distress	4.29.20 Case requesting daily check-in because they don't have family/friends to speak with	Case in recovery AND no support group Case is elderly, isolated AND showing signs of distress
Housing	Are they unsheltered? Are they in danger of becoming unsheltered? Have they received an eviction notice? Are they able to pay rent? Is the house overcrowded? Are they able to safely quarantine/isolate? Housing stable but unable to pay utilities?	4.29.20 1) Housing: Contact is currently staying with roommate but must move out because of quarantine requirements 4.29.20 1) Housing: Contact is unemployed and ineligible for unemployment. Looking for rental assistance.	Case is unsheltered Case in an overcrowded home AND unable to isolate/quarantine with high-risk family members Household unsafe AND case looking for protection
Medication	Do they need prescription medication? Does someone help them take their medicine? Do they have a question about their prescription? Do they require a delivery service? Do they have money for requested over-the-counter medications? Is delivery assistance required?	4.29.20 1) Contact needs to arrange delivery of prescription 2) Meds: Contact is in need of Tylenol. Cannot afford to purchase it and currently in isolation.	Patient needs prescription refill AND no delivery option Patient needs new prescription AND no PCP Patient needs prescription refill AND no money Patient needs support administering medicine AND no caregiver

Issue Area	Questions to Ask/Consider	Examples of How to Document Needs in Task Comments	Examples of When to Mark a Task as High Priority
Safety Concern	*You should not ask directly but rather use language such as "How are you and your family coping?"* Refer to DV, Elder and Child abuse protocols for suggested language	4.29.20 1) Safety concern: individual requested support to leave home (non-emergency) 2) Possible elder care issues	Mark all safety concerns as high priority. Ensure review of 911 protocol in case of emergencies.
PCP Referral	Does the case need to speak with a PCP for any reason? Has the patient or contact been tested? Is the case interested in urgent care? Does the case have insurance? Do they have MassHealth? Does the case have a smartphone? *(this is for telehealth reasons)*	4.29.20 Contact is symptomatic 1) PCP needed, is enrolled in MassHealth 2) Testing 4.29.20 1) Emotional support: Worried about COVID-19 diagnosis 2) PCP: Wants a consult	Case is symptomatic (urgent but not emergent), wants testing and consultation Case expresses urgent need for clinical consult
Other ***Financial resources to pay for utilities (Heat/Water/ Electricity)*** ***Phone service/Means of communication in the event of an emergency*** ***Childcare/Elder Care*** ***Access to other clinical care: Insurance, transport to care or testing, mental health*** ***Legal aid and discrimination in the work force; Resolving employer issues*** ***Referral to isolation or recovery center***	Are they in danger of or have already lost access to utilities? Is their phone service accessible throughout their I/Q? Do they need assistance with child or elder care to be able to I/Q? Do they need info about insurance options? Clarification on benefits? Help to get to care or testing site? Do they need mental health resources? Have they experienced workforce issues due to I/Q If needed, are they willing to I/Q in these locations?	4.29.20 1) Cannot pay electric bill, losing in XXX days 2) Help with care for elderly father 3) Mental health support	Utilities will be shut off Child or elderly parent needs care and case is positive Case expresses urgent need for mental health services Case needs to I/Q in recovery center in order to separate from household

© 2020 Massachusetts Health Connector. This material was developed by Partners In Health for the Health Connector on behalf of the Commonwealth of Massachusetts' Department of Public Health. All rights reserved.

APPENDIX C: MA CTC PARTNERSHIPS

Note: This is not a comprehensive list; not all partnerships are listed

STATE LEVEL

Governor Baker

CTC Steering Committee: MA Health Connector, MA DPH, Executive Office of Health and Human Services, Accenture

MA COVID Command Center

COVID Enforcement and Intervention Taskforce

Department of Transitional Assistance

Attorney General's Office

Massachusetts Emergency Management Agency (MEMA)

Mass League of Community Health Centers

MA Public Health Nurses Advisory Committee

MA Food Insecurity Task Force

TOWN/COUNTY LEVEL

Mayors Offices

Local Health Departments

Local Boards of Health

Family Resource Centers

LOCAL/COMMUNITY LEVEL

Community Action Agencies

Community Health Centers

Family Resource Centers

Domestic Violence Organizations

Mutual Aid Groups

Centers for Independent Living

Aging Service Access Points

Food Pantries

Housing Consumer Education Centers

Centers for Independent Living

APPENDIX D: THEMATIC WORKING GROUP PROTOCOLS AND PROJECTS

Thematic Working Group	Protocol/Project
Immigration	Immigration Considerations
	Know Your Rights: Immigration and COVID-19
	COVID-19 and Public Charge
	Foreign Travelers maintaining status in the US
Health: Behavioral, Mental, Physical	Pathways for Mental Health Referrals Protocol
	Medical Referrals and Follow-up
Violence Prevention	Domestic Violence Protocol
	Calling 911 Protocol
	Reporting Suspected Abuse of Children, Persons with Disabilities, Elders
	Referrals for Survivors of Sexual Trauma
Social Support/Benefits	PCP Referral Pathway
	Formula Purchase and Delivery Process
	Threat of Eviction Protocol
Isolation and Recovery Centers	Recovery Center Referral Process Pathway
Independent Living	Deaf/Hard of Hearing Protocol
	Disability Services Referral
SOGIE	Gender and Sexuality and Inclusivity at PIH Training

APPENDIX E: RESOURCE PATHWAY PRIVACY AND CONFIDENTIALITY GUIDELINES

CRCs develop pathways with local organizations to facilitate smooth referrals. While developing resource pathways, CRCs ask organizations the following standardized series of questions to ensure the pathway follows privacy and confidentiality guidelines:

What is the structure of the organization or agency?

- 501(c)(3) or other formalized structure
- Covered by a fiscal sponsor
- Pending 501(c)(3) status
- Approved by CRC Leadership

How is the referral information transmitted?

- By phone
- Secure email
- A secure document that is:
  - Housed internally AND
  - Password protected AND
  - Accessed by known users only AND
  - Vetted by the CTC Privacy team

Is there a volunteer management program in place?

- A known, screened roster of volunteers
- A training/onboarding process
- A required confidentiality agreement (relating to PIH only)