Playbook
City-Level COVID-19 Rapid Response To Serve At-Risk Populations

Case Study: New York City COVID-19 Rapid Response Coalition
April 2020 Launch to July 2020 Management Handoff
The New York City COVID-19 Rapid Response Coalition (CRRC) developed a process to serve at-risk populations during the 2020 SARS-COV-2 pandemic.

United States of Care drafted a playbook to highlight replicable approaches, methods, and partnerships that may be valuable in other communities.
“We really appreciate USofCare supporting the COVID-19 Rapid Response Coalition in New York City. Facing the crisis head-on, the Coalition has been ‘designing a ship while sailing in The Perfect Storm,’ and the USofCare team has helped translate our platform into a playbook to help future hotspots across the country learn from what we’ve built in NYC. Our efforts staring down the New York crisis have been philanthropic and pro bono and the resulting work, represented beautifully by the USofCare playbook, is for all Americans to leverage.”

– Trevor Price, CEO, Oxeon Partners & Co-Chair, USofCare Entrepreneurs Council
Target Audience

If you’re in a city with a patchwork system of legacy health care and social service solutions, you may be facing thousands of COVID-19 cases, and hoping to serve many more people who are struggling with the stresses and pressures of the corresponding economic downturn.

You will need a creative, impactful way to continue to serve your most vulnerable.
“The COVID-19 crisis has brought to light just how fragile we are as humans, but it has also unleashed a level of resilience, resourcefulness, and collaboration across public and private sector organizations, the likes of which I have never seen. We have an opportunity right now to help our most vulnerable people survive this crisis, while laying the groundwork for building a health care system that works for everyone.”

– Shoshanah Brown, CEO, AIRnyc
Playbook Scope

The NYC CRRC approach required the rapid formation of partnerships across multiple, fragmented parts of the health care system. We’ve broken down the goal, tactics, and work streams that the CRRC is using to:

★ Connect with & support high-risk community members.

★ Facilitate communication across networks, & track patient engagement.

★ Identify gaps & match to available services and excess capacity.

★ Supplement critical resources in hotspots.

★ **Version 3.0 Update** Maintain efforts beyond the immediate pandemic response.
“According to a number of medical experts, elderly patients and those with pre-existing medical conditions face a greater risk from COVID-19. That dynamic can strain health systems as providers look for ways to reach and support this vulnerable population due to the ongoing care they require. The challenge for hospitals and health systems is creating a process to dispense accurate, trusted information to patients in a timely manner and then directing those patients to the appropriate next step, whether it’s education or immediate care. To help relieve the burden on healthcare workers in New York City, the COVID-19 Rapid Response Coalition developed a conversational agent, built on AWS, that was deployed city-wide to engage at-risk citizens at critical points of care to address their questions and needs, enabling them to stay at home.”

– Shez Partovi, MD, Worldwide Business Development for Healthcare, Life Sciences, and Genomics, Amazon Web Services

★

“We believe that the Coalition will be able to support and protect our vulnerable New Yorkers, and reduce added demand on overtaxed NY hospitals. The lessons learned in New York will help others in need around the country.”

– Bain & Company
Case Study: New York City COVID-19 Rapid Response Coalition (CRRC)

★ Founded in March 2020, organizations and concerned citizens collaborated to save lives. In a matter of weeks, workstreams and methodologies were woven together to form the NYC CRRC.

★ Five months after its founding, this work continues under the leadership of Public Health Solutions.

★ Any of the following tactics can be applied to improve outcomes.
NYC COVID-19 Rapid Response Coalition

Guiding Principles

Humanitarian efforts first.
Pro bono work whenever possible.
Self interest second to communal need.
Profiteering and competition have no place here.
We’re here to help.

★
Goals: What is CRRC solving for?

**Saving lives.**

1. Caring for and preventing those who are most at risk from contracting COVID-19 and rapidly progressing to the ER/ICU.

2. Helping them avoid acute episodes related to underlying chronic conditions (i.e., stroke, heart attack, respiratory kidney failure).

3. Supplementing care by creating a centralized platform that marries technology and clinical expertise with health care and social service support.

4. Taking pressure off the hospitals and reducing the strain on the city’s health care system.
The CRRC Efforts

★ A dynamic texting platform that:
- Allows simple script writing to connect patients with support.
- Draws from analysis tools and pre-existing data sources.
- Contacts high-need individuals identified through patient risk assessments, and connects them with telehealth and teleservices.

★ A network of relationships that weave together:
- Care provision and support from a coalition of 60+ social and clinical services.
- Data and analytics from a variety of sources, including health care payers and navigators.

Resulting in rapidly-scaled communications that seek and engage high-risk patients, establish needs, and route them to the best service providers with capacity.
Initial Process and Tech Overview

Data

Data Provision: (Example sources)
- MetroPlus
- HealthFirst
- Affinity
- NYU HEAL NYS Medicaid
- HealthIX
- Other sources

Analytics

Analysis:
- Apply patient risk assessment and segmentation methodology
- Identify “high-need” patients and likely support requirements
- Create patient rosters with contact information

Convene & Coordinate:
- Facilitate communication across networks & track patient engagement
- Identify gaps and match to available services and excess capacity
- Supplement resources for critical areas
- Develop & disseminate tools & guides to future hotspots

Network Partners
- Validate patient needs
- Screen for clinical, behavioral health and social services
- Coordinate/deliver services

Coalition Services
(60+ organizations)

Activation Center:
- Proactive & reactive patient engagement: SMS messaging, assisted calling, inbound call management
- Consider build out of a light technology platform to facilitate tracking of capacity and coordination of services (i.e., a virtual marketplace)

Engage Services:
- Health Screening
- Telehealth
- Food & medicine delivery
- Behavioral Health
- Other Social Services

Automated Patient Engagement Platform

Outbound SMS & Calls
Inbound Queries

High Risk Patient Populations

TeleServices & TeleHealth

Social Services: BH, Community Partners

Clinical Care: Hospital Systems, PPSs
To execute on the process and create a useful product for the people who need it most, relationships must be built across industries and functional capacities.

Success will involve community leaders from a range of sectors, including:
- Lawyers and policy professionals
- Social services professionals
- Clinical professionals familiar with at-risk populations
- Data and analytics professionals
- Project management experts

**Note:** Some partnerships will be necessary to establish initial tactics and workstreams, while others will be essential to maintain efforts.
Providers

Payers

Social Services

Alternative Care Providers

Case Study: Initial CRRC Partners
The Tactics

CRRC assesses needs, and matches and meets them with available capacity.

<table>
<thead>
<tr>
<th><strong>Identify Most Vulnerable</strong></th>
<th>Using risk stratification, identify those who are at greatest risk of mortality from COVID-19: those who have pre-existing chronic conditions and whose clinical state will decline rapidly due to constraints on the health care system.</th>
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<tbody>
<tr>
<td><strong>Need Assessment and Patient Engagement</strong></td>
<td>Engage the patients using scalable technology. Assess their needs and educate them on the situation and protective and preventive measures.</td>
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<tr>
<td><strong>Connect Patients with Services</strong></td>
<td>Based on their digital engagement, connect patients with the various clinical and social services they require. Refer into existing providers and solutions. Address cross-system needs and coordinate solutions.</td>
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<tr>
<td><strong>Monitor Effectiveness and Productivity</strong></td>
<td>Leverage closed-loop communications to verify that the clinical and social services support is delivered and fulfilled, and that the patients feel supported and safe in their homes and do not require additional hospital-based interaction.</td>
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The Tactics

IDENTIFICATION OF MOST VULNERABLE

Using risk stratification, identify those who are at greatest risk of mortality from COVID-19: those who have pre-existing chronic conditions and whose clinical state will decline rapidly due to constraints on the health care system.

★ Using claims data, create patient rosters with contact information.

★ Obtain risk segmented lists and data from payers and providers.

**Note:** The NYC CRRC initially received this patient information from MetroPlus, NYC Health and Hospitals, Healthfirst, Mt. Sinai, and Montefiore.

★ Develop and apply patient risk assessment and segmentation methodology.

**Note:** The NYC CRRC identified data and risk analytics vendors to assist with this effort through pro bono contributions.

★ Identify “high-need” patients and their related support needs and requirements.
The Tactics

**NEED ASSESSMENT AND PATIENT ENGAGEMENT**

Engage the patients using scalable technology. Assess their needs and educate them on the situation and protective and preventive measures.

- **Screen** for clinical, behavioral health, and social service needs.

- **Validate** patient needs, and coordinate delivery of services to individuals.
  - Build a digital engagement center.
  - Consider expanding the platform to facilitate tracking of capacity and coordination of services.

- **Identify gaps** in services and match individuals to available services, particularly those that have excess capacity, & **scale** using SMS decision trees.
  - Decision trees and flow to providers can be customized to either:
    1. Direct the network of providers to their existing network of patients or
    2. Pool providers to address patient surges and critical spikes in need across the system.

- **Develop & disseminate** tools and guides to patients and service providers in areas that may have high prevalence of infection.
The Tactics

★ Identify different coalition entities and **crowdsource** to foster group thinking efforts.

★ **Develop working teams** and seek out perspectives and services from various parts of the health care industry for comprehensive thought leadership, including:

- Nonprofit health systems
- Safety net payers
- Delivery services
- Alternative care methods
- Legal aid
- DME/supply experts
- Medication dissemination
- Social service providers, including food banks
- Post-acute care facilities

★ **Daily stand up meetings** are essential to the success of the coalition.

- These allow partners to document areas of need, develop solutions, and foster collaboration across all parties.
The Tactics

★ Develop a charter and articulate a clear conflict of interest policy.

★ Build an operating committee:
  - Provide insight into procedural functioning to assure effectiveness based on past experiences.
  - Members of the operating committee should consist of health care leaders representing diverse backgrounds and expertise. Each should have clear participatory roles in:
    - Operations
    - Clinical services
    - Social services
    - Project management

   **Note:** It may also be beneficial to partner with a local or national consulting firm (i.e. Bain & Company, McKinsey & Company, etc.) that can commit pro bono hours.

★ Fundraise & establish an oversight committee:
  - Build a relationship with a reliable funder to support the effort, assuring consistent coverage for those benefiting from the product.
  - Members of the oversight committee might include: local health and social services leaders, local business leaders (i.e. PE Partners, CEOs or Managing Partners of Financial Services or Law Firms), and former state and federal government officials.

Leverage closed-loop communications to verify that the clinical and social services support is delivered and fulfilled, and that the patients feel supported and safe in their homes and do not require additional hospital-based interaction.
The Workstreams

After selecting one or more of the aforementioned tactics, consider segmenting efforts into different workstreams. CRRC broke them into the following categories:

- **Partnership Management**
  - ★ Coalition Management
  - ★ Government Affairs
  - ★ Fundraising

- **Solution Development & Delivery**
  - ★ Pilot
  - ★ In-person Care Provision
  - ★ Virtual Care Provision
  - ★ Social Service Support (SSS) Including Food / Supplies Provisioning

- **Assessment of Productivity, Effectiveness, & Need**
  - ★ AWS Closed-Loop Communication Platform
  - ★ Population Identification
Partnership Management

★ **Coalition Management**
- Build and manage the coalition of partners required to support and activate a rapid response coalition, including all aspects of project management and communication.
- Governing practices might include ensuring that the executive body has a strong conflict-of-interest policy, establishing a meeting cadence, and suggesting breakout committees for fundraising, and other localized efforts

★ **Government Affairs**
- Build and manage relationships with key government partners, including management of all regulatory issues.

★ **Fundraising**
- Secure necessary fundraising, working with range of private/public payers and philanthropic partners.
Solution Development & Delivery

★ Pilot
- Rapidly launch pilot to facilitate provisioning of care, food, supplies, and social services to a limited cohort of at-risk NYC residents.

★ In-person Care Provision
- Identify need for clinical services.
- Identify where clinical capacity exists.
- Ensure match of supply and demand.
- Establish proper decision trees for types of care provision.

★ Virtual Care Provision
- Identify needs for clinical services.
- Identify where clinical capacity exists.
- Ensure appropriate match of supply and demand.

★ Social Service Support (SSS), Including Supplies and Food Provision
- Identify need for SSS services.
- Identify where SSS capacity exists.
- Ensure appropriate match of supply and demand.
- Establish proper decision trees for types of service provision.
Assessment of Productivity, Effectiveness, & Need

★ AWS Closed-Loop Communication Platform
- Build platform to manage all patient-facing communication, including workflows for routing patient requests and needs.

★ Population Identification
- Identify the most at-risk populations in NYC to address with this program.
- Procure risk-segmented patient data and contact information from payers and providers.
- Use analytics vendors to conduct patient risk assessments.
**User:** A safety net health plan affiliated with a safety net hospital that has diminished care management capabilities due to sickness and external distribution of staff to keep the hospital afloat.

**Process:** The user provides a risk-stratified list of their members with contact information. The CRRC walks through the following:

★ **Patient Identification**
- 500,000 total Managed Care Medicaid, MLTC, and dual-eligible members.
- 200,000 kids are removed.
- 300,000 adults are assessed, stratifying by age (40+) and those with complex conditions.
- 85,000 members remain.

★ **Patient Connection**
- Write engagement scripts to be delivered over SMS.
- Test 1,000 reaches and track response rate.
- Allocate responses across the decision tree.
- Fulfill the required service (telemedicine, food supports, et cetera).
- Use SMS to verify they got what they need.

★ **Restart the Process**
- Expand outreach to more members.
- Add new provider and payer data sources.
Results One Month After Launch
- 12-20% engagement rate.
- 65-70% of responses seek social services, not clinical care.

Patient Story A
- Client: 30 year old man from the Bronx.
  - At-risk qualifiers: resides in a shelter, without access to food or a kitchen.
- Interaction:
  - Engaged with the SMS chatbot.
  - Requested social service supports.
  - Connected to an AIRnyc community health worker (CHW), who reached out to perform a digital wellness check.
- Referred to:
  - A local community service nonprofit offering food pantries and meals.
  - His local case manager, who could meet his needs for toiletries.

Patient Story B
- Client: Elderly man.
  - At-risk qualifiers: asthma, increasing likelihood of COVID-19 complications.
- Interaction:
  - Engaged with the SMS chatbot.
  - Requested medical device assistance.
  - Connected to a CHW, who noted over video conference that client’s inhaler was empty; client couldn’t read label.
- Outcome: CHW contacted a local clinician to update the prescription and had a local pharmacy deliver to his household.
Crowdsourcing & Collaboration Infrastructure
- Connected >75 organizations across NYC to share resources and solve problems.
- Created workgroups to target specific concerns (e.g. Food, PPE, Testing, Engagement).

SMS Outreach
- Reached out to over 60,000 at-risk New Yorkers.
- Offered clinical and social services support in partnership with AWS, Metro Plus, Maimonides, and the Visiting Nurse Service of New York.

Food
- Delivered more than 194,000 meals to >50 shelters, apartment buildings, and NYCHA housing developments.
- Targeted delivery based on the locations hit hardest by the pandemic.

Personal Protective Equipment
- Procured over $1 million of PPE.
- Delivered over 60k surgical masks, 27k KN-95 masks, and 10k face shields to front-line community organizations.

Testing
- Coordinated donation of 5,500 test kits.
- Facilitated kit distribution to front-line community-based organizations across NYC.
Initially brought on to administer CRRC contracts, the NYC nonprofit Public Health Solutions (PHS) became the official manager of the coalition as of June 30, 2020.

PHS’ Organizational Priorities

1. Direct social care provision & enrollment navigation.
2. Fiscal contract management for NYC Agencies.
3. Health care community partnership coordination.
Public Health Solutions
Guiding Principles

Improve access to needed services by creating a “one-stop” platform for community resources that will:

1. Remove the challenges that exist for vulnerable New Yorkers in finding, applying for, and receiving services.
2. Make long-lasting improvements in a person’s health trajectory.
3. Reduce the reliance on and costs to the health care system.

PHS’ Website on Health Care and Community Partnerships
CRRC Next Steps

Under PHS leadership, the NYC CRRC will continue to uphold its founding principles to treat people at high volumes and better meet their unique needs. The Coalition will focus on underserved populations and track outcomes while connecting New Yorkers to social services by:

- Providing opportunities for rapid emergency food and supply distribution.
- Providing access to low-cost personal protective equipment to nonprofit organizations.
- Expanding and building on the broad social services network initially brought together under the coalition, with the intent to establish a reliable, durable platform.
- Developing robust models of care navigation, including home-based telehealth and resource navigation solutions, that will expand access to care for vulnerable populations.

Note: The SMS chatbot will continue to be tested and deployed across large populations. The PHS team will also integrate these tools with care management services within the city to support health system plans.
NYC CRRC Project Timeline

The NYC CRRC was created to center and target non-medical drivers of health. The Coalition showcases the way health care systems can identify needs and match them to capable organizations. The intention was not to launch a new social services organization or network aggregator.

★ As of July 2020, Public Health Solutions manages these relationships, tactics, and lines of communication, and continues to serve at-risk populations.

- **Mid-March 2020 - June 2020**
  - Address the needs of vulnerable populations during the COVID-19 crisis, and reduce the immediate strain on city hospitals.

- **July 2020 - June 2021**
  - Elevate effective models, partnerships, and solutions, focusing on efforts that strengthen telemedicine and telehealth services. Also, increase funding for social and clinical service provisions for the uninsured in order to prepare for a potential second wave of COVID-19.

- **June 2021 - Beyond**
  - Establish a precedent for positive collaboration among social and clinical services, and continue to integrate technology into social service networks.

- **Phase 1**

- **Phase 2**

- **Phase 3**

- **July 2020**
  - Management handoff to Public Health Solutions
For More Information, Please Contact:

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