

ORGANIZING, BUDGETING, AND IMPLEMENTING WRAPAROUND SERVICES FOR PEOPLE IN QUARANTINE AND ISOLATION

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THE PROGRAM IN GLOBAL PUBLIC POLICY AND SOCIAL CHANGE

Executive Summary:

On February 23, the Berkman Klein Center for Internet & Society hosted “**Organizing, Budgeting, and Implementing Wraparound Services for People in Quarantine and Isolation.**” This expert-led seminar addressed the importance of supported quarantine and isolation in the fight against COVID-19, provided an opportunity for physicians working on supported quarantine and isolation programs in New York City and the Navajo Nation to describe their efforts, and compared the estimated costs of a robust, wraparound quarantine and isolation services programs against the costs of inaction.

This memo consolidates learnings from the seminar and from relevant resources, including the recently published working paper: “**Estimating the Costs and Benefits of Supported Quarantine and Isolation in Massachusetts: The Missing Link in Covid-19 Response.**”

Key takeaways:

- Many individuals cannot quarantine or isolate in the absence of a support structure capable of addressing multitudinous economic, social, and medical needs.
- States should allocate a portion of the incoming Federal COVID relief funding for testing and tracing to wraparound supported quarantine and isolation programs. Doing so will not only save lives but also has the potential to reduce overall public costs.
- New York City and the Navajo Nation were able to bootstrap innovative supported isolation and quarantine programs using a combination of community-based, local, state, and federal resources. Programs like these are making a huge difference and would benefit greatly from increased federal support.

What is Supported Quarantine and Isolation?

Quarantine and isolation both involve keeping people away from others so they do not transmit an infectious disease.¹ Quarantine refers to people who have been exposed to a disease staying away from others until it can be determined that they did not contract it; isolation refers to keeping people known to be infected with a disease away from others until they are no longer infectious.² The CDC recommends periods of quarantine and isolation between 7 and 14 days.³ **Supported quarantine and isolation** programs provide people with services and resources, such as food and medication delivery or wage replacement, to enable them to complete their course of quarantine or isolation.⁴

1 Dr. Margaret Bourdeaux, “Organizing, Budgeting, and Implementing Wraparound Services for People in Quarantine and Isolation. Video & Podcast: Lessons from the COVID-19 Pandemic and Considerations for Future State Responses,” Berkman Klein Center for Internet and Society, February 23, 2021, (hereinafter “BKC Q&I Event”) 9:07-11:01; Centers for Disease Control and Prevention, “When to Quarantine,” updated Feb. 11, 2021, accessed March 3, 2021, <https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/quarantine.html>; Centers for Disease Control and Prevention, “Options to Reduce Quarantine for Contacts of Persons with SARS-CoV-2 Infection Using Symptom Monitoring and Diagnostic Testing,” updated Dec. 2, 2020, accessed March 3, 2021, <https://www.cdc.gov/coronavirus/2019-ncov/more/scientific-brief-options-to-reduce-quarantine.html>.

2 Bourdeaux, BKC Q&I Event, 9:17-9:37. See also, Centers for Disease Control and Prevention, “Options to Reduce Quarantine,” and “When to Quarantine” (at 1n.).

3 Bourdeaux, BKC Q&I Event, 9:37-10:26; and Centers for Disease Control and Prevention, “Options to Reduce Quarantine,” and “When to Quarantine” (at 1n.).

4 Bourdeaux, BKC Q&I Event, 11:04-16:39. (See infra, “Lessons from the Field: Supported Quarantine and Isolation Programs in New York City and the Navajo Nation” for examples of services and resources)

Supported quarantine and isolation **is either home-based or facility-based**. Home-based supported quarantine and isolation is for individuals who can safely separate at their own homes and can receive necessary services at home. Facility-based supported quarantine and isolation is for individuals who cannot safely separate or receive necessary services at their own homes and involves the use of an alternate care facility such as a repurposed hotel.⁵

Why is Supported Quarantine and Isolation Necessary?

Many people are unable to successfully quarantine or isolate without supporting services and resources. Some people might need to leave their homes to support themselves and their families, which in the process, may expose and infect others. Others might be unable to access affordable food or medication delivery. Individuals may also have to breach quarantine and isolation to receive medical care or additional testing. For people living in congregate settings, such as shelters, retirement homes, halfway housing, or in dense, multi-generational housing, safe separation from others may be difficult or impossible without use of an alternate care facility. Many people, therefore, need to be supported with wraparound services provided by supported quarantine and isolation programs.⁶

How to Integrate Supported Quarantine and Isolation Programs?

Quarantine and isolation are what allow contact tracing to break chains of transmission. No matter how many people are contacted, if they cannot quarantine or isolate themselves for the recommended period of time, they risk exposing others. Without quarantine and isolation, contact tracing is just an information gathering exercise. For this reason, a core element of a successful contact tracing program is ensuring that people quarantine or isolate. Contact tracing programs are typically well-positioned to initiate and monitor the connection between an individual and the resources they need to successfully quarantine and isolate, either directly or through the use of resource navigators.⁷

In Massachusetts, for example, contact tracers connect notified individuals with care resource navigators who help people gain access to available resources to facilitate successful quarantine or isolation.⁸ Quarantine programs may also be mandatory for travelers who could be infected and expose the receiving population - in New York, travelers from non-contiguous states **must register with local health authorities** who will check-in to ensure compliance and to connect the traveler to quarantine support resources as necessary.⁹

5 Id. See also, Margaret Bourdeaux, Jessica Kaushal, Linda J. Bilmes, Annmarie Sasdi, Megan Mishra, and Anne Hoyt, "Estimating the Costs and Benefits of Supported Quarantine and Isolation in Massachusetts: The Missing Link in Covid-19 Response," HKS Faculty Research Working Paper Series RWP21-003, February 2021, accessed March 3, 2021, <https://www.hks.harvard.edu/publications/estimating-costs-and-benefits-supported-quarantine-and-isolation-massachusetts-missing>; Priya Dhagat, Syra Madad, Rituparna Pati, and Janet Wang, "Infection Prevention and Control and Environmental Health and Safety for COVID-19 Isolation and Quarantine Hotels: Tailoring Existing Recommendations and Implementing Innovative Strategies within the Hotel Setting," December 2020, accessed March 3, 2021, <https://hhinternet.blob.core.windows.net/uploads/2021/01/covid-19-hotels-infection-prevention-and-environment-health-and-safety-guide.pdf>

6 Bourdeaux, BKC Q&I Event, 11:04-16:39.

7 Id., 8:38-9:07.

8 Id., 15:00-16:25.

9 Id., 8:38-9:07 and 10:27-11:01.

How Much Do Supported Quarantine and Isolation Programs Cost?

Although these programs may seem prohibitively expensive, **deploying supported quarantine and isolation programs may be less expensive than unsupported programs, which eventually will lead to increased sickness and death and significant state-borne medical costs.**¹⁰ Researchers at Harvard Medical School, the Harvard Kennedy School of Government, and the Harvard Graduate School of Education created a **cost estimate model** for a supported quarantine and isolation program in Massachusetts and found that even a fractional reduction in the effective reproduction number (R_t) due to supported quarantine and isolation would offset the programmatic costs due to reduced medical costs.¹¹ The research team modeled a \$300-\$570 million supported quarantine and isolation program consisting of a universal wage-loss mitigation plan that would provide a \$50 daily stipend over a seven day period; as well as logistical costs for deliveries, wraparound services like mental health and substance abuse counseling, and alternate care facilities for the estimated portion of the population that would need these services.¹² According to Dr. Bilmes, one of the model authors, compared to the cost of inaction, supported quarantine and isolation programs can be a relatively “cost-effective way of spending public funds.”¹³

This counterfactual does not even account for other potential cost-savings accrued from providing these various social services. In addition to the benefit of fewer infections, jurisdictions should also consider the benefit of providing isolated or quarantined individuals with continued access to services like substance abuse or mental health counseling and avoiding the costs associated with loss of housing or employment.¹⁴

The \$1.9 trillion dollar COVID relief package recently approved by the House contains \$46 billion dollars for contact tracing and testing. According to Dr. Bilmes, states can and should use a portion of these funds for supported quarantine.¹⁵

Lessons from the Field: Supported Quarantine and Isolation Programs in New York City and the Navajo Nation

Each jurisdiction will need to adapt best practices and general principles to fit their local needs and capacities. Still, robust support programs will depend on access to state and federal resources in the form of expertise and funding. State, local, tribal, and territorial entities launching quarantine and isolation programs can use their own emergency preparedness and infection prevention and control (IPC) expertise, but should also look to regional HHS and FEMA resources as well as guidance from jurisdictions that have launched similar programs. **The Federal Healthcare Resilience Task Force Alternate Care Site Toolkit**, for example, provides health authorities with extensive general

10 Dr. Linda J. Bilmes, BKC Q&I Event, 50:42-59:40.

11 Bourdeaux et al., 2021, 13-15; and Bilmes, BKC Q&I Event, 52:56-53:55.

12 Bourdeaux et al., 2021, 9-16; Bilmes, BKC Q&I Event, 52:56-56:40.

13 Bilmes, BKC Q&I Event, 50:41-51:18 and 56:40-58:04.

14 Id., 58:05-58:51.

15 Id., 53:55-54:25 and 59:40-1:00:57.

guidance concerning the establishment of alternate-care sites in response to COVID-19 and other emergencies. The supported quarantine and isolation programs established in New York City and Gallup, New Mexico, two extremely different jurisdictions in terms of population and resources, exemplify the ability of local officials to effectively marshal a combination of community, local, state, and federal resources to build need-tailored Q&I programs from the ground-up.

New York City ‘Take Care’ Program Overview:

The **New York City Test & Trace Corps** consists of three pillars: an extensive community testing program; a community-based contact tracing unit and a congregate settings contact tracing unit, and; a ‘Take Care’ operation tasked with providing resources to people exposed or diagnosed with COVID so they can effectively isolate or quarantine either at home or in a hotel-based facility.¹⁶

The Test & Trace Corps is a partnership between the **NYC Department of Health and Mental Hygiene** and the **NYC Health and Hospitals (NYCHHC)**, which operate the public hospitals and clinics in NYC.¹⁷ The Take Care leadership spans agencies and sectors with representatives from **NYCHHC**, the **Mayor’s Office of Housing Recovery Operations**, the **Department of Health and Mental Hygiene**, and **community-based organization partners (CBOs)**.¹⁸ It is funded through a combination of CARES Act, Community Development Block Grant (CDBG), FEMA, and City Tax Levy funds.¹⁹ Because test results and contact tracing take time, individuals who believe they are exposed or positive can also call a hot-line to proactively obtain at-home resources or hotel accommodation.²⁰

‘Take Care’ Hotel-Based Program:

In general, contact tracers encourage exposed or COVID-positive individuals who do not warrant hospitalization to use free hotel-based quarantine and isolation options over home isolation.²¹ New York City’s case map data informed this policy, which shows that the majority of cases are in areas with higher rates of multigenerational homes, overcrowding, and populations that are unable to work from home.²²

Authorities learned that it was important to stress the available amenities (free Wi-Fi, cable TV, free transportation to and from the hotel) and to communicate that, while there are on-site medical professionals, the hotel-based options are not hospital settings.²³

Infection prevention and control considerations are the “cornerstone” of a successful alternate facility care program.²⁴ NYCHHC released **detailed documentation of the NYC COVID-19 Hotel Program**, which includes Isolation and Quarantine Hotels and Risk-Reduction Hotels. The guidance includes information on team composition, health and safety training, location selection, floorplanning, housekeeping, food services, security, and other considerations.²⁵

16 Dr. Amanda Johnson, BKC Q&I Event, 17:30 - 19:00.

17 Id.

18 Johnson, BKC Q&I Event, 17:30 - 19:00

19 Johnson, BKC Q&I Event, 17:30 - 19:00.

20 Johnson, BKC Q&I Event, 21:30 - 22:00.

21 Johnson, BKC Q&I Event, 19:00 - 20:15.

22 Id.

23 Johnson, BKC Q&I Event, 28:10 - 29:00.

24 Dr. Syra S. Madad, BKC Q&I Event, 29:00 - 29:45.

25 Dhagat et al. 2020.

‘Take Care’ At-Home Program:

For people who opt to isolate or quarantine at home, Take Care contracts with CBOs that provide approximately 400 professional resource navigators to ensure individuals can get the local, state, and federal resources they need.²⁶ After completing a contact tracing interview, people are referred to a resource navigator who assesses the individuals’ needs, aiming to deliver tailored services.²⁷ The Take Care program leans heavily on CBOs’ local expertise, language skills, and community trust, while the overall operation is coordinated by the Mayor’s Office of Housing Recovery Operations.²⁸

The at-home program provides free resources for services that include food delivery, securing paid leave from an employer, medicine delivery (including methadone), mental health support, and social services.²⁹ Emergency food home delivery - the most requested resource from resource navigators - is supplied through GetFoodNYC. Deliveries are run by the Department of Sanitation, as they were well-positioned to get food out to people.³⁰ Deliveries consist of up to 18 meals every three days for a two-week period, individuals can select for certain dietary restrictions, and requests are delivered within 24 hours.³¹ Every case and contact is also provided with a **Take Care package** that contains PPE, a thermometer and a pulse oximeter to help monitor health status, and an informational booklet on safely separating at home available in fourteen languages. At-home testing kits are available upon request.³²

Successes and Challenges:

Dr. Amanda Johnson, Senior Director of Care Models in the Office of Ambulatory Care for NYC Health + Hospitals, described three successes and challenges since the launch of the Take Care At-Home effort in the beginning of June.

Major successes were:

1. Quickly establishing a cross-agency, cross-sector partnership;
2. Integrating the resource navigation customer relations management system into the separate system used by contact tracers, creating a unified system that streamlined operations and improved patient hand-offs between contact tracers and resource navigators;
3. Expansion of the resources that were provided by resource navigators and improved accessibility to local, state, and federal programs.

Major challenges included:

1. Difficulty in supplying in-person child or adult care for households in quarantine or isolation, although facility-based programs can provide solutions in some of these instances;
2. Difficulty in integrating information systems in the midst of an emergency;

26 Johnson, BKC Q&I Event, 20:10 - 21:45.

27 Id.

28 Id.

29 Johnson, BKC Q&I Event, 22:00 - 22:20.

30 Johnson, BKC Q&I Event, 22:20 - 23:40.

31 Id.

32 Johnson, BKC Q&I Event, 23:40 - 24:50.

3. Challenges managing across formerly independent agencies and community based organizations.³³

Understanding Supported Quarantine and Isolation Needs in the Navajo Nation:

McKinley County and the surrounding areas covered by the Gallup Indian Medical Center in rural Northwestern New Mexico are consistently ranked as among the **hardest hit by COVID-19 in terms of per capita cases and confirmed deaths**.³⁴ McKinley County has the highest CDC social vulnerability index in New Mexico - a measure that considers characteristics such as socio-economic status, household composition, disability, minority status, language, housing, and transportation.³⁵ The same area is also heavily impacted by substance-abuse. McKinley County has nearly six times the rate of alcohol-related deaths as compared to the United States average, with members of the indigenous population bearing the highest-burden of alcohol-related deaths.³⁶ Roughly a third of the population living within the Navajo Nation's borders lack either running water or electricity.³⁷ These generations' old characteristics are key to understanding why COVID-19 has such severe impacts in this community and deeply inform the COVID-19 mitigation strategies deployed by local health officials.

According to Dr. Mia Lozada and Dr. Jennie Wei, physicians at Gallup Indian Medical Center, COVID most severely impacted American Indians with lower socio-economic status, living in multi-generational homes and suffering from substance abuse disorders.³⁸ Many of these individuals could not safely isolate or quarantine at home. Unfortunately, many of the alternate care facilities in the region did not take individuals with substance abuse disorders creating a gap in effective mitigation.³⁹

A Rapid Community, Hospital, and State Response:

On March 10th, 2020, local officials in Gallup enacted a plan to halve the nightly population level - which averaged 100 people per night - at the local detox facility due to the risk of transmission in a congregate setting. Unfortunately, this resulted in more emergency room visits, straining the already overburdened Gallup Indian Medical Center. Initially, health care providers and community members raised their own funds to put individuals in hotels in order to reduce the congregate setting population and ER visits. On March 24th, a partnership between the community, the hospital, and the New Mexico Department of Health established the first Isolation Shelter in El Rancho using CARES Act and FEMA funds to place exposed or positive individuals into hotel rooms. On April 6, there was a COVID outbreak at the Gallup Detox Center where one individual exposed over 170 people within three days, 75% of whom later tested positive. This led to a quick expansion in the number of isolation units needed, and by late April, the hotel program increased from a dozen hotel

33 Johnson, BKC Q&I Event, 24:50 - 28:00.

34 "Monitoring the Coronavirus Outbreak in Metro Areas Across the U.S." *The New York Times*, last accessed March 3rd, 2020, available at: <https://www.nytimes.com/interactive/2020/04/23/upshot/five-ways-to-monitor-coronavirus-outbreak-us.html>

35 Dr. Mia Lozada, BKC Q&I Event, 35:40-38:00.

36 Dr. Jennie Wei, BKC Q&I Event, 38:25-40:00.

37 Lozada, BKC Q&I Event, 35:40-38:00.

38 Lozada, BKC Q&I Event, 35:40-38:00.

39 Wei, BKC Q&I Event, 40:00-40:30

rooms to four motels with a ~140-160 patient capacity.⁴⁰

Once established, the hotels were equipped with both the on-site and tele-medicine medical resources needed to take care of individuals suffering from alcohol withdrawal and other medical issues in addition to COVID. Staff and volunteers from the Community Outreach and Patient Empowerment organization were on call 24/7 to address other patient needs.⁴¹ Certified Peer Workers, chaplains, Native American medicine practitioners, and Navajo interpreters all played a role fulfilling patient needs.⁴²

Unanticipated Positive Outcomes:

An unanticipated outcome of the supported quarantine and isolation program was its function as a springboard for dozens of individuals into inpatient rehabilitation programs for substance abuse.⁴³ Providing a stable housing environment enabled individuals to complete the necessary paperwork and lab work to receive placement into longer term care.⁴⁴

According to Dr. Jennie Wei, running these programs was also a life-line for struggling local businesses, specifically the repurposed hotels and the restaurants catering and delivering meals.⁴⁵ Local hospitals were also able to receive federal funds to compensate for home check-in visits.⁴⁶

The BKC Policy Practice: Digital Pandemic Response program is generously supported by the Ford Foundation, Hewlett Foundation, and the MacArthur Foundation.

For further information and to discuss the content of this memo: contact the Program in Global Public Policy at Department of Global Medicine & Social Change at Harvard Medical School (annmarie_sasdi@hms.harvard.edu)

40 Wei, BKC Q&I Event, 40:25-45:00 (discussion of entire timeline is found here)

41 Lozada, BKC Q&I Event, 47:00-48:00 (describing the numerous entities involved in operating the hotel program)

42 Id.

43 Wei, BKC Q&I Event, 48:00 - 49:00

44 Id.

45 Wei, BKC Q&I Event, 1:06:00-1:07:30

46 Wei, BKC Q&I Event, 1:06:00-1:07:30