

GOVERNMENT

SOUTH CAROLINA COVID-19 VACCINATION PROGRAM



CASE STUDY | COVID-19 VACCINATION RESPONSE

STATE OF SOUTH CAROLINA LEVERAGES FIRM'S EMERGENCY RESPONSE EXPERTS TO SUPPORT COVID-19 VACCINATION

CHALLENGE

Since COVID-19 vaccines became available in December 2020, governments at the federal, state, and local levels have worked tirelessly to plan for and implement complex delivery logistics. Vaccination campaigns require mobilization of vast and varied delivery infrastructures, accessing disparate populations that present an array of challenges, and allowing for the vaccines' rigorous storage and handling requirements.

South Carolina agency leaders for emergency management and health were aware early of the daunting challenges of the vaccination phase of the COVID-19 response. The speed and frequency with which state agencies must re-assess and re-calibrate their vaccine allocations leave little time and capacity to consider operational improvements and long-range planning. South Carolina recognized the need to provide a critical boost in both program planning and data management support for its vaccination campaign.

To help address the state's staff resource, planning, and data constraints, South Carolina leveraged its all-hazards disaster response contract with Witt O'Brien's. State agency leaders knew that having trusted emergency response experts on board could help both to fill capacity gaps and to play a consultative role in helping identify process changes and improve efficiency. The Witt O'Brien's team includes project management and liaison staff embedded on-site, a flexible roster of remote support resources and subject-matter experts, and a full-capability data and GIS partner - the Nomad Group. And because the state activated Witt O'Brien's using an existing emergency response stand-by contract, the cost of the consultative and administrative support is reimbursable by the federal government.

SOLUTION

Witt O'Brien's experts are supporting a number of critical initiatives:

Planning for tomorrow and beyond

The state's emergency management and health resources are fully committed to current operations, leaving limited capacity for planning in support of future needs



Our experienced experts lead local governments, communities and organizations through the COVID-19 pandemic response.

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- even as these rapidly approach. The Witt O'Brien's team is helping to fill this gap by supporting several planning assignments, several of them aimed at vaccinating underserved and hard-to-reach populations. These efforts are led by state health staff and supported by a state multi-agency team, with Witt O'Brien's adding critical process-support and providing a heavy lift on the drafting.

The first effort was planning for homebound populations. This difficult initiative gained the attention of the U.S. Centers for Disease Control and Prevention (CDC), which named it a national best practice and is publishing it as a "CDC Field Note." Additional related assignments from the State include planning for homeless populations and incarcerated persons.

Witt O'Brien's is supporting planning for community vaccination sites, as single dose vaccines become available. For this, the team is developing a process and event management checklist that local vaccine providers can deploy for mass vaccination events at sites such as county fairgrounds and stadiums. And finally, we have been requested to help the state finalize its existing draft state vaccination plan.

Molding the data to support decision-making

Even as South Carolina's COVID-19 team is managing daily vaccination delivery, it is also tasked with providing state leaders and local stakeholders regular updates on vaccinations administered - statewide and by county. Witt O'Brien's and its data partner, Nomad, supported the state in working through several significant challenges related to data collection, analysis, and reporting systems.

Challenges included data mismatches caused by vaccine recipients crossing county or even state lines; use of multiple data sets with distinct characteristics or inputs across different state agencies (or sometimes within the same agency); and reconciling historical data that had been built up in different formats using different data inputs. These data challenges are common to many governments and organizations across the country during this COVID-19 response and for other hazards. The team offered improvements to these issues that supported South Carolina's ability to provide information quickly and accurately, to support decision-making.

The Witt O'Brien's team has also been able to take an outside-in look at key aspects of the vaccine delivery and tracking processes. They have helped streamline data flow and alignment to incident-management priorities. The team is examining linkages between the data and decision-support requirements, supporting design of data visualizations that better inform leadership decisions.

The team has helped recognize instances where what manifests as a "data challenge" is really a "people challenge." In such cases, the Witt O'Brien's team has helped resolve data

dilemmas by recasting them in organizational terms, defining stakeholders' needs, and then reorganizing data inputs, flow, filtering, and outputs to achieve desired outcomes.

Automating vaccine allocation calculation to enable accurate delivery at scale

Once states receive vaccines, data becomes tremendously important for decision-support, including planning allocations for local provider networks. But data can be difficult to input, analyze, and use in real time, especially amidst the demands of ongoing response, and ongoing uncertainty over the timing and volume of new vaccines' deliveries.

As of late February, South Carolina receiving roughly 80,000 vaccine doses per week to fulfill up to 130,000 requests from several hundred providers across numerous counties. Distribution of these doses was being handled using a laborious manual system. The state recognized that this system was not scalable or sustainable. So, to meet the goal of initiating Phase "One-Bravo" later in the spring, agency leaders committed to implementing a new, dynamic allocation model that would allow the program to scale efficiently.

The team's data experts developed an automated allocation algorithm that enabled the immunization group to determine an accurate county vaccine allocation breakout; this is based on a per capita distribution and that considers a social vulnerability index for the area. The algorithm is designed to improve, optimize, and simplify the allocation system, allowing it to receive provider requests, and use it to derive optimal allocation. The algorithm and allocation system allows the immunization team to be agile and respond quickly to shifts in vaccine availability and to scale up operations when vaccine volumes, the number of eligible residents and the number of providers increase dramatically as expected later in 2021.

RESILIENCE DELIVERED

It takes wisdom and clarity for an organization's leadership to recognize that its teams are nearing capacity and it is time to bring in expert help. Working with a trusted partner like Witt O'Brien's, South Carolina was able to augment staff capacity quickly and easily across a variety of tasks. The Witt O'Brien's team was able to tap into its network of skilled professionals and subcontractors to quickly fill specialty needs as part of a project team. Having onsite representation has allowed the team to observe and participate in day-to-day activity, and to recommend easy fixes to improve efficiency, including reducing the number of meetings and balancing workloads.

Witt O'Brien's is providing a force multiplier to South Carolina, providing services, deliverables, and advice to agency leadership, and consulting advice. The state is now forging ahead with confidence that it is taking the best approach to bringing critically needed COVID-19 relief to their communities.