New Orleans COVID-19 Response:

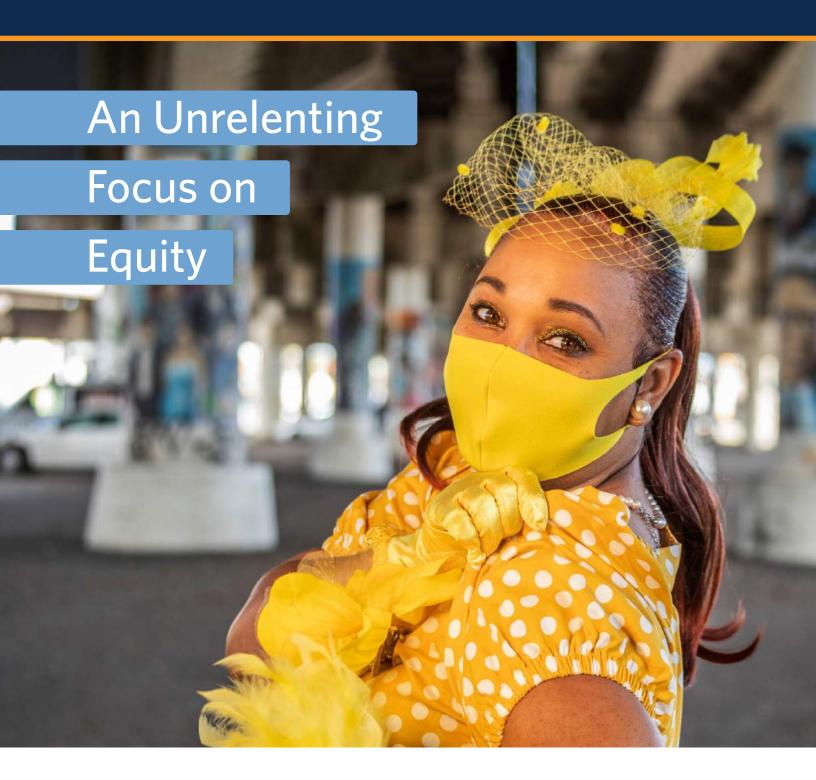






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COVER: A member of the N'awlins Dawlins Baby Dolls, an all-female club that holds volunteer and social events, and dances mightily on Mardi Gras. *Photo by Crista Rock for the City of New Orleans;* PAGE 2: Local art from the "ExhibitBe" located on the Westbank. *Photo by Tina Damalas / PIH*; BACK COVER: A painting of Dr. Martin Luther King Jr. and other Black leaders from the installation "ExhibitBe" located on the Westbank. Painted by artist, Brandan "BMike" Odums. *Photo by Tina Damalas / PIH*

Background & Introduction

Since early spring of 2020, the "big little city" of New Orleans, Louisiana has battled the COVID-19 pandemic, led by the New Orleans Health Department (NOHD). The Department's response throughout has been characterized by a tightly coordinated, highly iterative operational strategy that learns from previous experiences—both prior to and during the COVID-19 crisis—and builds upon deep and well-cultivated relationships. The NOHD's unrelenting focus on equity has meant that it has focused on its most vulnerable residents, prioritizing them for outreach, testing, and vaccination. To identify and reach the people and places most in need, the NOHD has created collaborative data systems that provide nuanced and disaggregated data to guide resource allocation, resource and programmatic deployment, and community engagement. The outcome of these efforts has resulted in New Orleans having one of the most successful vaccine rollouts for cities with high social vulnerability index (SVI)1 (see Figure 1). This case study explores several key decisions and strategies that have promoted an equitable COVID response benefitting the city's residents now and into the future.

The city of New Orleans is a unique place, with a rich culture influenced by French, Spanish, Creole, Acadian, African, and Haitian backgrounds, and a long history as a crossroads for commerce, music, food, and culture. Its tight-knit population runs on relationships, passion for traditions, and shared experiences and values. These characteristics make it a well-loved destination for residents and visitors alike. However, its tropical climate and low-lying orientation along the

Mississippi River and Lake Pontchartrain make it susceptible to natural and man-made disasters, many of which have exacerbated underlying health and social inequities. The city has historically performed poorly in measures of health and well-being and is characterized by high levels of pervasive inequity in health and wealth.

When the COVID-19 pandemic hit the United States in early 2020, New Orleans was one of the hardest hit places in the country in the aftermath of that season's Mardi Gras, a yearly celebration that brings more than 1 million visitors through the city. In fact, by late March 2020, the New Orleans metro area briefly suffered from the highest per capita COVID-19 death rate in the country.² The toll was especially heavy for the city's communities of color and lower-income populations.

NOHD, headed by Dr. Jen Avegno and her team, was tasked with leading the city's COVID-19 response, including strategic planning and operational execution. NOHD's response is characterized by a highly iterative and flexible operational strategy that proactively incorporates lessons learned from the testing access landscape and assets from the city's emergency response experience into equitable vaccine programming and partnerships, while consistently maintaining equity as a guiding north star. NOHD approached the crisis guided by several central tenets: an unrelenting and proactive approach to equity in all aspects of response; a prioritization of disaggregated data to inform decision-making and resource deployment; tightly coordinated collaborative community engagement; and reliance on relationships, systems, and infrastructure cultivated during emergencies.

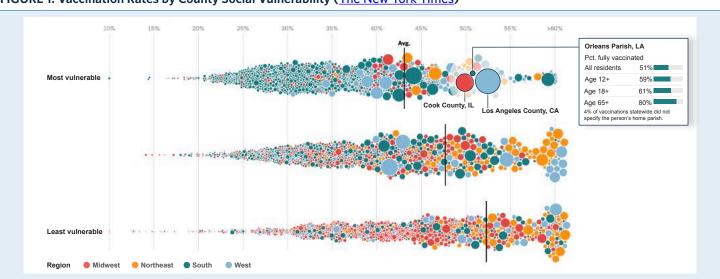


FIGURE 1: Vaccination Rates by County Social Vulnerability (The New York Times)

From The New York Times. Retrieved on July 23, 2021. Source: Centers for Disease Control and Prevention, Texas Department of State Health Services, Colorado Department of Public Health & Environment, Massachusetts Department of Public Health, U.S. Census Bureau | Note: No C.D.C. data available for Hawaii, Texas and some counties. Georgia, Vermont, Virginia and West Virginia were excluded because more than a quarter of data is missing.

^{*}New Orleans is a consolidated city-county where city and parish boundaries have been merged into one unified jurisdiction. Therefore, New Orleans and Orleans Parish refer to the same geographic area throughout this case study.

A Timeline of Selected Major Events in the New Orleans COVID-19 Response



NOV 2019 TO FEB 2020

11/1: City health assessment published

2/14 - 2/25: Mardi Gras 2020



APRIL 2020

4/7: Peak of COVID-19 cases **4/14:** Peak of COVID-19 deaths

4/21: 1st walk-up mobile testing sites opened



3/9: 1st recorded COVID-19 case

3/15: Start of data sharing with Louisiana Department of Health (LDH)

3/20: City of New Orleans Stay Home Order

3/21: Opening of federally-funded drive-through testing centers to the general public



NOV TO DEC 2020

11/1: Start of data sharing with city vaccine partners

11/1 - 12/31: Use of Special Needs Registry
12/1: Launch of Vaccine Equity Working Group
12/14: First COVID-19 vaccines administered in

New Orleans

MARCH 2021

MAY TO JUNE 2020

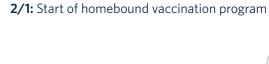
5/1: Start of data collection re: barriers in access to testing **6/1:** Start of census tract level data collection for testing

data



JAN TO FEB 2021

1/20: Launch of "Sleeves Up, NOLA" campaign





3/1: Launch of public NOHD Vaccine Dashboard

3/1: Start of census tract level data collection for vaccine data

3/4: Convention Center mass vaccination site opening

3/4: Musician's Clinic vaccination event

3/8: Launch of targeted census-tract level vaccine targeting (to achieve 75% coverage)

3/29: Open vaccine eligibility

APRIL 2021

4/1: Musician's Clinic vaccination event

4/9: Start of bar-based "Shots for Shots" events



MAY 2021

5/1: 50% of adults fully vaccinated

5/10: Pfizer vaccine eligibility expanded to 12-17 age group



COVID-19 Response: A Proactive Drive for Equity

Drawing on its deep contextual understanding of the city's inequities—particularly racial, ethnic, and economic—NOHD anticipated from the outset that the COVID-19 pandemic would disproportionately impact certain groups within the community. Bolstered by research into underlying inequities and their effects on health, with firsthand experience witnessing and combatting disparities in previous emergencies, and community relationships that enabled the department to have a nuanced picture of the diverse array of lived experiences within the city, NOHD sought to understand the structural inequities and systemic racism embedded within the public health, health care, economic, and housing systems. This understanding proved critical to pandemic response program design to proactively reach the city's most vulnerable and underserved residents.

Documentation of Underlying Inequities

NOHD was well-prepared to anticipate continuing inequity during the COVID-19 pandemic in part due to information compiled in The NOHD Community Health Assessment, most recently published in November 2019. The report outlined major disparities and identified several key themes as priority areas for improvement; the first theme is racial inequality. As Dr. Jen Avegno said, even prior to COVID-19, "we were always trying to deliberately undo generations of structural inequality." High levels of poverty, chronic illness, and comorbidities are documented in the city, with communities of color bearing the brunt of the burden.

Inequities Carry into COVID-19

Given the inequities outlined by the Community Health Assessment and the precedence for disasters' severest effects to play out along racial lines, it was no surprise when communities of color in New Orleans were disproportionately impacted by COVID-19.^{3,4,5} Though the city's population is 59% Black, Black residents had accounted for approximately 72% of deaths as of late June 2021. In April 2020, when the New Orleans metro area suffered from the 4th highest COVID deaths per capita in the country (83.3/100,000),⁶ Louisiana became one of the first states to release COVID-19 data by race. This decision was key to understanding the extent of the area's disparities, and it was the first step towards addressing them.

A SNAPSHOT OF COMMUNITY HEALTH

ASSESSMENT 2019 STATS

- ⇒ \$37,000: median household income (\$9,000 less than Louisiana, \$23,000 less than U.S. overall)
- → 25% of all residents live in poverty; 33% of Black and AIAN residents, 17% of Asian, 12% of white residents
- → 40% of children live in poverty
- ⇒ 9.9% of residents lack health insurance
- → 22% of residents are food insecure (compared to 17% in Louisiana and 13% in U.S. overall)
- ➡ Black infant mortality (10.5/1,000 births) occurs at a rate more than six times higher than for white infants (1.6/1,000 births)

As is true around the country, the disproportionate impact on Black residents can be attributed to a number of structural factors, including historic oppression and disinvestment in the infrastructure of Black communities, unequal access to high-quality care, and well-founded distrust of public health systems; as well as pandemic-specific factors including logistical and informational barriers to access to testing, treatment, and vaccinations; inability to safely isolate or quarantine when necessary due to living or employment circumstances; and other limitations.

COVID-19 Stats by Race/Ethnicity: Orleans Parish cases and deaths as percentage of population (as of June 23, 2021)

Race	Deaths	Cases	Population (2018)
Black	581 (72.4%)	15,810 (50.9 %)	232,789 (59.7 %)
White	209 (26.0%)	10,834 (34.9%)	132,423 (34.0 %)
Other	13 (1.6 %)	3,162 (10.2%)	24,436 (6.3%)
Unknown	0	1,233 (4.0 %)	N/A

*Source: LDH Dashboard

"We were looking for inequity... we are always looking for it."

-Dr. Jen Avegno

Testing: Overcoming Barriers to Access and Laying a Foundation for Future Programs

In addition to facing a disproportionate burden of COVID-19 disease, communities of color within the city faced barriers to access testing early in the pandemic. In late March 2020, in response to the burgeoning toll of COVID-19 in the city, three drive-through mass testing sites were opened to the general public with support from FEMA and the National Guard. While this drive-through model satisfied the need for high capacity (conducting over 15,000 tests in the first three weeks), NOHD anticipated and quickly confirmed several limitations with the process, as nearly one in five New Orleanians lack access to a private vehicle. Minority populations—the least likely to own a vehicle—were especially challenged in accessing these testing sites. Furthermore, the requirement for a state ID and strong military presence at the sites were also potential barriers for undocumented residents or people of color with historic distrust of government institutions.

In response, NOHD partnered with Louisiana State University (LSU) Health Sciences Center and the Louisiana Children's Medical Center (LCMC), one of the region's major non-profit health systems, to deploy mobile walk-up COVID-19 testing sites around the city. This action improved testing coverage in low-income and minority neighborhoods, brought services to those most disconnected, and provided equitable access to a critical component of COVID-19 treatment and recovery. Tests at the sites were free of charge and did not require an ID. Sites included access to interpreters in locally spoken languages including Spanish and Vietnamese, and were advertised in the media and at the neighborhood level by trusted messengers. During a Tulane University School

of Public Health and Tropical Medicine / NOHD study of testing data of nearly 10,000 patients at 20 sites operating May-June 2020, walk-up sites significantly increased testing availability in New Orleans, particularly among Black and Asian populations, and significantly decreased the distance traveled to get tested, particularly for elderly populations. See Appendix A for additional details of this study.

Vaccination: Leveraging Lessons from Testing to Promote Equity

With NOHD's testing approach, the department and its partners first demonstrated a strong commitment to search out inequity by collecting disaggregated data, seeking to understand its origins, and designing nimble interventions to combat it. NOHD built upon this experience in other areas of pandemic response as well. In particular, the important lessons learned from the testing model and process set NOHD and partners up to promote vaccine equity during the course of the city's vaccine rollout. In the city's initial COVID-19 Vaccine Distribution Plan, released in December 2020, NOHD explicitly prioritized equity. Even in advance of Louisiana's full opening of vaccine eligibility to all adults on March 29, 2021, NOHD targeted higher SVI communities for early priority vaccine access. These communities included high-need populations who are homebound, experiencing homelessness, medically underserved, and undocumented, as well as hard-hit communities of color. The city used census tract level SVI data, existing infrastructure, and knowledge by partners familiar with these populations to identify populations in need and provide effective and appropriate interventions to reach them. One example of the resultant programming is the EMS Homebound Program.

VACCINE EQUITY SPOTLIGHT

Beginning early in Phase 1A of vaccine rollout, residents with medical or mobility needs who cannot access a vaccine site could receive home-based vaccination services via the EMS Homebound Program, an effort in collaboration with New Orleans EMS, NOHD's Medical Reserve Corps, New Orleans Fire Department, and NOLA Ready. Individuals can self-request this service using the 311 line or nola.gov online portal. The City's Special Needs Registry, a list of over 4,000 individuals requiring evacuation assistance during a major hurricane, also offered a direct line of communication to many of the city's most vulnerable and homebound residents and was used to screen and schedule this group for vaccination.



Other sources of referral included senior services programs such as the New Orleans Council on Aging, the City of New Orleans COVID-19 Meal Assistance Program, and Meals on Wheels. Recipients of this homebound service are also **screened for resource needs, and provided with relevant social supports** such as food, mental health counseling, domestic violence support, and Medicaid assistance. **As of early July 2021, at least 360 of the city's most vulnerable residents were vaccinated through this program.**

ABOVE: New Orleans EMS and a member of NOHD's Medical Reserve Corps arrive at a residence to administer a home-based vaccination as a part of the EMS Homebound Program. *Photo courtesy of NOLA Ready*

NOHD and partners continually altered course when needed, following the data and taking cues from the community to correct inequity as it emerged. This awareness and flexibility lowered barriers to vaccine access. For instance, as vaccine eligibility guidelines opened, communities with greater access to technology, transportation, and free time were more easily able to schedule and attend vaccine appointments. NOHD and partners quickly pivoted to lower barriers to vaccination, setting up a staffed phone line so residents could make appointments via phone, eliminating the need for an email address or complex and time-consuming online registration and scheduling process, and offering free transportation to major vaccine sites.

After eligibility was opened, sites started waitlists to allocate extra doses to those on the list. However, data quickly showed that in certain neighborhoods, the people arriving at the end of the day to be vaccinated with extra doses had driven from suburban areas and were not representative of the neighborhoods the sites were intended to serve. This prompted a change in communication strategy for waitlisted

doses, moving away from social media and toward a more localized approach employing trusted messengers within the community and door-to-door outreach.

It can't be any more obvious that [COVID-19] is inequitable."

—Dr. Jen Avegno

This willingness to learn and pivot

based on an unrelenting equity focus also changed the type and size of vaccine sites deployed within the city to reach those hardest hit by COVID-19. Partners collected data not only on COVID-19 patterns of access, but also incorporated learnings from previous experiences like the flu vaccine to learn where, how, and to whom to best target vaccinations, and predict the concerns and needs of various populations. For example, when data showed that undocumented populations were more hesitant to come to larger mass vaccination sites, partners shifted to a smaller site-based model (including bar-based sites, see *Appendix B*) in target neighborhoods, including New Orleans East, home to a large Hispanic population.

It is our goal to provide **equitable access** during the vaccine distribution process in order to reduce the disproportionate effect of the virus for vulnerable populations, people of color and those with access and functional needs. Priority will be given to those with a high risk for severe disease including the elderly and residents with chronic diseases. To further promote equity, New Orleanians should have easy, direct access to vaccines at a variety of **locations.** We will use well known and trusted community partners to find locations that will be easy for residents to access, ensure that information is translated into multiple languages, and design sites so that residents feel comfortable."

 City of New Orleans COVID Vaccine Distribution Plan (December 2020)



A man who has recently received his vaccine at the LCMC Convention Center site shows his post-vaccination sticker. *Photo by Crista Rock for NOLA Ready*

Key Enablers of Equity

Across the spectrum of the city's COVID-19 response, several key enablers of equity stretched across programs for outreach, testing, and ultimately vaccination. Three main themes helped NOHD and partners usher in equity at all levels of pandemic response: targeted collection and strategic use of data to guide and evaluate operational programming, extensive and well-organized community engagement, and a reliance on relationships and systems from disaster management precedence.

Targeted Collection and Use of Data

Throughout the course of the pandemic, NOHD has been committed to data collection, analysis, and dissemination—ultimately informing operational decisions—as a foundational element of delivering an equitable COVID-19 response. As early as April 2020, NOHD publicized data that highlighted COVID-19's disproportionate impact on communities of color. This transparency engendered trust from the community—city residents as well as implementation partners—that enabled NOHD to make impactful decisions with widespread buy-in.

Given NOHD's highly resource-constrained operational environment, two factors have been key to its data-driven approach to decision making: establishing strategic partnerships with respect to personnel and data sharing agreements, and collecting data in a highly-targeted manner. To this end, NOHD has worked with the city's Department of Public Works (DPW) to assess data at a level of disaggregation that facilitated a nuanced understanding of the variability of the pandemic's impact on the city's diverse communities, including in access to COVID-19 care. These data have empowered NOHD to make real-time decisions to deploy resources and partners to areas of highest need.

In particular, the use of census tract level data has allowed the city to identify and eliminate barriers to access to testing and vaccination at a more granular level.

Strategic Partnerships in Data Collection and Analysis

NOHD's data analysis partnership with DPW proved to be strategically valuable over the course of the pandemic response: DPW has one of the largest scopes of oversight of any city departmental agency and, as a result, has a data team with a keen understanding of the city's data landscape and with the resources to apply specialized data analysis techniques (e.g., GIS mapping).

NOHD's close working relationship with LDH has also been pivotal in empowering the city to conduct targeted data analyses. A data sharing agreement brokered with LDH in March 2020 gave NOHD—and later its key operational partners—access to various COVID-19 data metrics at the census tract level, making Orleans Parish (i.e., the city of New Orleans) the only county in the state with access to this level of data disaggregation.



FIGURE 2: Partial snapshot of a scorecard, aggregated at the census tract level. Tracts are ranked 1-5 (5 being the highest risk) across five risk factor score calculations: minority population percentage, population below poverty level, population over 65 percentage, positive test result percentage, and case growth percentage from the previous week.

			Day out to	Over 65	Test Positive % of	Case % Growth	Prev Week	Overall
			Poverty	Over 65				Overall
Neighborhhod	Census Tract Number	Minority Risk	Risk	Risk	Population	from previous week	Score	Score
FLORIDA AREA	Census Tract 14.01	5	3	5	5	5	5	5
LITTLE WOODSFIX	Census Tract 17.39	5	3	5	5	5	5	5
MID-CITY	Census Tract 64	5	3	5	5	5	5	5
TALL TIMBERS-BRECHTEL	Census Tract 6.17	5	3	5	5	5	5	5
BEHRMAN	Census Tract 6.02	5	3	5	4	5	4	4
HOLLYGROVE	Census Tract 75.01	5	2	5	5	5	4	4

Targeted, Equity-Centric Data Assessment

The DPW/NOHD data team collected and analyzed COVID-19 data with a view to ensuring that the city's residents received a level of access to care that was in direct proportion to the level of impact that COVID-19 had on their livelihoods. For example, when it became clear nationwide that COVID-19 infection rates were disproportionately higher among essential workers, and that the insights gained from the city's COVID-19 scorecards (see *Figure 2*)—initially aggregated at the level of the city's zip codes (59 in total)—did not adequately illuminate the socioeconomic disparities that informed the likelihood that a resident of the city would be an essential worker, DPW transitioned to scorecards aggregated at the census tract level (169 in total). See *Appendix C* for complete sample scorecards.

This finer level of data disaggregation allowed NOHD to explicitly factor socioeconomic drivers of the differential risk of COVID-19 exposure (e.g., household income, SVI, etc.) into its operational decisions: census tracts were ranked from 1 to 5, and this ranking directly informed the locations of the mobile community-based testing and vaccination sites. Data disaggregation at the census tract level proved even more instrumental to equitable vaccine rollout. When Louisiana became one of the first states to open eligibility for the vaccines to anyone aged 16 years or older in March 2021, NOHD's Operations Team proactively worked with community partners to ensure effective outreach and vaccine access for members of the city's highest-need populations with "high need" defined primarily via census tract level SVI data (see mapped scorecard sample in Figure 4 on page 9). Vaccination rates were initially tracked as share of partially- or fully-vaccinated adults at the census tract level, with community-based vaccination sites, dose allocations, and ground outreach staffing levels determined in direct proportion to a census tract's percentage of unvaccinated adults. However, as the city's vaccination uptake rates began to decelerate, the data team recognized that census tracts varied in population size and defined a new census tract metric in mid-April 2021 that would drive a more equitable COVID-19 vaccine rollout: the [absolute] number of single/



ABOVE: NOLA Ready and Humana Insurance designed this poster featuring a custom illustration designed by local artist Terrance Osborne. When residents of New Orleans were vaccinated at a NOHD vaccination site, for a limited time they received a sticker with the illustration of this interpretation of Rosie the Riveter. *Image courtesy of NOLA Ready*

THE CITY OF NEW ORLEANS

Humana

first-round vaccination doses required to reach the 75% immunization threshold among that census tract's adult population, evaluated on a weekly basis (see *Figure 3*). The transition from percentage-of-vaccinated-adults to absolute-

number-of-unvaccinated-adults informed a "micro-targeted" approach that empowered NOHD's Operations Team to deploy resources to the city's underserved communities more effectively and efficiently.

FIGURE 3: Reported first-round vaccination per capita by census tract, dashboard screenshots. On April 19, the city average was 39%. However, each census tract shows absolute number of first-round vaccinations required to reach a 75% threshold among the area's adult population. The areas in red show lower vaccination coverage, while the red circles indicate priority areas for intervention. The second screenshot shows the same map on May 31. It is clear that many of the red areas have migrated to green, indicating higher vaccination coverage.

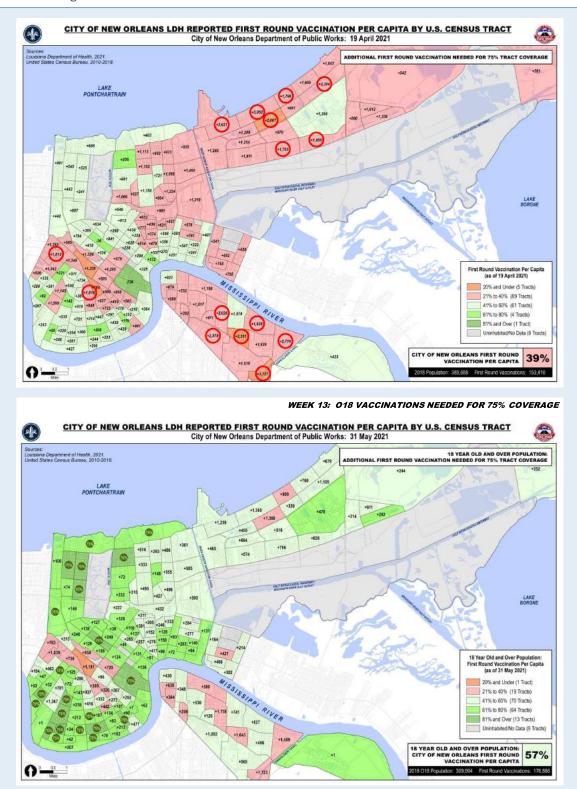


FIGURE 4: Map of COVID-19 cases by census tract risk factor score, as of July 7, 2020. A score of 1 (lighter red) indicates lowest risk, while a score of 5 (darker red) indicates highest risk.

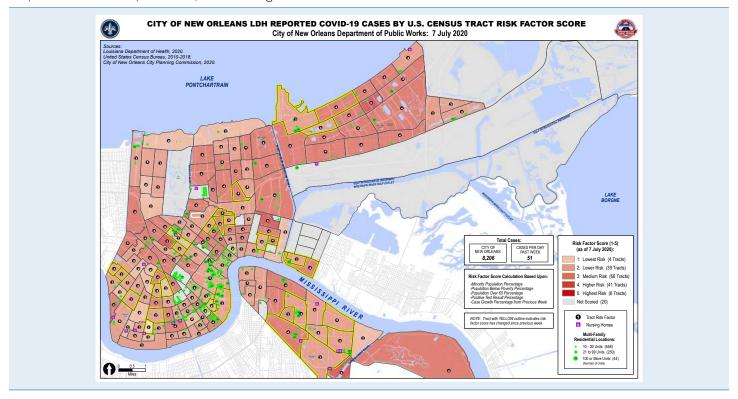


FIGURE 5: NODH/DPW/LDH GIS mapping techniques show vaccine series completion rates at the census tract level, tracking progress over the previous 4 weeks. This allows planners to track and target specific areas for tailored interventions.



Understanding the Generation and Application of Data: What, When, for Whom, Why?

The tables on the following pages illustrate key COVID-19 data metrics collected and analyzed by DPW, the frequency at which these metrics were iterated upon, the recipients of the various metrics and their relevant accompanying analyses, and a brief overview of how these data points informed resource deployment and/or other operational decisions of their respective recipients (or, alternatively expressed, insight into why these metrics were evaluated).

VACCINATION

Data metric	Decision maker / Data recipient	Operational decisions				
vaccination coverage (full; first-dose)	NOHD	Transparent messaging regarding progress & equitability of the COVID-19 vaccines' rollout; differential resource deployment where necessary				
[#]	NOLA Ready	Deployment of vaccination outreach personnel & resources; differentiated messaging needs				
RACE AGE SEX CENS CITY	CBOs and/or "trusted messengers"	Communities to focus on for vaccine outreach efforts (e.g., vaccination incentives); differentiated operational resource deployment				
vaccine doses administered as share of doses allocated [#]	NOHD	Feedback on utilization of outreach and operational resources and/ or how they may be better deployed; insight on vaccine dose allocation (e.g., indication of where local demand is insufficiently addressed (sites operating at ~100% capacity) or interim "saturation" may have been reached)				
	NOLA Ready	Feedback on efficacy of outreach efforts (e.g., if a site consistently has excess doses: (i) are people in the surrounding neighborhood inadequately aware of its presence?; or (ii) is the site facing more of a hesitancy or access issue?)				
D W CENS SITE	Clinical Operating Partners	Feedback on efficacy of operational approach (e.g., if a site consistently has excess doses whereas neighboring sites are consistently depleted, could operations be structured more efficiently or the patient experience enhanced?)				
share of vaccine doses: mass sites vs community-based mobile sites [#] W CITY	LDH	Differentiated, needs-driven allocation of vaccine doses (and accompanying operational resources)				
first-dose vaccines to be administered to reach 75% coverage [#]	NOHD	Equity-oriented / "micro-targeted" oversight of communities that are lagging w.r.t. "population immunity" goal; time-varying tracking of vaccine rollout progress by census tract underscored by probing of underlying structural factors by census tract; highly-differentiated resource deployment				
W	NOLA Ready	Highly-differentiated deployment of vaccination outreach personnel and resources				
CENS	CBOs and/or "trusted messengers"	Highly-differentiated deployment of vaccination outreach messaging (including incentives)				

KEY

Meeting Unit of Frequency Measurement		Stratifying/Disaggregating Factors					
D	Daily	#	Count	CENS	Census tract	CITY	City
W	Weekly	ratio	Ratio	RACE	Race or Ethnicity	SITE	Site
N/A	Intermittent	%	Percentage	AGE	Age	SEX	Sex

TESTING & OVERALL COVID-19 IMPACT

Data metric	Decision maker / Data recipient	Operational decisions					
daily new cases	LDH	Infection control resources and regulations; case investigation & contact tracing					
[#]	NOHD	Infection control regulations and differentiated resource allocation at the census tract level					
	NOLA Ready	Communities to focus on for outreach efforts					
D	CBOs and/or "trusted messengers"	Resource provision for safe quarantining of positive cases; broader social & resource support for indirectly-affected individuals; differentiated messaging needs					
AGE RACE CENS	Hospitals and FQHCs	Anticipated demand of emergency and in-patient care					
daily positivity rate	LDH	Infection control resources and regulations; incremental investment in testing infrastructure and resources					
[%]	NOHD	Infection control resources and regulations; how and where to deploy city resources to increase access to testing (e.g., more mobile testing sites; increased access to free parking)					
	NOLA Ready	Outreach messaging (e.g., focus on raising community awareness of testing site locations and requirements)					
AGE RACE CENS	CBOs	Complement NOLA Ready's initiatives (e.g., implement direct resource provision or other incentives at community-based testing sites)					
share of population: mass sites vs community-based mobile sites [ratio]	NOHD	How and where to deploy city resources to optimize access to testing					
W	NOLA Ready	Where to channel site-support personnel resources					
CITY	CBOs	Where to locate personnel and information resources					
distance travelled to nearest testing site [average] N/A CENS	NOHD (who would in turn share this info with LCMC and other community-based testing partners)	Resources requirements and deployment to increase access to testing (e.g., more mobile testing sites; increased access to free parking)					
NAAT vs antigen vs antibody tests [ratio] W CITY	LDH / NOHD	Anticipated demand for testing; high-level estimate of potential false negatives & positives; high-level retrospective estimate of asymptomatic infection rates					
deaths [#]	NOHD	Transparent messaging regarding equitability of COVID-19's impact (e.g., community risk factors including occupation, comorbidities, demographicthat predispose individuals to higher risk); resource deployment in direct proportion to scale of impact (e.g., how should PPE/testing/care/quarantine resources be scaled up in these affected communities?)					
	NOLA Ready	Differentiated messaging regarding COVID-19's impact; deployment of outreach personnel and resources; dissemination of guidance w.r.t. resources available for social distancing, testing, care, quarantine, etc.					
D W RACE AGE SEX CITY	CBOs and/or "trusted messengers"	Differentiated messaging regarding COVID-19's impact; deployment of social support resources (e.g., food provision, rental and utility assistance); dissemination of guidance w.r.t. resources available for social distancing, testing, care, quarantine, etc.					

KEY

Meeting Unit of Frequency Measurement		Stratifying/Disaggregating Factors					
D	Daily	#	Count	CENS	Census tract	CITY	City
W	Weekly	ratio	Ratio	RACE	Race or Ethnicity	SITE	Site
N/A	Intermittent	%	Percentage	AGE	Age	SEX	Sex

"All Hands on Deck": A Collaborative Approach to Community Engagement

about local needs and

addressable pressure points

within the community, and

built valuable platforms for

community

multi-modal

New Orleans is often referred to as a "little big city," its population of approximately 390,000 often feeling more like a small town. It is a tightly knit community based first and foremost on relationships, creating formal and informal opportunities for meaningful collaboration. A collective history of both incredible hardship and unbridled joy, a near-religious appreciation for maintaining local traditions and culture, and an undercurrent of shared responsibility create deeply interwoven social and professional ties that distinguish New Orleans from many other cities of its size and level of multicultural diversity.

NOHD was able to extend these relationships to the COVID-19 response, through coordinated engagement with both traditional and non-traditional community-based organizations. As a result of this collaboration, NOHD and partner NOLA Ready—the city's public facing emergency preparedness campaign managed by the Office of Homeland Security and Emergency Preparedness—gained tremendous intelligence

"New Orleans has hustle we have to make things ourselves and rely on our entrepreneurial spirit."

-Dr. Jen Avegno

most vulnerable populations, ensuring equitable access to information, testing, vaccination, and social supports.

engagement. This kept the community at the center of strategic

planning, outreach, and operations. In particular, the NOHD

leaned heavily on community partners to reach the city's

Dependence on Trusted Partners: Central Coordination, Shared Responsibility

NOLA Ready was responsible for much of the emergency communications campaigns and partner identification and coordination during the city's vaccine rollout. The group historically assists with emergency preparedness (involving direct community outreach with neighborhood groups, houses of worship, and other CBOs) and as a coordinating communications arm of Office of Homeland Security and Emergency Preparedness responds to shorter-term emergency events (i.e., hurricanes, tornados, floods, building collapses, etc.). As such, NOLA Ready is not just a well-known and trusted local brand, but was also well-placed to understand the partner landscape during the COVID-19 pandemic; the group knew every area in the city, and had key contacts with organizations and local leaders who are experienced and trusted communicators



lifeline. I didn't know how attached I'd get to that feeling—the joy of meeting new people in my community, offering aid, forming connections, better understanding my city, all while participating in this once-in-a-century public health effort that had more tangible meaning (saving lives) than anything I'd experienced. I loved the newness of every site, having to problem-solve on the fly, getting into deep conversations with strangers. It all felt urgent and magical."

-NOLA Ready Volunteer

within those areas. See *Appendix D* and *Appendix E* for additional sample communications materials from NOLA Ready.

With constrained resources and the prolonged emergency, NOHD and NOLA Ready needed a sustained and varied communication strategy; they could rely on these trusted partners to effectively and creatively perform community outreach. Particularly as vaccine eligibility opened to all adults in late March and the scope of work expanded, partner reliance became even more essential to reach those populations most at risk and in need. NOLA Ready coordinated financial, material, and informational materials, data, and trained volunteer staff at the central level to ensure consistency, avoid duplication, and deploy partners. The large-scale volunteer program, with over 4,500 volunteers in a combined database between the NOLA Ready Volunteer Corps and the Medical Reserve Corps, allowed for community ownership and nimbleness in serving the community (e.g, setting up vaccine sites quickly and during non-traditional hours). NOHD and NOLA Ready committed to involve capable and trusted partners to execute multimodal communications approaches to target and encourage widespread and equitable vaccine access.

Partners Informing Equity

NOHD and partners including NOLA Ready also gained valuable community insights to inform equitable vaccine messaging and programming through the "Identify willing and able partners and give them the reigns."

Laura Mellem,NOLA Ready

development of various Vaccine Equity Working Groups. In November 2020, the Vaccine Equity and Communications Working group was formed to design and coordinate vaccine-oriented communications that would resonate with diverse and nuanced audiences across the city. The group—which meets biweekly and is comprised of representatives from faith-based groups, Mardi Gras cultural leadership, disability advocacy organizations, and Latino and Black community leaders, among others—discusses vaccine equity in the city. In particular, the group identifies potential community vaccine sites and opportunities to reach vulnerable community members with accurate vaccine information, often using trusted messengers. This group initially suggested the use of Mardi Gras cultural icons for NOLA Ready's signature "Sleeves Up, NOLA" campaign.

BELOW: Two examples of social media graphics from the "Sleeves Up, NOLA!" campaign. See more examples in Appendix F.





TRUSTED PARTNER SPOTLIGHT

- ▶ NOLA Ready forged a close partnership with the **New Orleans Musicians Clinic** (NOMC), the country's only low- or nocost comprehensive medical clinic specifically dedicated to serving the needs of performing artists, culture workers, and tradition bearers. On March 4, 2021, over 238 cultural community members received first vaccine doses. NOMC staff worked with partner organizations to identify and connect with potential recipients and worked to register and schedule those who were interested; NOLA Ready and NOHD staff facilitated the vaccinations.
- ▶ Partnerships with **senior housing groups** allowed some of the city's most in-need residents to become vaccinated. These groups offered transportation and waitlist and registration assistance, and applied their knowledge of low-income senior communities to identify priority areas.
- ▶ Louisiana Children's Medical Center (LCMC), one of the region's major health care systems, ran the city's largest vaccination site at the Earnest N. Morial Convention Center with early funding from FEMA. With its expertise working with diverse populations and experience with emergency medical management, LCMC was well-positioned to understand and address barriers to access, utilize relationships with other agencies, and professionally plan and staff the site. The Convention Center site, medically staffed by LCMC employees with support from NOHD and NOLA Ready volunteers in non-medical roles, operated March 3, 2021 to May 29, 2021 and administered tens of thousands of COVID-19 vaccines before shutting down to shift focus to smaller neighborhood-based vaccination sites.

Krewes, social clubs that have long been embedded within the New Orleans community and are often associated with Carnival culture, are a fixture of city life, participating in parades, balls, and charity work. These uniquely local groups have been a critical—if non-traditional—partner for the city during various emergencies, including the COVID-19 response. Given their diverse membership and deep ties with communities, several

krewes worked with NOHD to develop and deliver tailored communications, provide referrals and connections to those most in need of supportive services, and execute targeted neighborhood-based approaches, extending the reach of the public health system into all reaches of the city.

Below are a few of the many examples of krewe assistance with COVID-19 response.

TRUSTED PARTNER SPOTLIGHT

The **Krewe of Harmonia**, a multicultural women's krewe committed to social responsibility, leveraged deep connections to several predominantly Black communities to assist with the city's vaccine rollout. The krewe captain is Chantell Reed, Deputy Director of the NOHD; Dr. Jen Avegno, Director of NOHD, is on the board. As a part of this work, krewe members performed neighborhood outreach "listening tours" in areas such as Tremé—Lafitte to understand vaccine knowledge, expectations, and sources of hesitancy, and share their own experiences with vaccination in a casual, conversational setting with relatable peers who understood local cultural competency. Members bolstered conversations with NOHD vaccine education handout materials and door hangers, and signed residents up for upcoming nearby vaccination events.

- ➡ In March 2021, the Krewe of Harmonia also partnered with one of the city's most well-known krewes, the Zulu Social Aid and Pleasure Club, to open a vaccine site and encourage its use as vaccine eligibility expanded.
- ➤ Krewe leadership worked with other krewes to encourage vaccination as a means not only for public health and safety, but also a return to the city's most well-loved cultural events, including Mardi Gras.

The **Krewe of Red Beans** (KRB) leveraged member relationships to prioritize reaching the city's culture-bearers (those who contribute to maintaining New Orleans' culture through art, music, writing, etc.), identifying and providing direct support to vulnerable community members, and alleviating the pandemic's economic impact for the city's artist community.

- → One of the KRB programs, Feed the Second Line, informally identified culture bearers and elders in need of direct material support and connected them to resources. Outof-work musicians were employed as outreach workers to recognize needs, such as food or transportation, among these referrals; if necessary, they shopped for and delivered a one month's supply food.
- → The resultant list of recipients in need was also used to provide vaccination assistance, eventually resulting in over 45 people choosing to be vaccinated. Workers helped with registration and scheduling, provided doorto-door service to the clinic for redirected extra vaccine doses, and transported people to and from vaccine sites.
- ▶ KRB programs created jobs for 186 people, served 128 culture bearers, and provided \$168,000 in groceries.



Members of the Krewe of Harmonia, including captain Chantell Reed (at left), Deputy Director of the NOHD, go door-to-door during a neighborhood listening and vaccine education tour. Photo courtesy of Krewe of Harmonia



Feed the Second Line began as a way to keep the krewe's grand marshall, Al "Carnival Time" Johnson safe during COVID—delivering groceries to his doorsteps by krewe volunteers. Photo by Ryan Hodgson-Rigsbee for Krewe of Red Beans

Traditional community-based organizations also stepped up to serve as trusted partners in the city's COVID-19 response, lending valuable expertise and community knowledge. Several examples are below:

- ➡ <u>Culture Aid NOLA</u> operated throughout the COVID-19 pandemic both independently and with partners (e.g., NOLA Ready, Krewe of Harmonia, CORE Response, faith-based entities) to provide fresh, free food to New Orleans residents. The organization has distributed food at testing and vaccination events and via home delivery for homebound or quarantining individuals. Culture Aid NOLA has emphasized a "no barrier, no stigma" approach that never requires beneficiaries to present identification documents or any other forms of paperwork and communicates in the city's three most-spoken languages (English, Spanish, Vietnamese).
- → The New Orleans chapter of <u>CORE Response</u> has conducted care resource coordination (CRC) work both as an extension of its testing services, as well as on

a standalone basis, over the course of the COVID-19 pandemic response. Distinct from many of its peer organizations who exclusively served individuals who had tested positive for COVID-19 and consequently needed resource coordination support to safely complete their quarantine period, CORE New Orleans extended its CRC services to all individuals on a COVID-agnostic basis. In recognition of the systemic challenges that limit the ability of many eligible beneficiaries to enroll in key social support programs (e.g., Medicaid, SNAP), the organization pioneered a single-point-of-entry CRC model. All individuals who presented at CORE's community-based walk-up testing sites were encouraged to complete a screening form to identify social support programs for which the beneficiary was eligible and, when eligibility was established, CORE extended preenrollment follow-up support via phone and/or facilitated direct referrals to local as appropriate.

Leveraging Pre-Existing Emergency Response Infrastructure

The location of low-lying New Orleans on the Gulf of Mexico makes it especially vulnerable to natural disasters that can have devastating effects. Multi-generational experience preparing for and responding to the region's natural disasters has created an infrastructure of emergency preparedness and recovery programs, as well as partnerships forged by the shared experience of living and working within this environment. In particular, lessons learned from Hurricane Katrina in 2005 that helped highlight widespread inequities in the city and surrounding areas hastened collaborative planning and implementation at two key levels: between and across NOHD and the city's leading hospital and safety net networks; and between NOHD and other government agencies (city, state, and federal). Because of the deep history of emergency response in the city, partners are not only collaborative, but also nimble—ready to quickly mobilize and change course when needed or directed. Further, readily available emergency response data and skill sets were redeployed to identify those most in need and enhance equitable access to care.

Medical System Coordination: Building off the Legacy of Hurricane Katrina

Today's health care landscape in New Orleans was indelibly shaped by Hurricane Katrina and the trauma experienced by so many residents caught within the storm. Post-Katrina, leaders of the city's major medical systems (LCMC, Ochsner, and Tulane) recognized the need to come together to respond to future emergencies more equitably to all residents, not

just the most fortunate. The importance of collaborative engagement was made clear: the consequences of an uncoordinated, siloed response simply could not be borne again. This reflective process encouraged partnerships between hospital groups that were previously unheard of and created collaborative cross-system engagement to share data, strategic insight, and responsibility. During the COVID-19 pandemic, hospital leaders were able to leverage these relationships into operational partnerships, supporting one another during this time of crisis.

TRUSTED PARTNER SPOTLIGHT

LCMC, one of the city's three main health care systems, operates **University Medical Center** (UMC), the major "safety net" hospital steeped in the tradition of the now-closed Charity Hospital; UMC serves the area's most vulnerable residents, including those without insurance.

In early spring 2020, the hospital quickly went from treating two COVID-19 cases to being overwhelmed with over 200. LCMC provides clinical expertise to the NOHD when needed during testing and vaccination events, and ran the largest vaccine site at the Convention Center. Insights informed by early clinical experience treating vulnerable COVID-19 patients helped LCMC streamline the vaccination process and reduce barriers in access to vaccines.

During the COVID-19 response, LCMC, Ochsner, and Tulane medical systems collaborated to achieve a single system approach to crisis care with an active partnership. At the height of the city's case counts, hospital leaders held daily calls to coordinate supplies and resources, understand patient flow and optimize patient care, and share best practices and data. When resources were especially constrained, the hospitals executed a collaborative testing strategy. To minimize dependence on electronic medical records, which can be labor-intensive and vary across medical systems, leaders developed a cross-hospital dashboard to better understand patient demographics and inform equitable programming; this collects data on patient addresses and is disaggregated by race and ethnicity. This coordination, a legacy emerged from Hurricane Katrina and extended to COVID-19 response, not only builds toward a short-term recovery of patients, but also contributes to long-term systems-based equity and health outcome improvement.

Agency Coordination

Another legacy of the robust emergency response infrastructure is the deep relationships formed between the city of New Orleans, including NOHD, and federal, state, and city agencies. Unlike many other jurisdictions across the country, New Orleans is nearly constantly planning for and responding to emergencies of varying scales. This process depends on correspondence, cooperation, and coordination with countless stakeholders at the federal, state, and city levels. These connections, developed during times of crisis and meticulously maintained by both sides, meant that NOHD was able to quickly activate these valuable relationships during the COVID-19 response, resulting in accelerated mobilized funding, staffing, programming, and insight into all levels of data and information.

- ➡ Federal Level: Based on close relationships to various federal agencies, NOHD was able to quickly and effectively draft and dispatch letters to FEMA and other agencies very early on in the pandemic, indicating the nature and scale of requested support. This resulted in "early wins" of rapid deployment of federal resources, including one of the county's first federally-supported mass testing sites. FEMA also provided significant financial support for the city's largest vaccination site at the Convention Center.
- → State Level: At the state level, NOHD and partners have especially close relationships with the Louisiana Department of Health (LDH) and collaborate closely together. LDH provides clinical, operational, and data-related guidance. In particular, the data-sharing relationship between LDH and NOHD that began in March 2020 has provided invaluable insights into disaggregated



ABOVE: Members of the Louisiana National Guard assist at a food distribution in partnership with Second Harvest Food Bank. *Photo by Crista Rock for NOLA Ready*

- census tract level data on cases, testing, and vaccination, and has informed the design and deployment of key programs and partnerships.
- ➡ City Level: City health and safety departments including Fire, Police, and EMS have served as key partners to NOHD in the pandemic response. With community trust and long-honed expertise, these agencies know the neighborhoods in which they operate and are able to execute targeted COVID-19 response programs. The Fire and EMS programs have assisted with various vaccination efforts, including the EMS Homebound Vaccination Program. Additionally, other city agencies have stepped in as needed: DPW staff have provided expertise in data and GIS analysis, and the Department of Homeland Security has contributed staff to assist in emergency response coordination.

Repurposing Emergency Response Infrastructure

Hurricane Katrina and other major emergencies also prompted the creation of several key infrastructure projects that NOHD and partners were able to quickly repurpose and deploy during the COVID-19 response. The Special Needs Registry, used primarily to link homebound individuals to home-based vaccination and social supports; NOLA Ready emergency text alert listserv, which offers a direct line of communication to over 200,000 residents; and 311 informational line are all legacies of the city's robust emergency response infrastructure that played major roles in contacting and connecting with those most in need during the COVID-19 pandemic.



Conclusion

New Orleans, a city long struggling with inequity, has approached COVID-19 with a robust, well-coordinated, and thoughtful response oriented toward serving *all* of its residents, including those who have systemically been shut out from high-quality, accessible programming that could improve health outcomes and generational success. Lessons learned in partnership with local collaborators—from community-based groups to large agencies—during the COVID-19 pandemic have shaped the way in which NOHD approaches planning and execution of interventions now and

into the future. NOHD's iterative strategy and entrepreneurial spirit helped to link those most in need with testing, vaccines, and supportive services that will allow the city to move forward from this current pandemic more quickly—and more fairly. The city's unrelating commitment to leveling the playing field during crisis will inevitably carry over into the future, expanding access to preventative and emergency care and forging impactful connections that will promote health and well-being for all New Orleanians.

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ABOUT THE NEW ORLEANS HEALTH DEPARTMENT:

The mission of the nationally accredited New Orleans Health Department (NOHD) is to protect, promote, and improve the health of all our residents where we live, learn, work and play. NOHD is committed to building a healthy New Orleans through equitable social and environmental conditions and through policies, programs, and partnerships that promote health. Learn more at www.nola.gov/health.

ABOUT PARTNERS IN HEALTH:

Partners In Health is a public health and social justice organization that responds to the moral imperative to provide high-quality health care globally to those who need it most. PIH was invited by the New Orleans Health Department to document and synthesize the city's effective and equitable response to COVID-19.

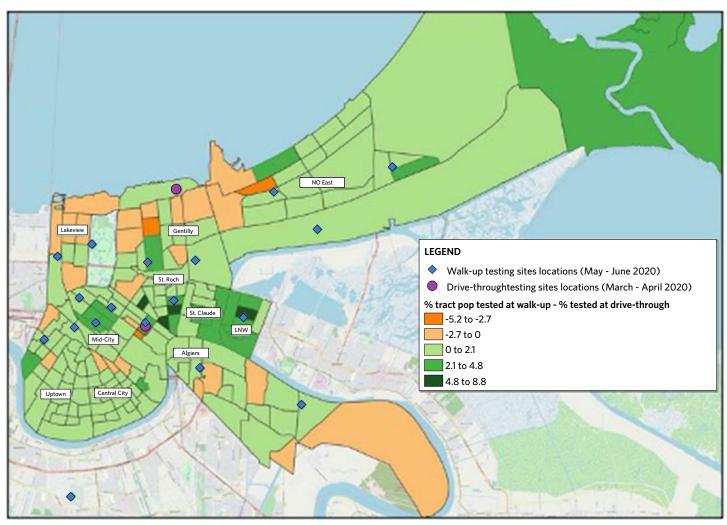
Since May 2020, PIH has helped states, cities, and communities across the U.S. address the impact of COVID-19 by working shoulder-to-shoulder with partners to advise, implement, and troubleshoot pandemic response strategies and initiatives, while also preparing for the recovery and rebuild efforts that must urgently follow. PIH is committed to building and strengthening resilient and responsive health systems in the U.S. that are rooted in access and equity for all. Learn more at PIH.org/usphau.

Endnotes

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- 7 Hernandez, J., Karletsos, D., Avegno, J., Reed, C. (2021) Is Covid-19 community level testing effective in reaching at-risk populations? Evidence from spatial analysis of New Orleans patient data at walk-up sites. *BMC Public Health*. 2021 April 1; 21: 632. https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-021-10717-9

Appendix A

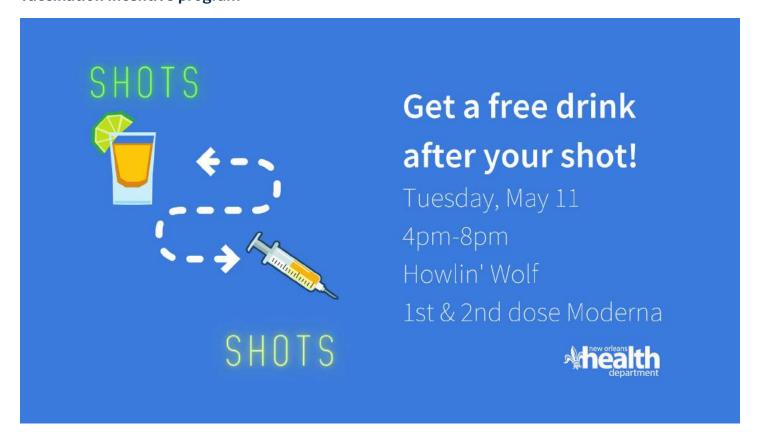
Difference between percentage of Orleans parish tract population tested at walk-up compared to drive-through sites.



Source: https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-021-10717-9

Appendix B

Sample communications material/social media graphic from NOHD's bar-based "Shots for Shots" vaccination incentive program



Appendix C

City of New Orleans COVID-19 sample scorecards (sample from July 2021), DPW/NOHD

	1		1	1	T	T	1_	
			Poverty	Over 65	Test Positive % of	Case % Growth	Prev Week	Overall
Neighborhhod	Census Tract Number	Minority Risk	Risk	Risk	Population	from previous week		Score
FLORIDA AREA	Census Tract 14.01	5	3	5	5	5	5	Score
LITTLE WOODSFIX	Census Tract 17.39	5	3	5	5	5	5	!
MID-CITY	Census Tract 64	5	3	5	5	5	5	!
TALL TIMBERS-BRECHTEL	Census Tract 6.17	5	3	5	5	5	5	į
BEHRMAN	Census Tract 6.02	5	3	5	4	5	4	4
HOLLYGROVE HOLY CROSS	Census Tract 75.01	5 5	2	5 5	5	5	3	4
LITTLE WOODS	Census Tract 7.02 Census Tract 17.40	5	3 2	5	5	5	5	2
READ BLVD WEST	Census Tract 17.40	5	2	5	5	5	4	-
FILMORE NORTH (Q1)	Census Tract 33.01	3	4	5	4	5	4	
FILMORE SOUTH (Q2)	Census Tract 33.02	5	2	4	5	5	4	
GENTILLY TERRACE	Census Tract 24.01	5	2	5	4	5	3	
GENTILLY WOODS	Census Tract 17.02	5	3	5	3	5	4	
LITTLE WOODS	Census Tract 17.37	5	2	5	4	5	4	
PINES VILLAGE	Census Tract 17.20	5	2	5	4	5	4	
READ BLVD EAST	Census Tract 17.47	5	2	5	4	5	4	4
READ BLVD EAST ST. ANTHONY EAST (Q2)	Census Tract 17.48 Census Tract 33.04	5 5	2	5	4 5	5 5	4	4
ST. ROCH SOUTH	Census Tract 19	5	2	4	5	5	4	-
TALL TIMBERS-BRECHTEL	Census Tract 19	5	3	5	3	5	2	
WEST LAKE FOREST	Census Tract 17.36	5	2	5	4	5	4	
DESIRE AREA	Census Tract 137	5	2	4	4	5	4	4
DILLARD	Census Tract 33.07	5	2	3	5	5	4	4
DIXON	Census Tract 76.05	5	3	5	2	5	4	4
LITTLE WOODS	Census Tract 17.25	5	4	5	5	1	2	
LITTLE WOODS	Census Tract 17.44	5	2	5	3	5	4	
MID-CITY	Census Tract 54	5	2	4	4	5	4	4
MILNEBURG NEW AURORA-ENGLISH TURN	Census Tract 25.02	5 5	3	3 5	5 2	5	4	-
PONTCHARTRAIN PARK	Census Tract 6.12 Census Tract 17.01	5	2	3	5	5	4	4
SEVENTH WARD	Census Tract 35	5	2	4	4	5	4	
TREME-LAFITTE	Census Tract 39	3	2	5	5	5	4	
WEST LAKE FOREST	Census Tract 17.35	5	2	5	3	5	4	
FRERET	Census Tract 111	5	2	4	3	5	4	4
SEVENTH WARD	Census Tract 28	4	2	5	3	5	3	4
ST. CLAUDE	Census Tract 13.02	5	2	4	3	5	3	4
TREME-LAFITTE	Census Tract 40	5	2	4	3	5	4	4
TREME-LAFITTE	Census Tract 44.01	5	2	4	3	5	4	4
BLACK PEARL	Census Tract 125	2	2	5	5	5	4	4
BROADMOOR CENTRAL CITY	Census Tract 123 Census Tract 94	5 5	2	5 5	2 2	5	2	-
GERT TOWN	Census Tract 70	5	2	3	4	5	4	-
MID-CITY	Census Tract 65	5	2	5	2	5	4	
SEVENTH WARD	Census Tract 31	5	2	5	2	5	3	4
SEVENTH WARD	Census Tract 34	5	2	4	4	4	4	4
ST. THOMAS DEV	Census Tract 141	5	2	5	2	5	4	4
LITTLE WOODS	Census Tract 17.45	4	2	3	4	5	4	4
CENTRAL CITY	Census Tract 84	5	2	3	3	5	3	4
DILLARD	Census Tract 33.08	2	2	4	5	5	4	4
GERT TOWN	Census Tract 72	5 1	5	5	2	5 5	4	4
LAKEWOOD MILAN	Census Tract 76.04 Census Tract 101	1 5	2	3	3	5	4	
SEVENTH WARD	Census Tract 29	5	2	3	3	5	4	
ST. CLAUDE	Census Tract 14.02	5	2	3	3	5	4	
ST. ROCH SOUTH	Census Tract 20	5	2	4	2	5	4	
TOURO	Census Tract 99	1	2	5	5	5	4	
TULANE-GRAVIER	Census Tract 60	5	2	3	3	5	4	
U.S. NAVAL BASE	Census Tract 6.05	4	2	4	3	5	4	
FAIRGROUNDS	Census Tract 37.01	5	1	3	4	5	4	
GENTILLY TERRACE	Census Tract 25.03	5	1	3	4	5	4	
PLUM ORCHARD CENTRAL CITY	Census Tract 17.22 Census Tract 85	5 5	1 1	3	4	5	3	
LITTLE WOODS	Census Tract 85	5	2	5	4	1	3	
McDONOGH	Census Tract 2	5	3	5	3	1	3	
MILAN	Census Tract 100	4	2	5	1	5	3	
OLD AURORA	Census Tract 6.16	4	2	3	3	5	4	
ST. ROCH NORTH	Census Tract 23	5	1	2	4	5	3	
VILLAGE DE LEST	Census Tract 17.50	5	1	2	4	5	3	
AUDUBON	Census Tract 119	1	3	5	3	5	3	
BAYOU ST. JOHN	Census Tract 41	1	3	5	3	5	3	
CENTRAL CITY	Census Tract 91	3	2	4	3	5	4	
CENTRAL CITY GENTILLY TERRACE	Census Tract 92 Census Tract 24.02	3	2	5 5	3 2	5	3	
GENTILLY TERRACE LEONIDAS	Census Tract 24.02	3	2	5	2	5	2	
McDONOGH	Census Tract 130	5	2	3	2	5	3	
UPTOWN	Census Tract 109	4	2	4	2	5	3	
WHITNEY	Census Tract 4	5	2	3	2	5	3	
ALGIERS POINT	Census Tract 1	2	3	5	1	5	3	

Appendix C

City of New Orleans COVID-19 sample scorecards (sample from July 2021), DPW/NOHD, cont.

r	1					ı		
BEHRMAN	Census Tract 6.03	2	2	3	4	5	4	3
BEHRMAN	Census Tract 6.04	5	2	5	3	1	2	3
BROADMOOR	Census Tract 112	5	2	3	5	1	4	3
BYWATER	Census Tract 12	3	2	5	1	5	3	3
CENTRAL CITY	Census Tract 139	5	1	2	3	5	3	3
FAIRGROUNDS	Census Tract 37.02	2	2	5	2	5	3	3
FRENCH QUARTER	Census Tract 135	1	2	5	3	5	3	3
HOLLYGROVE	Census Tract 75.02	5	1	1	4	5	3	3
IRISH CHANNEL	Census Tract 142	3	2	5	1	5	3	3
IRISH CHANNEL	Census Tract 88	2	2	5	2	5	3	3
LAKEVIEW NORTH (Q2)	Census Tract 56.02	1	3	5	2	5	3	3
LEONIDAS	Census Tract 132	2	2	5	2	5	3	3
LITTLE WOODS	Census Tract 17.43	3	1	2	5	5	4	3
LITTLE WOODS	Census Tract 17.46	5	1	2	3	5	3	3
OLD AURORA	Census Tract 6.15	4	3	5	3	1	3	3
SEVENTH WARD	Census Tract 27	5	2	5	3	1	3	3
TALL TIMBERS-BRECHTEL	Census Tract 6.18	3	1	3	4	5	4	3
VILLAGE DE LEST	Census Tract 17.41	5	1	2	3	5	3	3
VILLAGE DE LEST	Census Tract 17.49	5	1	2	3	5	3	3
WEST RIVERSIDE	Census Tract 144	2	2	5	2	5	3	3
TULANE-GRAVIER	Census Tract 49	5	1	3	2	5	3	3
HOLY CROSS	Census Tract 8	5	2	4	3	1	4	3
MID-CITY	Census Tract 8	5	3	5	1	1	3	3
MILNEBURG	Census Tract 145	5	2	4	3	1	3	3
	Census Tract 25.01 Census Tract 6.06	4	2	3	4	2	3	3
OLD AURORA		5	2	4	3	1		3
SEVENTH WARD	Census Tract 30						4	_
ST. ANTHONY EAST (Q2)	Census Tract 33.03	5	2	4	3	1	3	3
AUDUBON	Census Tract 120	1	2	5	2	5	3	3
AUDUBON	Census Tract 121.01	1	2	5	2	5	3	3
AUDUBON	Census Tract 121.02	2	2	4	2	5	2	3
CBD	Census Tract 134	2	2	5	5	1	3	3
EAST CARROLLTON	Census Tract 127	2	2	4	2	5	3	3
EAST RIVERSIDE	Census Tract 97	3	2	4	1	5	3	3
GENTILLY TERRACE	Census Tract 25.04	3	1	2	4	5	4	3
LAKEVIEW NORTH (Q2)	Census Tract 56.01	1	2	5	2	5	3	3
LOWER GARDEN DISTRICT	Census Tract 83	2	2	3	3	5	3	3
OLD AURORA	Census Tract 6.07	2	2	3	3	5	2	3
WEST RIVERSIDE	Census Tract 114	1	2	5	2	5	3	3
LEONIDAS	Census Tract 129	3	1	2	3	5	3	3
MID-CITY	Census Tract 63	1	2	4	2	5	2	3
WEST END	Census Tract 76.06	1	2	3	3	5	3	3
AUDUBON	Census Tract 116	1	2	5	1	5	3	3
BAYOU ST. JOHN	Census Tract 45	5	1	1	2	5	3	3
CITY PARK	Census Tract 46	1	2	5	1	5	3	3
EAST RIVERSIDE	Census Tract 96	3	1	3	2	5	3	3
FRENCH QUARTER	Census Tract 38	1	2	5	1	5	3	3
MID-CITY	Census Tract 71.01	2	2	3	2	5	3	3
SEVENTH WARD	Census Tract 36	5	1	1	2	5	4	3
ST. ROCH SOUTH	Census Tract 22	4	1	2	2	5	3	3
UPTOWN	Census Tract 107	2	2	3	2	5	3	3
LOWER GARDEN DISTRICT	Census Tract 77	3	3	5	1	1	1	3
ST. CLAUDE	Census Tract 13.01	4	1	3	4	1	3	3
CENTRAL CITY		4	2	4	2	1	3	3
	Census Tract 140	1	1	3	3	5	3	3
LAKEVIEW SOUTH (Q1)	Census Tract 56.04							3
LEONIDAS	Census Tract 131	5	2	3	2	1	3	3
MARIGNY	Census Tract 102	3	1	2	2	5	3	3
	Census Tract 18	2	2	3	1	5	2	3
IBERVILLE	Census Tract 48	5	1	2	3	1	2	2
MARIGNY	Census Tract 26	1	2	3	1	5	3	2
MARLYVILLE-FONTAINEBLEAU	Census Tract 128	1	1	2	3	5	2	2
BROADMOOR	Census Tract 103	2	1	1	2	5	3	2
LAKESHORE	Census Tract 133.01	1	1	2	2	5	2	2
LAKEVIEW SOUTH (Q1)	Census Tract 56.03	1	2	5	2	1	2	2
LOWER GARDEN DISTRICT	Census Tract 78	1	1	2	2	5	3	2
MID-CITY	Census Tract 50	3	2	3	2	1	3	2
NAVARRE	Census Tract 55	1	1	2	2	5	2	2
NEW AURORA-ENGLISH TURN	Census Tract 6.11	1	2	3	4	1	2	2
WEST RIVERSIDE	Census Tract 106	3	1	3	3	1	2	2
EAST CARROLLTON	Census Tract 126	1	2	5	1	1	2	2
LAKE TERRACE & OAKS	Census Tract 133.02	2	1	1	1	5	2	2
AUDUBON	Census Tract 115	1	2	4	1	1	2	2
AUDUBON	Census Tract 117	1	2	4	1	1	2	2
BYWATER	Census Tract 11	1	1	1	1	5	2	2
GARDEN DISTRICT	Census Tract 90	1	1	1	1	5	2	2
LOWER GARDEN DISTRICT	Census Tract 82	1	2	3	2	1	2	2
MARLYVILLE-FONTAINEBLEAU	Census Tract 124	2	2	3	1	1	2	2
MARLYVILLE-FONTAINEBLEAU	Census Tract 122	2	1	1	3	1	2	2
UPTOWN	Census Tract 122	1	1	2	2	1	2	1
OI IOVVIV	CCIISUS TIACL 100	1	1		4	1 1		1

Appendix C

City of New Orleans COVID-19 sample scorecards (sample from July 2021), DPW/NOHD, cont.

Ton Ton	Highast	Dorcotogo	Docitivo	Case Rate
lop len	Hignest	Percetage	Positive	case kate

				Percentage Positive	Percentage of	Percentage of
NHOOD	Tract ID	Positive Cases	Negative Cases	Case Rate	Pop Tested	Pop Test +
BLACK PEARL	Census Tract 125	85	273	23.74	20.65	4.90
ST. ANTHONY EAST (Q2)	Census Tract 33.04	102	366	21.79	26.82	5.85
TALL TIMBERS-BRECHTEL	Census Tract 6.17	146	526	21.73	15.51	3.37
TOURO	Census Tract 99	159	607	20.76	25.55	5.30
VILLAGE DE LEST	Census Tract 17.41	59	226	20.70	20.71	4.29
MILNEBURG	Census Tract 25.02	107	417	20.42	28.60	5.84
LITTLE WOODSFIX	Census Tract 17.39	84	331	20.24	28.84	5.84
BEHRMAN	Census Tract 6.04	154	608	20.21	19.41	3.92
LITTLE WOODS	Census Tract 17.24	197	783	20.10	23.26	4.68
ST. ROCH SOUTH	Census Tract 22	54	217	19.93	25.61	5.10

Top Ten Lowest Percetage Positive Case Rate

				Percentage Positive	Percentage of	Percentage of
NHOOD	Tract ID	Positive Cases	Negative Cases	Case Rate	Pop Tested	Pop Test +
LOWER GARDEN DISTRICT	Census Tract 78	4	195	2.01	16.57	0.33
BYWATER	Census Tract 12	11	322	3.30	19.89	0.66
MARIGNY	Census Tract 26	7	201	3.37	13.07	0.44
MARIGNY	Census Tract 18	9	255	3.41	19.12	0.65
BYWATER	Census Tract 11	15	340	4.23	21.35	0.90
AUDUBON	Census Tract 121.02	9	193	4.46	5.19	0.23
FRENCH QUARTER	Census Tract 135	14	297	4.50	13.30	0.60
EAST RIVERSIDE	Census Tract 96	14	272	4.90	20.36	1.00
BAYOU ST. JOHN	Census Tract 41	15	275	5.17	20.35	1.05
IRISH CHANNEL	Census Tract 142	17	303	5.31	19.06	1.01

Top Ten Highest Percentage of Population Tested

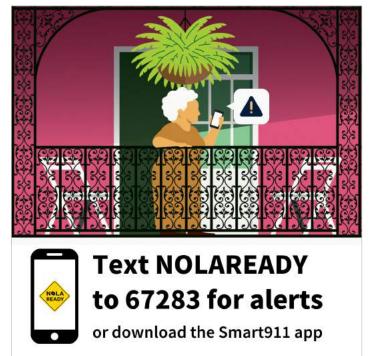
	Top Ten Ingriest Fortentage of Foptimizer Tester					
				Percentage Positive	Percentage of	Percentage of
NHOOD	Tract ID	Positive Cases	Negative Cases	Case Rate	Pop Tested	Pop Test +
CBD	Census Tract 134	111	839	11.68	41.74	4.88
TALL TIMBERS-BRECHTEL	Census Tract 6.13	192	1113	14.71	34.74	5.11
FILMORE NORTH (Q1)	Census Tract 33.01	59	438	11.87	31.46	3.73
MID-CITY	Census Tract 50	66	318	17.19	30.79	5.29
SEVENTH WARD	Census Tract 35	39	340	10.29	30.79	3.17
PONTCHARTRAIN PARK	Census Tract 17.01	78	368	17.49	30.09	5.26
TREME-LAFITTE	Census Tract 44.01	53	278	16.01	30.09	4.82
LAKEVIEW SOUTH (Q1)	Census Tract 56.04	39	336	10.40	29.98	3.12
DILLARD	Census Tract 33.07	58	291	16.62	29.40	4.89
FILMORE SOUTH (Q2)	Census Tract 33.02	144	628	18.65	29.17	5.44

Top Ten Lowest Percentage of Population Tested

				Percentage Positive	Percentage of	Percentage of
NHOOD	Tract ID	Positive Cases	Negative Cases	Case Rate	Pop Tested	Pop Test +
AUDUBON	Census Tract 121.02	9	193	4.46	5.19	0.23
GERT TOWN	Census Tract 70	20	124	13.89	8.80	1.22
AUDUBON	Census Tract 121.01	28	255	9.89	9.91	0.98
EAST CARROLLTON	Census Tract 126	13	231	5.33	12.56	0.67
OLD AURORA	Census Tract 6.15	91	420	17.81	12.73	2.27
LAKE TERRACE & OAKS	Census Tract 133.02	23	295	7.23	12.91	0.93
MARIGNY	Census Tract 26	7	201	3.37	13.07	0.44
FRENCH QUARTER	Census Tract 135	14	297	4.50	13.30	0.60
AUDUBON	Census Tract 119	22	214	9.32	13.56	1.26
EAST CARROLLTON	Census Tract 127	26	292	8.18	13.76	1.13

Appendix D

Social media graphics from NOLA Ready's emergency communications campaign





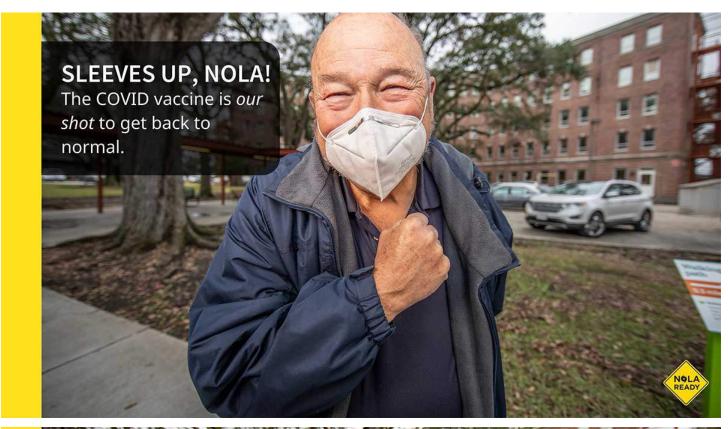
Appendix E

A sample of COVID-19 alerts sent to NOLA Ready's COVID-19 listserv via text message. Each text was sent to approximately 50,000 people.

Campaign Date	Message Name	SMS message content
5/11/2021	Pfizer Update	NOLAReady: Pfizer COVID vaccine now approved for ages 12 & up! See upcoming community vaccine events at ready.nola.gov/getvaccine (filter for Pfizer events).
5/11/2021	Shots for Shots at Howlin Wolf Today	NOLAReady: Shots for shots at the Howlin' Wolf today! Get your first- or second-dose Moderna vaccine & get a free drink! 4pm-8pm at 907 S. Peters St.
5/14/2021	Update to Mask Guidelines	NOLAReady: Fully vaccinated individuals in NOLA no longer need to mask or social distance. Unvaccinated individuals should mask, distance & get the vaccine ASAP
5/15/2021	Vaccines for Kids	NOLAReady: Pfizer or J&J at 1823 Washington Ave 11:30-1pm or at City Putt 2-5pm today. Kids 12+ welcome! More options & details: ready.nola.gov/getvaccine
5/16/2021	Lakefront Vaccines	NOLAReady: Pfizer & J&J near Lakefront Shelter #2 today from 4-7pm. First 50 people get a free Felipe's burrito. Kids 12+ welcome! ready.nola.gov/getvaccine
5/17/2021	Masks Required in Some Settings	NOLAReady: Everyone still required to mask in City of NOLA buildings, schools, hospitals, RTA, airport & business w/ mask requirements. ready.nola.gov/reopening
5/18/2021	COVID Update	NOLAReady: Did you know all 3 vaccines are 100% effective against COVID death? Cresent Care is offering Pfizer today. More options at ready.nola.gov/getvaccine
5/19/2021	NOLAREADY - COVID Update	NOLAReady: Plenty of one shot J&J vaccines at the Convention Center today 7am- 12pm (900 Convention Center Blvd). See other options at ready.nola.gov/getvaccine
5/21/2021	Burritos For Shots!	NOLAReady: Burritos for shots today at the Mid-City Felipes, 2-6pm (J&J or Pfizer)! See more vaccine options this weekend: ready.nola.gov/getvaccine
5/25/2021	Share Your Vaccine Story	NOLAReady: Studies show that unvaccinated NOLA residents are convinced to get the shot after hearing positive vax stories from family & friends. Spread the word
5/25/2021	COVID Guidelines Remain the Same	NOLAReady: No changes to COVID rules in NOLA at this time. City leaders will review State's changes & expect announcement later this week. ready.nola.gov/covid
5/26/2021	Updated COVID Guidelines	NOLAReady: New COVID rules in effect in NOLA Friday as cases remain low & vax rates increase. Larger events, 100% in gyms & no "last call." ready.nola.gov/covid
5/29/2021	Vaccines Today	NOLAReady: Want a free, safe & effective COVID vaccine today? Events in Kenner, Treme, NOLA East & City Park (free beignets!). More: ready.nola.gov/getvaccine
6/5/2021	Vaccine Events Cancelled	NOLAReady: Some COVID vaccine events have been cancelled this weekend due to weather, including City Park & Lakefront. See schedule at ready.nola.gov/getvaccine
6/11/2021	NOLAREADY - COVID Update	NOLAReady: Burritos for shots today at the Mid-City Felipes! 2-6pm. J&J or Pfizer provided. See more vaccine options this weekend: ready.nola.gov/getvaccine
6/21/2021	Shot at a Million	NOLAReady: Louisianans who've received at least 1 dose of the COVID vaccine can enter for a chance to win cash (18+) or scholarships (12-17)! shotatamillion.com
7/9/2021	Vaccine Stats	NOLAReady: LA COVID cases are rising with more-contagious Delta variant. Join the 68% of NOLA adults who've had at least 1 vaccine shot. ready.nola.gov/vaccine
7/19/2021	NOLAREADY - COVID Update	NOLAReady: NOLA COVID cases have increased 9x in the last two weeks due to the Delta variant, with 315 confirmed cases since Friday. See data at ready.nola.gov.
7/21/2021	Indoor Mask Advisory	NOLAReady: City of NOLA announced indoor mask advisory to slow spread. Everyone, regardless of vaccine status, should wear masks indoors. ready.nola.gov/covid

Appendix F

Sample of communications materials from NOLA Ready's "Sleeves Up, NOLA" campaign





Appendix E

Sample of communications materials from NOLA Ready's "Sleeves Up, NOLA" campaign, cont.



SÚBETE LA MANGA, NOLA!

La vacuna es la salida de la pandemia.



NOLA ready.nola.gov/vacuna



SÚBETE LA MANGA, NOLA!

La vacuna es la salida de la pandemia.



NOLA ready.nola.gov/vacuna



New Orleans Health Department Partners In Health

August 2021