Yakima Health District

COVID-19 After-Action Report

June 2023

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EXECUTIVE SUMMARY

In December 2019, health officials in Wuhan, China detected a viral pneumonia with unknown origins. The symptoms primarily affected the respiratory system, including fever, dry cough, and difficulty breathing. As the number of cases increased, the World Health Organization (WHO) launched an investigation and confirmed the presence of a new coronavirus called SARS-CoV-2. This led to the identification of the disease as COVID-19 (Coronavirus Disease 2019). The WHO declared a Public Health Emergency of International Concern on January 30, 2020. The PHEIC declaration ended on April 5, 2023. In the United States, the Federal COVID-19 Public Health Emergency (PHE) Declaration ended on May 11, 2023.[1] Although the declaration ended, COVID-19 continues to spread, and Yakima Health District will continue to incorporate some of the emergency response activities into the regular services delivered. This includes surveillance, vaccination campaigns, and outbreak investigation and management. The end of the PHE came after three years of nationwide mobilization of historic response to the COVID-19 pandemic (CDC). In United States of America, from January 3, 2020, to 3:20pm CEST, June 14, 2023, there have been 103,436,829 confirmed cases of COVID-19 with 1,127,152 deaths, reported to WHO. As of June 2, 2023, a total of 668,882,018 vaccine doses have been administered.[2]

Yakima County, in Washington State, was one of the hardest hit counties in terms of case rate, hospitalization rate and death rate. Yakima County experienced five waves of COVID-19 infections, with the largest wave occurring in late January 2022. The county reported a total of 84,000 cases, but the actual number is likely higher due to underreporting of at-home testing results. Hospitalizations followed the peaks of infections, with the highest rates occurring in late January and early February 2022. A total of 3,604 hospitalizations have been reported to Washington State DOH. Deaths in the county correlated with hospitalization peaks, with the highest death rates observed in summer 2020, fall 2021, and spring 2022. A total of 868 deaths have been reported to Washington State DOH. Vaccination efforts in Yakima County have led to approximately 68% of the population initiating the vaccine series and 60% completing it. Additionally, 48% of the population is eligible for booster vaccines, and about 20% have received a bivalent booster.

This After-Action Report was produced to evaluate the effectiveness of the Yakima Health District's (YHD) COVID-19 response and identify areas of improvement. This report used surveys sent to YHD staff and community partners, soliciting their feedback from the start of their involvement until the survey period. Questions covered employment duration, involvement in the COVID-19 response, and the respondent's specific role. Community partners were also asked to specify their organization's sector. Satisfaction was rated on a Likert scale of 1-4, and opportunities were provided for open-ended responses. The survey was open for two weeks, with reminders sent every three days.

The staff survey had an 89% response rate, with 40 out of 44 staff members participating. Of those, 25 staff members (55%) chose to provide feedback. YHD experienced growth in staff numbers during the pandemic, with a 47% increase from 30 staff members in 2020 to 44 staff members in 2023. About 18% of the new hires during this period were specifically recruited for COVID-19 response. Staff members who did not provide feedback were generally newer employees and not involved in the response.

The External Partner Survey gathered feedback from external community partners who were involved in the COVID-19 emergency response. The survey was sent to 432 individuals representing 13 community sectors, such as Community Based Organizations, Schools, faith-based organizations, local government, and Long-Term Care Facilities. There were 86 individuals who completed the survey, resulting in a response rate of 20%. While the response rate was low, there was a reasonable representation of community partners from different sectors.

The identification of strengths and areas for improvements was based on document review and results from the staff and community partner survey, which included open-ended responses and quantitative responses to satisfaction around various COVID-19 response activities. For staff, these activities included staff training, outbreak investigation, staff safety, organizational continuity, and fiscal, contractual and procurement. For staff and community partners, the activities included vaccination, testing, internal and external communication, community outreach, and community partnerships. The overarching strengths and areas for improvement are summarized below.

Staff Training	
Strengths	**Areas for Improvements**
Leadership provided support to staff entering new roles throughout the emergency response.	Enhance ongoing training opportunities to improve preparedness for staff for future emergencies.
Management team provided effective training, cross training, and managers were available to answer questions.	Improve internal communication structure for staff transitioning into specific COVID Response Roles as well as for staff that are not directly involved with the response.
Coworkers provided support to one another with daily tasks and emerging needs throughout the emergency response.	
Outbreak Investigation and Staff Safety	
Strengths	**Areas for Improvements**
Staff had access to supplies to maintain their safety while carrying out job duties (PPE, testing kits).	Initial structure for providing staff updates was not ideal but improved over time.
At the organizational level, leadership and management were aligned in promoting work-life balance.	Improve awareness of the daily Sit-Rep dissemination and understanding the contents of the report by all staff.
Staff were able to access guidance on managing outbreaks and were successful in communicating this guidance to community.	
Organizational Continuity and Fiscal, Contractual and Procurement	
Strengths	**Areas for Improvement**
Staff involved in contract management were successful and allowed for funding sources to be used to meet community needs.	Staff did not have an equal understanding of fiscal procedures and an agency wide training could have been beneficial.
Staff were supported as they transitioned to work from home via trainings and ensuring they had the appropriate tools.	
Vaccinations and Testing	
Strengths	**Areas for Improvements**

YHD further incorporated equity into the organizational operations and services provided during the emergency response and afterward.	Clarity of information on testing and vaccine availability on YHD website could be improved.
YHD effectively worked with FEMA and DOH to run Mass Vaccination Site and Mobile Vaccination units.	The community experienced insufficient testing availability (location, times) and vaccination appointments.
Mobile vaccination clinics were organized to deliver vaccines across the county and addressed barriers to accessing vaccines (i.e., transportation, language).	There was a disconnect in commitment to YHD mission and community education between the YHD staff and the contracted staff (hired to manage the testing and vaccine sites).
External and Internal Communication	
Strengths	**Areas for Improvements**
YHD staff helped, answered questions, and were available to help community members during the emergency response.	Enhance internal communication with all YHD staff not just those involved in response.
YHD maintained a daily social media presence and posted information regarding COVID-19 and made use of FB lives, Radio and television appearances, and put out media releases.	Incorporate a streamlined communication approach that incorporates internal communication for staff and external communication with community partners.
Community Outreach	
Strengths	**Areas for Improvements**
Community outreach efforts improved over time and led to increased contact between community partners and YHD.	Improvement in the timeliness of communicating guidance changes to key community partners.
	Adjustment to format in which information is delivered to community (website updated, newsletter updates).
Partnerships	
Strengths	**Areas for Improvements**
YHD established new relationships with community partners through delivery of emergency response activities.	Continue to improve equity in YHD service delivery to community.
Existing partnerships were expanded and strengthened throughout response.	Increased transparency of how communication and directives from differing governing entities (DOH, Board of Health) are managed.

This report serves as an overview of the strengths and areas for improvement in emergency response, as identified by staff and community partners. The COVID-19 emergency response in Yakima County provided an opportunity for YHD and community partners to build upon existing relationships and create new partnerships that resulted in delivering services for testing, vaccination, and outbreak control. As an agency, the greatest strength was

the commitment of staff involved in the response to be responsive to the community. YHD worked well with federal, state, and local partners to manage one of the nation's Mass Vaccination sites and introduced the use of Mobile Vaccination Clinics as a way to further reduce barriers to access vaccinations within the community. In addition to prioritizing COVID-19 response, YHD maintained delivery of public health services where possible.

Areas for improvement are primarily around communication with the community regarding the constantly changing guidelines for COVID-19 mitigation. Enhancing the internal communication structure within the organization and establishing expectations with partners the community at large around what is to be communicated and how has improved but remains a task for YHD. Finally, an area where there was recognized growth but more has been requested from the community is around equity. Equitable delivery of services improved during the emergency response, but the pandemic also highlighted the need for continued efforts in this area. YHD is committed to utilizing this report to continuously improve upon its ability to be prepared to manage emergency response situations as well as incorporate these lessons into its regular functions to improve health outcomes for the community.

COMMUNITY CONTEXT

Yakima County, Washington has 4,294.5 square miles of land area and is the 2nd largest county in Washington by total area.[3] Yakima County, Washington is bordered by 7 counties. The total population, based on the 2021 Decennial Census, of Yakima County is 256,035, which indicates a decrease of 0.3% from the population size since 2020, which was 256,782.[4] Yakima's age distribution trends younger than Washington State. Yakima County's 2021 population has more children under 5 years old and more youth under 18 years old. Approximately 29.5 percent of the county's residents are under 18 years old compared to 21.8 percent statewide. However, the county's population age 65 or older totals only 14.0 percent compared to 15.9 percent in Washington.[3]

As of July 1, 2021, Yakima County had a higher percentage of Latino and Hispanic residents than the state and nation. Specifically, Yakima County's Hispanic, or Latino, population comprises 50.2 percent of its population, much higher than Washington state (13.0 percent). Yakima County's American Indian/Native Alaskan population was 6.7 percent compared to 1.9 percent in the state, reflecting the presence of the Yakama Nation.[3]

PURPOSE AND SCOPE

This After-Action Report was written with the intent to identify the ways the Yakima Health District's (YHD) COVID-19 response has been effective and ways it could be improved. Participants, including YHD staff members and community partners, were asked to respond from the start of their involvement through the time of the survey. YHD's Incident Management Team was activated from March 5, 2020, through October 31, 2022. Participant's involvement may include time prior to or after these dates.

The Yakima Health District surveys were developed by conducting a review of existing COVID-19 AAR surveys provided by other local health jurisdictions across Washington State. The existing surveys were tailored to address the areas of greatest action identified by YHD's Local Emergency Response Coordinator, Health Services Consultant, Epidemiologist, and reviewed by management. Both the Staff and Community Partner surveys were housed in RedCap[5] and a personalized link that allowed for the responses to be kept anonymous was used to distribute the surveys. The Staff Survey consisted of 85 questions and the External Community Partner Survey consisted of 80 questions. A total of 45 staff surveys were sent out and 432 external partner surveys were sent out.

Staff were asked to provide details about the length of employment at YHD, the period of involvement in the COVID-19 response and what aspect of the COVID-19 response they took part in. Community Partners were asked to indicate what sector their organization represented. Additionally, participants were asked to rate their satisfaction level on a Likert Scale (1 to 4, with 1 indicating Very Satisfied and 4 indicating Very Dissatisfied. The scale was reversed during the analysis of the survey results. Respondents were also provided the opportunity to respond to open-ended questions. The survey was open for two weeks (14 days) and reminder emails were sent every three days to those who had not completed the survey.

INCIDENT OVERVIEW

OVERVIEW OF THE COVID-19 PANDEMIC

In December 2019, a viral pneumonia of unknown origin was first detected by health officials in Wuhan, a metropolitan city in the Hubei Province of China.[6] Symptoms primarily affected the respiratory system and included fever, dry cough, and difficulty breathing. As the numbers of cases grew, the World Health Organization (WHO) initiated an investigation, ultimately confirmed the presence of a new type of coronavirus called SARS-CoV-2. The

disease caused by this virus came to be known as COVID-19 (**Co**rona**vi**rus **D**isease 20**19**). As China implemented measures to contain the virus, evidence of community transmission emerged in neighboring countries.

The WHO declared a Public Health Emergency of International Concern (PHEIC) on January 30, 2020, leading to the implementation of travel restrictions, stay-at-home orders, and disease screenings. As the time of this report, there have been over 765 million confirmed cases of COVID-19 worldwide, with the highest numbers of confirmed cases in the U.S., China, and India. On April 5, 2023, the WHO determined that COVID-19 no longer meets the criteria for a PHEIC.[7] The decision was based on the worldwide decrease COVID-19 deaths, hospitalizations, and high levels of population immunity. While SARS-CoV-2 will continue to circulate and evolve, cases and outbreaks are no longer considered extraordinary or unusual events that require a coordinated international response.

CHALLENGES IN THE UNITED STATES

The first confirmed case of COVID-19 in the U.S. was identified in Washington on January 21, 2020 in a man with a recent travel history to Wuhan, China.[8] The U.S. Centers for Disease Control and Prevention (CDC) and state health departments soon identified additional travel-related cases and confirmed person-to-person transmission in the US on January 30, 2020.[9] The White House began issuing international travel bans, beginning with China and expanding to other countries as the virus continued to spread.[10] The White House Coronavirus Task Force was established to coordinate the national response.[11] The Secretary of Health and Human Services (HHS) determined that a Public Health Emergency (PHE) existed on January 31, 2020.[10] The PHE was renewed 13 times before expiring on May 11, 2023.

As cases continued to rise, the CDC warned that community spread of the virus was likely and urged Americans to prepare for severe disruptions to daily life.[13] States that were early hotspots for COVID-19, such as Washington, California, and New York were the first to issue stay-at-home orders to reduce the number of infections, and the number occurring at once. The orders closed schools, non-essential businesses, and restricted public gatherings. These strategies aimed to "flatten the curve" and prevent hospitals from being overwhelmed.

The Federal Emergency Management Agency (FEMA) led the federal response for personal protective equipment (PPE) requests. The surge in demand for PPE, ventilators, and other crucial medical resources led to severe shortages. The PPE supplies in the Strategic National Stockpile were approximately 90% depleted by April 2020.[14] To combat the scarcity of these resources, the White House COVID-19 Task Force leveraged the authorities granted by the Defense Production Act to bolster and accelerate the domestic production of medical supplies and equipment.[15]

The U.S. Food and Drug Administration (FDA) issued an emergency use authorization (EUA) for the CDC's first SARS-CoV-2 test kits at the beginning of February 2020.[16] This first test was found to be faulty and new tests had to be shipped out.[17] This further limited the supply of testing materials, including swabs, collection devices, and reagents. While testing became more available and accessible over time, the testing setbacks in the early days of the pandemic contributed to the rapid spread of the virus.[18]

Operation Warp Speed (OWS), a public-private partnerships initiated by the U.S. government in May 2020, accelerated the development, production, and distribution of COVID-19 vaccines.[19] The goal was to deliver 300 million doses of safe and effective vaccines to the American public by January 2021. Operation Warp Speed (OWS) played a key role in the in the development and distribution plans of the Pfizer-BioNTech, Moderna, and Janssen COVID-19 vaccines, all of which received EUAs from the FDA in late 2020 and early 2021.[20] The initial doses were administered to healthcare workers and high-risk populations in December 2020. Testing initiatives, vaccine advancements (including a bivalent vaccine), and the development of therapeutics continued during waves of

infection throughout 2021-2023.[15] COVID-19 deaths and hospitalizations declined by 95% and 91%, respectively, between January 2021 and May 2023. The federal PHE ended on May 11, 2023.[21]

IMPACT IN WASHINGTON STATE

COVID-19 EMERGENCY RESPONSE: 2020

On January 22, 2020, Washington activated its State Emergency Operations Center (SEOC) in response to the first confirmed COVID-19 case in Snohomish County.[22] The man had a recent travel history to Wuhan, China, and sought medical attention nine days after developing symptoms.[8] The first laboratory-confirmed death in the U.S. occurred on February 28 in Kirkland, WA.[23] Governor Inslee declared a state of emergency the following day.[24]

The impact of the pandemic intensified in March, leading to the statewide closure of K-12 schools and the implementation of restrictions of gatherings exceeding 250 people in all counties.[25] On March 16, 2020, a statewide shutdown was ordered for restaurants, bars, entertainment, and recreational facilities.[26] All non-urgent medical and dental procedures were restricted.[27]Governor Inslee issued a "Stay Home, Stay Healthy" order on March 23, which required all non-essential businesses to close and residents to stay home except for essential activities.[28] Retired workers were allowed to return to essential jobs to support critical sectors, and schools were closed through the end of the academic year.[29,30]

Washington, Oregon, and California announced the Western States Pact to coordinate a collective recovery plan in April 2020.[31] In partnership with Microsoft, DOH launched Washington's Healthcare and Emergency and Logistics Tracking Hub application where healthcare staff could input information on resources (beds, ventilators, PPE, etc.) to create dashboards to support hospital, local, ands state decision makers.[32] DOH later created several iterations of public-facing COVID-19 dashboards.

In May, Governor Inslee announced a contact tracing initiative, led by local health jurisdictions (LHJs) and supported by the state.[33] DOH ordered widespread testing in long-term care facilities (LTCFs), such as skilled nursing facilities, assisted living facilities, and adult family homes. Guidance was published for other high-risk congregate settings, including food production and temporary worker housing.[34] Non-urgent medical and dental procedures could resume based on local readiness.[35] The state transitioned from the "Stay Home, Stay Healthy" order to "Safe Start, Stay Healthy" county-by-county phased reopening plan in late May.[36] However, another rise in infections prompted a statewide masking order.[37] The order went into effect on June 26, and all county phase advancements were paused until the end of July.[38]

Restrictions were eased in late summer and mid-fall, but by mid-November, many restrictions were reinstated in response to the rapid increase in cases, hospitalizations, and deaths.[39] Phased reopening plans were paused once again. WA Notify, a free smartphone application used to alert users of potential COVID-19 exposures using Bluetooth technology, became available to the public at the end of November as an adjunct to traditional contact tracing during this period.[40]

Washington began receiving vaccine shipments in December. UW Medicine administered the first COVID-19 vaccinations in Washington to frontline workers.[41] A phased plan for vaccine distribution and administration focused on efficiently and equitably vaccinating the populations. Healthcare workers and residents of Long-Term Care Facilities (LTCFs) were prioritized in the initial phases, later expanding to include all Washington residents aged 70 and older.[42] Educators and caregivers of high-risk individuals were introduced in the next phases.

COVID-19 EMERGENCY RESPONSE: 2021

In January 2021, Washington implemented the "Healthy Washington – Roadmap to Recovery" plan, shifting from county-by-county metrics to regional metrics to phase advancements.[43] This allowed for a more cohesive and coordinated approach to easing restrictions in areas with frequent cross-county traveling for social and economic activities. However, the state returned to county-by-county evaluations in March.[44]

On April 15, all Washington residents aged 16 and older became eligible for vaccination.[45] Fully vaccinated individuals were no longer required to wear a mask in most circumstances by mid-May.[46] By the end of June, all industries were permitted to resume usual operations, with limited exceptions for indoor events with over 10,000 participants.[47]

The rise in cases caused by the Delta variant prompted the return of the indoor masking order for all individuals regardless of vaccinations status on August 23.[48] Vaccine mandates were instated for state employees and healthcare workers. The mandate was later expanded to include employees working in K-12 schools, childcare and early learning centers, and higher education institutions. Vaccine verification or proof of a negative test within the previous 72 hours became mandatory for entry into large indoor events.[49]

COVID-19 EMERGENCY RESPONSE: 2021

The Omicron variant was identified in Washington on December 4, 2021.[50] Non-urgent healthcare services were restricted for a third time due to the surge in COVID-19 hospitalizations on January 17.[51] The highly transmissible variant set new records for case rates, hospitalizations, and deaths across the state. Smaller waves of infection occurred through the rest of 2021 and 2022. The Washington state of emergency expired on October 31, 2022.[52] The Secretary of Health face covering order for healthcare and correctional settings was terminated on April 3, 2023.[53]

DEVELOPMENT OF COVID-19 IN YAKIMA COUNTY

COVID-19 EMERGENCY RESPONSE IN YAKIMA COUNTY: 2020

On March 5, 2020, the Yakima Health District activated its Incident Management Team (IMT) to coordinate preparedness and public information efforts. The IMT was comprised of the Executive Director, Health Officer, Chief Operating Officer, Director of Disease Control, Director of Public Health Partnerships, Local Emergency Response Coordinator, Director of Environmental Health, and Senior Finance Manager. Incident Action Plan #1 was developed and disbursed to the IMT.

YHD partnered with Yakima Valley Office of Emergency Management (YVOEM) to assist in public information requests and contingency planning for the entire county. YHD was notified on the evening of March 11, 2020, by Virginia Mason Memorial Hospital's laboratory that two Yakima County residents tested positive for the SARS-CoV-2. YHD then partnered with YVOEM in a Unified Command Structure to increase response capabilities. The Yakima Board of County Commissioners and YHD declared a state of emergency on March 12. This declaration was followed by the dissemination of the first Situation Report (Sit-Rep) to community partners to ensure that everyone was aware of the evolving situation. YHD's Health Officer recommended cancelling all events with more than 100 attendees, recognizing the urgent need for social distancing measures to slow the spread of the virus. YHD closed its lobby to the public and began conducting most services over phone and email. The front desk staff remained in the office to support vital records.

On March 16, federal medical station beds arrived at the Yakima Training center, bolstering the region's healthcare capacity in preparation for the anticipated surge in cases. The site was demobilized shortly after its establishment due to flattening case rates and projected capacity of the local healthcare system. YHD's Health Officer issued a Stay-at-Home Order for Yakima County residents on the evening of March 22.[54] This decision was made in conjunction with the state. The first and second COVID-19 deaths in the county occurred on March 23 and March 26, respectively.

The first outbreaks identified in Yakima occurred at LTCFs. At this time, YHD partnered with the DOH and the CDC to go on-site to these facilities to monitor the situation. Through this experience, YHD, DOH and CDC developed best practices to contain the outbreaks in LTCFs. Shortly after, outbreaks were observed in large agriculture workplaces. With the outbreak response at long-term care facilities having set precedence, YHD was able to quickly mobilize a team to respond to the quickly growing issue. YHD partnered with the Yakima County Development Association, Washington State Department of Labor & Industries, and the Washington Tree Fruit Association to create an outbreak response team. This team went on-site to the locations of the outbreaks to provide resources, education, and guidance on how to stop the spread of COVID-19.

To expand testing capacity and support the healthcare system, YHD, along with FEMA, DOH, and other stakeholders announced the establishment of an Alternate Care Site at the Former Astria Regional Medical Center on April 1. Plans for the Alternate Care Site were put on hold on April 11 and later cancelled due to flattening case rates. YHD also hosted a temporary FEMA drive-through testing site at State Fair Park from April 7-April 11. The National Guard began operating testing units in areas of high need, including agricultural settings.

By May 9, Yakima County's COVID-19 case rate (669 cases per 100,000) was over two times higher than the rest of the state (251.38 cases per 100,000).[55] In some areas of the county, the case rate reached 1,200 cases per 100,000. This garnered national attention, a pattern that continued during large outbreaks, including Costco Wholesale, Washington Beef, and the Yakima County Jail.

YHD and Signal health conducted "Operation Unmasked" on May 23-24, observing mask usage at retail sites. Only 35% of people were observed wearing masks. To promote compliance with the masking orders, YHD launched the "Mask up to Open Up" campaign on June 10, emphasizing the role of masks in safely reopening businesses and community spaces. Cloth masks were distributed to the public throughout the campaign. YHD and community partners conducted "Operation Unmasked Part II" on June 23. The results showed an improvement, with 65% of people observed wearing masks at the observed retail sites.

Responding to the need for additional mitigation measures, YHD's Health Officer issued a face covering directive on June 1, mandating the use of face coverings in public spaces effectively June 3.[56] While the number of Yakima County residents wearing masks increased, the percentage still fell short of the 80% goal that was generally recommended to reduce transmission of COVID-19. Governor Inslee also announced a mask mandate specific to Yakima County prior to the statewide mandate due to the county having the highest rate of COVID-19 per capita in the Western US. This message was further reinforced during a press conference at Yakima Valley College on June 16, where he urged residents to take immediate action to curb the spread of COVID-19.[57] At this point, Yakima County had recorded 5,700 cases since the beginning of the pandemic, only second in the state to the much more populous King County.

On the evening of June 18, Virginia Mason Memorial Hospital (now MultiCare Yakima Memorial Hospital) had no intensive or non-intensive care beds available. Yakima County represented 22 percent (61 of 242) of all COVID-19 hospitalized patients in the state. These patients also represented 24 percent (11 of 46) of all ventilated COVID-19 patients in the state. This number was equal to that of King County.

A CDC Epi Team was onsite at YHD to discuss outbreak response for two weeks beginning on July 17. A Care Coordination Hotline was set up on July 22. YHD received "care kits" that included hand sanitizer, soap, thermometers, and other items people may need while completing their isolation period. Community Health Workers provided support and engaged with historically underserved, Spanish-speaking communities who were disproportionally affected by the pandemic.

By the end of the July, YHD was interviewing candidates with DOH for an Outbreak Response Team. With funding from DOH, an Outbreak Response Team made up of nine staff members focused on critical areas where outbreaks have previously been observed. The outbreak team engaged with the community, businesses, long-term care facilities, and schools for outbreak prevention. It is important to note that YHD was the first health department in Washington state to implement a response team in this manner.

As the school year approached, YHD strongly recommended distance learning for all Yakima County schools.[58] Yakima County's COVID-19 14-day case rate was 338.7 cases per 100,000, approximately 4.5 times higher than the 75 cases per 100,000 threshold for in-person learning set by the state. YHD facilitated outbreak training with school nurses at administrators via Zoom for those who may be on campus. YHD also began conducting site visits to both public and private schools around the county. YHD, aligning with DOH, reiterated on August 28 that anyone experiencing symptoms should get tested for COVID-19 regardless of known exposure. YHD distributed at-home, mail-in test kits to Yakima County residents on September 8-9. Medical Teams International (MTI) also began holding testing events at various locations around the county.

To support ongoing testing efforts, a community-based testing site was established at State Fair Park on October 27. The site reported a 12% positivity rate during its first week of operation. A second community-based testing site was opened at the Sunnyside Community Center on December 6, reporting a 21.6% positivity rate during its first week of operation. The community-based testing sites opened and closed several times over the pandemic to respond to changes in demand until officially closing at the end of January 2023.

Dr. Teresa Everson announced her resignation as Health Officer on November 3, effective November 20.[59] Dr. Larry Jecha was selected as the Interim Health Officer on November 22.[60] YHD did not have a permanent Health Officer until Dr. Neil Barg officially began his role on August 1, 2021. On November 19, YHD announced that cases and hospitalizations had increased sharply over the previous week.[61] The county soon experienced its second wave of COVID-19 activity throughout the winter months. Yakima County received the first shipment of COVID-19 vaccines on December 14, marking a significant milestone in the region's response to the pandemic. Vaccination efforts began with frontline healthcare workers and residents LTCFs.

COVID-19 EMERGENCY RESPONSE IN YAKIMA COUNTY: 2021

As the new year progressed, YHD made recommendations for hybrid learning for high school students on February 2.[62] These guidelines aimed to strike a balance between the educational and mental health needs of the students and the safety precautions necessary to minimize the risk of COVID-19 transmission. Hybrid learning for elementary and middle students was recommended in prior months. On March 11, YHD disseminated a media release summarizing the district's response efforts over the first year of the pandemic.[63]

YHD, in partnership with Signal Health, YVOEM, and Yakima Valley Memorial Hospital, opened a drive-through vaccination site at State Fair Park on March 17. On March 22, FEMA.[64] announced that a Yakima County Pilot Community Vaccination Center (CVC) would be established at the same location on March 31. The joint effort between federal, state, and county resources maintained a fixed drive-through location at State Fair Park and dispatched mobile vaccine units to reach historically underserved communities at high risk of infection. The CVC

transitioned back to local control on May 24 and remained operational until July 31. Mobile vaccination efforts continue with DOH's Care-a-Van.

On July 16, Yakima County reported a steep increase in hospitalizations with 15 admissions in one week. The case rate doubled over the next two weeks. By August 20, Yakima County's previous records for cases, hospitalizations, and deaths were surpassed as the Delta variant became the most dominant strain. Yakima County residents became eligible for the Say Yes! COVID Test initiative on December 7, providing easier access to at-home test kits to facilitate early detection and prevent further transmission. Test kits remained available for order until May 11, 2023. The first case of the Omicron variant was identified in Yakima County on December 16. The increased transmissibility of the variant raised concerns about the potential for another wave of infections in the community and highlighted the need for continued surveillance and mitigation strategies.

COVID-19 EMERGENCY RESPONSE IN YAKIMA COUNTY: 2022-2023

On January 7, 2022, YHD reported that the fourteen-day case rate had quadrupled over two weeks, breaking records set by the Delta wave less than four months before. Due to the widespread outbreaks occurring across the county, YHD made the decision to focus outbreak investigations efforts on high-risk congregate living settings. The strategic shift allowed for a more efficient allocation of resources and a more targeted approach to mitigating the spread in vulnerable populations.

Smaller waves of infection occurred through 2022, with no significant changes in policy or actions on the local scale. YHD's IMT was demobilized on October 31, 2022. This aligned with the ending of the statewide state of emergency and reflected the progress made in mitigating the spread of the virus and allowed the transition from emergency management to ongoing management and surveillance. The final Sit-Rep was disseminated on Friday, October 28, 2022.

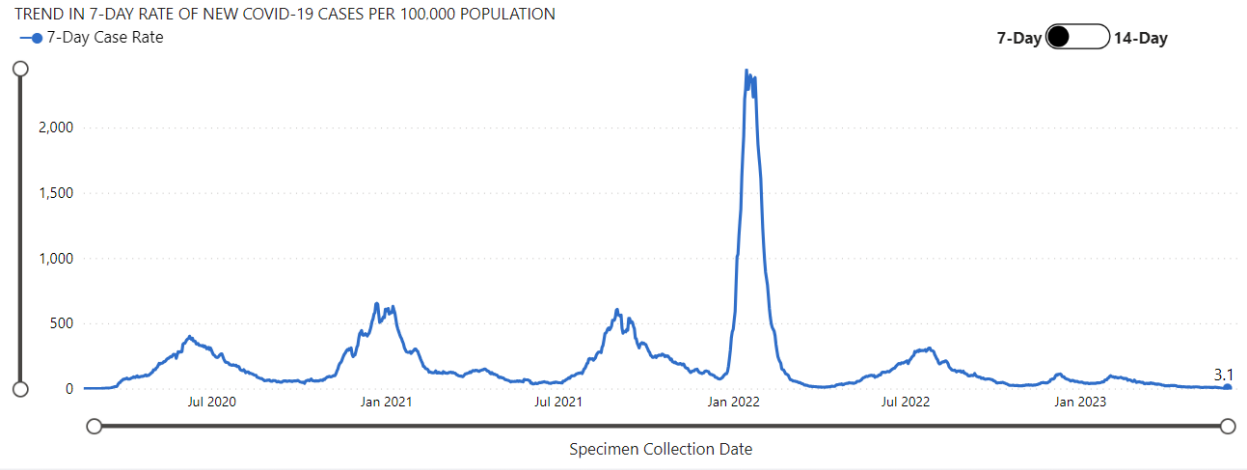
Please note that this section covered major events and developments in YHD's response to the COVID-19 pandemic. It is not an exhaustive list of events or actions taken during this period.

COVID DATA SUMMARY

CASES

The trends in the 7-day case rate of new COVID-19 Cases per 100,000 population are shown below. Yakima County experienced 5 waves of COVID-19 infections, the first being in July of 2020 and the highest wave peaking at an average of 2,500 cases per 100,000 population in late January of 2022. According to the Washington State COVID-19 dashboard, there have been a total of 84,000 cases in Yakima County. This is likely an undercount, since at home testing results were not always reported.

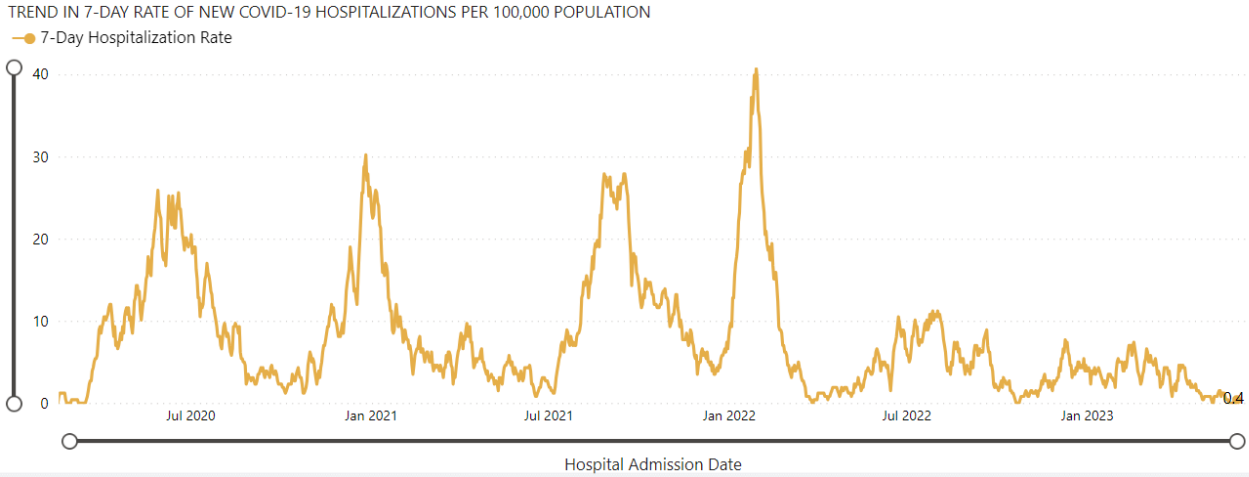
Figure 1. Trend in 7-Day Rate of New COVID-19 Cases per 100,000 Population in Yakima County, 2020-2023



HOSPITALIZATIONS

Hospitalizations due to COVID-19 complications followed the peaks of the waves and tended to lag, resulting in wider waves. As with the peak in cases, late January, early February of 2022 had the highest 7-day hospitalization rate, around 40 hospitalizations per 100,000 population. A total of 3,604 have been reported to Washington State DOH.

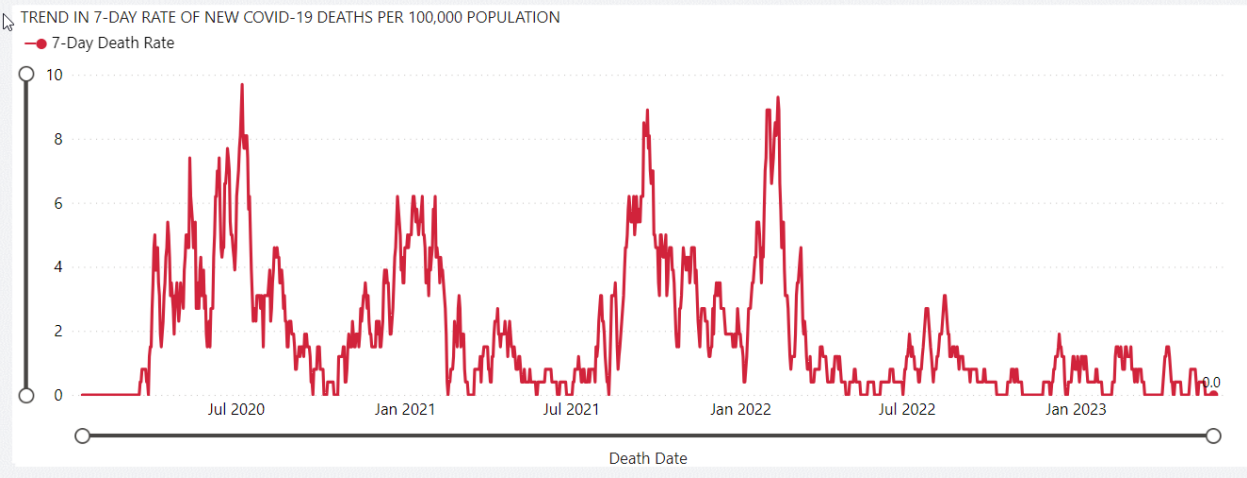
Figure 2. Trend in 7-Day Rate of New COVID-19 Hospitalizations per 100,000 Population in Yakima County, 2020-2023



DEATHS

Deaths due to COVID-19 complications followed the peaks of the hospitalization waves and tended to also lag, resulting in deaths occurring up to two months after the start of a wave. The highest death rates seen were approximately 9 deaths per 100,000 population, this occurred in the early wave in the summer of 2020, the fall of 2021 and in spring of 2022. Approximately 868 COVID-19 related deaths have been reported in Yakima County.

Figure 3. Trend in 7-Day Rate of New COVID-19 Deaths per 100,000 Population in Yakima County, 2020-2023



VACCINATIONS

With the Mass Vaccination Site located in Yakima County and the effort to make Mobile vaccines available, Yakima County managed to have 68% of the population initiate the vaccine series and 60% completing the initial series. About 48% of the population is eligible to receive booster vaccines and approximately 20% of the Yakima County population has received a bivalent booster.

STAFF SURVEY DEMOGRAPHICS

Staff surveys were sent to all current YHD staff (44) and the Health Officer. We had an 89% response rate with 40 staff responding to the survey. However, not all staff were involved in the COVID-19 response, therefore we asked staff whether they were involved in the response and had feedback to provide. Staff selected whether they would (Yes) provide feedback or whether they would not (No). The breakdown of these selections is summarized below in **Table 1.** A total of 25 (55%) staff chose to provide feedback, therefore, the staff results presented in the following sections of this report reflect their responses.

Table 1. Yakima Health District COVID-19 Staff Survey Participation (n=45)

	Count	%
Distributed Surveys	**45**	**100**
Responded	**40**	**89**
Involved and provided feedback (Yes)	24	53.5
Not involved and provided feedback (Yes)	1	2.0
Not involved and did not provide feedback (No)	9	20.0
Involved but did not provide feedback (No)	6	13.5

The Yakima Health District is a medium-sized health district and over the course of the pandemic, the staff number grew. In 2020 YHD had 30 staff and by 2023, YHD had grown by 47% to 44 staff members. Approximately

18% of those hired after the COVID-19 pandemic began are considered COVID-19 hires. The Washington State Department of Health also assisted with staff for the nine-person outbreak team due to increased need for support in conducting outbreak investigations. The staff survey showed that of those that did not choose to provide feedback, 15% of them had been employed with YHD for less than 12 months and the majority were not involved in the response. Those that chose to provide feedback were employed longer than 1 year and 13% were with YHD for more than 10 years (**Table 2**).

Table 2. Length of Yakima Health District Staff Employment, April 2023 (n=40)

	Did not Respond to Survey n (%)	Responded to Survey n (%)
Less than 12 months	6 (15)	1 (3)
1 to 2 years	5 (13)	6 (15)
2 to 5 years	4 (10)	6 (15)
5 to 10 years	--	6 (15)
More than 10 years	--	5 (13)

Staff were involved in various aspects of the COVID-19 response, including outreach, communications, and case investigators. **Table 3** below, shows the response areas and the number of staff involved. Staff could be involved in more than one response area. During the response, 64% of staff were involved with Community Outreach and Communications, 60% were involved with Data related to the pandemic, and 44% were involved with Community Based Testing and Vaccines.

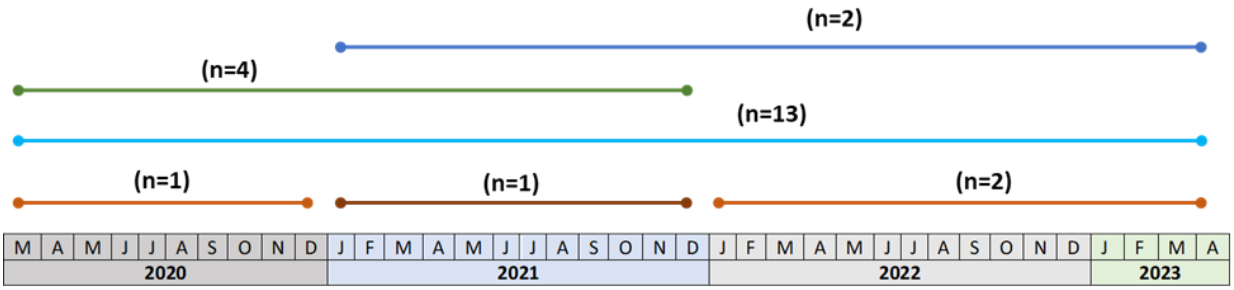
Table 3. Yakima Health District COVID-19 Staff Response Area (n=25)

	Count	**%***
Community outreach and communications	16	64
Data	15	60
Community based testing	11	44
Community based vaccines	11	44
Outbreak investigation	6	24
Finance/procurement/contracts	6	24
Supply logistics	5	20
Contact tracing	5	20
Other	5	20

*Percent may not add up to 100%.

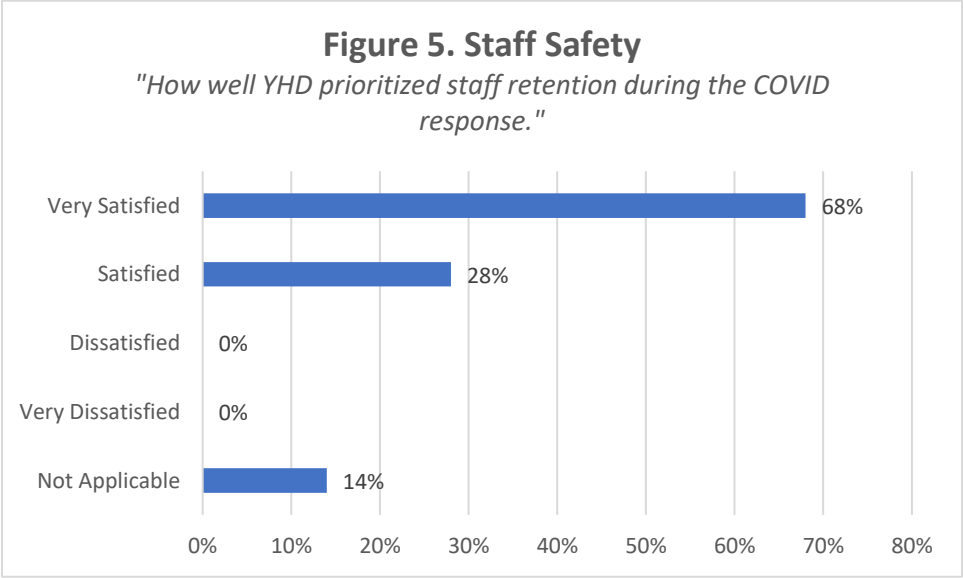
Staff were asked to report over what time period they were involved in the COVID-19 response as a YHD employee. Of the 25 staff who responded, 13 (52%) were involved in the response from the start of the COVID-19 pandemic, March 2020, through the time of the survey, April 2023 **(Figure 4**).

Figure 4. Length of Staff Involvement across the COVID-19 Pandemic, March 2020 to April 2023



During the COVID-19 pandemic response, the burden to public health staff increased dramatically. Washington State Department of Health administered a survey to WA state public health staff called the DOH Pulse Survey in mid-2020. Results from the August 12 – 26, 2020 survey showed that approximately 10% of staff were experiencing some kind of burnout, whereas about 20% reported to still be "doing great."[65] The potential for burnout can increase with the length of involvement in the response but can be mitigated by increasing resilience in the workplace. Resilience can be increased by focusing on hope, on developing social connections, big or small, reorienting and developing a sense of purpose, and becoming adaptive and psychologically flexible and adaptive.

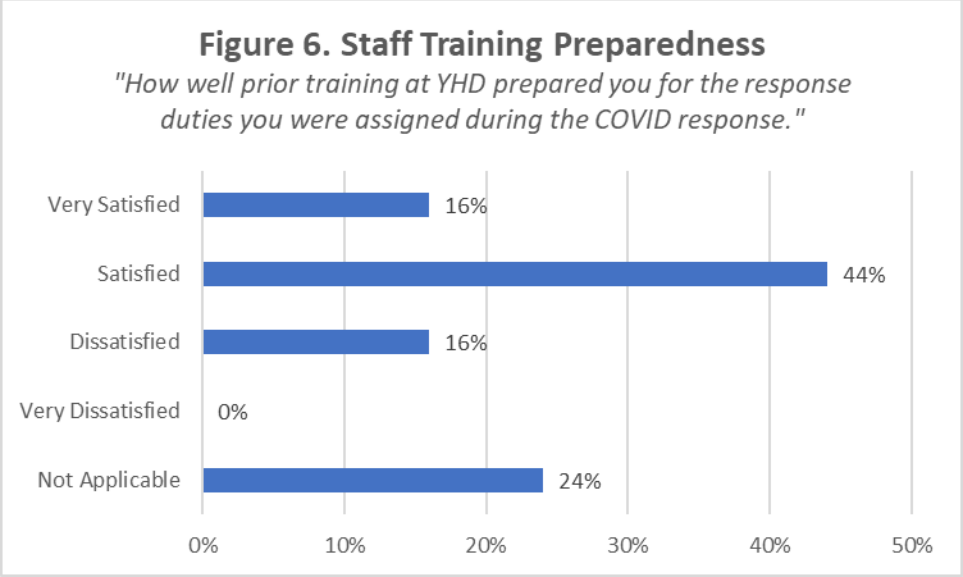
Staff mentioned that "*about a year into this pandemic it was stressed to staff that if you need time for yourself take that time and rest. We were always supported to take time away if needed to decompress, reflect, rejuvenate.*" Agency-wide messaging such as this, supports staff well-being and addressed burnout, which helped retain staff at YHD. Approximately 68% of staff reported being very satisfied with how well YHD prioritized staff retention during the COVID-19 response (**Figure 5**).



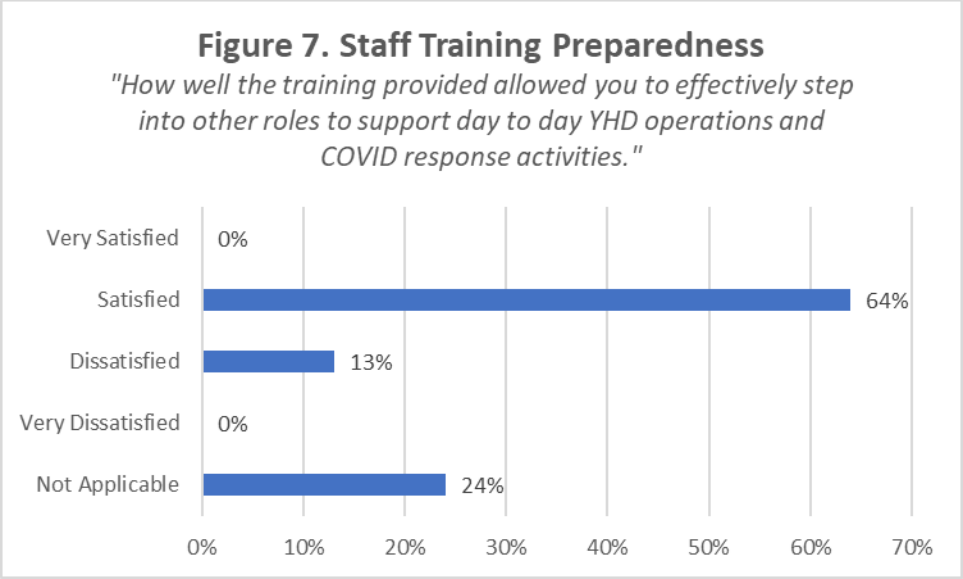
ORGANIZATIONAL IMPACTS

STAFF TRAININGS

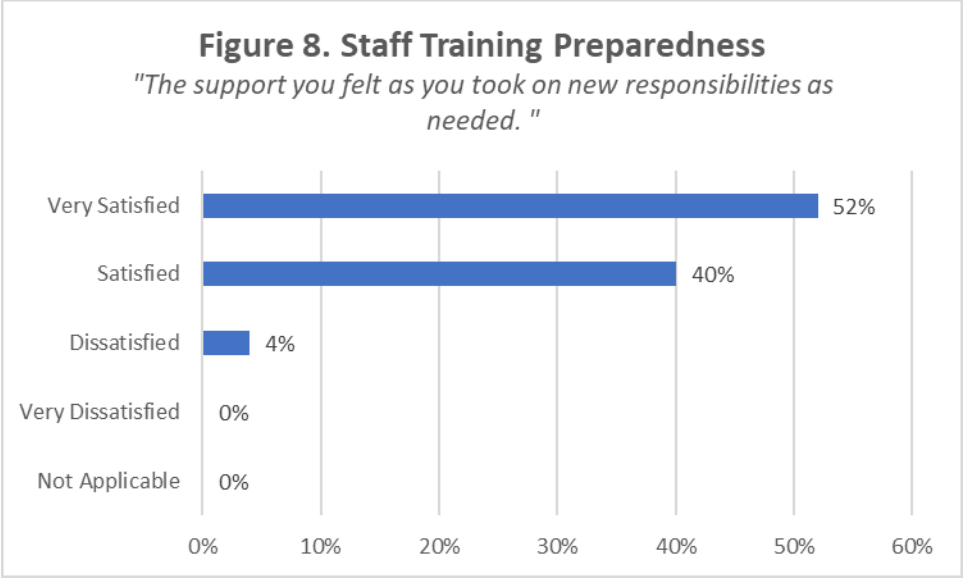
Due to the declaration of the emergency for COVID-19; the staff employed by YHD, newly hired and existing, were pivoted to support the response. Staff received training on case investigation procedures, RedCap, and the Washington Disease Reporting System (WDRS). They also received training on DOH/CDC guidance and Personal Protective Equipment usage. Overall, 44% reported being satisfied, 16% reported being very satisfied, and 16% were dissatisfied with how well prior training at YHD prepared them for the response duties that were assigned to them during the COVID-19 response (**Figure 6**). Staff recognized the novelty of the pandemic introduces a level of difficulty for preparation and one staff member stated they were *"not certain how much past training could have prepared us for COVID, what happened, and the public backlash."*



About 13% of staff reported feeling dissatisfied with how well the training provided allowed them to effectively step into other roles to support day to say YHD operations and COVID-19 response activities, 64% reported being satisfied and no one reported being very satisfied (**Figure 7**).



Additionally, staff reported receiving support as they took on new responsibilities. Approximately 52% were very satisfied and 40% were satisfied (**Figure 8**).



With the declaration of an emergency, it triggered an incident command structure and staff responsibilities pivoted to include aspects of the response that may not have been part of their regular job description. In open-ended responses to questions about preparedness training, staff noted that the "*strong [YHD] leadership was the biggest help during this event".* They also noted that constant communication, teamwork, training examples and feedback, as well as manager support were helpful in improving skills required for the COVID-19 response. Management and leadership support were indicated as positive aspects of the training and staff preparedness, as was the support that was received from coworkers.

The management team remained cohesive and provided guidance to staff involved in the response. Staff mentioned that "*when I got involved with the COVID response, nearly everyone was working from home but the training and examples they gave me were effective and prepared me to take a dive into the response.* Staff also

identified their *"manager supported and was available for questions...colleagues with more experience were always happy to help and gave constructive feedback which improved my work and skills."*

Although staff recognized that this was an unprecedented circumstance and caused disruptions at all levels of our community and organization, there was a sense that YHD could have improved upon staff transition into other roles. This area for improvement included increased frequency and method of sharing updates with staff (meetings with all staff, explanations of Sit-Rep). On average, YHD staff reported being between satisfied and very satisfied for additional questions asked regarding YHD's effectiveness in training, cross training, and supporting staff entering new roles throughout an emergency response. **Table 4** summarizes the average score given by staff for training preparedness.

Table 4. Average Score given for Staff Training Preparedness

Staff Training	Staff Score
How well prior training at YHD prepared you for the response duties you were assigned during the COVID response.	3.0
How well the training provided allowed you to effectively step into other roles to support day to day YHD operations and COVID response activities, as needed.	2.8
Whether your skillset was taken into consideration when undertaking new roles.	3.6
How prior training helped you feel prepared to be a YHD ambassador in your day-to-day life.	3.1
The support you felt as you took on new responsibilities as needed.	3.5

*Scale 1=Very Unsatisfied to 4=Very Satisfied

Based on open ended responses and satisfaction scores, the strength most noted was support received by staff from leadership, management, and coworkers. An area for improvement was the need for increased training and communication for all staff, not just for those transitioning into specific COVID-19 response roles. Organization wide training and improved communication could have improved the staff's ability to manage questions and requests from community members and community partners.

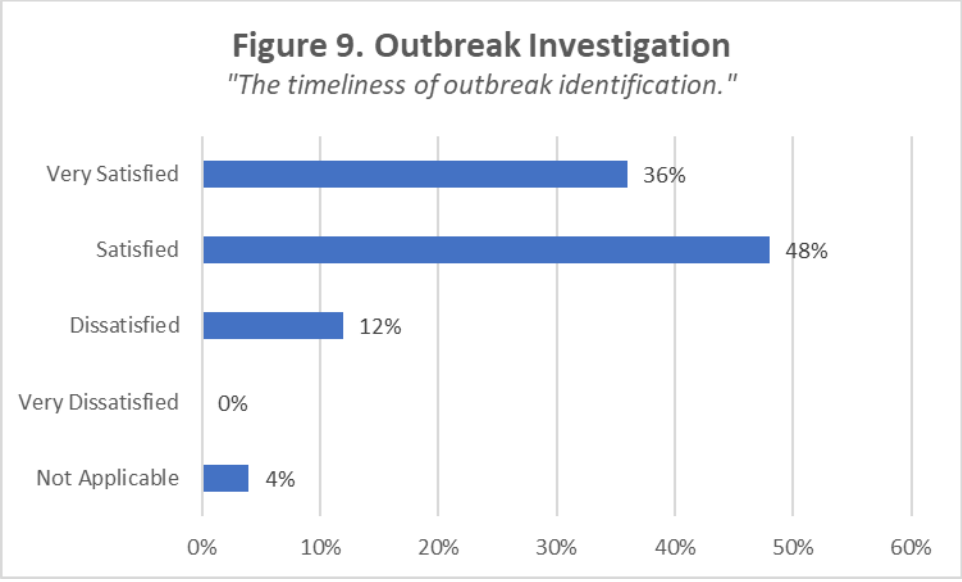
Strengths	Area for Improvements
Leadership provided support to staff entering new roles throughout the emergency response.	Enhance ongoing training opportunities to improve preparedness for staff for future emergencies.
Management team provided effective training, cross training, and managers were available to answer questions.	Improve internal communication structure for staff transitioning into specific COVID Response Roles as well as for staff that are not directly involved with the response.
Coworkers provided support to one another with daily tasks and emerging needs throughout the emergency response.	

OUTBREAK INVESTIGATION AND STAFF SAFETY

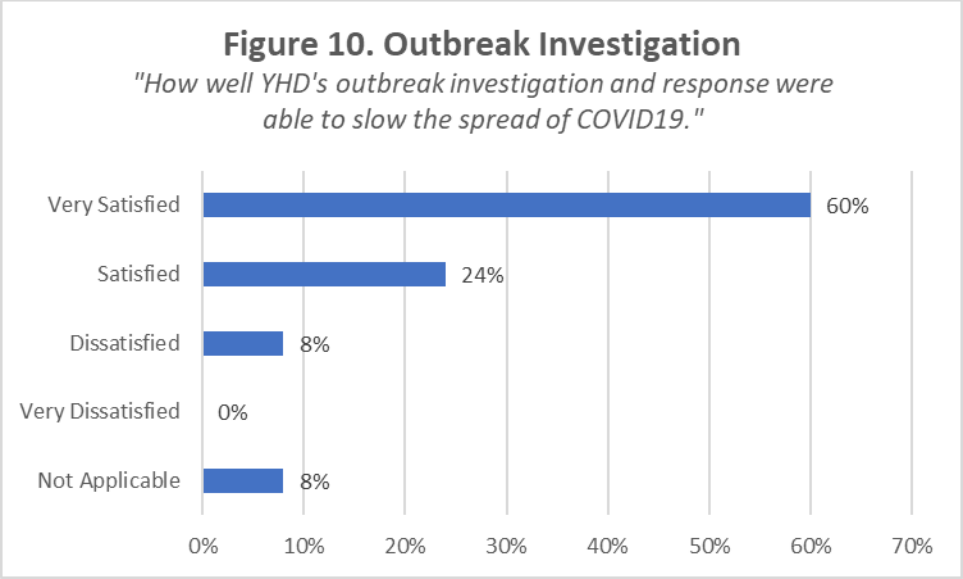
With funding from DOH, YHD created a nine-person Outbreak Response Team. Outbreaks were identified using a variety of methods, including case investigations, contact tracing, reports from healthcare providers, and direct communication with businesses and employers. Staff visited facilities and organizations experiencing outbreaks to provide resources, education, and guidance on outbreak mitigation and prevention. Community members also reached out to YHD to report potential outbreaks and/or COVID-related safety concerns.

The team followed DOH outbreak guidelines, with an emphasis on long-term care facilities, K-12 schools, warehouses, and agriculture and food production (including temporary worker housing). On occasion, isolation and quarantine guidance needed to be modified to prevent severe staffing shortages in critical infrastructure sectors. Outbreaks in other settings were addressed as needed. Staff were asked about their satisfaction with YHD's effectiveness in identifying and responding to local disease outbreaks. Open-ended responses revealed that staff felt that there was a lack of preparedness to implement the outbreak team, as one staff member mentioned "*the beginning of the pandemic was chaotic on a federal and state level. Being a LHJ you rely heavily on federal and state government agencies to help with resources (testing), identification, guidance etc. We were unprepared from the top down*." It was also noted that staff felt there was a delay in receiving funding to support the outbreak team, but staff identified that "having a dedicated COVID-19 response team" was crucial to managing outbreaks that occurred in Yakima County.

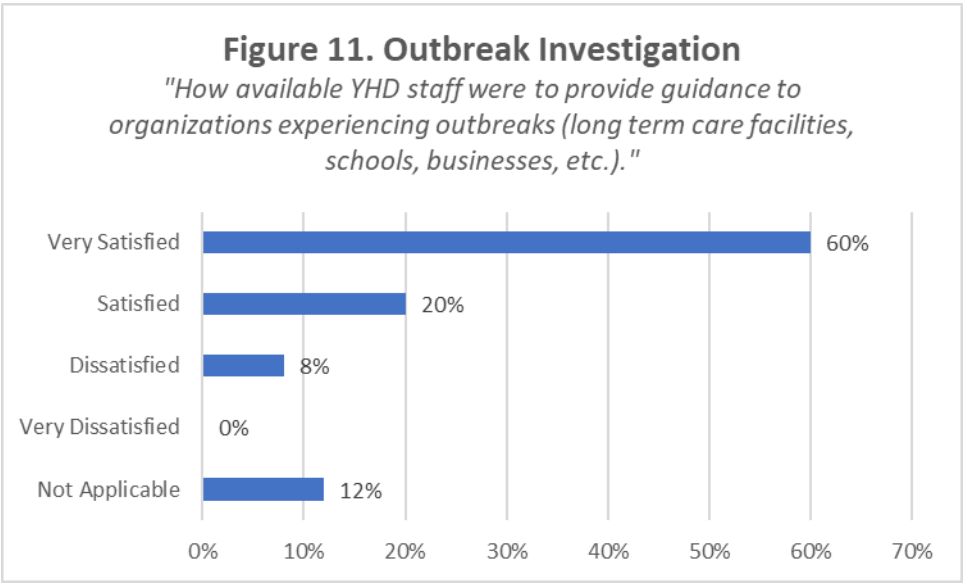
Approximately 36% of the staff were very satisfied with the timeliness of outbreak identification, 48% were satisfied and 12% were dissatisfied (**Figure 9**).



Additionally, 60% of staff felt very satisfied with how well YHD's outbreak investigation and response were able to slow the spread of COVID-19 (**Figure 10**).



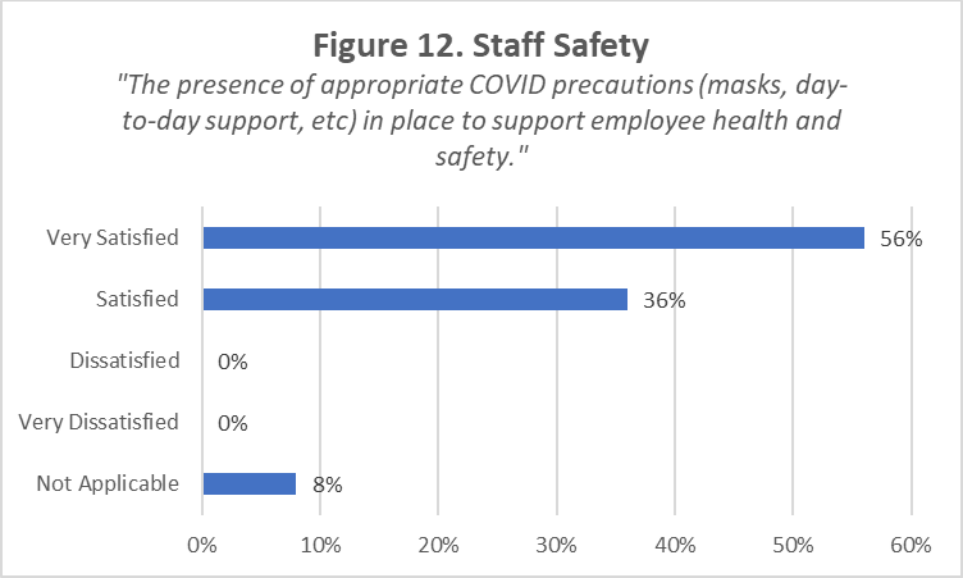
The outbreak team was essential to the mitigation of outbreaks and staff reported feeling very satisfied (60%) with how available YHD staff were to provide guidance to organizations experiencing outbreaks in various settings (**Figure 11**).



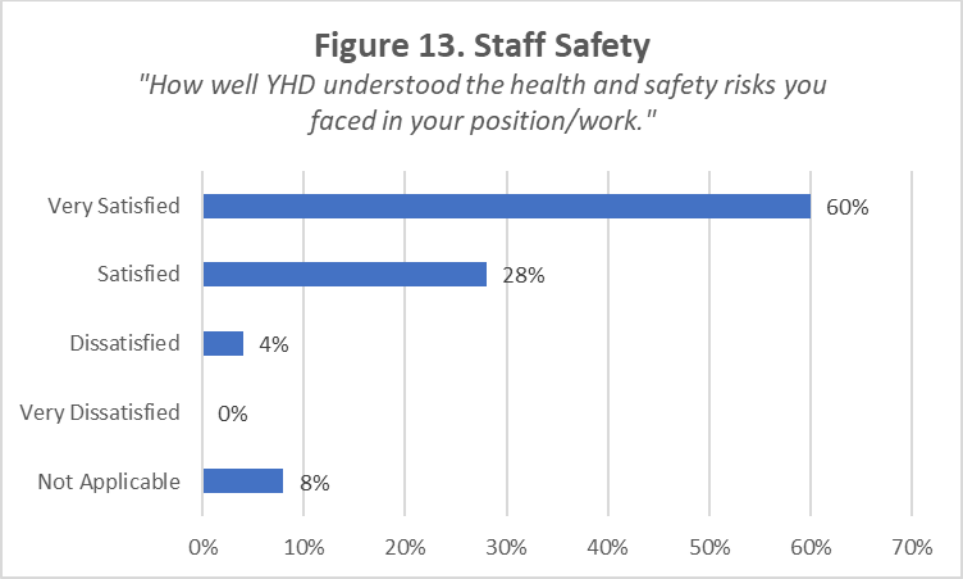
Overall, staff gave an average score between 3.0 and 3.3, indicating slightly more than satisfied, with the timeliness of outbreak identification, the use of electronic disease investigation tools to help identify outbreaks, and how well contact-tracing, care coordination, and general communication with the public to help identify outbreaks (**Table 5**).

Table 5. Average Staff Score given for Outbreak Investigation	
Outbreak Investigation	**Staff Score**
The timeliness of outbreak identification.	3.3
How available YHD staff were to provide guidance to organizations experiencing outbreaks (long term care facilities, schools, businesses, etc.).	3.6
How well YHD's outbreak investigation and response were able to slow the spread of COVID.	3.6
How well state electronic disease investigation (WDRS, CREST, etc.) helped identify outbreaks.	3.0
How well contact-tracing, care coordination, and general communication with the public helped identify outbreaks.	3.3
*Scale 1=Very Unsatisfied to 4=Very Satisfied	

To understand YHD's ability to provide a safe workplace for staff during an emergency response, staff were asked about measures YHD took during the response. Over 50% of staff felt very satisfied with the presence of appropriate COVID precautions in place to support employee health and safety (**Figure 12**).



A large proportion, 60%, of staff also reported being very satisfied with how well YHD understood the health and safety risks staff faced in their position or work and 4% reported being dissatisfied with this aspect of staff safety (**Figure 13**).



A small proportion of staff (4%) reported being dissatisfied with YHD's understanding of the health and safety risks faced by staff, although no written responses provided clarification as to what aspects could have been improved or what specifically made these staff feel dissatisfied, many unknowns regarding the pandemic could have contributed to this score.

Staff who provided responses to the open-ended questions identified that they felt that YHD did a good job "*considering [staff] safety and put measures in place to keep [staff] safe.*" Staff also highlighted that ensured that staff were "*notified of possible close contacts in the workplace while keeping health info and [identity] private."* Additionally, staff noted that they were provided not only with the proper materials to maintain their physical safety but also were supported in maintaining work-life balance. One staff member noted that "*about a year into this pandemic it was stressed to staff that if you need time for yourself take that time and rest*".

An area for improvement was highlighted and pertained to the start of the emergency response. There were many unknowns, new information on a daily basis, and the unprecedented nature of the emergency. Staff noted that there was a general need for improved awareness of what the initial structure of internal communications and reviews of the Situation Reports. Staff mentioned that "*often information was not shared with the staff especially in the beginning. This got better as time went on*." It was suggested that *"a weekly meeting to keep all staff informed of changes would be helpful*".

Overall, the average score given by staff for staff safety was above 3.0, indicating they were satisfied (**Table 6**). The average scores are presented below.

Table 6. Average Staff Score given for Staff Safety	
Staff Safety	**Staff Score**
The presence of appropriate COVID precautions (masks, day-to-day support) in place to support employee health and safety	3.6
How well YHD understood the health and safety risks you faced in your position/work.	3.6
The presence of appropriate measures in place to encourage work-life balance.	3.4
How well YHD prioritized staff retention during the COVID response.	3.7
How staff input, and ideas were welcomed and considered during decision-making.	3.5
*Scale 1=Very Unsatisfied to 4=Very Satisfied	

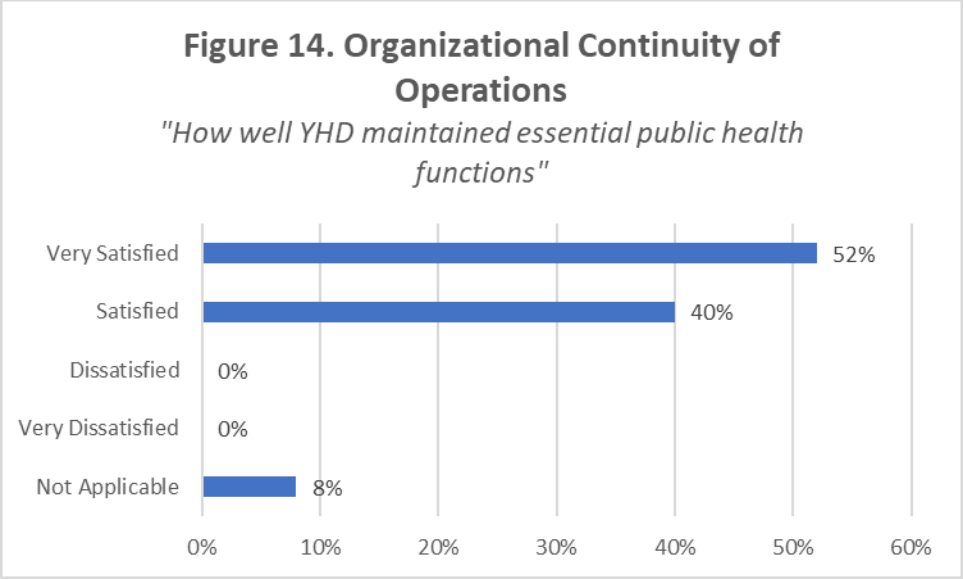
The primary strengths were the availability of supplies to maintain staff safety and the guidance provided by staff to manage and mitigate COVID-19 outbreaks that occurred, for example in places of business and long-term care facilities. The overall workplace culture of support of staff to ensure they took time to rest and focus on maintaining a work-life balance was crucial to maintaining staff safety and retain staff. An area for improvement pertained to the initial structure, which improved, of updating staff on a regular basis and improving the staff's overall understanding of the situation reports.

Strengths	Area for Improvements
Staff had access to supplies to maintain their safety while carrying out job duties (PPE, testing kits).	Initial structure for providing staff updates was not idea but improved over time.
At the organizational level, leadership and management were aligned in promoting work-life balance.	Improve awareness of the daily Sit-Rep dissemination and understanding the contents of the report by all staff.
Staff were able to access guidance on managing outbreaks and were successful in communicating this guidance to community.	

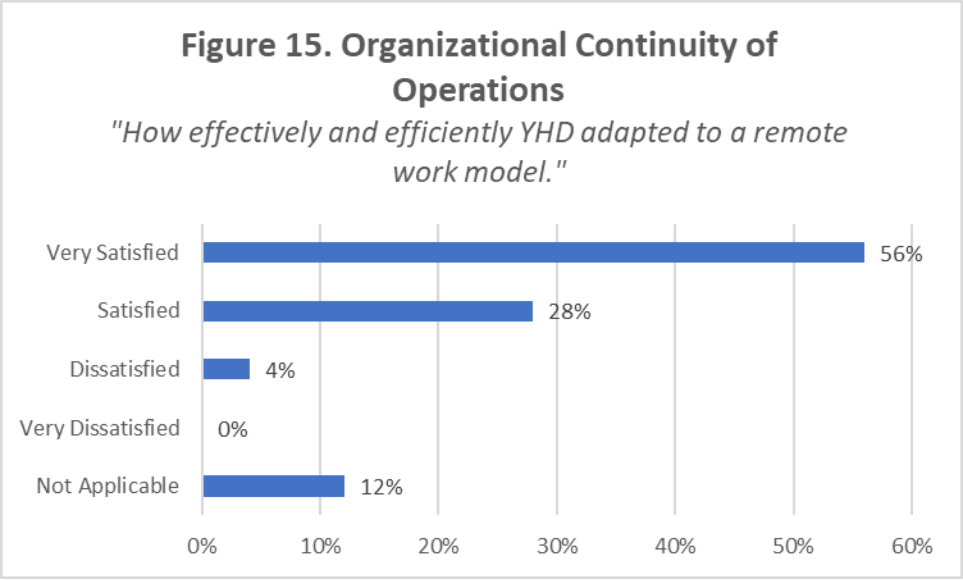
ORGANIZATIONAL CONTINUITY AND FISCAL, CONTRACTUAL AND PROCUREMENT

Continuity of Operation is the ability to maintain essential functions during an emergency, or threat of an emergency, that impacts the organization's normal operations. YHD closed the lobby to the public on March 18, but continued to provide all mandated services through a remote work model. The front desk continued to work in the office to support vital records. However, nursing services for administering testing for sexually transmitted infection, in-person food worker card class and exams, and routine food establishment inspections were halted.

Over half (52%) of staff were Very Satisfied with how well YHD maintained essential public health functions (e.g., investigations of ALL notifiable conditions, linking people to needed personal health services, investigating local environmental health hazards) **(Figure 14**).



Working from home was also implemented for YHD staff. While the front desk staff remained in the office, all other staff were directed to work from home. All staff were provided with laptops and a Virtual Protection Network client to allow them to securely access YHD's network drives. Accounting staff and environmental health staff returned to the office incrementally. Staff reported being very satisfied (56%) and slightly dissatisfied (4%) with how effectively and efficiently YHD adapted to a remote work model (**Figure 15**). Some staff mentioned that their "*manager provided check-ins and trainings that facilitated working from home*", whereas other staff noted that there was a "*need for additional, regular check-ins*". Different approaches by managers and needs of staff could account for these comments, but overall, the working from home model was adapted quickly and enabled YHD to maintain regular functions on top of addressing the pandemic response.



Staff reported they were, on average, between satisfied and very satisfied with how well YHD maintained essential public health functions (**Table 7**).

Table 7. Average Score given for Organizational Continuity of Operations	
Continuity of Operations	**Staff Score**
How quickly a strong 'Continuity of Operations' plan was developed.	3.2
How effectively and efficiently YHD adapted to a remote work model.	3.6
How well you were provided everything to be effective while working remotely.	3.5
The strength of the communications with my supervisor while working remotely.	3.4
How well YHD maintained essential public health functions (e.g., investigations of ALL notifiable conditions, linking people to needed personal health services, investigating local environmental health hazards).	3.6
*Scale 1=Very Unsatisfied to 4=Very Satisfied	

YHD invested an unprecedented amount of funding toward the COVID-19 response that was funded through various sources. Maintaining fiscal integrity requires clear, consistent, and accountable processes to track procurement and contract management.

On average, staff reported being Satisfied with the fiscal, contractual, and procurement processes (**Table 8**). However, staff mentioned *"…there were so many contracts that there needed to be one person focused on contract management"* and identified a continued need for *"all staff to be aware of YHDs fiscal process, since it is still something that [they] are unaware of."*

Table 8. Average Score given for Fiscal, Contractual, and Procurement	
Fiscal, Contractual, Procurement	Staff Score
The clarity and efficiency in fiscal processes.	3.3
The clarity and efficiency in the procurement process.	3.2
The clarity and efficiency in the contracting process and contract management.	3.1
How effectively YHD's internal fiscal systems and policies were structured to address the multiple needs of the COVID response.	3.3
How well prior training provided by YHD helped staff succeed in the fiscal support of the COVID response.	3.1
*Scale 1=Very Unsatisfied to 4=Very Satisfied	

The primary strength noted was that, although there were a number of contracts and funding sources directed to the COVID-19 emergency response, YHD managed these contracts and fiscal responsibilities well. An area for improvement was the need for all staff to fully understand the fiscal procedures to help facilitate carrying them out. Additionally, staff were supported during the transition to work-from-home approach. Additionally, managers provided training and support to staff during the transition to work-from-home approach.

Strengths	Area for Improvements
Staff were supported as they transitioned to work from home via trainings and ensuring they had the appropriate tools.	Staff did not have an equal understanding of fiscal procedures and an agency wide training could have been beneficial.
Staff involved in contract management were successful and allowed for funding sources to be used to meet community needs.	

EXTERNAL PARTNER SURVEY DEMOGRAPHICS

To better understand external community partners' perspective of how YHD handled the COVID-19 emergency response, partners who had been involved with the response were identified by YHD management and staff. Email addresses were used to reach out to 432 individuals representing various organizations that had acted as a community partner in some capacity during the response. The sectors that were identified included those listed in **Table 9.**

Table 9. Yakima Health District COVID-19 Staff Response Area (n=86)

	Count	%*
Community Based Organization or Non-Profit	15	17
Faith-Based Group	4	5
Education/Schools and Colleges	25	29
Child Care Provider	9	10
First Responder	3	3
Long-Term Care Facility or Assisted Living Facility	11	13
Healthcare Provider	8	3
Hospital	3	3
Local County/City Government	5	6
Private sector/business	3	3
State or federal agency	4	5
Another Local Health Jurisdiction	1	1
Agriculture	9	10
*Percent may not add up to 100%.		

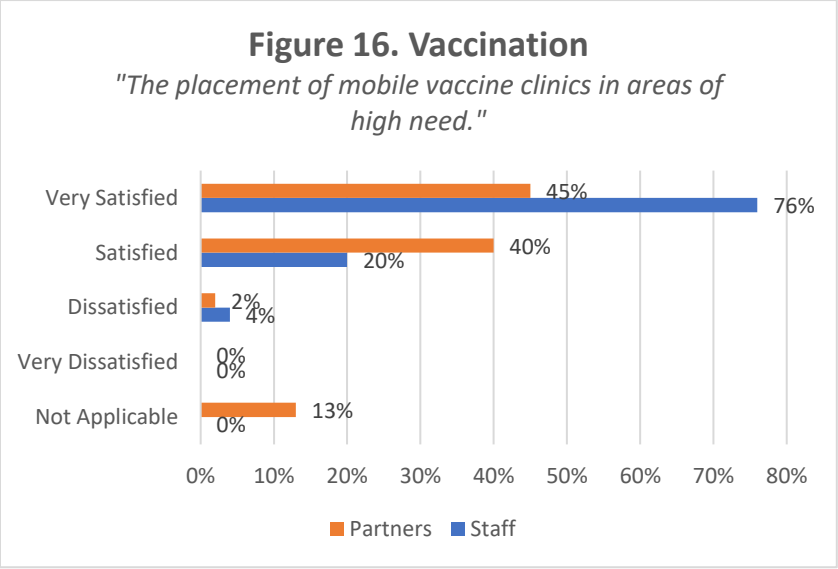
We also reached out to some sectors, but they did not respond, these included: Transportation or Utilities, Media, and Tribal Nation. We had 96 responses and 86 completed surveys. The response rate was low; 20%, however we had a reasonable representation of the community partners with a large proportion of responses being from Community Based Organizations (17%), Schools (29%), and Long-Term Care Facilities (13%) (**Table 9**).

VACCINATIONS AND TESTING

VACCINATIONS

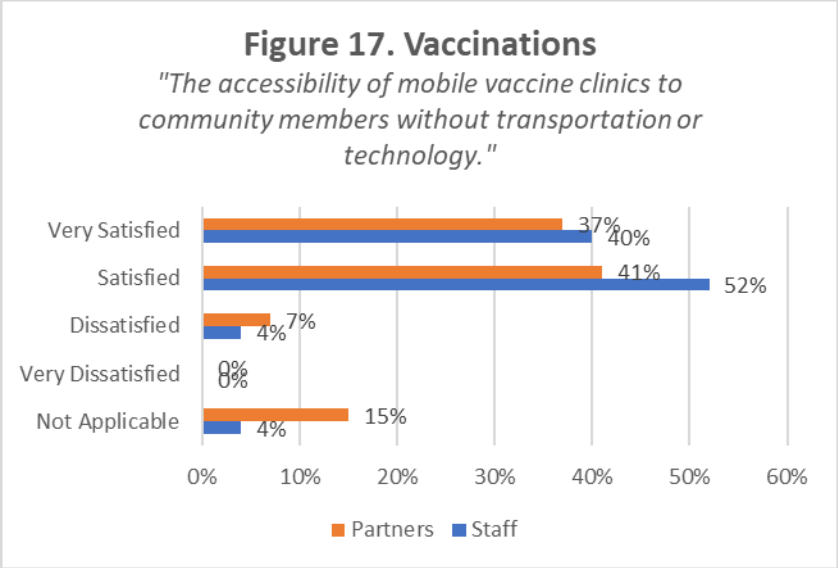
A drive-through mass vaccination site was opened by YHD and community partners on March 17, 2021. Two weeks later, the Federal Emergency Management Agency (FEMA) established the Yakima County Pilot Community Vaccination Center (CVC) at the same location. The CVC returned to local control on May 24, 2021, and remained operational through the end of July 2021. Mobile vaccine sites were funded to deliver vaccines to areas/communities within Yakima County who may experience barriers to get vaccines. The mobile vaccine sites delivered opportunities for vaccinations directly to the community. To understand YHD's effectiveness in providing accessible, equitable, and low barrier vaccination opportunities, we asked staff and community partners about their satisfaction with various aspects of the vaccination activities.

Staff and external partners differed in their responses; 76% of staff were very satisfied with the placement of mobile vaccine clinics in areas of high need, whereas 45% of external partners were very satisfied, and 2% were dissatisfied (**Figure 16**).



Community partners provided feedback, including "*Also hosting an additional site at the community center just blocks away from the fairgrounds, in addition our community Partner YNHS also hosting a mobile vaccine clinic twice at the community center was excellent. Many opportunities for families/individuals*". However, some noted that although flexibility and opportunities existed, there was still a need for further reach (extending hours, locations).

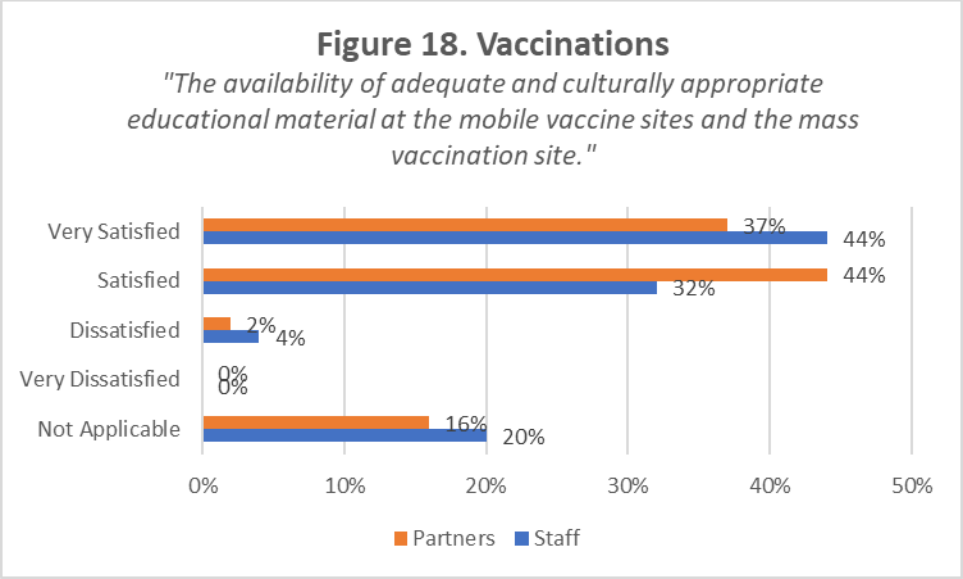
Forty percent of staff were very satisfied with the accessibility of mobile clinics to community members without transportation or technology access and 37% of our partners were very satisfied (**Figure 17**). External community partners reported feeling dissatisfied (7%) with the accessibility of mobile vaccine clinics to community members without transportation of technology, while only 4% of staff reported feeling dissatisfied.



Mobile vaccine clinics were set up through collaborations with community partners. Partners could request that a vaccine clinic be present at a community event, and this helped reach many individuals that may not have had the ease of attending the mass vaccination site to seek vaccinations.

Community partners providing responses to open-ended responses noted that they felt that vaccine clinics were an overwhelming success. YHD was the first agency in WA state to implement this approach and respondents appreciated the reach across Yakima County "*Accessibility was key."* In open-ended responses from staff, one person described the mobile sites as being "*a critical part in the COVID-19 response as they provided vaccination opportunities to places where individuals trusted and also reached many individuals throughout the county"*.

Staff also noted that they believed that "*COVID [informational] material and messaging was successfully produced in Spanish*," which represents the language that a large proportion of our community speaks. However, at the testing and vaccination sites, other language assistance was available through automated systems. One staff member noted that they felt as if efforts to ensure equity in access to vaccines and testing resulted in YHD further embracing equity in other services outside of COVID-19, "*Since COVID-19 pandemic I feel like providing equitable information and resources has become one of these agency's top priorities not just around COVID but around all program planning*." **Figure 18** shows the level of satisfaction for staff and external partners.



Clinics and testing sites were staffed through a contracted organization. One issue highlighted by the staff open-ended responses was the disconnect between those who staffed the sites and the YHD staff. YHD staff reported feeling that there was need for staffing at the mobile sites to provide additional education about the vaccine and to share similar enthusiasm as the YHD staff when interacting with the public. One staff member noted "*The only negative I have is some of the staff providing the vaccinations (mostly contracted out) seemed unenthused and without YHD staff pointing it out, people may not even realize they were vaccinating at some events."* This is an area for improvement for future collaborations. YHD may need to ensure that this gap is filled so that efforts can be fully effective and reach the community. Based on the satisfaction scale from 1 to 4, staff and external partners were reporting average satisfaction levels between 3.4 and 3.7. Average scores are presented below, staff were slightly more satisfied with the vaccination activities (**Table 10**).

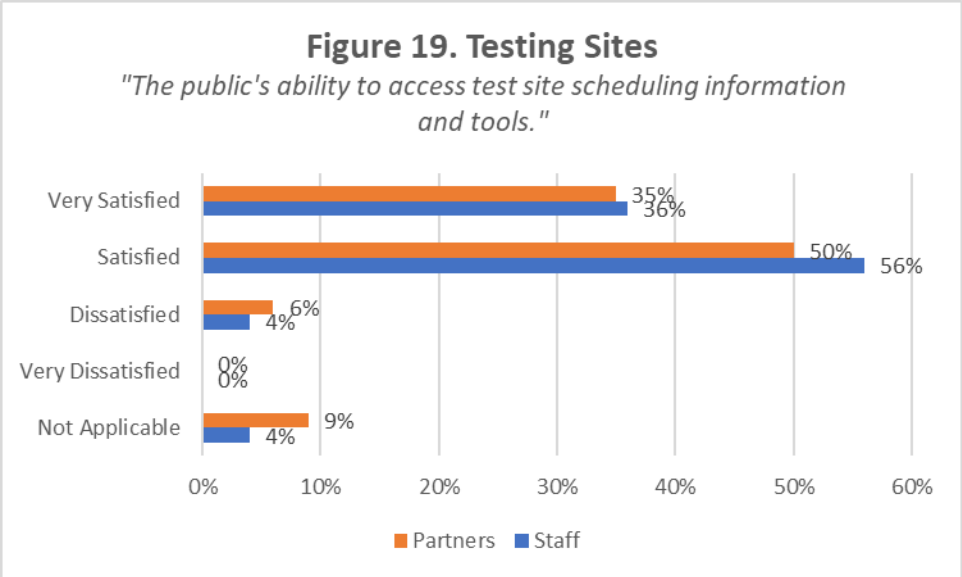
Table 10. Average Score given to Vaccination Activities

Vaccination Activity	Staff	External Partner
The public's ability to access vaccine appointment scheduling information and tools.	3.4	3.4
The placement of mobile vaccine clinics in areas of high need.	3.7	3.5
The accessibility of mobile vaccine clinics to community members without transportation or technology.	3.4	3.4
The language access tools offered at vaccine clinics for community members with limited English proficiency.	3.4	3.5
The availability of adequate and culturally appropriate educational material at the mobile vaccine sites and the mass vaccination site.	3.5	3.4
The design and set up of the mass vaccination site at the State Fair Park design.	3.6	--
YHD's ability to partner and coordinate with local schools and colleges.	--	3.4
*Scale 1=Very Unsatisfied to 4=Very Satisfied		

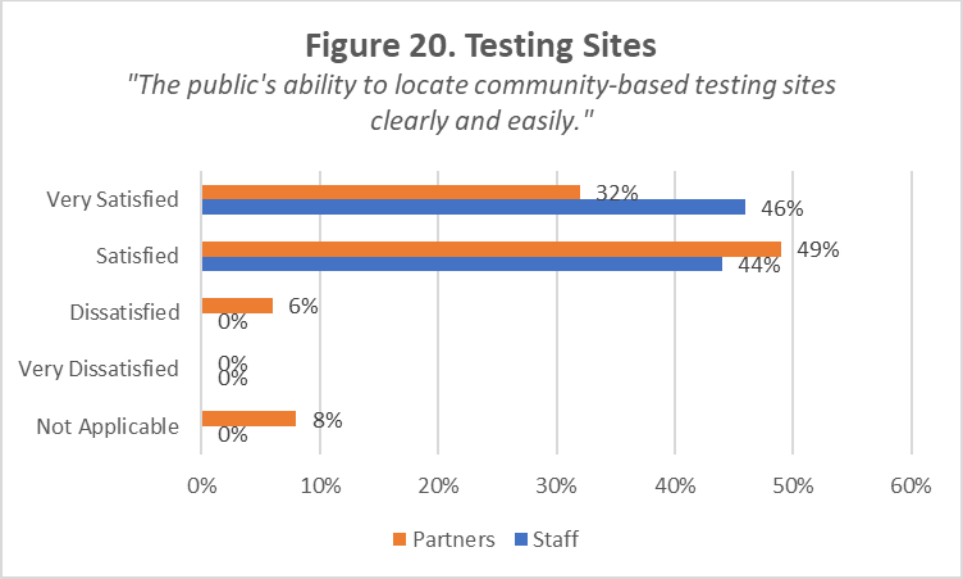
TESTING

Short-term testing sites and events were available to the public beginning in April 2020. Community-based testing sites were established at the State Fair Park in Yakima and at the Sunnyside Community Center in November and December 2020, respectively. The Yakima community-based testing site moved to Yakima Valley College in 2021 and the former Orthopedics Northwest parking lot in 2022. The closure dates for the community-based testing sites were extended several times, with both officially closing at the end of January 2023.

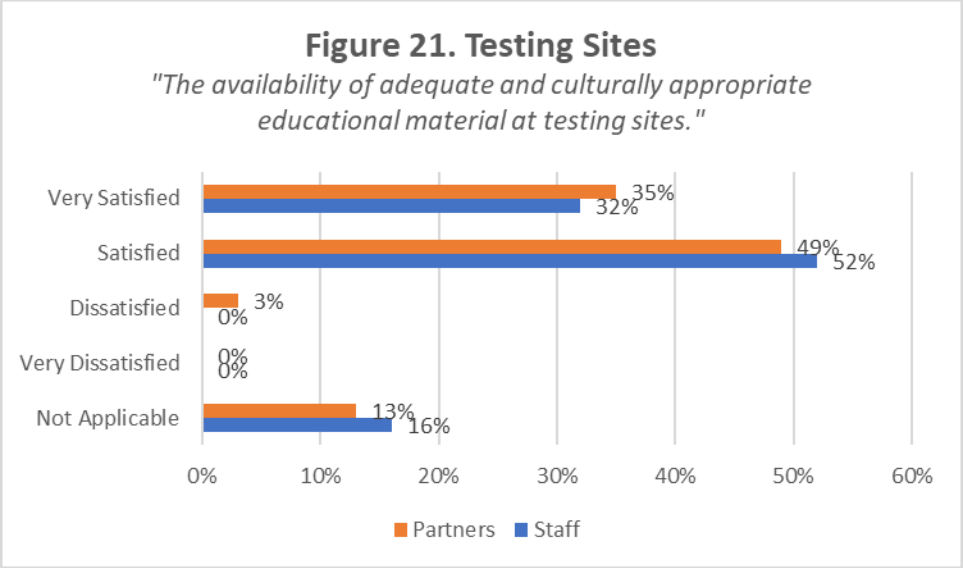
In order to understand YHDs effectiveness in providing accessible, equitable, and low barrier testing opportunities, we asked staff and community partners about their satisfaction with various aspects of the testing activities. Both staff and external partners reported being satisfied with the public's ability to access test sites scheduling information and tools, to a greater degree than very satisfied (**Figure 19**). This was in part due to the barrier of language and age, or comfort with accessing information found on YHD scheduling website. One staff member shared that "*based on community calls, I got the impression that people were having difficulty navigating appointment scheduling (especially if they weren't comfortable with online scheduling)*."



Staff and community partners differed slightly regarding satisfaction with the public's abitiity to locate community-based testing sites clearly and easily. This was impacted in part by limited times of operation and when closures occurred in part due to inclement weather. Approximately 6% of community partners were dissatisfied (**Figure 20**).



Both staff and community partners reported being approximately 50% satisfied with the availability of adequate and culturally appropriate educational material at testing sites (**Figure 21**).



On average, staff and external partners were reporting between 3.4 and 3.7. Staff were slightly more satisfied with the vaccination activities (**Table 11**). One staff member noted that the "*use of 2-1-1 to share test site info to the public [was useful]* and that although, *"test sites were not ideal with the National Guard, [getting] more funding allowed for more support [and] provided a more robust system."* Community partners echoed this sentiment of needing to provide additional testing services, "*Testing sites in our communities were a great help. [When] they closed them down, the community felt the need and they appreciated when it was reopened."*

Table 11. Average Score given to Testing Activities		
Testing Activity	Staff	External Partner
The availability of adequate and culturally appropriate educational material at testing sites.	3.4	3.4
The public's ability to locate community-based testing sites clearly and easily.	3.6	3.3
The public's ability to access test site scheduling information and tools.	3.3	3.3
The placement of testing sites in areas of high need.	3.5	3.4
The language access tools offered at testing sites for community members with limited English proficiency.	3.5	3.4
The accessibility of testing sites to community members without transportation or technology.	3.2	3.2
*Scale 1=Very Unsatisfied to 4=Very Satisfied		

While staff and partners were largely satisfied with the availability of adequate and culturally appropriate educational materials at the testing sites, the public's ability to locate community testing sites clearly and easily, and the public's ability to access test site scheduling information and testing tools, community partners reported being slightly dissatisfied with these aspects of testing activities. Community partners shared in open-ended responses that *"at times people struggled to find testing site and had trouble scheduling testing, primarily older Hispanic folks."*

The availability of testing sites was helpful as this afforded community members the opportunity to have a site with a specific location and hours of operation. One community partner mentioned that reach in the "*Lower Yakima Valley was helped by having a testing site in Sunnyside, but that additional locations were still needed*". An area for improvement was ensuring that contracted staff shared in the commitment to YHD's efforts to educate the community about vaccines since they were at the point of contact, directly, with the community.

Strengths	Area for Improvements
YHD further incorporated equity into the organizational operations and services provided during the emergency response and afterward.	Clarity of information on testing and vaccine availability on YHD website could be improved.
YHD effectively worked with FEMA and DOH to run Mass Vaccination Site and Mobile Vaccination units.	The community experienced insufficient testing availability (location, times) and vaccination appointments.
Mobile vaccination clinics were organized to deliver vaccines across the county and addressed barriers to accessing vaccines (i.e., transportation, language).	There was a disconnect in commitment to YHD mission and community education between the YHD staff and the contracted staff (hired to manage the testing and vaccine sites).

COMMUNICATION

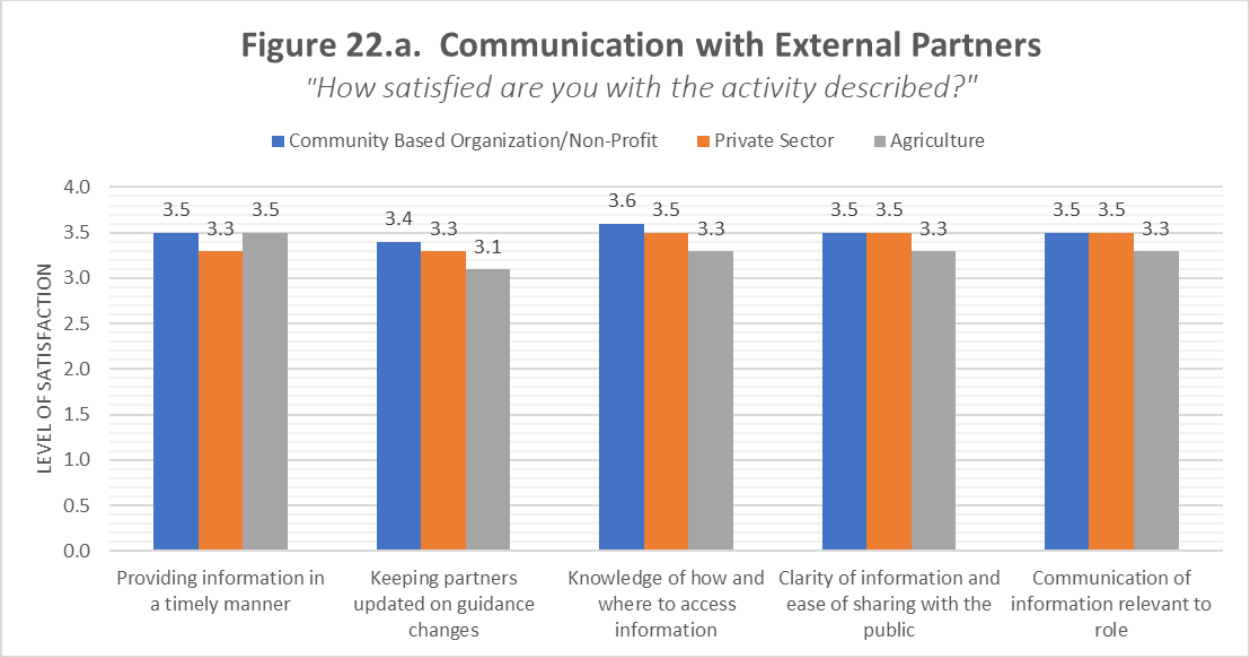
YHD heavily utilized social media throughout the COVID-19 response. Since most in-person gatherings were restricted, social media quickly became the primary source of information for many individuals. At first, social media was primarily used to provide updates on the developing situation and report case counts. As the pandemic progressed, it was used to address misinformation and disseminate information on health behaviors to mitigate the spread of disease. These social media posts occurred on a daily, basis. This included posting the same message in Spanish and English.

Over the course of the emergency response, YHD used Facebook Live presentations to delve deeper into some topics, such as education on the virus and risks associated with it, transmission and community safety measures that could be taken. In 2020, YHD hosted 7 Facebook Live events in English and 5 in Spanish. In 2021, there were 17 English and 16 Spanish live events, focused on vaccine safety and continued efforts the community and the individual could take to keep themselves safe. In 2022, there was one Spanish Facebook live event and no English.

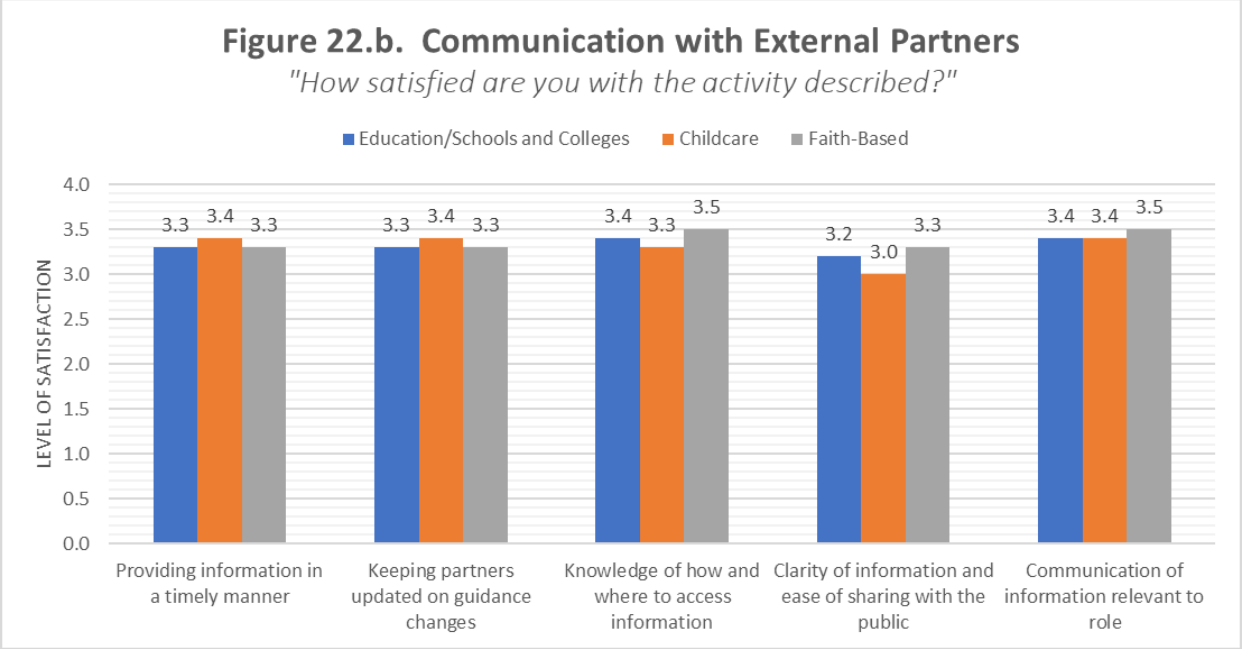
YHD held 3 press conferences in English and 3 in Spanish in 2021 and also participated in question-and-answer sessions, as requested, that were broadcast on a local radio station, Radio KDNA, to reach the Spanish-speaking community. Early in the pandemic, YHD updated the COVID-19 data on its website daily. Data included, number of new and total cases, hospitalizations, and deaths, as well as the daily case rate which indicated the community spread of COVID-19. The intervals were increased to weekly, monthly, and quarterly basis. Media releases were also used to publicize COVID-19 information of public significance.

Based on the community partner's own experiences with YHD's ability to provide COVID-19 information in a timely manner, 55% were satisfied and 37% were very satisfied. When asked, 'How well YHD kept partners up to date with COVID-19 guidance changes as they occurred' 52% reported being satisfied and 40% were very satisfied. When asked about their 'Knowledge of how and where to access relevant and credible COVID-19 information', 48% were satisfied and 47% were very satisfied. Based on their own experiences with 'The clarity of the information and how easy it was to share with the public' 50% were satisfied and 41% were very satisfied. When asked 'How well YHD communicated COVID-19 information that was relevant to your role' 50% were satisfied and 47% were very satisfied. Summaries of the average level of satisfaction reported by the various sectors represented in the survey responses are shown below (**Figure 22.a. – 22.d.**); on average they scored their satisfaction with the communication activities between satisfied (3) and very satisfied (4).

Community Based Organizations/Non-profits reported slightly higher or similar satisfaction scores than Private Sector and Agricultural organizations (**Figure 22.a**).

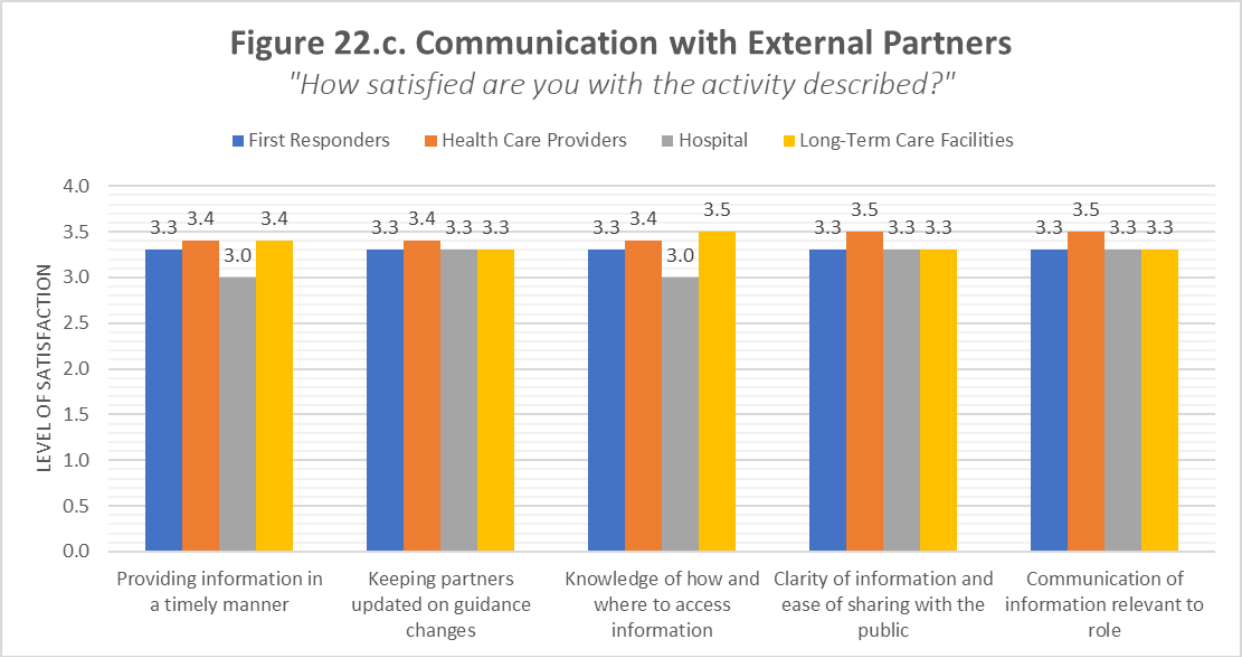


Childcare organizations reported being less satisfied with the clarity of information and ease of sharing with the public and with knowledge of how and where to access information, compared to Education and Faith-based organizations. They were, however, slightly more satisfied with communication of information relevant to their role than Education and Faith based organizations **(Figure 22.b**). Overall, these types of organizations reported to be slightly above satisfied with the communication activities of YHD.

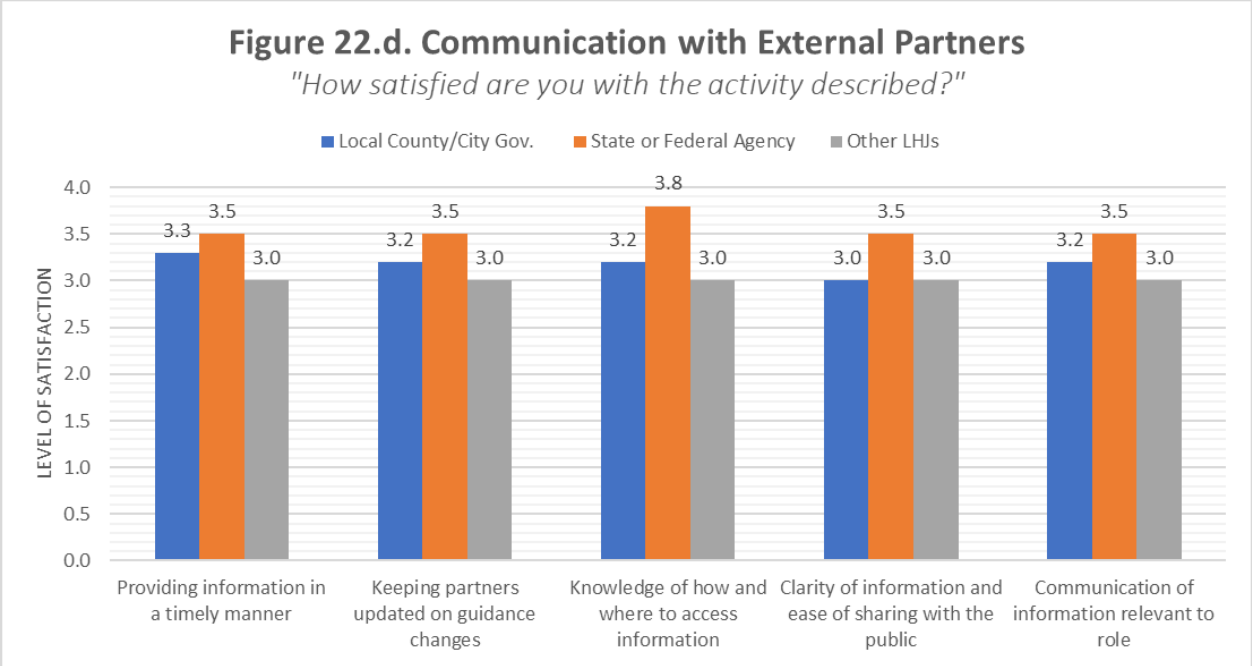


Long-term care facilities and first responders tended to have similar perspectives on providing information, keeping partners informed, clarity of information and communication of relevant information to role. However,

Hospitals reported slightly less satisfaction with providing information in a timely manner and knowledge of how and where to access information (**Figure 22.c**).



State or federal agencies reported the highest level of satisfaction among this group and the local county or city government reported a lower level, with an average between 3.0 and 3.3 across all communication activities (**Figure 22.d**).



Overall, when community partners were asked about external communication by YHD, they had an average satisfaction score of 3.4 for all communication activities (**Table 12**). Positive aspects of the external communication

were noted to heavily rely on partner's ability to reach staff and feel like they were helped with their question. Comments reflecting this included "*The employees were always available for questions and ready to help*" and "s*taff were always willing to try to answer questions and met with school staff on a regular basis. I was very appreciative of their willingness to meet regularly. During the peak of the pandemic and at the start.*" Additionally, some community partners noted that the shifting guidance contributed to difficulties in communication noting that "*staff were always prompt in answering questions. I do think that staff were stretched very thin and were not always familiar with the newly released guidance*."

However, in contrast to these experiences, some community partners experienced difficulties accessing staff to get information, to answer questions and gain clarification on the situation. Comments reflecting this experience include "*The information was not the easiest to find (although he CDC's information was even more difficult to sort through). It's much better organized now. I appreciate the staff's responsiveness to our questions, specifically because the information we needed was not always easily accessed*" and "*this was a frustrating time. The support available was not at the same level as other counties/ communities in the State and we often needed to reach out to other entities to get what we needed. The staff was great and as helpful as they could be- it was just a bad system*." Some partners mentioned that YHD could have improved the communication, "*for updates, we had to access the YHD website, it would have been nice to receive a prompt or newsletter when there was a change so we could follow up on the change.*"

Table 12. Summary of Average Score given by Partners for External Communication

Communication Activity	External Partner
YHD's ability to provide COVID information to the external partners in a timely manner	3.4
How well YHD kept the external partners up to date with COVID guidance changes as they occurred.	3.4
Your knowledge of how and where to access relevant and credible COVID information.	3.4
The clarity of the information and how easy it was to share with the public.	3.3
How well YHD communicated COVID information relevant to your role.	3.4
*Scale 1=Very Unsatisfied to 4=Very Satisfied	

Staff also noted that internal communication could have been improved and this could have improved the experience of community partners when seeking clarification on guidance and changing information. Staff noted "*often information was not shared with the staff especially in the beginning. This got better as time went on."* Additionally, staff mentioned that" YHD's *communications team grew to meet the needs of the community. Huge focus on getting info to the community but at times missed opportunities to communicate response efforts with staff."* Overall, staff gave a score that indicated satisfied (**Table 13**).

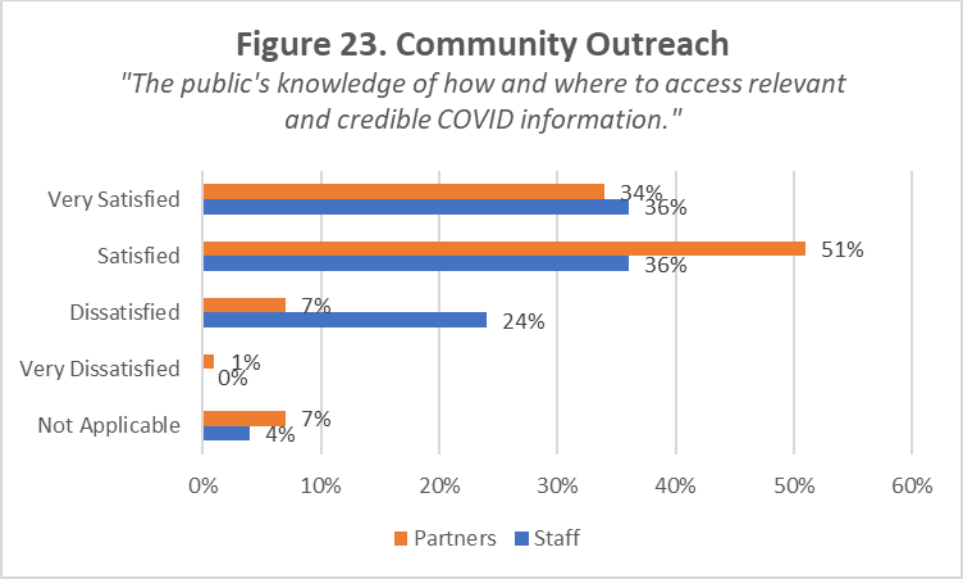
Table 13. Summary of Average Score given by Staff for Internal Communication	
Communication Activity	**Staff**
YHD's ability to provide COVID information to the staff/external partners in a timely manner	3.4
How well YHD kept the staff/external partners up to date with COVID guidance changes as they occurred.	3.3
Your knowledge of how and where to access relevant and credible COVID information.	3.6
The clarity of the information and how easy it was to share with the public.	3.3
How well YHD communicated COVID information relevant to your role.	3.4
*Scale 1=Very Unsatisfied to 4=Very Satisfied	

The following strengths and areas for improvement were identified through open-ended responses to the online survey questions from community partners and staff, as well as based on a document review of the COVID-19 response. This included the assistance provided by staff, although an area for improvement was enhanced internal communication so that staff could provide the community with consistent messaging and improve their ability to respond to questions. A strength of the response was a daily social media presence supplemented by additional media efforts, including Facebook live events, radio interviews, press conferences and media releases.

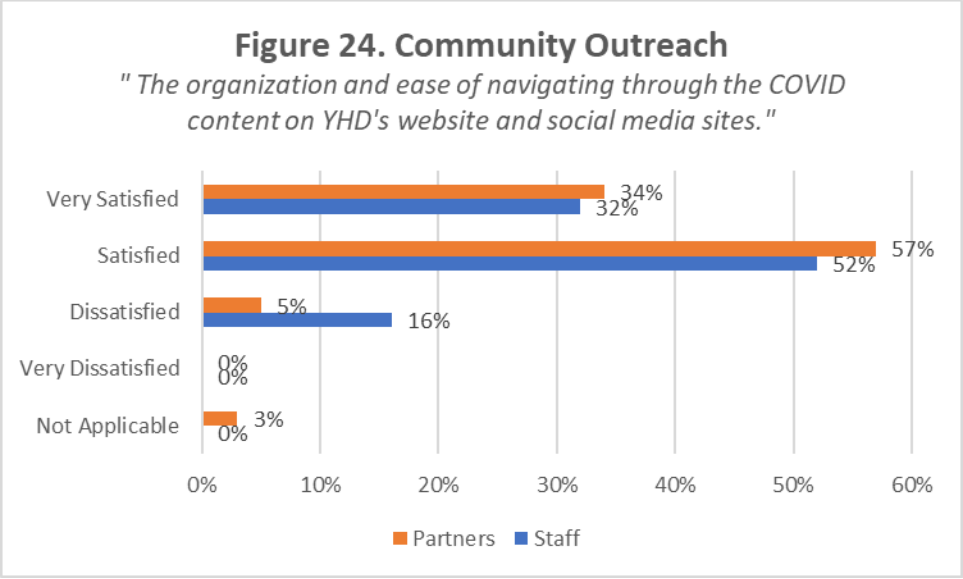
Strengths	Area for Improvements
YHD staff helped, answered questions, and were available to help community members during the emergency response.	Enhance internal communication with all YHD staff not just those involved in response.
YHD maintained a daily social media presence and posted information regarding COVID-19 and made use of FB lives, Radio and television appearances, and put out media releases.	Incorporate a streamlined communication approach that incorporates internal communication for staff and external communication with community partners.

COMMUNITY OUTREACH

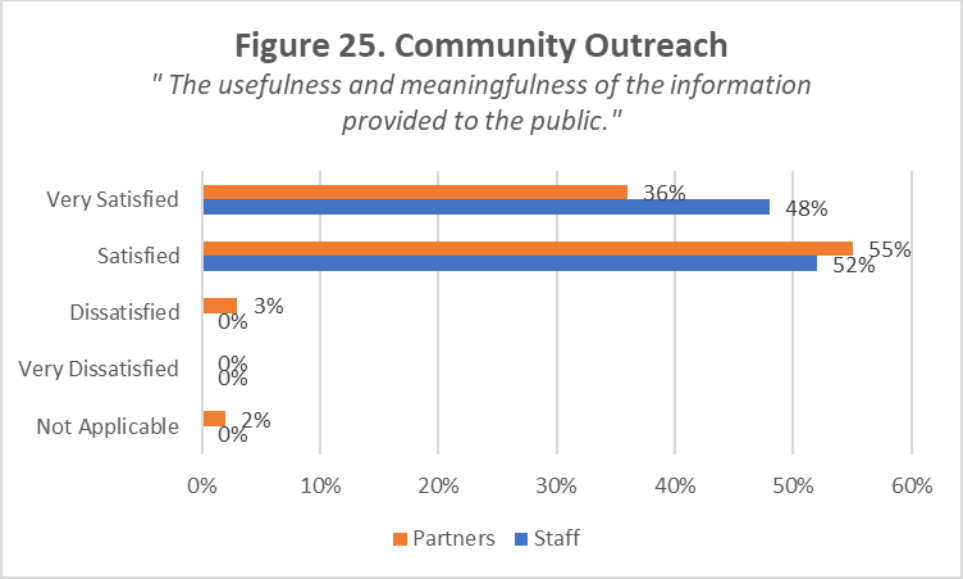
YHD intentionally reached out to diverse range of community partners, placing an emphasis on collaborating with those serving individuals most impacted by COVID-19. Through this outreach, YHD was able to share COVID-19 education and guidance, distribute masks, and eventually identify suitable sites for vaccine administration. YHD organized monthly meetings with a group of partners to seek their input and encourage them to continue sharing information on testing and vaccines as available. Staff reported being dissatisfied with the public's knowledge of how and where to access relevant and credible information, compared to community partners (**Figure 23**).



Similarly, 16% of staff were dissatisfied with the organization and ease of navigating through the COVID-19 content on YHDs website and social media sites (**Figure 24**).



However, this is contradicted by the staff's satisfaction with the usefulness of information provided to the public (**Figure 25).** Staff did note, "*this was the first time many people knew to go to public health for assistance, so they struggled for at least the first 6 months on how to get information*" and this may have contributed to the discrepancies in these ratings.



Overall, both staff and external partners reported similar ratings of the satisfaction level with the community outreach activities (**Table 14**). However, staff did score the 'The usefulness and meaningfulness of the information provided to the public' slightly higher than the external partners did. This may be due to staff getting feedback during the emergency response, for example one staff member noted that "*family members and friends let me know that they appreciated updates about COVID through the radio segments and interviews. Social media posts were clear and concise with helpful information and links to resources.*" Whereas some feedback from community partners indicated that "*it depends on WHEN you are asking about [community outreach]. The start was very different from the end. Honestly, we felt like we did most of the communication on our own. Information was difficult to find online and was not updated quickly*."

Although this improved over the course of the emergency response, community partners provided additional areas for improvement. Feedback included "*I believe initially there was not enough information provided to the Hispanic community*" and "*Perhaps direct engagement in the schools could have increased the efforts [with Hispanic community]*." Additional suggestions included, improving accessibility of the website for Spanish language users, ensuring that sources of information are cited (made clear) so that community knows where the information came from, and having some kind of notice that an update or change to guidance has been made. One community partner shared that they believe that YHD should have "*made it easier for those who need just the basic info, [such as] 'Still need to mask up" in bold then if they want details, they can click a link*".

Table 14. Average Score given by Staff and Partners for Community Outreach		
Outreach Activity	Staff	External Partner
YHD's ability to provide COVID information to the community in a timely manner.	3.4	3.4
How well YHD kept the community up to date with COVID guidance changes as they occurred.	3.4	3.4
The public's knowledge of how and where to access relevant and credible COVID information.	3.1	3.3
The organization and ease of navigating through the COVID content on YHD's website and social media sites.	3.2	3.3
The usefulness and meaningfulness of the information provided to the public.	3.5	3.3
*Scale 1=Very Unsatisfied to 4=Very Satisfied		

A strength recognized by the community partners was the way that community outreach improved over time. At the star of the emergency response community partners felt that it was not as effective, but as time went on and lessons were learned, outreach from YHD improved.

Strengths	Area for Improvements
Community outreach efforts improved over time and led to increased contact between community partners and YHD.	Improvement in the timeliness of communicating guidance changes to key community partners.
	Adjustment to format in which information is delivered to community (website updated, newsletter updates).

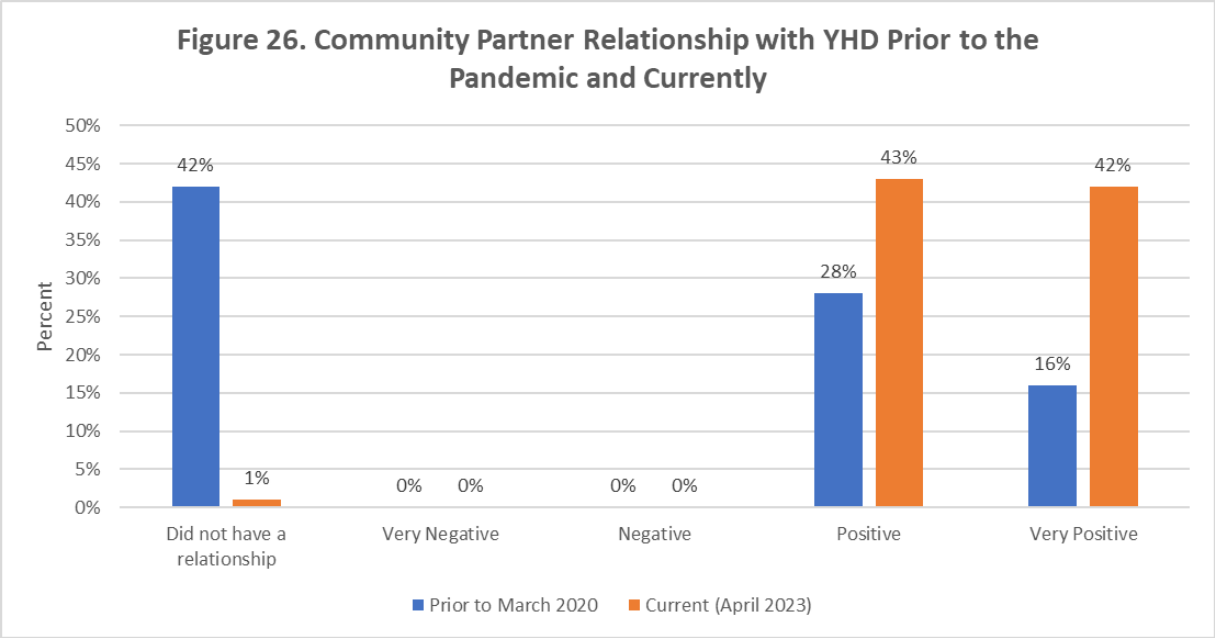
PARTNERSHIPS

Partnerships were not only strengthened but also built during the COVID-19 emergency response. Partnerships were crucial to promote community-wide mitigation efforts, distribute information regarding COVID-19, and reach the most vulnerable within the community with testing and vaccination services.

We asked community partners how they would characterize their relationship between their organization and YHD, both prior to the COVID-19 emergency and currently (April 2023). Slightly over 42% of the respondents indicated that their organization did not have a relationship with YHD prior to the pandemic. After the pandemic response, only 1% reported not having a relationship with YHD. Of those who reported not having a relationship with YHD, 67% shifted to having a positive relationship with YHD and 31% shifted to having a very positive relationship with YHD after the response.

Of those that reported a positive relationship with YHD prior to the pandemic, 54% shifted to reporting a positive relationship and 46% reported shifting to a very positive relationship with YHD after the COVID-19 response.

Overall, as shown below (**Figure 26**), prior to the pandemic, 16% reported having a very positive relationship with YHD, this increased to 42% after the pandemic response.

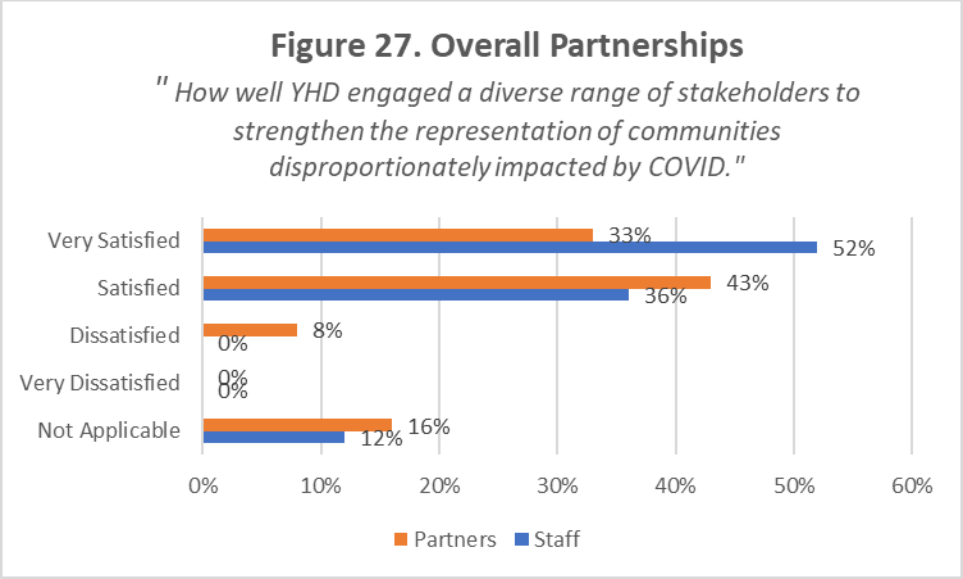


Overall, staff reported a higher satisfaction level for YHD's ability to partner with various community sectors, compared to the scores given by community partners (Table 15). Specifically, staff rated YHD's ability to partner with WDOH, local schools, health care providers, long-term care facilities and local community-based organizations higher. These were organizations that YHD had a lot of contact with and therefore staff may have felt more secure in the partnership. As for external partners, there remains work to be done to ensure that both YHD and the community partner are perceiving a similar level of coordination and ability to partner with each other.

Community partners mentioned that, although there were incredible efforts by YHD to develop and strengthen partnerships, aspects outside of YHD's control interfered with some partnership building. This included aspects of how information came down the pipeline from DOH, some community partners noted that they perceived inconsistencies between how other counties or LHJs were receiving assistance compared to YHD. Other community partners noted that they perceived local elected officials, specifically those serving on the board of health, as not having the same interest in maintaining community safety.

Table 15. Average Score given by Staff and Partners for Community Partnerships		
Partnership Activity	Staff	External Partner
YHD's ability to partner and coordinate with the Washington State Department of Health.	3.7	3.3
YHD's ability to partner and coordinate with other Local Health Jurisdictions.	3.4	3.3
YHD's ability to partner and coordinate with local schools and colleges.	3.7	3.3
YHD's ability to partner and coordinate with local health care providers.	3.6	3.2
YHD's ability to partner and coordinate with local long term care facilities.	3.8	3.3
YHD's ability to partner and coordinate with local fire departments.	3.2	3.3
YHD's ability to partner and coordinate with local law enforcement.	3.2	3.3
YHD's ability to partner and coordinate with the local private sector and business community.	3.3	3.3
YHD's ability to partner and coordinate with local elected officials.	3.1	3.3
YHD's ability to partner and coordinate with local faith-based organizations	3.3	3.2
YHD's ability to partner and coordinate with local community-based organizations.	3.6	3.4
YHD's ability to partner and coordinate with local agricultural organizations.	3.3	3.3
*Scale 1=Very Unsatisfied to 4=Very Satisfied		

Staff tended to respond as being more satisfied with how well YHD engaged a diverse range of stakeholders to strengthen the representation of communities disproportionately impacted by COVID-19, compared to external community partner opinions (**Figure 27**). The discrepancy between these two perspectives is potentially explained by the building of new partnerships that hadn't existed prior to the pandemic, but nevertheless, work remains to fully strengthen these relationships. Staff noted that "*the COVID-19 pandemic highlighted the importance of having connections with community-based organizations to work with them in distributing COVID-19 information to community members."* And that YHD "*really adopted equity [lenses] across all initiatives and worked hard to meet the needs of the entire community*." Whereas a community partner noted that they "*did not feel like the response considered the needs of the community and how members of the community were being affected disproportionately. I would say the guidance looking at this from an equity lens was not there*." This is an area for growth and continued improvement for YHD.



Overall, staff rated the partnerships slightly higher than the external partners did. External partners noted that there were some specific sectors that felt like they needed additional support or response to questions and were not readily answered, specifically childcare. A community member noted that "*there did seem to be a high turnover of contacts for childcare so sometimes it was hard to get a hold of our contact at the health department. There were times that our calls were not responded to*". Additionally, one sector mentioned that "*Agriculture workers seemed to be the last to really get the information and understand how to best help the workers*." However, YHD's role needed some clarification, based on the opinion of other community partners, for example one noted "*From my perspective hearing from my patients and media, the agricultural industry was not held accountable for protecting their workers especially early in the pandemic. I believe this was the role of the YHD to hold them accountable*." This is an area for improvement; where building partnerships can help address needs of specific sectors of the community and clarify roles and responsibilities of each. As another community partner noted "*the agricultural industry was the last to get clear guidelines on how to educate their workers. Communication improved as time went on.*"

Table 16. Average Score given by Staff and Partners for Overall Partnerships

Partnership Activity	Staff	External Partner
How well YHD coordinated with external partners to understand and address the needs of communities disproportionately impacted by COVID.	3.4	3.3
How well YHD engaged a diverse range of stakeholders to strengthen the representation of communities disproportionately impacted by COVID.	3.6	3.3
How well-defined and understood the role(s) were of the partners involved in the response.	3.2	3.2
How accessible and responsive YHD was to partners' needs throughout the response.	3.5	3.3
*Scale 1=Very Unsatisfied to 4=Very Satisfied		

Community partners who responded to the survey questions provided feedback based on their experience, and one partner noted that "*partnering with others was one of YHD greatest strengths. The combined efforts, along with our one hospital saved thousands of lives*." Overall, this captures the motivation for actions taken during the COVID-19 pandemic response. There remain areas for improvement but the building and strengthening of partnerships was a strength of YHD and the community.

Strengths	Area for Improvements
YHD established new relationships with community partners through delivery of emergency response activities.	Continue to improve equity in YHD service delivery to community.
Existing partnerships were expanded and strengthened throughout response.	Increased transparency of how communication and directives from differing governing entities (DOH, Board of Health) are managed.

ACKNOWLEDGEMENTS

The COVID-19 Pandemic was an unprecedented event, and although the emergency declaration has ended, work remains to be done. The Yakima Health District (YHD) would like to thank the management and staff, community partners, and community members for their support, engagement, and willingness to address the COVID-19 emergency as a community. Additionally, we thank the multiple government and social services agencies that supported and improved YHD's capacity to respond during the emergency, including the Center for Disease Control and Prevention, WA State Department of Health, Federal Emergency Management Agency, and our local government officials.

YHD would like to extend a special gratitude to community partners who actively reported and responded to COVID-19 outbreaks, such as those in long-term care, schools, and businesses. Thank you for working together with YHD to mitigate those outbreaks.

Finally, YHD would like to extend gratitude to staff and community partners who took the time to respond and contribute feedback on this survey. Your feedback is valuable and will be used to continue to improve our work within the community.

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APPENDIX

Appendix 1. Acronyms and Definitions

Acronyms	
CDC	Centers for Disease Control and Prevention
CVC	Community Vaccination Center
DOH	Washington State Department of Health
EOC	Emergency Operations Center
EUA	Emergency Use Authorization
FDA	U.S. Food and Drug Administration
FEMA	Federal Emergency Management Agency
HHS	U.S. Department of Health and Human Services
IMT	Incident Management Team
LHJ	Local Health Jurisdiction
LTCF	Long-Term Care Facility
MTI	Medical Teams International
OWS	Operation Warp Speed
PHE	Public Health Emergency
PHEIC	Public Health Emergency of International Concern
PPE	Personal Protective Equipment
SEOC	State Emergency Operations Center
Sit-Rep	Situation Report
WHO	World Health Organization
YHD	Yakima Health District
YVOEM	Yakima Valley Office of Emergency Management

Appendix 2: Tables

Appendix 3: Figures