Prepared for: Tracing Health, a program of the Public Health Institute



Tracing Health Survey of County-Integrated Programming

July 2022

A Report By



<u>Tracing Health</u>, a program of the <u>Public Health Institute (PHI)</u>, launched in spring 2020 as a COVID-19 pandemic response initiative and strategic partnership between PHI and the <u>Oregon Public Health Institute (OPHI)</u>. The Tracing Health program is committed to advancing health equity and responding to the urgent need for COVID-19 contact tracing efforts. Their diverse team reflects the communities served and their culturally and linguistically responsive services build trust and deepen impact. Tracing Health hired and trained individuals who, together, reflect an innovative and responsive public health workforce.

The <u>Population Health Innovation Lab (PHIL</u>), a program of PHI, conducted a survey in partnership with Tracing Health from May – June 2022 to understand the strengths, barriers, achievements, and recommendations of its COVID-19 response efforts across California (CA), Oregon (OR), and Washington (WA) states. PHIL supports a wide range of clients, including PHI programs, with rigorous research and evaluation services. This report details key survey findings highlighting the program's overall program impact, including findings related to staff diversity, training, workforce, local public health capacity, and factors influencing outcomes.

Tracing Health was successful in its "Outreach efforts and excellent service provided to our community members during these hard times of the pandemic. Additionally, being able to integrate the team as part of our Epi response team." – Local Health Department Representative

"[Tracing Health] was impactful in community education and linkages to COVID-19 vaccinations." – Community Health Center Representative

BACKGROUND

<u>Tracing Health</u> began in May 2020 as a partnership between PHI; OPHI; Washington County, OR; and Clark County, WA to support the need for COVID-19 contact tracing and case investigation (CT/CI). By August 2020, Tracing Health's reach expanded to include counties in California through the <u>California Contact Tracing Support Initiative (CCTSI</u>). The Tracing Health program initially had three broad goals: 1) reduce the spread of COVID-19 through CT/CI; 2) improve trust in CT/CI by hiring staff from communities of color that are disproportionately affected by COVID-19; and 3) increase economic security for members of these communities and prepare them for continuing careers in health-related fields beyond the program's end.

Tracing Health program services were delivered to jurisdictions in two ways: 1) a clinically integrated model where teams worked with Kaiser Permanente facilities in California to support CT and link COVID-19 cases and their contacts to additional resources; and 2) a county-integrated model across CA, OR, and WA where teams supported county health departments with CT/CI workflows. As the pandemic progressed, Tracing Health's scope expanded to meet changing needs. For example, Tracing Health provided vaccine outreach and support through call centers, staffing vaccination sites, and outreach in community health centers in coordination with county health departments. To address the third program goal (i.e., increase economic security), Tracing Health implemented a workforce development program that hosted panel discussions, skill-building workshops and sessions, career fairs, courses, and professional certifications for staff members.

STUDY OVERVIEW

The <u>PHIL Division of Research & Network Science</u> conducted a survey of processes and outcomes of Tracing Health's partnered COVID-19 activities and services to identify impact, strengths, barriers, facilitators, achievements, lessons learned, recommendations, and future opportunities in counties along the West Coast. The survey was sent to employees of Tracing Health, OPHI, and PHI including but not limited to CT/CI staff, administrative staff, and scientific staff. External partners, such as representatives from the California Department of Public Health (CDPH), local county health departments, community health centers, and California school districts were also invited to respond to the survey.

METHODS

Survey Development

A web-based survey was developed by PHIL researchers and refined in collaboration with Tracing Health, OPHI, and PHI staff. The survey included both quantitative and qualitative items and was programmed using the survey software, <u>Qualtrics</u>. The study was approved by PHI's Institutional Review Board on May 13, 2022: IRB #I22-00. The survey was pilot tested by six Tracing Health staff and external partners from May 16 – May 19, 2022. PHIL researchers revised the survey based on respondent feedback and researchers' observations of response patterns. These steps helped ensure reliability and validity of survey data.¹

Survey Sample

The survey used a census sample of Tracing Health participants that included all PHI/Tracing Health staff and external partners. The Tracing Health team developed a contact list of the full subject population that included names and email addresses of 265 individuals, which was used by the PHIL research team as the study sampling frame. The census sampling approach helped reach a broad, all-inclusive population with the goal of achieving survey response that was representative of the study population.²

Survey Administration

Tracing Health staff sent a survey introduction email to the 265 potential participants on May 19, 2022. Survey invitations were sent to the contact list by PHIL on May 23, 2022. A survey invitation was also shared on Tracing Health's private LinkedIn group. The survey was confidential, took about 15 minutes to complete, and respondents were offered a \$20 e-gift card as a token of appreciation for their participation. The survey closed on June 10, 2022, with a total of 112 responses (95 from the contact list, 11 from LinkedIn, and six from pilot testing).³ The response rate for the known sampling frame (excluding pilot testing and LinkedIn response) was 36%.

Data Analysis

Quantitative survey data were analyzed using the open source <u>statistical and programming</u> <u>software, R</u>. Data were visualized and described using summary statistics. Inferential and predictive analysis were conducted to assess magnitude, directionality, and statistical significance of relationships among project activities, contextual factors, and outcomes. Results were considered statistically significant if the significance level of the statistical test was less than 0.05 or 5%. Qualitative survey data were assessed in <u>Dedoose</u> using classical content analysis, where data are coded, and codes are quantified by frequency of appearance across responses. The study's mixed methods approach ensured depth and breadth of findings.⁴

¹Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method. John Wiley & Sons.

²Singleton, R. A., & Straits, B. C. (2018). Sampling. In Approaches to Social Research (6th ed., pp. 149–184). Oxford University Press.

³Five partial survey responses with over 50% completion were included in survey analysis, meaning some questions included up to 118 responses in analysis (i.e., 112 complete responses plus six partial responses).

⁴Teddlie, C., & Tashakkori, A. (2009). Foundations of Mixed Methods Research. SAGE Publications.

RESULTS

Survey respondents reported a high level of satisfaction with their experience working or partnering with Tracing Health (Figure 1). Tracing Health staff most frequently cited satisfaction with the training provided by Tracing Health; workforce development opportunities; support provided by program leadership; and motivation to contribute to COVID-19 recovery and response in communities. External partners most frequently cited satisfaction with increased organizational capacity; PHI/Tracing Health leadership; professionalism, responsiveness, and flexibility of PHI/Tracing Health staff; and better results with COVID-19 prevention and treatment because of Tracing Health's support.

91% (n=105) of all survey respondents reported being satisfied with their overall experience working or partnering with Tracing Health

"The ability to remotely band together and mobilize a whole community to get vaccinated through education, partnerships, and follow through was the greatest success." – Community Health Center Representative

"They didn't bring a service to the locals that was rigid, they really tried to understand the population, its needs, and our needs and tailored their efforts for us." – Local Health Department Representative

"Their professionalism, pleasant demeanor, frequency of communication, willingness to work, & innovative spirit were what impressed me the most about the Tracing Health staff & leadership." – Local Health Department Representative

> "They listened, adapted, and augmented our efforts." – Local Health Department Representative

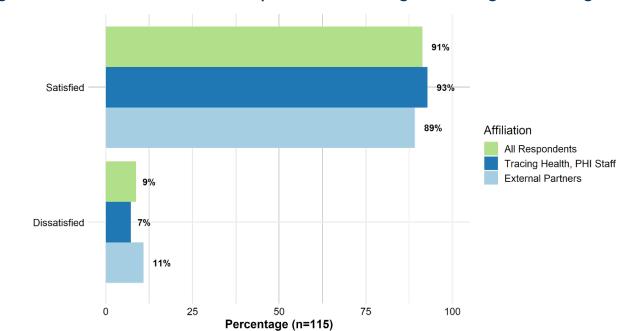


Figure 1. Satisfaction with Overall Experience Partnering or Working with Tracing Health

Description of Survey Respondents

Survey respondents identified as PHI/Tracing Health employees (60%, n=71) or external partners of PHI/Tracing Health (40%, n=47). External partners were affiliated with state health departments, local health departments, community health clinics, and school districts (Table 1). PHI/Tracing Health employee participants represented numerous roles, with the highest response from CT/CI staff (Table 2). Prior to working with Tracing Health, 38% (n=44) of PHI employees had less than one year of experience working in public health (Figure 2). More than half (61%, n=17) of CT/CI staff had less than one year of experience working in public health (Figure 2). More than half (61%, n=17) of CT/CI staff had less than one year of experience working in public health before joining the Tracing Health program. Of all survey respondents, 75% (n=89) supported San Bernardino, CA; Washington, OR; or Spokane, WA at some point during their work or partnership with Tracing Health.

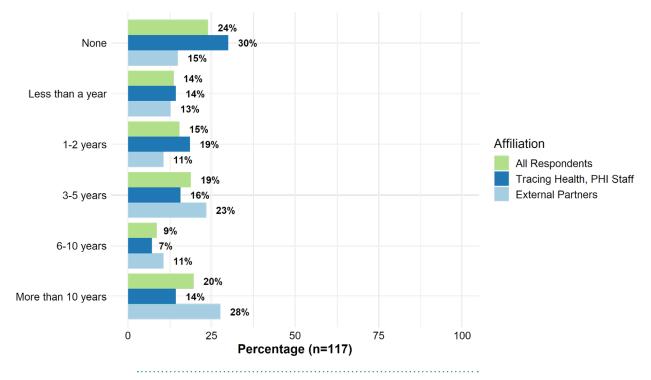
Table 1. Description of External Partner Affiliation

	Count	Percent			
External Partners of PHI/Tracing Health	47	100%			
External Partner Affiliation. Note: Partners could select more than one affiliation.					
State Health Department	8	17%			
Local Health Department	32	68%			
Community Health Clinic	13	28%			
School District	6	13%			

Table 2. Description of PHI/Tracing Health Employee Roles & Languages Spoken

	Count	Percent				
PHI/Tracing Health Employees	71	100%				
Employee Role. Note: Employees could select more than one role.						
Contact tracer / case investigator (CT/CI) staff	31	44%				
Resource coordinator	14	20%				
Manager	13	18%				
Team supervisor	11	15%				
Senior leadership	9	13%				
Vaccine ambassador	6	8%				
PHI Central administrative support	5	7%				
Epidemiologist	4	6%				
Training / workforce development staff	4	6%				
Data analyst	3	4%				
Languages Spoken Fluently. Note: Employees could select more than one language.						
English	63	89%				
Spanish	23	32%				
Other⁵	10	8%				
Russian	3	4%				

Figure 2. Experience with Public Health Prior to Working with Tracing Health



⁵Respondents reported fluency in other languages, with one person reporting fluency in each of the following languages: Arabic, Cantonese, German, Italian, Macedonian, Serbo-Croatian, Bulgarian, Mandarin, Punjabi, Tagalog, Ukrainian, Yoruba

Table 3. Counties Served by PHI/Tracing Health Employees and Partners

	Count	Percent		Count	Percent		
All Survey Respondents	118	100%		118	100%		
Counties served by employees and partners. Note: Respondents could select more than one county. Total number of survey responses (n=118) is used to calculate percentage.							
San Bernardino, CA	38	32%	Skamania, WA	13	11%		
Washington, OR	26	22%	City of Pasadena, CA	11	9%		
Spokane, WA	25	21%	Humboldt, CA	11	9%		
Sonoma, CA	21	18%	Marin, CA	11	9%		
Fresno, CA	18		Tulare, CA	11	9%		
Clark, WA	17	14%	San Joaquin, CA	10	8%		
Contra Costa, CA	17	14%	Sutter, CA	9	8%		
Santa Clara, CA	17	14%	Mono, CA	8	7%		
Imperial, CA	15	13%	Sierra, CA	7	6%		
Madera, CA	15	13%	Tehama, CA	7	6%		
Butte, CA	14	12%	Solano, CA	6	5%		
El Dorado, CA	14	12%	Trinity, CA	6	5%		
Riverside, CA	14	12%	Sacramento, CA	1	1%		
Stanislaus, CA	14	12%	San Diego, CA	1	1%		
Los Angeles, CA	13	11%	San Jose, CA	1	1%		

Staff Diversity

Tracing Health hired a diverse workforce to support countylevel COVID-19 response efforts. The program prioritized impact hiring, focusing on communities hardest hit by COVID-19. Tracing Health employees spoke the languages and understood the cultural nuances of the counties they served, which increased their ability to effectively build trust and conduct quality services.⁶ Of all PHI staff respondents (including Tracing Health staff), 45% (n=49) were multilingual. Of external partners who responded to the survey, 81% thought Tracing Health was successful at hiring diverse staff who represented the community (Figure 3) and 87% (n=40) agreed that Tracing Health helped their organization reach underserved communities who were disproportionately impacted by the COVID-19 pandemic.

90% (n=106) of all survey respondents thought Tracing Health was successful at hiring diverse staff who represented the community

Tracing Health was "Able to hire culturally and linguistically appropriate staff to support the community." – State Health Department Representative

"[Tracing Health] helped immensely by reaching out to unvaccinated cases and contacts, particularly people of color, at a critical time in the pandemic." – Local Health Department Representative

"The commitment to hiring a diverse team, prioritizing languages and passion for the work over degrees and paying our team well so that skilled people stayed." – Tracing Health Senior Leadership

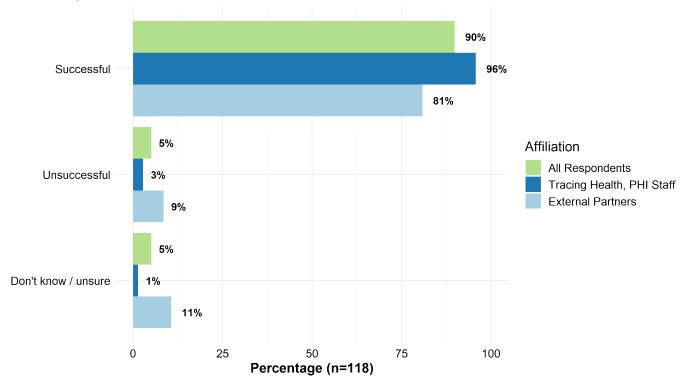


Figure 3. How successful was Tracing Health at hiring diverse staff who represented the community?

⁶To learn more about this finding, see Appendix C: Evaluation Report: Tracing Health California Contact Tracing Support Initiative - San Bernardino County Integrated Project, June 2022

Training

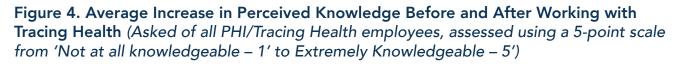
In 2020-2021, Tracing Health developed a robust training program which prepared staff to conduct COVID-19 CT/CI, counseling, and monitoring. Tracing Health provided all employees with comprehensive training, including a six-hour contact tracing course through Johns Hopkins University. Of all survey respondents, 87% (n=103), thought Tracing Health was successful at offering training that prepared CT/CI staff to conduct COVID-19 CT/CI, counseling, and monitoring. Of PHI/Tracing Health staff, 96% (n=64) agreed they learned new skills from working with Tracing Health and reported statistically significant (p<0.00) increases in knowledge in each of seven knowledge domains: public health, infectious diseases, disease prevention and response, CT/CI, vaccine

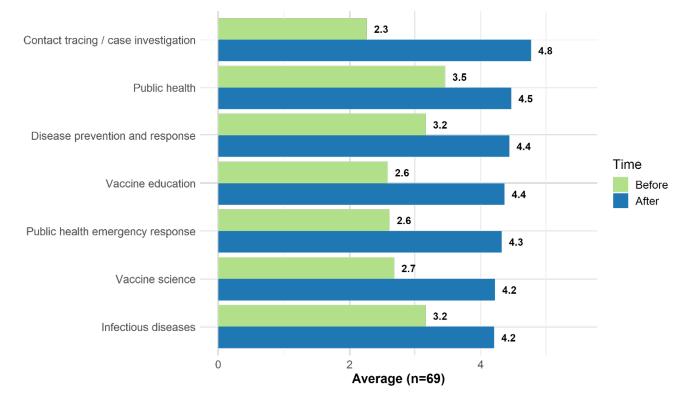
96% (n=64) of Tracing Health staff agreed they learned new skills from working with Tracing Health

science, vaccine education, and public health emergency response. The largest increases in perceived knowledge were in the following domains: contact tracing/case investigation, vaccine education, and public health emergency response (Figure 4).

Tracing Health is a "well-oiled machine in training, scaling, and running teams effectively. Flexible workforce able to be deployed to any partnership and switch between types of work." – Tracing Health CT/CI Staff

Tracing Health provided "ongoing competency trainings...everything from contact tracing/COVID/Vaccine information to dealing with grief/difficult convos/challenging customer service." – Tracing Health Vaccine Ambassador





Workforce Development

In addition to preparing a diverse workforce to effectively conduct COVID-19 CT/CI, counseling, and monitoring, Tracing Health developed a workforce development program to prepare staff for a long-term career in public health, thereby helping to build a sustainable public health workforce. The workforce capacity created by Tracing Health benefited both external partners and employees. External partners (n=46) most frequently reported increasing their workforce capacity through CT/CI (83%) and vaccine education/outreach (46%) provided by the Tracing Health workforce. Top employee workforce outcomes included skill building, new educational opportunities, new work opportunities, and maintaining an adequate salary during the COVID-19 pandemic. 83% (n=38) of external partners reported increasing their workforce capacity through CT/CI provided by the Tracing Health workforce

Tracing Health provided "Respite for our overworked staff, especially our nurses." – Local Health Department Representative

Tracing Health was successful at "rapidly expanding public health workforce capacity during a time of dire need." – Local Health Department Representative

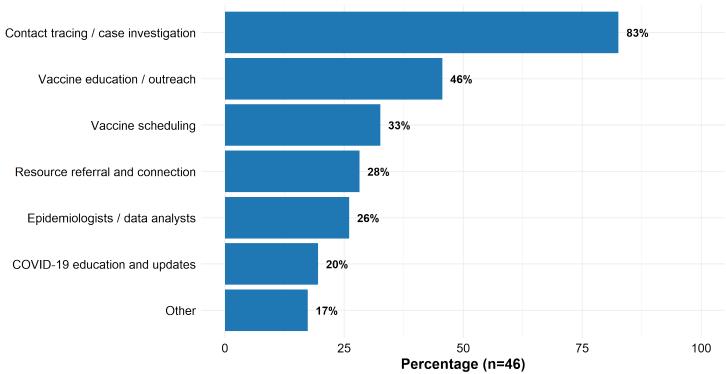


Figure 5. Tracing Health Services Used by External Partners

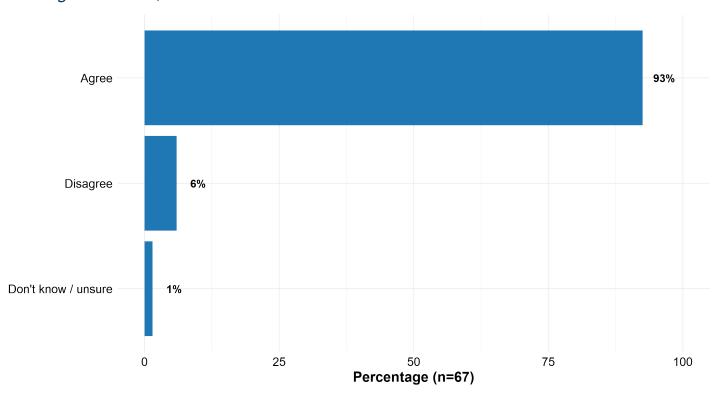
'Other' includes: Protocol development, outbreak management, and post-COVID follow-up

93% (n=62) of Tracing Health staff agreed they gained access to new educational opportunities because of their employment with Tracing Health

Tracing Health "allowed me to broaden my interest in potential career opportunities within Public Health. Helped me gain the confidence to be successful in a demanding work environment." – Tracing Health Administrative Support Staff

"I feel more confident, after completing my degree, that I will be able to leverage my experience with PHI and the network I've built to find a future position in my field of study. Thanks to workforce development, I feel better equipped in resume writing and finding/selecting opportunities to further develop myself." – Tracing Health CT/CI Staff

Figure 6. Rate the extent to which you agree or disagree: I gained access to new educational opportunities because of my employment with Tracing Health. (Asked of PHI/ Tracing Health Staff)



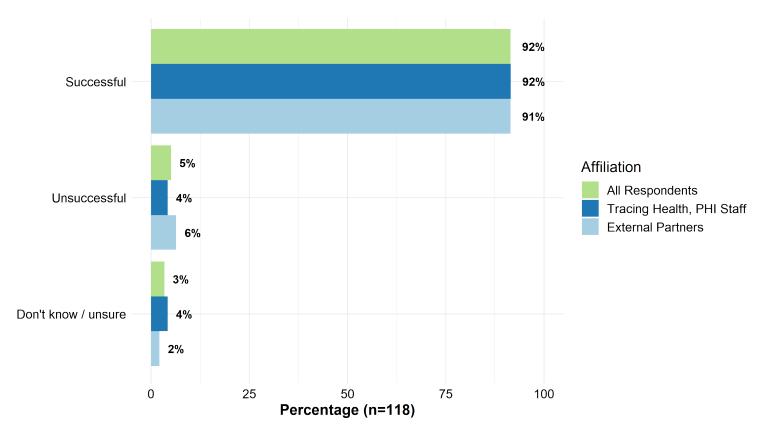
Local Public Health Capacity

A major accomplishment of Tracing Health was the increase in local public health capacity to address the COVID-19 pandemic. At the onset of the pandemic, counties had an immediate need for the types of services that Tracing Health was offering, specifically CT/ CI and support from scientific experts like epidemiologists. When asked the extent to which Tracing Health's support helped their organization respond to the COVID-19 pandemic, 83% of external partners said Tracing Health's support helped their COVID-19 response a 'great deal' or 'a lot.' Of all survey respondents, 92% (n=109) thought Tracing Health was successful at contributing to public health capacity to respond to the COVID-19 pandemic (Figure 7).

"Support from epidemiologists was critical in our response. Our county was already extremely understaffed with epidemiologists, and we struggled to keep them during the pandemic when other counties offered to pay more." – Local Health Department Representative

"[Tracing Health provided] Outreach, engagement and referral capacity that effectively connected to diverse communities and bridged to the community health worker workforce." – Local Health Department Representative





Factors Influencing Outcomes

Overall, staff and partners had a high level of satisfaction with their experience working or partnering with the Tracing Health program: 91% (n=105) of all survey respondents reported satisfaction with their overall experience with Tracing Health. Ordered logistic regression was used to assess the relationship between various contributing factors and satisfaction with survey respondent's overall experience working or partnering with Tracing Health. Factors influencing satisfaction were identified for all survey respondents, external partners, and Tracing Health staff. Findings for each group are described below and summarized in Table 4.

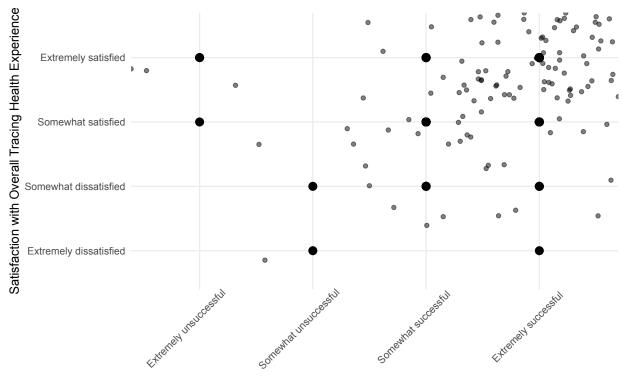
"Everyone was impacted by this pandemic in one way or another so we were all able to find a common connection through this. Having a common connection and understanding of what we are all going through enabled us to find success." – Tracing Health Manager

Factors Influencing Satisfaction with Tracing Health: All Survey Respondents

The perceived extent to which Tracing Health contributed to public health capacity to respond to the ongoing COVID-19 pandemic was the most influential positive factor predicting satisfaction across all respondents (p<0.01). The perceived extent to which Tracing Health offered training that prepared CT/CI staff to conduct COVID-19 CT/CI, counseling, and monitoring was also a positive predictor of satisfaction (p<0.05). The perceived extent to which Tracing Health hired diverse staff who represented the community also positively influenced satisfaction, but the association was not statistically significant.

"We were able to hire staff from a national pool versus being restricted locally. PHI helped us quickly build a team of very qualified epis and data analysts to assist in this emergency response." – Local Health Department Representative

Figure 8. Overall Satisfaction by Public Health Capacity Contribution



Tracing Health Contribution to Public Health COVID-19 Response Capacity

Factors Influencing Satisfaction: External Partners

External partner satisfaction was most strongly influenced by the extent to which they felt Tracing Health increased organizational capacity to respond to the COVID-19 pandemic (p<0.01), such as by helping with CT/CI, referrals, or data management (Figure 9). External partner's satisfaction was also influenced by whether the respondent felt Tracing Health improved their organization's approach to COVID-19 response (p<0.05), such as by providing education, information, or helping to develop policies and processes. The perceived extent to which Tracing Health helped external partner organizations reach underserved communities who were disproportionately impacted by the COVID-19 pandemic also had a positive influence on partner satisfaction, but the association was not statistically significant. Analyses did not identify any factors that had a negative influence on external partner satisfaction with their overall experience with Tracing Health. See Table 4 for a full overview of findings.

"The fact that they had the number of staff to conduct the interviews was a godsend for our tiny department. We were hiring extra-help staff almost daily and still couldn't keep up. Without Tracing Health's staff's efforts, I shudder to think what kind of shape we would've been in." – Local Health Department Representative

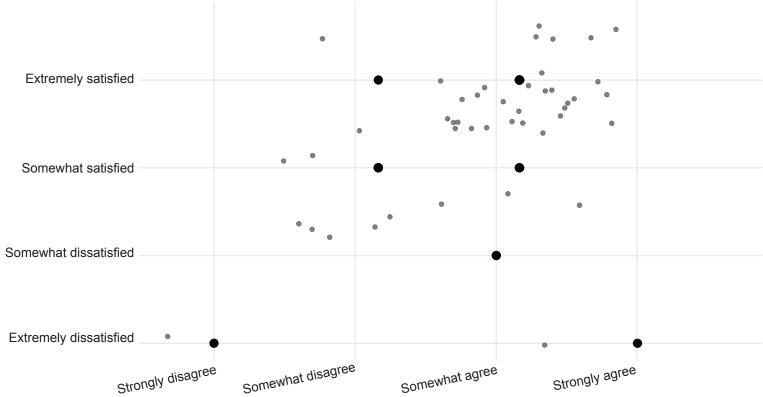


Figure 9. Overall Satisfaction by Increased Organizational Capacity

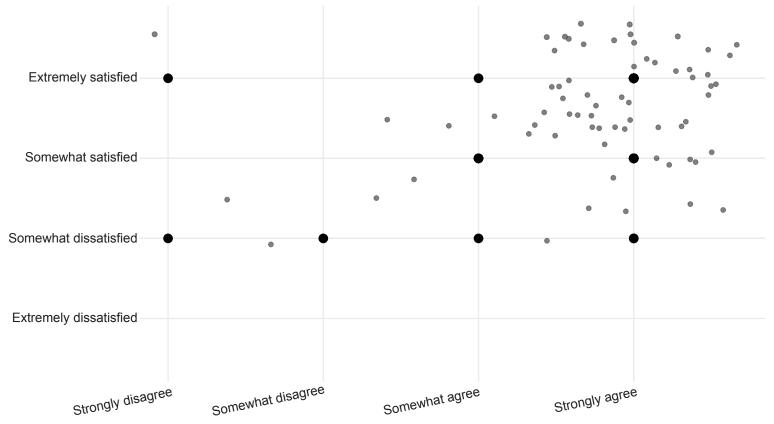
Tracing Health Increased my Organization's Capacity to Respond to the COVID-19 Pandemic

Factors Influencing Satisfaction: PHI/Tracing Health Employees

Access to new work and educational opportunities, work that fit with personal situations, provided adequate salary and fit skills, as well as work that contributed to the community and helped partners were all significant factors that positively influenced PHI/Tracing Health employee satisfaction (p<0.01). However, the more public health experience an employee had before working with Tracing Health, the less satisfied they were with their overall experience working with Tracing Health (p<0.01). See Table 4 for a full overview of findings.

"The prioritization of [workforce development] in the funding enabled so many opportunities for staff (e.g., Coursera access, various certificates including [Community Health Worker], association memberships, etc.)." – Tracing Health Team Supervisor

Figure 10. Overall Satisfaction by New Skills Gained from Working with Tracing Health



I learned new skills from working with Tracing Health

Table 4. Ordered Logistic Regression Analysis for Variables Predicting Overall Satisfactionwith Tracing Health

Predictor	ß	SE ß	OR	CI		
All Respondent (n=118) Satisfaction						
Contributing to public health capacity to respond to the ongoing COVID-19 pandemic.	0.92**	0.29	2.52	1.46 – 4.63		
Offering training that prepared contact tracing / case investigation (CT/CI) staff to conduct COVID-19 CT/CI, counseling, and monitoring.	0.50*	0.24	1.66	1.04 – 2.68		
Hiring diverse staff who represented the community.	0.20	0.26	1.22	0.72 – 2.05		
External Partner (n=46) Satisfaction						
Increased my organization's capacity to respond to the COVID-19 pandemic.	2.16***	0.65	8.63	2.71 – 36.79		
Improved my organization's approach to responding to the COVID-19 pandemic.	0.94*	0.40	2.57	1.20 – 5.92		
Helped my organization reach underserved communities who were disproportionately impacted by the COVID-19 pandemic.	0.39	0.43	1.48	0.62 – 3.47		
PHI/Tracing Health Staff (n=71) Satisfaction						
I learned new skills from working with Tracing Health.	1.44***	0.52	4.24	1.66 – 13.52		
I gained access to new work opportunities because of my employment with Tracing Health.	1.35***	0.37	3.85	1.92 – 8.39		
I would have had a hard time finding work that used my skills during the pandemic if it weren't for Tracing Health.	1.28***	0.36	3.61	1.86 – 7.63		
From your perspective, to what extent did your work with Tracing Health help external partners respond to the COVID-19 pandemic?	1.27**	0.39	3.56	1.68 – 7.95		
I would have had a hard time finding work that provided an adequate salary during the pandemic if it weren't for Tracing Health.	1.17***	0.33	3.21	1.71 – 6.40		
I gained access to new educational opportunities because of my employment with Tracing Health.	1.09***	0.40	2.97	1.39 – 6.75		
I would have had a hard time finding work that fit my personal situation during the pandemic if it weren't for Tracing Health.	0.82**	0.32	2.28	1.22 – 4.39		
I would have had a hard time finding work that contributed to my community during the pandemic if it weren't for Tracing Health.	0.95***	0.33	2.59	1.37 – 5.14		
Number of days worked with TH on their COVID-19 response, in any capacity?	0.00***	0.00	1.00	1.00 – 1.00		
Prior to working with TH, how much experience did you have working in public health?	-0.07***	0.11	0.93	0.75 – 1.15		
Significance key: *p < .05, **p < .01, ***p < .001 ß: standardized coefficient, SE ß: standard error of ß, OR: odds ratio, CI: OR confidence interval, 2.5% - 97.5%						

Group Differences

Group differences were assessed for affiliation (e.g., partner, employee, etc.), employee role, location(s) worked/partnered, education levels, ethnicity, race, and age. Outcomes of interest included overall satisfaction with Tracing Health and the extent to which PHI/Tracing Health employees thought their work with Tracing Health helped external partners respond to the COVID-19 pandemic. Results of one-way ANOVA tests suggest that perceived program outcomes did not vary significantly across groups.

Some group differences may still be worth considering even if they are not statistically significant. For example, people who identified as Hispanic (satisfaction=3.9/4, n=14) or Latina/Latino (satisfaction=3.8/4, n=12) reported higher levels of satisfaction with their overall experience with Tracing Health than people who did not identify as Hispanic or Latina/Latino (satisfaction=3.5/4, n=82). Location may also be important, since participants who worked in the Pacific Northwest (PNW) only (satisfaction=3.8/4, n=23) reported higher levels of satisfaction=3.5/4, n=62) or those who worked in both CA and the PNW (satisfaction=3.5/4, n=30; Figure 11).

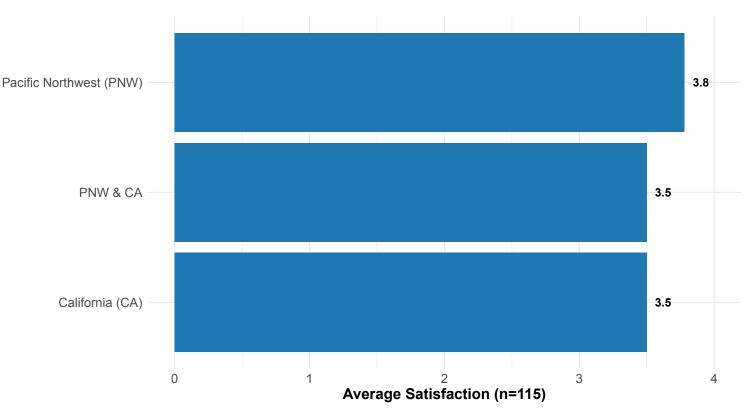


Figure 11. Overall Satisfaction by Location(s) Served (All respondents) 1 = Extremely dissatisfied, 4= Extremely satisfied

CONCLUSION

Survey results show that Tracing Health's county-integrated program is an effective approach to supplementing county capacity for pandemic and emergency response. Participants reported high levels of overall satisfaction with Tracing Health and the belief that the program contributed to public health capacity to respond to the ongoing COVID-19 pandemic. Tracing Health employees supplemented county pandemic responses during surges, thereby "Saving many, many lives and helping those in need" (Community Health Center representative).

"We felt PHI was engaged and listened to the needs of our [local health department] and provided a structure and service that augmented our response, instead of slowing it down or adding additional burden to us. When we were already strapped for staff time, they were a true help in our pandemic response." – State Health Department Representative

"Tracing Health and PHI were extremely well organized and had highly qualified compassionate leaders who cared about the work. Additionally, the staff working the phones and reaching out to the communities truly cared about their work and the mission." – State Health Department Representative

"Tracing Health without a doubt has stopped many people from spreading the disease, encouraged vaccination, helped cases with referrals during hardships, and provided knowledge to those in close contact or with COVID on how to safely isolate/quarantine." – Tracing Health CT/CI Staff

With PHI's support, the Tracing Health program hired, trained, and deployed passionate and skilled staff to local health departments, school districts, and community health centers. The program hired and trained a diverse new public health workforce who gained useful skills and a wide range of public health competencies through the dedicated workforce development provided by Tracing Health. Survey results indicate that Tracing Health accomplished its goal of preparing employees for continuing careers in health-related fields beyond the program's end.

"Absolutely loved the work that we did and the support that I received... extremely grateful for the career advancement opportunities." – Tracing Health CT/CI Staff and Team Supervisor

"I think we provided good operational support to individual staff – ensuring they had work-from-home equipment, proper trainings, and ongoing professional development support. Staff really remained at the center of Tracing Health and I would like to believe that was a success." – Tracing Health Senior Leadership Findings suggest the potential for PHI, Tracing Health, and their partners to use a similar county-integrated staffing model to supplement future local public health response to emergencies, staffing shortages, or other punctuated events that require a quick workforce capacity increase.

"We are always short staffed in public health due to somewhat high turnover. Staffing and recruiting support may be a desirable role that needs filling. Procedure and protocol development is always desired as a tool to fill in the gaps when staffing is short or absent." – Local Health Department Representative

"In terms of resources, our organization would benefit from having more providers/educators that are bilingual in languages other than Spanish." – Community Health Center Representative

ACKNOWLEDGMENTS

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The PHIL research team appreciates the support of the Tracing Health team, in particular Nicole Lordi, MSc(d), Division Director, and Danielle Theberge, MS, Senior Program Manager. We also wish to thank the Tracing Health and PHI staff who provided feedback on the survey instrument and contributed to pilot testing. Of special mention is Becky Garrow, Principal of Garrow Consulting, LLC, for her review of the final reporting products. We are grateful for the individuals who shared their perspectives with us by responding to the survey so that we could better understand the strengths, barriers, achievements, and recommendations for Tracing Health's COVID-19 response efforts across the states of California, Oregon, and Washington and deepen our understanding of the program's overall impact.

PHIL team members who contributed to this project include:

- Stephanie Bultema, Director of Research & Network Science (co-PI, study design, inferential/predictive analysis & visualization, report writing)
- Peter Forberg, Research Associate (IRB coordinator, survey administration lead, descriptive analysis & visualization)
- Beverly Bruno, Research Assistant (qualitative data analysis)
- Seun Aluko, Research Scientist II, former Tracing Health epidemiologist (report review)
- Kendra Piper, Lead Research Scientist (report review)
- Tarah Ranke, Director of Operations (report review and administrative support)
- Becca Fink, Communications Specialist (report design)
- Sue Grinnell, Director of PHIL (PHI Program Director / Principal Investigator)

APPENDIX

- A. Tracing Health Survey Instrument
- B. Tracing Health Survey Codes & Statistical Output
- C. <u>Evaluation Report: Tracing Health California Contact Tracing Support Initiative San</u> <u>Bernardino County Integrated Project</u>, June 2022



The <u>Population Health Innovation Lab (PHIL)</u> designs, catalyzes, and accelerates innovative approaches that advance health, well-being, and equity.

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