

UC San Diego Health

2021 Sautter Award Application

UC San Diego Health Information Services

Project title: Technology Leadership for Vaccination across California

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Project Statement: The Information Services (IS) team at UC San Diego Health led the technical implementation and support of the Petco COVID-19 Vaccination Superstation, the first vaccine superstation implemented in the California. Subsequently, the Health IS team worked with the California Department of Technology (CDT), to pilot the integration of the state-based MyTurn scheduling system with the electronic health record (EHR) system, leading the way for health systems across the state.

Project Narrative:

The Problems

1. Following FDA emergency use authorization of COVID-19 vaccines, UC San Diego Health, in partnership with the County of San Diego, needed to quickly set up a clinic that could vaccinate thousands of healthcare employees (and later county residents) on a daily basis. The site needed to be large and easily accessible to the public while also providing the technical capacity to accurately capture data about who was receiving the vaccines.
2. In late January, the California Department of Health and Blue Shield began to roll out a single technology platform called MyTurn (built on Salesforce) for vaccine scheduling, but did not have a mechanism for integration with electronic health record scheduling.

The Solutions

1. Following a call on January 6, 2021, UC San Diego Health and the San Diego County public health services entered into an agreement to open a COVID-19 vaccine superstation with a goal of vaccinating 5,000 healthcare workers a day. A large vaccination superstation had not yet been implemented in California and UC San Diego Health led the effort to find rapid solutions to standing up a large capacity vaccination site. To quickly get a site operational for vaccines, UC San Diego Health relied on partnerships, like the relationship it has as the healthcare provider of the San Diego Padres baseball team. The Padres generously agreed to let UC San Diego Health set up a vaccine clinic in one of the large parking lots near their stadium. The new vaccine clinic, named the Petco Vaccination Superstation, was designed, set up, and launched in just five days, opening on January 11, 2021. Following UC San Diego Health agreement with San Diego County to take the lead on the vaccination clinic, the Information Services team rapidly mobilized to provide logistical planning and technical support. The IS team ensured that each area of the site was equipped with the technology and hardware to serve the large number of patients expected to arrive for vaccinations. The IS team provided daily on-site technology support, including support for the Epic EHR system used to document vaccinations.
2. Leveraging expertise in API-based web integration, UC San Diego Health helped advocate, design, and lead the approach for EHR-MyTurn integration across California in two phases. UC San Diego Health was the first in the state to go live in both phases. Phase 1 allowed for linking to the UC San Diego Health scheduling portal through the MyTurn site only. Access outside of the MyTurn system was blocked on the UC San Diego Health site. Phase 2 allowed for the displaying of the UC San Diego Health scheduling site on the MyTurn site only if slots were available.

Technology

The Petco Vaccination Superstation contained numerous drive-thru check-in portals and vaccination rows, and each area needed to be properly equipped with technology. The IS team

deployed 85 laptops, 77 mobile (Ergotron) stations, 85 anti-microbial keyboards/mice, 20 Wi-Fi hotspots, 5,700 feet of power cable, 5,300 feet of networking cable, and many complementary accessories such as printers, VoIP phones, and language interpretation computers to prepare the site to vaccinate patients efficiently. Beyond the building of the technical infrastructure for the site, the IS team also needed to leverage technology to accurately track who received vaccinations. The added challenge was that many of the people coming to the site for vaccination did not previously have a medical record in the Epic EHR used by UC San Diego Health. The IS team quickly configured the technology required to efficiently create medical records in the Epic EHR system and patient portal access for these patients. The team also ensured that the system could handle the large number of Epic EHR users needed to manage the vaccination workflow at the site.

The Petco Vaccination Superstation relied heavily on volunteers from both the health system and the public. UC San Diego Health used the established float pool process from their emergency preparedness program to oversee the staffing model, and a webpage was developed to engage community members who wanted to volunteer. Volunteer positions included highly skilled roles like that of vaccinator, scribe, and check-in helper, as well as more general roles focused on supply replenishment and post-vaccination patient observation. Using existing volunteer and labor pool systems and processes helped to ensure effective staffing of the superstation. While the site was operating, 30,000 people volunteered to help, with the superstation requiring approximately 300 people for its daily operations.

After the initial push to set up the Petco Vaccination Superstation, the IS team further optimized the technology involved to improve efficiency and patient experience. The team configured the MyChart patient portal to automatically book second-dose appointments once people received their first dose at the site. This helped alleviate the difficulties some patients experienced early on when attempting to book their second-dose appointment on their own. Following some experience using the on-site laptops, the IS team decided to enable more mobile device functionality at the Petco Vaccination Superstation to improve efficiency. The team implemented Rover, an Epic mobile app that allowed vaccinators to scan a barcode (developed by the team) that would automatically document vaccine details such as lot number, NDC code, and expiration date in the EHR. This saved substantial documentation time and allowed the overall process to become much more efficient.

The IS team also developed informational daily dashboards that allowed organizational leadership to monitor vaccine volumes and review key operational metrics for the superstation. The dashboards quantified the number of vaccines administered, showed how many appointments were booked in the future, included views to evaluate volunteer services for resource planning, and provided a health equity breakdown of vaccine distribution using a healthy places index.

UC San Diego Health

Measuring Success

Over the roughly three-month period the Petco Vaccination Superstation was in operation, more than 210,000 people were vaccinated. Over 400 people were vaccinated per hour, with more than 5,000 vaccinated per day.

As the first health system in the state of California to set up a vaccination superstation, UC San Diego Health offered guidance to other organizations seeking to set up a similar site. The UC San Diego Health team fielded dozens of reference calls from across California and around the globe. The team consulted with Epic on how best to support a vaccination superstation, leading Epic to develop new code to assist with scheduling online appointments. The lessons learned by the UC San Diego Health team in setting up the site motivated the health system leadership to publish their findings in the *Journal of the American Medical Association (JAMA)*.

The Health IS team played a pivotal role in the success of the Petco Vaccination Superstation. The laptops and workstations installed at the site provided vaccinators with rapid access to accurately document all needed patient vaccination information. With a number of IS staff on site each day for troubleshooting, any issues with the workstations were quickly solved. The dashboards created by the IS team provided critical information allowing UC San Diego Health leadership a real-time view of the operations at the superstation and the ability to swiftly make adjustments at the site as needed. This combination of innovative technology deployment and on-site support enabled a high volume of vaccinations while ensuring a safe patient experience and accurate documentation.

Collaboration & Partnerships

UC San Diego Health had several key partnerships that contributed to the success of the Petco Vaccination Superstation. San Diego County provided vaccine supply and funding, along with essential contacts for police, fire marshal, and traffic control. The San Diego Padres hosted the site and provided extensive event planning experience, including expertise in hosting drive-through activities during the COVID-19 pandemic. The Padres also provided contract access to security and parking vendors to manage on-site flow, and San Diego County helped manage traffic flow in the areas surrounding the site. Show Imaging, an event planning company, provided tents, tables, and storage units that comprised the infrastructure of the site. Ace Moving Company provided environmental services at the site.

Additional Information

[Petco Vaccination Superstation Launch](#)

[Partnership with the County of San Diego](#)

[Celebrating Petco Vaccination Superstation Milestones:](#)

[JAMA article](#)

Aerial view of the Petco Vaccination Superstation, Photo Credit: Kyle Dykes



A = entrance B = registration tents C = vaccination tents D = exit

PETCO VACCINATION SUPERSTATION BY THE NUMBERS



The Information Services team at UC San Diego equipped the Petco Vaccination Superstation with the technology and hardware to serve the large number of patients who arrived for vaccinations.



VACCINATION CAPACITY

The site contained 12 drive-thru check-in portals and 12 drive-thru vaccination rows, with the capacity to vaccinate a minimum of 12 people at a time in each row.



TECHNOLOGY

The IS team deployed 85 laptops, 77 mobile (Egrotion) stations, 85 anti-microbial keyboards/mice, and 20 Wi-Fi hotspots

INFRASTRUCTURE

5,700 - Feet of power cable used
5,300 - Feet of networking cable used
42,000 - Square feet of tents at site



OPERATIONS

300 - Approximate number of personnel required daily for operations (120 clinical, 180 administrative), 7 - days a week and 12 hours a day - site was open for operations

VACCINATION RATES

6,071 - One day record of people vaccinated
432 - Maximum number of doses dispensed hourly
5,184 - Projected number of inoculations per day

TOTAL VACCINATIONS

Over 200,000 vaccinations administered while Petco Vaccination Superstation was open.

