

# COVID-19 Care: Advanced Practice Provider-led COVID Telemedicine and Vaccination Roll-out at UC San Diego Health's Owen Clinic

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# Learning Objectives

At the conclusion of this activity, participants will be able to:

- Identify the components of an innovative and effective COVID-19 telemedicine program for patients with HIV (PWH) suffering from COVID-19.
- Report clinical outcomes such as COVID-19 prevalence and rates of hospitalization in a highly-vaccinated but fragile, safety-net patient population that has received monoclonal antibody therapies and home pulse oximetry monitoring.
- Recognize the importance of providing in-clinic COVID-19 vaccine to PWH and explain how to replicate this program in other health systems.

# Owen Clinic at UC San Diego Health (UCSDH)

- An HIV primary care clinic that offers social work services, HIV prevention resources, substance use disorder treatment, Hepatitis C treatment, and gender health care to 3100 patients
- Owen Clinic is the largest comprehensive health center for PWH (people with HIV) in San Diego

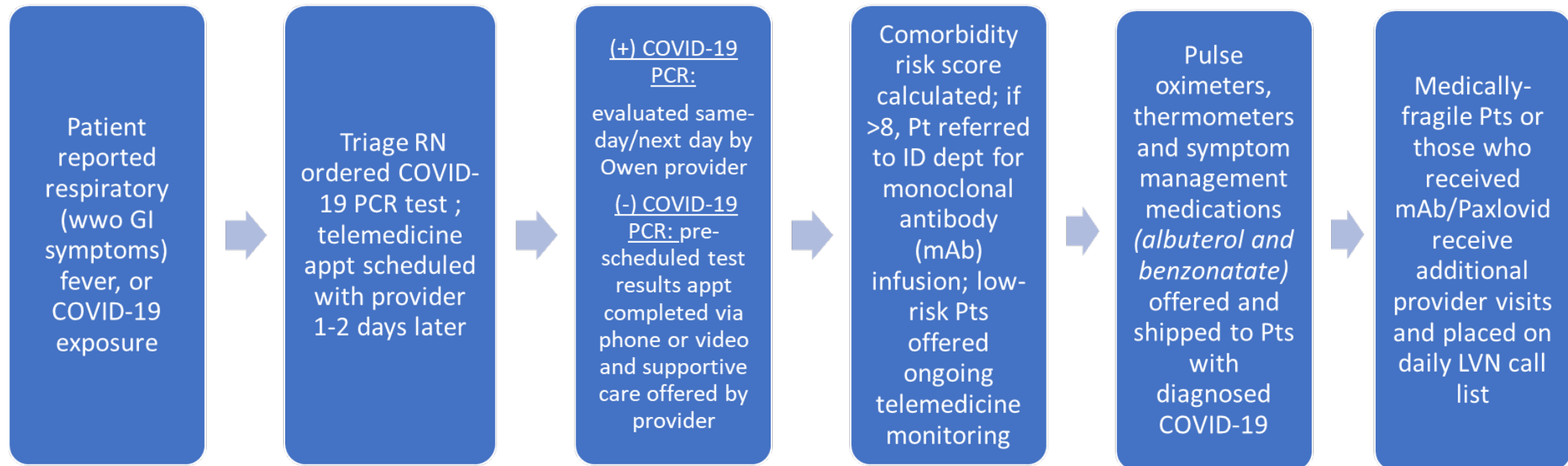
# Owen Clinic at UC San Diego Health (UCSDH) Continued

- ***Owen's multidisciplinary team:*** 14 physicians, 1 physician assistant (PA) and 5 nurse practitioners (NPs), 2 psychiatrists, 3 clinical pharmacists, and 2 licensed clinical social workers, a substance use disorder counselor and recovery specialist, 3 registered nurses (RNs), and 6 licensed vocational nurses (LVNs).
- NPs are integral members of the primary care team and work as HIV specialists.

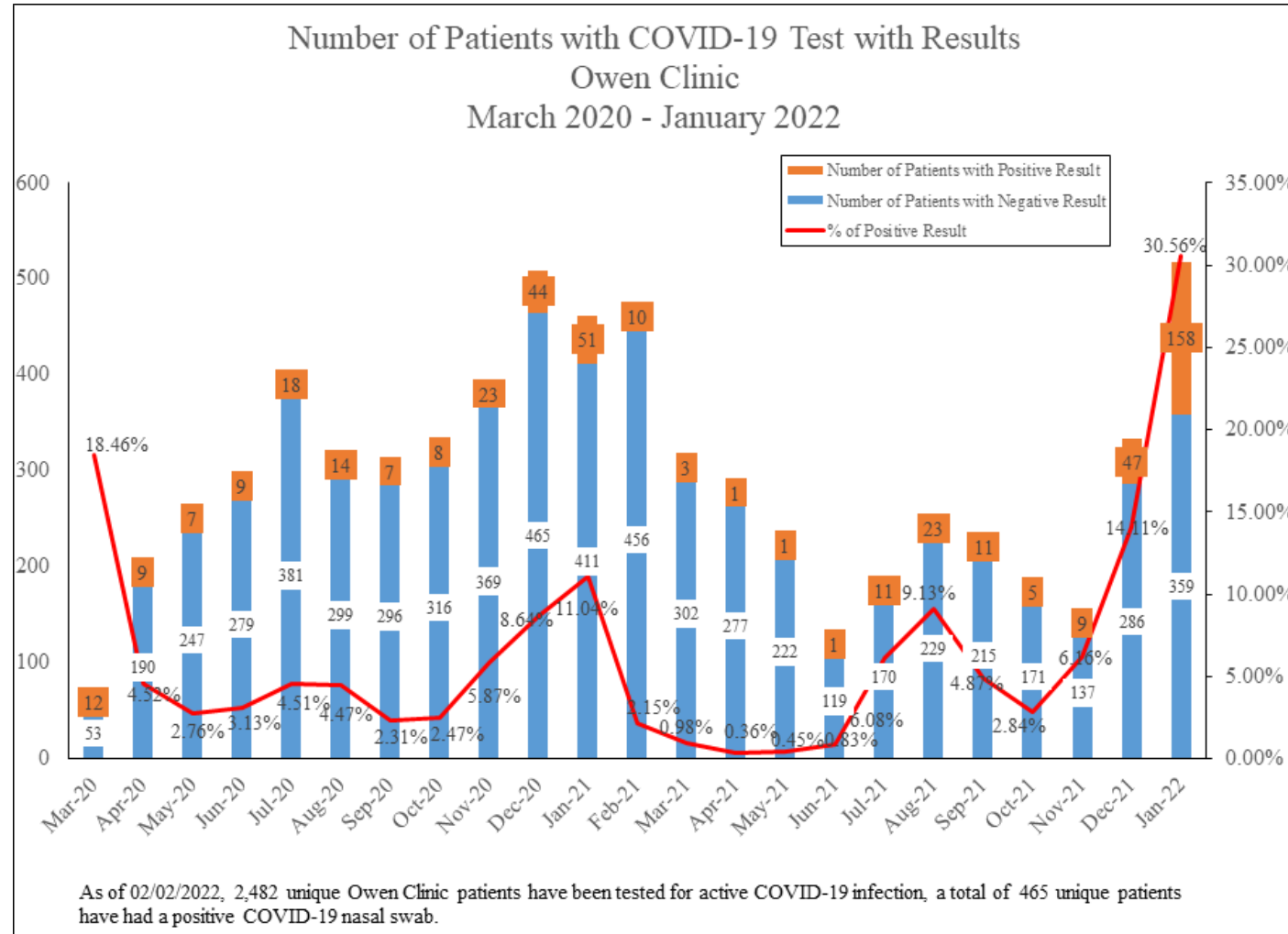
# Launching Telemedicine at Owen Clinic

- Owen Clinic migrated to telemedicine over a 72-hour period beginning on March 16, 2020.
- Virtual appointments were conducted through an EHR-based video platform or by phone.
- 85% of visits in the first 3 months of the pandemic were telemedicine-based.
- COVID-19 care-the virtual evaluation of patients sick with or at risk for SARS-CoV-2 infection by Owen triage RNs and providers and PCR testing at nearby outdoor testing tents-became integral to the clinic's overall telemedicine program.

# COVID-19 Testing and Provider Evaluation Workflow



# COVID-19 Cases





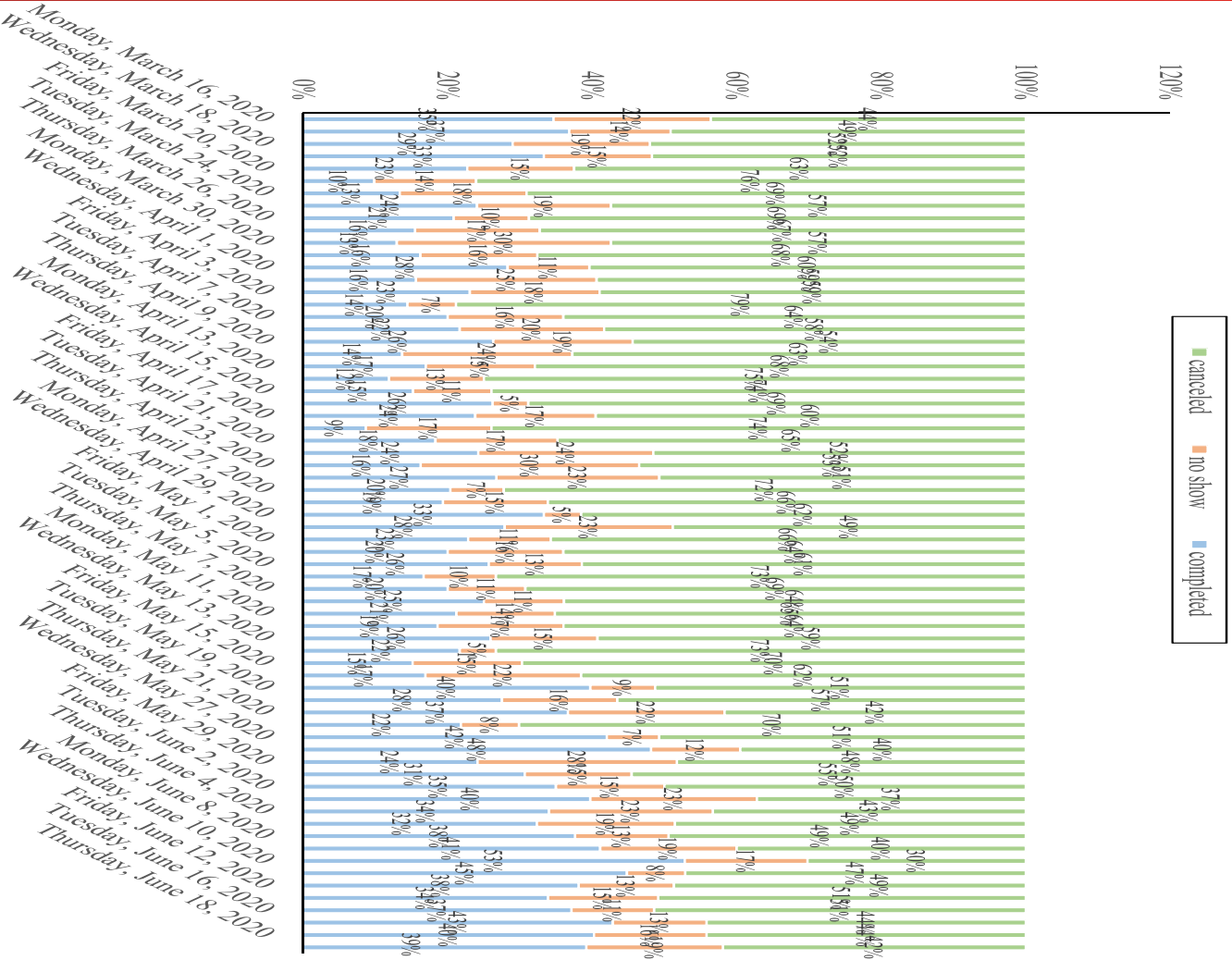
# COVID-19 Outcomes

MEASURES	March 2020-February 2021 <i>(Clinic population: 3,177 patients)</i>	March 2021-February 2022	March 2020-February 2022 <i>(Wildtype, Delta, and Omicron variants)</i>
Patients tested	3,794	2754	<b>6548</b>
COVID-19 cases	210	266	<b>476 (7.3% of patients tested; 15% of Owen Pts with + PCR test)</b>
Hospitalizations	25 (12.0%)	6 (2.2%)	<b>31 (6.5% of total cases)</b>
Deaths	3 (1.4%)	1 (0.4%)	<b>4 (0.8% of total cases)</b>

# Other Telemedicine Program Findings

- A reduction in no-show rates across appointment types, both virtual and face-to-face (F2F), from March 2020-July 1, 2020.
  - 11% overall missed or no-show appointment rate vs 20% pre-COVID-19 (*14% no-show rate in-person, 15% MyChart Video, and 4% telephone encounters*)
- Viral suppression from March 2020 through February 2022 remained at 93% (*compared to 69% at a San Francisco Ryan White clinic*)

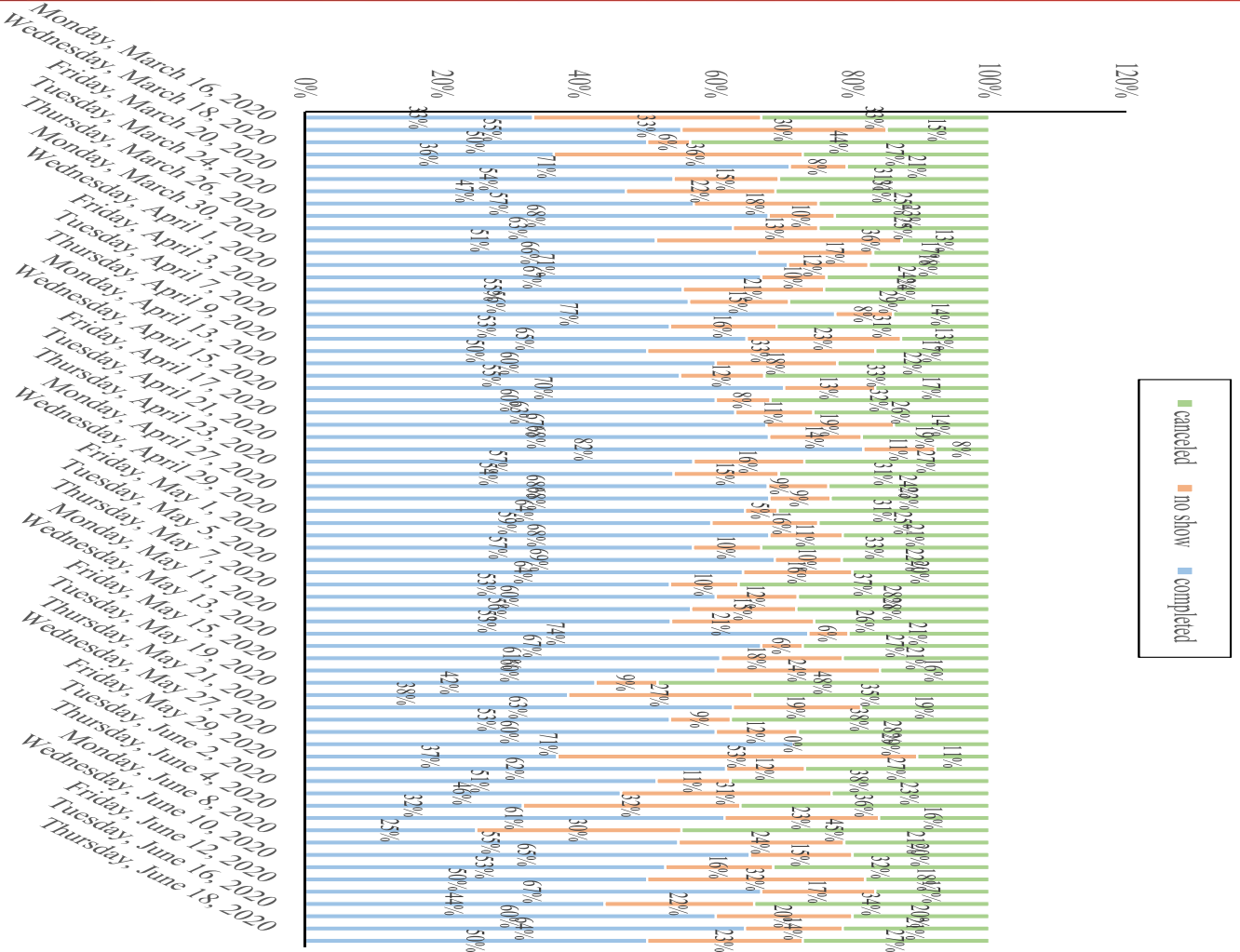
# Appointment Attendance: *In-person (F2F)*



Post COVID Office Visit by Appointment Status

\* 14 % mean no-show rate \*

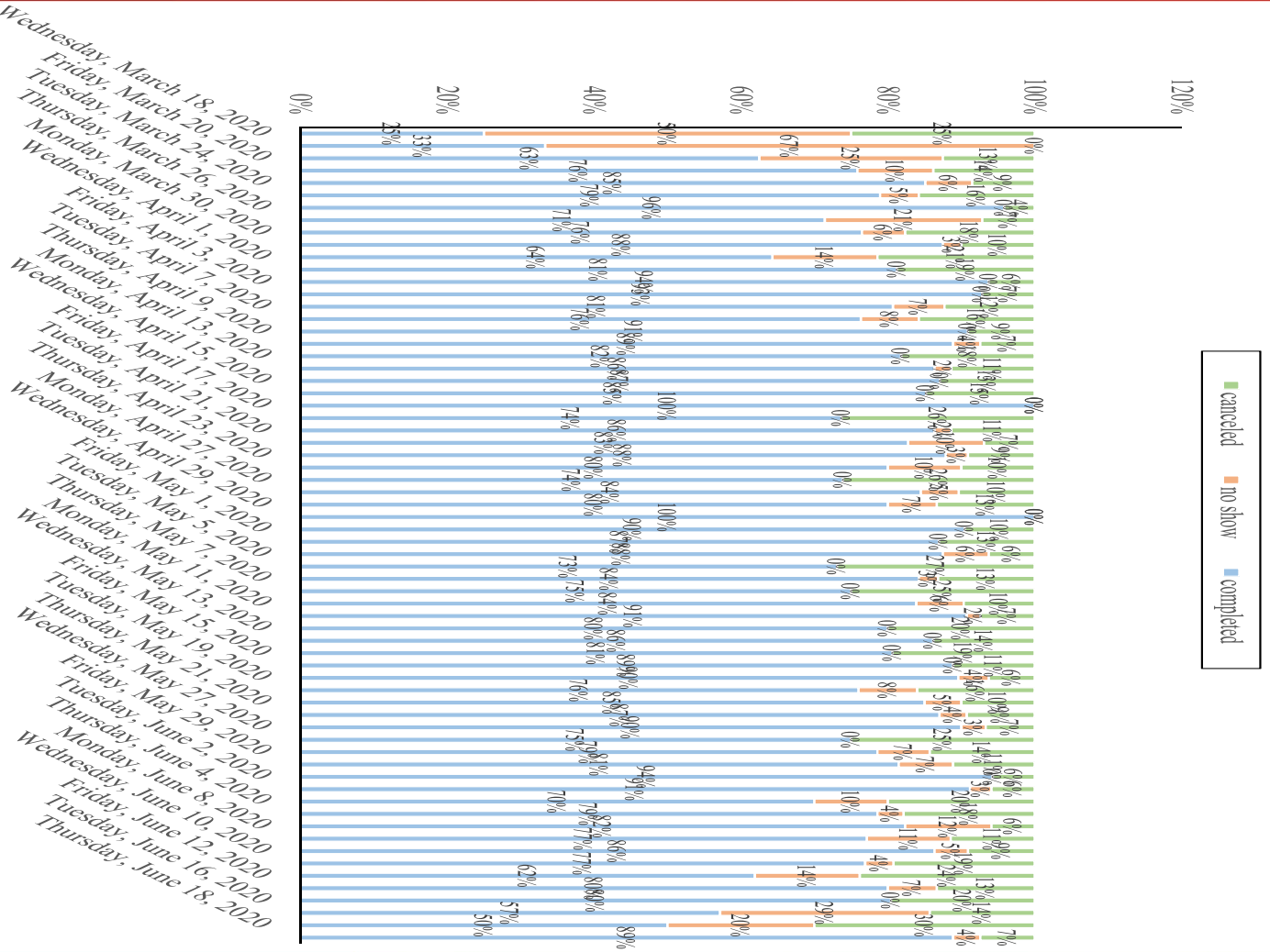
# Appointment Attendance: MCVV (video)



Post COVID MyChart Video Visits by Appointment Status

\* 15% mean no-show rate \*

# Appointment Attendance: Telephone



Post COVID Provider Telephone Consult by Appointment Status

\* 4% mean no-show rate \*

# COVID-19 Vaccination Roll-out

- UC San Diego Health's COVID-19 vaccination rollout began December 16, 2020.<sup>1</sup>
- Starting on March 15, 2021, people living with HIV were able to access COVID-19 vaccination as part of Phase 1C in the San Diego County COVID-19 vaccination rollout.<sup>2</sup>
- Despite prioritized access to COVID-19 vaccine, by then end of June 2021 only 55% of Owen Clinic patients were fully vaccinated.<sup>3</sup>

1. Christopher Kane MD, "update", *UCSD Physician Update* Vol 89, December, 2020, [cponewsletter@health.ucsd.edu](mailto:cponewsletter@health.ucsd.edu)

2. [https://www.sandiegocounty.gov/content/sdc/hhsa/programs/phs/community\\_epidemiology/dc/2019-nCoV/vaccines/phases.html](https://www.sandiegocounty.gov/content/sdc/hhsa/programs/phs/community_epidemiology/dc/2019-nCoV/vaccines/phases.html)

3. 2021-07 Owen Clinic COVID July 2021 VACCINE REPORT

# Vaccination Barriers for Clinics

- Requirements to provide community-based vaccines:
  - 1) Store and handle COVID-19 vaccines under proper conditions to maintain the vaccine cold chain.
  - 2) Enroll in local jurisdiction's immunization information system (IIS).
  - 3) Enter specific vaccine administration information into organization's electronic health record within 24 hours of vaccine administration and report that information to an IIS within 72 hours.
  - 4) Report on-hand vaccine supply each day through vaccines.gov.
- The UC San Diego Health System was a registered COVID-19 Vaccination Provider and had been delivering COVID-19 vaccine since December 2020, but none of the outpatient Primary Care clinics were able to store vaccine on site. All UC San Diego Health patients were funneled to large scale vaccination sites to receive COVID-19 vaccination. One of these sites was a drive-thru/walk-up tented facility across the street from Owen Clinic.

<https://www.cdc.gov/vaccines/covid-19/vaccination-provider-support.html>

<https://www.cdc.gov/vaccines/covid-19/provider-enrollment.html>



# Vaccination Barriers for Patients

## To receive a COVID-19 vaccine, Owen Clinic patients had to:

- Be motivated to actively seek out vaccination opportunities
- Understand potential vaccine side effects/interactions/contraindications
- Know if the vaccine is safe for PWH
- Decide if they want to publicly interact with strangers in a crowded outdoor setting where they are more likely to experience unconscious bias, homophobia, transphobia, overt racism, COVID-19 stigma
- Manage scheduling an appointment (often with cumbersome technology) at a vaccination facility
- Manage a timely arrival, have identification on hand, and arrange transportation home, including a 15-30 minute post-vaccination observation period
- Have certainty of vaccine availability during periods of supply chain constraints, including which type of vaccine would be available at the time they presented for immunization



# Vaccination Workflow

Every morning, a designated nursing team member would present to the UCSD Health inpatient pharmacy to collect a predetermined number of vials of vaccine for the day. This was estimated by evaluating the number of scheduled patients coming in to clinic that day who had not received COVID-19 vaccination yet.



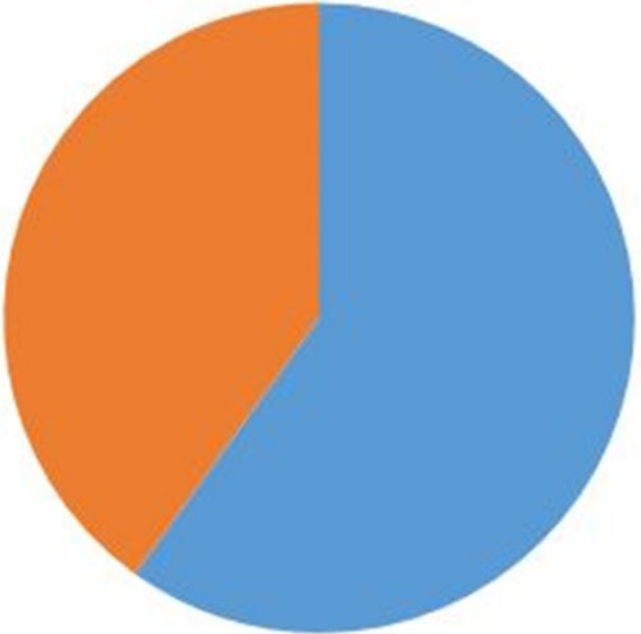
Vaccinations were administered during the patient's scheduled visit as a routine scheduled vaccine with the appropriate monitoring times in the clinic waiting room. All vaccines were recorded in their electronic health record and a daily log for all COVID-19 vaccinations given in clinic that day was kept at the nursing station.



At the end of the day, a designated nursing team member would return unused doses of vaccine and the daily log of vaccinations given to the UCSD Health inpatient pharmacy. Unused doses of vaccine were administered that evening with inpatient use and/or Emergency Room use to reduce any discarded doses.

# COVID-19 Vaccination Results

HIV+ Empaneled Patients



■ Vaccinated Patients ■ Overdue For Vaccine

July 2021: 60% fully vaccinated<sup>1</sup>

HIV+ Empaneled Patients



■ Vaccinated Patients ■ Overdue For Vaccine

May 2022: 91.2% fully vaccinated<sup>1</sup>

1. 2022-05-25 Vaccine Willingness Wrap-up (Fully vaccinated defined as two doses of mRNA vaccine or 1 dose of J&J vaccine)

# Conclusion

- These two NP and PA-led initiatives demonstrated how innovations in telemedicine, emerging monoclonal antibody therapies, and clinic-based administration of COVID-19 vaccinations within the medical home were effective in treating, monitoring, and preventing complications related to SARS-CoV-2 infection in a high-risk and psychosocially complex patient population.
- It is unclear if these interventions are applicable to other health settings given the lack of longitudinal data on clinical and telemedicine-related outcomes among UCSDH patients without HIV.

# Conclusion continued

- Trust and long-term relationships between patients and providers facilitated virtual COVID-19 care and in-clinic vaccination.
- Routine telemedicine for both HIV primary care and COVID-19 care as well as vaccination services will continue at Owen as long as there is a demand.
- NP and PA advocacy, leadership, and patient-centered care are strengths of UC San Diego Health that should be increasingly utilized in all aspects of primary care at Owen Clinic and across the health system.

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