Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Mobilizing the Community to Implement Mass Coronavirus Disease-2019 Vaccination Clinics
The Power of Free and Charitable Clinics

Kristi Mattzela, MSW, LSWa, Cheryl Jo White, RNb, Lori A. Francis, PhDb,*

KEYWORDS
- COVID-19 vaccine
- Free and charitable clinics
- Mass vaccination
- Rural health care

KEY POINTS
- A small, community clinic provided more than 44,000 coronavirus disease-2019 vaccine doses in a semirural community.
- Mass vaccination clinics can be implemented by small health care systems using a volunteer model.
- Given their volunteer model, free and charitable clinics are well poised to implement mass vaccination clinics.
- Community clinics, as a trusted source of health care, have the power to address vaccine hesitancy in the community.

INTRODUCTION
Coronavirus disease-2019 (COVID-19) vaccines have been shown to be efficacious in significantly reducing severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection, severe illness, hospitalization, and mortality, particularly among individuals who receive at least two doses.1 The vaccines were developed rapidly, in less than 12 months,2 despite most vaccines taking up to 10 years or more to be developed. This accelerated vaccine development pace presented several challenges for health...
care systems and local public health agencies, including difficulties acquiring the vaccine, difficulties securing adequate space and equipment to store vaccine doses, difficulties mobilizing health care systems to vaccinate individuals in large volumes, and vaccine hesitancy given uncertainty about the short- and long-term effects of the vaccine.3–5

Rural areas are faced with unique challenges due to geographic isolation and greater levels of vaccine hesitancy.6–8 A national US study of adults found that rural respondents were more likely to report feeling that the COVID-19 vaccine was unsafe.9 Using the use of mass vaccination hubs within communities has been shown to increase vaccination reach.10 Furthermore, community clinics can play an important role in vaccination efforts within communities, given that (1) they often rely on a volunteer model of care, which is crucial for mass vaccination efforts, and (2) they may be serving individuals at higher risk for vaccine hesitancy. The purpose of this article is to describe the design and implementation of large-scale, mass vaccination clinics implemented by a small community clinic in a semirural area in Pennsylvania.

METHODS

Clinic History

Centre Volunteers in Medicine (CVIM) is a free and charitable community clinic that provides medical care, dental care, case management, behavioral health services, and medication assistance to those without health insurance and whose household income is at or less than 250% of the federal poverty level. CVIM serves those living or working in Centre County, PA. In addition to a small paid staff, the clinic is mainly staffed by physicians, nurses, dentists, pharmacists, social workers, and other licensed clinicians who volunteer their time to provide care to patients. In addition, referrals are provided to specialists and social service agencies as necessary. In the fiscal year 2018 to 19, CVIM served a total of 483 medical and 632 dental patients, with a total of 1427 and 2355 medical and dental visits, respectively.

The first Volunteers in Medicine Clinic opened in Hilton Head, South Carolina, in 1991. Since then, many additional clinics have begun serving the uninsured and underinsured nationwide. The clinics function on volunteers who provide a caring and compassionate medical home for those who do not qualify for medical assistance and/or are working without health care benefits. Efforts to establish a Volunteers in Medicine Clinic in Centre County, PA, began in February 2001 when a group of local citizens met to address health care needs in the Centre Region. CVIM was incorporated as a nonprofit organization on June 12, 2001. In February 2003, CVIM opened its doors to patients seeking medical care. Based on data provided in a 2019 Community Health Needs Assessment report11 from a local health care system, 11 townships served by CVIM are considered medically-underserved areas, and two major towns served by CVIM are considered Health care Professional Shortage Areas.

Coronavirus Disease-2019 Vaccine Clinic Timeline

Owing to the rapid COVID-19 vaccine development timeline, efforts to mobilize for mass public vaccination had to occur at an accelerated speed. CVIM applied to be a vaccine recipient in the State of Pennsylvania in November 2020. Vaccine storage requirements and preparation procedures were researched, and staff began writing standard operating procedures and policies, in addition to completing several trainings. A total of 3 CVIM staff were trained to manage vaccine doses. In addition, a freezer was purchased for vaccine storage. CVIM’s approval to become a vaccine
recipient was granted in December 2020, and vaccine orders began to be placed the same month.

The COVID-19 vaccine became available to the public on December 11, 2020, but only to special populations, including first responders, health care workers, essential workers, older adults (≥65 years), and adults with specific underlying medical conditions, such as cancer, diabetes, and obesity. By April 2021, the vaccine was available to all US adults (≥18 years), although the vaccine shortage limited the number of doses that could successfully be administered within a 7-day period. CVIM’s first shipment of 100 Moderna vaccine doses arrived on January 13, 2021, and efforts were focused on vaccinating clinic volunteers ≥65 years.

In January 2021, CVIM, the local hospital, pharmacies, and a small apothecary were the only entities that were vaccine recipients. Given staffing and scheduling restraints, we estimated that it would take nearly 2 years to vaccinate the county. Based on data from the US Census Bureau (www.census.gov/quickfacts/centrecountypennsylvania), the Centre County, PA population size was estimated to be 158,172 in April 2020, and some entities could only schedule a maximum of 10 vaccinations/d. Given how smoothly the initial, in-house volunteer vaccine clinics operated, CVIM recognized their capacity to address the vaccine demand and needs of the larger community, and they began to mobilize to offer mass vaccination clinics. CVIM began administering the Moderna vaccine in January 2021, the Pfizer vaccine in February 2021 and the Johnson & Johnson single-dose vaccines in April 2021; all vaccines were offered after April 2021.

“Super Saturday” Mass Vaccination Clinic Planning and Mobilization

Word that CVIM was a vaccine recipient began to spread rapidly throughout the county, and residents began to contact CVIM for vaccine appointments before additional vaccine doses were available. A waiting list was created and grew exponentially (>10,000 individuals). This provided unequivocal evidence that the demand for the vaccine was great. CVIM saw an opportunity to address this demand, and given its volunteer model, they determined that they would be able to mobilize volunteers on a large scale to meet the demand. In addition, given the burden that the local hospital and other health care entities were experiencing as a result of the pandemic, including health care professional shortages, and staff who were overstretched and experiencing burnout, CVIM was committed to lessening the burden on community providers who had supported them in the past. Most importantly, CVIM was committed to playing an active role in public health efforts to end COVID-19. CVIM had the bandwidth and energy available for this important purpose. As such, efforts to develop and implement mass COVID-19 vaccination clinics began in January 2021. Plans were made to offer the mass vaccination clinics on Saturdays, and to name them “Super Saturday Clinics.”

Space and room capacity. Since 2008, CVIM has been housed in a building with 6217 square feet of clinic space, including a waiting/check-in area that can seat up to 10 patients (five during COVID to allow for social distancing), with an adjoining bathroom, six examination rooms, three case management rooms, and four dental operating rooms. Given that CVIM was continuing to see medical, dental, and behavioral health patients as part of its normal operations, it would have been difficult to offer a mass vaccination clinic in-house. With the space, staffing, and schedule constraints, the maximum number of vaccination that could have been administered in the in-house clinic was 150/d. CVIM administrators met with an administrator in the local area school district in January 2021, and we were invited to use a local school for mass vaccine clinics (Figs. 1 and 2). Available for use were the lobby for check-in, two classrooms for preparation of vaccine doses and data entry, the cafeteria for completion
of forms, and the gymnasium for vaccine administration and post-vaccine waiting areas. In addition, CVIM partnered with a local university, other nearby school districts, and local YMCA locations in neighboring communities to provide traveling mass vaccine clinics.

In October 2021, CVIM purchased a new building with 10,980 square feet of clinic space, which added a larger check-in area and additional space in the waiting area with seating for up to 80 patients. This location also added 15 private examination rooms, and additional space for storing, preparing, and administering vaccines (Fig. 3). CVIM began using the new building for vaccination clinics while plans were

![Fig. 1. Example layout and traffic flow for the “Super Saturday” mass vaccination clinics in the school locations for individuals 12+ years. This figure is not to scale.](image1)

![Fig. 2. Image of the layout of the vaccine clinics held in the local middle school gymnasium.](image2)
Vaccine storage requirements and capacity. CVIM initially only provided the Moderna vaccine given smaller shipments (100 doses/tray) and required storage between −58°F and 5°F. The Pfizer vaccine shipped in larger quantities of 1170 doses/tray (6 doses in 195 multidose vials), and required storage between −130°F and −76°F before mixing, necessitating the need for an ultra-cold freezer. The Pennsylvania Department of Health contacted CVIM to request that they accept the Pfizer vaccine. At the time, CVIM was receiving 300 to 500 doses of Moderna vaccine per shipment and was requesting substantially more. CVIM agreed to take a tray of Pfizer 1170 vaccine doses and began mobilizing to offer a mass vaccine clinic to extend the dosing within 7 days, which was the time frame required by the Pennsylvania Department of Health. Once the vaccine doses were thawed and diluted, they could be stored in the refrigerator or at room temperature (35°F to 77°F) and had to be used within 6 h. As such, clinic staff and volunteers needed to be trained on transferring and handling vaccines.

Staffing and training. For the smaller, in-house clinics, only three clinic staff members were needed for implementation (staff nurse, Clinical Services Director and Clinical Pharmacist). All clinic staff were paid staff with prior experience preparing and/or administering vaccines. However, due to the stringent requirements for transferring and handling vaccines, these clinic staff underwent extensive training on administering COVID-19 vaccines. The Centers for Disease Control and Prevention (CDC) held mandatory training for vaccine providers, and CVIM also held training for staff on internal protocols and procedures. To scale up for mass vaccination clinics, we determined that the following positions would be needed at each clinic:

- **Parking and external traffic flow**: Directed patients to clinic, monitored parking, directed people to open parking spots; directed exit out of parking lot. Often volunteers from the local police and fire departments.
- **Door monitor**: Stands outside and admits patients at the time of their time of appointment. Manages the flow of walk-in traffic.
- **Internal traffic flow**: Directs patients to the check-in area, the room to complete forms, the waiting room and the exit.
- **Check-in**: Ensures patient is eligible for vaccine. Provides correct form on clipboard with COVID-19 vaccine fact sheet. Checks name off of list (for scheduled vaccines) or completes information on walk-in sheet.

---

**Fig. 3.** Layout and traffic flow for the mass vaccination clinics for children ages 5 to 11 years. This figure is not to scale.
• **Survey helper:** Assists patients in filling out the post vaccine survey while they wait for the required 15 min.

• **Forms room helper:** Assists patients filling out forms as needed, answers any questions regarding forms, makes sure form is complete before patient receiving vaccine. Assigns patients to vaccinator rooms.

• **Vaccine drawer:** Draws vaccine for administration by vaccinator according to manufacturer information. Clinical position typically filled by a nurse, nurse practitioner, pharmacist, physician assistant or physician.

• **Vaccine runner:** Assists in getting the vaccine from the drawing area to the vaccinator rooms as necessary.

• **Vaccinator:** Administers COVID-19 vaccine to individuals, checks medical history and allergies before administering the vaccine. Clinical position typically filled by a nurse, nurse practitioner, pharmacist, physician assistant or physician.

• **Clipboard/form runner:** Collects clipboards from vaccinators, takes completed forms to data entry, cleans and sanitized clipboards and pens, rebuilds clipboards with new forms. Collects pens and returns to check in area.

• **Data entry:** Enter vaccination data into the state system.

• **Watcher:** Monitors and remains with patients for 15 min after vaccine is given to watch for adverse reactions. Alerts medical staff if necessary.

• **Emergency medical technician:** Oversees people waiting the 15 min period following the injection to assure no adverse effects. Offers support and care to anyone needing it. Must be licensed/certified.

• **Lunch volunteer/miscellaneous:** Assure there were drinks and snacks available for the volunteers, along with many other varied tasks that arose

*Recruiting, training and managing volunteers.* There was no shortage of health care workers that contacted CVIM to volunteer to help with vaccination efforts. Approximately 150 volunteers were needed for each “Super Saturday” clinic, and 480 total volunteers committed their time. Clinicians included doctors and nurses, both retired and still working. Clinicians noted that they wanted to help end this pandemic and be part of the solution, rather than simply taking care of patients who were dying from COVID-19. In addition to volunteers who reached out to serve, CVIM also sent out requests for volunteers through their extensive network of current and past clinic volunteers. Social media posts were also used for recruitment of volunteers. Depending on the volunteer position, training occurred on site approximately 1 h before the vaccination clinic opened. Vaccinators were trained on required paperwork and were responsible for completing a training on the COVID-19 vaccine types and administration on their own. There was a mandatory vaccinator training for retired individuals to ensure that they were aware of vaccination procedures and best practices. Vaccine drawers were required to watch a training video, after which they were observed while drawing vaccine to assure proper technique. The Clinical Nurse in charge was responsible for training all vaccinator volunteers on the procedures for each clinic. The clinical pharmacist was responsible for training vaccine drawers. Extensive training was provided until CVIM staff were confident that the volunteers were proficient with their assigned task. Several CVIM staff coordinators managed volunteer sign-ups and schedules, and directed volunteers to their various stations upon arrival at the vaccine clinic.

*Advertising to the public.* With each important milestone in vaccine development and availability, CVIM created social media posts on Facebook and Instagram. Estimated reach, likes and shares were measured. In addition, the number of clicks on embedded links was measured and used as a measure of vaccine uptake.
Vaccination Clinic Implementation

Adjustments were made to the formula for in-house vaccinations (3 vaccinations every 5 min) to account for the substantially larger space, and an exponentially larger amount of people. Using a conservative estimate, it was determined that each vaccinator would be able to vaccinate 1 individual every 5 min, for an approximation of 12 vaccination per hour, per vaccinator. A total of 24 vaccine drawers and 24 vaccinators were scheduled for the mass vaccination clinics. All CDC guidelines and protocols for storing, handling, transporting, preparing, and administering COVID-19 vaccines were followed (see www.cdc.gov/vaccines/hcp/admin/storage/toolkit/index.html). Vaccine doses were stored at CVIM before transport to the clinic. CVIM's clinical pharmacist was responsible for quality control and fidelity of all protocols and procedures, including thawing doses, monitoring temperatures, packing the transport container, and transporting vaccine doses to clinic locations. Refrigerators were often available for use at vaccine clinic locations to maintain consistent temperatures. Doses were prepped 1 h before the clinic. Vaccine drawers would draw each vial placing the doses from that vial in a bag labeled with the date/time it was drawn, and the time it expired. The vial was also placed in the bag so that vaccinators could see which vial the vaccine came from. A color coding system (lids, labels, forms) was used to identify Pfizer, Moderna, and Johnson & Johnson vaccines, and additional color coding was used for children’s doses.

Vaccine stations were set up by a clinical nurse and supplies were stocked accordingly. Check-in tables were set up with printed schedules, clipboards and pens before patients arriving. Data entry set up their computers and their baskets containing completed and uncompleted forms. The EMT would set up a station with Epi Pens, juice and other equipment that may be needed if anyone had an adverse reaction to the vaccine. Chairs were set up in the forms completion area and the post-vaccination watching/waiting area. In school districts, janitorial staff (paid by the school district) assisted with setup, and school administrators volunteers their time to help manage the flow and assist with accessibility needs. The Clinical Director would walk through to assure that every area was ready before the start of the clinic.

Door monitors were stationed outside to greet patients as they arrived; they informed patients of what to expect and how the clinic ran. Vaccine appointments were scheduled in 5-min blocks (between 12 and 24 patients per block), and only those individuals with an appointment were permitted to enter the building during that time. This allowed for adequate social distancing and an orderly check-in process. Individuals were held outside of the building until their appointment time was called by the door monitor. During the check-in process, patients’ vaccine eligibility was verified, and they would either receive their vaccine card for the first dose, or have their card checked for the second dose/booster. Individuals were then directed to the next station through a one-way hallway, where they would receive a health and consent form. One-way traffic flow and limited time waiting indoors helped to limit exposures and contact between individuals. Patients were seated in the vaccination waiting area to complete their forms, after which the forms were checked by a Survey Helper who also answered any questions. A Forms Room Helper then directed the patient to a shared vaccination station (two stations/table). After the patient was seated, the vaccinator reviewed the individual’s health history and confirmed which vaccine they wanted to receive. Once the vaccination dose was administered, the patient was then directed to the waiting area where they would be asked to remain for 15 min. At this point, the Watcher would monitor and check-in with
individuals to watch for any adverse reactions. The Emergency Medical Technician was nearby the waiting area to address any medical concerns that arose. All seating areas, pens and clipboard were sanitized at each station after each individual left that station.

The models and formulas used to implement vaccine clinics in the local clinic were also used to plan for vaccine clinics offered in other locations and throughout the county. Once it was determined how many vaccinators could fit into a space, while maintaining social distance, the planned clinics were either scaled up or down. This model proved to be very flexible and afforded us the ability to travel all over the county. Standard operating procedures for safe handling and transporting allowed us to maintain vaccine temperatures on longer distances.

Once approval to begin vaccinations for children ages 5 to 11 years was received, pediatric vaccination clinics were offered at CVIM’s new clinic location (Fig. 4). CVIM had not initially planned to vaccinate this age group; however, local pediatricians requested assistance with their vaccination efforts. All procedures outlined for the school location above were followed for the pediatric clinics; however, individual vaccination stations were offered in private rooms. In addition, sidewalks approaching the building and entrances were decorated with welcoming messages, and volunteers were dressed in costumes at the entrance and at each station (vaccinators were not dressed in costumes). After receiving their vaccination, children were able to choose their own bandage and sticker, and child-friendly coloring and activity pages were provided in the waiting area (see Fig. 4). Children were invited to hang their decorated pictures in the clinic hallway.

![Fig. 4. Images of a greeter stationed outside of the pediatric clinic (pictured left) and the post-vaccination activity station (pictured right).](image-url)
RESULTS

A total of 172 vaccine clinics and 44,634 vaccine doses were administered between January 2021 and June 2022. A total of 30 CVIM staff and volunteers were vaccinated at the initial clinic, and an additional 70 CVIM volunteers were vaccinated to expend the remaining vaccine doses. A maximum of 150 doses were administered at the CVIM clinic, before mass vaccination clinics were offered. Fig. 5 provides a visual of the number of doses administered by month, along with the cumulative tallies. Approximately 2300 to 2400 individuals were vaccinated, on average, during a mass vaccination clinic, using 24 vaccinators and 24 vaccine drawers. Typically, approximately 50% \( (n = 1200) \) of these were first doses and 1200 were second doses. Of the 44,634 vaccine doses administered, 75.2% \( (n = 33,574) \) were among adults \( \geq 19 \) years, 16.4% \( (n = 7310) \) were among youth ages 11 to 18 years, and 8.4% \( (n = 3750) \) were among children ages 5 to 11 years. No serious vaccine-related adverse reactions/events were reported. A few patients reported minor reactions, included soreness, rash or swelling at the injection site, lightheadedness, or feeling anxious about the injection; these reactions were not recorded. Emergency medical services were needed for one patient who experienced a syncopal episode that was unrelated to the vaccine.

As shown in Fig. 5, the demand for vaccinations was waning by the end of June 2021. This allowed the clinic’s focus to shift to outreach to more rural communities. With the approval of boosters in August and September 2021, the demand for vaccines once again increased. A similar pattern was seen when vaccines were approved for use in children ages 5 to 11 years in November 2021.

Social media outreach and vaccine uptake. A total of 106 social media announcements were posted between January 2021 and June 2022 related to COVID-19, the availability of vaccines, and information about signing up for appointments. Several posts were also designed to demystify the vaccine and provide education based on scientific evidence. The reach of posts ranged from 32 individuals (Instagram, link to

![Vaccine Doses Administered Each Month](chart.png)

**Fig. 5.** Number of monthly vaccine doses administered, along with the cumulative totals over time. Important vaccine development dates are superimposed.
education on booster shots, May 2022) to 4514 (Facebook, link to schedule an appointment, December 2021). Clicks on embedded links ranged from 0 to 837 (Facebook, link to schedule an appointment, April 2021), and posts were shared between 0 and 61 times; the highest shares were from Facebook, with a link to schedule an appointment in April 2021.

**Community Reaction**

Although vaccines were provided for free, it was estimated that the true cost of providing a vaccine was $5 per vaccine. Thus, as a free and charitable clinic, donations were used to offset the cost of providing vaccinations. An unexpected windfall of financial donations poured in as a result of CVIM’s mass vaccination clinics. It is likely that a large majority of individuals who attended the clinics were not familiar with CVIM until vaccination clinics were offered. In 2019 and 2020, CVIM saw an increase in their donor base of 330 and 409 new donors, respectively. During 2021, when vaccination clinics were offered, there were 1090 new donors, which represents nearly a 300% increase in new donors.

**DISCUSSION**

The overall success of CVIM’s mass vaccination clinics highlights the promise of community clinics to respond to public health emergencies and address community vaccination needs. Given the volunteer model used by free and charitable clinics similar to CVIM, such entities are uniquely poised to quickly mobilize volunteers. Hasan and colleagues recommend engaging the community in mass vaccination efforts, including volunteer inclusion and training and the use of social media platforms to share information.

Once CVIM’s mass vaccination clinic location was switched to a local school, neighboring school districts began requesting mass vaccination clinics at their locations. This proved to be very successful and CVIM was able to continue vaccinating large numbers of individuals from all over the county. By the time CVIM began offering traveling vaccine clinics, they had attracted nearly 500 clinical and nonclinical volunteers. Through word of mouth, CVIM gained notoriety in the community and became a trusted vaccine provider. Beginning in June 2022, CVIM’s focus shifted to outreach and attempts to impact vaccine hesitancy through education to the local community. CVIM received a grant to focus on vaccine hesitancy through October 2022, and the work will continue thereafter. Evans and colleagues outline 5 evidence-based steps that can be used to reduce vaccine hesitancy, including (1) raising awareness of the benefits, safety, and availability of the vaccine, (2) prompting patients in health care settings at the point of service, (3) using influencers (vaccine ambassadors) to build trust (4) educational entertainment (eg, videos and radio stories), to normalize vaccination, and (5) a strategy for service delivery. These strategies will be used in our ongoing outreach efforts.

**Successes and challenges.** Overall, CVIM’s effort to vaccinate the community was successful. We were able to mobilize hundreds of community volunteers to assist with clinics, and the volunteers noted how meaningful and rewarding the opportunity was. Even volunteer health care workers noted that vaccine clinics were healing, given the recent trauma they had endured due to COVID-19. CVIM is a small clinic, with only 19 staff members (16.5 full-time equivalent). The fact that nearly 45,000 vaccine doses were administered to the community is a testament to the power of a trusted, community clinic’s ability to garner tremendous support from the community to respond to public health emergencies. Patients attending vaccination clinics consistently shared
that the clinic was welcoming and volunteers were kind. This may have increased the likelihood that patients would return for second vaccines and boosters. CVIM created a fun and child-friendly atmosphere for the pediatric clinics. Parents noted that the clinics were efficient, and that staff and volunteers made their children feel comfortable. A review by Chambers and colleagues showed that distraction techniques can be efficacious at reducing children’s distress during immunizations. Although volunteers in costumes were not a method that was specifically addressed in this review, it is likely that this served as a distraction technique. Many children reported to their parents that they wanted to receive all of their vaccines from CVIM due to the pleasant experience we created.

The vaccine implementation work was not without challenges. Major challenges were experienced in providing vaccines, mainly due to the initial application process and lack of vaccine supply. At times, the waiting lists being maintained reached upwards of 10,000 individuals, which was a difficult task to manage and coordinate. Given the potential for waste of unused doses, lists of eligible individuals who could be reached on short notice were maintained. Within a few weeks, over 10,000 individuals were on a waiting list. Each person would need to be called and individually scheduled for clinics. CVIM was the only local entity scheduling appointments by phone. We were determined to make vaccinations available to those who did not have access to email, and this was critical for seniors in the community. This process was very time intensive, and a group of volunteers was mobilized to help with this effort. It is estimated that less than 3% of doses were wasted. When vaccinating in mass quantities, tracking vaccine lot numbers can be challenging. It was important to assure that the correct information was recorded on an individual’s vaccine card. The logistics of efficient tracking required detail-oriented staff with excellent organizational and communication skills. Overall, the logistics of operating a mass vaccination clinic were significant. Having a highly efficient, organized and responsible team was critical to the success.

SUMMARY

Community clinics can play a vital role in local community vaccination efforts to address and improve patient outcomes. Given current community partnerships with hospitals, health care systems, social service agencies, and other local entities (eg, schools, churches, and other charitable organizations), community clinics can leverage local networks, including a large volunteer base, to respond to public health emergencies like COVID-19.

CLINICS CARE POINTS

- Community clinics can effectively and efficiently respond to public health efforts to increase vaccination reach
- Engaging the community in responses to public health emergencies can increase the success of vaccination clinics
- The process of applying to become a vaccine site can be arduous and cumbersome. It is recommended that clinics connect with the local Department of Health for assistance and support.
- When asked, the health care community will step up and help in a crisis and do so willingly and selflessly to help their community.
Community partners are critical to success with a project like this. It would not have been possible without our community partners, like local school districts and universities.

Creating an initiative like this requires strong leadership, planning, organization, and a well-running team who can handle stress and who can also take on creating structure in their area.

If you focus on patients and the need, the rest will fall into place.

DISCLOSURE
The authors have nothing to disclose.

ACKNOWLEDGMENTS
Center Volunteers in Medicine would like to thank all of the volunteers and donors who helped to make our COVID-19 vaccination efforts a major success. The authors are eternally grateful for your selflessness, and your commitment to ending the COVID-19 pandemic.

REFERENCES
1. Dagan N, Barda N, Kepten E, et al. BNT162b2 mRNA Covid-19 Vaccine in a Nationwide Mass Vaccination Setting. N Engl J Med 2021;384(15):1412–23.
2. Wouters OJ, Shadlen KC, Salcher-Konrad M, et al. Challenges in ensuring global access to COVID-19 vaccines: production, affordability, allocation, and deployment. Lancet 2021;397(10278):1023–34.
3. Alam ST, Ahmed S, Ali SM, et al. Challenges to COVID-19 vaccine supply chain: Implications for sustainable development goals. Int J Prod Econ 2021;239:108193.
4. Kim D, Pekgün P, Yildirim İ, et al. Resource allocation for different types of vaccines against COVID-19: Tradeoffs and synergies between efficacy and reach. Vaccine 2021;39(47):6876–82.
5. Forman R, Shah S, Jeurissen P, et al. COVID-19 vaccine challenges: What have we learned so far and what remains to be done? Health Policy 2021;125(5):553–67.
6. Ozdenerol E, Seboly J. The Effects of Lifestyle on COVID-19 Vaccine Hesitancy in the United States: An Analysis of Market Segmentation. Int J Environ Res Public Health 2022;19(13):7732.
7. Mann S, Christini K, Chai Y, et al. Vaccine hesitancy and COVID-19 immunization among rural young adults. Prev Med Rep 2022;28:101845.
8. King WC, Rubinstein M, Reinhart A, et al. Time trends, factors associated with, and reasons for COVID-19 vaccine hesitancy: A massive online survey of US adults from January-May 2021. PLoS One 2021;16(12):e0260731.
9. Kricorian K, Civen R, Equils O. COVID-19 vaccine hesitancy: misinformation and perceptions of vaccine safety. Hum Vaccin Immunother 2022;18(1):1950504.
10. Hasan T, Beardsley J, Marais BJ, et al. The Implementation of Mass-Vaccination against SARS-CoV-2: A Systematic Review of Existing Strategies and Guidelines. Vaccines (Basel) 2021;9(4):326.
11. Mount Nittany Health. Community Health Needs Assessment. 2019. https://www.mountnittany.org/about-us/community-health-needs-assessment. Accessed 3 June 2022.
12. Evans WD, French J. Demand Creation for COVID-19 Vaccination: Overcoming Vaccine Hesitancy through Social Marketing. Vaccines (Basel) 2021; 9(4):319.

13. Chambers CT, Taddio A, Uman LS, et al, HELPinKIDS Team. Psychological interventions for reducing pain and distress during routine childhood immunizations: a systematic review. Clin Ther 2009;31(Suppl 2):S77–103.