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Special Article

Implementation of a Coronavirus Disease 2019 Vaccination Condition of Employment in a Community Nursing Home

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A B S T R A C T

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The rate of coronavirus disease 2019 (COVID-19) vaccination uptake by US nursing home staff remains low despite the increased risks of viral transmission and related morbidity and mortality in this setting. This study describes vaccine uptake activities including a COVID-19 vaccination condition of employment (COE) policy in one community nursing home. This case study summarizes the timeline of vaccination uptake activities, staff vaccination rates over time, and stakeholder perspectives around the implementation of a COVID-19 vaccination COE. Organizational data were used to calculate vaccination rates from January 1, 2021 until May 1, 2021 among all nursing home staff. Interviews were held with the executive leadership team, human resources leadership, and nursing home staff to understand the process of implementation. During a 4-month period, nursing home leaders provided 8 written handouts about COVID-19 to all staff, hosted 5 on-site vaccination clinics in partnership with area pharmacies, conducted 2 virtual presentations for staff in addition to individual outreach and internal communications. Fewer than one-half of the staff were vaccinated prior to the decision to pursue a vaccine COE on February 9, 2021. The decision to pursue a COVID-19 vaccination COE was supported by executive leadership and nursing home staff to protect the health and safety of each other and their residents. By May 1, 2021 a total of 221 of the 246 (89.8%) nursing home staff members received a COVID-19 vaccination. The facility reached 100% compliance with the vaccination COE policy with 18 people who chose to resign and 7 people who were exempt or on a leave of absence. In combination with frequent, personalized outreach, a COVID-19 vaccination COE resulted in high staff vaccination rates and minimal staff turnover. This case study provides a detailed summary of vaccination uptake activities within an organizational context to inform efforts at other healthcare facilities.

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The coronavirus disease 2019 (COVID-19) pandemic resulted in significant infection, morbidity, and mortality among residents and staff within nursing homes. Cumulative case counts of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection included 652,476 cases among nursing home residents and 579,712 cases among nursing home staff resulting in a total of over 134,000 deaths in the United States.¹ In addition to the tremendous loss of life, COVID-19 has upended the lives of nursing home residents and staff

including restrictions on visitation, prolonged social isolation, and staffing shortages.^{2,3}

Rapid distribution of COVID-19 vaccinations to nursing home residents and staff began on December 28, 2020 in an effort to protect high risk members of society through the federal Pharmacy Partnership for Long-Term Care Program.⁴ This program ended in April 2021 and resulted in full vaccination for more than 4.9 million nursing home staff and residents.⁵

Uptake of the vaccine among nursing home staff remains suboptimal to prevent future COVID-19 outbreaks in this high-risk setting, with roughly 42% of nursing home staff unvaccinated as of July 2021.^{6–8} Low COVID-19 vaccination rates among nursing home staff and persistent circulation of variants of SARS-CoV-2 in the community threaten recurrent COVID-19 outbreaks in nursing homes that

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jeopardize the delivery of care, the financial stability of this setting, and most importantly residents' lives.⁹

Thoughtful consideration of vaccination uptake activities is required to protect the safety of residents and staff in nursing homes to protect against future deaths and disruptions in care. This case study documents the implementation of vaccination uptake activities and underlying behavioral strategies including a COVID-19 vaccine condition of employment (COE) at one nursing home and the success of these interventions over time.

Vaccination uptake strategies, including educational programs, personalized engagement, incentive systems, choice framing, and vaccination COE have been used to increase vaccine uptake in a variety of settings.¹⁰ Strategies that use principles of economics and psychology to understand how individuals make decisions, collectively informed by the field of behavioral economics, are effective in improving the uptake of vaccines.¹¹ Multiple vaccinations, such as the annual influenza, measles, mumps, and rubella, and hepatitis vaccines, are required as a COE in many healthcare settings given the risk of disease transmission and severe consequences for people with underlying conditions. That said, implementation of new vaccination COE, such as COVID-19 vaccines, can damage vaccine acceptance if done without caution.¹²

The benefits and burdens of a COVID-19 vaccination COE within nursing homes remains a topic of frequent discussion but lacks substantial uptake in community nursing homes. Rapidly evolving information, low vaccination acceptance, and the obligation of nursing homes to protect the health of vulnerable residents and staff create a complex landscape of decision making for nursing home leaders, staff, residents, and their families. This case study critically reflects on the process of decision making, implementation of activities to increase vaccination uptake, and vaccination rate outcomes within one nursing home. Findings provide lessons learned to other nursing homes considering vaccination uptake strategies and activities to improve the safety of staff and residents.

Setting and Approach

This case examines the policies and processes of a 180-bed skilled nursing home in an urban area owned and operated by a not-for-profit, nonchain affiliated organization. The nursing home employs 246 staff who were included in the analysis of vaccination rates. In partnership with operational leaders in both administration and patient care, COVID-19 documentation of vaccination uptake activities were reviewed. Documentation included internal email communications, vaccination education handouts, and facility vaccination completion rates. A timeline and classification of events were constructed. In addition, interviews were conducted with key personnel to reflect on the process of decision making and implementation of COVID-19 vaccination strategies. This process evaluation included the executive leadership team, human resources leadership, medical team, nursing home staff, and members. Nursing home vaccination rates over time are provided starting with the first vaccination clinic on January 5, 2021 and ending with the go-live date for the COVID-19 vaccination COE policy on May 1, 2021.

Reflections on Process

The executive team, employees, and board members shared several perspectives on the process of implementing a COVID-19 vaccination COE. As vaccines became increasingly available, Centers for Disease Control and Prevention guidelines encouraged all businesses to take an active role in preventing and slowing the spread of SARS-CoV-2 within the workplace.¹³ The executive team also consulted corporate legal counsel. With appropriate inclusion of

COVID-19 vaccination COE exemptions for eligible staff, CDC and legal guidance did not prevent a COVID-19 vaccination COE. With limited exceptions, the organization determined they were legally allowed to make COVID-19 vaccination a COE without awaiting full US Food and Drug Administration approval of the COVID-19 vaccinations with emergency use authorization. Ultimately, the decision to pursue a COVID-19 vaccination COE was guided by an ethical obligation to protect residents, employees, and their families.

Decision making took place in a collaborative manner over multiple weeks. Following the first vaccination clinic on January 5, 2021, it became clear that reaching target vaccination thresholds would be difficult without further intervention. Discussions took place weekly between the executive leadership team, clinical leadership team, and board members regarding strategies to increase vaccination uptake among nursing staff in a continually evolving situation. A tipping point in support of a COVID-19 vaccination COE occurred among team members as vaccination rates remained low in the facility, new COVID-19 cases among staff and residents were identified, and mass distribution increased public confidence. This decision was communicated by the Chief Executive Officer to all staff on February 9, 2021. An early decision to pursue a COVID-19 vaccination COE allowed adequate time for respectful conversation surrounding different perspectives and logistical planning.

A COVID-19 vaccination COE was not the first strategy used to encourage vaccination uptake. Behavioral strategies to improve vaccination uptake included transparent and supportive communication, time to process new information, and ease of access to conversations with leaders. Vaccination uptake activities included written communication, internal communication, written materials, education sessions, on-site vaccination clinics, and ultimately a COVID-19 vaccination COE. The leadership team considered offering financial incentives and paid time off to encourage vaccination. When consulted, employees thought these approaches sent the wrong message about vaccine safety and coercion. Nursing home staff reflected the decision to get vaccinated was not immediate and would take some time for hesitant employees. As more information about the vaccines became available, willingness to get vaccinated improved. The staff and leadership engaged in vaccination uptake planning continued to worry about unvaccinated people coming into the community and spreading COVID-19. The decision to implement a COVID-19 vaccination COE was made by a diverse team who invested significant time in educating themselves and others.

Process of Implementation

Figure 1 summarizes all vaccination uptake activities that took place from December 2020 to May 2021. Internal communications occurred prior to the start of vaccination clinics to prepare for vaccination uptake. Guidance from the Centers for Disease Control and Prevention, the national Pharmacy Partnership for Long-Term Care, and guidelines from the Pennsylvania Secretary of Health were the initial sources of information to the organization about COVID-19 vaccinations beginning in October of 2020. Multidisciplinary preparation for vaccination included operational planning for vaccine clinics, drafting of protocols, and approaches to address staff concerns and vaccine hesitancy. In addition, the leadership team collaborated with the National Union of Hospital and Healthcare Employees regarding plans to include a COVID-19 vaccination COE.

Written materials were distributed by both the nursing home's Medical Director and the Chief Executive Officer beginning on December 8, 2021. The nursing home Medical Director distributed the first "COVID-19 Frequently Asked Questions" bulletin on December 8, disseminated to all staff both electronically and in print. This document was updated and distributed a total of 8 times.

Timeline of Vaccination Uptake Activities Prior to a COVID-19 Vaccination Condition of Employment

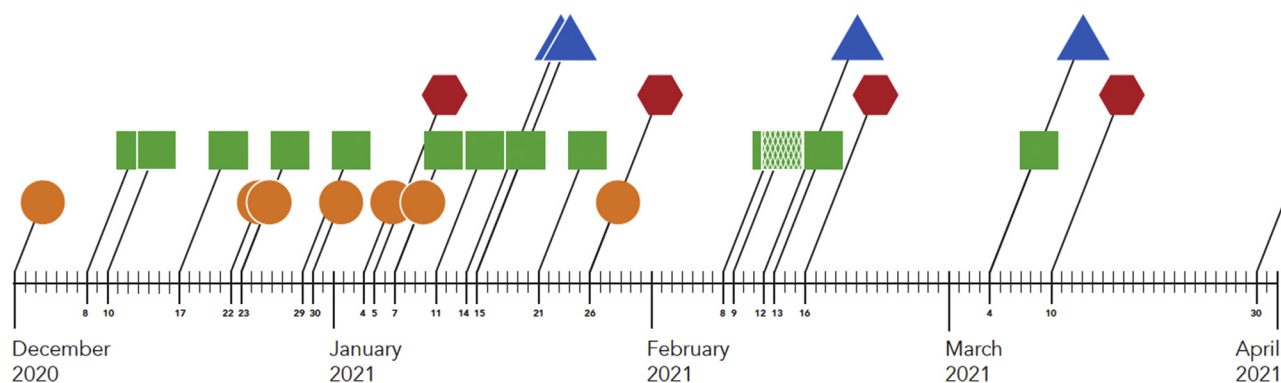
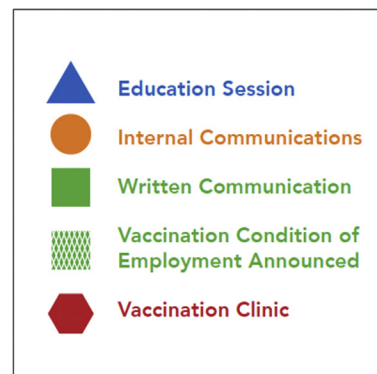


Fig. 1. Timeline of vaccination uptake activities prior to a COVID-19 vaccination COE.

The leadership team felt the Medical Director was best positioned to address and disseminate information about vaccine science to the staff. Written messages from the Chief Executive Officer communicated organizational goals for vaccination (such as vaccination uptake targets), opportunities to discuss concerns with directors and the executive team, and the rationale for implementing a COVID-19 vaccination COE. Prior to the vaccination clinic on March 10, 2021, the community update outlining the rationale for a COVID-19 vaccination COE was hand delivered to employees who had not been vaccinated and one-on-one sessions for discussion were offered.

The organization held 4 vaccination education sessions beginning on January 14, 2021 open to residents and staff and also provided time and space for individual private conversations. Vaccination education sessions were conducted via teleconference and included nursing home staff and experts from the community, including a research pharmacist who sits on the organization's board and direct care staff champions. Staff were given the opportunity to submit questions prior to the panel discussions and live during the sessions. Immediately following the large education sessions, huddles within smaller departments and units as well as one-on-one listening sessions occurred across all departments.

The organization hosted 5 vaccination clinics on-site for nursing home staff. The first 3 clinics were sponsored by the federal Pharmacy Partnership for Long-Term Care. Low turnout at the first clinic stimulated increased investment in additional vaccination uptake strategies. More than one-third of first doses were administered on the third and final Pharmacy Partnership for Long-Term Care clinic. Following the Pharmacy Partnership for Long-Term Care clinics, the City of Philadelphia sponsored 2 additional clinics in partnership with Acme Savon pharmacy. The additional clinics were also hosted on site at the nursing home.

Findings

The addition of the COVID-19 vaccination COE resulted in the nursing home achieving 100% compliance with the COVID-19 vaccine COE by May 1, 2021. Among staff present at the initiation of the COVID-19 vaccination process, the nursing home achieved a COVID-19 vaccination rate of 89.9% ($n = 246$). Among staff who initiated COVID-19 vaccination with a first dose ($n = 221$), 98.6% went on to complete the vaccination sequence. Three employees were exempt from the COVID-19 vaccination because of religious or medical exemptions; an additional 4 employees remain on a leave of absence. A total of 17 employees (6.9%) resigned from their positions at the nursing home. Vaccination rates over time are summarized in Figure 2.

Discussion

This case study demonstrates how one nursing home achieved very high COVID-19 vaccination rates and successfully implemented a COVID-19 vaccination COE to increase the safety of staff and residents. The decision to include a COVID-19 vaccination COE was decided and announced to the whole community shortly after vaccines became available leaving time for staff to process a growing body of information and mobilize around a common goal. Prior to enforcing a COVID-19 vaccination COE, the organization provided multiple opportunities to address questions and concerns of the staff about vaccinations. In combination with frequent, personalized outreach to address vaccine hesitancy, the organization achieved 100% compliance with a COVID-19 vaccination COE.

Key lessons from this case study can inform the implementation of COVID-19 vaccination COE in other healthcare settings. The early announcement of the COVID-19 vaccination COE allowed for planning, conversation, and vaccination uptake. With nearly 3 months between

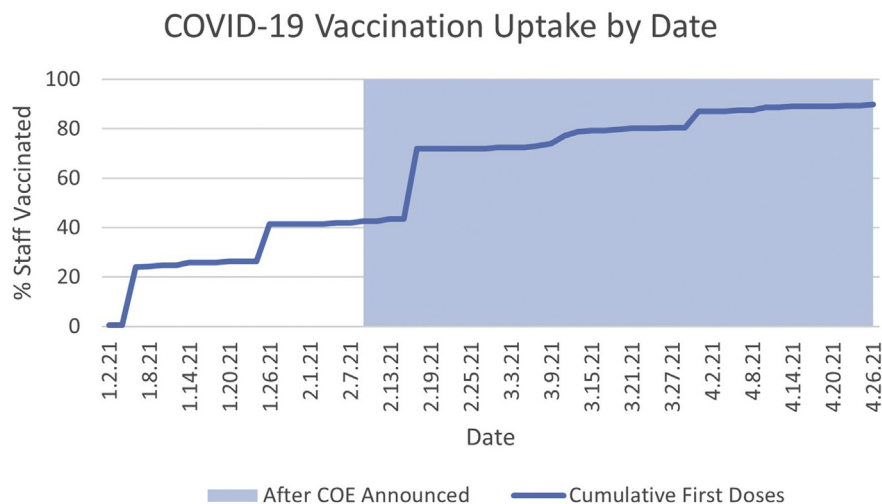


Fig. 2. COVID-19 vaccination uptake by date.

the decision to pursue a COE and the COE effective date, both staff and leadership could make future plans. Staff could evaluate other employment options and the nursing home could explore contingency staffing plans. Respectful and frequent face-to-face communication between staff and organization leaders was essential in creating community investment and acceptance of vaccination. Vaccination champions emerged within departments following written communications and education sessions, maintaining productive dialogue and action across the institution. Lastly, while roughly 70% of vaccinations were received during vaccination clinics sponsored by the federal Pharmacy Partnership for Long-Term Care, the third session resulted in the highest number of first doses and occurred after the COVID-19 vaccination COE policy was announced. Additional vaccination clinics hosted on site were required to increase vaccination rates and complete the vaccination sequence for staff members.

This study does have a few limitations. This case study reflects the experience of one not-for-profit nonchain nursing home. The results may not be generalizable to all nursing home and healthcare settings, though key takeaways are transferrable to other settings working to increase COVID-19 vaccination uptake. The study reports vaccine first doses as the indicator of vaccination status. All but 3 employees completed their vaccination sequence at the time of article submission. This descriptive study provides retrospective analysis of a policy implementation with multiple activities implemented simultaneously which limited the ability to test the effectiveness of individual behavioral uptake strategies such as education or a vaccination COE.

Implications for Practice, Policy, and/or Research

Attaining and maintaining COVID-19 vaccination is essential in decreasing transmission and preventing death among nursing home residents and staff. Even with adequate personal protective equipment, risk mitigation strategies, and frequent testing of staff and residents, outbreaks have occurred. COVID-19 had a profound impact on the entire community of this organization and its business operations. Staffing challenges, social isolation of residents, extended restrictions on family visits with loved ones, and a hesitancy by family members and physicians to recommend long-term care placement for those in need of nursing home services are persistent threats to nursing homes service delivery. Nursing homes continue to experience COVID-19 outbreaks with the national average for vaccination

among staff 58.7% with increasing infection threats posed by Delta and future variants.⁸ Institutional COVID-19 vaccination COE, such as those announced by universities, are likely to become more common in other settings, specifically in healthcare.

Implementation of activities to increase COVID-19 vaccination uptake, specifically via a COE, require individualized consideration in each facility and are possible. Variables influencing the decision to implement a COVID-19 vaccination COE include staff willingness to receive vaccination, the availability of resources, and the regional context.

Buy-in from the majority of nursing home staff is essential to successfully implement a COVID-19 vaccination COE. Vaccine hesitancy among healthcare professionals is multifaceted. In a previous study among nursing home staff, reasons for hesitancy included fear regarding underlying conditions, concerns the COVID-19 vaccine was developed too quickly, and deeply rooted mistrust of the government.⁷ Nursing home staff, disproportionately women of color, must be included in decision making to increase vaccination uptake and decrease the burden of COVID-19 infections in the communities where staff work and live. The inclusion of staff members in decision making and COVID-19 information sharing can increase confidence in both the message and the institution. Implementing a COVID-19 vaccination COE in nursing homes without acknowledging and addressing relevant underlying concerns could negatively impact patient care via staffing shortages and organizational mistrust among staff. A well developed and comprehensive approach inclusive of all stakeholders is required to increase vaccine uptake and will require investment.

Moving forward, workforce investment and partnerships with community agencies will be essential in maintaining high rates of COVID-19 vaccination among nursing home staff. Geographic areas and individual facilities experiencing difficulty recruiting and retaining staff may hesitate to implement a COVID-19 vaccination COE. The systemic challenges of low pay and staff turnover in nursing homes complicate the implementation of policies that could result in even minimal resignations. Successful vaccination campaigns require vaccine supply and operational support for vaccination clinics. Vaccination clinics hosted on-site decrease vaccination access barriers and could increase community investment. That said, they require continued funding. Areas with fewer resources which include staff, time, and vaccination will require financial and personnel support. Local partnerships with pharmacies and community organizations paired with state and federal investment optimizes the success of vaccination campaigns.

Given the persistent circulation of SARS-CoV-2 in the community, implementing a COVID-19 vaccination COE policy is a feasible strategy to decrease infection among staff and residents. Implementation of a COVID-19 vaccination COE required buy-in from staff at all levels of the institution, adequate time for preparation and information gathering, and transparent communication. Further investment in vaccination uptake strategies and activities including a COVID-19 vaccination COE will help to stabilize nursing home care delivery and upholds the responsibility of nursing homes to keep staff and residents safe.

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