

Protecting our most vulnerable: The Woods Services Pandemic Case Study

By: Stephen J. Kolesk*

*MD, Chief Medical Officer, The Medical Center at Woods and Vice President, Medical Affairs and Managed Care, Woods Services

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Abstract

As a population health management organization, Woods provides comprehensive medical care, education, employment opportunities, and support services for more than 22,000 individuals across its System of Care who live with complex medical conditions as well as intellectual and developmental disabilities as well as those who suffer the consequences of traumatic brain injury. Individuals with intellectual disabilities suffered higher rates of COVID-19 infection and death as a result of COVID-19 than the rest of the population across the country. However, there were no deaths among the individuals Woods serves throughout the two-year pandemic, few hospitalizations, and a remarkably small number of infections overall. This case study highlights the key elements to achieving these outcomes, which lie in Woods' already-established healthcare capacity, the formation of the Medical Center at Woods which provides integrated primary and behavioral health care, its population health approach, and a strong leadership team which managed Woods' response to the COVID-19 pandemic.

Introduction

Woods Services is a population health organization providing life cycle care management for 22,000 across Pennsylvania and New Jersey for individuals with intellectual disability, autism, brain injury and co-occurring chronic conditions. Woods, together with its six affiliates, has formed a System of Care which provides integrated healthcare, clinical, educational and vocational services. Many individuals Woods serves have severe behavioral and medical conditions, often multiple conditions which require complex care. More than 650 of these individuals live on a campus at its headquarters in Langhorne, Pennsylvania, or in nearby community homes. An additional 75 individuals attend one of Woods' special education schools as day students, or attend one of Woods' Day programs. All clients receive the support of 1,600 dedicated staff members, which include direct care employees, the clinical team, and on-site medical team and administrators.

The data on those with an intellectual or developmental disability (IDD) during the COVID-19 pandemic that were infected with COVID-19 are dismal. A large-scale study conducted by the Woods Research Institute in conjunction with the Center for Disability Information, reported in the *International Journal of Biological and Pharmaceutical Sciences Archive*, that as of January

2021, 5.62% of people with IDD had been infected with COVID, while 7.57% of the general public had been infected. But people with IDD were 2.29 times as likely to die from COVID infection. This is the extremely vulnerable population Woods serves.

The pandemic affected the population Woods' serves in higher numbers than were expected. But during the pandemic, Woods residents suffered not one death as a result of COVID-19. How did Woods accomplish this and not only keep ahead of the curve, but also flatten the curve and protect the most vulnerable of all populations?

Laying a strong foundation

In the three years prior to the onset of the COVID-19 pandemic, Woods was creating a strong foundation for an effective response to COVID-19 through the following methods. Woods' president and CEO, Tine Hansen-Turton, brought her population health and public health experience to Woods, realizing that the intellectual disability sector tended to work in silos and be primarily focused on support services, rather than healthcare and prevention. First, Woods underwent an organizational transformation that resulted in enhanced clinical services, reorganized its longstanding health services under the umbrella of the newly-formed Medical Center at Woods, and restructured its leadership team to fill needed new positions in healthcare and capitalize on the expertise of existing senior leaders so that they were in the right positions matching their skills to what Woods needed. All of these actions resulted in a new Woods which was positioned to operate in the complex landscape of the changing intellectual disability sector, which is increasingly moving towards service integration with an emphasis on healthcare, and to be able to respond creatively to emerging needs. Many of these emerging needs center on individuals with complex conditions who require intensive specialized supports and coordination of healthcare services with long-term services and supports. The connection and coordination between healthcare and other support services is an identified gap in the sector. While this organizational transformation was underway, no one could have predicted what was coming in 2020, and a pandemic which would require a high level of creativity and innovation and a rapid response to a national public health emergency.

Forecasting the need

It all started in early 2020, when Wood's CEO, Tine Hansen-Turton, spoke to the senior management at Woods to inform everyone that the first cases of a new deadly SARS virus called COVID-19 were found in the U.S. The virus first made its appearance in Washington State and was particularly infectious. Calling on her experience in public health, Ms. Hansen-Turton correctly predicted that addressing the anticipated influx of COVID-19 infections would require the collaboration of many of the people who served Woods' clients, all of whom had intellectual disability, autism, and/or acquired brain injuries. The task would require leadership, communication, forethought, networking, and cooperation among Woods' own internal teams, and also between our internal teams and our external partners, including government officials, local emergency squads, laboratories, state and county departments of health, urgent care facilities and local emergency rooms and hospitals. There would be the need to safeguard clients,

employees, families, and students. With that, Woods' Emergency Preparedness Plan was activated and the coronavirus task force was instituted, led by the Executive Vice President of Operations, Dawn Diamond.

The Coronavirus Task Force

The COVID-19 Task Force convened on March 6, 2020, as a forum to discuss how and who would navigate the very frightening outcomes of those who contracted the virus. The early news stories that emanated from long term care facilities in the Washington State were particularly sobering, as was the rapid spread of the virus that was occurring in the country. The significant morbidity and mortality of patients who had medical co-morbidities was of grave concern. With this backdrop, the leaders at Woods of all department met at least 3-5 times a week to share information and develop strategies for testing for the virus and possible isolation, following CDC and State and County Department of Health guidelines, as well as creating practices employees, the schools, and family visitation. The task force met virtually, and represented all aspects of support for clients, including operations, behavioral, clinical, nursing, admissions, medical, government relations, grant writing, communications, training, housing, direct care staff, legal, maintenance, purchasing, and human resources. The task force met with trepidation, not knowing what was to come, with attention to national news and the government mandates, and it prepared the organization to execute the critical task of protecting our most vulnerable. Woods' CEO also drew on her public health experience and existing relationships with national health organizations and with the CDC in order to both gather needed information and also advocate at every level on behalf of vulnerable individuals with intellectual disability, whose issues are not well-understood by healthcare systems and are often not considered in public health planning.

Personal Protective Equipment (PPE) and Sanitization

Early reports of the virus indicated that the wearing of personal protective equipment (PPE) was critical in reducing the spread of the virus. Using the relationships Woods had with its vendors, the organization was able to secure PPE, including masks, face shields, gowns, hazmat suits, and disinfectant. The purchasing department worked tirelessly to get the necessary supplies quickly. Initial reports also indicated that the virus might exist on surfaces on several levels, so the cleaning department was tasked with the thorough frequent cleaning of areas. The task force mandated mask wearing and the wearing of appropriate PPE for all employees. Unfortunately, sometime late on March of 2020, the first positive case was diagnosed at Woods. The home in which the individual lived was thoroughly sanitized nightly, and all staff who entered that unit were required to don full PPE including gowns. It was highly recommended that all clients wear masks, but many of them were unable to do so because of their disability, or due to the negative behavior that this might cause. Woods was able to secure a significant supply of PPE, as well as hand soap, hand sanitizer, and cleaners to help mitigate the spread of the virus. In this way, Woods was ahead of the curve in predicting the long-term need for PPE, and the potential shortages that would ensue.

Screening

How could the task force recognize that a client or employee may have the disease? Woods Services designed screening tools based on CDC tools and widely disseminated training and information on COVID-19. Because the disease was so infectious, the taskforce set up screening questionnaires for all employees and visitors that would identify potential exposure, including high-risk behavior such as travel outside the Tri-state area. In addition, Woods also used the symptom of fever as a screening mechanism. With that information, senior leaders, including the CEO, staffed the two entrance gates to the campus to test all employees and outside delivery personnel using a scanning thermometer. All those who had a positive scan of greater than 100.4 F were referred to the on-site Medical Center at Woods. If the repeat scan was positive, the employee received a nasal swab for a test, and was sent home pending results. In addition, all personnel were required to test clients at their homes daily and these individuals were isolated and re-tested if the temperature screen was positive.

Testing

Testing for those employees or clients that had a high exposure risk, developed a fever, or had symptoms that were suspicious for COVID-19 also presented an operational issue. PCR tests initially were unavailable, and antigen tests were initially inaccurate and not FDA-approved. Woods was able to purchase a number of antigen tests that were also used in the cruise ship industry; however, the accuracy of those tests was initially disappointing with low specificity and low sensitivity. The Medical Center was able to contract with several local labs, as well as an urgent-care center to help test and process tests. As experienced by the population early on, the turn-around for the test was 5-7 days, and employees were asked to stay home if suspected of carrying the virus, which cause further burden on an already thin work force. At one point during the pandemic, Woods had over 85 employees out with suspected symptoms, which caused a strain on workers who put in long hours to make up for staff shortages. The direct care employees that did remain were remarkable, true 'front line heroes' who continued with the mission of protecting the most vulnerable. The task force recognized the need for this protection and developed several policies for testing and monitoring, again in accordance with CDC and State and Federal guidelines. The Medical Center was eventually able to secure Abbott ID NOW testing, obtained the needed Clinical Laboratory Improvements Amendment (CLIA) waiver under Emergency Use Authorization, and was able to perform PCR testing with same day results for our clients and employees, and to test under any state requirements. The Medical Team, led by The Medical Center's lead nurse practitioner, were able to perform many tests, including an all-time high of 200 tests performed in one single day, which significantly reduced the isolation period or employee absences in many cases. Woods also performed contact-tracing, determining if an individual who tested positive may have infected others.

Monitoring

Throughout the pandemic, the most vulnerable clients were the ones about whom the task force were most concerned. These were individuals with complex health conditions. As the pandemic

started to progress the Woods nursing staff rose to the occasion. They closely monitored symptoms, and determined quickly that the use of a pulse oximeter (monitoring the oxygen content of the blood) was a major tool in determining whether a client would need to be transported to the local emergency department. A pulse ox was taken hourly and if it fell below 90 percent, the nursing staff would arrange for immediate transfer to an acute facility. This approach recognized the early signs of deterioration and allowed for the prompt treatment of this disease. It highlighted the fact that Woods continues to transform into a population health center.

Isolation

Of all the issues that the task force dealt with, this is perhaps the one that Woods struggled with the most. The issue of visitation from families, visitation off campus, activities, deliveries, school, and work training programs created the most discussion and concern. How should Woods balance the psychological well-being of clients, the need for their families to see them, the need to participate in outside activities, the need to attend school, with the fact that this disease causes so much morbidity in this population as well as a higher mortality rate? Woods prioritized its mission to protect our most vulnerable. In addition to methods described above, Woods also implemented isolation protocols as needed. Clients suspected of having COVID were moved to an isolation home with others that were positive for COVID. This was accomplished by repurposing of one of the schools to an isolation home, closing the schools and converting to a remote teaching model teaching, shutting down family visitation in the home. During the warmer months, controlled visitation outdoors was permitted with required masking, screening, and social distancing when visiting. In addition, all external activities were halted, non-essential personnel were required to work remotely, and in-person training was converted to virtual training. One of the most effective strategies was to ‘lock down’ a home that housed 32 clients who were perceived to be particularly vulnerable. Woods offered financial incentives for staff to live in that home with the clients for 6 weeks, and no one was allowed in or out, unless there was a medical emergency. This was well received by the staff, and there were no clients that tested positive during this time. There was great deal of concern from families regarding all of these initiatives. However, we persisted in implementing these prevention and intervention plans, and frequently communicated the need to protect all clients and staff to families and other stakeholders.

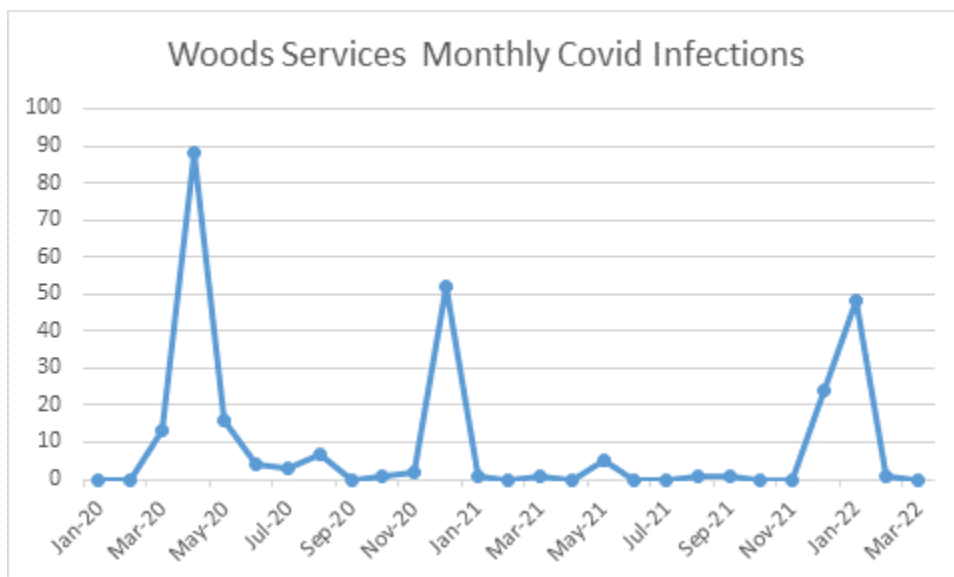
Vaccines

Once the task force saw reports about the availability of the vaccines for prevention of COVID, it was clear that Woods was well-positioned to become a state site for administration of the vaccine. However, significant advocacy was needed to ensure that individuals with intellectual disability and the staff who support them could receive the vaccine in the first wave. This advocacy effort was successful. Before The Medical Center at Woods was approved as an administration site, it secured a deep freezer to store Pfizer vaccine. When the Medical Center at Woods was approved as an administration site, Woods also worked with county Emergency Medical Services (EMS) to be a site for administering vaccinations to first responders. Vaccine clinics were scheduled, and the Woods nursing team administered vaccine to all employees. In

keeping with federal guidelines, all Wood’s personnel were considered health care personnel, and they were able to obtain vaccine. Multiple vaccination clinics were set up, and eventually an 80% vaccination rate among staff was achieved, which is steadily increasing. Many of our clients required permission for vaccination from families and/or guardians, which required effort from care coordinators, nurse navigators, nursing, and The Medical Center. Ongoing vaccination clinics are held at The Medical Center.

COVID-19 positive cases at Woods

The following graph shows the number of COVID positive cases at Woods Services over time. During the first two years of the pandemic, 250 client infections occurred, *with no deaths as a result of COVID-19*. There were three peaks of infection – the initial outbreak in March 2020, and infections after the winter breaks in 2021 and 2022. Research studies suggested that mortality rate among people with intellectual disability and autism across the United States varied from 12.3% of those infected in March 2020 to 4.4% of those infected in January 2021. If the midpoint of these values were accepted as a reasonable projection for Woods, one would have estimated that 22 Woods clients would have died. This is a rough estimate, but it highlights the success of the efforts of our staff and of our task force.



Summary

The pandemic experience at Woods was marked by trepidation, uncertainty, and concern. However, by having foresight, overcoming obstacles, and by cooperating with many stakeholders, woods were able to flatten the curve and most gratifyingly have no COVID-19-caused deaths. The alignment with healthcare and expansion of the Medical Center at Woods created a strong foundation for responding to the changing needs of the intellectual disability sector, and to emerging challenges such as the COVID-19 pandemic. Woods used collaboration,

discussion, and individual expertise to create a relatively safe environment in the middle of a chaotic and deadly pandemic. Currently the pandemic seems to be waning; however new variants remain a threat, and Woods continues to be on the alert in order to mitigate their effects.