



Human Services
Research Institute

REMOTE TECHNOLOGY

Application of Remote Technology in Supporting People with Intellectual and Developmental Disabilities

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INTRODUCTION

Amid concern for state budgets and demands for improved services, states are looking for creative services that have the potential to reduce costs at the same time as they bring added value and opportunities for full life in the community to the people they serve. Services like these require states and providers to think outside of the box of long-held assumptions of what services for people with intellectual and developmental disabilities (IDD) look like, and find innovative ways to help them to live the lives they choose¹ with the supports they need. One such service gaining traction with self-advocates², policymakers, and providers is remote technology—a term used to describe a number of different assistive devices and interactive products that can be used to help people to live safely and well while increasing their ability to be independent in their homes.

BACKGROUND

Remote technology comprises a range of technological innovations that facilitate a person's independent functioning in their home by supplanting in-person support or by sending information to off-site support. This can include anything from automatic pill dispensers to sensor mats, all the way to full remote monitoring and communication. Full remote monitoring may entail systematic use of technological devices that work together to provide live-monitoring in an individual's home, and can include electronic sensors, speakers and microphones, tele-cameras, smoke detectors, temperature detectors, and personal emergency response systems.

Remote monitoring services are offered by a number of vendors that contract with states to provide both remote monitoring and on-demand in-person support. Individual homes are linked to a remote monitoring site staffed with trained support providers that are familiar with the individual and their support needs. Major vendors include Rest Assured[®] Telecare³, Sengistix⁴, and Night Owl Support Systems⁵. Availability of remote monitoring service through these vendors varies by state.

¹ See <http://www.thearc.org/who-we-are/position-statements/quality-of-life>

² See <http://autisticadvocacy.org/home/about-asan/position-statements/>

³ See <https://www.rescare.com/residential-services/rest-assured/>

⁴ See <https://sengistix.com/>

⁵ See <http://nosllc.com/>

Simple remote monitoring systems may be comprised of various sensor devices and smart technologies that feed information externally to family or staff. Examples of such technology might include an automatic pill dispenser that alerts staff or family if pills have been taken from a tray, or sensor devices that alert someone if an off-limits area has been entered. In systems that use camera technology, a two-way camera system is linked to the internet, allowing the individual to speak directly with remote staff to receive assistance, reminders, or request emergency in-person help if needed. Camera systems are typically located in communal areas of the home where the individual is likely to spend time, and not places where an individual may wish to go to gain privacy (such as a bathroom or bedroom). Systems are fully customizable, however, and can be located wherever individuals prefer.

A remote system is generally installed at a one-time cost, and is maintained thereafter through a monthly fee. Prior to installation of the system, the individual, and anyone else residing with them or working in the home, must agree to the use of such a monitoring system, and understand that their conversations and actions within range of the system may be subject to observation by the monitoring agency during designated hours.

OPPORTUNITIES FOR USE

The opportunities that remote technology presents are best viewed in two ways: one as a service that can support people to live more independently in their homes, and another as an option for providers to supplement or supplant their workforce. As a service for increasing independence at home, remote technology can be a good option for individuals needing either sporadic support, or full-time support not requiring hands-on assistance. Further, remote monitoring technology can be used to support people with intellectual and developmental disabilities, as well as those with physical disabilities and the aging population. As a means of extending provider capacity, the details of engaging remote technologies merit much consideration. Nevertheless, the opportunity for providers to serve people more flexibly are great.

Monitoring technologies are tailored to individual needs, and so are ideal for people living alone, although they can also be utilized by people living with just one or a small number of other people, who may also utilize such technology. Generally, remote technology is not appropriate for people living at home with family in instances where the family receives funding to provide care for the individual, or for individuals living in large group settings. It may also be inappropriate for individuals with support needs in areas like mobility, feeding, or restroom use, which are better met by in-person support staff. However, remote monitoring services used in conjunction with on-site caregivers, or during times when support needs are lower, have been used to support people with greater needs.

To that end, remote technologies can also benefit providers, who may find ways to supplement or even eliminate some in-person staff time. In some places, remote monitoring exists as a stand-alone service. Elsewhere, remote technology is housed within the bounds of an established service that requires the act of monitoring but which does not require on-site staff to do so. A complication to this is that many existing service definitions stipulate in-person presence (thereby precluding remote technologies altogether), or may note that remote monitoring is allowable, but cannot be billed at the same rate as in-person care. While this saves money on a system level, it prevents providers from capturing cost savings, which is likely to disincentivize the service. If states can find ways to incentivize remote technologies by allowing providers to share some portion of cost savings, the service is likely to be viewed favorably, and adopted more widely.

Complications aside, remote technology services can provides opportunities for providers to stretch the capacity of existing staff and to engage in services with greater flexibility. Around-the-lock remote monitoring services may be provided to persons with great functional independence, but who might

benefit from continuous monitoring due to safety concerns. Sporadic remote monitoring can also be provided at specific times or in instances when little support is needed, such as during sleep hours, with in-person support is provided during other times. The ability to customize the amount of remote monitoring and to mix it with in-person support allows providers to use staff judiciously, while at the same time allowing people to live more safely at home. This service may also provide a means of serving individuals in rural or remote areas, or other locations where staffing limitations may exist. Utilizing remote technology interchangeably with in-person staff, around the clock for individuals not requiring in-person staff, or in areas where this may not be continually available may be attractive to providers wishing to extend their capacity, and to use existing staff more flexibly.

DEVELOPING A REMOTE MONITORING TECHNOLOGY SERVICE

Several states, including Colorado, Illinois, and Wisconsin, currently offer adaptive equipment or aid services that are defined in such a way that they can include remote technology. Wisconsin's 1915(c) Waiver (Community Integration Program DD), for instance, defines Adaptive Aids as

...devices, controls or appliances which enable persons to increase or maintain their abilities to perform activities of daily living, participate in typical home and community activities, control their environment and prevent institutionalization...(and which) facilitate self-reliance and independence and community participation may decrease the need for paid care and may reduce the risk of institutionalization...(these) consist of any device that achieves any of the objectives specified in this definition.

Colorado's 1915(c) Waiver (CO DD) includes a specification that Residential Habilitation services may include "supervision services which ensure the health and welfare of the participant and/or utilizing technology for the same purpose". Service definitions such as these allow for a compendium of adaptive and/or technological supports to be utilized as a part of a service, but may require review of request and approval on a per-person basis.

Other states specifically offer remote technology as a part of their Medicaid Waiver services, including Indiana and Ohio. Ohio's 1915(c) Waiver (OH Individual Options) specifies two unique services: Remote Monitoring Equipment and Remote Monitoring. Remote Monitoring Equipment is defined as "the equipment used to operate systems such as live video feed, live audio feed, motion sensing system, radio frequency identification, web-based monitoring system...the equipment used to engage in live two-way communication." The Remote Monitoring service, then, is defined as

...the monitoring of an individual in his or her residence by remote monitoring staff using one or more of the following items: live video feed, live audio feed, motion sensing system, radio frequency identification, web-based monitoring system, or other device approved by the department.

Draft language from Ohio's 1915(c) Waiver moves the services into the spotlight by striking a previous definition, which specifies remote technology "shall only be used to reduce or replace the amount of homemaker/personal care or community inclusion," and replaces it with language that mandates that remote technology be used to "promote...autonomy and minimize dependence on paid support staff and should be explored prior to authorizing services that may be more intrusive, including

homemaker/personal care or community inclusion, as applicable.”⁶ Viewing remote technology as a means to reduce dependence on paid support, coupled with an actionable definition and clear rate structures, sets the stage for remote technology to be more favorably viewed, and especially so if concerns grow over workforce availability.

Indiana’s 1915(c) (IN Community Integration and Habilitation) Waiver offers a service called Electronic Monitoring (changed to Remote Support Technology in October 2016, upon combination with Emergency Response System Services), which consists of “the provision of oversight and monitoring within the residential setting of adult waiver participants through off-site electronic surveillance...(and) the provision of stand-by intervention staff prepared for prompt engagement with the participant(s) and/or immediate deployment to the residential setting.”

An additional consideration that must be made in developing a remote technology service is the need for internet connection in the home of the service recipient if the service is to include audio and video monitoring. Internet services that facilitate this technology are necessary, but may be difficult to get Medicaid reimbursement for because they may also be used for activities outside of the service which are not a part of the service definition or plan. Agencies considering adoption of remote technology may need to consider alternative sources of funding for this element of the service, and must give consideration to risks associated with providing for internet services for individuals in their service.

SETTING RATES FOR REMOTE TECHNOLOGY

Rate setting for remote technology involves many considerations. To begin, one-time installation costs must be accounted for. Afterwards, costs of maintaining the technology, providing human monitoring, and having available immediate human assistance, if needed, must be taken into account. It will likely be necessary to maintain a one-time installation cost for this service, an additional service and rate structure for ongoing monitoring (hourly, weekly, or monthly), and one additional service and rate for as-needed in-person support. Due to the need for individuals receiving this service to be independent enough to remain in their homes without in-person support for period of time, it may be difficult to find large numbers of people who want and can use this service. Consideration, therefore, must be made to the number of people that would need to utilize the service in order for its provision and maintenance to be cost effective.

In addition, states must weigh the potential for cost savings against disincentivizing provision of the service. If the rates for monitoring or on-demand staff are too low, providers are unlikely to want to provide the service if higher rates are available for other in-home support services. Consideration of the nature of the provider network, existing regulations around in-home staff requirements, and demand for such a service must be made prior to implementing a remote monitoring technology service. If adopted, states will need to consider what to pay when the service is delivered to a single person in a home or shared among multiple people receiving the service, and also make critical decisions around the activities that can be associated with this service.

States that permit provision of remote technology services under a broad service definition such as Adaptive Aids or Residential Habilitation are bound to pay the rate(s) they have associated with these services, unless otherwise specified in Waiver language. This presents a difficulty when remote technology is provided under a one-time or lifetime rate, as this service contains ongoing costs for the

⁶ This language is in draft form only, and is re-printed with with the permission of Ohio Department of Developmental Disabilities.

monitoring service. Providing the service under the umbrella of Residential Habilitation or similar may incentivize adoption of the service by allowing flexibility in the type of support that can be provided, but without a separate and lower rate, will not result in cost savings.

Rates vary among states that have defined remote monitoring services, but appear to follow an hourly standard that remains constant regardless of the number of people served. Indiana employs a single rate for remote support technology, billed hourly. If this service is provided to more than one person in the same dwelling (that have been authorized to receive such service), the unit rate per-hour is divided by, and among, the number of people receiving the service. For example, if the rate is reimbursed at \$10 per hour, and two people in the same dwelling utilize it, it is billed at \$5 per hour across those two individuals. Ohio, on the other hand, utilizes three rates associated with remote monitoring technology: (a) an hourly/per-site rate for Remote Monitoring with Unpaid Backup Support, (b) an hourly/per-site rate for Remote Monitoring With Paid Backup Support, and (c) a per-item/per-month Remote Monitoring Equipment rate cap⁷.

When considering adoption of remote support technology, it is important to consider the need for emergency, or as-needed, in-person staff. Ohio's use of different rates for remote monitoring reflects the cost of maintaining paid backup support that can be deployed as needed. Careful consideration of logistics of such staff must be made, as staff availability may impact the feasibility of applying this service in remote areas or in areas with staffing shortages. Adoption of this service also necessitates reflection on issues of privacy and safety that should be addressed in the service definition in order to ensure compliance.

CONCLUSION

State staff and policymakers seeking alternatives to traditional services would be wise to engage in conversation with states already travelling down the road of utilizing remote monitoring technology, and to give consideration to the many challenges and opportunities it presents. Remote monitoring technology is a promising service that has the potential to help users gain greater independence and control over their lives by reducing in-person staff presence. It may also create opportunities for providers to extend their existing workforces by providing greater flexibility as to the nature of the support provided. Furthermore, it has the potential to bring about cost savings that may allow states to offer the service more broadly, or to utilize savings to offer other services.

⁷ See [http://codes.ohio.gov/pdf/oh/admin/2016/5123\\$2-9-35_ph_ff_a_app1_20130812_1443.pdf](http://codes.ohio.gov/pdf/oh/admin/2016/5123$2-9-35_ph_ff_a_app1_20130812_1443.pdf)