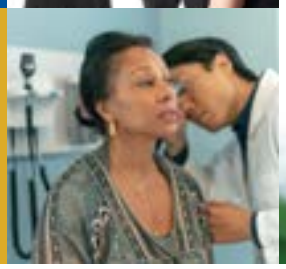
IMPROVING COMMUNICATION ACCESS FOR INDIVIDUALS

WHO ARE DEAF OR HARD OF HEARING



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INTRODUCTION

Approximately 15 percent of American adults (37.5 million) have reported some level of hearing loss.[1] Among this group, nearly 2 million individuals are deaf, with many late deafened (meaning they lost their hearing after learning spoken language).[2] Many of these people need an interpreter or other type of communication aid or service to navigate the health care space or communicate effectively with providers. Communication aids and services[3,4] are ways to ensure that communication with a person who has a hearing disability is effective. There are well-documented health disparities between people with hearing disabilities and those without these disabilities. These disparities affect both patients and providers.[5] Health information gathering, outreach programs, and mass media health care messages often exclude individuals who are deaf or hard of hearing. Because of cultural and language barriers, sign language users are at high risk for poor health knowledge and inequitable access to medical and behavioral care. These barriers directly translate to inadequate assessment, limited access to treatment, insufficient follow-up, and poorer outcomes.[6]

Communication barriers associated with hearing loss or deafness are linked to poorer health status. People who are deaf or hard of hearing are also more likely than hearing patients to report dissatisfaction with physician-patient communication and less likely to seek out care.[5,7] Effective communication is critical to providing high-quality care because relying on untrained individuals to interpret can lead to poorer health outcomes or even death.[8,9,10] Poor communication between patients who are deaf or hard of hearing and hearing clinicians can lead to misdiagnoses, unnecessary transfers, mistreatment, poor assessments, and unintentional harm with negative consequences.

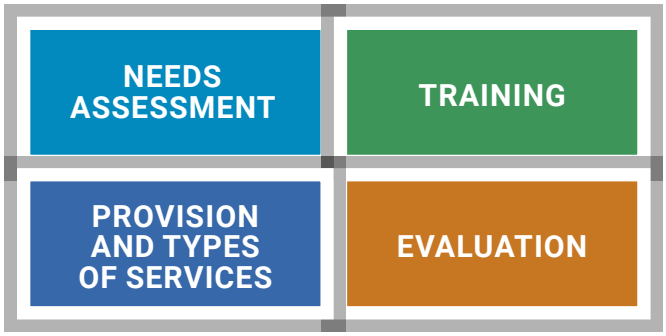
One way health care organizations can help their staff members provide high-quality care when they are serving a patient who is deaf or hard of hearing is to plan how they will provide effective communication and document their approaches in a comprehensive communication access plan. This resource describes how providers can assess their practices, develop such plans, and be prepared to implement accessible services, and suggests ways to improve the provision of health care to people with these types of disabilities.

This resource starts with an introduction to the importance of effective communication. The rest of the resource describes the elements needed to meet the communication needs of the individuals served by health care providers. As organizations go through the planning process, they can consider the elements discussed in this resource in the context of their organization- and population-specific needs. This resource is not intended to provide information about legal requirements nor give legal advice. Statements that an organization should do or should not do something simply refers to what organizations can do to plan for the most effective communication with patients and others.*

*Entities that receive federal financial assistance should consult with the U.S. Department of Health and Human Services Office for Civil Rights to learn about their legal obligation to take reasonable steps to ensure equal access to their programs by people with disabilities. See the Office for Civil Rights' website: https://www.hhs.gov/civil-rights/for-individuals/disability/physical/index.html.

HOW DOES AN ORGANIZATION PLAN TO IMPROVE COMMUNICATION?

To plan to serve those with different communication needs, an organization may consider the following steps. Planning efforts should be tailored to the individual organization and typically include:



Through the needs assessment, organizations can begin to understand what types of needs their patients have. Active planning can help an organization be better prepared to effectively meet the communication needs of their patients. Further, periodically updating plans can also help ensure organizations make the provision of auxiliary aids and services part of standard operating procedure and, ultimately, better meet the communication needs of all patients.

WHAT TYPE OF COMMUNICATION ACCESS PLAN DOES THIS RESOURCE COVER?

This resource focuses on the development of a communication access plan to support the needs of people who are deaf or hard of hearing. While this document mostly focuses on the needs of patients themselves who are deaf or hard of hearing, other individuals involved in the provision of care (such as parents or children of a patient) may also require aids or services for effective communication. It is important to note that communication access plans can be beneficial to any person who needs aids or services for effective communication.

To support providers in their efforts to meet the needs of their diverse patients, the Centers for Medicare & Medicaid Services Office of Minority Health (CMS OMH) has developed two other related resources — Improving Communication Access for Individuals who are Blind or Have Low Vision and the Guide to Developing a Language Access Plan. An organization may choose to develop three distinct plans to meet the diverse needs of individuals in these populations or instead choose to develop a single comprehensive plan that combines content related to each group.

WHY PLAN FOR EFFECTIVE COMMUNICATION?

Hearing loss and deafness can cause communication barriers, ultimately leading to adverse consequences for a patient's health and well-being. Communication access plans are based on the awareness that people may have problems with hearing and that there are ways to accommodate their hearing needs to ensure effective communication. This often depends on the length, complexity, nature, and importance of the communication. Planning can prompt an organization to thoughtfully assess many different elements related to ensuring effective communication with individuals who are deaf or hard of hearing that they may not have otherwise considered.

This resource uses both clinical and cultural terms to describe hearing loss and deafness and to capture a range of hearing capacity and need for communication services. (See box below.) Unless specifically referencing the Deaf community, this resource uses the phrase "deaf or hard of hearing" throughout.

A NOTE ABOUT TERMINOLOGY

This resource is focused on the provision of care for people who are *deaf*, people who identify as *Deaf*, and people who are *hard of hearing*. As always, when working with individuals from different cultures or identities, it is critical that providers consult with their patients directly to determine their preferred terminology to enhance patient-centered care.

People who do not see themselves as part of a larger deaf community may be described as *deaf*. They might identify themselves as hearing or view their hearing loss narrowly as a clinical or medical condition. People who identify themselves as deaf might require a number of different communication approaches, such as sign language interpreters, other auxiliary aids and services, or a combination.

Unlike those who are deaf, people who identify themselves as *Deaf* view deafness as part of their identity rather than as a disability. Members of the Deaf community often use sign language as their primary mode of communication and share a broader set of cultural identities and beliefs. People who identify as Deaf might need a sign language interpreter.

The term *hard of hearing* can refer to anyone with mild to moderate levels of hearing loss. Additionally, it can also refer to a deaf individual who does not identify as part of the Deaf community. People who identify themselves as hard of hearing are more likely to benefit from devices such as pocket amplifiers¥ and other auxiliary aids. These individuals might not understand sign language but might still require communication services of some sort.

¥ Pocket amplifiers reduce background noise while simultaneously increasing the sounds closest to the user. Many people own these devices, but some who would benefit from them do not. Because the devices can easily be used by anyone with little to no setup required, they are one type of auxiliary aid and service that a health care organization can consider offering for people who are hard of hearing.

Sources: Berke J. *Self-identification in the Deaf community.* VeryWellHealth.com website. Available at: https://www.verywellhealth.com/deaf-culture-big-d-small-d-1046233. Accessed April 1, 2020; Padden C, Humphries T. *Deaf in America: Voices from a Culture.* Cambridge, MA: Harvard University Press; 1988; National Association of the Deaf. *Community and culture – Frequently Asked Questions.* Available at: https://www.nad.org/resources/american-sign-language/community-and-culture-frequently-asked-questions/. Accessed April 13, 2020.

WHICH ORGANIZATIONS WOULD BENEFIT FROM HAVING A COMMUNICATION ACCESS PLAN?

An organization might want to plan for communication access if it serves individuals who may need *auxiliary aids and services* or *reasonable accommodations* for effective communication:

- **Auxiliary aids and services** are equipment, services, and other methods of making aurally delivered information available to individuals who are deaf or hard of hearing (or making visually delivered materials available to individuals who are blind or have low vision).
- A **reasonable accommodation** is any reasonable change in the way that an organization provides services or in the way that it requires individuals to do things.

Some people who are deaf or hard of hearing need reasonable accommodations instead of, or in addition to, auxiliary aids and services in order to have an equal opportunity to participate in and benefit from health care programs. To ensure effective communication with individuals who are deaf or hard of hearing, an organization might need to provide auxiliary aids and services or reasonable accommodations, such as:

- Qualified interpreters
- Computer-aided transcription services
- Written materials
- Telephone amplifiers
- Assistive listening devices systems
- Captioning services

Allowing a patient to come to for a physical on a Tuesday, even if the clinic does not usually conduct physicals on that day, because the individual wants to bring an assistant who is only available on Tuesdays

The following sections discuss ways organizations can develop a communication access plan and actively plan to provide effective communication.

Assessing the community's needs allows for better care planning and population health management

HOW TO DEVELOP A COMMUNICATION ACCESS PLAN

Organizations can work through the following steps to better support their patients who are deaf or hard of hearing. As organizations work through each step, they can document how they will provide effective communication in their communication access plan.

One significant step toward improving communication is to assign an existing employee or hire a new employee to serve as a disability rights advocate or disability accommodations coordinator.[11] This person could be responsible for overseeing compliance with federal disability rights laws, as well as overseeing and helping plan for the provision of auxiliary aids and services or reasonable accommodations for people with disabilities, including those who are deaf or hard of hearing.

NEEDS ASSESSMENT

While the format of communication access plans can vary, the most effective plans often include details of the organization's needs assessment in the first section. This section describes the needs of current or prospective health care patients who are deaf or hard of hearing; their "companions," which includes family members and others involved in the individual's care; and members of the public who are deaf or hard of hearing. The needs assessment can explore the number of individuals with communication needs in the service area, as well as the extent of their needs for services (including where they interact with a given organization). Organizations can consider establishing a reliable data collection process or analyzing existing sources of data to better understand the community's needs. Assessing the community's needs allows for better care planning and population health management. Organizations in the community that work with people who are deaf or hard of hearing may help inform the needs assessment.

NUMBER OF PEOPLE WITH COMMUNICATION NEEDS

To determine how they may best provide effective communication for people who are deaf or hard of hearing, an organization can start by identifying the number of people they currently serve who are deaf or hard of hearing, as well as how many they are likely to serve. A health care organization may be able to analyze internal data sources—such as call center information, data collected by navigators, and electronic health records—to understand how many people who are deaf or hard of hearing already interact with the organization. Knowing the number of people who are deaf or hard of hearing in a service area can give an organization a general sense of how many people may need some sort of auxiliary aid or service or accommodation for effective communication. However, organizations must still take steps to provide

THE DEAF-BLIND COMMUNITY

Deaf-blindness is a condition in which the combination of hearing and visual losses can result in altered communication, developmental, and educational needs. Additionally, individuals with deaf-blindness may experience a wide range of sensory impairments. In the United States alone, approximately 35,000 to 40,000 individuals are deaf-blind.

Communicating with people who are deaf-blind can require additional services and accommodations. Any organization interfacing with this community should ensure that services unique to this population exist, beyond the accommodations for the deaf and the blind.

Source: Miles, B. Overview on deaf-blindness. DB-LINK, National Information Clearinghouse on Children Who Are Deaf-Blind. (2008. Available at: https://www.nationaldb.org/info-center/overview-factsheet/) Accessed April 1, 2020.

effective communication to each individual who is deaf or hard of hearing; organizations cannot tell what an individual will specifically need by understanding the number of people with needs in a service area.

VARIATION OF NEED WITHIN A DIVERSE POPULATION

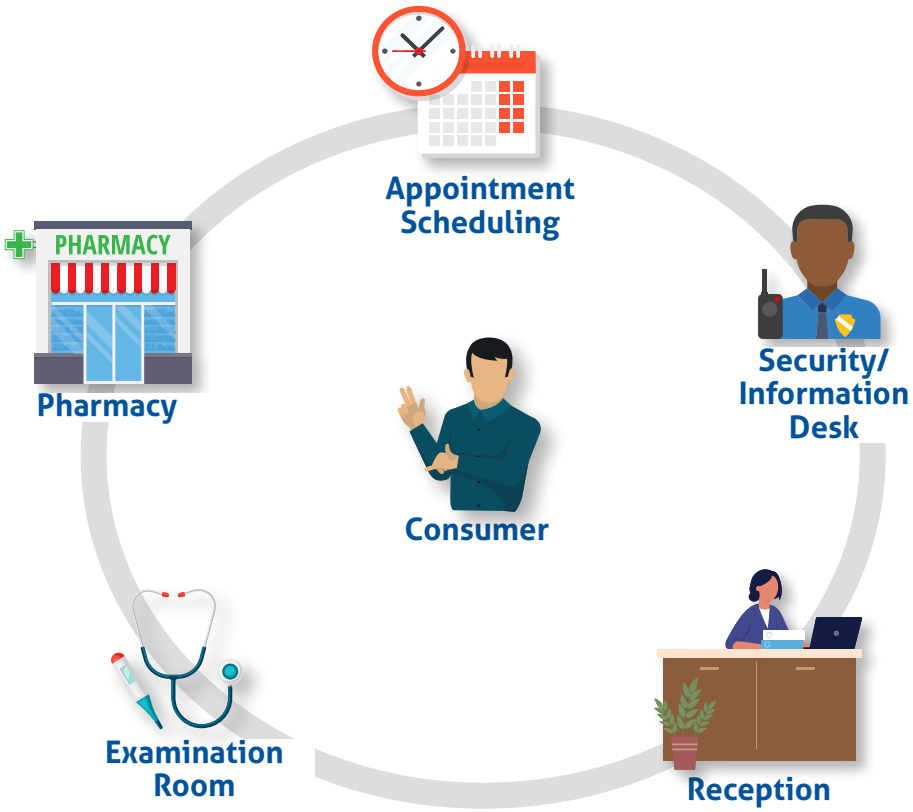
People who are deaf or hard of hearing have varying degrees of residual hearing. This variation, as well as the variation in the types of assistive devices different people use, can affect the types of aids, services, and accommodations that are most likely to ensure effective communication. For example, what an organization will need to do to provide effective communication with an individual who uses sign language will often be different than what it will need to do to provide effective communication with an individual who does not use sign language. Notably, even individuals with the same hearing limitations might require different auxiliary aids and services or reasonable accommodations for effective communication. Finally, because a patient's need for auxiliary aids and services or reasonable accommodations might not be apparent to staff, it is important to have a plan for how to help individuals regardless of whether staff can observe a disability.

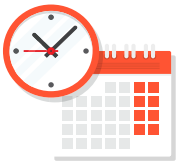
POINTS OF CONTACT

People who are deaf or hard of hearing might require different types of services depending on where and how they interact with different staff across an organization. As organizations develop their communication access plans, considering the various points of contact at which a patient, companion, or member of the public is most likely to interact with providers

and other staff can help organizations identify where auxiliary aids and services or reasonable accommodations may be needed. Each of these points of contact provide an opportunity for staff to make individualized determination of needs by asking patients if they need auxiliary aids and services or accommodations, and if so, what they need. Further, when utilizing outside vendors for various services (such as telehealth), a promising practice would be to integrate accessibility into vendor contracts. An understanding of vendor capabilities can be imperative for training and planning aspects of effective communication.[12] The figure illustrates common points of contact, which include appointment scheduling, security, reception desks, examination rooms, and pharmacies.

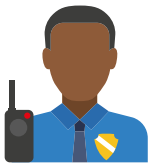
At each point of contact, organizations can think about what barriers an individual who is deaf or hard of hearing might experience and what auxiliary aids and services or reasonable accommodations could help address those barriers. An example of such mitigation includes the use of clear face coverings for each point of contact for individuals who may be using lip reading or relying on facial expressions. Organizations can also consider how to train their employees on the types of auxiliary aids and services that are available and how they can be used to facilitate effective communication. Once this information is considered, organizations can then include specific details in their communication access plans about how employees will be able to provide specific auxiliary aids and services or reasonable accommodations at specific points of contact. Details on the specific points of contact are discussed in the following sections. access and provide specific auxiliary aids and services or reasonable accommodations at specific points of contact. Details on the specific points of contact are discussed in the following sections.





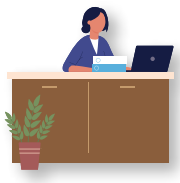
APPOINTMENT SCHEDULING

The scheduling process can provide an opportunity to collect data on patient needs. Staff can ask all patients whether auxiliary aids and services or reasonable accommodations will be needed for an appointment, and if so, what will be needed. The information captured during the scheduling process can be documented in the patient's medical record and verified for accuracy when the patient checks in so the provider can use it.



SECURITY/ INFORMATION DESK

Security and information desks are often the first point of contact for a patient who is having difficulty navigating a health care facility. A communication access plan might describe how security guards and those who staff information desks will identify that an individual might need auxiliary aids and services, what types of aids and services are available, and where to find them. For example, that might mean knowing how to call for an interpreter if one is needed.



RECEPTION

The reception area at a provider's office is also often a first point of contact. Communication access plans can include information for front desk or reception staff, such as the availability of auxiliary aids and services, and policies or information about which parts of the check-in process might need to change to accommodate a person who is deaf or hard of hearing.

EXAMINATION ROOM

In an examination room, providers will need to know about the types of accommodations available and how to use them to facilitate effective communication. Also in the examination room, providers will need to ensure that patients give informed consent for any treatment. Importantly, what will make communication effective depends on the length, complexity, nature, and importance of the communication. For example, writing notes may be effective when a person is scheduling an appointment but is not likely to be effective for discussing a medical diagnosis with a doctor, reviewing the risks and benefits of surgery, or giving consent.

PHARMACY

Once an examination is completed, patients are often directed to a pharmacy to fill a prescription. At the pharmacy, a person who is deaf or hard of hearing may need visual cues, including signage to indicate where to drop off and pick up a prescription, and visual or tactile tools, such as pagers, to indicate that a prescription is ready for pickup. Interpreters may also be needed in the pharmacy to ensure that instructions on how to take a medication are clearly conveyed.

INTERACTING WITH PEOPLE WHO ARE DEAF-BLIND

When interacting with deaf-blind people, a number of considerations can help ease the interaction:

- Ensure that the individual is fully aware of the surrounding full environment.
- Do not interrupt dialogue to check for clarity.
- Ensure adequate lighting to aid people with low vision.
- Provide materials in braille.

Source: Morgan, S. Sign language with people who are deaf-blind: Suggestions for tactile and visual modifications. Deaf-Blind Perspect. 1998;6(1):3–7. Available at: http://www.deafblind.com/slmorgan.html. Accessed April 1, 2020.

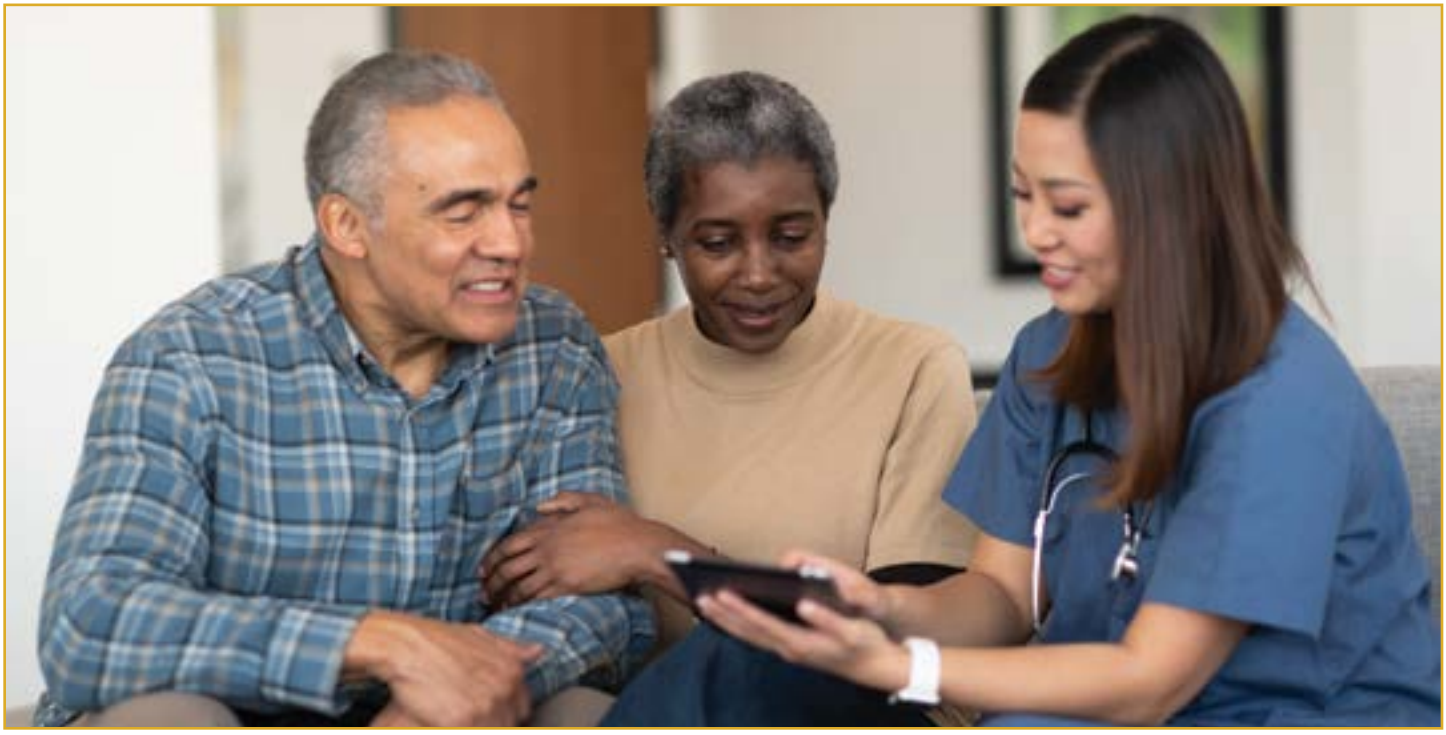
PROVISIONS AND TYPES OF AVAILABLE SERVICES

The second section of an organization's communication access plan will typically consider individuals' varied needs while identifying what services it will provide to meet those needs in both outpatient and inpatient settings. This section typically includes details about what is available, as well as when and how auxiliary and aids services or reasonable accommodations will be provided. This section of a communication access plan may also include information about how and where the organization will notify the people it serves about the availability of services. Organizations can consider including information about the availability of services in a range of accessible formats at the same points of contact that are identified during their needs assessment. Importantly, literacy rates across the deaf community, on average, fall below a seventh-grade reading level,[13] making it important to provide written information in plain language that is easy to understand.

The auxiliary aids and services needed for effective communication vary among people who are deaf or hard of hearing. As noted in the previous section, an individualized determination of need is necessary and can be conducted at various points of contact. For example, some people who are hard of hearing do not use sign language and therefore do not need sign language interpreters. Hearing loss spans a spectrum of severity and can occur at any time during a person's life, affecting one or both ears.[3] Many people who are deaf or hard of hearing rely on residual hearing, hearing aids, cochlear implants, assistive listening devices, or some combination of these.[14] Additionally, not all people who need auxiliary aids and services or reasonable accommodations have an obvious need—some disabilities are hidden. To help address less visible needs, organizations can proactively consider asking about specific needs at various access points. Further, individuals might have multiple disabilities, which might affect the types of auxiliary aids or reasonable accommodations they would need.

Some of the types of auxiliary aids and services an organization might need to provide to ensure effective communication with people who are deaf or hard of hearing include:

- A telephone handset amplifier attached to a dedicated or portable phone that allows the listener to increase the volume by adjusting an amplification dial or button
- Assistive listening devices and systems, including personal amplifiers that may or may not be compatible with a hearing aid
- Induction loop sound systems that amplify the spoken word directly to a listener's hearing aid if it is equipped with a T-coil
- Pagers or visual alarms for patient notifications
- Captioning systems
- Written materials, including discharge or medication instructions
- Different types of and approaches to interpretation, discussed in more detail below



ALTERNATIVE APPROACHES FOR PEOPLE WHO ARE DEAF-BLIND

Individuals who are deaf-blind are likely to need additional and different services than those who are blind and rely on auditory cues. While braille and tactile text may be used, other services may be appropriate as well:

- Hand-over-hand interpreters place the listener's hands lightly on the back of the signer's own hand and use a modified version of the local sign language.
- Tactile fingerspelling interpreters manually spell out words and may use different manual alphabets (e.g., American Sign Language).
- Tracking interpreters place their own hands on the signers' to help them track the signs visually (because the listener typically has a limited field of vision).
- Brailtalk tactile communicators contain braille and raised numbers and letters.

Source: American Foundation for the Blind. ADA Checklist: Health Care Facilities and Service Providers: Ensuring Access to Services and Facilities by Patients Who Are Blind, Deaf-Blind, or Visually Impaired. Accessed April 1, 2020.

INTERPRETATION

People who communicate exclusively or primarily through sign language generally need an interpreter for communication to be effective. Interpreters may be dedicated staff interpreters, contracted interpreters, qualified staff, or video-remote interpreters. The CMS OMH document Lessons from the Field explores how different organizations provide language services to diverse populations and contains information on different approaches to interpretation, including pros and cons of each.

Organizations should provide more than one approach to interpretation to communicate effectively. A number of different types of interpreters and modes for interpretation may be needed and should be provided, depending on need. Examples may include:

- An **American Sign Language (ASL) interpreter** provides interpretation, translation, and transliteration services in ASL.[15]
- **Oral interpreters** articulate speech silently and clearly, sometimes rephrasing words or phrases to give higher visibility on the lips. Natural body language and gestures are also used.
- **Cued speech interpreters** use a visual mode of communication in which mouth movements of speech are combined with "cues" to make the sounds (phonemes) of traditional spoken languages look different.[16]
- **Computer-assisted real-time transcription** allows for instant translation of the spoken word into text, which can be displayed on a monitor or screen.

Fluency in any form of sign language does not guarantee competency in medical terminology, and relying on unqualified individuals can lead to a lack of understanding and poor outcomes.[17] Family members fluent in sign language are generally not well equipped to interpret in medical situations. Family dynamics may also complicate a situation in which a family member is asked to interpret.

Ensuring interpretation accuracy is of the utmost importance. The document What's in a Word? A Guide to Understanding Interpreting and Translation in Health Care discusses these and other considerations about interpretation. Organizations may want to consider certification by the Registry of Interpreters for the Deaf or the National Association of the Deaf as a qualification for sign language interpreters.

TRAINING

The communication access plan can spell out how the organization will train staff on its policies and procedures for providing auxiliary aids and services or reasonable accommodations for people who are deaf or hard of hearing, including which staff members will be trained and how often.

Staff training is important, not only so that people feel supported throughout their experience at a health care facility, but also so that those working at the organization understand how to best support people with varying levels of hearing, including those with obvious hearing loss and those with a hidden disability. Additionally, staff training can help ensure that all patients are respected and provided with the required supports and services necessary for effective communication.

Organizations can consider a variety of training topics, such as:

- Policies and procedures for providing auxiliary aids and services
- Respectful and effective communication with people who are deaf or hard of hearing and their companions
- Navigation of hospital stations, inpatient rooms, auxiliary aids and services, and discharge during an inpatient stay
- Collection of data on patients' communication needs and preferences

Many organizations include training about communication services as part of their onboarding process for new employees. It is also important that all staff members periodically receive refresher trainings (e.g., once a year), because policies, processes, and resources are revised to meet evolving needs.

Staff training can contribute to goals such as the following:

- Providing education about how to communicate effectively with people who are deaf or hard of hearing
- Incorporating federal disability laws and their requirements into new employee training
- Ensuring that all employees receive training on Deaf culture and ASL as a language different than English
- Adopting a standard method to document whether a patient is deaf or hard of hearing, whether they have communication needs, and the preferred mode of communication for each patient
- Routinely documenting, in a standard manner, the request for and presence of an interpreter during a medical visit, as well as refusal of an interpreter
- As appropriate, identifying deaf patients as needing an interpreter when referred for further testing or care
- Developing benchmarks for access to high-quality care for people who are deaf or hard of hearing

EVALUATION

The communication access plan typically includes information on monitoring and continuous quality improvement. An organization will want to periodically evaluate and monitor its communication access plan so that it continues to help the organization serve people who are deaf or hard of hearing effectively. This section can describe when and how an organization will monitor and update its plan, policies, and procedures to meet the needs of patients and the organization.

Some ways an organization can collect and monitor data for continuous quality improvement purposes include:

- Monitoring the organization's responses to complaints or suggestions by people who are deaf or hard of hearing, including stratifying information by race, ethnicity, and other demographics to consider the role of intersectionality
- Assessing the organization's communication services to monitor quality
- Monitoring the organization's responses to complaints regarding interpretation assistance
- Keeping track of which auxiliary aids and services are used throughout the organization and under what circumstances
- Tracking how often the auxiliary aids and services are provided when requested (regardless of need) or when they are needed (with or without patient request)
- Talking to staff across the organization about use of auxiliary aids and services or reasonable accommodations, suggestions for improvement, and whether these services meet patients' needs
- Collecting feedback from patients who are deaf or hard of hearing to better understand their experiences accessing health care or communication services at the organization
- Using the information collected through each of the steps to continuously monitor and update the organization's efforts toward providing high-quality care for people who are deaf or hard of hearing

The information gathered can be used to craft or update policies and procedures to more accurately reflect the needs and demographics of those whom the organization serves who are deaf or hard of hearing.

CONCLUSION

Without appropriate auxiliary aids or services or reasonable accommodations, it can be difficult to communicate effectively with individuals who are deaf or hard of hearing. Ultimately, as organizations work to ensure effective communication with all patients, a communication access plan can facilitate the provision of communication assistance services and care to individuals who are deaf or hard of hearing. Thinking through the sections described in this resource can help an organization as it works toward the goal of providing high-quality, equitable care for its patients.

CMS Office of Minority Health offers Health Equity Technical Assistance for health care organizations that are working to advance health equity.

For help improving communication access, email the Health Equity Technical Assistance Program at HealthEquityTA@cms.hhs.gov and visit our website: **go.cms.gov/OMH**

SELECTED RESOURCES

BACKGROUND

U.S. Department of Justice. Americans with Disabilities Act Requirements: Effective Communication

U.S. Department of Justice. Americans with Disabilities Act: ADA Business BRIEF: Communicating with People Who Are Deaf or Hard of Hearing in Hospital Settings

Deaf-Hearing Communication Center. Tips for Effective Communication

TOOLKITS AND GUIDES

Hearing Loss Association of America. Guide for Effective Communication in Health Care

L.A. Care Health Plan. Better Communication, Better Care: A Provider Toolkit for Serving Diverse Populations

Make Medicare Work Coalition. Toolkit for Working with the Deaf and Hard-of-Hearing

Hearing, Speech & Deaf Center. Deaf 101: Communicating with Deaf and Hard of Hearing Individuals

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[3] Shuler GK, Mistler LA, Torrey K, Depukat R. Bridging communication gaps with the deaf. *Nursing*. 2013;43(11):24–30. doi: 10.1097/01.NURSE.0000435197.65529. cd. Accessed April 1, 2020.

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[6] Pick L. Health care disparities in the deaf community: individuals with hearing loss experience health care inequities. *Spotlight on Disabilities Newsletter*. November 2013. Accessed April 1, 2020.

[7] Kurz RS, Haddock C, Van Winkle DL, Wang G. The effects of hearing impairment on health services utilization. *Med Care*. 1991; 29(9):878–889. doi:10.1097/00005650-199109000-00007.

[8] Wilson, CC. Patient safety and healthcare quality: the case for language access. *Int J Health Policy Manag*. 2013;1(4):251–253. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3937896/. Accessed April 1, 2020.

[9] Juckett G, Unger K. Appropriate use of medical interpreters. *Am Fam Physician*. 2014;90(7):476–480. Available at: https://www.aafp.org/afp/2014/1001/p476.html. Accessed April 1, 2020.

[10] Jacobs B, Ryan AM, Henrichs KS, Weiss BD. Medical interpreters in outpatient practice. *Ann Fam Med*. 2018;16(1):70–76. Available at: http://www.annfammed.org/content/16/1/70.full. Accessed April 1, 2020.

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Revised November 2023
Paid for by the U.S. Department of Health & Human Services