

## THEORY/REVIEW MANUSCRIPT

# Health Care Access Among Deaf People

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## Abstract

Access to health care without barriers is a clearly defined right of people with disabilities as stated by the UN Convention on the Rights of People with Disabilities. The present study reviews literature from 2000 to 2015 on access to health care for deaf people and reveals significant challenges in communication with health providers and gaps in global health knowledge for deaf people including those with even higher risk of marginalization. Examples of approaches to improve access to health care, such as providing powerful and visually accessible communication through the use of sign language, the implementation of important communication technologies, and cultural awareness trainings for health professionals are discussed. Programs that raise health knowledge in Deaf communities and models of primary health care centers for deaf people are also presented. Published documents can empower deaf people to realize their right to enjoy the highest attainable standard of health.

According to the United Nations enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being. Recently, disparate health care of people with disabilities has captured the attention of the international health and development community (Tomlinson et al., 2009; WHO, 2011). The need to identify barriers that people with disabilities face in accessing health services at a variety of levels, and to find optimum strategies to integrate their needs into primary health care systems by focusing on delivering effective interventions have been highlighted as priorities (Tomlinson et al., 2009). The World Federation of the Deaf which represents mainly deaf people who are part of signing communities (characterized with a capital D) indicated that the Convention on the Rights of Persons with Disabilities is a powerful tool for working toward achieving human rights for deaf people. This convention is generally acknowledged as marking a paradigm shift concerning attitudes and approaches toward persons with disabilities, including deaf persons. It shifts from viewing persons from viewing them as “objects of charity, medical treatment, and social protection toward viewing persons with disabilities as subjects with rights, who are capable of claiming those rights and making decisions for their lives based on their free and informed consent, as well as being active members of society” (UN-SCRPD, 2006).

Access is a broad topic that is regularly discussed within the Deaf community. It involves access to communication, information, education and culture, as well as access to services, including to health services. Research about access to health care is generally conducted with regard to sociodemographic factors, investigating the relationship between need, provision, and utilization of health services (Gulliford et al., 2002). In migrant and ethnic minority groups, challenges in health care access have been studied in increasing numbers (Nielsen & Krasnik, 2010; Scheppers, van Dongen, Dekker, Geertzen, & Dekker, 2006). Community perceptions of health such as diverse experiences and understanding of ill-health as well as language and communication barriers have been linked to challenging health care access in culturally and linguistically diverse populations (Komaric, Bedford, & van Driel, 2012). Access to health care affects the health of deaf people and a call for action to provide better access to health services has been highlighted (Emond et al., 2015). Access to mental health services for deaf people, as well as to access to primary care for those with mental illnesses have been studied (Fellinger, Holzinger, & Pollard, 2012; Levine, 2014; Steinberg, Sullivan, & Loew, 1998; Vernon, 2005). Despite the growing number of Deaf health programs and research initiatives, accessing primary care for deaf people is often still very

challenging, even in high income countries (Pollard et al., 2014; Smeijers & Pfau, 2009; Ubido, Huntington, & Warburton, 2002). Currently, no work which summarizes global aspects on deaf people's access to health care in general could be found. This review aims to serve as a theoretical framework for Deaf communities to realize their rights not only in high income but also in middle and low-income countries.

## Search Strategy and Methods

We searched Medline, PsycINFO and the Cochrane Database of Systematic Reviews for articles published in any language. The search terms "hearing disorders," "deafness," "hearing loss-functional," "hearing loss-sensorineural," were searched in combination with the terms "delivery of health care," "primary health care," "health services accessibility." We transformed all these search terms into the correct subject headings for each selected database. If there were no applicable subject headings available, we used free terms instead in combination with truncation and field limitation. We included only peer reviewed journals and limited the search to 2000 to 2015. A total of 1557 papers were retrieved from Medline, 155 from PsycINFO and 42 from Cochrane Database of Systematic Reviews. We included literature generally known by experts, data reported by colleagues, and policy papers. We selected articles that represented our main topic of access to health care for deaf people (primarily members of signing Deaf communities) and also checked the reference lists of these articles for further appropriate publications. We mainly chose original articles, with large sample sizes of adult Deaf populations. However, due to (last search, May 9, 2015) a lack of choice in many thematic areas we included some papers with smaller sample sizes. We excluded papers dealing mainly with children, syndromes, and/ or cochlear implants. Thus this review introduces the reader to several important aspects of deaf people's access to health care.

## Results

The results of this nonsystematic review are presented in two sections. The first section summarizes key challenges faced by deaf people around the globe in gaining access to adequate health care. The second section describes key approaches to improve access to health care for deaf people by showing selected examples.

### Challenges for Deaf People to Gain Adequate Access to Health Care

#### Communication challenges

Many studies report that deaf patients encounter severe communication barriers when accessing health services (Chaveiro, Porto, & Barbosa, 2009; Harmer, 1999; Iezzoni, O'Day, Killeen, & Harker, 2004; Pereira & Fortes, 2010; Scheier, 2009; Smeijers & Pfau, 2009; Steinberg, Barnett, Meador, Wiggins, & Zazove, 2006). In the United States, it is reported that deaf patients experience fear, mistrust, and frustration in health care encounters while research in Brazil discusses a "scenario of incommunicability" among the different social actors which makes it difficult to exchange information and allow professional treatment for deaf patients (Pereira & Fortes, 2010; Steinberg et al., 2006). Communication problems experienced by Deaf and hard of hearing (DHH) people when interacting with their general practitioners (GPs) in the Netherlands are similar in their

extent and characteristics as those described for patients from ethnic minority groups (Smeijers & Pfau, 2009). Interpersonal factors, including a lack of independent thought, overprotectiveness, nonquestioning attitude, and a lack of familial communication interact with communication difficulties in a way that further hampers access to health care services in South Africa (Kritzinger, Schneider, Swartz, & Braathen, 2014). The phrase "meeting of two worlds" illustrates the challenges that different perspectives rooted in different cultures can cause in the health care system if diversity is not addressed adequately (Harmer, 1999). A study in the United States found that miscommunication occurs often between patients and their health care providers, which leads to misunderstanding in diagnostic and therapeutic aspects (Scheier, 2009). In the Netherlands, a study examining communication quality between 26 GPs and 32 of their deaf patients found that only 13% of doctors and patients evaluated their patient-GP communication as good, whereas in 39% of cases the communication was rated moderate or bad (Smeijers & Pfau, 2009). U.S. physicians surveyed deaf and hearing patients and reported significantly greater difficulties in communication with deaf patients and that deaf people are less likely to trust them and to understand diagnosis and treatment (Ralston, Zazove, & Gorenflo, 1996). A report from the United Kingdom shows that 44% of deaf patients found the last contact with their GP or health center to be difficult or very difficult compared with only 17% from a general population patient survey (NHS England, 2015; SignHealth, 2013). Getting in contact with emergency services has been a challenge for deaf people for many years. In Israel, the needs of deaf people in emergency situations are largely unknown (Tannenbaum-Baruchi, Feder-Bubis, Adini-Weisel, & Aharonson-Daniel, 2014). Research about people with disabilities in acute care settings found that the presence of a physical communication problem (deafness and blindness) was significantly associated with an increased risk of experiencing a preventable adverse event (Bartlett, Blais, Tamblyn, Clermont, & MacGibbon, 2008). Furthermore, many physicians are reportedly unaware of Deaf culture and the health needs of deaf people (Iezzoni et al., 2004; Smeijers & Pfau, 2009). This may lead to assumptions and misconceptions about deafness that undermine professional health care. For example, practitioners often believe that lip reading/speech reading and note writing provide effective health communication (Iezzoni et al., 2004). In reality, these are ineffective communication modalities for health care conversations. Deaf people who have practiced lip-reading/speech-reading for many years and who are familiar with spoken language are able to understand at best 30–45% of spoken English (Lieu, Sadler, Fullerton, & Stohlmann, 2007). Furthermore, note-writing is often constrained by deficits in health literacy and limited "fund of information" deficits (Pollard & Barnett, 2009). Smeijers and Pfau (2009) argue that treating a native signer, who might not necessarily be fluent in the local written language as if it was his/her first language, can cause serious communication problems. Zazove et al. (1993) found that DHH persons report significant difficulties communicating with physicians and feel less comfortable with them, but have higher physician utilization compared with the general population. S. Barnett and Franks (2002) report that prelingually deaf adults, similar to other language minority groups, use health care services less often, whereas postlingually deafened adults have more physician visits. Literature shows that patients with impaired hearing report lower satisfaction with health care quality and access than others (Iezzoni, Davis, Soukup, & O'Day, 2003). A recent study ( $n = 89$ ) shows that Deaf American Sign Language users consulting health providers who

use sign language have higher appropriate use of preventative services (McKee, Barnett, Block, & Pearson, 2011). Although research is limited, available studies show poor reading levels—usually not exceeding grade four—among deaf populations (LaVigne & Vernon, 2003; Traxler, 2000). A study in California pointed out that emergency preparedness materials at community based organizations were not adapted to the needs of vulnerable populations including deaf people as most materials and texts used written language higher than the recommended sixth grade level (Neuhauser et al., 2013). Taking into account that deaf health care users are a very heterogeneous group, it is also important to consider the different communication skills that patients may have. Late and/or inadequate exposure to sign language often results in what is known as language deprivation among DHH individuals (Glickman, 2007). In medical practice, language deprivation and associated language dysfluency can contribute to serious misunderstandings. A deaf patient with sign language dysfluency, is at even further risk for miscommunication with physicians than a hearing person who is not fluent in the locally spoken language, as deafness may mask communication deficits. Deafness, regardless whether seen as a disability or as a culture, creates communication barriers in health care settings (Woodcock & Pole, 2007).

#### *Lacking health knowledge*

Deaf people face more difficulty accessing health information than hearing people. Deaf sign language users do not have access to incidentally occurring information about health issues in tramways, or on the radio or TV, and there is a general lack of health information and education materials provided in sign language (Pollard, Dean, O'Hearn, & Haynes, 2009). Limited English literacy and a lack of available information in Auslan Sign Language reduce access to preventative health care information for deaf people in Australia (Napier & Kidd, 2013). Furthermore, well-educated deaf people who have completed U.S. high schools or colleges have relatively low health literacy (Pollard & Barnett, 2009). In Spain, Deaf communities are not reached by health promoting programs (Munoz, Bradham, & Nelson, 2011). Knowledge and awareness related to the spread of HIV is lacking among deaf populations in Nigeria, Swaziland, as well as among deaf adolescents in Brazil and in the United States (Bisol, Sperb, Brewer, Kato, & Shor-Posner, 2008; Goldstein et al., 2010; Groce, Yousafzai, Dlamini, Zalud, & Wirz, 2006; Groce, Yousafzai, & van der Maas, 2007). Surveying Deaf associations globally, only 41 countries reported that HIV/AIDS affects deaf people, whereas 52 country respondents said that HIV/AIDS does not affect deaf people in their countries (Haualand & Allen, 2009). Very few countries, mainly in the African and South American regions, seem to be aware that HIV/AIDS can affect deaf people. These results suggest that there is a need for awareness and information campaigning directed not only at deaf individuals, but also for associations of the Deaf (Haualand & Allen, 2009). Among a sample of 203 deaf adults in the United States, over 60% could not list any stroke symptoms, whereas in hearing adults only 30% are not able to list any stroke symptoms; only 49% of the deaf sample could list chest pain/pressure as a heart attack symptom, whereas 90% in a U.S. population-based survey could do so (Margellos-Anast, Estarziou, & Kaufman, 2006). Promisingly, deaf people in the United States who could correctly identify one cardiovascular disease (CVD) risk factor (70% out of 203) from a list of potential risk factors were more likely to know that they were at increased risk for experiencing a heart attack (Margellos-Anast et al., 2006). Unfortunately, some studies indicate that there exists a lack of appropriate sign

language terminology, such as one U.K. study which reported that British Sign language does not have a sign for the word cholesterol (Patel et al., 2011). Persons with profound hearing loss in Michigan (United States) have poor knowledge of recommended cancer prevention approaches (Zazove, Meador, Reed, Sen, & Gorenflo, 2009). To alleviate many of the health disparities experienced by Deaf American sign language users, interventions to improve health outcomes for individuals with low health literacy and limited English proficiency are essential (McKee & Paasche-Orlow, 2012).

#### *At risk for marginalization*

Deafness crosses barriers of gender, ethnicity, age, economic status, and certain Deaf groups are at further risk for marginalization (Sporek, 2014). A group of special concern is deaf women. Deaf adolescent females face unique challenges accessing web-based health information including questions about body image, physical activity and nutrition, puberty, and relationships (Smith, Massey-Stokes, & Lieberth, 2012). A study on the experiences of young women with hearing impairment in Nigeria revealed that embarrassment to ask questions in the presence of an interpreter, communication and cost were all key barriers to accessing appropriate reproductive health care (Arulogun, Titiloye, Afolabi, Oyewole, & Nwaorgu, 2013). Challenges also exist in high income countries and the need for enhanced accessibility to health care for pregnant deaf women has been highlighted by several studies (Equy, Derore, Vassort, Mongourdin, & Sergent, 2012; Parsons, 2013; Sporek, 2014). In Cheshire (United Kingdom), Ubido et al. (2002) found that deaf women face a lack of information on such matters as sex education, contraception, and childbirth. There is a lack of health knowledge regarding cancer screening, mammography, and Pap smears as well as a lack of understanding about the purpose of prescribed medications or the implications of other medical or surgical interventions (Steinberg, Wiggins, Barmada, & Sullivan, 2002). A study ( $n = 203$ ) conducted in Chicago showed low knowledge of medical tests and their purpose: only 48% of female respondents were able to define the term “Pap smear” (Orsi, Margellos-Anast, Perlman, Giloth, & Whitman, 2007). According to a community-based survey ( $n = 123$ ), deaf women in California have insufficient knowledge about breast cancer (Berman et al., 2013; Sadler et al., 2001).

Access to general health care for deaf ethnic minorities might be even more challenging than for majority deaf populations. Some factors that complicate access to health care are communication barriers, limited financial resources, and racism (Shah & Priestley, 2001). In western societies appropriate medical services designed to meet the specific needs of aging populations are a concern. Participatory research within deaf communities about deaf aging individuals has been conducted recently. Results suggest poor levels of knowledge regarding dementia in Deaf groups as well as ill-equipped primary care when it comes to the needs of deaf people with dementia (Ferguson-Coleman, Keady, & Young, 2014). Understanding dementia from a culturally deaf perspective might have implications for further public engagement in the United Kingdom (Young, Ferguson-Coleman, & Keady, 2014). Access to health care for deaf people with multiple and intellectual disabilities was not found to be discussed in the literature so far.

#### *Summary*

Existing literature reports significant challenges in establishing satisfying communication between deaf people and health care professionals as well as serious lack in health knowledge and

literacy on different levels across countries in various Deaf communities. Deaf minority groups such as women, ethnic minorities, and elderly deaf individuals might be at particular risk for disparate health care treatment. Low socioeconomic status, lack of education, and additional communication constraint factors require special attention in order to establish novel approaches to providing health services.

### Approaches to Improve Access to Health Care for Deaf People: Resources Helpful for General Health Care Systems

This section aims to provide ideas of how to improve access to medical treatment by showing selected examples of published projects.

#### Attention to the communication preferences of deaf people

In a large scale research about the preferred communication mode of DHH people in clinical settings in the United Kingdom, 50% of the sign language users preferred to communicate via sign language interpreters, whereas 43% preferred to only have a consultation directly with signing health professionals; 7% agreed to accept communication with doctors using speech, as long as they are aware of deaf issues (Middleton, Turner, et al., 2010). In Florida, deaf adults showed an overwhelming preference for seeking mental health services from sign-proficient health professionals whereas younger deaf persons were slightly more open to the use of interpreters (Feldman & Gum, 2007).

#### Sign language interpretation

Professional sign language provision in medical settings is still challenging and complex, even in countries where deaf people have the legal right to effective communication in health care settings (Henning et al., 2011; Iezzoni et al., 2004). Research in Germany with deaf participants ( $n = 841$ ) showed that 41% have experience with an interpreter in the medical setting. Most of the respondents reported minimal hassle during reimbursement of costs but 31% reported that they were not informed of their legal rights to a sign language interpreter (Höcker, Letzel, & Münster, 2012). Smeijers and Pfau (2009) report that most people in the Netherlands do not bring an interpreter when they visit their GP; difficulties in finding an interpreter on a short notice were reported as the main reason. Furthermore, they often do not want to hire an interpreter for a short consultation, as they have only limited interpreter hours each year paid by the government of the Netherlands. A survey from New Zealand showed that 39% of deaf adults ( $n = 86$ ) felt that they were unable to adequately access interpreter services; this outcome was also correlated with worse quality of life (Henning et al., 2011). For patients with limited English proficiency, the use of professional language interpreters is correlated with improved clinical care, and deaf patients report positive experiences in health care encounters when medically experienced professional sign language interpreters are present (Karlner, Jacobs, Chen, & Mutha, 2007; Steinberg et al., 2006). In New Zealand deaf people's access to professional interpreters is associated with access to health services, engagement in leisure activities, gaining more information and living in a healthy environment (Henning et al., 2011). Health maintenance organizations in California (United States) have improved efforts to promote and evaluate sign language interpreter services for the Deaf community (Moreland, Ritley, & Romano, 2011). Overall in the United States, Dean and Pollard recognize the complex human interaction factors in the

translation process, and have successfully implemented innovative concepts regarding sign language interpretation in the medical field (Dean & Pollard, 2001, 2005).

#### Communication technology

In recent years, deaf people have benefited from the prospects of modern information technology when accessing services. Minicams and text-phones are now widely used, and the availability of web facilities in various places are not only helpful when accessing health services, but also provide more autonomy for deaf individuals familiar with these techniques. Technology that allows texting communication with regular phones is another recent development. It enables deaf people to make initial contact by telephone (through voiced text messages) and continue any conversation by SMS. Many other for-profit technical assistance services are offered to deaf people who can afford it. Nevertheless, in many cases, deaf people report that it is still not possible to use email to reach their GPs for making appointments or asking short questions, as many services are just available via telephone (Smeijers & Pfau, 2009). When discussing communication technology, it is also important to bear in mind that 57.7% of the world's population does not have access to the internet (Internet World Stats, 2014). Telemedicine is another development, which recently has provoked broad interest. It can provide wide reaching access to resource centers, offering web communication with signing experts. Several recent studies discuss the application of telemedicine in different medical fields (Alverson et al., 2008; Austen & McGrath, 2006; Lancaster, Krumm, Ribera, & Klich, 2008; McCarthy, 2010; McCarthy, Muñoz, & White, 2010; Wilson & Wells, 2009). The Auslan Medical Signbank is another innovative approach to improving health outcomes for deaf people by fostering an "effective, accepted, and shared sign language vocabulary for the discussion of medical and mental health issues by deaf clients and health professionals in interactions mediated by Auslan interpreters" (Johnston & Napier, 2010).

#### Cultural competency training for medical staff

Cultural competency training contributes to better health service accessibility for the deaf. A role reversal exercise project conducted by deaf people in which first year pharmacy students had to perform various medical care related tasks showed that 97% of the student participants agreed that the experience would likely impact their attitudes in future interactions with non-English-speaking patients (Mathews, Parkhill, Schlehofer, Starr, & Barnett, 2011). Deaf cultural competency training for medical staff has significantly increased skills in caring for Deaf community members, thereby reducing health care disparities (Hoang, LaHousse, Nakaji, & Sadler, 2011). The problem of how to apply usual clinical assessment tools is addressed by a recent study which discusses the use of pain scales among deaf patients (Palese, Salvador, & Cozzi, 2011). Health care providers should facilitate bonds with patients to ensure user access and need to allow extended appointments for hearing impaired patients (D. D. Barnett, Koul, & Coppola, 2014; Tedesco & Junges, 2013). The implementation of transcultural methods to narrow the cultural gaps between hearing and nonhearing participants in the health sector is suggested (Fileccia, 2011). To recognize individual communication limits and to deal effectively with the cultural and linguistic challenges which often occur when people with different backgrounds or perspectives come together, it is vital that health care professionals acquire more education on Deaf culture and on how to communicate with the deaf

(Middleton, Niruban, Girling, & Myint, 2010). Finally community participatory research allows the identification of health priorities of the Deaf community (S. Barnett et al., 2011)

### Approaches to Improve Access to Health Care for Deaf People: Resources Specifically for Deaf Communities

This section aims to discuss resources, including educational programs and establishment of resource centers, specifically designed to improve access to health care for deaf people via a review of selected examples of published works.

#### Initiating health education among the deaf

Studies highlight the value of health education programs specifically targeted at the deaf and health education material for deaf audiences (Choe et al., 2009; Kaskowitz, Nakaji, Clark, Gunsauls, & Sadler, 2006; McKee et al., 2011; Pollard et al., 2009; Sadler et al., 2001). Video-based intervention is supposed to be an effective educational tool for reaching the Deaf community with cancer information (Harry et al., 2012; Hickey et al., 2013; Sacks et al., 2013; Shabaik et al., 2010). Deaf women benefit from cancer education programs that address their cultural background (Choe et al., 2009; Huang, Tsai, & Kung, 2012; Jensen et al., 2013; Sadler et al., 2001; Wang et al., 2010; Yao et al., 2012). Furthermore, through specially targeted intervention strategies, women are much more likely to access and to use health services, as well as to promote health issues within the Deaf community (Steinberg et al., 2002). To promote access to health care DHH youth in France have successfully been provided with internet training workshops (Legeay & Saillard, 2013). In South Africa, many disability organizations recognize the importance of accessible HIV education, but people with disabilities are nonetheless still largely excluded from HIV prevention education as well as from access to general health care for testing and treatment (Rohleder, Braathen, Swartz, & Eide, 2009). In Kenya, some deaf-friendly Voluntary HIV Counselling and Testing Services (VCTs) have been successfully established and peer education for transmitting information has been found to be a suitable model for general HIV prevention efforts and promotion of HIV treatment in the Deaf community (Taegtmeier et al., 2009). A deaf heart health intervention (train-the-trainer community health worker approach) in the United States showed a significant increase in self-efficacy regarding modifiable CVD risk factors such as nutrition, psychological well-being/stress management, physical activity/exercise, and responsible health practices (Jones, Renger, & Kang, 2007). In the United Kingdom, on the other hand, Patel et al. (2011) found that a CVD risk assessment with associated health promotion after a 6-month follow-up did not reduce coronary heart disease risk estimates.

#### Primary health care centers for deaf people

The wide reaching implementation of good and available primary care is an important public health approach in various countries. Especially in low and middle income countries (LAMIC) efforts have been made to integrate provision of special health care into general community health care services, and a high quality research paper about health and people with disabilities has recently highlighted work toward optimum strategies to integrate their needs into primary health-care systems (Tomlinson et al., 2009; WHO, 2011). Below, we present examples of how primary health care centers for deaf people can become useful platforms for access to specialized care. In Austria, Health Centers for the Deaf are attached to general hospitals and provide complete access to health care for deaf individuals by competent staff who are familiar with Deaf culture and able to communicate

in sign language and or other modes according to the need of their patients on a one to one basis (Fellinger & Holzinger, 2014; Fellinger, Holzinger, Schoberberger, & Lenz, 2005). For many deaf people in Austria these Health Centers have become their primary care facility, while others from far away come only for regular preventive health check-ups. These preventative health check-ups have proven to be important tools for individual health education. Specific health education programs are also provided for special target groups like deaf people with diabetes. Regular health education days convey relevant information to the Deaf community as a whole. Mental health care and social work is also offered within the framework of the Health Center for the Deaf, following the concept which is established in Linz, Vienna, Graz, and Salzburg. In Linz, special programs are provided for elderly deaf people and for deaf people with special needs as well as for parents of deaf children. As the services are connected to general hospitals the patients can be easily referred to the complete range of facilities, accompanied by signing staff when necessary.

In France, dedicated ambulatory services for primary health-care of the deaf people are provided that are well accepted and show benefits for the Deaf community (Amoros, Bonnefond, Martinez, & Charles, 2014).

#### Useful Documents

“Human right to health” could be regarded as an unrealistic call when the reality on the ground is studied. However, bottom up initiatives by primary health care providers can often only be implemented if legal requirements and subordinate systems ensure that the way is clear for change. It is important that practitioners as well as Deaf community members acknowledge guidelines promoted on different levels, including national statements and declarations as well as international human rights documents as tools with implications for clinical practice, politics, and society. Identified research priorities (Tomlinson et al., 2009; WHO, 2011) as well as recommendations from National Associations of the Deaf and transnational health working groups (Table 1), can be regarded as roadmaps for how to advance competence, including deaf issues. In the United States, Barnett et al. (2011) provides comprehensive recommendations for public health regarding deaf health. Declarations on access to health care for deaf people (Table 1) reinforce deaf people’s human right to health. The Convention of the Rights of Persons with Disabilities enhances the development of national disability law, as article 25 reinforces the right of persons with disabilities to enjoy the highest attainable standards of health service provision and care without discrimination (UN-SCRPD, 2006).

#### Summary

Participatory research, such as deaf people’s preferred communication mode could bring more light to what deaf people expect from health care providers. Literature indicates that deaf people favor communication in sign language either with signing professionals or via skilled sign language interpreters. Empirical data about telemedicine is still not sufficient but promising. Various programs provide health education for deaf people for instance on HIV. Cultural competence training for health care professionals and specialized primary health care units for deaf people seem to be effective.

#### Conclusion

The findings of this review indicate that health needs among deaf populations globally remain unmet. Interventions to

**Table 1.** Right to health for deaf people: useful documents

Austria 2003 ( <a href="#">ESMHD, 2011</a> )	Bad Ischl Declaration	<ul style="list-style-type: none"> <li>• All states should legally approve the use of Sign Language.</li> <li>• European decision makers have to ensure that European states recognize the right of deaf people to accessible health information, and access and communication as vital for obtaining informed consent.</li> </ul>
South Africa 2005 ( <a href="#">Worcester Declaration, 2005</a> ).	Worcester Declaration	<ul style="list-style-type: none"> <li>• All African countries should legally recognize Sign Language (s) and respect the rights of deaf people, focusing on their right to health information, health care and informed consent</li> </ul>
Swaziland 2011 ( <a href="#">Africa Contact Group for Mental Health and Deafness, 2011</a> )	Africa Deaf Declaration 2011	<ul style="list-style-type: none"> <li>• Urges to provide accessible communication in the deaf person's own language</li> <li>• Calls African countries to ratify the CRPD and to include deaf people in decision making processes</li> </ul>
United Nations 2006 ( <a href="#">UN-SCRPD, 2006</a> )	Convention of the Rights of Persons with Disabilities (CRPD)	<ul style="list-style-type: none"> <li>• Enhances the development of national disability law</li> <li>• Article 25 reinforces the right of persons with disabilities to enjoy the highest attainable standards of health service provision and care without discrimination</li> </ul>
World Health Organization 2011 ( <a href="#">WHO, 2011</a> )	World report on disability	<ul style="list-style-type: none"> <li>• Comprehensive guideline for better information and (health) service provision for all people with disabilities, including deaf people</li> </ul>
Kenya 2014 ( <a href="#">International Disability Alliance, 2014</a> )	Nairobi Declaration	<ul style="list-style-type: none"> <li>• Reinforces a development agenda for persons with disabilities in Africa.</li> <li>• Addresses to ensure accessibility and adequacy of health care as well as inclusion of persons with disabilities in health insurance mechanisms.</li> </ul>
Sign Health, United Kingdom ( <a href="http://www.signhealth.org.uk/for-health-professionals/prescriptions-for-change/">http://www.signhealth.org.uk/for-health-professionals/prescriptions-for-change/</a> )	Prescriptions for change	<ul style="list-style-type: none"> <li>• Gives advice for GPs, all doctors, nurses and support staff on how to work with deaf clients</li> </ul>
United States, the Joint Commission 2010 ( <a href="#">The Joint Commission, 2010</a> ).	A Roadmap for Hospitals	<ul style="list-style-type: none"> <li>• Provides support for advancing effective communication, cultural competence, and Patient-and Family centered care</li> </ul>
NAD, United States ( <a href="http://nad.org/issues/health-care/position-statement-health-care-access-deaf-patients">http://nad.org/issues/health-care/position-statement-health-care-access-deaf-patients</a> )	Position statement On Health Care Access for deaf patients	<ul style="list-style-type: none"> <li>• Provides guidelines for the Health Care Provider on communication and other relevant support for health care settings working with the deaf</li> </ul>

reduce inequalities and to ensure that deaf people have access to professional health services and treatment remain priorities. With respect to the full workload of GPs, resources for further training in deaf awareness are limited. Therefore, nursing and medical students in training should be made aware of and be competent in meeting the special needs of deaf people. It is important to point out that many deaf people might experience their everyday lives as more challenging compared with hearing individuals, but have significantly fewer opportunities to access suitable information about health prevention, treatment, or care. Furthermore, the literature available focuses mainly on high-income countries. It is therefore important to bear in mind that many deaf people, especially in low and middle-income countries, are suffering from much greater health disparities than presented here. Through international platforms, such as the World Federation of the Deaf, examples of good practice in the field of health care for deaf people can be shared and can stimulate a process that leads to a continuous development of legal and practical measures, including increasing numbers of

deaf experts in the medical field. This will allow deaf people to realize their full human rights, which include their health.

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