

Phase 3:

Consumer Interests and Perspectives

VRS Feasibility Study

Mission Consulting

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CONSUMER INTERESTS AND PERSPECTIVES

EXECUTIVE SUMMARY

1. Overview

This research summary represents the findings of the third of twelve phases of a study commissioned by Bell Canada (Bell). The feasibility study was commissioned by Bell as part of a deferral account proposal. The objective of the feasibility study is to provide information to facilitate informed decisions regarding potential regulations and implementation of Canadian video relay service (VRS). Bell engaged Mission Consulting to conduct an independent and comprehensive study of the feasibility of VRS for Canada. The final feasibility report will draw, in part, on information contained in this research summary.

This Phase 3 research summary, *Consumer Interests and Perspectives*, provides a synopsis of information pertaining to potential Canadian VRS consumers. This synopsis includes:

- ☑ Background history of Deaf culture and communication forms
- ☑ Cultural attitudes and public education/outreach for VRS
- ☑ Identification of potential VRS consumers, population and demographics
- ☑ User group viewpoints and perspectives of VRS
- ☑ Overview of individual consumer population

The research for Phase 3, *Consumer Interests and Perspectives*, included creation and distribution of a questionnaire specific to consumer advocacy organizations. The questionnaires were sent via email to the respective organizations with instructions to collect information from all interested parties within the organization, but to return only one completed questionnaire representative of the entire organization. Several of these organizations were then contacted for interviews and consultations regarding a variety of information pertaining to VRS for Canada. The opinions and concerns of these stakeholders are summarized in this report to provide information about potential areas of significance regarding consumer perspectives for VRS in Canada. In order to obtain information directly from consumers an online survey was administered and significant findings are also summarized in this report. The information in this research summary is meant to express the opinions of the Deaf and hard of hearing and their advocacy groups, as gathered from interviews, questionnaires, discussions and surveys.

2. Summary Findings

Salient points of this analysis of consumer interests and perspectives for VRS include the following:

- Potential VRS consumers make up a diverse group of individuals, often with divergent viewpoints.
- Sign language users are a linguistic and cultural minority desiring equal access to communications enjoyed by hearing individuals.
- No accurate estimates of the Canadian Deaf and hard of hearing communities exist.
- Education, cultural identity, type of hearing loss, and age of onset of hearing loss are all factors influencing communication preferences of potential VRS users.
- Different forms of communication are controversial amongst various stakeholders.
- Consumers desire a VRS that balances access with the availability of community interpreting.
- Stakeholders believe community education and outreach will be needed for VRS.
- Stakeholders report a shortage of qualified interpreters across Canada.

3. Conclusion

The provision of a relay service that utilizes the natural language of the Deaf community reduces the impact of communications and cultural barriers between the Deaf and hearing populations. Video communication represents a vast improvement over text-based communication for people who use signed languages, allowing them to converse naturally, convey emotional context, and share non-verbal cues and information that typically does not occur with text based communication. Removing the obstructions to equal access to information and people allows visual communicators the ability to participate more fully in society, and as such society benefits from that participation. Consumer advocacy organizations consulted for this study may have divergent viewpoints, but all unanimously agree that VRS will have a beneficial impact on their community and society as a whole.

As indicated by the group questionnaires and online survey responses, the inclusion or exclusion of various modes of communication in addition to ASL and LSQ will continue to be a controversial topic. However, there are no significant barriers to including many other forms of visual communication in VRS other than interpreter availability. Impact upon the availability of interpreters for community interpreting is a significant concern.

The demand for VRS and the number of potential users indicated by the survey results suggest that most types of usage can be accommodated by qualified sign language interpreters (ASL and LSQ).

VRS is a service that is primarily provided to the Deaf community, which means that their involvement is crucial for successful deployment. Again, the advocacy groups all agreed on the importance of involving the users in the Canadian VRS implementation and operations.

Consumer Interests and Perspectives

RESEARCH SUMMARY

1. The VRS Feasibility Study

This research summary represents the findings of the third of twelve phases of a study commissioned by Bell Canada (Bell). The feasibility study was commissioned by Bell as part of a deferral account proposal. The objective of the feasibility study is to provide information to facilitate informed decisions regarding potential regulations and implementation of Canadian video relay service (VRS). Bell engaged Mission Consulting to conduct an independent and comprehensive study of the feasibility of VRS for Canada. The final feasibility report will draw, in part, on information contained in this research summary.

The twelve phases of the study are:

- Phase 1 Project Confirmation
- Phase 2 Legal Background for Canadian VRS
- Phase 3 Consumer Interests and Perspectives
- Phase 4 VRS Models in Other Countries
- Phase 5 Technologies and their Forecasts
- Phase 6 Interpreter Considerations
- Phase 7 Quality of Service
- Phase 8 Potential Related Services
- Phase 9 Forecasts of VRS User Demand
- Phase 10 VRS Cost Variables and Forecasts
- Phase 11 Potential Canadian VRS Models
- Phase 12 VRS Feasibility Study Report

This Phase 3 research summary, *Consumer Interests and Perspectives*, provides a synopsis of a variety of information pertaining to potential VRS consumers and is closely related to the research from Phase 6 *Interpreter Considerations*. This synopsis includes:

- Background history of Deaf culture, education, and communication forms
- Identification of potential VRS consumers, population and demographics
- Cultural attitudes and public education/outreach
- User group representative organizations viewpoints and perspectives

2. Background and Methodology

The understanding of consumer interests and their perspectives is critical to establishing a Video Relay Service to meet their needs and expectations.

This phase 3 research summary, *Consumer Interests and Perspectives*, provides a brief background into the Deaf culture and the feedback provided by Deaf Canadians who use ASL and LSQ, those who are hard of hearing, and also includes some who have had experience with VRS. The information in this research summary is meant to express the opinions of the Deaf and hard of hearing and their advocacy groups, as gathered from interviews, questionnaires, discussions and surveys. To obtain the consumers' feedback, a twofold data gathering methodology was employed.

The first approach involved the creation and distribution of a questionnaire specific to consumer advocacy organizations. A list of appropriate organizations and their contacts was developed with the assistance of the VRS Advisory Committee. To complement the distributed surveys, many organizations also participated in consultations and discussions conducted in ASL or spoken language throughout the research. Furthermore, on-site interviews were also conducted with consumer organization representatives, in both one-on-one and in group meetings. Twenty-two questionnaires were received out of 34 resulting in a 65% response rate from these advocacy organizations across Canada, representing the vast majority of potential VRS users. A synopsis of the advocacy organizations' completed questionnaire responses is provided in section 5 of this research phase. Appendix A lists those consumer organizations and individuals who participated in the questionnaires, meetings and discussions.

The second approach gathered information directly from potential individual VRS consumers via an online survey provided by Bell Canada through its research contractor, IPSOS. The survey gathered data related to potential user demographics, current communication forms, and interest in VRS, among other topics. In order to qualify, respondents were required to identify themselves as deaf, hard of hearing, or speech impaired. In total 1,299 Canadians participated in the survey. An overview of the information collected from the online survey is provided in section 6 of this research phase.

This phase of the VRS Feasibility Report, *Consumer Interests and Perspectives*, references and relies upon information contained in other research phases. These include phase 4 – *VRS Models in Other Countries*, phase 6 – *Interpreter Considerations*, and phase 7 - *Quality of Service*. As with these other research summaries, any relevant issue related to consumers' perspectives that is subsequently identified as being applicable to a Canadian VRS model may be incorporated into the final phase 12 VRS Feasibility Report.

While the Deaf community is a diverse culture, with well informed consumers who often disagree with one another, this report is intended to provide their experiences, requirements and opinions so that they may be considered in the planning discussions related to the future of VRS in Canada.

3. Deaf Culture and Communication

The natural language of Deaf people all over the world is Sign language. Different sign languages exist in all parts of the world and although not all are recognized as official languages, the trend is evolving towards official language status. Sign language users are a linguistic minority because signed languages possess linguistic features that differ from the spoken language of the majority population. The spoken language/ hearing majority population tends to identify people who are Deaf as disabled instead of as a linguistic and cultural minority.

When a majority population marginalizes a minority population based on race or skin color it is often referred to as racism. For the Deaf community, when they feel their language or culture is being marginalized they refer to the experience as *Audism*:

*Audism appears in the form of people who continually judge deaf people's intelligence and success on the basis of their ability in the language of the hearing culture. It appears when the assumption is made that the deaf person's happiness (quality of life) depends on acquiring fluency in the language of the hearing culture.*¹

3.1. History of Signed Language and Deaf Education

While VRS may be used to assist in speech reading² and other communications, its primary application is for sign language communications with the Deaf. In order to understand the significance of VRS to the Deaf community and VRS's enabling them to communicate in their primary language, one should consider the history of Deaf education and the challenges of linguistic minorities.³ The following is an abbreviated summary of the complex evolution of Deaf educational communication methodologies and the use of sign language.

In Canada there are two recognized sign languages: American Sign Language (ASL) and Langue des Signes Québécoise (LSQ). The history of these two languages dates back to the 1800s. Both are derivatives of French Sign Language (LSF). Due to the success of LSF in educating the Deaf in France, educators from the United States became interested in these methods. A U.S. minister, Thomas Hopkins Gallaudet, went to France in the early 1800's to learn methods for teaching the Deaf. He brought back Laurent Clerc, a teacher who was himself deaf and was trained in LSF. In 1817, the first school for the Deaf was opened in Hartford, Connecticut, where Clerc adjusted the "manual French" to English and began teaching this to all the hearing teachers at the school. The language he taught was then combined and influenced by the home signs and manual representations that the Deaf students

¹ Bauman, H-Dirkesen. *Audism: Exploring the Metaphysics of Oppression*. 2004.

² Speech reading is also referred to as "lip reading".

³ Ladd, Paddy. *Understanding Deaf Culture: In Search of Deafhood*. 2007 Pg. 11-17.

coming to the school brought with them. Most Deaf people that came to school were already using some form of sign language with other Deaf individuals. These influences generated new signs and furthered the development of the language into American Sign Language. Meanwhile, the Education Committee of the House of Assembly of Lower Canada sent a hearing individual named Ronald MacDonald to the Hartford school to learn current methods for educating the Deaf. MacDonald then founded the first Canadian school for the Deaf in Québec in 1831. The children were educated in the language they used at home, either French or English. However, the school experienced financial challenges and due to lack of funding closed in 1836.⁴

The Catholic Church then led the effort to educate Deaf children from francophone families in Québec by establishing two schools.

“Boys and girls were educated in separate residential schools...some teachers obtained texts on the Langue des Signes Francaise (LSF) that was used in France to educate deaf children. The deaf children also taught the clergymen and nuns the sign language of the Québec French Deaf community...In contrast to the religious brothers who taught the deaf boys, many of the first nuns who taught at the girls’ school had been educated in the United States and had picked up some of the signs used there as well; they tended to modify the French language with some ASL. Thus, the boys were enrolled in what could be called an “unofficial” LSF-LSQ environment, while the girls lived in a setting that more frequently (at least in the early days) used a combination of LSQ and ASL.”⁵

Schools for the Deaf flourished in Europe, America, and Canada during the 19th century, which is sometimes referred to as the golden era of Deaf education. For the first time many Deaf children were completing elementary education via instruction in their natural and innate visual languages. In 1864, Abraham Lincoln signed a law founding the first college in the world for Deaf students, which eventually became Gallaudet University. Several students would graduate and become teachers of the Deaf themselves, thus passing on and preserving their languages.⁶ At the time of Clerc’s death in 1869 over 1,500 students had graduated from Hartford, and approximately 30 residential schools for the Deaf were operating in the U.S. with a combined total of 3,246 students, and 187 teachers of which 42% were Deaf.⁷ As schools for the Deaf were established in Canada, many former Hartford students became teachers at the Canadian schools.⁸

⁴ Carbin, Clifton. *Deaf Heritage in Canada*. 1996. Pg.52-54.

⁵ Ibid. Pg 322-323.

⁶ Lane, Harlan, and Robert Hoffmeister, and Ben Bahan. *A Journey into the DEAF-WORLD*. 1996. Pg.59-61

⁷ Ibid. Pg.55-59.

⁸ Carbin, Clifton. *Deaf Heritage in Canada*. 1996. Pg.52-54.

However, during the late 19th century hearing educators became convinced that Deaf children should learn speech in order to benefit from what they considered the advantages of the majority language. This marked the beginning of polarization between those who support sign language (manualists) and those who support spoken language (oralists). Hearing educators at the time believed that sign language lacked proper grammar, and in order to fully integrate Deaf persons into society, only spoken language should be taught. The debate over the superiority of oral instruction over manual instruction for the Deaf continued and culminated in 1880 at the Milan Conference. This was an international conference organized to analyze the differences between teaching methodologies and to determine which was superior. 165 educators of the Deaf from all over the world were in attendance, all of whom were hearing individuals. The majority (87.5%) of delegates were from Italy and France where the oral methods were most popular. Everyone except the American delegates voted in favour of the following resolution, which bestowed superior status to the oral method and discouraged or removed the use of sign language in Deaf education.⁹

“The Convention, considering the incontestable superiority of speech over signs, for restoring deaf-mutes to social life and for giving them greater facility of language, declare that the method of articulation should have preference over that of signs in the instruction and education of the deaf and dumb;

Considering that the simultaneous use of signs and speech and lip reading and precision of ideas, the convention declares that the pure oral method ought to be preferred.”¹⁰

The ramifications of the Milan Conference were felt immediately in Canada.

“Oralism became the mandated policy in Canadian deaf education, and teacher and children were prohibited from signing in most classrooms. Deaf teachers lost their jobs as more and more hearing instructors, who could teach “articulation”, were hired.”¹¹

In 1867, thirteen years before the Milan Conference, the U.S. had 26 schools for the deaf using ASL and with a majority of Deaf teachers. By 1907, there were 139 U.S. schools for the Deaf with none using sign language. These schools focused on speech training taught by hearing teachers. Many hearing educators at the time believed that signing interfered with the ability to learn speech.¹²

In the U.S. a leader of the oralist movement was Alexander Graham Bell, who in 1890 founded the “American Association to Promote the Teaching of Speech to the Deaf” (now the Alexander Graham Bell

⁹ Lane, Harlan, and Robert Hoffmeister, and Ben Bahan. *A Journey into the DEAF-WORLD*. 1996.. pg. 61.

¹⁰ Ibid.

¹¹ Carbin, Clifton. *Deaf Heritage in Canada*. 1996. Pg.322

¹² Lane, Harlan, and Robert Hoffmeister, and Ben Bahan. *A Journey into the DEAF-WORLD*. 1996. Pg.59-61

Association). A goal of this association was to incorporate Deaf people into the hearing society.¹³ One of the motivations at this time was Nativism, the belief that immigrants threatened the American culture. Those who used a different language and subscribed to different cultural customs were seen as a threat and should be assimilated into the culture of the general population. Integration into the general population was of paramount importance and considered even more important than the child's academic achievement. This focus led to reduced numbers of Deaf students achieving academic success.

*"The academic and occupational achievements of Deaf people declined in tandem with the loss of Deaf teachers and Sign-based instruction. This decline is literally visible in the business and casual correspondence and in the publications of, for example, the Canadian Association of the Deaf. Papers from its leaders – who were educated at Deaf schools up to the time of World War II reveal a formidable vocabulary and a perfect command of English with impeccable grammar, punctuation, and spelling. A study of papers produced by its leaders educated after World War II uncovers a Grade Three or Four level of literacy skills and an impoverished vocabulary."*¹⁴

The effects of the Milan Conference and oralism are still reflected today in the high unemployment, underemployment, and illiteracy rates amongst the Deaf population.¹⁵

In spite of these challenges sign language has persevered as the natural language of the Deaf. Deaf people continued to use and learn sign language in their homes, outside of the school environment, and from other Deaf signers. They also continued to marry Deaf spouses and socialize with each other, enjoying each other's company, the ease of communication, and thus preserve their culture and language. The benefits of a natural language and the recognition of sign language as an official language with linguistic and grammatical properties similar to all other languages has helped bring about changes to the education system; however these changes are slow and challenged by audist systems.¹⁶ Studies have shown that the Deaf child who learns sign language in the home and begins school fluent in sign language consistently surpasses those Deaf students who have not been exposed to a visual language at an early age.¹⁷

In 2010, the International Congress on Education of the Deaf (ICED) held their 21st conference. The resolutions of the 1880 Congress that removed sign languages 130 years earlier were officially rejected and an apology was issued acknowledging the detrimental effects of those resolutions. Parents of Deaf

¹³ Ibid. Pg.62

¹⁴ Roots, James. *The Politics of Visual Language* 1999. Pg.31.

¹⁵ Ibid. Pg. 46. At page 31 Roots quotes a source stating that the 1998 rate of functional illiteracy [reading and writing] among Deaf Canadians may be as high as 65 percent.

¹⁶ Lane, Harlan, and Robert Hoffmeister, and Ben Bahan. *A Journey into the DEAF-WORLD*. 1996. Pg.93

¹⁷ Lane, Harlan. *The Mask of Benevolence*. 1999. Pg 138.

children have received variable advice on how to educate their children for over a century. Methods of education have changed over the years and while many educators have acknowledged the benefits of visual language, others still cling to the notion that visual language is detrimental to the development of speech. Sign language is still banned in some schools that educate the Deaf. Due in part to linguistic research on the properties of ASL in the 1960s, signed languages have recovered some lost ground in the education process. However, the signing that was brought into the classroom tended to be simultaneous speech and sign, which is not a true representation of the native ASL.

“When signing did return, what commonly occurred was the simultaneous use of speech and sign vocabulary rather than the “combined method” of the 1800s (in which the two languages – spoken English and ASL – were kept separate). In addition, artificially contrived, English-based sign systems that developed in the 1960’s and 1970’s found their way into the Canadian classrooms in place of ASL. These manually coded English (MCE) systems were intended to help deaf students learn to read and write English...In the 1970s, artificial, English based signing systems were promoted at schools for Canadian deaf children from Anglophone families. These manual codes for English were imported from the United States. Likewise, Signed French systems were promoted for Québec’s francophone students. Today, the controversy over the use of natural sign language or an artificial system in the classroom still exists among educators of French-using deaf children.”¹⁸

In the early 1990’s an educational philosophy developed that promoted using ASL or LSQ as the primary language for teaching while also teaching English or French in written form, as opposed to an emphasis on spoken form. This philosophy is referred to as the bilingual/bicultural educational environment.

Current educational approaches to communication include the following:¹⁹

Table 1: Educational and Communication Options Summary²⁰

Educational and Communication Options Summary
<p>Auditory-Oral Method</p> <ul style="list-style-type: none">• Focus is on learning to speak well enough to communicate clearly• Goal is to learn speech and ability to read lips• Child will have hearing aids or cochlear implants as these are important to oralism• Success depends on level of hearing ability and enhanced technology

¹⁸ Carbin, Clifton. *Deaf Heritage in Canada*. 1996. Pg.323

¹⁹ Schwartz, Sue. *Choices in Deafness; A Parent’s Guide to Communication Options*. 2007.

²⁰ <http://www.raisingdeafkids.org/help/>

Educational and Communication Options Summary

Auditory-Verbal Method

- Focus is on teaching child to listen and learn speech through listening
- Goal is to listen effectively without lip reading
- Child must have hearing aids or cochlear implants as these are critical components
- Success depends on amount of residual hearing, effectiveness of listening aids, and early diagnosis of hearing loss

Cued Speech

- Focus is on teaching speech through visual representation of speech sounds (i.e. phonemes)
- Goal is to understand and produce speech and enhance lip reading ability
- Uses 8 hand shapes combined with position to cue pronunciation. Cannot stand alone must be accompanied by mouth movements.
- Not a language, but a tool to transmit spoken language and improve literacy

Bilingual-Bicultural

- Focus is on teaching Sign language (e.g. LSQ, ASL) as a first language and French or English as a second language
- Goal is to provide a solid foundation in Deaf child's natural language and provide access to second language through the first language
- Spoken language may be incorporated if appropriate

These options show the variation that still exists when deciding how to educate a child with hearing loss. Furthermore, the environment a child is educated in and the communication options that child is exposed to will have an effect on the way that individual chooses to communicate, and what group he or she identifies with.

3.2. Cultural Group Identification

One of the challenges Deaf people face in preserving their culture is that approximately 90% of Deaf children are born into hearing families, and most Deaf parents have hearing children. Furthermore, not all Deaf individuals are born Deaf, some become deaf later in life, thus acquiring some spoken language ability. Also, many hard of hearing people, with varying levels of residual hearing and differing ages of onset, are often included in population statistics of the Deaf community. The inclusion of all these individuals often leads to confusion over communication preferences, cultural identification, and definition of deafness.

The marginalization of the Deaf through attempts to assimilate them into spoken language culture is often done by well intended hearing individuals. These hearing individuals are unwittingly acting as

instruments of a system that perceives deafness as an inferior state of being compared to hearing. For example, the invention of cochlear implants is seen by non-deaf people as a way to fix or cure deafness. In contrast, for many Deaf people attempts to fix or cure deafness represent a threat to their language, culture and identity. The problem lies in perspectives of what it means to be deaf, which typically refers to the inability to hear or a deficit in hearing.²¹

The hearing view of deafness is directly related to hearing loss and deaf people are categorized based on the degree of hearing loss (e.g. severe to profound), while the term “hard of hearing” refers to someone with mild to severe hearing loss.²² The focus is on the medical definition related to decibel loss and is determined to be a disability. On the other hand the Deaf viewpoint is quite different with an emphasis on the cultural and linguistic aspects of being Deaf. Deaf with a capital “D” refers to the cultural identity and deaf with a lower case “d” refers to the medical or disability definition.²³

“From a Deaf perspective an individual can refer to himself or herself as Deaf while having enough residual hearing to converse on the telephone. Conversely, someone who has a profound hearing loss may refer to himself or herself as hard of hearing. How, you might ask, is that possible? When people refer to themselves as Deaf, they are usually indicating the presence of a hearing loss (ranging from mild to profound), a preference to socialize with members of the Deaf community and a desire to adhere to Deaf cultural values and norms. When people refer to themselves as hard of hearing they are usually indicating a hearing loss (ranging from mild to profound) and a preference to identify with hearing cultural norms and values.”²⁴

The terms “hearing impaired” and “hearing deficiency” are viewed by culturally Deaf individuals as negative labels that emphasize a definition of normal that is entirely based on a non-Deaf perspective. Provincial chapters of the Canadian Hard of Hearing Association have also objected to being identified by these terms for similar reasons.²⁵

Understanding the differences in cultural identity and group membership helps to clarify the multilingual environment of the Deaf and hard of hearing communities. For example, communication preferences are greatly influenced by which group an individual identifies with, as well as how that person was educated (e.g. oralism or manualism). Another important factor affecting group identification is the age at which hearing loss occurred. If the person was born deaf or became deaf prior to developing spoken language, they will typically have more difficulty acquiring speech than those

²¹ Ladd, Paddy. *Understanding Deaf Culture: In Search of Deafhood*.2007 Pg. 127-134.

²² Humphrey, J. and Alcorn, B. *So You Want to Be An Interpreter? An Introduction to Sign Language Interpreting*. 4th Edition, 2007. Pg. 84.

²³ Ibid.

²⁴ Ibid Pg.84-85.

²⁵ Ibid Pg. 88.

who experience hearing loss after exposure to spoken language. This is often referred to as pre-lingual or post-lingual onset. These factors also have an influence on the individual’s ability to read and write, which is a skill set that varies greatly within the population.

The following table provides a brief summary of the various labels and distinctions used by individuals to identify themselves and the characteristics associated with each label. It is important to note that this list is a generalization and many individuals may choose more than one of these labels to identify themselves. Furthermore, some individuals may have characteristics from multiple categories, while others may have none. It is impossible to account for all of the nuances and characteristics of such a diverse population, and the intention is to present a general overview of some of these nuances.

Table 2: Identity Labels and Characteristics²⁶

Label	Characteristics
Culturally Deaf	<ul style="list-style-type: none"> • People who are born deaf or become deaf early in life, usually before language acquisition (i.e. pre-lingual) • Rely mainly on sign language to communicate (e.g. ASL, LSQ), typically educated in Deaf residential schools or with ASL/LSQ as first language • Prefer to use sign language interpreters and visual assistive technology (e.g. video, text messaging, captioning, etc) • Deafness is a cultural and linguistic distinction requiring an accommodation, rather than a disability
Oral deaf	<ul style="list-style-type: none"> • People who are born deaf or become deaf early in life, usually before language acquisition (i.e. pre-lingual) • Educated in the oral method and rely mainly on oral communications (e.g. speaking, speech-reading) • Generally depend on a visual representation of spoken language (e.g. written text, captioning, speech-reading, cued speech, sign supported speech) • Typically identify with the hearing culture, but may have ties to deaf culture, or choose to be bi-cultural and identify with both • As adults may choose to use signed English/French as a supplement to speech-reading

²⁶ <http://www.blossomschool.org/resources/Glossary.htm>

Schwartz, Sue. *Choices in Deafness; A Parent’s Guide to Communication Options*.2007

Label	Characteristics
Deafened	<ul style="list-style-type: none"> • People who became deaf post-lingually (after learning speech) and have now lost the ability to understand speech with or without assistive listening devices (e.g. hearing aids, cochlear implants, wireless transmitters, etc.)²⁷ • Typically well educated in the spoken language (e.g. English or French) • Generally depend on a visual representation of spoken language for communication (e.g. written text, speech-reading, captioning, sign supported speech) • Typically identify with the hearing culture, but may have ties to deaf culture, or choose to be bi-cultural and identify with both
Hard of Hearing	<ul style="list-style-type: none"> • People with partial hearing loss ranging from mild to profound, may have been born with the condition or developed it later, are able to understand speech with or without assistive listening devices (e.g. hearing aids, cochlear implants, wireless transmitters, etc.) • Primarily relies on auditory communication utilizing any residual hearing • Prefer to use auditory devices to maximize residual hearing (e.g. hearing aids, amplified telephones, etc.), captioning devices (e.g. captioned telephones, real time captioning services) and may also utilize speech-reading. • Most identify with hearing culture and very few use any kind of sign language
Deaf-Blind	<ul style="list-style-type: none"> • People who have significant, but not necessarily total, loss of both vision and hearing • Rely mainly on tactile signing (signing in the palm of the deaf-blind person's hands), close-up signing, or close-up speech reading • May be culturally Deaf, deafened, oral deaf, or hard of hearing and communication preference will vary accordingly

3.3. Communication Preferences

The Deaf and hard of hearing population²⁸ is a diverse group of subgroups and individuals with varying communication preferences, which originate from a variety of sources including education, exposure to

²⁷ http://www.alda.org/index.php?option=com_content&view=article&id=45&Itemid=71

²⁸ For simplification purposes the term Deaf and hard of hearing population will be used to represent all of the groups, however it is not an accurate representation and distinctions will be made for clarification.

language, and age when hearing was affected. The following discussion separates these preferences by Canadian Anglophone and Canadian Francophone communications.

3.3.1. Anglophone Communication Forms

A spectrum of sign language exists in Canada and moves from a pure form of American Sign Language towards a manually coded form of English (MCE) now referred to as Sign Supported Speech or sign systems. The middle of the spectrum where ASL meets Sign Supported Speech results in a mix between ASL based signing and English based signing often referred to as Pidgin or contact variety.²⁹

American Sign Language

American Sign Language (ASL) is a naturally occurring visual gestural language with distinct grammar, syntax, and vocabulary that is not based on or derived from a spoken language. As such, hearing people's perspectives of ASL have typically been to mislabel it as poor English or grammatically incorrect. This is due in part to the fact that ASL does not follow English word order and uses facial expression for grammatical markers. In addition, physical affect markers, spatial linguistic information and fingerspelling are all incorporated into the unique syntax and linguistic features of the language. Similar to other languages, ASL is comprised of arbitrary symbols brought together by "syntactic, phonological, semantic and pragmatic rules."³⁰ The main users of ASL are the culturally Deaf; however other groups may also prefer this language.

ASL users will account for the majority of VRS sessions and will be accommodated by ASL-English visual language interpreters.

Sign Supported Speech and Manually Coded English

Manually Coded English (MCE) refers to any of several forms of signing systems invented by hearing educators to assist Deaf children with spoken language development. These systems are derived from spoken language and attempt to represent it in a manual or visual form. As mentioned earlier these systems are not an official language, but are ways to make English accessible through a visual medium.

Sign supported speech makes use of simultaneous communication, which refers to signing and speaking English at the same time. It is impossible to sign ASL and speak English at the same time. Sign systems use ASL signs for corresponding English words and concepts but use them in English word order. The most prevalent form of sign supported speech is signed English, which is a word for word representation of spoken language. Typical users of signed English are those individuals who have a strong mastery of the English language and prefer to use English in their communications (e.g. post-lingual deaf). Some

²⁹ Humphrey, J. and Alcorn, B. *So You Want to Be An Interpreter? An Introduction to Sign Language Interpreting*. 4th Edition, 2007. Pg. 84.

³⁰ Ibid. Pg. 90.

individuals who prefer this form will request transliteration³¹ rather than ASL interpretation because they want a verbatim rendition of the speaker's choice of words.

ASL-English interpreters should be able to accommodate requests for this type of transliteration, if they possess strong language skills in both of their working languages. According to Canadian interpreter trainers, graduates from any of the five ASL-English programs are prepared to meet the needs of Deaf people who prefer transliteration.

Pidgin Sign English or Contact Varieties

Pidgin Sign English (PSE) is a form of signing that has developed from the long and sustained contact between ASL and English. Linguistic features of each language begin to mix together and influence each other over time.

“Linguistic variations start to emerge in which words, phrases, grammatical structures and other features of each language are mixed with the other. Some of the processes behind this phenomenon include code switching, code mixing and lexical borrowing.... PSE has been defined as a natural blending of English and ASL which has developed over the years to provide rudimentary communication between Deaf and hearing people.... The deaf community communicate with hearing people in a “foreigner talk” register of ASL and members of the hearing community communicate with Deaf people in a foreigner talk register of English. The variation along the ASL-English continuum can be accounted for by the dynamic interplay of “foreigner talk,” mutual judgments of each other’s proficiency, and learners’ attempts to master the target language – whether this is ASL for hearing users or English for Deaf users.”³²

Some people see this as a natural evolution of ASL in a bilingual community, while others view it as an inferior form of ASL used by those who have not mastered the language. Many Deaf individuals choose to use PSE when signing with hearing signers and use pure ASL with Deaf signers. Hearing signers typically learned English as their first language and cannot master the complexities of ASL without extensive training. Many of these hearing signers without proper training are teachers or interpreters for Deaf children, therefore becoming the only model for sign language that the Deaf child is exposed to.³³ This fact along with several other possible circumstances (e.g. cultural identification, exposure to ASL or SSS, familiarity with English, etc.) all contribute to the wide variations encountered within contact varieties and the Deaf community.

³¹ See this study's phase 6, *Interpreter Considerations*, section 2.2 for description of interpretation and transliteration.

³² Humphrey, J. and Alcorn, B. *So You Want to Be An Interpreter? An Introduction to Sign Language Interpreting*. 4th Edition, 2007. Pg. 96-97.

³³ Lane, Harlan. *The Mask of Benevolence*. 1999. Pg 121

Again, qualified and properly trained ASL-English interpreters are able to satisfy interpreting requests for contact varieties. Contact variety encompasses features of both ASL and English, therefore a mastery of both enables interpreters to satisfy requests for this form.

Regional Dialects

Similar to spoken languages, ASL has regional dialects where some signs have become common in a certain geographical location. Maritime Sign Language (MSL) is a signed language used by Deaf people in Canada's Maritime Provinces. Currently the majority of Deaf Anglophone Canadians use ASL, but some elderly Deaf people continue to use MSL, which is believed to have originated from British Sign Language (BSL). The predominance of ASL has impinged on MSL in the provinces of New Brunswick, Nova Scotia and Prince Edward Island and has become the majority language. Estimates place the number of MSL users at slightly below 100.³⁴

The Inuit Deaf community in the northern regions of Canada use Inuit Sign Language (ISL), which is not technically a regional dialect, but rather another sign language. However, as ISL has not yet been recognized as an official sign language, it is included as a regional dialect for the purposes of this study. The language is described as a personal sign language that is used within the family, but many of the Deaf Inuit across the region report using similar hand signals leading to the recognition that it is more than just home signs³⁵ or gestures within a family. There are an estimated 155 to 200 Deaf Inuit people in Nunavut, and although most learn ASL in southern schools some do not.³⁶

According to an AVLIC interpreter who works within the Deaf Inuit population, the need for interpreting services is great. Access to interpreters is very limited and mostly provided by friends or family members knowledgeable in the language but not in the process of interpreting. In this interpreter's experience most ISL signs are produced interchangeably with ASL and resemble more of a contact variety³⁷ of sign language. The interpreter reports that she has yet to meet an ISL *only* user and instead encounters a contact variety, combining ISL, ASL, and home signs.³⁸

³⁴ Abstract:Canada's Maritime Sign Language, Yoel, Judith, Ph.D., University of Manitoba (Canada), 2009
<http://gradworks.umi.com/NR/64/NR64276.html>

³⁵ Home signs: system of pantomime, gestures and manual signs used within a family to support communication in place of formal sign language.

Humphrey, J. and Alcorn, B. *So You Want to Be An Interpreter? An Introduction to Sign Language Interpreting*. 4th Edition, 2007. Pg. 105.

³⁶ <http://www.cbc.ca/news/canada/north/story/2008/09/17/inuit-sign.html>

³⁷ Signing that reflects a mixture of structures as a result of prolonged contact between languages.

Humphrey, J. and Alcorn, B. *So You Want to Be An Interpreter? An Introduction to Sign Language Interpreting*. 4th Edition, 2007. Pg. 105.

³⁸ AVLIC Email correspondence with Mission Consulting 05/17/2011

For the purposes of VRS, it may be helpful to utilize the services of a Deaf interpreter as an intermediary when relaying calls with these populations.

Oral Communication Systems

People who are oral deaf or hard of hearing typically do not use sign language, and instead rely on speech and speech-reading abilities to communicate in addition to any residual hearing, aided or unaided. Speech-reading is a way of deciphering lip, cheek, and throat movements to determine what is being spoken. For further clarification, contextual clues and descriptive gestures can be used to help establish meaning. In most settings these individuals do not require an interpreter. However in certain settings where speech reading is difficult (e.g. distance from speaker, poor lighting, rapid turn taking, etc.) they may use the services of an oral transliterator to silently re-voice what is being spoken in a way that is more adaptable to speech-reading.

Some people who rely on speech-reading make use of a manual coding system called “cued speech” which represents individual language phonemes for the purpose of aiding speech discrimination and/or speech reading, typically in educational settings as a tool for young deaf children. Specific hand shapes in several positions about the face combine to manually represent every syllable being spoken. Cued speech transliterators sometimes work in the classroom to represent the spoken word for children who are still learning speech reading.

It is unclear what the demands for VRS will be from this population. Much variance exists within this sub-community in regard to communication preferences. For example some people who prefer oral communication also prefer text and written word relay services, as they are more comfortable with English.

Others may prefer oral transliteration with or without gestural support or cued speech and for these individuals VRS may be beneficial. ASL-English interpreters will typically have achieved competence through continuing education classes specific to oral transliteration. ASL-English interpreters typically will not have training in cued speech.³⁹

It should be noted that oral transliteration training is not covered in much depth at any of the five Canadian ASL-English training programs and cued speech is not included at all. Ontario Interpreting Services does not offer oral or cued speech transliteration, and instead reports that most oral deaf, deafened, and hard of hearing consumers prefer text and written language based services (e.g. TTY, Internet, CART).⁴⁰

³⁹ Mission Consulting interviews with Interpreter Training Programs. See this study’s phase 6, *Interpreter Considerations*.

⁴⁰ http://chs.ca/index.php?option=com_content&view=article&id=40&Itemid=54&lang=en

Deaf-Blind Variations

The largest percentage of people who are Deaf-Blind were born Deaf and lost their vision later, usually due to Usher's Syndrome. People born with Type 1 Usher's Syndrome are born with severe or profound hearing loss and slowly experience deteriorating vision. These people usually learn sign language and are members of the Deaf community prior to their visual deterioration. Those with Type 2 Usher's Syndrome are born with mild to profound hearing loss and usually use speech and speech-reading prior to losing their sight. The means of communication for Deaf-Blind people vary depending on how much residual vision is left. Sign language, sometimes incorporating a larger space, is effective for those who still have some vision and have learned it prior to the decline of their vision.⁴¹

The needs of the Deaf-Blind in reference to VRS are dependent on how much vision the person has left. Their needs should be satisfied by ASL-English interpreters combined with possible technical enhancements, such as close up signing.

3.3.2. Francophone Communication Forms

Langue des Signes Québécoise

Langue des Signes Québécoise (LSQ) is the natural sign language of the Deaf Francophone community. As with other signed languages LSQ is a naturally occurring language with grammar, syntax, vocabulary, and lexical information that is conveyed visually and manually.

The majority of LSQ users are people who are culturally Deaf, but other groups may also have this preference. LSQ-French visual language interpreters will be able to meet the needs of this group.

Signed French or Manually Coded French

Signed French incorporates some LSQ signs combined with signs invented by hearing teachers. The signing follows French grammatical structure and makes heavy use of initialization (e.g. FOREST is signed with an F hand shape). This type of signing is also characterized by invented signs for French words that do not have an LSQ sign (e.g. la, le, les, etc.). Signed French is not used as frequently in the western part of Québec, but is still used in the east.⁴²

LSQ-French interpreters with proper training and mastery of both LSQ and French should possess the skills necessary; however some continued education courses on the specific non-LSQ signs may be needed.

⁴¹ Humphrey, J. and Alcorn, B. *So You Want to Be An Interpreter? An Introduction to Sign Language Interpreting*. 4th Edition, 2007. Pg. 100-101.

⁴² Suzanne Villeneuve (UQAM) email correspondence with Mission Consulting, 04/21/2011

Pidgin Sign French

Similar to the development of Pidgin Signed English, this form of communication has developed from sustained contact between LSQ and French. LSQ signs are used and follow a French structure as opposed to pure LSQ structure. Conceptually accurate signs are used and lexical units such as articles are omitted.

Again, qualified and properly trained LSQ-French interpreters are able to satisfy interpreting requests for Pidgin Signed French. Features of both LSQ and French are used; therefore a mastery of both languages enables interpreters to satisfy requests for this form.

Regional Dialects

Regional dialects exist in Québec and can be accommodated by knowledgeable LSQ-French interpreters. Some training or exposure to the dialects may help interpreters adapt to the small differences in signing style. Regional dialects do not appear to be a significant concern for VRS.

Deaf-Blind Variations

The largest percentage of people who are Deaf-Blind were born Deaf and lost their vision later, usually due to Usher's Syndrome. People born with Type 1 Usher's Syndrome are born with severe or profound hearing loss and slowly experience deteriorating vision. These people usually learn sign language and are members of the Deaf community prior to their visual deterioration. Those with Type 2 Usher's Syndrome are born with mild to profound hearing loss and usually use speech and speech reading prior to losing their sight. The means of communication for Deaf-Blind people vary depending on how much residual vision is left. Sign language is effective for those who still have some vision and have learned it prior to the decline of their vision.⁴³ Québec has a higher percentage of people with Usher's Syndrome than in other parts of Canada.

The needs of people who are Deaf-Blind in reference to VRS are dependent on how much vision the person has left. Their needs should be satisfied by LSQ-French interpreters combined with possible technical enhancements, such as close up signing.

Oral Communication Systems

Oral deaf, deafened, and hard of hearing individuals who rely on speech and speech-reading abilities may prefer oral transliteration. In Québec, oral transliteration is defined as re-voicing the message in such a way to maximize speech reading and may or may not include gestural support. The gestural support can be natural gestures, LSQ signs, or Langage Parlé Complété⁴⁴ (LPC).

⁴³ Humphrey, J. and Alcorn, B. *So You Want to Be An Interpreter? An Introduction to Sign Language Interpreting*. 4th Edition, 2007. Pg. 100-101.

⁴⁴ French cued speech.

Since 2007 the *Université of Québec at Trois-Rivieres* (UQTR) has offered continuing education training in oral transliteration.⁴⁵ LSQ-French interpreters may take this training as a way to incorporate oral transliteration into their skill set and therefore be able to accommodate the needs of the oral deaf population. There are also individuals who specialize only in oral transliteration; these interpreters do not interpret in LSQ, but only in oral French.

École St-Jude offers courses in the training of Langage Parlé Complété (LPC). These courses offer a basic training in LPC and can last four days or seven evenings with some additional support training lasting three to four days. Typically, these courses are provided to parents of children in the school program using LPC, special education teachers and speech therapists. Interpreters who work in the school system are also involved in learning LPC for the purpose of working with these children. No certification exists for LPC and instead assessments are performed privately on a contract basis. If LPC were included in VRS, then LSQ-French interpreters and oral transliterators could be offered the training to accommodate cued speech users.

4. Identification of Potential VRS Users

Culturally Deaf, oral deaf, deafened, hard of hearing, and deaf-blind individuals are all potential users of Video Relay Services. However, many factors affect the likeliness of certain groups to adopt and readily use this technology.

4.1. Estimated Population of Potential VRS Users

Accurate population statistics of Deaf and hard of hearing people are extremely difficult to quantify. Much of this difficulty is due in part to the different ways that individuals in this diverse community choose to identify themselves. As stated earlier, many culturally Deaf people do not identify as disabled or as having any kind of impairment, therefore these people would not be counted in a survey that asks about deafness as a disability. Another issue in collecting information about this population is the way that surveys are administered. Written text surveys or any other form of communication that is not ASL or LSQ may not be understood by a large percentage of Deaf people. The Canadian Association of the Deaf states:

"It is the opinion of the Canadian Association of the Deaf that no fully credible census of Deaf, deafened, and hard of hearing people has ever been conducted in Canada.

So, what statistic does the CAD cite when asked how many Deaf people live in Canada? We continue to follow the standard comparison model between Canada and the United States, which assumes that statistics for Canada will be one-tenth of statistics for the

⁴⁵ Unit of Continued Education (UEC) is a method of acknowledging non-credited advanced education that corresponds to ten hours of work and attendance.

U.S. (based on the fact that Canada has one-tenth the population of the U.S.) By this measure, Canada in the year 2006 would have roughly 3.1 million people with some degree of hearing loss. Of those 3.1 million people, one-tenth or roughly 310,000 would be culturally and linguistically Deaf.”⁴⁶

“Culturally and linguistically Deaf” implies that these 310,000 individuals use signed language (ASL, LSQ, etcetera) as their primary form of communication. However, the distinctions for communication preferences within this CAD estimate are not identified or estimated by CAD.

The most current census of Canada⁴⁷ from 2010 identifies a total population of approximately 34.1 million people. Using the CAD’s estimate that ten percent of the population equates to the number of Deaf individuals, the 2010 equivalent would be 341,000 Deaf. Since Québec’s population of 7.9 million⁴⁸ accounts for about 23% of the total population, applying CAD’s formula, the number of potential Deaf in Québec would be approximately 79,000.⁴⁹ However, CQDA and other reports state Québec has 7,500 Deaf LSQ users (not necessarily all Québec Deaf); a significantly different estimate.⁵⁰

Deaf sign language users will be the primary users of Video Relay Services. However other groups including oral deaf and cued speech users may also benefit from VRS. Additionally, consumer advocacy organizations have repeatedly stated that all people, hearing or not, are potential users of VRS. For example, hearing individuals wishing to do business or communicate with others who prefer visual communication should also be considered potential users. In fact, each deaf VRS consumer calls multiple hearing users, thus expanding the overall VRS user population exponentially.

4.2. Cultural Attitudes Affecting Adoption

The degree to which Deaf and hard of hearing individuals will adopt VRS is also difficult to quantify. As shown earlier many factors exist that affect an individual’s communication preference. These factors also affect the likeliness of any group to use VRS as a preferred mode of relay. Other considerations include how VRS is offered, degree of ease with technology, and barriers from hearing parties.

Simply stated, the preference for oral communication over visual communication will affect the degree to which an individual uses VRS. Largely dependent on the degree of hearing loss, those who are hard of hearing differentiate themselves from those who are Deaf by their ability and choice to use spoken or

⁴⁶ Canadian Association of the Deaf’s Position Paper on Statistics at www.cad.ca/statistics_on_deaf_canadians.php

⁴⁷ <http://www40.statcan.gc.ca/l01/cst01/demo02a-eng.htm>

⁴⁸ Ibid

⁴⁹ However, this is not a full assessment of LSQ users as they are not exclusive to Québec and are found throughout Canada.

⁵⁰ CQDA Correspondence 07/05/2011. Additional analysis of the potential VRS user population is discussed in this VRS Feasibility Study’s phase 9, *Forecasts of User Demand*.

written language. Many of these people may prefer to use text based relay (TTY-relay or IP-relay) or other forms of text communication (SMS, email, Facebook, etc.) due to their familiarity with the written language. Conversely, those who not only prefer sign language, but also do not have fluency in written language will be more likely to use Video Relay Services. It is possible that many Deaf individuals will be accessing relay services for the first time through VRS, due to the fact that text-based telephone conversations have never been accessible to them.

The way in which Video Relay is introduced may also have an effect on how likely potential users are to adopt the service. For example, mandating Video Relay Service as a way for Deaf people to achieve equality and accessibility will be more favourable than a model that provides the service as a charitable function designed to aid the disabled. Another factor may be the way that VRS is funded, as consumers may or may not be willing or capable to pay for the service themselves, and therefore may or may not become users.

As is true for the general population, the degree to which potential VRS users are comfortable with new technologies varies. Variables that affect adoption include, age, adaptability, technical competence, and self esteem.⁵¹ The most consistent factor affecting the adoption of VRS is whether training is provided, which has a direct effect on user's competence and adaptability.

In fact, several of these adoption factors can be correlated to the amount of public education and outreach conducted regarding the roll out of VRS in Canada. Public education will definitely be needed and should be for everyone, including hearing parties. A common problem with relay services for users is the barriers from hearing parties when receiving relayed calls. With good public education hearing people and the general business community will be less likely to deny these calls and therefore Deaf users will be more inclined to use the service.

4.3. Benefits of VRS

Supporters of VRS strongly believe that the service has a direct positive effect on the social and economical well being of the Deaf and hard of hearing community. VRS helps visual communicators have access to the telephone in their natural language, removing a significant barrier that has existed since the telephone was invented. Accessibility is key to equal opportunity and therefore barriers that prevent accessibility need to be removed. VRS removes the barrier to the telephone that many Deaf and hard of hearing people face. In their opinion, the TTY does not provide full access and has many significant limitations.⁵² An important evident difference is the speed of communication, which is significantly improved through Video Relay:

⁵¹ Saladin, Shawn. *Psychosocial Variables Related to the Adoption of VRS Among Deaf or Hard of Hearing Employees at the Texas School for the Deaf*. 2008.

⁵² A full analysis of the inadequacies of TTY communication can be retrieved at http://www.chrc-cddp.ca/proactive_initiatives/tty_ats/toc_tdm-eng.aspx

Table 3: Average Speed of Communication⁵³

Measure	Voice Telephone	Text Relay	Video Relay
Conversation Speed (wpm)	170	30	150

The faster speed of conversation allows users to respond to time sensitive phone calls (e.g. school registration, contests, etc.) as well as communicate more naturally.

Economic Benefits

According to a study administered by the Canadian Association of the Deaf in 1998⁵⁴ on the employment rates of Deaf Canadians of working age:

- 20.6% are fully employed
- 41.9% are under-employed
- 37.5% are unemployed

In contrast, only 8.9% of all Canadians at that time were unemployed. The combined unemployment and underemployment rate for Deaf Canadians has remained unchanged over a six-year period (1992-1998), despite improvements and growth in the overall Canadian employment rate.⁵⁵

Unemployment and underemployment are major issues for Deaf and hard of hearing people, due in part to inaccessibility to the telephone in their natural language. Promotions and advancement in a career are often dependent in part on the ability to communicate with co-workers, managers, and clients. With VRS, users can conduct business over the telephone at anytime as opposed to scheduling meetings and booking interpreters.⁵⁶ Additionally, VRS can also provide new avenues for employment of Deaf and hard of hearing people.

Other economic benefits for people who are deaf or hard of hearing include:

- Reduced social welfare and health costs
- Equal access to health and safety resources
- Engagement in the economy as consumers, employers, or employees
- Increased productivity and versatility due to more typical telephone communication

⁵³ <http://sites.google.com/site/nrscampaign/resources/vrs-benefits>

⁵⁴ Roots, J. & Kerr, D. *The Employment and Employability of Deaf Canadians*. 1998.

⁵⁵ http://www.cad.ca/employment_and_employability.php

⁵⁶ Mission consulting interviews with Consumer Advocacy Groups. The application of this benefit is broadened if Video Remote Interpreting (VRI) as described in this study's phase 8, section 2, will be included as a VRS function.

Social Benefits

Social benefits of VRS include increased independence, active participation in society, and increased self esteem. For example, advocacy group constituents shared the following comments regarding the social benefits of VRS.

“Imagine a young Deaf boy of 15 who invites his friends (some hearing) over to have a pizza party. When the time comes to order the pizza, if the boy must ask a hearing friend to make the call then that creates the stigma of being disabled. The boy is dependent upon the hearing boy and the helplessness cycle is perpetuated. On the other hand, imagine that the boy can order the pizza himself through VRS and everyone sees him as capable and on equal ground as the hearing. The boy will have good feelings and sense of pride in himself and not see himself as disabled or dependent. VRS makes that happen and takes the barrier away. It becomes easy to see that VRS is much more than another form of relay, it is in our natural language and guarantees greater success for us.”⁵⁷

“My family holds weekly Sunday phone calls to catch up and connect with all of us who live away from home. I am unable to participate in these meetings in any effective way because a TTY relay operator cannot keep up. VRS will allow me to have more connection to my family and less isolation.”

5. User Group Representative Advocacy Organizations

The research for this Phase 3, *Consumer Interests and Perspectives*, included creation and distribution of a questionnaire specific to consumer advocacy organizations. The questionnaires were sent via email to the respective organizations with instructions to collect information from all interested parties within the organization, but to return only one completed questionnaire representative of the entire organization. A response rate of 65% was achieved with 22 out of 34 questionnaires returned for inclusion in this study. The specific number of responses for each type of questionnaire sent and received is summarized in the following table.

⁵⁷ Mission Consulting interview with BC VRS committee.

Table 4: Organizations Surveyed

Type	Number Received	Number Sent
Anglophone Groups	10	17
Francophone Groups	12	17
Total Consumer Advocacy Groups	22	34

Several organizations were interviewed in person and provided ongoing consultation throughout the research process. Although all organizations contacted do conduct advocacy work, some also provide services and therefore have more financial resources than the organizations that perform 100% consumer advocacy.⁵⁸The list of organizations included for this research phase can be found in Appendix A.

Analysis of input received directly from consumers via an online survey is in this phase's section 6.

The following discussion of consumer group perspectives is separated into Anglophone (ASL/English) and Francophone (LSQ/French) categories.

5.1. Anglophone User Group Perspectives on Video Relay Services

Representative Anglophone (primarily ASL/English) user organizations' primary constituents are summarized below.

Table 5: Constituents Represented

Anglophone Constituents	Number
All inclusive (no distinction)	7
Culturally and Linguistically Deaf	2
Hard of Hearing (distinct from Deaf)	1

Geographically, these questionnaires were well distributed with responses from Québec, Ontario, Manitoba, Saskatchewan, Nova Scotia, Alberta, and British Columbia. The responses were categorized by topic and are summarized in this section.

5.1.1. Personal Experience with VRS and Perspectives

Ninety percent of those Anglophones surveyed had direct experience with VRS as they had all used the U.S. services before the FCC terminated access from Canada. In addition, organizations in British

⁵⁸ Canadian Association of the Deaf Correspondence

Columbia and Alberta are currently using VRS as part of the Telus trial. Communicaid for Hearing impaired Persons (CHIP) did not have any experience of VRS, but did report familiarity with CapTel.⁵⁹

Those with VRS experience unanimously stated that the service was incomparable and expressed enthusiasm for VRS to be implemented in Canada. The overall theme for those who had experience was that the flow of conversation was similar to a real telephone conversation.

Questions were asked regarding each organization's goals or views pertaining to VRS. The responses are summarized below.

- Equal telecommunication access comparable to that enjoyed by hearing persons.
- Implementation of a professional and national service of the highest quality.
- Accessibility to information that has previously been inaccessible to Deaf people.
- Facilitation of speech comprehension through VRS.

The Canadian Cultural Society of the Deaf (CCSD) is interested in becoming a VRS provider and through their partnership with the Canadian Association of the Deaf has established an organization, Sign Relay Canada (SRC). SRC's original objective was to provide VRS as a pilot program in Ontario, but after applying to the CRTC they were denied the ability since they do not qualify as a licensed telecom company. CCSD had the following comments in regard to their goals and perspectives on VRS:

"We would like to see VRS occur on a national level. We picked the name SRC (Sign Relay Canada) because it is an appropriate acronym in both English and French. We would like to apply as a service provider and/or provide training for interpreters and Deaf community and hearing counterparts. The Video Relay Service proposal is unique in that it draws on the collaboration of Deaf leading organizations to implement a business plan that would be run by the Deaf community for the Deaf community where the benefits for the Deaf community are both in the outcome as well as in its process establishing a Deaf run business."⁶⁰

Other organizations also expressed interest in being actively involved in the provision of VRS through partnerships for the organizations that have interpreting services and in-depth consultation with the others. The involvement of the Deaf and hard of hearing community in VRS is of paramount importance to all stakeholders.

⁵⁹ CapTel is a proprietary captioned telephone service provided in the U.S. by Ultratec Corporation; www.ultratec.com.

⁶⁰ All quotes throughout section 5 are from advocacy group organization questionnaire responses and interviews.

5.1.2. VRS Service Considerations and Expectations

According to consumer advocacy organizations the most important considerations for VRS are:

- Involvement of Deaf community and other stakeholders in all stages of VRS (implementation, operation, performance reviews, etc.).
- Cost and stable long-term funding to pay for the service.
- Recruitment of interpreters and methods to prevent a drain on availability of community interpreters.
- National service to ensure equal access for all.
- Choice of provider (not limited to one VRS or Internet/telecom company).
- Broadband limitations in rural areas, cost of broadband.

In regard to choice, one stakeholder organization stated:

“Do not have the VRS directly tied to a phone company, that’s like arm twisting to force you to stay with a phone company. It becomes monopoly. While many hearing people can choose from so many Internet or wireless service providers, why can’t Deaf consumers of VRS choose to do so too?”

An important consideration of Deaf advocacy groups is whether the VRS provider has Deaf employees at all levels of the organization and/or is a Deaf-run business. Many stakeholders consulted during the research stated that they would more likely use the services of a Deaf-run VRS or at least one that had over 50% Deaf employees, particularly in high level positions.

“It is VITAL that VRS providers employ Deaf and hard of hearing persons in management and tech support roles simply for the purpose of providing good customer service. They are able to communicate with customers and supervise VRS interpreters as well as sensitizing the corporate structure of the entity operating the VRS to the needs of this segment of the population.”

Interpreter representative organizations contacted for phase 6 of this study, *Interpreter Considerations*, had similar views on the importance of VRS providers being Deaf-operated and staffed.

Responses varied regarding questions referencing the most common consumer expectations for VRS. Some groups stressed the importance of 24/7/365 availability, while others stated that evolution of services is expected. They report that the community will understand the lack of interpreters and will be patient with longer wait times. However the eventual goal for all organizations is 24/7/365 availability with minimal wait times when resources are available to support that goal.

Other common expectations were:

- Professional qualified interpreters (AVLIC certified or at minimum membership)
- Choice of providers (for VRS and for Internet or phone line)

- Interoperability of equipment (equipment must work with all potential providers and internationally)
- Confidentiality
- Single phone number
- Access to 9-1-1
- National service
- Deaf community involved in all stages of VRS (implementation, operation, evaluation, etc.)
- Complaint department and resolution procedures
- Protocols for handling calls (e.g. announcing the call)

Stakeholders' opinions regarding which communication forms are appropriate for use in VRS are varied, due in part to the controversial nature of these preferences and the cultural sensitivities of certain user groups as discussed earlier in this research paper. Fifty percent reported that all forms should be included under ideal circumstances and with adequate interpreter resources. The other 50 percent report that only signed languages should be allowed, especially in the beginning stages. Furthermore, these groups report concerns that the inclusion of several communication modes will strain the already insufficient community interpreter resources. They also consider that if too many forms are included, the CRTC will determine VRS to be excessively problematic and further delay implementation. A few groups also mentioned that these forms should be added later as VRS evolves and resources become more available, but in the beginning the focus should be solely on signed language. Examples of stakeholder comments pertaining to communication forms for VRS are:

“ASL and LSQ communities are the ones most in need of VRS; they are the priority and the prime users of the service.”

“ASL/LSQ should be the predominant vehicles while contact varieties (with ASL/LSQ signs presented in English/French syntactical structure with English/French lexicon visible on the lips) can be managed by many interpreters. Other varieties such as Cued speech, signed Exact English, etc. are non-starters and would lead only to a nightmarish mishmash, and most certified interpreters neither have the training nor the skill for such varieties.”

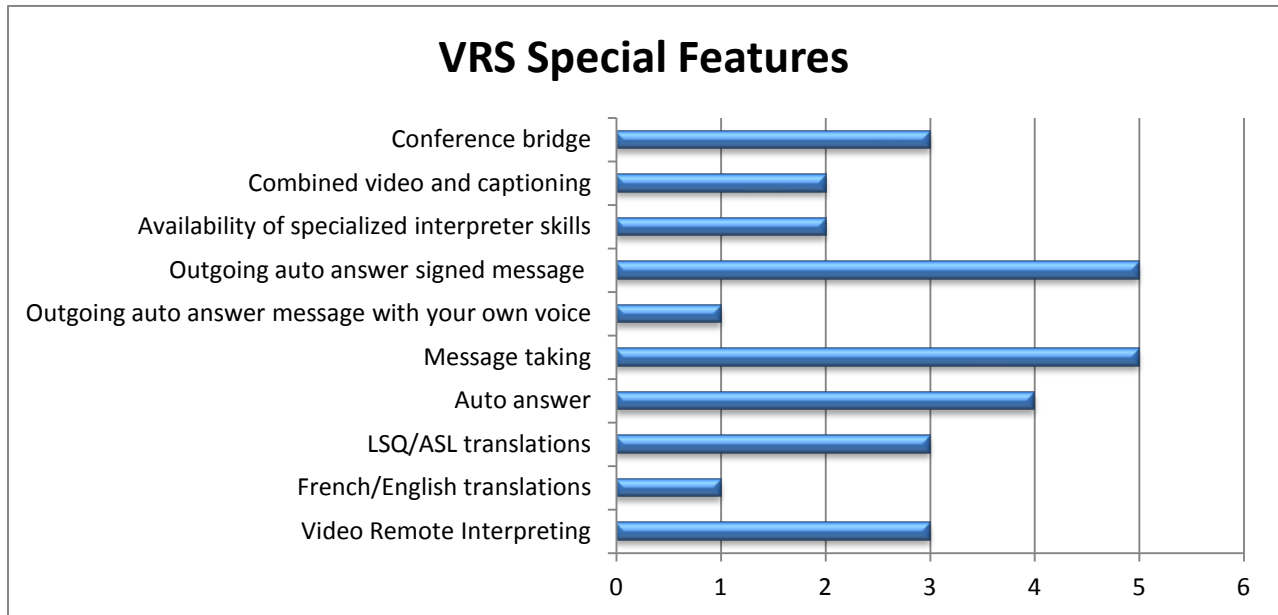
“Begin with ASL/LSQ interpreting first until it is in place, and then gradually add to other features. This would be the priority. We have IP-Relay now so there are other options. It would help reduce costs.”

Advocacy organizations from Nova Scotia would also like to see Maritime Sign Language included for Canadian VRS.

Consumer groups were asked to prioritize selections from a list of potential VRS features by relevance and importance.

The most popular responses are summarized in the following figure.

Figure 1: Importance of Special Features



Features of most importance are those that are equivalent to normal telephone features such as message taking and outgoing auto answer. Some features are more important to different constituents; for example, combined video and captioning and outgoing message with voice were more appealing to hard of hearing individuals. Constituents are interested in these features but believe that initial service is most important and extra features can be introduced later. Many report that Video Remote Interpreting would be beneficial to many users in the North and rural areas, where access to interpreters is limited. It also may allow interpreters who do work in rural areas the ability to have more work. It should be noted that many of these features would not be very difficult to provide in an initial offering, while others, such as ASL/LSQ translations and speciality interpreters may be more complex.

Most organizations report that Voice Carryover, Hearing Carryover, and user profiles to indicate communication preferences would also be useful services, although answers varied whether this should be an included service or an enhanced offering. The rationale for inclusion being that these services are currently offered in traditional MRS and consumers will want to enjoy the same features they are accustomed to. Several groups stated that VRS for Canada should be similar to the U.S. and whatever features are offered there should also be included for Canada.

5.1.3. VRS Interpreter Considerations

Questions pertaining to interpreter considerations for VRS were asked to gather information about interpreter availability, certifications and minimum standards, and other factors related to VRS from the perspective of advocacy organizations.

Interpreter availability is crucial to a successful deployment of VRS for Canada. Most organizations reported that a nationwide shortage of interpreters is prevalent in Canada, especially because many Canadian interpreters are working in call centers that serve the U.S. Some organizations stated that

interpreter resources in their local municipal areas are adequate, but not for rural areas or areas outside of the metropolitan regions. British Columbia's VRS Committee made the following comment in reference to interpreter availability:

"Availability of interpreters has been impacted. We keep having to request or book interpreters in further and further advance since the Sorenson call centres have been established. I see VRS as essential, but at the same time don't want to see VRS centres as detrimental to the availability of interpreters for community needs, e.g. medical interpreting, etc. And the best way would be to consider the model of supportive interpreting communities."

Some stakeholders do not believe that ASL-English interpreters are a problem for VRS as many Canadian interpreters are currently working in Sorenson call centres serving the U.S. and the Telus trial. They are of the opinion that if VRS is approved in Canada, those interpreters will begin serving Canada.

Consumer groups suggest a model of VRS where interpreters sign contracts limiting the amount of time they can work as VRS interpreters and requiring them to spend a percentage of their time in the community.

Responses were mixed regarding whether interpreters should be permitted to work at home for VRS.⁶¹ The majority of responses (70%) stated that working from home would be permissible as long as clear protocols were in place and confidentiality was guaranteed.

"It is fine if they adhere to professional standards. It is also good when there are inclement weather conditions affecting the ability of interpreters to get to the call center. Confidentiality is the biggest concern as well as how to regulate that. Legal implications and remote access issues are also factors."

Those who stated that working from home should not be permitted (30%) cited confidentiality, lack of support, and technological factors as grounds for their view.

According to those surveyed interpreter certification should be required for VRS, however the standard does not need to be as high as AVLIC's Certificate of Interpretation (COI). Suggested alternatives to the COI as reported by Canadian advocacy organizations are:

- AVLIC membership
- Graduation from an ASL-English interpreter training program plus community experience
- VRS provider training to recent graduates of ITP

⁶¹ It may be important to note that in the U.S., the FCC has ruled against permitting interpreters from relaying calls from home.

- Minimum standards of quality set by VRS providers, but with input from Deaf community members
- Provincial referral agency internal evaluation screenings

In addition to minimum standard qualifications for interpreters, organizations stressed the importance of hiring interpreters with good attitudes and knowledge of Deaf culture. Specifically constituents from British Columbia, who are currently using VRS as part of Telus' trial, stated that the current VRS hired some interpreters with very poor interpersonal skills and that interpreters with a friendlier disposition were highly valued by the community.

Many also reported a strong need for clear protocols for complaint handling. Consumers felt comfortable with AVLIC membership as a requirement for VRS work because of the dispute resolution process available through AVLIC, but because not all interpreters currently working in VRS have AVLIC membership, additional complaint procedures should be available. Consumers reported that complaints should be able to be filed with VRS providers, CRTC, and telephone companies.

All ten Anglophone organizations surveyed were asked whether VRS call centres located in the U.S. should be allowed to serve Canada. Approximately 50% of respondents answered no, 40% answered yes, and 10% did not answer.

Common reasons given for affirmative answers were:

- First preference is for call centres to be located in Canada serving Canadians, but would be acceptable if quality standards and assurance are in place
- Both use ASL, however may experience regional vocabulary and language styles as potential challenges
- May help alleviate interpreter shortages in the beginning

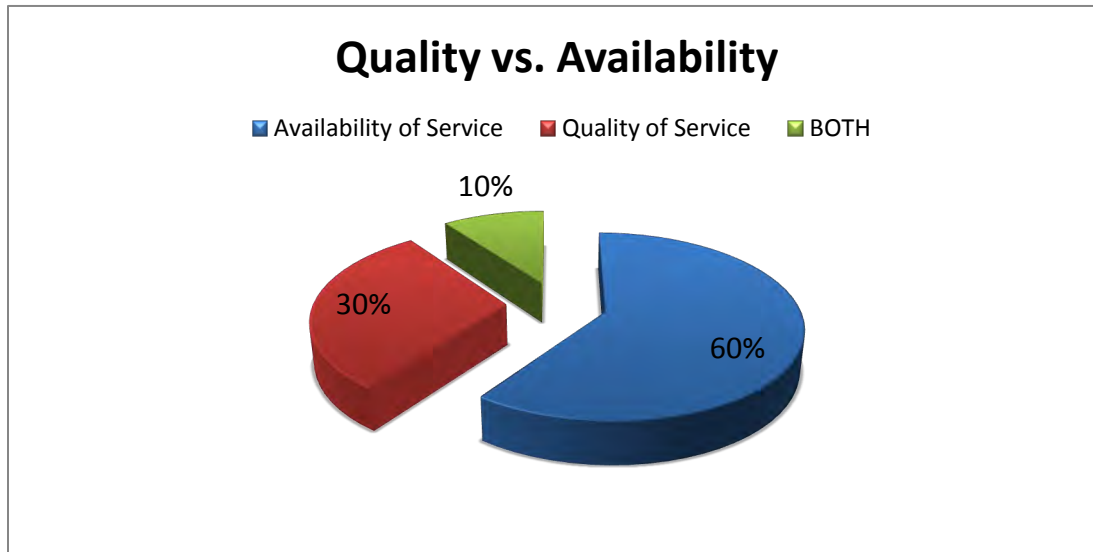
Themes for the negative answers were:

- U.S. interpreter standards are not sufficient for Canada
- ASL and regional dialects are significantly different and warrant Canadian only VRS
- U.S. culture is different from Canadian culture
- Canadians prefer to do business with other Canadians

All organizations expressed difficulty answering whether quality or availability was more important in regard to when VRS first begins providing service. They stated that ideally both should be equally implemented. Those who want quality cite the importance of qualified interpreters and those who want availability feel Canada has waited long enough for VRS.

A summary of their responses is provided in the following chart.

Figure 2: Importance of Quality vs. Availability



All surveyed agreed that both quality and availability are important and that both can and should be considered for VRS in Canada. They would like to see the service start as soon as possible and have quality issues (e.g. minimum interpreter qualifications) addressed during the implementation and throughout the initial offering.

“It is like asking a hungry person to choose between quality and availability of food. This tends to begin with availability, and down the road, quality will become an issue, based on customer feedback and input.”

5.1.4. Equipment and Technology

Consumer groups were unanimous in reporting that VRS equipment must be interoperable (i.e. required to work with any other VRS service) even if the equipment is distributed for free by the VRS provider. They also state that the equipment should allow for video calls to others (i.e. point-to-point) in addition to relay calls. Point-to-point calls will allow users who may be less comfortable with new technologies become more familiar with it.

Responses from groups participating in the Telus VRS trial stated a preference for the availability of other types of VRS equipment, such as downloadable software for their computers or smart phones. They report that mobility is an important consideration for VRS and they would like to be able to connect through wireless devices as opposed to being tied to a modem or router. Additionally, they expressed concern that the current VRS is tied to one Internet provider and that in order to partake in the trial, many individuals had to switch carriers. Other groups expressed similar concerns and prefer that VRS not be tied to one telephone or Internet company.

5.1.5. Costs and Funding Considerations

The majority of groups indicated that VRS should be a free service funded by a surcharge on all telephone bills. Ideally, any cost should be equivalent to that of phone calls made by hearing people. However, concessions should be made for the fact that video calls require significant broadband usage. Comments regarding cost and funding are:

“Actual VRS service should be free of charge, paid by phone bill surcharges. The users should not pay for any software to create VRS calls. However, to generate further funding, VRS companies may want to sell the equipment, and a random survey told me the maximum people could pay is \$150. However, applications for those who are on supported assistance, (i.e. welfare, disability assistance, retired, students) should be allowed to apply for subsidized equipment.”

“Ideally, it should be free to the consumer. If not, then it has to be cost equivalent for any calls that would be the same as a hearing person making a call via their telephone.... Cost consideration needs to be factored in to make sure that consumers would not be punished financially for having to use more broadband than allocated based on their account.”

“We must not be limited due to funding. Canadian Government has the responsibility to ensure we all are being treated equally. All telephone companies should be required to pay .05 cents [sic]⁶² each bill to provide equal access without using lack of funding as an excuse.”

The Canadian Association of the Deaf proposed the following cost consideration:

“Yes, they should pay, but in the form of a standard service contract just like the contracts for regular (voice) phone or Internet service – e.g., \$35/month basic service fee, with extra charges for special services and excess usage and so on. But because VRS is being delivered via the Internet, they should get 50% discounts on their billings to compensate for their higher usage of broadband. As for equipment, it should be costed just the same way ordinary phones are costed.”

Some organizations reported that the U.S. model should be adopted and that telecom companies can all pay into one fund that is managed by an independent company. The independent company would then distribute the money to qualified VRS providers, thus allowing those without a telecom license the ability to become providers.

⁶² Five cents.

5.1.6. Other Considerations

Education and Outreach

All organizations stressed the importance of public education and community outreach in reference to VRS. Many groups mentioned the importance of educating hearing people on how VRS works, in order to increase awareness and likeliness to receive interpreted calls. This is of special significance in regard to third party limitations on calls. For example, Revenue Canada would not accept an interpreted VRS call from a Deaf citizen due to restrictions related to releasing information to a third party (i.e. the interpreter). Some VRS companies provide power of attorney documents to their consumers to circumvent this issue.

Education will benefit potential users who may be less technologically capable and all education for the community must be provided in their preferred language to facilitate full understanding and access to the service.

Responses varied on how public education should be funded and who should provide it. Answers included:

- VRS provider should be responsible for education and outreach
- CRTC as a neutral party should take responsibility
- Telephone companies in partnership with VRS providers
- VRS providers in partnership with Consumer organizations
- Consumer advocacy organizations with or without funding
- Provincial governments

Many groups emphasized that public education for the Deaf community should be conducted by Deaf people. Some groups expressed willingness to conduct public education through their own resources (e.g. websites, vlogs, events, etc.).

“It will be necessary, especially if Canadian VRS is different from American VRS in any way (because consumers will want to know why it is different). It is not only the Deaf community that needs education; the non-deaf community also needs to be educated so that they understand a little better that VRS allows Deaf people to use the phone just as easily as non-deaf people do. Also, if the CRTC creates a surcharge-funded TRS fund as the CAD recommends, consumers (both Deaf and non-Deaf) will need to be informed why there is a new surcharge on their phone bills to pay for VRS. Outreach to the deaf community must be done by Deaf people themselves; outreach to the non-deaf community should be done jointly by Deaf and non-Deaf people, if only to illustrate how VRS bridges the communication gap between them.”

Consumer Advisory Committee

Another consideration of importance to those surveyed was the creation of an advisory or monitoring committee representing consumers in order to monitor VRS. This group would be responsible for monitoring the service to make sure quality is maintained and consumer concerns are represented. Comments about the role of a committee are as follows:

“There should be a monitoring committee composed entirely of users, perhaps on a regional representative basis. The Canadian Government defines six geographical regions in Canada and that would be a good model for a monitoring committee. I use the term “monitoring committee” instead of “advisory council” because the latter have a bad reputation for uselessness and being ignored by the telecom providers that set them up; a monitoring committee would have more power and specific responsibilities (monitoring the service, interpreter quality, impact on the community, etc.) and they would be PAID for their time.”

“There needs to be an advisory role and that needs to be a structure whereas there are minimal expectations (minimum standards) and that guidelines are established and enforced to ensure that quality VRS services are provided. The VRS providers need to be involved in the community and demonstrate commitment to improving the services.”

Competition

All responses indicated preference for a competitive model of VRS in Canada with answers ranging between only a few providers to several providers.

Reasons listed were:

- Provide consumers with choice
- Competition encourages overall better quality of service
- Uncomfortable with monopoly model, specifically Sorenson
- More opportunities and choices for interpreters
- More jobs for Deaf people

Many representatives reported concerns about the presence of Sorenson call centers, particularly those serving the U.S. According to them Sorenson has a tarnished reputation in the Canadian Deaf community and therefore many users do not want to see Sorenson as the sole VRS provider. For instance, the CAD made the following comment regarding monopolies:

“...Sorenson’s behaviour has shown us the terrors of allowing them to have a monopoly, and if there is a monopoly in Canada it will be Sorenson who gets it; so now we favour

open competition. We might favour a monopoly if three conditions are met: (1) It is not Sorenson; (2) It is at least 80% Canadian-owned (public or private ownership); (3) At least 60% of its employees, including executives, are Deaf Canadians.”⁶³

Registration

In consideration of potential applications (such as providing location information to 9-1-1 centers, control of program costs, etc.) groups were asked whether VRS users should be required to register before being able to use VRS and if proof of hearing loss should be mandatory. In addition, they were asked if hearing people (e.g. relatives of Deaf, or schools for the deaf) could also be registered VRS users, perhaps allowing them to utilize the enhanced technology for point-to-point calls. Responses varied and most reported that registration should be required for 9-1-1 purposes, but some indicated that 9-1-1 would not work with mobile VRS because the registered address may not be the location of the originating call. Many responses illustrated unfamiliarity with the purpose of a registration process; however some comments regarding these questions are as follows:

“VRS should be open to anyone who needs it, hearing people calling deaf and deaf calling hearing.”

“No, the 911 office should be connected with the VRS companies to connect the users’ IP number or GPS location. Hearing people should have access, as some Deaf adults go home to visit parents, and can’t bring VP with them. Also VP set up at hearing parents will allow option of video-to-video conversations and VRS service use.”

“The same requirements for registering for the current 50% discount for basic phone service should apply to VRS registration.”

5.1.7. Concerns and Overall Comments

The majority of concerns reported by those surveyed related to their perception of a shortage of interpreters currently existing in Canada. They stress the importance of VRS providers working with interpreter agencies and consumer groups to establish procedures to prevent community shortages. Some organizations stated that it may be necessary in the beginning stages of VRS to have limited hours to allow the pool of interpreters to grow resulting in added VRS availability. Suggested strategies to deal with interpreter availability included:

- Limited hours of availability (e.g. cut midnight to 6:00am shift)
- VRS model that balances community interpreting with VRS
- Tiered system for interpreters in VRS (e.g. basic or routine calls not requiring a high skill of ASL could be routed to a compatible interpreter)⁶⁴

⁶³ Emphasis is in the original.

- Investment by VRS providers or telephone companies in training programs (e.g. scholarships, funding for expansion and teachers)
- ASL and LSQ communication modes first with others added when resources can support them

Another area of concern was related to affordability. Several organizations reported that Deaf people typically do not have large incomes and most are unemployed or under employed. This is an important factor as VRS requires broadband access to the Internet and may require purchased equipment. Several groups reported that accommodations should be provided so that those with less income can also access VRS. Deaf consumers using VRS will use a significantly larger amount of broadband and should not be penalized for that. Organizations stated that VRS is supposed to give Deaf and hard of hearing people equal access to the telephone and as such the cost of broadband should be affordable, comparable to unlimited telephone calling. The lack of availability of broadband Internet access in rural areas may not accommodate VRS, but organizations hope that adjustments and improvements will be made to allow access to those users, perhaps by setting up VRS stations in community centers or libraries.

Advocacy organizations all emphasized the importance of involving the Deaf community in and throughout all stages of VRS implementation. They report that consultation with the Deaf community should not be limited to an advisory capacity, but should have meaningful functions for consumers throughout the process. Furthermore, several stakeholders strongly suggested that Deaf people be employed by the CRTC in order to assist the CRTC in understanding, appreciating, and being appropriately responsive to disability access issues related to the Deaf community.

“It is absolutely essential for the CRTC to mandate the full and complete engagement of all stakeholders – deaf, deafened, and hard of hearing community members, representatives of the interpreting community, existing community interpreting service providers (like The Canadian Hearing Society) – in the development and delivery of VRS in Canada to assure that resource capacity will not be entirely draining from community service needs.”⁶⁵

As reported earlier, consumers groups indicated that they do not want to be limited to one Internet or telephone company as is the case with current IP Relay. They state that requiring customers to have a telephone line in order to use IP Relay is prohibitive, since many Deaf people no longer possess landlines. This protocol would not be acceptable for VRS.

British Columbia and Alberta organizations’ largest concern was the lack of a permanent solution. They do not see how such a valuable service could be given to the community and then taken away when the

⁶⁴ Some reported this would not work since people would tend to choose the higher quality interpreter regardless of their need.

⁶⁵ Canadian Hearing Society response to CRTC Broadcasting Notice of Public Hearing CRTC 2008-8 Telecom Public Notice CRTC 2008-8.

current Telus/Sorenson trial ends. They feel strongly that many Deaf and hard of hearing people have come to rely on the service and hope that a permanent VRS solution will occur prior to the anticipated trial end date.⁶⁶

Consumer stakeholder representatives were asked to provide their thoughts on what the biggest challenges for VRS deployment in Canada might be. Several themes emerged from their answers:

- Interpreter availability in ASL and LSQ
- Cost and funding issues
- Technical issues

“The biggest challenge would be to provide qualified interpreters, but with the right approach, the right strategy, it is achievable.”

Lastly, groups were asked how they would define a successful service in the beginning and their responses are summarized below:

- By simply having it start and be available
- Qualified interpreters with minimal strain on community
- Provision in four languages: ASL, LSQ, English and French

“Strong community education, equal access, various VRS providers, open for any individuals to establish their own VRS business, deaf and community friendly, work closely with community interpreters, and deaf service providers, free usage, high quality of interpreters –members of AVLIC not RID. CRTC must be sure that Sorenson is not the only service provider. There are an increasing number of complaints in USA about Sorenson’s quality of service and monopoly of the market.”

“We will be celebrating as history will be occurring for Deaf Canadians!”

5.2. Francophone User Group Perspectives on Video Relay Services

A response rate of 71% was achieved for francophone advocacy groups, and all completed questionnaires came from Québec and Ontario only.⁶⁷ Representative user organizations’ primary constituents are summarized in the table that follows.

⁶⁶ Telus’ trial was expected to end in June 2011, but was extended to January 15th 2012.

⁶⁷ Questionnaires were received in French and translated into English.

Table 6: Constituents Represented

Constituents	Number
All inclusive (no distinction)	6
Culturally and Linguistically Deaf	3
Deaf-Blind Usher's Syndrome	1
Hard of Hearing (distinct from Deaf)	2

In addition to the questionnaire responses, several groups were interviewed in-person and provided ongoing consultation throughout the research for this phase. Additional meetings of representatives from various advocacy groups were also held in Québec as part of this study's consumer perspectives research. The information was categorized by topic and is summarized in this section.

5.2.1. Personal Experience with VRS and Perspective

Previous experience with VRS was less widespread in Québec due in part to the fact that no VRS offers LSQ-French interpretation. However, several organizations reported experience with VRS, but only in American Sign Language. Many of these individuals are fluent in both LSQ and ASL and therefore had experience with the U.S. ASL-English VRS. Those with experience all stated that the service was truly wonderful and the only drawback was that they had to communicate in ASL rather than LSQ. All expressed strong interest in having LSQ-French VRS available in Québec.

Responses to questions about each organization's goals or views regarding VRS are summarized as:

- Equal access to information and opportunities equivalent to hearing persons
- Establishment of VRS in LSQ and other forms
- Access to telephone communication for Deaf individuals in LSQ
- Facilitate video communication for lip reading
- Better communication for the hard of hearing
- Access to telecommunication adapted to specific needs

The majority of organizations did not have an interest in becoming VRS providers, although two culturally Deaf organizations would be interested. Organizations do state, however that continued involvement from stakeholders throughout Québec, including interpreter organizations, is critical to successful implementation.

5.2.2. VRS Service Considerations and Expectations

Questions regarding the most important considerations and consumer expectations were asked of each group. Answers varied, primarily in relation to who their primary constituents are. For instance, the hard of hearing groups' responses focus only on considerations related to speech-reading. However, some areas of agreement between the groups were as follows:

The most important considerations for VRS:

- Interpreter availability and minimum qualifications
- Stakeholders involved in all stages of VRS (implementation, operation, etc.)
- Cost and funding, how to pay for it
- Recruiting interpreters and preventing drain of community interpreters
- Broadband limitations in rural areas, cost of broadband
- Recognition of LSQ and access to VRS in LSQ

In terms of consumer expectations, common themes were:

- Access to professional and qualified interpreters
- Interoperability of equipment (equipment must work with all potential providers)
- Protocols for handling calls (e.g. announcing the call) similar to current relay
- Universal and free equipment and service
- Access to 9-1-1
- Complaint and resolution procedures
- Deaf and hard of hearing community involved in VRS in all stages
- Equipment should allow point-to-point calling

One organization had the following comment regarding common expectation for VRS:

“Independence. A feeling of freedom and equality. Reduction of comprehension errors in communication. No longer depending on anyone.”

Similar to the Anglophone community, opinions varied regarding which forms of communication are appropriate for use in VRS. The culturally Deaf and Usher's Syndrome groups plus three all inclusive organizations only approve of ASL and LSQ, making up approximately 58% of those surveyed. One hard of hearing group only mentioned oral French as appropriate and the other group stated only oral French and LSQ should be included. The remaining organizations reported that all forms of communication should be included. As is the case throughout Canada, the inclusion of various forms of communication continues to be a controversial topic amongst stakeholders. The reasons cited for only including ASL and LSQ were identical to those of Anglophone groups that had the same preference. Groups fear that

too many different communication forms will further tax the availability of qualified interpreters. They are also concerned that the CRTC will conclude VRS too difficult to accommodate. Some also indicated that other forms can come later, but that in the beginning VRS should focus only on LSQ/ASL. Others stated that access should be available to all who can benefit from the service and therefore VRS should not discriminate based on language preference. Varied comments regarding forms of communication are as follows:

“There are more than one would think! There is the Québécois Sign language, American sign language, signed French, Pidgin, Cued speech (LPC), etc. It will therefore be necessary to see a very efficient sorting of calls based on working language.”

“Only the Québécois sign language, like other countries. The VRS should never use different communication because the francophone deaf community only recognizes the Québécois sign language.”

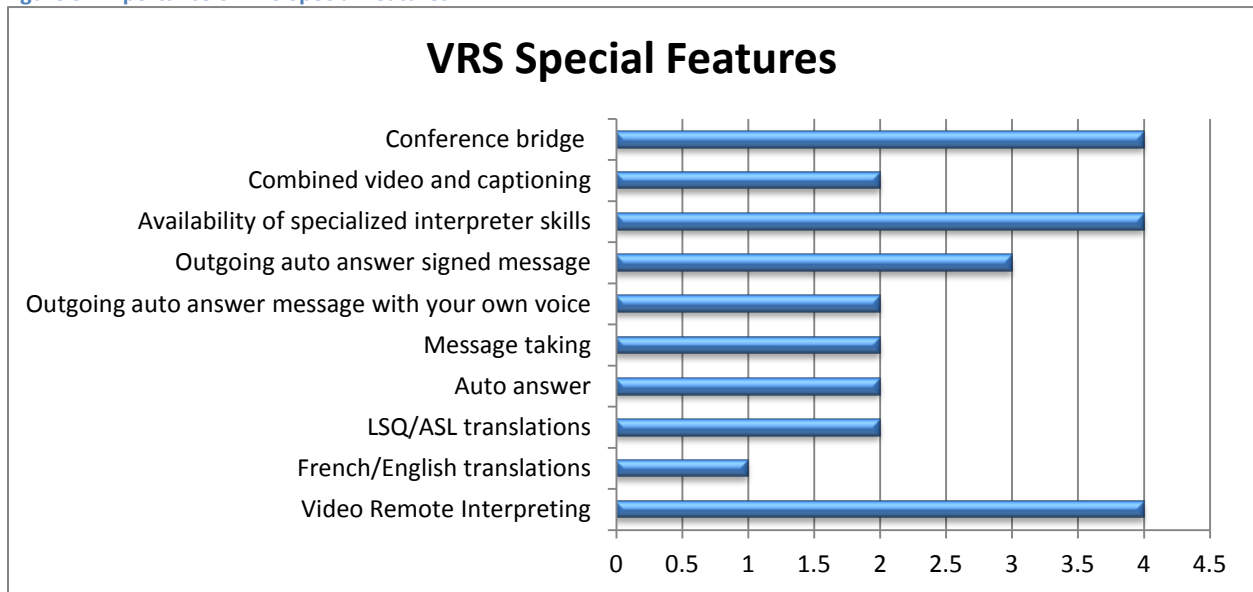
“At the beginning we set it up for those that have had a great desire for this service for a long time: the LSQ and ASL users. For the others, the hard of hearing do not feel a need for this service so the VCO and HCO functions and other forms can wait. There are almost no users of signed English or signed French in Québec.”

“LSQ and ASL, the true languages of the Deaf. Cued speech must be removed; signed French and signed English are false languages.”

“Access to all modes and codes.”

Consumer groups were asked to prioritize selections from a list of potential VRS features by relevance and importance. The most popular responses for each feature are summarized in the following figure.

Figure 3: Importance of VRS Special Features



Opinions are mixed regarding whether these features should be free or paid for. Some report that any features that are included in a standard cellular or phone contract should be included and additional features can be purchased by the consumer according to interest. VRI is of interest to those in Québec mostly due to the shortage of interpreters. Some consumer groups reported that VRI would help alleviate the shortage by allowing consumers to use an interpreter's services more efficiently through VRI instead of having to book an interpreter for a minimum of two hours for an appointment that may take substantially less time.

Groups indicated that potential users are interested in these features, but they believe initial service is most important. Similar to concerns over the inclusion of too many communication forms, many consumer groups report trying to include and accommodate all various features may cause the CRTC to delay implementation. It is also worthwhile to mention that due in part to the limited VRS exposure of the francophone population, several responses indicated a lack of awareness regarding special features.

Questions about other features (e.g. VCO, HCO) and user profiles to indicate communication preference also drew mixed answers depending on constituent base. The groups representing the culturally Deaf do not want any additional barriers or delays to having VRS; therefore they state other features and communication forms can come after the initial set up. Other groups report that VRS should not discriminate against anyone who may prefer other forms of communication. Some state that the inclusion of additional services will most likely depend in part on the availability of resources to support those features.

5.2.3. VRS Interpreter Considerations

Questions pertaining to interpreter considerations for VRS were asked in order to gather perceptions and information about interpreter availability, certifications and minimum standards, and other factors related to VRS from the perspective of advocacy organizations.

LSQ-French interpreter availability in Québec and Ontario is limited and advocacy groups report a severe lack of qualified LSQ-French interpreters. However, regardless of a shortage of interpreters all groups report that VRS should only hire qualified interpreters. LSQ-French interpreters do not have a standardized certification procedure as of yet, but many service agencies do have internal evaluation procedures. Consumer groups report that in order to obtain qualified interpreters, VRS providers should require proof of a service agency evaluation and/or graduation from the interpreter training program at UQAM. Similar to the responses of interpreter organizations in Québec, consumer groups also emphasize the need for a balance between community and VRS interpreting. Many suggest that VRS providers work in partnership with the local agencies to prevent a strain on the current availability of interpreters.

“There is a lack of interpreters almost everywhere in Québec. However, if agreements were made with the organizations that offer services in Québec, many interpreters in the private field would work for these organizations since there would be more full-time positions. For the users there must be a guarantee of quality and professionalism. The VRS could subcontract to organizations that offer interpreting services in Québec, in

order to assure themselves that the interpreters of the VRS have been evaluated, that they are qualified, and that they receive continuing education.”

The lack of standardized certification procedures is of major concern to many stakeholders. Therefore, it is imperative that consultation with interpreter agencies and trainers, plus consumer community involvement occur during the implementation of VRS. Some report that strategies to increase the pool of interpreters and the number of qualified trainers be addressed during the process. Possible strategies include funding to encourage more students to complete the training (e.g. scholarships) and implementation of LSQ instructor training programs. Particularly in Québec, where interpreter resources are strained, it is reported that collaboration with all stakeholders is critical for successful VRS implementation. The lack of standardized evaluation of interpreters is another concern for stakeholders. In Québec many interpreters work for themselves as freelance interpreters and many have not completed appropriate training, and therefore there can be no assurance of quality.

Responses were split regarding whether interpreters should be permitted to work from home for VRS. Those in favour stated less travel time for the interpreters would increase their availability and also benefit those in rural areas where access to interpreters is limited. Those against interpreters working at home cited confidentiality, monitoring of employees, respect for the client, and technical considerations as potential issues.

Using U.S. interpreters for VRS is not a feasible option for the Canadian francophone population, as LSQ does not exist outside of Canada. Most organizations recommend the call centre for LSQ-French users be located in Québec with significant input from the consumer groups and interpreter organizations. Again, consultation with consumers and interpreters regarding the placement of call centres is seen as imperative to prevent critical shortages of community interpreters. Oral deaf users also stated a preference for call centres to be placed in Québec due to the fact that speech reading will be better facilitated by oral transliterators familiar with the specificities of Québécois French.

In response to the question whether quality or availability is more important when VRS first begins providing service, consumer groups provided the following comments.

*“No concession is possible. There must be availability **AND** quality”*

“Availability while including training to improve quality”

“The two values are inseparable, but it is quality that takes preference over availability.”

A summary of all responses is provided in the following chart.

Figure 4: Importance of Quality vs. Availability



5.2.4. Equipment and Technology

Consumer groups were unanimous in reporting that VRS equipment must be interoperable (i.e. required to work with any other VRS service) even if the equipment is distributed for free by the VRS provider. They also state that the equipment should allow for video calls to others (i.e. point-to-point) in addition to relay calls. Several organizations reported preferences for mobile VRS and the ability to download software to computers instead of being tied to a videophone. Another important consideration raised was the need for image quality (i.e. frames per second) showing the fluidity of hand movements in order to ensure comprehension.

5.2.5. Costs and Funding Considerations

The overall consensus of all groups surveyed was that VRS should be free and funded in the same manner as other relay services (i.e. a surcharge on telephone bills). Costs to the user should be equivalent to those a hearing person incurs with concessions made for the fact that a VRS call takes longer than a spoken call. Varied comments regarding costs and funding include:

“In Canada, the current relay services are financed by all the citizens. It is a collective, social, and inclusive service. Making the users pay is a measure that would favour the richest to the detriment of the poorest and that is unacceptable. In Québec the

equipment is free and paid for by the RAMQ.^[68] The equipment should therefore be submitted to the RAMQ so that the government of Québec will pay for this equipment.”

“The users can pay roughly the same price per month as hearing people. For example, Bell offers a home telephone service and the user pays the monthly price and chooses a plan. So, for users, they could make the same choice above with the VRS to choose plans.”

5.2.6. Other Considerations

Education and Outreach

Québec organizations also stress the importance of public education and community outreach in regard to VRS. It is important to educate the non-deaf population on VRS to increase awareness and improve their communications with Deaf people. Consumer groups stated that all potential user groups and current relay users will need to be educated on VRS and ideally the education should be in the communication form of their choice. Several organizations underline the importance of hiring Deaf individuals to conduct outreach and education.

Responses varied on how public education should be funded and who should provide it. Answers included:

- VRS provider should be responsible for education and outreach
- Telephone companies
- Government
- Advocacy organizations with or without funding

Many organizations illustrated willingness to provide “word of hand” efforts to educate the public through their networks, although they would most likely require some funding to do so.

Consumer Advisory Committee

The concept of an advisory committee to monitor VRS and ensure quality for the customer was of great importance to those surveyed. Groups stated that it is crucial to have involvement from the users and stakeholders for the provision of VRS and to guarantee the service meets the needs of the user population. This is of special significance for those in Québec due to the lack of standardized interpreter qualification procedures and therefore, user groups report the importance of having a committee to monitor and evaluate interpreter qualifications.

⁶⁸ RAMQ: Régie de l'assurance maladie du Québec; Québec's health care agency at <http://www.ramq.gouv.qc.ca>.

“The users should have an advisory group representing them to critique the service and give advice on the changes, orientation, and development of the service.”

Competition

The majority of responses indicated preference for a non-competitive VRS model with a strong caveat that the service work with any equipment, telephone or Internet provider.

Reasons listed include:

- Conserve interpreter resources
- Allow for better control and universal quality of services
- Less cost and confusion over multiple providers

Those who indicated a preference for a competitive model believe competition will create better service and lower costs.

User group comments concerning competition:

“If there is one sole supplier of VRS it must be able to collaborate with all telecommunication businesses without regard to competition. If this is impossible, it would be necessary to have several suppliers depending on the competition of telecommunications suppliers in Canada. For example, Videotron blocks all communication with the supplier of Bell Relay Service, forcing users to use Telus Relay Service because of the agreement linking them even though Telus and Bell work together at the HSPA cellular level.”

Registration

In consideration of potential applications (such as providing location information to 9-1-1 centers, control of program costs, etc.) groups were asked whether VRS users should be required to register before being able to use VRS and if proof of hearing loss should be mandatory. In addition they were asked if hearing people (e.g. relatives of Deaf, or schools for the deaf) could also be registered VRS users, perhaps allowing them to utilize the enhanced technology for point-to point calls. Responses varied, but the majority reported if registration would help facilitate 9-1-1 calls then it may be necessary. However, issues of mobility and perhaps calling 9-1-1 from a location other than the registered location were discussed. Most groups reported that registration should not be limited to those who can prove hearing loss.

“The Deaf communicate also with hearing individuals and vice versa and anyone across Canada can use VRS if he or she knows LSQ.”

5.2.7. Concerns and Overall Comments

Areas of concern for francophone stakeholders are summarized below:

- Interpreter availability and qualifications
- Lack of standardized interpreter qualification
- Inclusion or exclusion of various communication forms
- Cost and funding issues
- Equal service for LSQ compared to ASL

Consumer advocacy groups report that interpreter availability is the biggest challenge to a successful deployment of VRS in Canada. Therefore organizations in Québec place great importance on VRS providers working with interpreter agencies and consumer groups within Québec to develop strategies to balance community needs with VRS needs, and increase interpreter resources. Of special significance and concern for Québec is the need for minimum standards for interpreter qualifications. According to many advocacy groups it is absolutely imperative that VRS providers set minimum standards for hiring interpreters and that they work with the existing interpreter service agencies and LSQ training program to do so. As reported in this study's phase 6, *Interpreter Considerations*, the lack of standardized evaluation has resulted in many interpreters working as freelancers without proper training or experience. This is an important consideration for LSQ-French VRS deployment.

Concerns over affordability of broadband and equipment related to VRS are similar across Canada. Issues of unemployment and underemployment of Deaf and hard of hearing individuals are comparable in Québec to that of other provinces. Of special concern to francophone stakeholders is to make certain that equal access to VRS occurs in LSQ and French.

6. Online Individual Consumer Survey

In order to obtain additional information directly from potential VRS consumers, an online survey was developed and administered by a third party IPSOS, under contract and direction from Bell Canada.⁶⁹ The goal of the survey was to identify interest in VRS for Canada across different constituent bases. The survey was initially sent to a Bell Canada panel of about 3,000 people with communication disabilities who offer to participate in Bell research. This resulted in about 400 responses, of which only a handful used sign language. The survey was then sent to all advocacy groups contacted for this research phase

⁶⁹ Mission Consulting developed the questions, IPSOS developed the online format. IPSOS provided the data files, a cross tabs report and a summary report. In addition to the IPSOS output, Mission Consulting hired a survey research firm, JD Franz Research Inc., to develop data runs and outputs of interest under Mission's direction. The analysis in this section 6 is a compilation and assessment of data by Mission from outputs by IPSOS and JD Franz.

with instructions to send the survey link to their members. Combined, the total number of Canadians who participated in the study was 1,299.

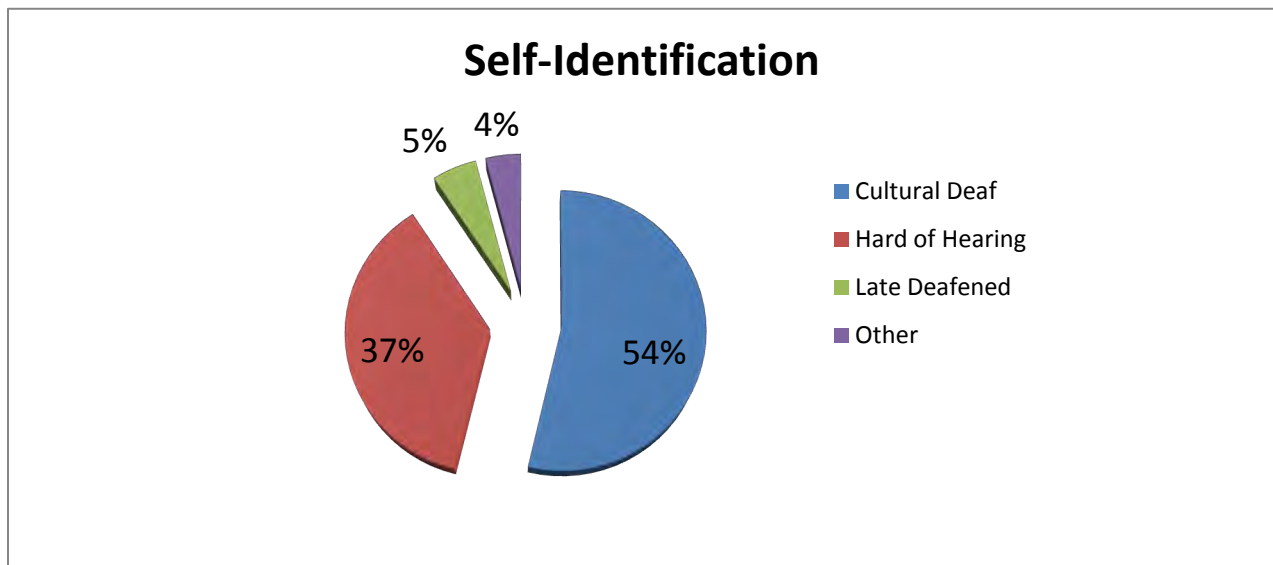
Because of time constraints related to the creation and posting of the online survey, it was not practical to provide the survey in ASL and LSQ. The survey was administered in written English or French, which therefore excluded many Deaf individuals who may not understand non-sign language communication. Many consumers reported difficulty understanding the survey, and therefore their answers may not be completely accurate representations of their intended responses. Additionally the survey was distributed online, which may not accurately represent the opinions of those who do not have Internet access.

Given these limitations, the information is presented as a general overview of possible potential users and their expressed interest in VRS and other forms of communication. It should not be taken as a full representation of all Deaf, deaf, deafened, and hard of hearing communities. Nevertheless the survey results are particularly informative of various user group interests, concerns and perspectives.

6.1. Population Demographics

In order to qualify respondents had to identify themselves, or another member of their household upon whose behalf they would be completing the survey, as living with a hearing impairment or complete deafness. Responses were well distributed across Canada with the majority of responses coming from Deaf and hard of hearing individuals.

Figure 5: Self Identification of Sample



In order to illustrate meaningful comparisons, individuals who did not self identify as culturally Deaf, hard of hearing or deafened were categorized as "Other". The individual identification types within the "Other" category are shown below.

Table 7: Analysis of Other Self Identification Category

Individual Identifications Classified as Other	Number
Deaf (unspecified)	23
Speech and Language impaired	9
Single sided deafness	5
Degenerative hearing loss	4
Deaf-Blind	3
No disability	5
Unable to hear certain frequencies	2
Other	2

The following two charts show respondents' age and region.

Figure 6: Age Group by Self Identification

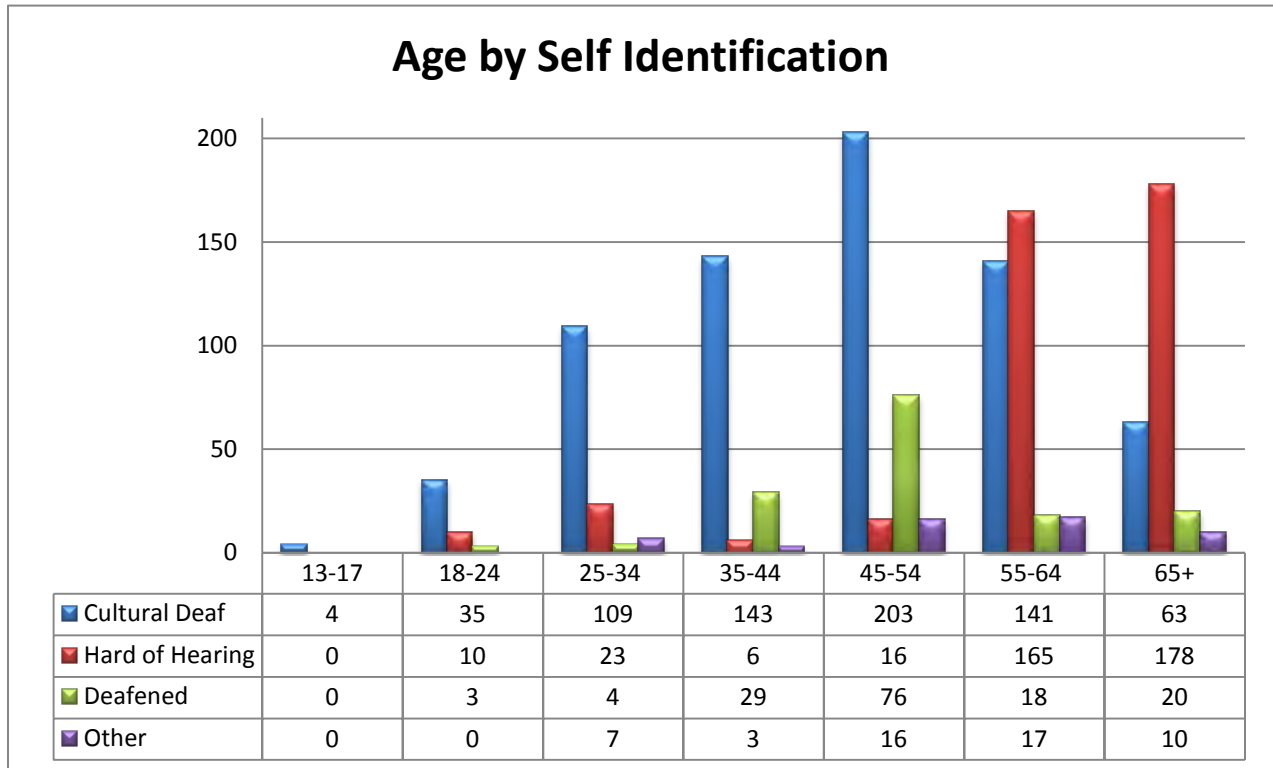
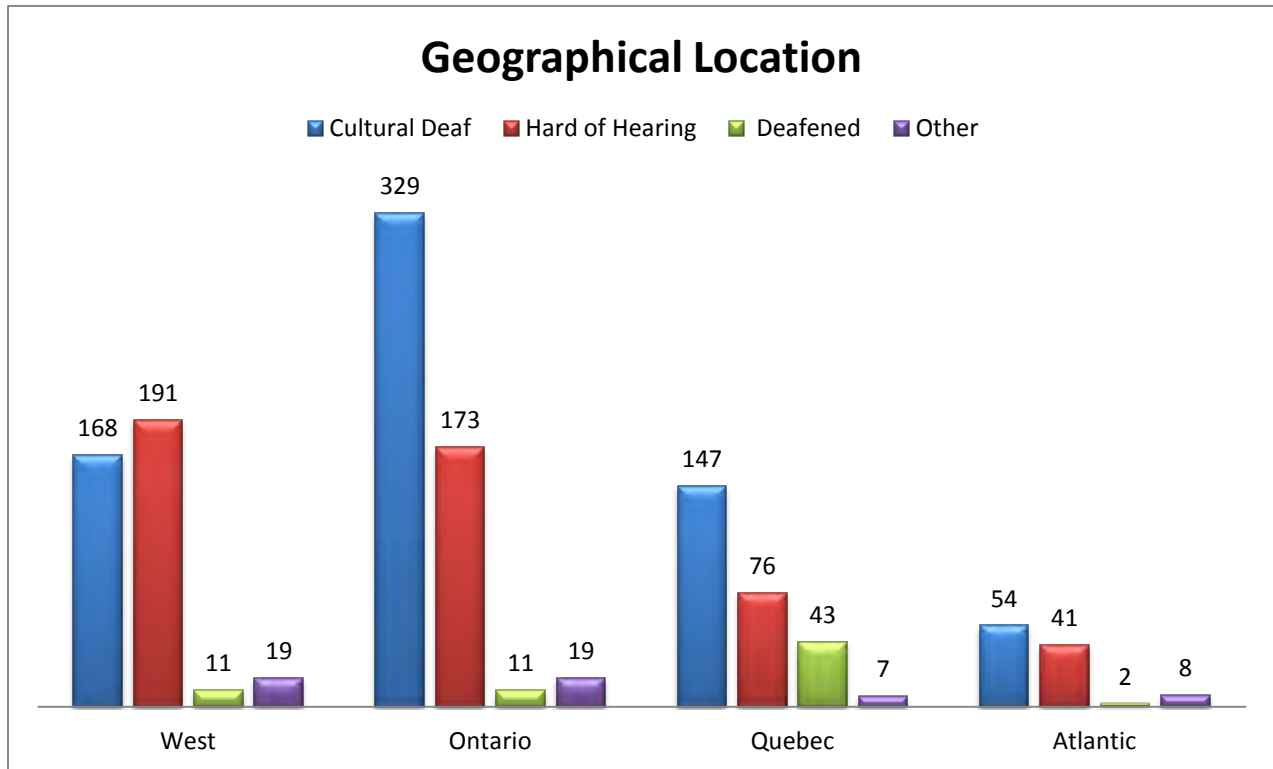


Figure 7: Geographical Location by Self Identification



The Francophone population accounted for approximately 18% of those surveyed indicating a dominance of Anglophones in the sample. The total Francophone population identified included all forms of language preference that made reference to either French or LSQ.

In order to create more meaningful comparisons for the purposes of VRS, the data on language preference was grouped into visual or non-visual forms of communication, which resulted in the following four categories:

- ASL: includes all combinations of ASL with written and/or spoken English, and speech reading
- LSQ: includes all combinations of LSQ with written and/or spoken French, and speech reading
- Spoken and/or written French or English
- Speech reading in either French or English without mention of visual support

Further details of language preference are shown in the following table:

Table 8: Language Preference Frequency by Self Identification

Language Preference	Frequency	Percent
ASL	633	48.7%
LSQ	161	12.4%
Spoken/Written English or French	427	32.9%
Speech Reading	37	2.8%
Other language preference	41	3.2%
Total	1,299	100.0%

The responses classified above as “Other language preference” were unspecified and as such are not included in this analysis. The total for these “other” responses only account for approximately 3% of those surveyed and do not alter the statistical significance of any of the findings. Therefore the sample size for language preference will be slightly lower than the self identification classification, 1,258 versus 1,299.

The table above confirms that the survey reached the intended audience. For instance, combining all forms of visual communication (e.g. ASL, LSQ, signed English/French, ASL/LSQ with speech-reading) regardless of type, accounts for 61% of those surveyed. The preference for spoken or written language (e.g. English, French, speech-reading) makes up 33% of those surveyed. Only 3% of those surveyed indicated that they preferred speech reading without any visual language support. No responses indicated the use of cued speech in either English or French.

Of those who prefer spoken or written language approximately 89% identify as hard of hearing. The percentage becomes 93% if deafened individuals are combined with the hard of hearing; confirming spoken and written language as the preferred method for these groups. Of those who prefer speech-reading 87% are either hard of hearing or deafened.

Further breakdown of language preferences is provided in the following charts.

Figure 8: Self Identification by Language Preference (n=1258)

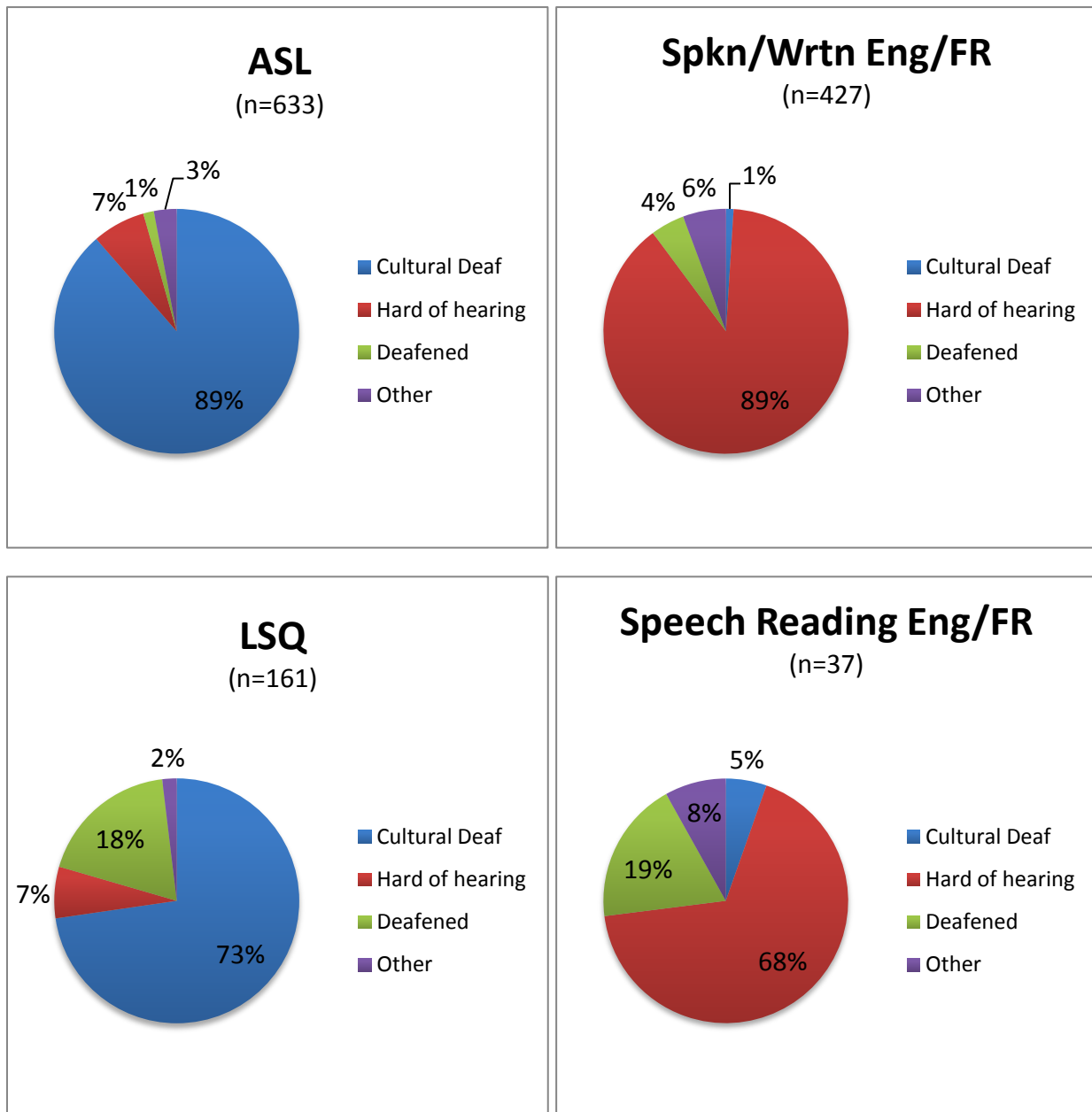
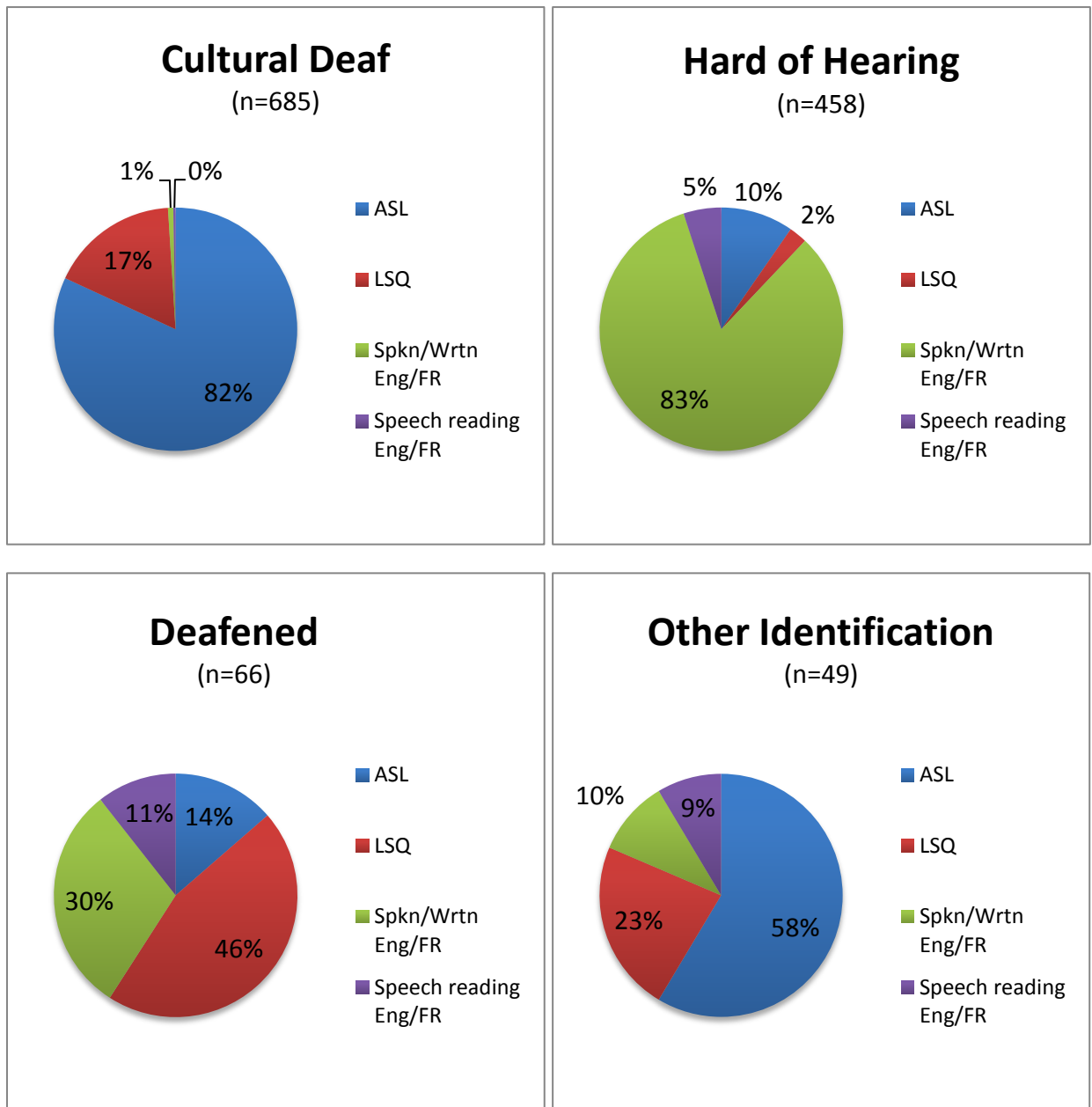


Figure 9: Language Preference by Self Identification (n=1258)



Additional demographic information including employment, education level, and income are summarized in the tables below.

Table 9: Percentage of Employment Status per Group (n=1299)

Employment Status	Culturally Deaf (=697)	Hard of Hearing (n=478)	Deafened (n=67)	Other (n=57)
Full time or 35 hours or more	48%	27%	30%	23%
Part-Time less than 35 hours	10%	9%	12%	9%
Unemployed	11%	4%	6%	4%
Unable to work	4%	3%	4%	9%
Student	7%	2%	1%	6%
At home full time	3%	2%	1%	17%
Retired	15%	53%	45%	30%

Of significance from the employment data is the high percentages of retired hard of hearing and deafened individuals. Additionally, the data substantiates the higher percentage of unemployment for culturally Deaf individuals, as mentioned earlier in this research.

Table 10: Percentage of Household Income per Group (n=1299)

Income Level	Culturally Deaf (=697)	Hard of Hearing (n=478)	Deafened (n=67)	Other (n=57)
Less than \$20,000	17%	8%	13%	17%
\$20,000 to less than \$29,999	13%	8%	16%	15%
\$30,000 to less than \$39,999	15%	11%	19%	9%
\$40,000 to less than \$49,999	8%	10%	13%	8%
\$50,000 to less than \$59,999	6%	12%	7%	6%
\$60,000 to less than \$79,999	9%	12%	7%	15%
\$80,000 to less than \$99,000	6%	9%	3%	6%
\$100,000 or more	4%	13%	6%	4%

The data on income levels again substantiates the lower earning potential for Deaf, oral deaf, deafened, and hard of hearing individuals. The median income in Canada for 2009 was \$68,410;⁷⁰ the data shows that approximately 68% of deafened, 59% of Deaf, 55% of other identification, and 49% of hard of hearing individuals make less than the median income.

Table 11: Percentage of Education Level per Group (n=1299)

Education Level	Culturally Deaf (n=697)	Hard of Hearing (n=478)	Deafened (n=67)	Other (n=57)
Elementary School	3%	3%	0%	11%
Some High School	9%	10%	13%	13%
Completed High School	27%	20%	36%	19%
Some college/technical school	8%	11%	6%	8%
Completed college/technical school	14%	22%	15%	13%
Some University	9%	11%	12%	9%
Completed University	25%	23%	15%	17%
Refuse	5%	0.4%	3%	9%

Education levels were consistent across self identification groups. However of significance is the high percentage for only elementary school completion. For example 3% of those who identify as culturally Deaf and 3% of hard of hearing and 11% of the other category all report only completing elementary school, even though only 4 people indicated being under the age of 18. This may be indicative of the challenges faced by some individuals with hearing loss in the school environment.

6.2. Current Communication Types and Relay Usage

Data were collected on the types of communication currently used by respondents and their preferences for current forms of relay.

High speed Internet was the predominant form of communication used at home, followed by cell phones, videophones and TTY services.

⁷⁰ <http://www40.statcan.ca/l01/cst01/famil108a-eng.htm>

Figure 10: Home Usage

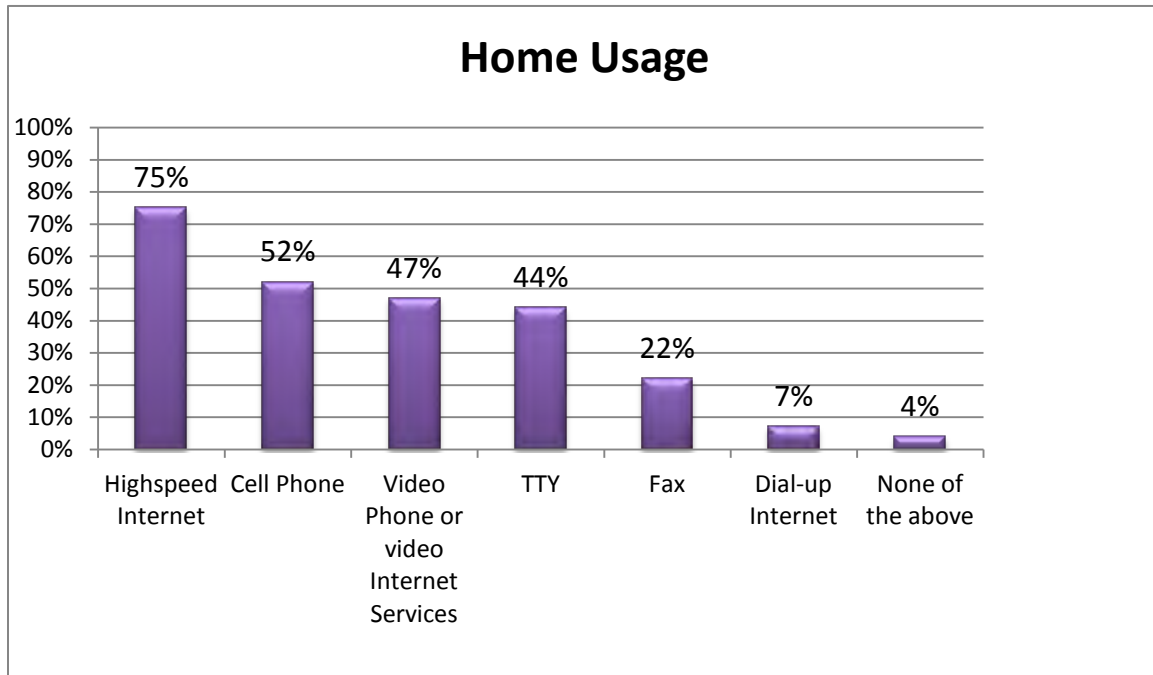
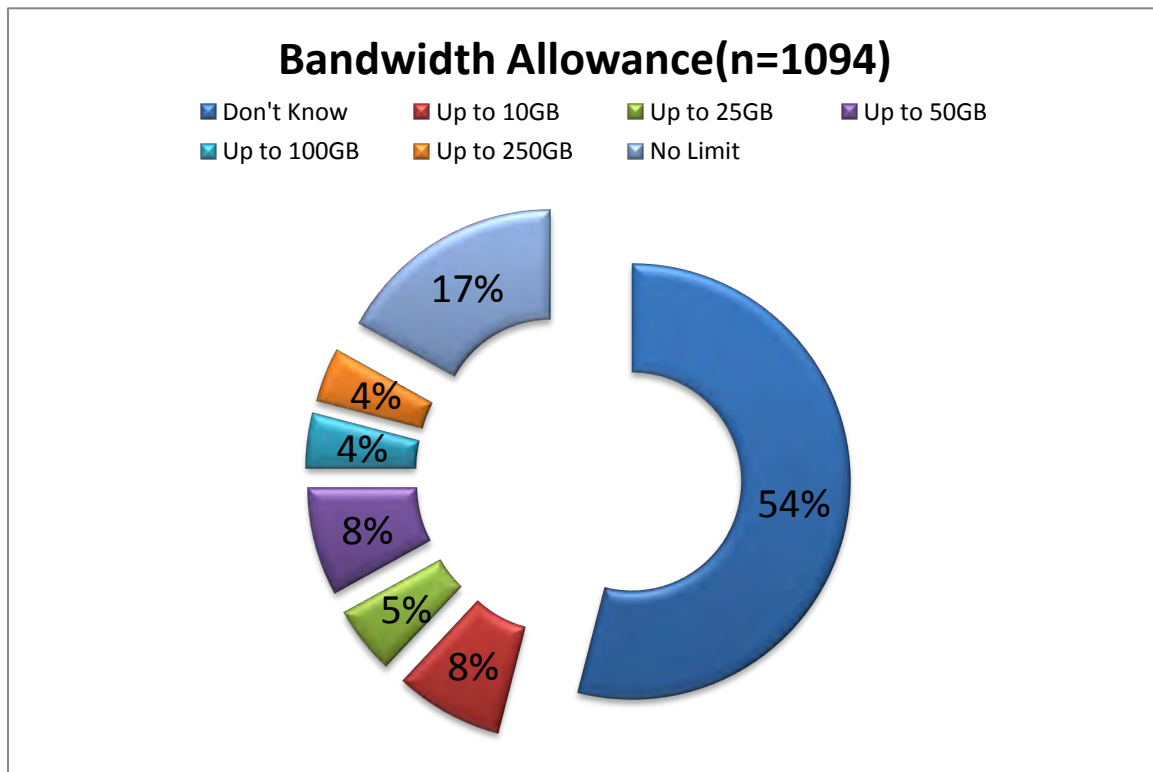
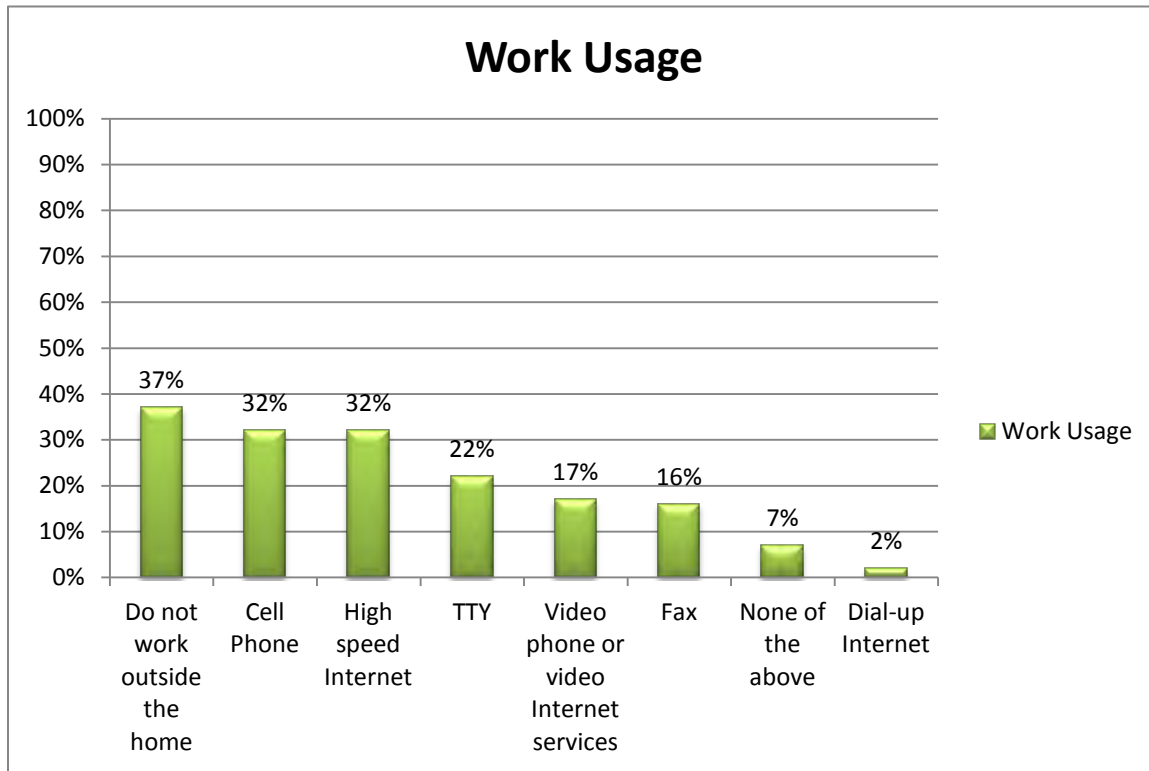


Figure 11: Bandwidth Allowance



Cell phones and high speed Internet were the most used forms of communication for those who worked outside the home, followed by TTY and videophones, as depicted in Figure 12 below.

Figure 12: Work Usage

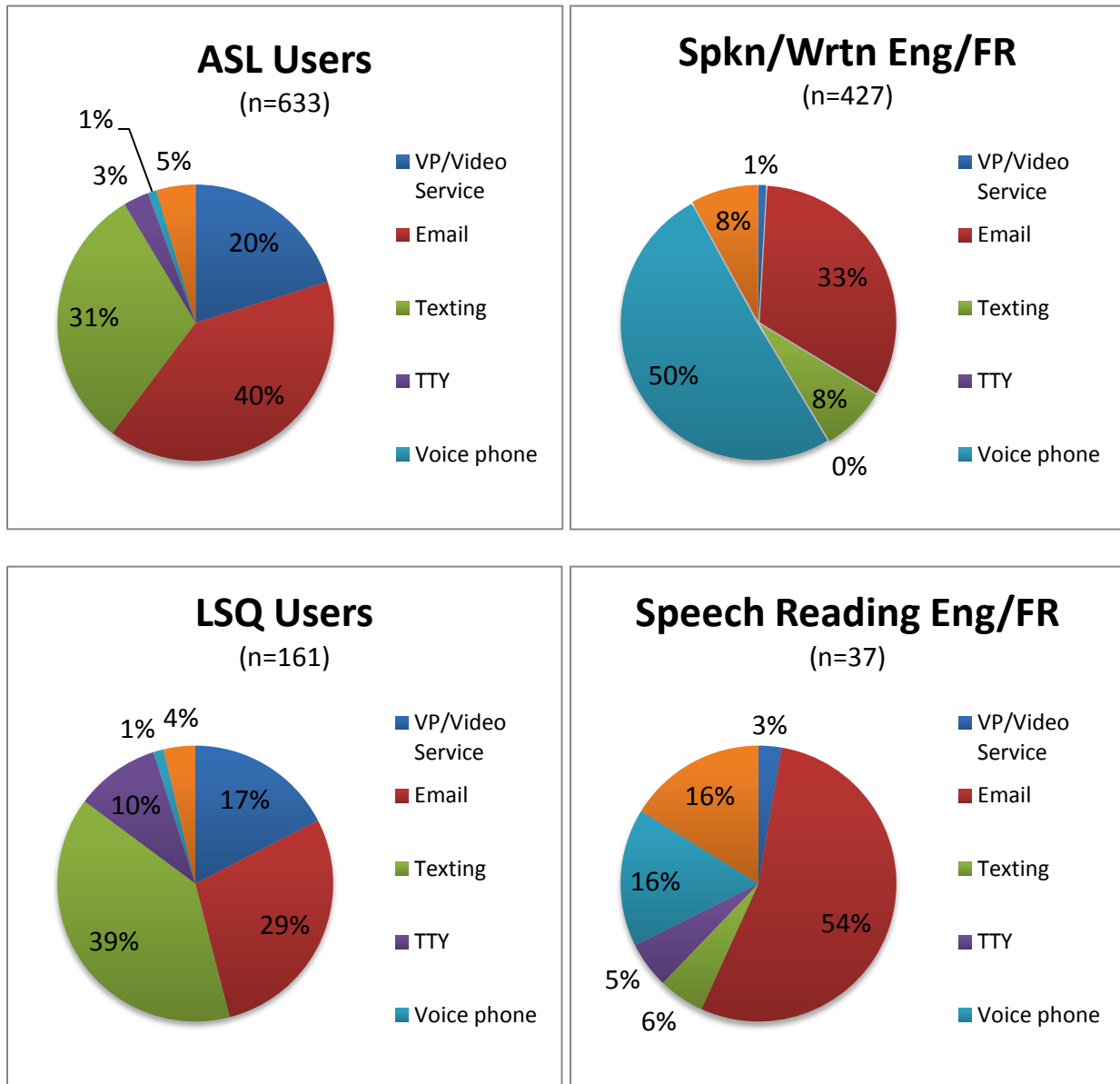


Further analysis identified the following key points regarding communication technologies in the home.

- Video phone and video Internet services were most popular with culturally Deaf individuals
- 33% of those with knowledge of bandwidth allotment have high bandwidth up to 50GB and above
- 13% are low bandwidth users and 54% do not know their allotment
- Culturally Deaf users show greater technological proficiency than hard of hearing users
- Those who identify as hard of hearing are more likely to use communications means that require auditory stimuli

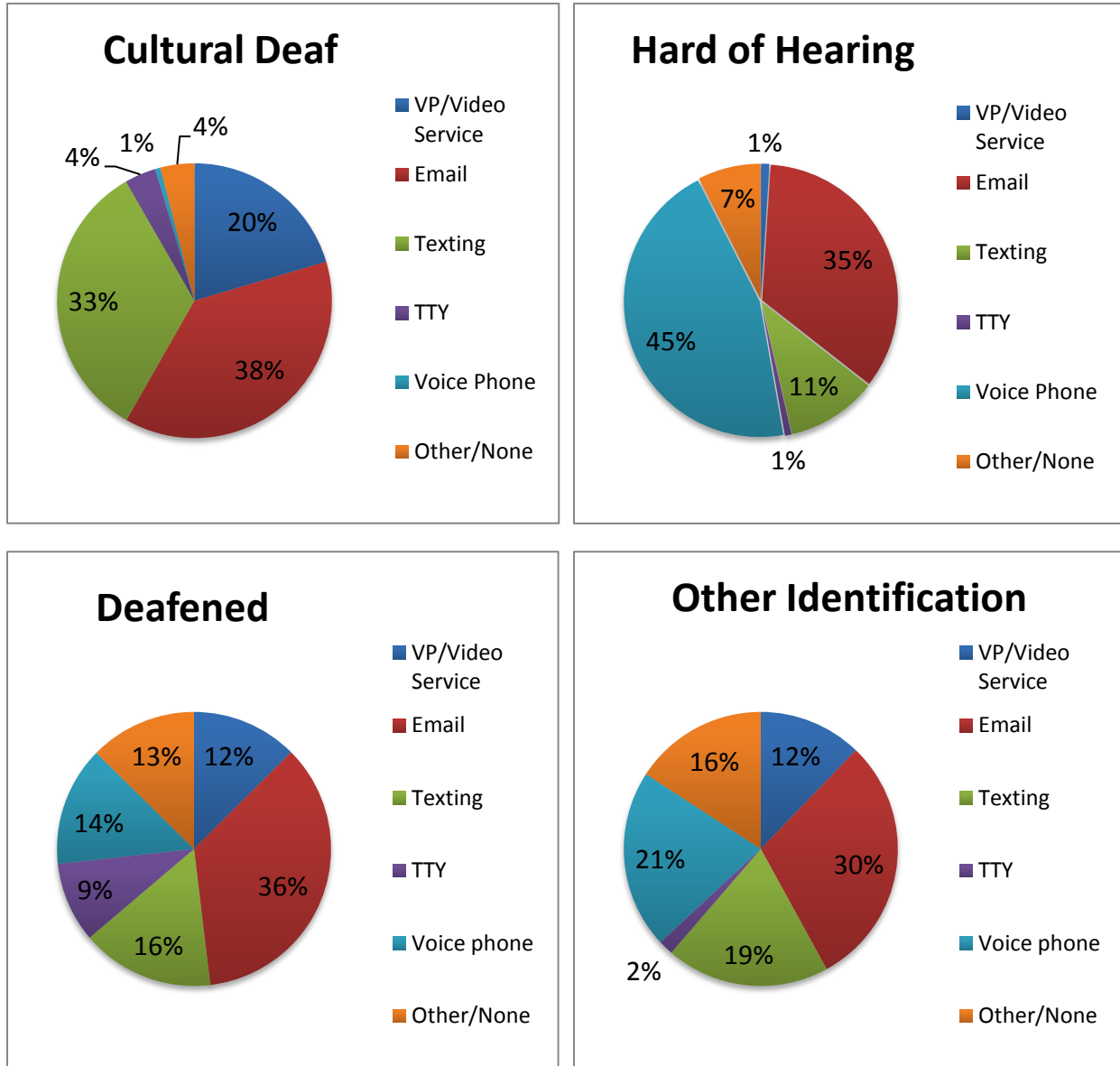
The most used form of communication responses were analyzed by the preferred language data with the following results:

Figure 13: Most Common Used Forms of Communication by Language Preference (n=1258)



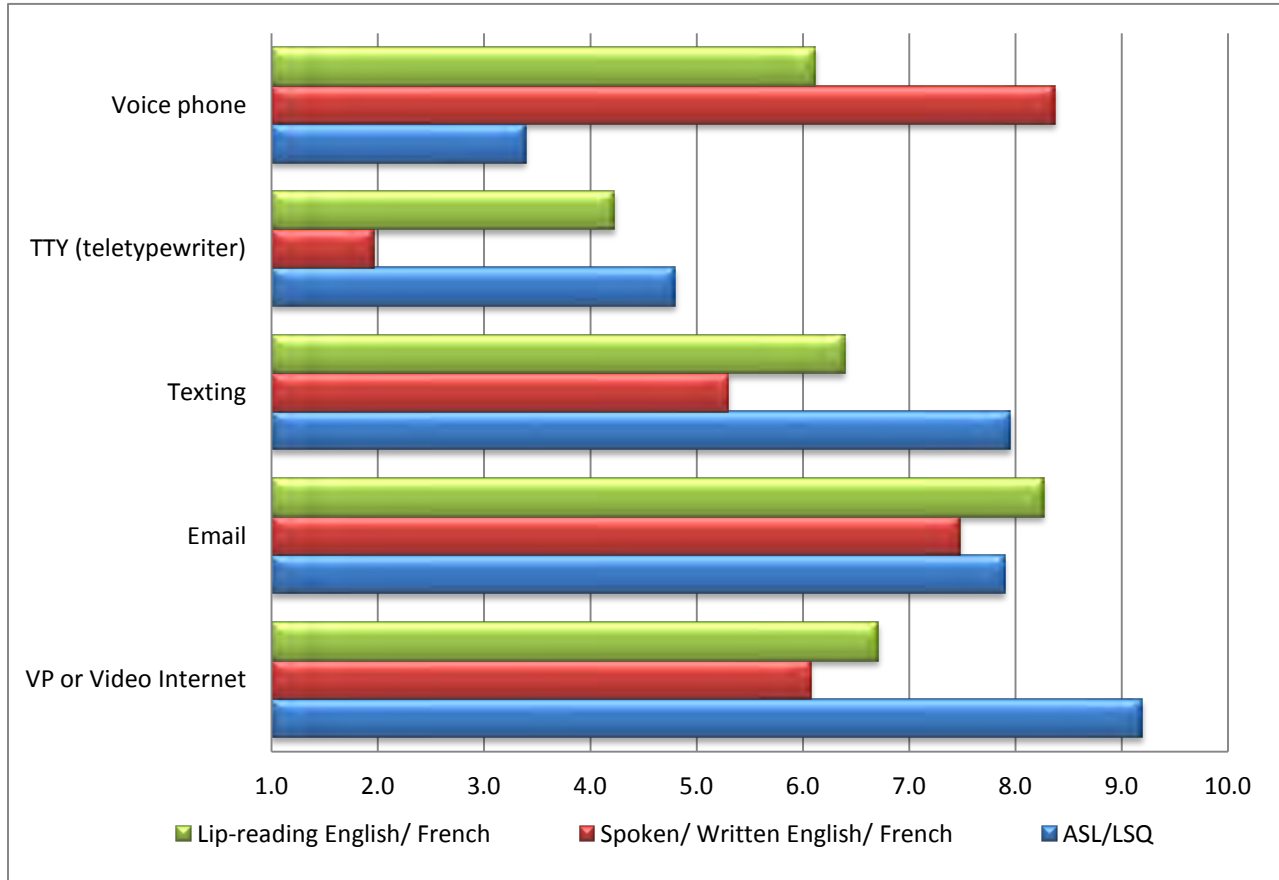
ASL and LSQ users had very similar usage patterns with email, texting and videophones. Those who preferred spoken language showed high usage of voice telephones. The same responses were then analyzed by self identification and are shown in the graphs below.

Figure 14: Most Common Used Forms of Communication by Self Identification (n=1299)



The average appreciation ratings (rated from 1 to 10) for various communication modes shown by language preference are displayed in the following graph. Although usage of TTY communication is listed among the most common used forms, the appreciation rating for it is very low across all groups.

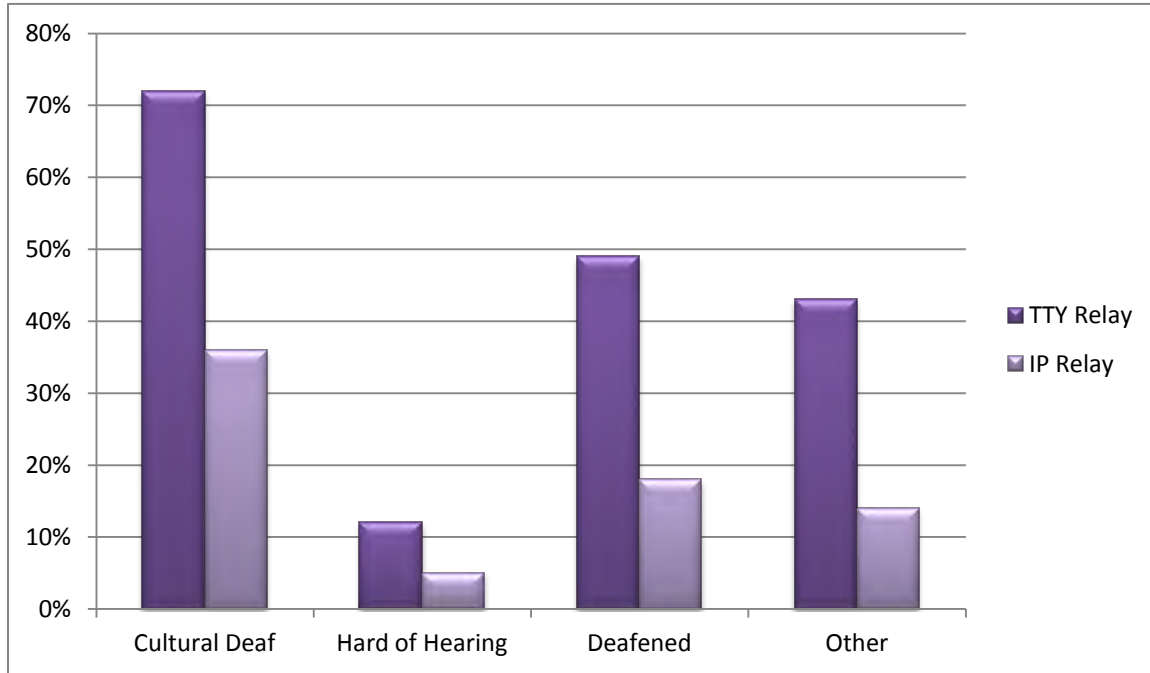
Figure 15 Average Communication Ratings by Language Preference 1 to 10 Scale (n=1258)



Those who prefer spoken and written language show a strong preference for voice telephones, while those who prefer visual language have strong preferences for videophones. All preferences have low appreciation for TTY communications. The highest average rating was awarded to videophone and video Internet services by those who primarily use ASL/LSQ.

Further data was obtained in regard to current usage of relay services with TTY relay having the highest usage. Relay service is used most amongst the culturally Deaf. Current relay usage by self identification is displayed in the graph below.

Figure 16: Current Relay Usage by Self Identification



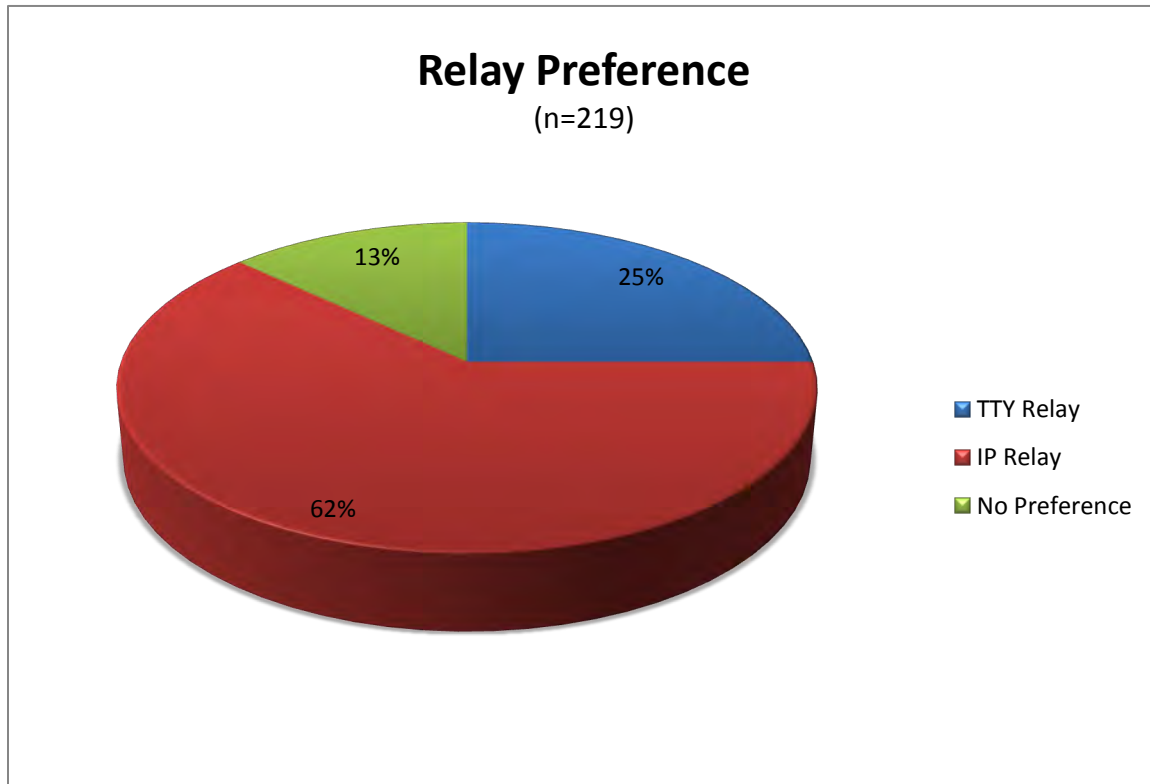
Of those who use both TTY relay and IP relay services, respondents show a clear preference for IP relay and a slightly higher usage frequency for it, as shown below.

Table 12: Frequency of Relay Usage

Frequency of Use of Relay Service ⁷¹	Often	Regularly	Rarely
IP Relay (n=294)	19%	65%	16%
TTY Relay (n=615)	12%	65%	23%

⁷¹ Often = 20 times per month; regularly = 1-20 Times per month; rarely = a few times a year.

Figure 17: Relay Preference of Current Users



In summary, the data for current relay usage showed high TTY usage, but low appreciation for this form of communication. In addition, current relay users indicated an inclination to use their preferred method of relay (i.e. TTY or IP) in the event they might need to access 9-1-1. This may imply that relay users will also be inclined to use VRS for 9-1-1 calls.

6.3. Community Interpreters and Availability

Approximately 60% of those surveyed use community sign language interpreters, primarily for meetings and other appointments, followed by doctor's appointments. The use of sign language interpreters was highest amongst the culturally Deaf, followed by deafened individuals. Of significance was the low utilization of sign language interpreters by the hard of hearing. Respondents whose language preference is either ASL or LSQ account for approximately 99% of those who utilize sign language interpreters.

Figure 18: Use of Community Sign Language Interpreters by Self Identification

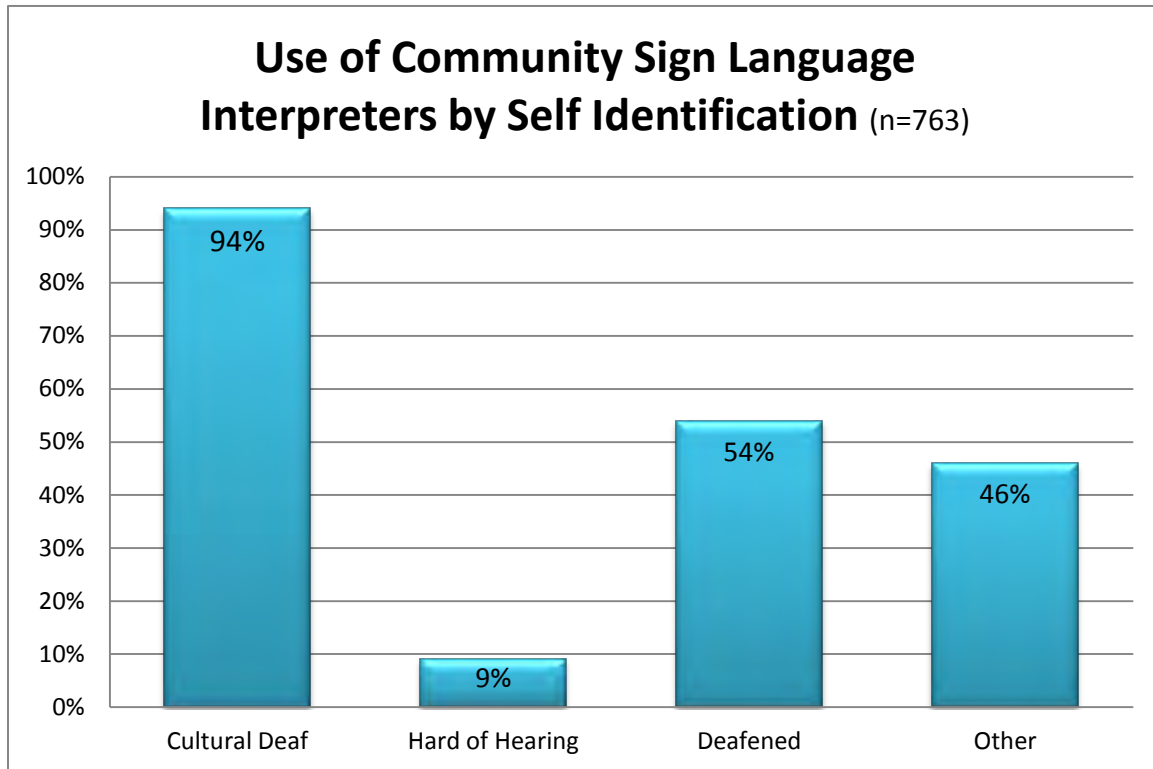
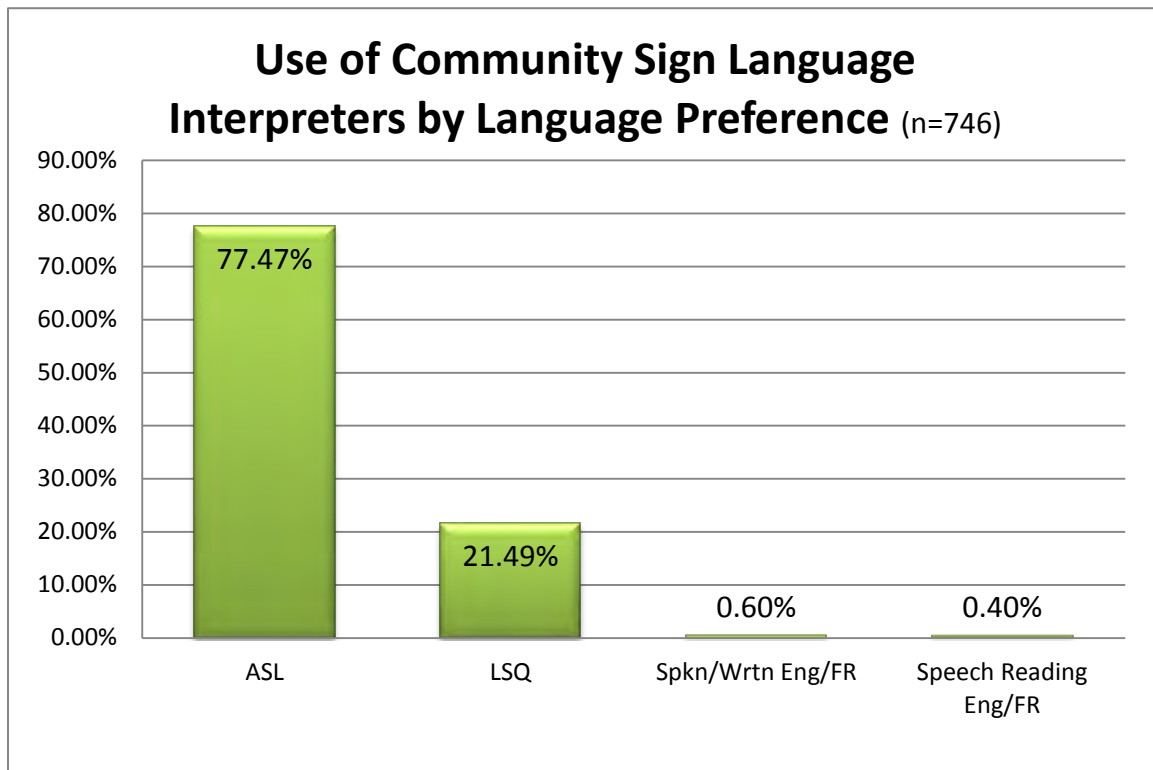
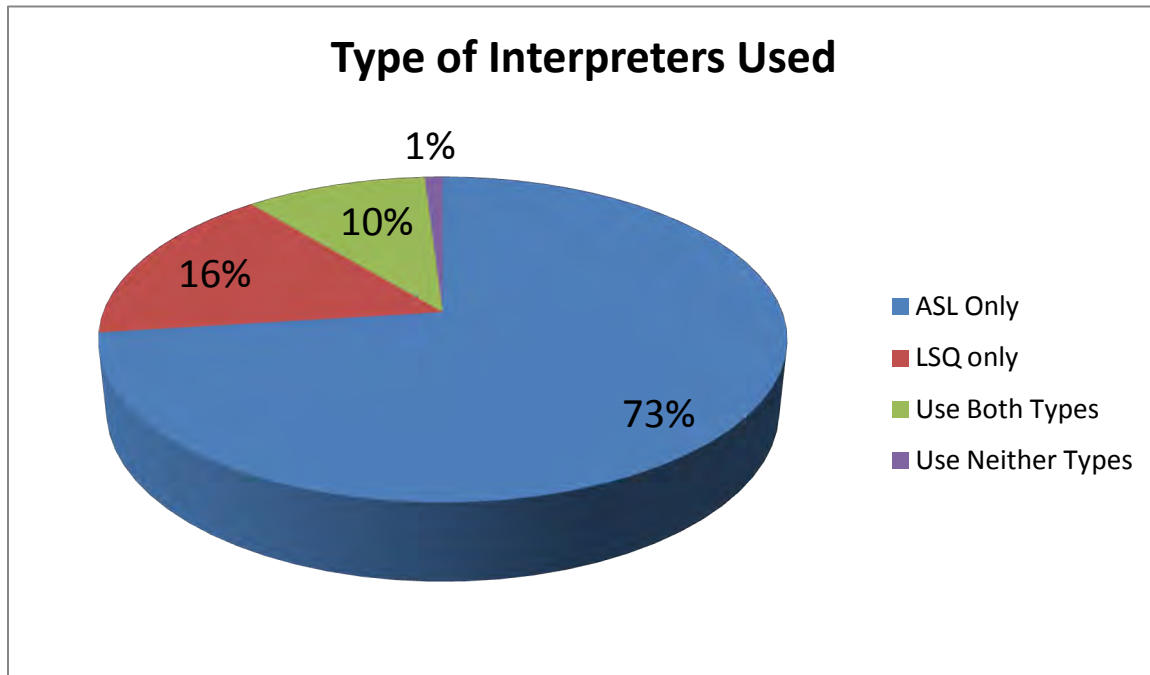


Figure 19: Use of Community Sign Language Interpreters by Language Preference



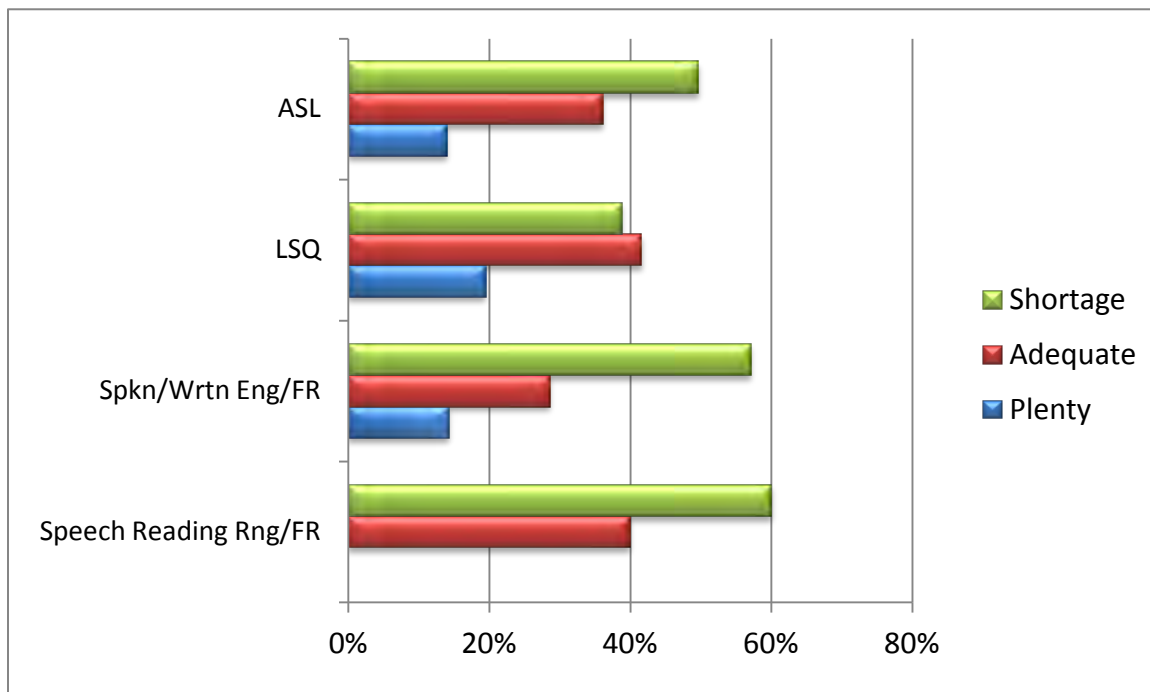
ASL interpreters were the majority, but within Quebec LSQ interpreters were the preferred choice. The type of sign language interpreter used by those who utilize them is illustrated in the graph below.

Figure 20: Type of Interpreters Used



Those who use sign language interpreters were asked to describe the current availability of community interpreters.

Figure 21: Perception of Availability of Interpreters Classified by Language Preference



All language preferences reported a shortage of interpreters with a slight exception for LSQ users, who reported an adequate supply. This may be due to the lack of standardized evaluation of LSQ interpreters and that many individuals are working as interpreters without proper qualification resulting in a seemingly adequate supply of community interpreters.

6.4. VRS Perspectives

VRS is generally deemed an important component for communication needs with 75% of all respondents reporting the importance of having it available. The following data analysis attempts to show which constituents and language preferences will be most likely to utilize VRS through importance ratings, estimated usage, and willingness to pay for VRS.

6.4.1. VRS Importance and Usage

Ninety-seven percent (97%) of ASL or LSQ users rated VRS as important, confirming the value of the service for those constituents. Those who prefer speech reading also consider VRS as an important service with approximately 70% of responses indicating importance. However, the degree of importance varies between these groups with the majority of ASL and LSQ users reporting VRS as “absolutely necessary”, while the majority of those who prefer speech reading reporting lower degrees of importance.

Importance ratings by self identification reveal similar patterns to language preference, particularly between the culturally Deaf and ASL/LSQ usage and the hard of hearing with spoken/written language preference.

The specific data related to importance are displayed in the following series of charts.

Figure 22: Importance of VRS by Language Preference (n=1258)

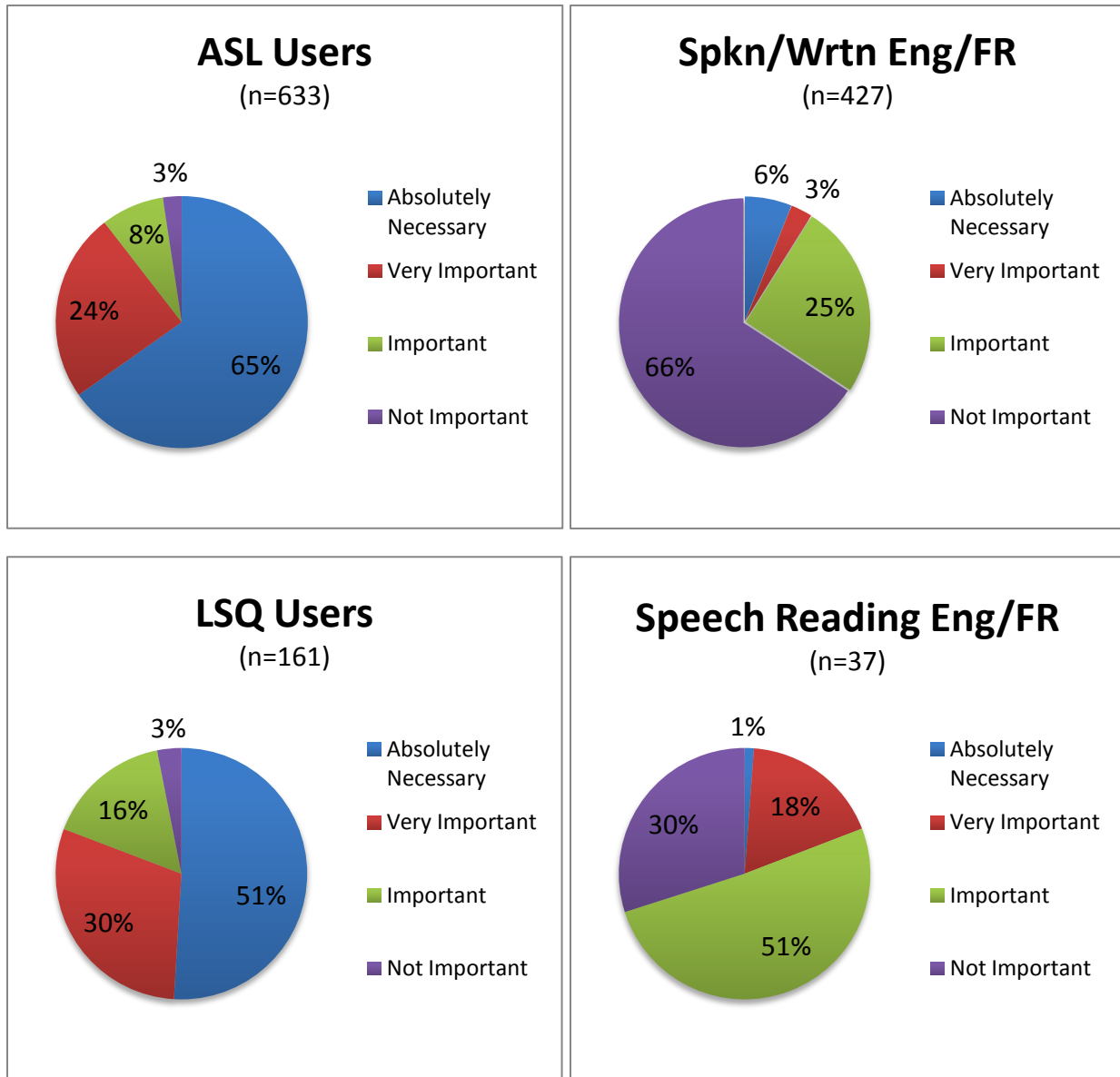
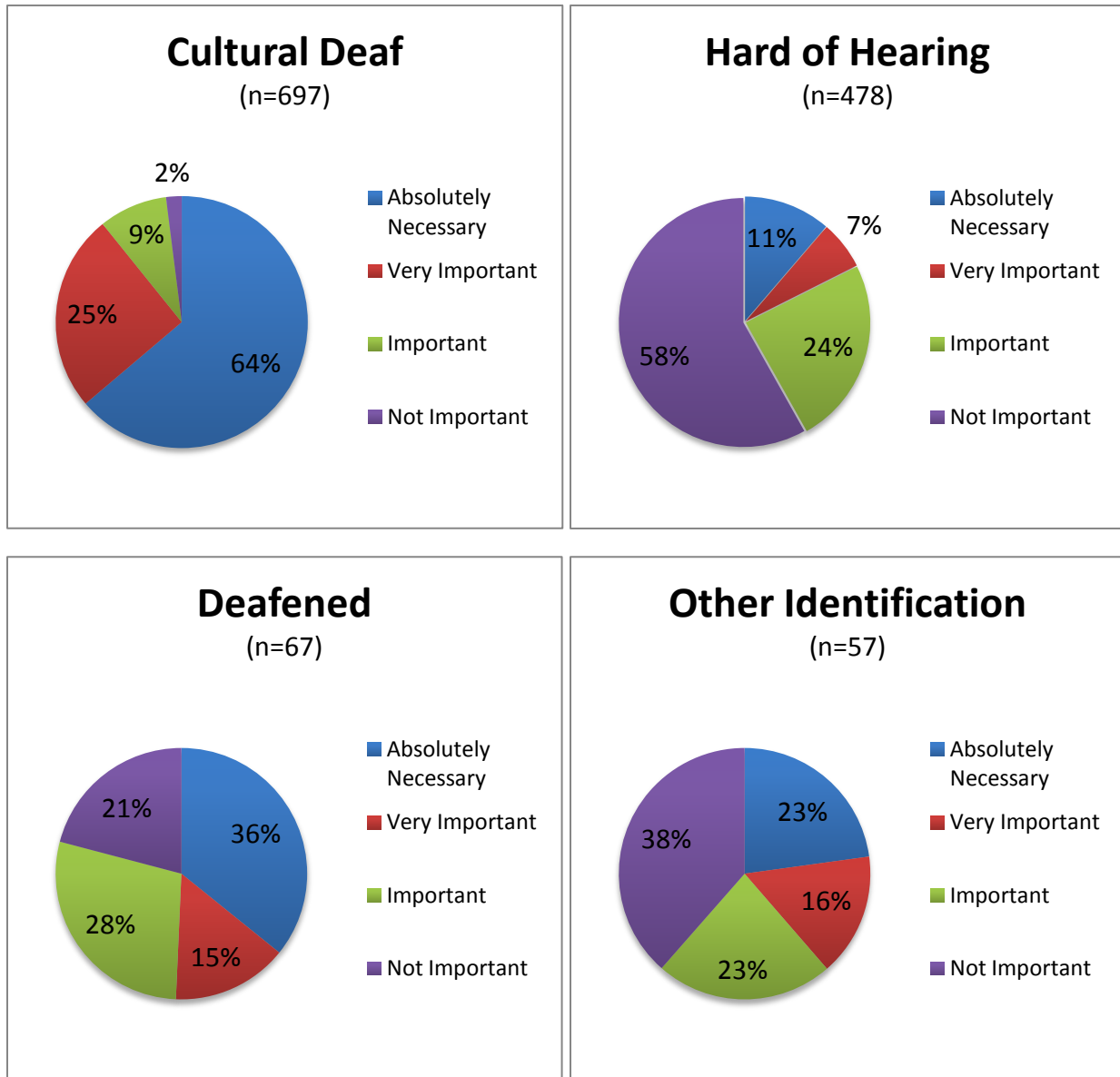


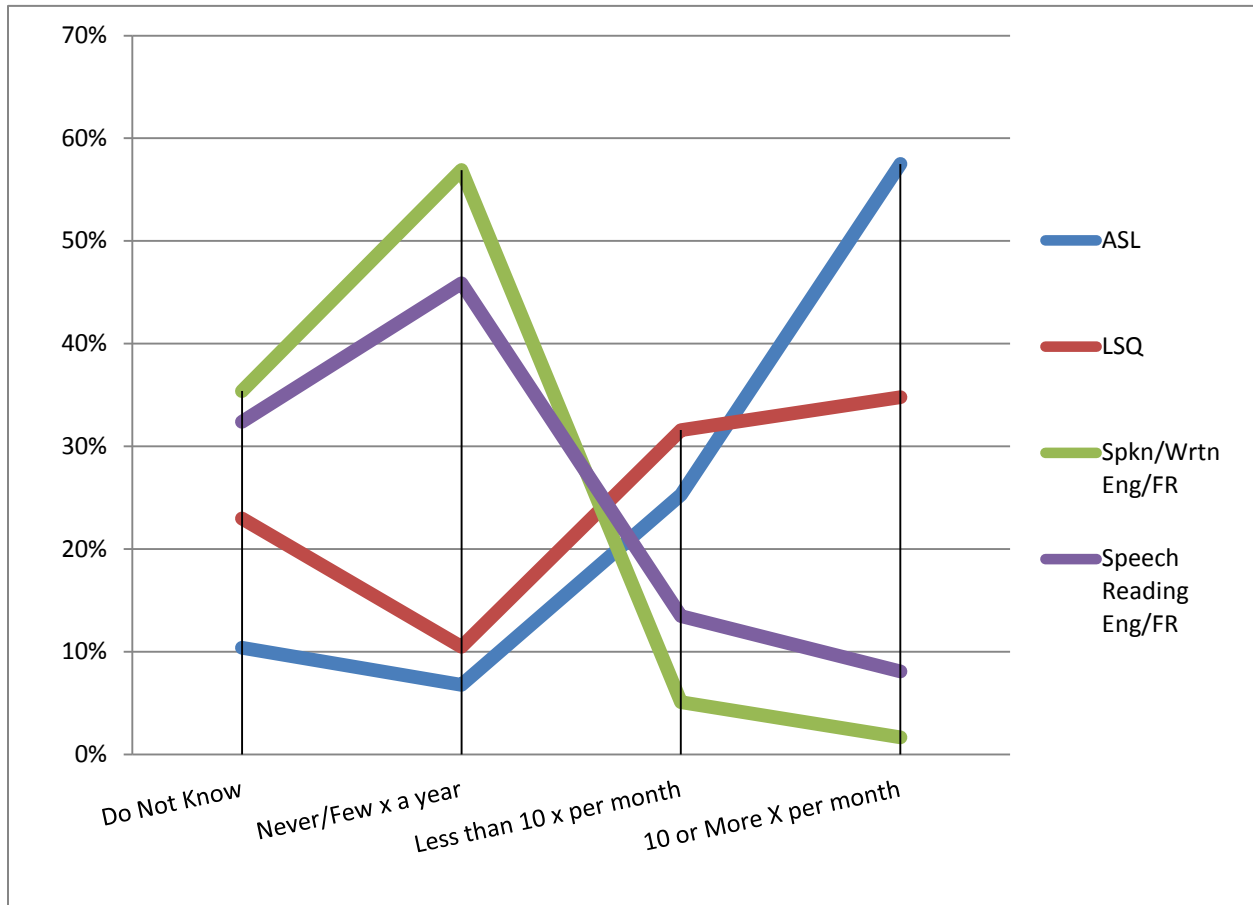
Figure 23: Importance of VRS by Self Identification (n=1299)



6.4.2. Estimated Usage of VRS for Relay Calls by Language Preference

ASL and LSQ users are most likely to use VRS as determined by the survey respondents' estimates of usage. Despite a 70% importance rating, those who prefer speech-reading did not indicate high estimates of usage if the service was available. Those who prefer spoken and written language also indicate low estimated usage of VRS, which is in agreement with how they responded to the importance of VRS. The specific data related to estimated usages of VRS are displayed in the chart below.

Figure 24: Estimated Usage of VRS by Language Preference

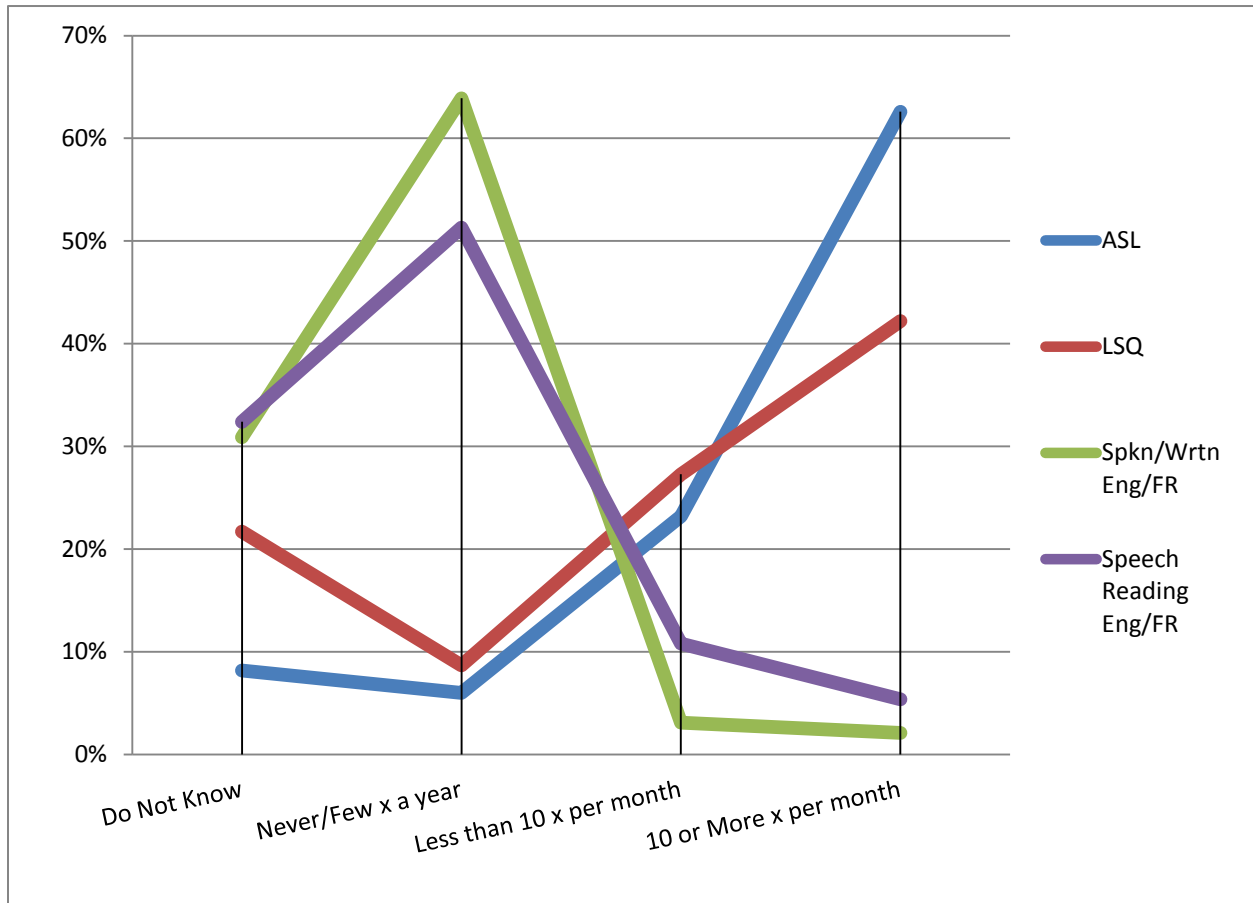


The analysis confirms that ASL and LSQ users are the primary users of VRS and that those who prefer other forms of communication have less interest and estimated usage of VRS.

6.4.3. Estimated Usage of VRS for video-to-video calls by Language Preference

Additionally the estimated usage for video-to video calling (i.e. calls without an interpreter – not relay) was slightly higher than estimated relay usage, demonstrating the desire of potential VRS users to connect with other users via the VRS interface without using the interpreting function.

Figure 25: Estimated Usage of VRS for Video-to-Video calls (not VRS) by Language Preference



6.4.4. Willingness to Pay for VRS

Estimated usage or feelings of VRS importance do not necessarily translate into a willingness to pay for the services. In general, Canadian respondents did not indicate a willingness to pay for VRS. Of those who indicated VRS was important to them approximately 47% would not be willing to pay anything more than they currently pay for their phone or Internet service.

6.5. General Calling Experiences

As part of a Bell formatted survey, respondents were asked to provide comment on the one thing that could be done to improve their calling experiences. The answers summarized below do not necessarily relate to VRS.

- Need VRS in all provinces as soon as possible 29%
- Nothing/VRS is not needed 17%
- VRS is a good/useful service to communicate 13%
- Phones with louder speakers/amplifiers..... 6%
- VRS is better than TTY (outdated)/Do not like TTY 5%
- Faster service/Less waiting for reply 4%
- Need qualified interpreters 4%
- Cheaper price/Free services 3%
- More accessible services 3%
- Meet the needs of the deaf better..... 3%
- More information about products 2%
- Do not know 10%

7. Conclusion

The provision of a relay service that utilizes the natural language of the Deaf community reduces the impact of communications and cultural barriers between the Deaf and hearing populations. Video communication represents a vast improvement over text-based communication for people who use signed languages, allowing them to converse naturally, convey emotional context, and share non-verbal cues and information that typically does not occur with text based communication. Removing the obstructions to equal access to information and people allows visual communicators the ability to participate more fully in society, and as such society benefits from that participation. Consumer advocacy organizations consulted for this study may have divergent viewpoints, but all unanimously agree that VRS will have a beneficial impact on their community and society as a whole.

As indicated by the group questionnaires and online survey responses, the inclusion or exclusion of various modes of communication in addition to ASL and LSQ will continue to be a controversial topic. However, there are no significant barriers to including many other forms of visual communication in VRS other than interpreter availability. Impact upon the availability of interpreters for community interpreting is a significant concern.

The demand for VRS and the number of potential users indicated by the survey results suggest that most types of usage can be accommodated by qualified sign language interpreters (ASL and LSQ).

VRS is a service that is primarily provided to the Deaf community, which means that their involvement is crucial for successful deployment. Again, the advocacy groups all agreed on the importance of involving the users in the Canadian VRS implementation and operations.

The information in this research summary is meant to express the opinions of the Deaf and hard of hearing and their advocacy groups, as gathered from interviews, questionnaires, discussions and surveys.

CONSUMER PERSPECTIVES

APPENDIX A: LIST OF ORGANIZATIONS

Consumer Advocacy groups, and other individuals consulted for this study's Phase 3 research are provided as Appendix A to this report, as follows:

- 1. Ontario Association of the Deaf**
Toronto, Ontario
Dean Walker, Executive Director
John Mans, Vice President
Jeff Beatty, OAD Guest

- 2. Canadian Hearing Society**
Toronto, Ontario
Gary Malkowski, Special Advisor to the President, Public Affairs
Chris Kenopic, President and CEO
Jim Hardman, Director Information Technology
Len Mitchell, Chair, Board of Directors

- 3. Canadian Cultural Society of the Deaf**
Toronto, Ontario
Joanne Cripps, Co-Director

- 4. Canadian Association of the Deaf**
Jim Roots, Executive Director
Doug Momotiuk, President
Frank Folino, Vice President
Henry Vlug, Attorney

- 5. Saskatchewan Deaf and Hard of Hearing Services**
Saskatoon and Regina, Saskatchewan
Roger Carver, Executive Director

- 6. Manitoba Deaf Association**
Winnipeg, Manitoba
Aaron Montney, President
Doug Momotiuk, Secretary
Gunars Butkans, Treasurer

- 7. British Columbia – VRS Committee**
Vancouver, British Columbia
Lisa Anderson-Kellett, Communications Officer
Nigel Howard, CRTC Liaison
Sarah Hrycenko, Alberta-BC groups Liaison

8. Alberta Association of the Deaf

Edmonton and Calgary, Alberta

Linda Cundy, Secretary / Chair of VRS Task Force

Angela Straity, Member of VRS Task Force

Jan McCarthy, Member of VRS Task Force

Judy Nadon-Yuen, Member of VRS Task Force

Brent Novodvorski, Member of VRS Task Force

9. Deafness Advocacy Association Nova Scotia (DAANS)

Halifax, Nova Scotia

Justin DeBaie, Member VRS Committee

Jennifer Gibson, President Maritime Association of Professional Sign Language Interpreters

Tammy Martin, Member VRS Committee

Darrell Feit, Chair, Let Abilities Work, Deaf and Hard of Hearing Committee

Richard Martell, President, Halifax Association of the Deaf

Betty MacDonald, Chair, Deaf Literacy Network

Marie Josee Crawford, Member VRS Committee

Melba Bunden, Community Development Coordinator, DAANS

Elliot Richman, President, DAANS

Linda Quigley, Executive Director, DAANS

10. Communicaid for Hearing Impaired Persons (CHIP)

Montreal, Quebec

Alvin Goldman, Executive Director

Carroll Salomon, Editor

Ken Tatebe, Technical Director

11. Association du syndrome d’Usher du Québec (ASUQ)

Montréal, Québec

Daniel Deschênes, General Director

Yann Lacroix, Member Representative

12. Centre de communication adaptée (CCA)

Montréal, Québec

Marie-Andrée Gilbert, Assistant Director

13. Centre québécois de la déficience auditive (CQDA)

Montréal, Québec

Monique Therrien, Executive Director

Daniel Peloquin, Board Member

14. Association des devenus sourds et des malentendants du Québec (ADSMQ)

Montréal, Québec

Michel Nadeau, President

15. Centre Communautaire des Sourds de l'Est du Québec

Montréal, Québec

Jacques Boudreault, President

16. Association des malentendants Québécois Inc.

Québec

Rachel Picard, Treasurer

Gilles Nollet, President

Francine Chalut, Administrator

Lisa Pelletier, Vice President

Nicole Belanger, Executive Director

17. Centre des loisirs des Sourds de Montréal

Montréal, Québec

Gilles Boucher, Vice-President

Real Routhier

Donna Bell

Guy Fredette

Claudette Belanger

18. Société culturelle québécoise des Sourds

Montréal, Québec

Michel Lelièvre

France Beaudoin

Dominique Lemay

19. L'Atelier d'Alpha des Sourds de Québec

Québec

Jean-Yves Dion, Secretary

20. Fondation des Sourds du Québec

Québec

Daniel Forgues, President

21. Association des Sourds de Quebec

Stephane Renaud

22. Centre de la communauté sourde du Montréal Métropolitain (CCSMM)

Gilles Read, Executive Director

Yann Lacroix

Andre Lauzon

Daniel Deschenes

Manon Bergeron

23. Bernard Belley, LSQ Professor

24. Jean Davia, Sourdologue Representative

25. Association Ontarienne des Sourd-e-s Francophones (AOSF)

Montréal, Québec

Chris G. Séquin, President
Michael McGuire, Vice President
Ryan McGuire
Marie-Josée Blier
Stéphanie Rousseau
Chantal Deguire
Yannick Gareau
Richard R. Hudon

26. Regroupement des parents et amis des enfants sourds et malentendants franco-ontariens

Ottawa, Ontario

Régine Petit

27. Association de l’Ouïe de l’Outaouais

Gatineau, Québec

Michael McGuire
René Leroux
Julie Goulet
Gloria Dungan
(additional 23 members consulted)

28. Patrick Boudreault, VRS Advisory Committee Representative

29. Greater Vancouver Association of the Deaf

Robie Scholefield
Janice Lyons