

Final Report of a Pan-Canadian Survey of the Communication
Needs of Hearing-Impaired Youths and Adults

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FINAL REPORT OF A PAN-CANADIAN SURVEY OF THE COMMUNICATION
NEEDS OF HEARING-IMPAIRED YOUTHS AND ADULTS

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NOTE TO READERS

This study was carried out by Queen's University on behalf of the Government of Canada and was funded by the Department of Communications and the Department of Supply and Services. The conclusions and recommendations contained in this report are those of the authors and do not necessarily represent the views of the Government of Canada.

This study was commissioned for the purpose of identifying the specific communications needs of the hearing impaired in Canada. Several of the recommendations outlined on pages 58 to 61 go beyond the terms of reference agreed upon for this research and could not be implemented under existing Canadian law. Readers should also be aware that the Canadian Radio-television and Telecommunications Commission (CRTC) does not regulate most of the telephone companies in Canada. Many telephone companies fall under the jurisdiction of provincial governments.

However, it is hoped that the basic needs data contained in this report will prove useful for all interested parties (government, industry and hearing-impaired organizations) in the planning and implementation of improved communications services for the Canadian hearing-impaired community.

Department of Communications
1980

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FOREWARD

This research was conducted by the Human Communication Unit of Queen's University, Kingston, Canada for the Federal Department of Communications. The staff of the Unit is an inter-disciplinary research team that is familiar with hearing-impaired people, and has had extensive experience in carrying out investigations with both the deaf and hard of hearing.

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- the entire staff of the project, from one end of mainland Canada to the other, for long hours worked in return for modest remuneration;
- and above all to the 337 hearing-impaired individuals who allowed themselves to be interviewed, and ensured that the material in this report was directly based on their perceptions, as consumers, of the communication needs of Canadians with hearing losses.

1. DEFINITION AND INTRODUCTION

IN THIS INVESTIGATION THE "DEAF" WERE REGARDED AS THOSE WITH SUCH MARKED DEGREES OF HEARING LOSS, ALMOST ALWAYS ACQUIRED AT BIRTH OR SHORTLY AFTER, THAT THEY CANNOT COMPREHEND SPEECH FOR NORMAL PURPOSES OF COMMUNICATION. THE "HARD OF HEARING" ARE REGARDED AS THOSE WHO, THOUGH HAVING MARKED LOSSES OF HEARING, ARE ABLE TO COMPREHEND A CONSIDERABLE AMOUNT OF SPEECH PARTICULARLY WHEN IT IS AMPLIFIED. THE DEAF AND HARD OF HEARING TOGETHER MAKE UP A CATEGORY OF HANDICAPPED PERSONS COMMONLY TERMED THE "HEARING-IMPAIRED".

It might have been possible if more time had been available, to provide some clinical audiological data derived mainly from hearing test results, in quantifying the degrees of hearing loss in the subjects in the study. However, such tests would not necessarily have yielded particularly useful behavioural information on the cases concerned. Consequently, it was felt by the writers that functional classifications of subjects as "deaf" and "hard of hearing" (decided largely by professionals who knew them) would be as valid as any other in determining those who fell into these categories in a truly functional sense.

This study has been, to a considerable extent, a follow up of a report by Licker (1978) of St. Paul's University, Ottawa, on "Communications and the Handicapped". One of his three recommendations was for the Department of Communications to sponsor

"A study of the communication needs and the means to meet those needs for the deaf and hard of hearing in Canada."

This research was conducted with the underlying rationale that communication facilities should be as available to hearing-impaired people as to the rest of the population. The areas investigated were predominantly teletype usage, captioning and signed interpreting on television, safety devices and interpreters in the case of the deaf; and telephones, hearing aids, captioning and safety devices in the case of the hard of hearing. Both groups were asked questions about costs and asked to provide a certain amount of demographic data regarding themselves.

Readers should note that, for convenience, percentages have been rounded off to avoid showing decimal values. In some cases, this has led to a column adding to, for example, 102%.

2.7

THE HISTORICAL CONTEXT

The 1970's have seen a deepening public awareness of the handicapped- particularly the imperceptibly handicapped. In broad terms, they include disabled senior citizens, people with communication disorders, the retarded and the emotionally disturbed. The more obviously handicapped, such as those with orthopedic and visual difficulties, for instance, have traditionally received more attention than the former group.

The gap between them is closing although the reasons for this are not always easy to ascertain. Probably many of them derive from sociological factors, including fall-out from the surplus wealth of modern society, some of which has been mobilised for use by the less fortunate of its constituents. Similarly, the impact of radio and television has made the handicapped person the subject of documentary programs that have reached millions of homes. In addition, many markedly hearing-impaired people (and their advocates) have taken exception to the Victorian convention of placing them, like criminals, in total institutions both as children and as adults. In these asylums, which have not yet been totally dismantled, social development has been stifled and educational and training levels were extremely low. This repression of some handicapped groups, that was dually a function of benighted charity and pure social convenience was severely, if belatedly, ruptured by the impact of technology.

Although the visually impaired have used effective spectacles for about a century, those who suffered from deafness did not have electronic hearing aids until after about 1940, and smaller transistorized models until the mid-fifties. The development of these was probably the most important single step yet taken in allowing the great majority of hearing-impaired individuals to break the sound barrier.

Many deaf people, who were regarded as "dumb" since Aristotle proclaimed them to be the equal of idiots more than 2,000 years ago, found that they had useful hearing and succeeding generations, aided by gradually improving teaching techniques, developed speech that

was relatively normal.

Today many people, especially those who were educated in segregated settings, feel bitterness towards the hearing world. They believe that their schools did not give them appropriate education, and that society does not fully understand them. The conclusions they draw are valid and they are often literate enough to express them. Those who are hard of hearing are less frustrated, as would be expected, and appropriate use of hearing aids has made many of them able to participate in most of the activities of their choice. However, many of them have their frustrations also, with the still not perfect design and fitting of hearing aids, and the wide spread disregard of the vastness of their numbers. Theirs' is, indeed, a highly imperceptible handicap.

The 1970's have seen an upsurge in "deaf power", and the discontent of many deaf people in society, who felt they were not emancipated, has focused on demands to have full access to the facilities of to-day's culture by means of the visual modality. The growth of teletype usage has allowed them to converse with each other and with an ever increasing number of normally hearing people. Although the generally low educational levels of deaf persons, who were students in a segregated setting, have made it difficult for them to be as well-organized as many other handicapped groups, they have become increasingly aware of the potential value of communication and particularly of television, in moving their social role from the gutter towards the high seas of life. Particularly interesting to them has been the use of super-imposed manual communication in parts of television news casts, and the use of captioning of entire news and other programs. "Deaf power", advancing technology, more empathetic government and community consciousness on the part of broadcasters, has now created a situation in which the entire hearing-impaired population of the developed nations seems to be within years, if not months, of a breakthrough as significant as the development of the electronic, transistorized hearing aid. Transistorized teletype units, captioned television and the implications and ramifications of them are likely to up-grade educational levels through their use in homes and schools and bring information to

deaf people in a quantity and quality unknown until now. The phenomenon of "closed" captioning particularly has been the most important single development in the past few years, and it is probable that, inside ten years, the hearing-impaired will have the opportunity of living in the kind of "global village" which most other people will regard as too great a future shock.

Canada has perhaps greater access to a wide variety of international television than any other country in the world, partly as a result of its numerous cable systems. It also has access to the most sophisticated and versatile technology available to telegraphic and television networks. It is hard to avoid the conclusion that this country is about to lead the world in bringing the currently immeasurable virtues and values of the media, and telegraphic dialogue, to one of the most handicapped and disabled groups in society.

3. OBJECTIVES

The study was undertaken to provide guidelines to the Federal Government on the communication needs of hearing-impaired people across the country.

For the deaf the aims of the study were to ascertain:

- the quality and quantity of teletype units available,
- views on new sorts of units coming onto the market, notably the Visual Ear,
- difficulties encountered with old TTY equipment,
- the frequency and nature of TTY usage,
- the accessibility and future use of captioned television, and signed interpreting for television broadcasts,
- relative preferences for these two forms of converting the audio portion of television signals into visual patterns,
- knowledge of, and reactions to, future developments in the area of captioning, especially closed captions and the use of decoders,
- the present and future role of cable television,
- the use made of, and the need expressed for, various safety and alarm devices,
- the need for, and availability of, interpreter services,
- amounts paid for, and amounts that people would be willing to pay in the future for, various special services and devices.

For the hard of hearing, the aims of the study were to determine:

- the awareness and usage of special telephone features,
- general and specific difficulties encountered in using telephones,
- awareness of such special features for making telephone usage easier,
- where applicable information on the value of such devices,
- the value of captioned television,
- views on the usefulness of safety and alarm devices,

- the availability of hearing aids that have telecoil pickups (T-switches)*,
- opinions on the role of aids with telecoil pickups (T-switches)*,
- views on the prices paid for special services and facilities.

4. METHODOLOGY

4.1. Population

The total population of Canada, according to the 1976 census, is approximately 23,000,000. Williams, Darbyshire and Vaghy (1979 and 1980) have reported on an epidemiological study of about 5,250 people who composed a stratified sample of the population of south-eastern Ontario. Persons, who were 18 months of age or over, were estimated to have a prevalence rate of hearing loss very similar to that in other investigations based on direct testing and not on mail-out surveys or door-to-door interviews. In establishing prevalence rates among many handicapped groups, "second-hand" data are held to be relatively unreliable because even when response rates are high, the family member or members supplying information often tend to deny the existence of a handicapping condition in someone to whom they are related. It is possible to infer, tentatively, from the epidemiological study referred to that, although incidence rates will vary somewhat from area to area, there are approximately 11,500 people in the country who can be classified as deaf, and perhaps another 80,000 who can be classified as hard of hearing. (These figures are based on estimated prevalence rates of 1 in 2,000 and 1 in 300).

*Frequently, telephone receivers have provided magnetic leakage, which allowed hearing aids, equipped with a telecoil, to pick up signals with relatively little interference. The availability of such telephones varies considerably from province to province, and when they are not available the hearing-impaired have little option, but attempt to listen to the signal from the receiver through the microphone of their aids. In addition to the magnetic coupling referred to above, other devices are available to make telephone listening easier. Again, there is much variation in facilities and service from province to province. The equipment on the market includes a clip-on or built-in amplifier with a volume control, which makes the signal strength greater, an audible signal which increases the volume of the telephone's ring and a visible signal which attracts attention to the ringing phone by means of light.

4.2. The Sample

A total of between 600 and 700 persons were requested to take part in the survey. Of these, 337 agreed and all were interviewed. Agreement to participate was indicated by the return of the consent forms, the English version which is shown in Appendix I, to the Human Communication Unit or to the local agency involved in organizing the study. No attempt was made to create a random sample, although the wide geographic spread of the subjects, the diversity of their hearing losses and ages, in addition to the large number of agencies through which they were contacted, insured that the group would be fairly typical of hearing-impaired individuals in Canada.

The sample, which consisted of 136 deaf subjects and 201 hard of hearing subjects, was drawn from all of the provinces with the exception of Newfoundland. As is shown in Table 1, the interviewing took place mainly in large centres of population, but it was hoped that at least 5% of the cases would live more than 15 miles from urban centres of over 50,000 people. Undoubtedly, this urban concentration would create a degree of bias in the sample, although it should be noted that the hearing-impaired tend to congregate in large cities where more services and facilities exist than in rural areas. To vigorously seek out a large number of rural dwellers to interview would have proved extremely costly in terms of both time and money, and could not be undertaken within the budget and time frame of the research.

Some bias may also have resulted from the fact that all of the respondents were required to, at least, sign the consent form they received, and those with low literacy levels may have been reluctant to take part because of anticipated difficulties in understanding the interview to which the covering letter referred.

TABLE 1
Location of Interview

<u>Location</u>	<u>Deaf Cases</u>		<u>Hard of Hearing Cases</u>	
	<u>Number</u>	<u>Percentage</u>	<u>Number</u>	<u>Percentage</u>
Vancouver	17	13	16	8
Edmonton	12	9	18	9
Regina	1	1	12	6
Winnipeg	11	8	15	8
Thunder Bay	5	3	8	4
Toronto	28	21	23	11
Kingston	0	0	13	7
Ottawa-Hull	8	6	14	7
Montreal	32	23	50	25
Quebec City	1	1	2	1
New Brunswick	10	7	18	9
Nova Scotia	10	7	11	6
P.E.I.	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
TOTAL	136	100	201	102

Although approximately 50% of the hearing-impaired population is over the age of 65, it was decided at the outset to have the majority of the respondents in the younger age groups. This was intended to help insure that the results obtained in the survey would be as projective as possible for the purpose of planning to meet future needs. Virtually all respondents were 16 years of age or older. To have included younger cases would have invited opinions from children too young to express themselves with any degree of reliability and validity.

Although females were more accessible than males, it was intended to have the sexes as equally represented as possible. This was felt to be necessary in view of the fact that hearing loss is fractionally more prevalent in men than in women, and there is some evidence in the literature to suggest that this obtains particularly in urban areas, such as those from which the sample was drawn, where men have jobs that expose them to more noise, for longer periods of time, than women.

4.3. The Questionnaire

In the latter part of 1978, the drafting of questionnaires was undertaken for both the deaf and hard of hearing groups. By January of 1979 work on these was felt to be sufficiently complete for a start to be made on pre-testing the questionnaires. This was carried out primarily with about 25 English and 25 French speaking subjects in Edmonton, Ottawa and Kingston. The selection of respondents for the pre-test was quite arbitrary, insuring that people with various degrees of hearing loss, different ages, etc. were interviewed. All interviewing, both in the pre-test and in the survey proper, was carried out on a face-to-face basis. In March of 1979 the final wording of the questionnaire had been established, and interviewer training took place in Montreal, Kingston, Edmonton and Vancouver. Letters explaining the nature of the survey were discussed with Dr. Gironella and Dr. Rodda, who had also been active in planning and executing the design of the interview and the training sessions. A sample, in English, is set out in Appendix I. The names of the main agencies involved in planning the survey are listed in Appendix II. Appendix III gives the agencies that were responsible for providing the names, addresses and telephone numbers of people to whom a letter and consent form were given. (A letter and consent form of the type shown are required by the University for all research involving human subjects).

While the respondents were mostly contacted as a result of being known to the organizations listed in Appendix III, about 25 volunteers heard of the research through the media or from publications of such organizations as the Canadian Co-ordinating Council on Deafness and the Canadian Hearing Society. While an attempt was made to have the numbers of subjects selected in approximate proportion to the populations of the provinces from which they were drawn, this met with only a fair degree of success as can be seen in Table 1. In each province those responsible for contacting possible interviewees were asked to insure that there was as good a degree of "spread" as possible in terms of age, hearing loss and social background. All "official" documents, like the questionnaires, were translated into French for use with the Francophone population.

4.4. The Interviewing

Interviews took place between April and August, 1979. The English questionnaire, for both the deaf and hard of hearing respondents, is shown in Appendix IV and V. Interviewing was done by only 15 people in an attempt to keep the degree of inter-observer bias to a minimum. The interviewers were given the written instructions in Appendix VI, in addition to guidance and training by the writers and by Dr. Gironella and Dr. Rodda. The interviewers were all individuals who are familiar with deaf and/or hard of hearing people. A fairly unique feature of this research was that those interviewers dealing with the deaf population were required to be fluent users of sign language and finger spelling, both of which were used in all cases. Examples of these can be seen in Appendices VII and VIII, respectively. Sign language is a communication system based on words and phrases and contains many abbreviations. Finger spelling, as its name implies, requires the spelling out of individual words on the fingers. The interviews were carried out mostly in sign with finger spelling being employed primarily for technical terms or words for which no sign existed or for which the sign was not known by the person being interviewed. Decisions as to whether or not subjects were deaf or hard of hearing were made by the interviewers with guidance, when requested, from other persons involved in the organization of the project. All interviewing was done on a one-to-one basis.

Arranging personal interviews with people who are deaf or hard of hearing is a difficult task. For instance, the fact that relatively few of the deaf sample had TTY units slowed the staff down in their attempts to set up firm times for appointments. As is often the case in working with deaf people, many of whom have fairly low literacy levels, there was often confusion regarding the location and times of meetings. Even though the sample chosen was predominantly urban, it was not always easy for interviewers to see more than perhaps two or three people per day. This applied to the hard of hearing population as well as to the deaf. More time was spent in administration and

in travelling than in actual interviewing. The average interview time for hard of hearing respondents was about 25 minutes and almost 50 minutes for deaf respondents.

Fixing interview times and locations was distinctly easier in some areas than others. In Toronto, for instance, a large group of people was readily available through the Ontario Mission for the Deaf. Similar situations existed in Winnipeg and Edmonton. In contrast, there was considerable difficulty in gathering the names of deaf and hard of hearing respondents in Montreal and the province of Quebec. Much of this can be attributed to the relative weaknesses in the structure of organizations of, and for, the hearing-impaired in this region.

In almost every location where interviewing took place, its speed and success depended on one or two hearing-impaired or normally hearing people, who had easy access to, and the confidence of, the populations with which they were concerned and who gave the Human Communication Unit a high degree of co-operation.

5. DEMOGRAPHIC DATA: DEAF CASES

The deaf sample ranged in age from 16 to 72 with a mean of 35 years and a median age of 32. Only six cases were over the age of 65 (4%) and only three cases (2%) did not answer when asked to give their date of birth. This last percentage is extremely small and suggests that the interviewers used a great deal of tact and good judgement in approaching their subjects. Only 25% of the subjects interviewed were aged 46 or over. While this may suggest that those responsible for contacting the deaf population were over-zealous in seeking out younger subjects, it is also probable that younger people were more willing to discuss the topics covered in the questionnaire. It is commonly believed, by those working in the field, that the younger deaf population is, in most parts of the country, more knowledgeable about new developments in the communication hardware field and, therefore, likely to have more opinions on the subject matter of the interview.

There was almost an identical number of males and females in the sample (67 males; 49% and 69 females; 51%). A high proportion (13% of the group.) were rural dwellers, which was considerably more than the sample was expected to contain.

The type of dwellings in which the members of the deaf population interviewed resided is shown in Table 2. The pattern is very typical of Canada as a whole. The fact that only six individuals (4%) lived in single rooms, and only five cases (4%) in an apartment within a family home, suggests that this is a population that is not particularly isolated from the rest of society. One should probably note that only one case was reported to live in senior citizens' institutions. Studies by Kraus (1977) and others in Canada and the United States have suggested that many old people, who suffer from deafness, do reside in such institutions and are, in most cases, less well cared for than other persons with hearing losses. The project's policy of not having many old people interviewed, and the constant difficulties which researchers report in attempting to penetrate these establishments, probably explain why the survey's deaf sample contained no more than 1% of its number.

TABLE 2
Types of Dwelling
Deaf Cases

<u>Category</u>	<u>Number</u>	<u>Percentage</u>
Single Room	6	4
Apartment	45	33
Condominium	5	4
Privately Owned Home	71	52
Apartment in Family's Home	5	4
Senior Citizen Institution	1	1
No Response	<u>1</u>	<u>1</u>
TOTAL	136	99

Answers to the question about the number of people living with the deaf respondent also indicated that the survey was not dealing with a large proportion of isolates. Thirty-six individuals (27%) lived with one other person and 44% lived with between two and four others. The group interviewed also showed a very normal tendency for deaf people to live with other deaf people, and only 60 subjects (44%) lived either alone or with normally hearing individuals. The question asked on the relationship between someone living with another person or persons clearly caused some embarrassment or difficulty in comprehension, because 47 cases (35%) did not answer. Thirty-eight individuals (28%) lived with husbands or wives and 24 (18%) lived with parents. When questioned on marital status, 65 of the subjects (48%) said that they were married and 58 cases (43%) said they were single. The percentage of married persons in the sample is somewhat smaller than the national average for this age group, probably indicating the difficulties that face deaf people in attempting to find suitable marriage partners. Although no claim is made that this was a fully representative section of Canada's deaf population, the particular group interviewed had a remarkably low separation and divorce rate. Only seven cases (5%) reported being estranged from their spouses.

More than two-thirds of the sample (95 cases) worked outside the home and, of these, 81 cases (61%) did so in a full-time capacity.

The 39 individuals who did not have employment outside their homes were divided almost equally into three categories: students, full-time homemakers and a miscellaneous group of retired, unemployed, and disabled individuals. It is interesting that the percentage of unemployed persons in this sample was only 4% (six cases). This proportion is well below the national average. Although this was apparently an industrious group of individuals, they earned considerably less than Canadians as a whole. Their annual family earnings, in \$5,000 increments, is shown in Table 3. The large number of people who refused to answer the question on income (37 cases; 27%) admittedly calls into question the extent to which the figures that were given are accurate and representative even of this sample. However, any attempt to find possible reasons for the large number of refusals would be meaningless and irrelevant.

TABLE 3
Family Incomes
Deaf Cases

<u>Category</u>	<u>Number</u>	<u>Percentage</u>
<\$5,000	11	8
\$5,000-9,999	29	21
\$10,000-14,999	24	18
\$15,000-19,999	17	13
>\$20,000	18	13
Refused to Answer	<u>37</u>	<u>27</u>
TOTAL	136	100

Ninety-eight of the deaf sample (72%) had English as their mother tongue. Thirty-five cases (26%) were Francophone and two other cases (2%) were from other linguistic groups. When asked about the method of communication the subjects used at home signing, either alone or combined with lip reading, finger spelling or lip reading and speech accounted for 105 cases (79%). Only 24 people (18%) said that they normally used lip reading at home, and three cases (2%) reported using writing and lip reading or communicating "normally".

This survey shows, in terms of income levels and other factors, that the group interviewed had difficulty in finding jobs comparable to those obtained by hearing persons. While it would not be appropriate, in this report, to enter into a discussion of communication methods used in the educational process, one must conclude that there is a very marked "mismatch" between the methods of communication used now by this group of deaf people and those used by their teachers in their years at school. Only 78 subjects (57%) were taught some signing and nearly twice that number now find it necessary to use it even at home where less than half of the sample lives with other deaf people. The difficulties that the group have obviously found in obtaining well paid employment clearly must be related to the mere handicap of deafness. However, the difficulties are probably exacerbated by inappropriate communication methods used in the schools.

Eighty-three cases in the sample (61%) attended residential schools for the deaf and 30 cases (22%) attended day schools. Of these, only eight (6%) wanted to attend a college for the hearing-impaired and 27 people (20%) expressed a desire to attend a regular school or college, most of them wishing to go to a program for the hearing-impaired within such an organization. Of the 136 cases interviewed, 63 (46%) claimed that they had not reached an educational level equivalent to the completion of high school. Among these 63 cases, were 58 who had been students at residential schools for the hearing-impaired, and 20 of these cases were among the 24 who had been taught through communication methods involving, predominantly, lip reading. This is one section of the deaf sample interviewed who do not appear to have received appropriate education and training. Other such groups can be identified in the demographic data yielded by the deaf sample in the study. Reviewing the educational status of the hearing-impaired in Canada in the early years of this decade, Wallace (1973) described an extremely disturbing scenario. His was the last pan-Canadian study of the hearing-impaired to be carried out before that now being reported. It comes as no surprise to the writers that the present sample seem to have suffered immeasurably from the defects in the educational system to which he pointed. Thirty-seven cases (27%)

said that they were not satisfied with the education they had received and 46 cases (33%) said that they were only somewhat satisfied. Thirty-four of those who said that they were not satisfied with the education they had received (92%) were ex-students of residential schools for the hearing-impaired.

Unfortunately, perhaps, the questionnaire did not ask the sample if they represented an angry generation who expected better treatment from society in the later part of their lives than they had received in the earlier part. The fact that these relatively young deaf people tended to be militant, and angry is probably reflected in the fact that 102 cases (75%) were members of organizations for the hearing-impaired. Thirty-two of this number (24% of the entire sample) were members of groups of deaf people not connected, at any official level, with hearing people. Most were affiliates of the Canadian Association of the Deaf. Only 27 cases in the entire sample (20%) belonged to organizations other than those of or for the deaf. These were miscellaneous in nature consisting mainly of church and sports related groups.

When asked to comment on whether they felt any additional handicaps were present, interviewers reported 17 cases of individuals who clearly had sight defects (13%), but the great majority of these were recorded as simply needing spectacles. The suspicion of some physical or psychological disorder was suspected in four cases (3%).

The sample interviewed was a group of adults, mainly in their early or middle years, appearing to enjoy excellent health. If these observations are correct the sample is very different from, for instance, populations of many segregated schools for the hearing-impaired today where, depending on criteria, up to about a third of the students have often been reported, in recent surveys, to have additionally handicapping conditions. Moreover, 122 of the subjects (90%) considered that they were deaf and not hard of hearing. This presumably represents not only accurate selection in terms of the functional definitions set down by the project organizers, but also a fairly ready acceptance of their own handicap on the part of the

subjects seen. Sixty-seven cases (49%) said that they had been deaf from birth; 38 cases acquired their hearing loss before the age of five years (30%), and another 16 cases (12%) became deaf between the ages of five and nine. Five cases were either not sure of when they became deaf or their answers were not clearly recorded on the interview schedules. Ten cases felt that they had acquired their hearing loss after the age of 10. Seven of these were among the small group of individuals who felt that they should have been classified as hard of hearing rather than deaf.

6. RESULTS: DEAF CASES

6.1. Telecommunications

Thirty-one cases (23%) did not have a conventional telephone in their home. The majority of this group lived alone or with another hearing-impaired person or persons. The rest reported that they had at least one telephone in their house, and the majority of this group lived with at least one hearing person. Although these people were, presumably, heavily reliant on those with whom they lived for the placing of telephone calls, the presence of phones and other people must have helped them to feel less isolated in many cases and in less danger when emergencies occurred even if the deaf persons involved did not have TTY's. The feelings of isolation that some of the groups may have had would tend to be mitigated by 45 subjects (33%) being able to make some use of the telephone themselves. As one would expect, such usage was always regarded as being difficult or complicated, but a variety of approaches to optimal telephone usage were described by individual cases. For instance, two people used an amplifying head set, one person reported that he deliberately tried to dominate the conversation and obtain only one word answers if possible. Another subject reported that he had adapted a "Radio Shack" amplifier to strengthen the signal emanating from the receiver, and one case said that he obtained fairly good results from simply using a hearing aid set at a high volume.

Ten people (7%) said that they used the telephone less than 10 times a week, and another 25 (19%) said that they did so between 5 and 29 times a week. Within this group lay most of the individuals who said that they really regarded themselves as hard of hearing rather than deaf. Only 11 cases (8%) of those who used a conventional telephone said that they would like to use it more often than they did at present. Presumably, the remainder realized that no conventional phone would ever allow them to carry on normal and enjoyable conversations using this particular form of communication.

The degree of reliance that this group of deaf people placed on others to make telephone calls for them is clearly shown by the fact

that 125 individuals (92%) said that other people did their phoning for them all the time or sometimes.

When asked to rank the persons or agencies to whom telephone access was most required, 54 cases (40%) gave top priority to family members with friends, emergency situations and work contacts being placed in the next three positions in that order.

Twenty-six cases (19%) said that they had difficulty in dealing with their telephone company, although most of these appeared to relate to teletype difficulties and not conventional phones. A very high proportion of the sample (125 cases; 92%) had heard of TTY's, and 100 cases (74%) said that they used one or more TTY units. Seventy-five individuals (55%) used the old, conventional TTY's which are virtually all obsolete units donated by organizations such as Canadian Pacific, Canadian National and Bell Canada. Twelve people (9%) reported using four makes of relatively new, American, transistorized TTY's. These were the M.C.M., the Porta-Printer, the Magsat and the T.V. phone. The most commonly used among these was the Porta-Printer. Five of these units were used by the sample in the western provinces.

More than half the sample (78 cases; 57%) said that they used their TTY's in their own homes, and 20 cases (15%) used them in other places, notably community centres. Only 9 cases (7%) reported having a TTY to use at work. This figure is extremely low. Thirty-three cases (27%) reported needing to have their TTY's repaired up to twice a year, and 19 cases (14%) said that they never had to have this done. The number of repairs needed each year appears to be high and no doubt reflects the obsolescence of most of the TTY's now in existence. What is "hidden" in these data, and would have been almost impossible to ascertain uniformly and objectively, is the degree of breakdown that was required before repairs were felt to be necessary.

The number of TTY's used across the country is reported in the 1977 Canadian Hearing Society Directory as being 1,287. The provincial

breakdown of these is shown in Table 4. The effectiveness of repairs undoubtedly depends greatly on local servicing carried out by groups like the Telephone Pioneers. In the Atlantic provinces, for instance, this organization was reported to be particularly active in Nova Scotia, but not in the other provinces.

TABLE 4

Distribution of TTY's, by Province, in 1977Deaf Cases

<u>British Columbia</u>	<u>Alberta</u>	<u>Saskatchewan</u>	<u>Manitoba</u>	<u>Ontario</u>
167	96	21	97	674
<u>Quebec</u>	<u>New Brunswick</u>	<u>Nova Scotia</u>	<u>Newfoundland</u>	<u>P.E.I.</u>
76	24	43	69	0

Eighty-five of the 100 TTY users in the sample said that they felt their equipment printed accurately. Again, it would not have been possible, within the time limits of the research to have found out exactly what was meant by "accurately" in the responses given.

Presumably, it means intelligibly at least to the user concerned.

Table 5 relates to hours spent in using TTY's on a weekly basis. Information on this was given by 95 of the 100 TTY users. The figures appear to be low in view of the length of time that it takes to print on a teletype machine. Reasons for this could include poor typing skills, a shortage of people to call outside some of the large urban centres in the country and faults in the equipment which, while they may not result in a call for repairs, can adversely affect the printing rate of units. Table 6 shows the kinds of difficulty that were reported by 31 of the TTY users who were asked specific questions about the problems they encountered. The nature of the complaints described indicates that they all relate to the old type of TTY most commonly used in the country.

TABLE 5
Time Spent Using TTY Per Week

Deaf Cases

<u>Hours Spent</u>	<u>Number</u>	<u>Percentage</u>
<1 Hour	29	21
1-7	48	35
8-14	8	6
>14	10	7
No Response	<u>42</u>	<u>31</u>
TOTAL	137	100

TABLE 6

Problems in Using TTY's

Deaf Cases

<u>Category</u>	<u>Number</u>	<u>Percentage</u>
Yes, but not Specified	2	2
No Difficulty	49	49
Letters Jumbled	8	8
Paper or Ribbon Jamming	10	10
Bad Electrical Connections	7	7
Trouble Typing	4	4
Doesn't Show When Ringing	2	2
Not Sure	31	31
No Response	13	13
Not Applicable	<u>10</u>	<u>10</u>
TOTAL	100	100

The TTY users in the sample reported calling an average of five other individuals on a fairly regular or frequent basis. They also reported knowing, on average, five individuals each of whom would like to have a TTY to communicate with them, but did not. These figures further support the view that much less use is made of TTY's than could be the case. Admittedly, this is not a point about which there is any controversy.

Although 62 cases who had TTY's (47%) reported making some long-distance calls on their TTY's, 35 individuals (26%) said that they made none. Twenty of the 35 cases who did not place long-distance calls (57%) cited high costs as being a distinct problem confronting them, and did not report any other difficulties in the way of their phoning outside their local dialing area.

When the entire sample of 136 cases was asked to rank, in order of priority, locations in which they would like to see TTY's installed, as a matter of course, their own homes, and those of relatives, were regarded as the most important. Table 7 shows this clearly. From the rankings given it would appear that responses were carefully thought out and that they probably did not vary a great deal from responses that might be given by normally hearing people if asked the same question about the location of conventional telephones.

TABLE 7
Locations Considered to Need TTY's in Order of Priority
Deaf Cases

<u>Location</u>	<u>Number</u>	<u>Percentage</u>
Relatives' Homes	26	19
Own Home	52	36
At Work	2	2
Police Stations	14	10
Doctors' Offices	12	9
Phone Company	4	3
Shops	2	2
Train and Bus Stations	1	1
Restaurants	1	1
Friends	9	7
Other	2	2
No Response	10	8
TOTAL	136	100

The kind of answers that one would expect from people who did not suffer from hearing loss were given when the deaf sample were asked, to rank in order of importance, the kind of persons, agencies or other organizations that they most needed TTY's for calling. These are shown in Table 8 .

TABLE 8
People etc. Most Needed to Call on TTY
Deaf Cases

<u>Category</u>	<u>Number</u>	<u>Percentage</u>
Family	47	35
Friends	43	32
Emergencies	17	13
Work Contacts	7	5
Other	4	3
Shopping	3	2
No Response	<u>15</u>	<u>11</u>
TOTAL	136	101

Of the 100 TTY users in the sample, 88 reported having hard copy print outs which is to be expected in a sample that used predominantly old fashioned instruments.

All 136 respondents were asked what kind of TTY display that they would most like to have. Seventy-eight subjects (56%) expressed a preference for hard copy, which is the display to which most of the sample are accustomed. However, 13 cases (10%) had a desire and preference for a one-line screen only but 12 (7%) wanted a t.v. type display. The numbers in these last two categories are relatively high, and undoubtedly represent an awareness of the newer types of transistorized units now coming onto the market.

All the sample was asked to say which of several features, apart from the type of display, they would like their TTY's to have. The characteristic most in demand was portability which was mentioned by 70 people (52%). The next most common feature was a small size

which was mentioned by 12 respondents (9%). Surprisingly few people (five cases; 4%) said that low cost was their highest priority.

All 136 respondents were asked five questions about the new Canadian transistorized TTY that is coming onto the market in 1980, and called the Visual Ear. They were shown a picture of one of these which was the same size as the actual model. Forty-nine cases (36%) said that they would like to have one of these and 22 (16%) said that they would not. Again, those who said they would like to have the Visual Ear stressed its portability as their main reason for wanting it. Six cases (4%) were particularly struck by its small size. Among those who had negative feelings about the new equipment three individuals (2%) said that they would rather have a conventional TTY. This figure is remarkably small, and indicates the general dissatisfaction of deaf people with the old fashioned and unsightly equipment they have been using in some cases for about 10 years. Two people (2%) said that they would need to know more about the cost of the unit before expressing an opinion, and another two (2%) pointed out that they did not feel that the Visual Ear had yet been proven to more effective than conventional equipment. The remainder of the respondents were also not sure about whether they would like to have a Visual Ear.

✓ This new piece of equipment has a single line screen display of 16 characters, and the sample was asked if it felt that this was enough. (It is, of course, less than the number that can be displayed and stored on the traditional hard copy instruments). Forty-one subjects (30%) felt that 16 characters was adequate, but rather more (56 cases; 41%) felt that the number was insufficient.

The fact that as many as 30% of the sample said, without equivocation, that they would like to have a Visual Ear is encouraging and suggests the probability of a good market if pricing arrangements are appropriate. This proportion could increase or decrease as the Visual Ear and its cost, efficiency and other features come to be better known by the deaf population through "hands-on" use.

The characters on the one-line display are in red on a black background, and all 136 deaf people questioned were asked if they felt this colour was appropriate, and invited to make alternative suggestions if they answered in the negative. "Yes" responses were given by 56 cases (41%), and negative, or unsure replies were given by the rest of the group. Among the alternative colours suggested for the characters the most common was green (17 responses; 13%) with black being the next most common (10%). (Presumably, those persons who gave this response had an alternative background colour in mind, but this was not recorded). Four cases (3%) suggested white characters. Another four (3%) said that they would like to see the characters in either blue or green, and one case (1%) expressed a preference for orange. The unit is built in a predominantly brown coloured chassis.

The Visual Ear has a facility for attaching a hard copy printer to it. Probably the most commonly used model will give print outs with a resemblance to those of cash registers. Ninety-five subjects (70%) said that they would like to have this in addition to the one-line printer. Eleven (6%) said they would not wish to have it, and the remainder of the sample had no firm opinion. While the 70% of affirmative responses given, may appear to suggest a very big market for a hard copy print out, more investigations are needed to establish what printers are most appropriate and easily adapted to the Visual Ear.

It was noted above that a large number of people felt that portability was the most important single feature they would look for in any new TTY's. This opinion was evident again when the sample was asked if they would want to carry a Visual Ear from place to place (e.g. from home to work) if they owned one. One hundred and three people (76%) said that they would; only 10 (7%) said that they would not, with the rest of the sample not being sufficiently sure to reply.

These seemed to be well-informed opinions consistent with the stress that the sample had placed on portability generally. The fact that a transistorized unit, smaller than most portable typewriters, would not only improve their communication facilities at home but, with minimal co-operation from employers and colleagues, could meet the obvious needs of this group for TTY facilities in their place of work.

6.2. Safety Devices

A small section of the questionnaire was devoted to alarm and safety devices, primarily those that could be electronically controlled. The first question was merely a check of awareness of the existence of some more common devices. One hundred and twenty-one people (89%) were aware of doorbells and buzzers being linked either to flashing lights or to some other alerting mechanism. Sixty-one cases (45%) were aware that smoke detectors could be adapted to meet the special needs of the deaf, and 120 cases (68%) knew this could be done to alarm clocks. Forty-six cases (34%) were aware that very loud telephone bells could be obtained, and 105 knew that bright flashing, or strobe, lights could be linked to a telephone to indicate when it was ringing (77%). All of these numbers and proportions are fairly high. Nevertheless, one cannot feel that the deaf are adequately aware of safety concerns when, on average, 41% of the responses to the questions about awareness of these basic devices were negative.

This degree of ignorance must, to some extent, have invalidated the answers given to the next two questions. The sample was asked if each of the five devices was likely to be useful to the hearing-impaired. One hundred and thirty (96%) said "Yes" to the doorbell or buzzer; 110 (81%) said "Yes" to the smoke detector; 128 (94%) said "Yes" to the alarm clock; 44 cases (32%) said "Yes" to the loud phone bell and 115 (65%) said "Yes" to the bright light activated by a ringing telephone. In the next question, the group was asked to rank these five devices in order of potential usefulness to the hearing-impaired. The number of people who assigned the highest ranking to each item is shown in Table 9. A ranking of this kind

is always a matter of very personal preference. For instance, some people are more afraid of fires than others, and certain individuals are more concerned about waking up on time in the morning than being aware of a telephone ringing. However, it is somewhat surprising that such a low rating is given to smoke detectors.

TABLE 9

Rating of Safety Devices in Order of Importance

<u>Category</u>	<u>Number of First Rankings</u>	<u>Percentage</u>
Doorbell	43	32
Alarm Clock	28	21
Phone Light	28	21
Smoke Detector	23	17
Phone Bell	4	3
Other	2	2
No Response	8	6
TOTAL	136	102

The sample was also asked if they knew of any other signal which might be useful to the hearing-impaired in the context of safety. Thirty-one cases, very appropriately, mentioned vibration (23%); six cases listed strong smells (4%) and five cases (4%) suggested loud noises:

Next, the sample was asked to rank five forms of sensory stimulation in terms of usefulness. Vibration obtained the largest number of first places (75 instances; 55%). Flashing lights were put second (30 instances; 22%). Strong smells were rated first in 10 instances (7%) and loud noises and mild electric shocks were each put in first place by only five people (4%). These responses were extremely informative, and seemed to indicate that, wherever possible, vibration was felt to be the most acceptable kind of stimulation. Unfortunately, there are difficulties in making it a universal form of alerting without the expenditure of considerable amounts of money to give remote radio

or infra-red control of triggering.

The question was asked, a second time, if there were any other kinds of signal that had not yet been mentioned but, in the entire sample, no new responses were given. When asked if they had enough alerting and safety devices, 64 of the 136 cases interviewed (47%) said "Yes" with the remainder answering in the negative or not being sure of how to reply. It is not possible to check into whether or not the percentage of 47% is accurate in terms of the efficiency of the devices owned by the people making up this proportion.

When asked if they felt that alarm and safety devices are readily available, only 47% of the sample (64 cases) said "Yes". This is a low figure and possibly suggests that there is an awareness in more than half of the group, that devices of the kind discussed in the interview are not as easily obtained as they should be.

Information on known sources of supply for alarm and safety equipment was sought. Eighty-five people (63%) said that they acquired such equipment as they owned, in Canada, either commercially or through agencies for the hearing-impaired. Only eight cases (6%) said that they obtained them from outside Canada. Five people said that they made their own devices (4%). The rest said that they did not have any equipment of this kind, never found any, or were, for other reasons, unable to give any response to this question.

6.3. Captioning

Before questions were asked on captioning, interviewers explained, very fully if necessary, what it was. While the majority of respondents needed little or no explanation, a degree of confusion was felt to persist in a few cases even after the explanations. Questions were also asked

in this section about super-imposed interpreting, which appeared to be readily understood by virtually everybody.

One hundred and twenty cases (90%) said that they would use captioning if it were available on their television sets. Only three people (2%) said that they would not, one because of difficulty in reading; another because he did not have a television and a third because he was not sure of his interest in it. Eight people (6%) felt unable to answer the question and these were the cases to whom the interviewers felt least successful in explaining the nature of the topic.

One hundred and seventeen subjects (86%) said that they had actually seen captioned television. It should be noted, at this stage, that although virtually the entire sample had access to television sets, only 113 cases of the total 136 (63%) had a television set in their home. This figure is much lower than the national average and probably is a reflection of the low income levels of the deaf group. Only 75 people actually received captioning from one or more of the television stations that served them at the time of the interview. As a check on their knowledge of programs watched, the sample was asked if the captioning they received was American or Canadian. Ten cases (7%) said "Canadian". Thirty-four individuals (25%) said "American" and 16 cases (12%) said that it was both "American" and "Canadian". This accounts for 60 of the 75 persons currently able to watch captions. The remaining 15 admitted that they did not know whether they watched American or Canadian captioning.

The number of hours of captioning watched by the sample is shown in Table 10.*

TABLE 10
Time Captioning is Watched Per Week
Deaf Cases

<u>Category</u>	<u>Number</u>	<u>Percentage</u>
<1 Hour	54	40
1-6 Hours	17	13
7-12 Hours	4	3
Not Applicable	61	45
TOTAL	136	101

*Several interviewers felt that some respondents regarded any words super-imposed on the screen, eg. a politician's name, constituted captioning.

In view of the general enthusiasm which hearing-impaired people have for captioning the small number of viewing hours shown in the Table is a clear indication of how little captioning is, at present, available to Canadian audiences. When those who were able to watch captioned television were asked if enough of it was shown, 55 cases (48%) said "No". The sample was asked how many hours of captioning they would like to watch in a week, and these are broken down into six intervals shown, in terms of respondents, in Table 11.

TABLE 11
Time Wanted for Captioned Viewing, per Week
Deaf Cases

<u>Hours</u>	<u>Number</u>	<u>Percentage</u>
1-6	34	25
7-12	14	10
>12	16	12
Not Sure	2	2
Not Applicable	<u>70</u>	<u>52</u>
TOTAL	136	101

While the hours shown can not be taken as definitive evidence of how much time deaf Canadians would watch captioned television if it were available widely and for long periods of time per week, it is very clear that those who have had experience of watching captions are already demanding several hours of it per day.

Virtually, the entire sample was able to understand sign language, even if this was with difficulty in some cases. The people in it were all asked if they had ever seen superimposed interpreting on television, and 114 cases (64%) answered in the affirmative. The interviewees were then asked for how long they would like to watch superimposed signing and the replies are summarized in Table 12. The hours shown are considerably less than those wanted for watching captioned television. This is probably evidence of the realization by this group of deaf people that there are limitations to the application of superimposed signs to television programs. Most of them are

likely to be aware that excessive use of signing in one corner, or on one side, of a television set tends to be unpopular with many people who do not need or understand it.

TABLE 12
Time Spent Watching Super-Imposed Signing on
Television, per Week
Deaf Cases

<u>Hours</u>	<u>Number</u>	<u>Percentage</u>
<1 Hour	73	54
1-6 Hours	31	23
>12 Hours	2	2
Not Sure	2	2
No Response	6	4
Not Applicable	<u>22</u>	<u>16</u>
TOTAL	136	101

Table 13 contains the results of asking the question "Would you prefer regular captioning or super-imposed interpreting (signing)?" Respondents were given the choice of saying regular "captioning", "super-imposed interpreting", "no preference", "not sure", or not responding.

TABLE 13
Preferences for Captioning or Super-Imposed Interpreting
Deaf Cases

<u>Preference</u>	<u>Number</u>	<u>Percentage</u>
Regular Captioning	60	44
Super-Imposed Interpreting	22	16
No Preference	30	22
Not Sure	1	1
Not Response	1	1
Not Applicable	<u>22</u>	<u>16</u>
TOTAL	136	100

This table shows that nearly three times as many people wanted captioning as wanted super-imposed interpreting, while a large section of the sample was unable to express any preference. This question

is regarded by the writers as one of the most important in the entire questionnaire, and the significance of the answer will be discussed further in Sections 9 and 10. It is clear, however, that with opinions so divided in response to this question, both regular captioning and signed interpreting will have to be provided for the hearing-impaired on television on the strength of the evidence from this study.

All subjects were asked to rank, in order of preference, the types of television programming that they would most like to see captioned or shown with super-imposed interpreting. They were given six categories of programs from which to pick and given opportunities to name others at any point in their rankings. Table 1 shows the number of first choices given for each kind of program.

TABLE 14
Types of Program Given First Place in Priorities for
Captioning or Signed Interpreting
Deaf Cases

<u>Program Type</u>	<u>Number</u>	<u>Percentage</u>
News	67	49
Movies	14	10
Sports	13	10
Documentaries	8	6
Serials	8	6
Other	2	2
No Response	2	2
Not Applicable	22	16
TOTAL	136	101

Towards the end of the section of the questionnaire dealing with captioning, the subject of "open" and "closed" captioning was introduced. When difficulty in understanding the difference between them was noted, careful explanations were given. When this had been done, the question was asked as to whether each respondent would like to have a decoder, the meaning of which had also been explained as necessary, when captioning became more extensive and closed. Ninety-seven cases (71%) clearly said "Yes". Indeed, only two cases (2%) said a distinct "No".

6.4. Interpreter Services

The great majority of the sample (116 cases; 78%) said that they needed interpreter services. Sixty-one people (45%) said that such services were easily obtained in the areas in which they lived. These were predominantly urban and, therefore, more likely to have access to such services. Thirty-one people (23%) said that interpreters were easily obtained on some occasions, and 21 subjects (15%) said that such personnel were not easily obtained.

Table 15 shows the number of hours that interpreters are available to the respondents. These appear to be extremely short and only about 15% of the sample receives in excess of five hours service on average per week. The fact that 46 cases (34%) are not sure how many hours they obtain indicates poor organization of local services or that these respondents are not aware of exactly what an interpreter is, as opposed to someone who can convey simple, primarily lip read, messages or assistance in writing down information in garages, stores, restaurants and other places and situations. Generally, it is hard not to conclude that this group is not well aware of what really skilled interpreters do as 57 of them (42%) say that they have as much time devoted to them by interpreters as is necessary, and another 34 cases (25%) are uncertain with regard to this issue. Another factor which makes one question the familiarity of the group with really good interpreters derives from the fact that only 16 of them (12%) actually specified the number of hours of extra interpreting that they would like to have. The sample often appears to use people with normal hearing to make telephone calls for them (33 cases; 24%), and 42 of them (31%) use a TTY to make it known that they need an interpreter. Unfortunately, there was no way of ascertaining, from the questionnaire, the quality and quantity of service which such requests bring. Other ways of securing the help of an interpreter were listed as writing a letter, making a regular phone call, sending a message with someone who signs, and using friends and family members to seek out the necessary personnel. Forty-nine people (36%) state that their interpreters

are usually paid by a government or some other agency, but 38 cases (28%) were not sure who paid them, and 27 people (20%) said categorically that the interpreters were not paid by a government or other agency. Whether or not this information is accurate is open to question. What seems more credible is the affirmative answer given by 20 respondents when asked if they sometimes had to pay for an interpreter themselves (15%). As this is a group with fairly meager incomes, payments for services of this kind are likely to be the cause of at least some financial discomfort. Presumably, many of the people interviewed felt that they could not pay for interpreter services. Indeed, 93 of them (68%) said that they simply did not make payments for interpreting time.

TABLE 15
Time Interpreters are Available per Week
Deaf Cases

<u>Hours</u>	<u>Number</u>	<u>Percentage</u>
None	8	6
<1 Hour	20	15
1-4	20	15
5-9	11	8
10-14	4	3
>15	6	4
Not Sure	46	34
No Response	1	1
Not Applicable	<u>20</u>	<u>15</u>
TOTAL	136	101

Almost 50% of the cases interviewed (67 people) said that they felt the interpreter services they received were "good" and another 24 subjects (17%) felt that they were "fair". Only some 21 individuals (15%) had some negative comments to make about the interpreters who worked for them. Again, this is an area of highly subjective judgements, and the data may not be presenting a particularly accurate picture.

As with matters of money, the emergency situations are another area expected to have made an impression so that if an interpreter was, or was not, present when needed this is likely to be remembered. Twenty-two people (16%) said that they had, on occasions, failed to obtain an interpreter in an emergency.

The last question addressed to the respondents on the subject of interpreters related to priority needs. Each person was asked to list the situations for which interpreters were most needed. They were given a list of nine possible situations, and were asked to add to it if they wished. This was a fairly easy question to answer. The situations and settings described were ones with which most people would be familiar either in connection with interpreting or not. Top priority for interpreting was put on legal settings, followed by hospital appointments, job difficulties, social problems, medically related settings other than those connected with a hospital, family matters, church concerns, child rearing and shopping.

Interpreter services available in British Columbia, Alberta, Manitoba and Ontario appeared to be more numerous and effective than in other provinces as reported by those interviewed.

7. DEMOGRAPHIC DATA: HARD OF HEARING CASES

A total of 201 hard of hearing individuals were interviewed. They ranged in age from 16 to 93, with 31 persons (15%) being over the age of 65. The mean age of the group was 49 years and the median age 53. It was a markedly older population than that which formed the deaf segment of the survey. This kind of disparity is almost inevitable as those who are hard of hearing, as defined for this research, are predominately persons suffering from some presbycusis (hearing loss associated with advancing age). Many of those responsible for organizing the survey commented on difficulties in obtaining young hard of hearing cases because, feeling themselves to be only minimally handicapped, they do not keep in very frequent contact with hospitals and clinics which provided many of the names of patients seen and do not feel that participation in groups of, or for, the hearing-impaired could be useful or enjoyable. There were slightly more females than males in the sample (113 as opposed to 88; 56% and 44%). One hundred and ninety-one cases (95%) were urban dwellers and ten cases (5%) were rural dwellers.

The types of dwelling in which the hard of hearing sample resided are shown in Table 4. As with their deaf counterparts, the kinds of places in which they lived were typical of those in most heavily urbanized areas in Canada. Forty-two cases (21%) lived alone and 60 (30%) lived with one other person. Of the remainder the biggest segment (81 subjects; 40%) lived with up to four other people. Almost exactly the same proportion of these hard of hearing individuals were married as was the case with the deaf sample (47%; 95 cases). However, this group did marry more than the deaf group. Twenty-five cases (12%) were widowed; 12 cases (6%) were divorced; 3 were separated (2%) and 3 were living common law (2%). In addition, only 61 cases (30%) described themselves as single compared with 41% in the case of the deaf group.

TABLE 16
Type of Dwelling
Hard of Hearing Cases

<u>Category</u>	<u>Number</u>	<u>Percentage</u>
Single Room	9	5
Apartment	74	37
Condominium	3	2
Private Home	103	51
Apartment in Family Home	6	3
Low Rental Group Home	3	2
Senior Citizen Institution	<u>3</u>	<u>2</u>
TOTAL	201	102

One hundred and fifteen cases (57%) worked outside the home, Ninety-eight of these (49%) did this in a full-time capacity, and 18 (9%) did so in a part-time capacity. The difference between the deaf and hard of hearing groups in the proportion who did not work outside the home (29% compared with 40%) is largely explained by the fact that a larger number of the hard of hearing were, as one would expect, retired. Twenty-seven hard of hearing individuals were in this category. It represented 13% of the sample compared with 3% among the deaf. Twenty-seven hard of hearing persons described themselves as full-time homemakers (13%); 12% of those not working were unemployed although this only represented 6% of the total sample, which is again well below the national average.

Table 17 shows the family earnings of the hard of hearing group. When compared with Table 3 (see page 15) it is evident that the income levels of the hard of hearing are greatly in excess of those of the deaf. For instance, the proportion of family incomes reported by the hard of hearing to be in excess of \$20,000 per year is approximately twice the proportion reported by the deaf group. It is noteworthy that 27 cases (14%) of the hard of hearing refused to answer the question asked on income, which was about half the proportion refusing in the case of the deaf.

TABLE 17
Family Earnings
Hard of Hearing Cases

<u>Category</u>	<u>Number</u>	<u>Percentage</u>
<\$5,000	34	17
\$5,000-9,999	29	14
\$10,000-14,999	40	20
\$15,000-19,999	14	7
>\$20,000	56	28
Not Sure	1	1
Refused to Answer	<u>27</u>	<u>14</u>
TOTAL	201	101

The proportion of Anglophones to Francophones was much greater in the hard of hearing sample than in the deaf. The figures were 177 as opposed to 18 (88% and 9%). Six individuals had mother tongues other than the two official languages (3%).

The patterns of schooling received by the hard of hearing sample differ greatly from those relating to the deaf. Indeed, they are very similar to those one would find in any cross section of the Canadian population. This is not surprising when one considers that the majority of the sample had relatively normal hearing in early life. Only ten cases (5%) attended residential schools for the hearing-impaired, and three cases (2%) attended day schools for such children. Twelve cases (6%) attended special schools attached to regular classes, but the great majority (160 cases; 80%) attended ordinary classes. Sixty-eight people (34%) said that they would like to go back to school. About three-quarters of this group were under the age of 35, and they described a wide variety of educational programs that they might seek to enter.

Seventy cases (40%) said that they had not completed high school, which is only 6% more than in the case of the deaf sample. The difference in educational levels between the two groups is probably much greater than is represented by this figure. For instance,

107 subjects (53% of the hard of hearing cases) were satisfied with their education, which is nearly 20% more than was the case with the deaf. Nevertheless, too much should not be read into this subjective self-evaluation.

Forty-nine hard of hearing individuals (24%) were members of organizations for the hearing-impaired, which is very much lower than the proportion reported for the deaf sample. Most of these were local groups of hard of hearing individuals not affiliated to any provincial or national body. Eighty-nine cases (44%) said that they belonged to other organizations. These included church groups, sporting groups, senior citizens organizations, card clubs, service organizations and the Royal Canadian Legion.

The hard of hearing group appears to be a fairly typical one in terms of the several demographic factors that were examined. The majority of them (166 cases; 83%) regarded themselves as hard of hearing, which was slightly less than the number of deaf people who viewed themselves as being deaf. The fact that the hard of hearing person often finds him or herself in a state of confused audition was confirmed by 22 cases viewing themselves as deaf (11%), and another 13 (6%) categorizing themselves in a variety of ways with some subjects actually referring to fluctuations of hearing loss. About 80% of the cases in the hard of hearing sample felt that they had acquired a significant hearing loss by the age of 40, which is very much higher than would be the case in a normal sample of the population. This also applies to the 50% who felt they had some hearing loss by the age of 20. Twenty-six cases (13%) felt they had acquired their hearing loss during the first five years of life, and 28 cases (14%) felt they had had some hearing loss since birth.

8. RESULTS: HARD OF HEARING CASES

8.1. Telecommunications

Of the 201 hard of hearing cases interviewed, 168 (84%) had hearing aids, and the remainder did not (33 cases; 16%). In any sample of hard of hearing individuals it would be fairly normal to find a proportion of this magnitude not wearing hearing aids. There could be a variety of causes for this including sore or mis-shaped ears, acquired deafness too marked to make the use of a hearing aid of any value, or loss of hearing so slight as to make it unnecessary. Only 11 cases (6%) said that they could hear very well without their hearing aids; 88 cases (44%) said that they could get by without them, and 75 cases (37%) said that they could not manage well without their hearing aids. Twenty-six cases (13%) said that they could not hear at all without amplification. The same kind of distribution was given in response to questions about the ability to follow a normal voice when not wearing aids. However, 64 cases (42%) said that they could hear well enough to follow a normal conversation if people spoke fairly loudly. When asked about their ability to hear radio and television, without aids, 114 cases (57%) said that the volume had to be turned very high to permit good comprehension.

All but six of the cases in the sample (3%) had telephones in their homes. This small minority were, in all cases, very markedly hearing-impaired and half of them lived alone. One hundred and six cases (53%) had one phone where they lived, and 60 (30%) had two phones. Twenty-six cases (13%) had what seemed like extraordinarily large numbers of phones in their homes, in some cases five or six. These may have been people who were extremely affluent and lived in very big houses or, if they lived in more modest dwellings, felt the need for a telephone in virtually every room because of their hearing difficulties. Although 53 cases (27%) were familiar with amplifying devices being built into hearing aid receivers, the majority of the sample were aware of very few other devices (20 cases). This is clearly shown in Table 18. These figures are almost unbelievably low, and apply from coast to coast. They may explain to some extent why so many individuals had several phones in their homes. Possibly

they did not know that one loud bell could be heard by most hard of hearing people in an average sized home.

These data reflect badly on those responsible for fitting aids to the hard of hearing and on those who sell them, on the assumption that counselling, with regard to telephone modifications, is either not given to patients or is not given adequately. The evidence throws a very heavy shadow over telephone companies who, although all of them have at least some special features for hearing-impaired people, have not succeeded in having them utilized by the vast majority of the cases in this hard of hearing sample. When it became clear to the project team that interviewers were finding large numbers of people who were in total, or partial, ignorance of what their local telephone companies could do to lessen the effects of their hearing losses, a series of telephone calls was made to head and branch offices of companies in several provinces. It proved extremely difficult to find even one person in most of the offices called, who could provide information and services, or any aspects of them such as pricing and installation procedures. One project staff member was spoken to in terms verging on hostility, about the ethics of giving out this type of information. Although some of the inquiries were eventually answered satisfactorily, they were a very small minority. If the kind of "interrogation" described was afforded to well-informed individuals making realistic inquiries about equipment that is supposed to be publicly available, it is not surprising that the customer who is hard of hearing and groping for information can receive neither answers nor devices to assist him or her in the use of the telephone. One hundred and thirty-five people, out of the total hard of hearing sample of 201 (67%), heard about the most commonly known form of telephone adaptation (an amplifier built into a hand set) in a variety of ways. The most common, as represented by 54 people (27%) were advised of its existence by friends or relatives. Only 21 cases (10%) heard about it by calling the telephone company, but no consistent record was kept by the interviewers of the number of calls required before information was given and the equipment was installed. Twenty-three individuals (11%) heard about it from their

hospital or hearing clinic. Other sources of information were said to be advertisements, associations for the hearing-impaired, and hearing aid dealers. In the case of other kinds of devices to be used with the telephone friends and relatives were, again, the most common source of information.

TABLE 18
Preference for Telephone Accessories
Hard of Hearing Cases

<u>Equipment</u>	<u>Number</u>	<u>Percentage</u>
Impaired Hearing Hand Sets	53	26
Audible Signals	20	10
Visible Signals	14	7
Acoustic Coupling	8	4
Clip-on Amplifier	6	3
Bone Conduction Receiver	1	1
Radio Shack Amplifier	3	2
No Response/No Awareness	<u>96</u>	<u>47</u>
TOTAL	201	100

When the interviewers described the items of equipment that could be obtained from telephone companies, the respondents were clearly interested, and often discussed obtaining devices that were available. One hundred and twenty-three cases (61%) felt that the hearing-impaired hand set, or similar equipment, would be useful to them. Seventy-four cases (37%) were interested in having a loudly ringing bell. Sixty-two people (30%) expressed a desire to have a flashing light attached to their phones and 59 individuals (29%) said that some form of acoustic coupling would be useful to them.

One hundred and twenty-seven cases (63%) in the sample said that they had difficulties in using the telephone all or some of the time. The nature of these difficulties is set out in Table 19. As a result of difficulties like the ones shown in the table, 84 cases (42%) had to ask other people to make telephone calls for them all the time, or more frequently, sometimes. On average, the group interviewed used the telephone about 20 times per week but others, usually those with lesser hearing losses and in professional positions, said that they

used it up to 150 or even 300 times. One hundred and twenty-one cases (60%) said that they used the telephone as often as they wished. Thirty-six cases (18%) said that they did not use the telephone as often as they would like to or were not sure about this issue.

TABLE 19
Specified Difficulties in Using the Telephone
Hard of Hearing Cases

<u>Problem</u>	<u>Number</u>	<u>Percentage</u>
Can't Hear it Ringing	10	5
Can't Tell if it is Ringing	1	1
Can't Understand People	17	9
Trouble Distinguishing Voices	5	3
Can't Tell Males From Females	1	1
Trouble With Some People	20	10
Some People Mumble	12	6
Some Talk Too Softly	11	6
Others, Not Specified	13	7
No Response	2	1
Not Applicable	<u>109</u>	<u>55</u>
TOTAL	201	104

When asked to rank, in order of importance, the purposes for which good telephone access was required, calling family members was the most frequently mentioned (76 responses; 38%). These and other responses are listed in Table 20.

TABLE 20
Persons to be Called Most Frequently
Hard of Hearing Cases

<u>Purpose</u>	<u>Number</u>	<u>Percentage</u>
Family	76	38
Friends	34	17
Work Contacts	50	25
Shopping	7	4
Emergencies	23	11
Other	5	3
No Response	<u>6</u>	<u>3</u>
TOTAL	201	101

When asked if they had any problems in dealing with their local telephone company, 153 cases (76%) said that they did not. This is an interesting figure, and remarkably high in view of the fact that the companies appeared relatively uncaring with regard to this hard of hearing group. Perhaps this high number of negative responses can partly be explained by many of these respondents being in the same situation as another 16 subjects (8%) who said that they had never dealt with theirs. Twenty-two cases (11%) did report having some difficulties, and the highest single proportion (8 cases; 4%) related to obtaining information on special devices for the hearing-impaired. Two individuals (1%) referred to installation difficulties; two to operators apparently not understanding the special needs of the hard of hearing and two to confusions over billing.

8.2. Hearing Aids

Among the hard of hearing cases interviewed, 132 (66%) wore one hearing aid and 29 people (14%) wore two. Many of those who needed to have two aids were also those who had fairly marked losses of hearing. Almost every make of hearing aid available in Canada was represented among the hard of hearing sample seen. The single most commonly found brand was Siemens whose aids were worn by nine cases (5%). The next most common were Philips (8 cases; 4%),

Zenith (6 cases; 3%), Unitron and Widex (all being worn by three people; 2%), followed by Oticon, Fidelity and Beltone, each being used by two people (1%). There was some evidence that certain brands were favoured in some parts of the country more than in others. This probably related to local availability and servicing. For instance, the Siemens aids are distributed in Vancouver to all parts of Canada and frequently have to be returned there for major servicing. This was almost certainly the reason why the Siemens aids listed were worn by residents of British Columbia, exclusively.

This was a sample of people who appeared to be relatively experienced hearing aid users and the length of time that they had been using hearing aids is shown in Table 21. One would, therefore, expect they should be fairly well accustomed to the difficulties of living with a hearing aid and adjusting to a prosthetic device. One hundred and thirteen of the cases (56%) said that they always wore their hearing aids and another 49 cases (24%) said that they did so most of the time or sometimes. The number of people who wore their aids when using the telephone was smaller. Fifty-seven cases (28%) said that they always used them, and 34 cases (17%) said they usually, or sometimes, utilized them. Among the reasons given by those who did not use their aids for telephone conversations were technical problems, hearing as well on the phone without the aid as with it, and adequate hearing being available in the ear not amplified.

TABLE 21
Length of Time Aid Has Been Worn
Hard of Hearing Cases

<u>Duration</u>	<u>Number</u>	<u>Percentage</u>
<1 Year	21	10
1-4 Years	31	15
5-9 Years	34	17
>9 Years	81	40
No Response	1	1
Not Applicable	<u>33</u>	<u>16</u>
TOTAL	201	99

When the sample was asked if they had a telephone (T) switch on their hearing aids, there were 115 (57%) affirmative answers and 38 negatives (19%). Thirteen people in the sample used the T-switch on their hearing aid to watch television. This is quite a high proportion (7%) when one notes that a considerable amount of wiring is needed in a room in which a television "transmitting" to a hearing aid is located. Thirty-two cases (16%) said that they used the T-switch all the time when using the telephone, and 12 cases (7%) said that they used it sometimes. This total of 22% of cases is also relatively high when it is recognized that magnetic coupling of telephones, though widely available, is not widely publicized and is rarely available, automatically, in private homes or places of work. In this sample, 30 of the 32 cases referred to, do have telephones with magnetic spill-over and 26 find that it also exists in most public telephones of which they make use.

8.3. Safety Devices

Sixty-seven of the 201 hard of hearing cases interviewed (33%) had heard of a doorbell or buzzer being made louder for use by the hearing-impaired. Forty-eight cases (24%) were aware of smoke detectors that could be adapted. Seventy-eight cases (39%) were aware of alarm clocks that could flash or be attached to vibrating mechanisms in a pillow or bed. Eighty-nine cases (44%) were aware of the existence of very loud telephone bells and 67 people (33%) knew about bright lights attached to telephones. In comparison with the responses given by the deaf sample to similar questions these figures are low. It must be remembered, however, that this group had, in general, much better hearing and presumably had far less need of these items of equipment. Generally, the sample expressed confidence in the value of these devices for alerting purposes. One hundred and sixty-one cases (80%) felt that it was appropriate to make adapted doorbells and buzzers available. One hundred and sixty-two cases (81%) looked with particular favour on smoke detectors; 155 (77%) did so on adapted alarm clocks, 150 (75%) on loud telephone bells and 146 (73%) on bright phone lights. When asked to rank the signals in order of usefulness, most first places were assigned to smoke detectors followed

by doorbells or buzzers, phone bells, phone lights, and adapted alarm clocks.

The sensory stimuli of various signals were ranked as follows in order of their potential value as alerting mechanisms for the hearing-impaired: loud noises, flashing lights, vibration, strong smells and mild electric shocks. In making these ratings, the hard of hearing group gave loud noises by far the highest ranking. It was put into first place by 71 individuals (35%). When making these judgements this group was clearly thinking in terms of hard of hearing individuals rather than the total spectrum of the hearing-impaired, many of whom felt that they would not necessarily be able to perceive loud noises. The group was unable to suggest any other form of signalling that would help hearing-impaired people to be more aware of dangerous situations, and the fairly realistic number of 126 cases in the total sample of 201 (63%) felt that they had enough alerting and safety devices for their particular needs. When pressed to say what other safety or alarm devices they might need, 26 cases (13%) said that smoke detectors might be useful to them, and 16 cases said that they could probably make more use of further adaptations to doorbells. Opinions were divided evenly three ways when the group was asked the question "Do you Feel that Specially Adapted Safety Devices are Readily Available?". Sixty-seven cases (33%) said "Yes"; 61 people (30%) said "No" and 70 (35%) were not sure. Like the deaf sample, the great majority of the hearing-impaired people interviewed said that they obtain the safety devices they have, either commercially in Canada or from agencies for the hearing-impaired also within the country.

8.4. Captioning

One hundred and nineteen cases in the hard of hearing sample (59%) said that they would watch captioned television if it were available. Only four people (2%) said that they would not, and 54 individuals (27%) felt that they did not need it. The reasons given by this last large group of respondents included a majority who felt that they could have the volume control of the television high enough for their needs, (but not perhaps without making the sound uncomfortably loud for other viewers in the home). Ninety-six cases (48%) said that they had actually seen captioned television, but 23 (11%) had not. Sixty-three

hard of hearing individuals (31%) said that at least one of the stations they watched on their television set carried captions. These were American in origin in 25 cases (12%); 16 were Canadian (8%) and 20 were reported as being both American and Canadian (10%).

The number of hours per week that the group spent watching captioned television is shown in Table 22. As with the deaf group, these data underscore the small amount of captioning that is available to television audiences in Canada at this time. However, 25 individuals (12%) said that they would not want to watch any more captioning than was already available to them.

TABLE 22
Captioning Time Available
Hard of Hearing Cases

<u>Hours</u>	<u>Number</u>	<u>Percentage</u>
<1 Hour	48	24
1-6 Hours	14	7
7-12 Hours	4	2
Not Sure	2	1
No Repsonse	3	2
Not Applicable	<u>130</u>	<u>65</u>
TOTAL	201	101

In contrast, 35 of the 201 people in the hard of hearing sample (17%) said that they would like to watch more captioned programs than were available to them at the present time. The total number of hours that were suggested as being appropriate by the sample is shown in Table 23. It appears that an average of about two hours captioning per day is the amount that this group feel they would like to have available to them based on their present knowledge of, and exposure to, this form of television viewing.

TABLE 23
Captioning Time Wanted
Hard of Hearing Cases

<u>Hours</u>	<u>Number</u>	<u>Percentage</u>
<1 Hour	7	4
1-6 Hours	31	15
7-12 Hours	27	13
>12 Hours	19	10
Not Sure	7	4
No Response	3	2
Not Applicable	<u>107</u>	<u>53</u>
TOTAL	201	101

A surprisingly large number of cases (26; 13%) said that they understood sign language, and another nine cases in the hard of hearing sample (5%) said that they could follow some signing. Thirty-four individuals (17%) said that they had seen super-imposed interpreting on television. Only 32 individuals (16%) said that they actually watched super-imposed interpreting for up to about half an hour per day. Noting the main demographic factors evident in this group, one would tend to assume that much of this viewing is of an incidental nature while the normal audio portion of regular news casts is being heard. Only 16 cases (8%) said that they would like to see more super-imposed signing on television than is the case at present, and these were largely some of the older members of the group about half of whom had probably incurred their hearing losses at birth or in very early childhood.

When the hard of hearing cases were asked if they would rather watch regular captioning or super-imposed interpreting, the answer, as could be anticipated from earlier responses, was overwhelmingly in favour of regular captioning (106 cases to 5; 53% to 3%).

When the sample was asked to rank, in order of preference, the types of programs that they would most like to see captioned, the

greatest proportion favoured the news (66 cases; 33%). This was followed by documentaries (17 cases; 7%); movies (13 cases; 7%); serials (12 cases; 6%); and sports broadcasts (9 cases; 5%).

9. DISCUSSION

The questionnaires addressed a number of key topics in the communications area which are currently the subject of much discussion among the hearing-impaired and those who work with them. Two fairly important subjects were deliberately left out. These were the distribution of hearing aids and the relative merits of different methods of communication in the educational process. The former was excluded because it is so vast a topic as to need a survey of its own, and one that might be more appropriately conducted at a provincial level. The latter was not dealt with because it was also too large, highly controversial and also a topic that would normally fall within the jurisdiction of provincial governments almost exclusively.

The use of telephones by the hard of hearing is, at present, fairly difficult, at least in the eyes of the sample interviewed. Part of the reason for this may lie in the fact that the partially hearing are not as militantly organized as the deaf. For instance, there is no national hard of hearing organization, people tending to prefer meeting in small local groups and doing their best to press for better services through them. It seems unlikely that the hard of hearing will, in the foreseeable future, form a national organization simply because of their relatively mild handicap. Moreover, their need for service is usually perceived by them as not marked enough for more than a small proportion of their number to be activists. Fortunately, the hard of hearing are represented through the Canadian Co-ordinating Council on Deafness, and its provincial councils, and have a strong voice in the organization of the Canadian Hearing Society in Ontario and Western Institute for the Deaf in British Columbia.

The one sphere in which the hard of hearing have pressed strongly for better services is the area of telephone facilities and the sample interviewed clearly showed that virtually all telephone companies across the country need to improve their knowledge of, and their service to, the hard of hearing. The most marked exception to this is the Saskatchewan telephone company which has a wide variety of well-publicized telephone adaptations for this group of people.

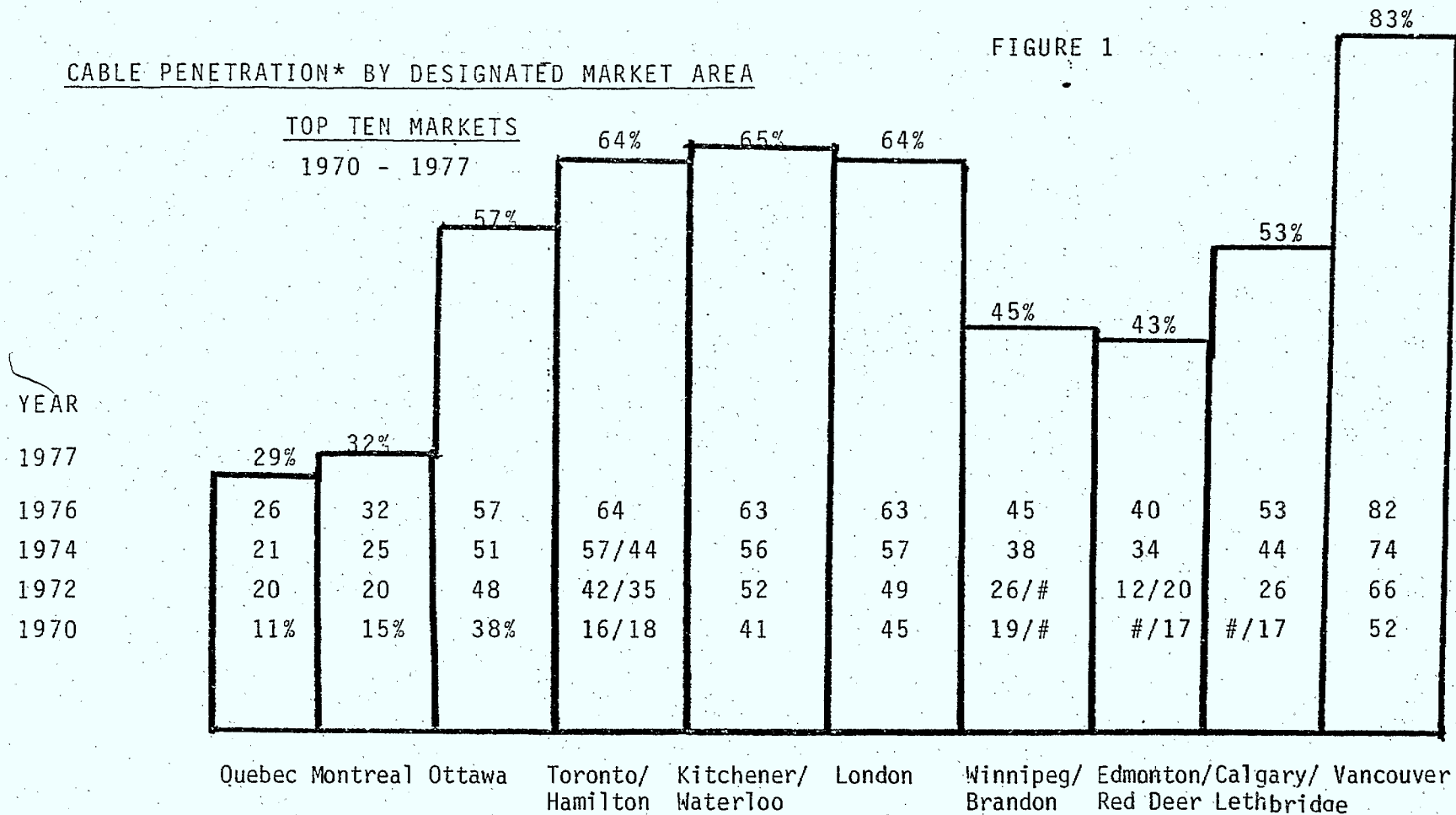
The Saskatchewan company also provides a transistorized TTY model, which is not done elsewhere. In noting these exceptions, it must be remembered that Saskatchewan is one of the less populous provinces in the country, which has presumably made it easier to introduce these services along with a provincial hearing aid plan which heavily subsidizes the purchase of aids.

TTY service, while at present very desultory, is likely to improve considerably when the Visual Ear comes onto the market in large numbers from February 1980 onwards. Its full benefit can, however, only be realized if the current, anticipated, retail price of \$375 is heavily subsidized by a branch, or branches, of government. This subsidy is also needed for plug-in printers that are compatible with the Visual Ear.

Many local television stations have provided signed interpreting for at least a portion of their newscasts and other programs, notably those of a religious nature, for about the last two years. While this is clearly less acceptable to normally hearing people than closed captioning, or perhaps even open captioning, it is essential that this service be increased, although many programs do not lend themselves to this kind of interpretation such as many sports casts, plays and "soap operas". The fact is that although captioned television is probably a useful educational tool there will be, for many years to come, thousands of deaf people in the country who have difficulty reading, but not interpreting signs. Because of regional differences in sign language, it may not be particularly valuable to have national broadcasts of the news and other programs interpreted. It would be more useful to have 15-20 minutes per day interpreted by regional affiliates of the major networks. Cable television is considered to be the most appropriate vehicle for a considerable amount of other local signed interpreting, (Possibly 30 minutes per day, half of it being broadcast in prime viewing time.) The high density of cable reception in Canada (see Figure 1) is likely to give this form of communication a fairly wide audience. It should be born in mind by the networks and the cable companies that signed interpreting costs very little compared with, for instance, captioning. The main charge is likely to be the interpreters' fees.

CABLE PENETRATION* BY DESIGNATED MARKET AREA

FIGURE 1



- Less than 10%

* - Cable equipped households as a
percentage of TV households

C.R.T.C. 1979

Captioning, which appeals both to the deaf and the hard of hearing, is a much more complex issue. It has been argued that Canada should develop its own technology, and avoid reliance on that in use in America. This position has been advanced for some time, but particularly since the development of Telidon over a year ago, but the writers feel that it would be inappropriate. Work done in the United States is at such an advanced stage, and much of its television crosses the Canadian border now and will continue to do so even in a closed format. It is picked up by the cable stations and made available across the country. Moreover, a decoder is about to be on the market in the United States and will presumably be available to Canadians if given C.S.A. approval. Early in 1980 about five hours a week of prime time television will be broadcast by three of the four major networks in the United States and the newly created National Captioning Institute in Washington has received a grant of \$3,500,000 this year and has been promised another \$2,500,000 for the next financial year. In addition, a great deal of money has already been put into the development of closed captioning by the public broadcasting system, notably at WGBH in Boston. Making captions is extremely expensive, and it is estimated that the cost of captioning one hour of programming is about \$2,000.

Clearly, funds will have to be made available by the federal, and perhaps to some extent the provincial, governments for the provision of decoders. The rationale behind closed captioning is that most people do not need or want captions, and they should not appear on their screens. In order to view them in this "closed" mode, it is necessary to have a decoder either attached to a television set or built into it. The cost of the former is about \$250 to \$300 American and the latter \$75 to \$100 American. These can, at best, be regarded as baseline figures because of the Canadian dollar being markedly lower than the American in value. However, they are to be sold in the United States without any retail profit.

Another reason for suggesting that the Canadian networks should not be required to provide more than a small amount of national or regional news, for which captioning consoles will have to be bought or contracts given to the National Captioning Institute for captioning Canadian news and transmitting it on line, is that the savings made by utilizing American material could, and should, be set aside to subsidize the purchase of decoders and Visual Ears.

Closed captioning operates by means of using, at present, line 21 of the TV vertical blanking interval, which does not normally carry video data. There seems to be good agreement among those concerned that line 21 should also be used in Canada. The question arises as to whether it should be solely dedicated to captions for the deaf or also made available for use by other minority groups. As, even with present technology, captioning occupies only some 40% of the available field time, it should not be solely dedicated for the purposes of captioning in perpetuity. However, to insure that it remains available for the use of captioning alone for an extended trial period, regulations should be made preventing any other use of it for a period of about three years after which one would expect that it could be shared for other purposes.

The assumption has been made in the United States that the extensive use of closed captioning, scheduled to start in March 1980, will become financially self-supporting in about three years. Unfortunately, because of the relatively small size of the Canadian population, such an assumption cannot be made with regard to this country. Advertising revenue will, eventually, provide a substantial amount of income but it is not possible, at this time, to predict that Canadian captioning will, or will not, eventually be self-supporting. However, it should be born in mind that the American decoders will be able to open more than one signal. In principle there is no reason why the same units should not be used for French translations of English texts and vice versa, thereby increasing the commercial potential of the decoders considerably.

The results of the survey reported above, and the opinions of those knowledgeable in the field, suggest that the deaf are very badly

serviced with regard to interpreting in this country. A recent proposal by the Ontario Association of the Deaf and the Canadian Hearing Society (Clark 1979) states that the deaf should have "equal access to the services of courts, law officers, hospitals, mental health services, education at all levels, apprenticeship training, consumer situations, meetings and conferences, social workers and community service situations..." Indeed, it is evident that many deaf people do not really know what a good interpreter is, and that they are not merely individuals with some skill in sign language. In a court of law, for instance, someone who is extremely skilled is needed if adequate comprehension is to take place between the hearing and deaf parties. The Clark report suggests that there should be one full-time interpreter for every 200 deaf people to be served.

10. RECOMMENDATIONS

(The first four recommendations relate to administration with clear implications for the area of communication. Services for the handicapped have grown without structure and cohesion in many areas, to the distinct disadvantage of the populations for whom they have been created. It does not seem possible to progress speedily and logically, unless the administration of services and facilities is rationalized at federal, provincial and municipal levels).

10.1.

The main recommendation that this report makes is that a bill be introduced into Parliament to enact the creation of a Ministry for the Disabled. While not asserting that the hearing-impaired are significantly less served than some other handicapped groups, the sample interviewed was so disadvantaged that much high profile co-ordination and provision of facilities needs to be carried out immediately.

10.2.

The new Ministry would take over many of the functions now carried out by other departments of government, and would relate to the hearing-impaired constituency primarily through the Canadian Co-ordinating Council on Deafness.

10.3.

The Council should submit to the Ministry, on an annual basis, an inventory of short and long-term service requirements of the hearing-impaired.

10.4.

The Council should be considerably strengthened in terms of funding, staffing and the building up of strong provincial councils affiliated to it.

10.5.

The Canadian Radio, Television and Telecommunications Commission should undertake the following tasks as soon as is reasonably possible:

- 10.5.1 Require all telephone companies to submit a statement of revenues devoted to promoting the use of special devices for the hearing-impaired for the years 1976 to 1977, and 1977 to 1979 and to do this for several more years.

- 10.5.2 Require all telephone companies to make built-in amplification, acoustic coupling, visual, and high volume audible, "ringing devices" of recognized quality, available free of purchase, rental, installation or repair costs, to any hearing-impaired person who needs them upon the production of a physicians' certificate and require a set portion of their revenues to be devoted to advertising such services. (An exception to this recommendation would be those companies felt by the Commission to be already providing the same quality of service and spending an appropriate amount on advertising).
- 10.5.3 Require telephone companies to purchase and distribute Visual Ears, and eventually similar equipment that becomes available from other sources, at a price agreed with the distributor or distributors. These should be made available at the same purchase, rental, installation and repair rates of the most basic telephone carried by each company. Such rates would also apply to businesses, physicians' offices, police detachments, hospitals, etc. who request the installation of TTY's for communicating with the deaf.
- 10.5.4 Require the companies to charge all long-distance calls on any TTY at 25% of the rate for regular calls.
- 10.5.5 Require them to have their sales installation staff trained in the use of conventional telephones and their adaptations for the hard of hearing, and in dealing with TTY operation. Such training should be given to new staff every two years. The competence of employees should be examined by outside experts.
- 10.5.6 Advise the two main networks that it will require them to provide five hours of closed captioning, per week, in prime viewing time before the end of September, 1980, and advise them also that they will be required to provide more captioned television after 1981 or 1982. These recommendations apply to C.T.V. and to both the French and English networks of C.B.C with more than five hours being captioned in the future.

[10.5.7 Relax the regulations which currently govern the amount of non-Canadian content that can be shown on television in the case of the networks that fully comply with the suggested ruling of five hours captioning time per week initially.

10.5.8 Require all television networks to provide signed interpreting for at least 15 minutes per day during one or more national newcasts apart from those that are captioned. This interpreting would usually be put on at the head end.

10.5.9 Require all cable stations to provide, on a community channel, at least 30 minutes of other programming per day at different times than the news broadcasts referred to using signed interpreting.

** 10.6.

The government should subsidize the cost of decoders, whether bought or leased, to as large a degree as possible. If this requires co-operation with, and financing by, provincial governments they should be involved in the planning process as early as possible.

10.7.

The federal government should, with advise from the Canadian Co-ordinating Council on Deafness, draw up a blueprint for the upgrading of interpreter services and enter into discussions with provincial and municipal levels of government to insure that there are adequate facilities for the training of interpreters and that national or provincial salary scales are established. All interpreter services should be provided free of charge unless required for purely social purposes.

10.8.

The Canadian Co-ordinating Council and its provincial affiliates should draw the attention of the hearing-impaired population in Canada to the alarm and safety devices currently available, such as those that can be obtained from the Canadian Hearing Society.

10.9.

The existence of alarm and safety devices should be made known to the entire hearing-impaired population by the C.C.C.D. and the Provincial Councils advertising them in local newspapers if necessary. The Council should also set up three co-ordinating research and development centres to further the development of these devices.

10.10.

Although most of the engineering research into closed captioning has been done, and this report represents a broad initial survey of the personal needs for captioning in Canada, further studies are required to

- objectively monitor future developments
- carry out market surveys to determine the long-term needs for decoders and the advertising revenue captioning will raise
- examine in detail the needs for, and costs of, "home-made" Canadian captioning vis a vis importing material from the United States and
- explore the possibility of inviting the National Captioning Institute in Washington to set up a "branch" in Canada for a period of one or two years, under contract, in order to expedite developments in this country.

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Kingston {613} 547-5742 (Voice)
{613} 547-5743 (T.T.Y.)

Ottawa (613) 728-0570 (Voice)
(613) 728-0954 (T.T.Y.)

Appendix I



Human Communication Unit

Queen's University
Kingston, Canada
K7L 3N6

Queen's University, in conjunction with the Canadian Co-ordinating Council On Deafness, the Provincial Councils and Universities of Alberta and Mount Allison, is currently conducting studies of the needs of hearing-impaired Canadians over the age of sixteen for communication services and devices. This is being done under two contracts. One, sponsored by the Federal Department of Communications, covers the whole of Canada. The other is sponsored by Bell Canada, and relates to Quebec and Ontario only.

In approximately fifteen centres across the Country persons known to have hearing losses are being contacted with a view to their participating in interviews, which will be carried out in their homes or in other places of mutual convenience. You are one of the people being asked to participate in this way. Your identity is not known to anyone other than the person sending you this communication.

If you are agreeable to being interviewed sometime between January and June of 1979, it would be appreciated if you would complete the attached form and return it in the enclosed envelope. Your participation will ensure that as large and representative a group of hearing-impaired persons as possible make their views known to the Queen's University team on matters of vital importance to those with difficulties in hearing. These will include such issues as telephone usage and adaptation, captioned television, safety devices, etc.

If you agree to participate, your identity and the answers you have given will be treated anonymously by the project team. The answers you give to questions will appear in statistical form only, with no identifying information in any reports submitted to the funding bodies by the University, or in any later publications.

Your co-operation in this matter would be greatly appreciated.

Yours sincerely,

Donna Vaghy

Donna Vaghy
Programme-Co-ordinator

CONSENT FORM

I (please print your name) _____
agree to be interviewed in connection with the surveys of
communication needs being carried out by Queen's University and
which was explained to my satisfaction, in the accompanying letter.

My home address is as follows _____

I agree to being interviewed there unless I have expressed a
preference for another location below. If there are particular
evenings, or days during the week when it is not convenient for
me to be seen I shall indicate them below also.

I will also permit the Human Communication Unit to have access to
records of my hearing loss from official sources.

Signed: _____

Date: _____

Preference for location of interview: _____

Preferences for times of interview: _____

Phone numbers (please include area codes) as applicable

Home _____ Place of Work _____

Home T.T.Y. _____ Place of Work T.T.Y. _____

When completed, please put this form in the pre-stamped envelope
and return.

Agencies Involved in Planning the Survey

<u>Agency</u>	<u>Base Location</u>
Canadian Co-ordinating Council on Deafness	Ottawa
Provincial Councils	Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia, and Prince Edward Island
Civic Hospital	Ottawa
Ontario Mission for the Deaf	Toronto
Canadian Hearing Society	Toronto
Montreal Association for the Hearing-Impaired (Westland Consulting)	Montreal
Canadian Association of the Deaf	Richmond Hill, Ont., and Washington, D.C.
Western Institute for the Deaf	Vancouver
Ontario Association for the Deaf	Toronto
The Alberta Department of Education	Edmonton
The University of Alberta	Edmonton
The University of Mount Allison, Sackville	New Brunswick

Agencies Involved in Planning Sample

<u>Agency</u>	<u>Population Served</u>	<u>Location</u>
Alberta Department of Education	Deaf and Hard of Hearing	Edmonton
Department of Speech and Hearing, University of Alberta (E)	Deaf and Hard of Hearing	Edmonton
Dalhousie University (E)	Deaf and Hard of Hearing	Halifax
#*Queen's University (E)	Hard of Hearing	Kingston
Montreal Association for the Hearing-Impaired (E,F)	Deaf and Hard of Hearing	Montreal
*Queen Elizabeth Hospital (E,F)	Hard of Hearing	Montreal
*Royal Victoria Hospital (E,F)	Hard of Hearing	Montreal
#*Civic Hoipital (E)	Hard of Hearing	Ottawa/Hull
#Canadian Hearing Society (E,F)	Deaf and Hard of Hearing	Ottawa/Hull
Hard of Hearing Association (E)	Hard of Hearing	Ottawa/Hull
University of Mount Allison (E)	Deaf and Hard of Hearing	Sackville
*Canadian Hearing Society (E)	Deaf and Hard of Hearing	Thunder Bay
*Ontario Mission for the Deaf (E)	Deaf	Toronto
Canadian Hearing Society (E)	Deaf and Hard of Hearing	Toronto
Mt. Sinai Hospital (E)	Hard of Hearing	Toronto
Ontario Association for the Deaf (E)	Deaf	Toronto
Western Institute for the Deaf (E)	Deaf and Hard of Hearing	Vancouver

= Assisted in obtaining names for pretest
 * = Sent out some or all of their own letters
 E = English; F = French

Appendix IV

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SURVEY OF THE COMMUNICATION NEEDS OF DEAF PEOPLE

NAME:

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ADDRESS:

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PHONE NUMBER: (area code)

T.T.Y. NUMBER: (area code)

LOCATION OF INTERVIEW:

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DATE OF INTERVIEW:

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TIME OF INTERVIEW:

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SECTION I: Telephones, Accessories and Attitudes

"I want to start out by asking you a few questions about your hearing loss and use of the telephone."

1.1 How old were you when you started to lose your hearing?

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1.2 How many telephones do you have in your home?

13

- ☐ 0. None
- ☐ 1. 1
- ☐ 2. 2
- ☐ 3. 3
- ☐ 4. 4
- ☐ 5. 5
- ☐ 6. Other (please specify) _____
- ☐ 8. Not sure
- ☐ 9. No response

1.3 Are you able to use the phone?

14

- ☐ 1. Yes
- ☐ 2. No (Go to 1.8)

1.4 How do you use the phone? (Please explain.)

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1.5 About how many times per week do you use the phone?

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1.6 Is this as often as you would like to use the phone?

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- ☐ 1. Yes (Go to 1.8)
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

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1.7 How many times per week would you like to use the phone?

24

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→ 1.8 Do you require other people to make phone calls for you?

- ___ 1. Yes, all the time
- ___ 2. Sometimes
- ___ 3. No (Go to 1.10)
- ___ 8. Not sure
- ___ 9. No response

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1.9 How often do you rely on others to make phone calls for you? (Suggest possible responses, always, sometimes, etc.)

- ___ 1. Always
- ___ 2. Sometimes
- ___ 3. Seldom
- ___ 4. Never
- ___ 9. No response

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→ 1.10 Please number in order of importance, the things you require good phone access for. (Put a "1" beside the most important, a "2" beside the second most important, and so on.)

- ___ Calling family
- ___ Calling the telephone company
- ___ Calling friends
- ___ Making work contacts
- ___ Shopping and personal services
- ___ Emergencies
- ___ Other (please specify) _____

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1.11 Do you have any problems dealing with the telephone company?

- ___ 1. Yes
- ___ 2. No (Go to Section II)
- ___ 3. Have never dealt with them myself (Go to Section II)
- ___ 4. Have not dealt with them recently (Go to Section II)
- ___ 8. Not sure
- ___ 9. No response

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1.12 What problems do you have with the telephone company?

SECTION II: Teletype Usage

"We will consider a T.T.Y. to be any unit, irrespective of make or brand name, that can be used for typing words, sentences, etc., and transmitting them by means of a telephone line which can also be used for receiving such messages on hard copy, digital displays on stripscreens, etc."

" I have a few questions to ask you about T.T.Y.'s."

2.1 Have you ever heard of a T.T.Y. before?

- ☐ 1. Yes
- ☐ 2. No (Go to Section III)
- ☐ 8. Not sure
- ☐ 9. No response

2.2 Do you use a T.T.Y. unit or units?

- ☐ 1. Yes
- ☐ 2. No (Why not?) _____
- _____ (Go to 2.17)
- ☐ 8. Not sure
- ☐ 9. No response

2.3 Which type of unit(s) do you use? (Please number the boxes, a "1" for Unit 1, a "2" for Unit 2 and so on.)

- ☐ 1. A M.C.M.
- ☐ 2. A porta-printer
- ☐ 3. A vistaphone
- ☐ 4. "The Interpreter"
- ☐ 5. The Magsat
- ☐ 6. A T.V. Phone
- ☐ 7. Conventional T.T.Y.
- ☐ 8. Other (please specify) _____
- ☐ 9. No response
- ☐ 10. Not sure.

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2.4 Where is(are) the unit(s)? (Please number the boxes, a "1" for Unit 1, a "2" for Unit 2, and so on.)

- ←
- 1. At home (Go to 2.6)
 - 2. At the home of a friend or neighbour
 - 3. At work
 - 4. In a community centre
 - 5. At a police station or some other "emergency" location
 - 6. The Canadian Hearing Society
 - 7. Other (please specify) _____
 - 9. No response

2.5 Would you like to have a T.T.Y., at home?

- 1. Yes
- 2. No (please explain) _____
- 8. Not sure
- 9. No response

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→ 2.6 How often does(do) the T.T.Y.(s) need repair? (Record for up to three most commonly used units.)

Unit 1 Unit 2 Unit 3

- | | | | |
|---|---|---|---------------------------|
| — | — | — | 1. More than twice a year |
| — | — | — | 2. About twice a year |
| — | — | — | 3. Less than twice a year |
| — | — | — | 4. Never |
| — | — | — | 8. Not sure |
| — | — | — | 9. No response |

2.7 Does(do) your T.T.Y.(s) print on paper or on a screen? (Record for up to three most commonly used units.)

Unit 1 Unit 2 Unit 3

- | | | | |
|---|---|---|---------------------------------|
| — | — | — | 1. On paper |
| — | — | — | 2. On a screen |
| — | — | — | 3. Other (please specify) _____ |
| — | — | — | 8. Not sure |
| — | — | — | 9. No response |

2.8 Does(do) the T.T.Y.(s) you use print accurately?
(Record for up to three most commonly used units.)

Unit 1 Unit 2 Unit 3

- | | | | |
|--------------------------|--------------------------|--------------------------|----------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. Yes |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. No |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. Not sure |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. No response |

2.9 About how many hours a week do you use a T.T.Y. unit?

- ☐ 1. Less than 1 hour
- ☐ 2. Between 1 and 7 hours
- ☐ 3. Between 8 and 14 hours
- ☐ 4. Over 15 hours
- ☐ 8. Not sure
- ☐ 9. No response

2.10 How do you know when your telephone is ringing?

- ☐ 1. Flashing light on T.T.Y.
- ☐ 2. Someone else tells me
- ☐ 3. Ordinary lamp comes on
- ☐ 4. Ordinary fan comes on
- ☐ 5. Other (please specify) _____
- ☐ 8. Not sure
- ☐ 9. No response

2.11 Do you have any particular problem (s) with your T.T.Y.(s)?

- ☐ 1. Yes (please specify) _____
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

2.12 About how many people do you call on your T.T.Y.?

2.13 How many people do you know who would like to have a T.T.Y. to communicate with you?

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2.14 Do you place any long distance calls on your T.T.Y.?

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- ← — 1. Yes
— 2. No (Go to 2.18)
— 8. Not sure
— 9. No response

2.15 Do you have any problems with your T.T.Y. when making long distance calls?

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- ← — 1. Yes
— 2. No (Go to 2.18)
— 8. Not sure
— 9. No response

2.16 What problems do you have?

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2.17 Do you feel that you can use a T.T.Y. when you need to? (Only ask if person does not usually use T.T.Y.)

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- 1. Yes, all the time
— 2. Yes, most of the time
— 3. Yes, sometimes
— 4. No
— 8. Not sure
— 9. No response

→ 2.18. Please number in order of preference, places you would like to have more T.T.Y.'s. (Put a "1" beside the most important, a "2" beside the second most important, and so on.)

- ___ Home of relatives
- ___ At home
- ___ At work
- ___ Police stations
- ___ Doctors' offices
- ___ Homes of priests and clergymen
- ___ Cable television stations
- ___ Telephone company
- ___ Shops
- ___ Train and bus stations
- ___ Take-out restaurants
- ___ Homes of friends
- ___ Other (please specify) _____

2.19 What kind of T.T.Y. display would suit you best? For example, would you like a hard copy printout, a one-line display or a T.V. -Type screen display? Record all answers in order of priority if more than 1 is mentioned.

- ___ 1. Hard copy printouts (on paper)
Why? _____
- ___ 2. One-line screen displays
Why? _____
- ___ 3. T.V.-Type screen display
Why? _____
- ___ 8. Not sure
- ___ 9. No response

2.20 What other features would you like for a T.T.Y.?

- ___ 0. None
- ___ 1. Portability
- ___ 2. Small
- ___ 3. Inexpensive
- ___ 4. Other (please specify) _____
- ___ 8. Not sure
- ___ 9. No response

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2.21 Please number in order of importance, the reasons for which you need a T.T.Y. (Put a "1" beside the most important, a "2" beside the second most important, and so on.)

- ☐ Calling family
- ☐ Calling friends
- ☐ Making work contacts
- ☐ Shopping or other personal services
- ☐ Dealing with emergency situations
- ☐ Other (please specify) _____
- ☐ No response

Display a picture of the Visual Ear, a new, soon-to-be available, portable Canadian T.T.Y. unit. Point to, and if necessary, assist with the reading of the list of features.

2.22 Would you like to have one of these?

- ☐ 1. Yes (please give reasons) _____
- ☐ 2. No (please give reasons) _____
- ☐ 8. Not sure
- ☐ 9. No response

2.23 Do you think that 16 characters are enough?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

2.24 Do you think that red is a good colour for the characters?

- ☐ 1. Yes
- ☐ 2. No (please suggest alternative) _____
- ☐ 8. Not sure
- ☐ 9. No response

2.25 Would you like a "hard-copy" printer attached to the unit?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

2.26 If you had a visual ear would you wish to carry it from place to place (e.g. home to work) if necessary?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

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SECTION III: Safety Devices

" A number of commonly used alerting devices have been adapted for the hearing impaired. Alerting devices can employ signals such as flashing lights (which may be used for a doorbell), vibrations or mild electric shocks (which may be used with an alarm clock) or very loud noises or strong smells which may be used in a fire alarm."

3.1 For each of the alerting devices ask: Have you ever seen or heard of this type of alerting device as adapted for the hearing impaired?

doorbell or buzzer	___ 1. Yes	___ 2. No	___ 3. Not sure
smoke detector	___ 1. Yes	___ 2. No	___ 3. Not sure
alarm clock	___ 1. Yes	___ 2. No	___ 3. Not sure
very loud phone bell	___ 1. Yes	___ 2. No	___ 3. Not sure
very loud phone light	___ 1. Yes	___ 2. No	___ 3. Not sure

3.2 For each of the alerting devices, ask: Do you consider this type of device when adapted for the hearing impaired to be useful?

doorbell or buzzer	___ 1. Yes	___ 2. No	___ 3. Not sure
smoke detector	___ 1. Yes	___ 2. No	___ 3. Not sure
alarm clock	___ 1. Yes	___ 2. No	___ 3. Not sure
very loud phone bell	___ 1. Yes	___ 2. No	___ 3. Not sure
very loud phone light	___ 1. Yes	___ 2. No	___ 3. Not sure

3.3 Will you please rank these devices in terms of general usefulness to the hearing impaired. (Put a "1" beside the most important, a "2" beside the second most important, and so on.)

___	doorbell or buzzer
___	smoke detector
___	alarm clock
___	phone bell
___	phone light
___	Other (please specify) _____

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3.4 Do you know of any other devices which might be useful to the hearing impaired?

☐ 1. Yes (please specify) _____

☐ 2. No

☐ 9. No response

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3.5 Will you please rank these signals in terms of general usefulness in devices for the hearing impaired. (Put a "1" beside the most important, a "2" beside the second most important, and so on.)

- ☐ strong smells
- ☐ very loud noises
- ☐ vibration
- ☐ mild electric shocks
- ☐ flashing lights

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3.6 Do you know of any other signals which might be useful in devices for the hearing impaired?

☐ 1. Yes (please specify) _____

☐ 2. No

☐ 9. No response

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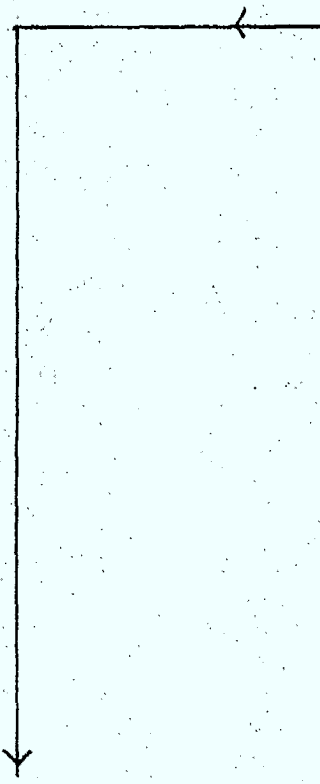
3.7 Do you feel that you have enough alerting and safety devices?

☐ 1. Yes (Go to 3.9)

☐ 2. No

☐ 8. Not sure

☐ 9. No response



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3.8 What other safety or alerting devices do you feel that you need?

- ☐ 1. doorbell or buzzer
- ☐ 2. Smoke detector
- ☐ 3. Hearing aid
- ☐ 4. alarm clock
- ☐ 5. phone bell
- ☐ 6. phone light
- ☐ 7. Other (please specify) _____
- ☐ 8. Not sure
- ☐ 9. No response

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→ 3.9 Do you feel that specially adapted safety devices are readily available?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

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3.10 Where do you acquire most of the devices that you use?

- ☐ 1. Commercially in Canada
- ☐ 2. In Canada, through agencies for the hearing impaired
- ☐ 3. From outside of Canada
- ☐ 4. Don't have any such devices
- ☐ 8. Not sure
- ☐ 9. No response

SECTION IV: Captioning

"This section is going to deal with captioning."

"When a T.V. programme is captioned, what is being said is printed out across the bottom of the screen."

"An alternative to captioning is super-imposed interpreting where what is being said is relayed using sign language."

4.1 Would you use captioning if it were available?

- 1. Yes
— 2. No (please explain why not) _____

_____ (go to Section V)

- 8. Not sure
— 9. No response

4.2 Have you ever seen captioned television?

- 1. Yes
— 2. No
— 8. Not sure
— 9. No response

4.3 Do you have a television set at home?

- 1. Yes
— 2. No (go to 4.8)
— 8. Don't know
— 9. No response

4.4 Do any of the stations you receive have captioning?

- 1. Yes
— 2. No (go to 4.8)
— 8. Not sure
— 9. No response

4.5 Do you receive Canadian or American captioning?

- 1. Canadian
— 2. American
— 3. Both
— 8. Not sure
— 9. No response

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4.6 About how many hours per week do you watch captioned T.V.?

- ☐ 1. Less than 1 hour
- ☐ 2. 1-6 hours
- ☐ 3. 7-12 hours
- ☐ 4. More than 12 hours
- ☐ 8. Not sure
- ☐ 9. No response

4.7 Is this as often as you would like to watch captioned T.V.?

- ☐ 1. Yes (go to 4.9)
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

4.8 About how many hours per week would you like to watch captioned T.V.?

- ☐ 1. Less than 1 hour
- ☐ 2. 1-6 hours
- ☐ 3. 7-12 hours
- ☐ 4. More than 12 hours
- ☐ 8. Not sure
- ☐ 9. No response

4.9 Do you understand sign language?

- ☐ 1. Yes
- ☐ 2. No (go to 4.14)
- ☐ 8. Not sure
- ☐ 9. No response

4.10 Have you ever seen sign language (super-imposed interpreting) on T.V.?

- ☐ 1. Yes
- ☐ 2. No (go to 4.14)
- ☐ 8. Not sure
- ☐ 9. No response

Ask question 4.11 and 4.12 only if the person has indicated that they have T.V. (that is, they answered yes to question 4.3)

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4.11 About how much superimposed interpreting (sign language) do you watch per week?

- ☐ 1. Less than 1 hour
- ☐ 2. 1-6 hours
- ☐ 3. 7-12 hours
- ☐ 4. More than 12 hours
- ☐ 8. Not sure
- ☐ 9. No response

4.12 Is this as much as you would like to watch it?

- ← ☐ 1. Yes (go to 4.14)
- ☐ 2. No
 - ☐ 8. Not sure
 - ☐ 9. No response

4.13 About how many hours per week would you like to watch signed programmes?

- ☐ 1. Less than 1 hour
- ☐ 2. 1-6 hours
- ☐ 3. 7-12 hours
- ☐ 4. More than 12 hours
- ☐ 8. Not sure
- ☐ 9. No response

→ 4.14 Would you prefer regular captioning or super-imposed interpreting (signing)?

- ☐ 1. Regular captioning
- ☐ 2. Super-imposed interpreting
- ☐ 3. No preference
- ☐ 8. Not sure
- ☐ 9. No response

4.15 Please number, in order of preference, the types of programmes you would like to see captioned or signed. (A "1" indicates first choice, a "2" second choice, and so on.)

- ☐ Documentaries
- ☐ News
- ☐ Movies
- ☐ Sports
- ☐ Children's Programs
- ☐ Serials
- ☐ Others (please specify) _____
- ☐ Not sure
- ☐ No response

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" I am going to explain the difference between "open" and "closed" captioning. With open captioning, everyone receives the captioned programme but with closed captioning people can only receive the programme if they have a special decoder."

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4.16 Would you like to have a decoder when captioning becomes available?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

SECTION V: Interpreter Services

5.1 Do you ever need the services of an interpreter?

- ☐ 1. Yes
- ☐ 2. No (Go to Section VI)
- ☐ 8. Don't know
- ☐ 9. No response

5.2 Are such services easily obtained in the area where you live?

- ☐ 1. Yes
- ☐ 2. Sometimes
- ☐ 3. No
- ☐ 8. Don't know
- ☐ 9. No response

5.3 About how many hours interpreting per week is available to you at present?

- ☐ 0. None
- ☐ 1. Less than 1 hour
- ☐ 2. 1-4 hours
- ☐ 3. 5-9 hours
- ☐ 4. 10-14 hours
- ☐ 5. Over 15 hours
- ☐ 8. Don't know
- ☐ 9. No response

5.4 Is this as much as you would like to have?

- ☐ 1. Yes (go to 5.6)
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

5.5 About how many more hours would you like to have per week?

- ☐ 1. Over 15 hours
- ☐ 2. 10-14 hours
- ☐ 3. 5-9 hours
- ☐ 4. 1-4 hours
- ☐ 5. Less than 1 hour
- ☐ 8. Don't know
- ☐ 9. No response

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→ 5.6

At present, how do you make it known that you need an interpreter?

- ☐ 1. Making a regular phone call
- ☐ 2. Using a T.T.Y. unit
- ☐ 3. Having someone else place a phone call for you.
- ☐ 4. A combination of the above
- ☐ 5. Other (please specify) _____
- ☐ 8. Don't know
- ☐ 9. No response

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5.7

Are your interpreters usually paid by a government or other agency?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

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5.8

Do you ever have to pay for an interpreter yourself?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

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5.9

How well do you feel that the interpreters usually do their job?

- ☐ 1. Good
- ☐ 2. Fair
- ☐ 3. Poor
- ☐ 4. Variable
- ☐ 5. Other _____
- ☐ 8. Not sure
- ☐ 9. No response

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5.10

Have you ever failed to obtain these services in an emergency?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 3. Never had one
- ☐ 8. Not sure
- ☐ 9. No response

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5.11 Number according to greatest need, the situation for which you most require interpreting. (Put a "1" beside the most important, a "2" beside the second most important, and so on.)

- ___ Child-rearing
- ___ Other family situations
- ___ Legal settings
- ___ Shopping
- ___ Hospital appointments, etc.
- ___ Other medical situations
- ___ In church
- ___ In general social situations
- ___ In general work settings
- ___ Other (please specify) _____
- ___ No response

SECTION VI: Costs

6.1 How much would you be willing to pay to buy a portable T.T.Y. like the visual ear?

- ☐ 1. Less than \$50
- ☐ 2. \$50 - \$99
- ☐ 3. \$100 - \$199
- ☐ 4. \$200 - \$299
- ☐ 5. \$300 - \$399
- ☐ 6. Over \$400
- ☐ 8. Not sure
- ☐ 9. No response

6.2 How much would you be willing to pay for a decoder for a television set?

- ☐ 1. Less than \$50
- ☐ 2. \$50 - \$99
- ☐ 3. \$100 - \$199
- ☐ 4. \$200 - \$299
- ☐ 5. \$300 - \$399
- ☐ 6. Over \$400
- ☐ 8. Not sure
- ☐ 9. No response

6.3 How much would you be willing to pay for some sort of special alerting device? (ie. a flashing light for a door bell.)

- ☐ 1. Less than \$10
- ☐ 2. \$10 - \$24
- ☐ 3. \$25 - \$49
- ☐ 4. \$50 - \$74
- ☐ 5. \$75 - \$99
- ☐ 6. \$100 or more
- ☐ 8. Not sure
- ☐ 9. No response

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SECTION VII: Demographic

7.1 Sex (Do not ask, record only.)

- ☐ 1. Male
☐ 2. Female
☐ 9. Not recorded

"I'm now going to ask you some questions about yourself."

7.2 When were you born?

- ☐ ☐ Day
☐ ☐ Month
☐ ☐ Year
☐ No response
☐ Refused to answer

7.3 Do you live within 15 miles of a city of 50,000 or more?

- ☐ 1. Yes (urban)
☐ 2. No (rural)
☐ 8. Not sure
☐ 9. No response

7.4 What type of dwelling do you live in?

- ☐ 1. Single room
☐ 2. Apartment
☐ 3. Condominium
☐ 4. Privately owned home
☐ 5. Apartment in their family's home
☐ 6. Other (please specify) _____
☐ 8. Not sure
☐ 9. No response

7.5 How many people including yourself are in your house?

7.6 How many other people in your household are deaf?

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7.7 What is your relationship to them?

19 ☐ ☐ ☐ ☐ ☐

7.8 What is your marital status?

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- ☐ 1. Single
- ☐ 2. Married
- ☐ 3. Separated
- ☐ 4. Divorced
- ☐ 5. Widow or Widower
- ☐ 6. Other (please specify) _____
- ☐ 9. No response

7.9 Do you work outside the home?

25 ☐

- ☐ 1. Yes (please specify job and company) _____
- ☐ 2. No (Go to 7.11)
- ☐ 8. Not sure (Go to 7.11)
- ☐ 9. No response

7.10 Is your employment full-time or part-time?

26 ☐

- ☐ 1. Full-time (Go to 7.12)
- ☐ 2. Part-time (Go to 7.12)
- ☐ 8. Refused to answer (Go to 7.12)
- ☐ 9. No response (Go to 7.12)

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→ 7.11 What do you do?

- ☐ 1. Student
- ☐ 2. Homemaker
- ☐ 3. Retired
- ☐ 4. Unemployed
- ☐ 5. Other (please specify) _____
- ☐ 8. Refused to answer
- ☐ 9. No response

→ 7.12 Into which category would your family income fall?
(Show card.)

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- ☐ 1. Less than \$5,000
- ☐ 2. \$5,000 - \$9,999
- ☐ 3. \$10,000 - \$14,999
- ☐ 4. \$15,000 - \$19,999
- ☐ 5. \$20,000 or more
- ☐ 8. Refused to answer
- ☐ 9. Not recorded

7.13 What language do you speak at home?

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- ☐ 1. English
- ☐ 2. French
- ☐ 3. Other (please specify) _____
- ☐ 9. Not recorded

7.14 What form of communication do you use at home?

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- ☐ 1. Sign Language
- ☐ 2. Lip reading
- ☐ 3. Both
- ☐ 4. Other (please specify) _____
- ☐ 9. No response

7.15 Do you regard yourself as deaf or hard of hearing?

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- ☐ 1. Deaf
- ☐ 2. Hard of hearing
- ☐ 3. Other _____
- ☐ 8. Not sure
- ☐ 9. No response

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7.16 What type of school did you attend? (Place numbers in boxes beside responses to indicate the order in which they were attended if more than one was attended.)

- ☐ 1. A residential school for the hearing impaired
- ☐ 2. A day school for the hearing impaired
- ☐ 3. A special class in a regular school
- ☐ 4. An ordinary class in a regular school
- ☐ 5. A college or university for the hearing impaired
- ☐ 6. A programme for the hearing impaired in a regular college or university
- ☐ 7. A college or university with no special provision for the hearing impaired
- ☐ 8. Private tutor
- ☐ 9. Other (please specify) _____
- ☐ 0. Not stated

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7.17 Would you like to return to school in the future?

- ☐ 1. Yes
- ☐ 2. No (Go to 7.19)
- ☐ 8. Not sure (Go to 7.19)
- ☐ 9. No response

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7.18 Which type of school would you like to attend in the future?

- ☐ 0. None
- ☐ 1. A residential school for the hearing impaired
- ☐ 2. A day school for the hearing impaired
- ☐ 3. A special class in a regular school
- ☐ 4. An ordinary class in a regular school
- ☐ 5. A college or university for the hearing impaired
- ☐ 6. A programme for the hearing impaired in a regular college or university
- ☐ 7. A college or university with no special provision for the hearing impaired
- ☐ 8. Private tutor
- ☐ 9. Other (please specify) _____
- ☐ 10. Not stated

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→ 7.19 What was your highest level of education?

- ☐ 1. Some elementary school
- ☐ 2. Completed elementary school (Grade 8)
- ☐ 3. Some high school
- ☐ 4. Completed high school
- ☐ 5. Some post secondary school education (college, university, etc.)
- ☐ 6. College degree or equivalent
- ☐ 7. University, first degree
- ☐ 8. University, some graduate work
- ☐ 9. Other (please specify) _____
- ☐ 10. Refused to answer
- ☐ 11. No response

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7.20 How did your teachers communicate with you at school? Record all responses if more than 1 is indicated.

- ☐ 1. Speech
- ☐ 2. Sign language
- ☐ 3. Lip reading
- ☐ 4. Other (please specify) _____
- ☐ 9. No response

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7.21 Are you satisfied with your education?

- ☐ 1. Yes
- ☐ 2. Somewhat
- ☐ 3. No
- ☐ 8. Not sure
- ☐ 9. No response

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7.22 Do you belong to any organizations for the hearing impaired?

- ☐ 1. Yes
- ☐ 2. No (Go to 7.24)
- ☐ 8. Not sure (Go to 7.24)
- ☐ 9. No response

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1. None
2. Canadian Association of the Deaf (C.A.D.)
3. Ontario Mission for the Deaf (Bayview Community Centre)(O.M.D.)
4. Western Institute for the Deaf (W.I.D.)
5. Canadian Hearing Society (C.H.S.)
6. Canadian Co-ordinating Council on Deafness (C.C.C.D.)
7. Other (please specify) _____
8. Don't know
9. No response

- 1. Yes
- 2. No (Go to 7 .26)
- 8. Not sure (Go to 7 .26)
- 9. No response

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1. None
2. Service organization (Rotary, Lions, etc.)
3. Church organization (Salvation Army)
4. Charitable organization
5. Other (please specify) _____
8. Don't know
9. No response

1	2
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7.27 Do you have any more comments you would like to make on your telephone problems or needs?

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

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SECTION VIII: Interview Information (To be filled out for everyone)

8.1 Interviewer's Name _____

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8.2 The interview was carried out mainly by using:

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- ☐ 1. Speech
- ☐ 2. Sign Language
- ☐ 3. Writing
- ☐ 4. Other (please specify) _____
- ☐ 9. Not recorded

8.3 Length of interview (in minutes) _____

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8.4 Other apparent disabilities _____

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8.5 Has this person requested a copy of the report?

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- ☐ 1. Yes
- ☐ 2. No

Appendix V

SURVEY OF THE TELECOMMUNICATION NEEDS OF
HARD-OF-HEARING PEOPLE

NAME: _____

ADDRESS: _____

PHONE NUMBER: (area code) _____

T.T.Y. NUMBER: (area code) _____

LOCATION OF INTERVIEW: _____

DATE OF INTERVIEW: _____

TIME OF INTERVIEW: _____

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SECTION I: Telephones, Accessories and Attitudes

"I want to start out by asking you a few questions about your hearing loss and use of the telephone."

1.1 How old were you when you started to lose your hearing?

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1.2 Do you have a hearing aid?

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- ☐ 1. Yes
- ☐ 2. No
- ☐ 9. No response

The following five questions refer to when the person is not wearing a hearing aid. If the person has indicated in the previous question that he does have an aid, include the part of the question in brackets. If the person doesn't wear an aid, exclude the part of the question in brackets.

1.3 How well do you hear (when you are not wearing your hearing aid)?

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- ☐ 1. Very well
- ☐ 2. Can get by
- ☐ 3. Not well at all
- ☐ 4. Not at all (Go to 1.8)
- ☐ 8. Not sure
- ☐ 9. No response

1.4 Can you follow a conversation with people speaking in a normal voice (when you are not wearing your aid)?

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- ☐ 1. Yes (Go to 1.6)
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

1.5 Can you follow a conversation if people are careful to speak very loudly (when you are not wearing your aid)?

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- ☐ 1. Yes
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

→ 1.6 Can you hear the radio and T.V. well enough to understand (when you are not wearing your aid)?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

1.7 Do you find that you have to turn the volume of the T.V. or radio up very high (when you are not wearing your aid)?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

→ In question 1.8 to 1.26, you will be asking the subject about certain telephone devices. If the person indicates that he is familiar with a device, check the appropriate box below. Then it will not be necessary to ask about all of the devices in subsequent questions.

- | | | |
|--------------------------|--------------------------|-------|
| Impaired hearing handset | <input type="checkbox"/> | Box 1 |
| Audible signal | <input type="checkbox"/> | Box 2 |
| Visible signal | <input type="checkbox"/> | Box 3 |
| Acoustic coupler | <input type="checkbox"/> | Box 4 |
| Other (specify) _____ | <input type="checkbox"/> | Box 5 |
| Other (specify) _____ | <input type="checkbox"/> | Box 6 |

1.8 How many telephones do you have in your home?

- ←
- ☐ 0. None (Go to 1.11)
 - ☐ 1. 1
 - ☐ 2. 2
 - ☐ 3. 3
 - ☐ 4. 4
 - ☐ 5. 5
 - ☐ 6. Other (please specify) _____
 - ☐ 8. Not sure
 - ☐ 9. No response
- ↓

1.9 Do any of them have any special features to assist the hard of hearing?

1. Yes
2. No (Go to 1.11)
3. Don't know (Go to 1.11)
9. No response

1.10 Could you please tell me what features they have? (Please check all the features.)

1. Impaired hearing handset (also check Box 1)
2. Audible signal (also check Box 2)
3. Visible signal (also check Box 3)
4. Acoustic coupler (also check Box 4)
5. Other (please specify) _____
_____ (also check Box 5)
6. Other (please specify) _____
_____ (also check Box 6)
8. Not sure
9. No response

1.11 How many telephones do you have available to you in your place of work?

0. None (Go to 1.14)
1. 1
2. 2
3. 3
4. 4
5. 5
6. Other (please specify) _____
7. Don't work (Go to 1.14)
8. Not sure
9. No response

1.12 Do any of them have any special features to assist the hard of hearing?

1. Yes
2. No (Go to 1.14)
3. Don't know (Go to 1.14)
9. No response

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1.13 Could you please tell me what features they have?
(Please check all the features.)

- ☐ 1. Impaired hearing handset (also check Box 1)
- ☐ 2. Audible signal (also check Box 2)
- ☐ 3. Visible signal (also check Box 3)
- ☐ 4. Acoustic coupler (also check Box 4)
- ☐ 5. Other (please specify) _____
_____ (also check Box 5)
- ☐ 6. Other (please specify) _____
_____ (also check Box 6)
- ☐ 8. Not sure
- ☐ 9. No response

→ In question 1.14 say "any other special features" if they have indicated that they are familiar with some features. Otherwise just say "any special features."

1.14 Are you familiar with any (other) special features for the telephone?

- ☐ 1. Yes
- ☐ 2. No (Go to 1.16)
- ☐ 8. Not sure (Go to 1.16)
- ☐ 9. No response

1.15 Which ones are you familiar with?

- ☐ 1. Impaired hearing handset (also check Box 1)
- ☐ 2. Audible signal (also check Box 2)
- ☐ 3. Visible signal (also check Box 3)
- ☐ 4. Acoustic Coupler (also check Box 4)
- ☐ 5. Other (please specify) _____
_____ (also check Box 5)
- ☐ 6. Other (please specify) _____
_____ (also check Box 6)
- ☐ 8. Not sure
- ☐ 9. No response

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→ Ask 1.16, only if Box 1 is checked.

1.16 How did you first learn about the impaired hearing handset?

- ☐ 1. A friend
- ☐ 2. "I phoned the telephone company."
- ☐ 3. An advertisement (please specify) _____
- ☐ 4. An association for the hearing impaired
- ☐ 5. Other (please specify) _____
- ☐ 8. Not sure
- ☐ 9. No response

Ask 1.17, only if Box 2 is checked.

1.17 How did you first learn about the audible signal?

- ☐ 1. A friend
- ☐ 2. "I phoned the telephone company."
- ☐ 3. An advertisement (please specify) _____
- ☐ 4. An association for the hearing impaired
- ☐ 5. Other (please specify) _____
- ☐ 8. Not sure
- ☐ 9. No response

Ask 1.18, only if Box 3 is checked.

1.18 How did you first learn about the visible signal?

- ☐ 1. A friend
- ☐ 2. "I phoned the telephone company."
- ☐ 3. An advertisement (please specify) _____
- ☐ 4. An association for the hearing impaired
- ☐ 5. Other (please specify) _____
- ☐ 8. Not sure
- ☐ 9. No response

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Ask 1.19, only if Box 4 is checked.

1.19 How did you first learn about the acoustic coupler?

- ☐ 1. A friend
- ☐ 2. " I phoned the telephone company."
- ☐ 3. An advertisement (please specify)
- ☐ 4. An association for the hearing impaired
- ☐ 5. Other (please specify) _____
- ☐ 8. Not sure
- ☐ 9. No response

Ask 1.20 only if Box 5 is checked. When you ask 1.20 ask it specifically for the device the respondent named.

1.20 How did you first learn about _____?

- ☐ 1. A friend
- ☐ 2. "I phoned the telephone company."
- ☐ 3. An advertisement (please specify)
- ☐ 4. An association for the hearing impaired
- ☐ 5. Other (please specify) _____
- ☐ 8. Not sure
- ☐ 9. No response

Ask 1.21 only if Box 6 is checked. When you ask 1.21 ask if specifically for the device the respondent named.

1.21 How did you first learn about _____?

- ☐ 1. A friend
- ☐ 2. " I phoned the telephone company."
- ☐ 3. An advertisement (please specify)
- ☐ 4. An association for the hearing impaired
- ☐ 5. Other (please specify) _____
- ☐ 8. Not sure
- ☐ 9. No response

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Show the subject pictures of the devices they are unfamiliar with and explain what the devices do. If they have used the particular feature, ask if it is useful to them, otherwise ask if it could be useful.

1.22 Do you feel that the impaired hearing handset is (could be) useful to you?

- ☐ 1. Yes
- ☐ 2. Sometimes
- ☐ 3. No (please explain why not) _____
- ☐ 8. Not sure
- ☐ 9. No response

1.23 Do you feel that the audible signal is (could be) useful to you?

- ☐ 1. Yes
- ☐ 2. Sometimes
- ☐ 3. No (please explain why not) _____
- ☐ 8. Not sure
- ☐ 9. No response

1.24 Do you feel that the visible signal is (could be) useful to you?

- ☐ 1. Yes
- ☐ 2. Sometimes
- ☐ 3. No (please explain why not) _____
- ☐ 8. Not sure
- ☐ 9. No response

1.25 Do you feel that the acoustic coupler is (could be) useful to you?

- ☐ 1. Yes
- ☐ 2. Sometimes
- ☐ 3. No (please explain why not) _____
- ☐ 8. Not sure
- ☐ 9. No response

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1.26 Do you have any difficulties using the phone?

- ☐ 1. Yes, all the time
- ☐ 2. Yes, sometimes
- ☐ 3. No (Go to 1.28)
- ☐ 8. Not sure
- ☐ 9. No response

1.27 What difficulties do you have with the phone?
(Please check all appropriate responses. Be sure to record everything said.)

- ☐ 0. None
- ☐ 1. I have a problem holding the receiver
- ☐ 2. I can't hear it ring if I'm not in the room
- ☐ 3. I can't tell if the phone is ringing at the other end
- ☐ 4. I can't tell if I get a busy signal
- ☐ 5. I can't understand what people are saying
- ☐ 6. I have trouble distinguishing voices
- ☐ 7. I can't distinguish male from female voices
- ☐ 8. I have trouble understanding some but not all people
- ☐ 9. Some people talk too quickly
- ☐ 10. Some people mumble
- ☐ 11. Some people talk too softly
- ☐ 12. Other (please specify) _____

☐ 99. No response

→ 1.28 Do you require others to make calls for you?

- ☐ 1. Yes, all the time
- ☐ 2. Yes, some of the time
- ☐ 3. No (Go to 1.30)
- ☐ 8. Not sure
- ☐ 9. No response

1.29 How often do you rely on others to make phone calls for you? (Suggest possible answers of always, sometimes and seldom, etc.)

- ☐ 1. Always
- ☐ 2. Sometimes
- ☐ 3. Seldom
- ☐ 4. Never
- ☐ 9. No response

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→ 1.30 About how many times per week do you use the phone?

1.31 Is this as often as you would like to to use the phone?

- 1. Yes (Go to 1.33)
- 2. No
- 8. Not sure
- 9. No response

1.32 About how many times per week would you like to use the phone?

→ 1.33 Number in order of importance, the things you require good phone access for. (Put a "1" beside the most important, a "2" beside the second most important, and so on.)

- Calling family
- Calling the telephone company
- Calling friends
- Making work contacts
- Shopping and personal services
- Emergencies
- Other (please specify) _____

1.34 Do you have any problems dealing with the telephone company?

- 1. Yes
- 2. No (Go to Section II)
- 3. Have never dealt with them myself (Go to Section II)
- 4. Have not dealt with them recently (Go to Section II)
- 8. Not sure
- 9. No response

1.5

What problems do you have with the telephone company?

74

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109

SECTION II: Hearing Aids and Telephones

Ask this section only if they said that they have a hearing aid in question 1.2. Otherwise, go to Section III.

"I'm going to ask you about your hearing aid and telephone usage now."

2.1 How many aids do you have?

- ☐ 1. One
- ☐ 2. Two

2.2 What make(s) of aid(s) do you have? (If they have aid for both ears, put R in the box beside the one for right ear and an L in the box beside the one for the left ear, or if both are the same put a B in the box.)

- ☐ 1. Zenith
- ☐ 2. Philips
- ☐ 3. Unitron
- ☐ 4. Maico
- ☐ 5. Siemens
- ☐ 6. Beltone
- ☐ 7. Bosch
- ☐ 8. Danavox
- ☐ 9. Topholm and Western (Widex)
- ☐ 10. Opticon
- ☐ 11. Telex
- ☐ 12. Bommer A.A. (Rexton)
- ☐ 13. Acousticon
- ☐ 14. Fidelitv
- ☐ 15. Other _____
- ☐ 16. Not sure
- ☐ 17. No response

2.3 How long have you worn your aid(s)? (Check appropriate box for length of time using aid for longest one.)

- ☐ 1. Less than 1 year
- ☐ 2. 1-4 years
- ☐ 3. 5-9 years
- ☐ 4. 10 years or more
- ☐ 8. Not sure
- ☐ 9. No response

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2.4 How often do you use your hearing aid?

- ☐ 1. Always
- ☐ 2. Most of the time
- ☐ 3. From time to time
- ☐ 4. Never (please explain why not) _____

_____ (Go to Section III)
☐ 9. No response

2.5 How often do you use your aid with the telephone?

- ☐ 1. Always
- ☐ 2. Most of the time
- ☐ 3. Sometimes
- ☐ 4. Never (please explain why not) _____

☐ 9. No response

2.6 Does your aid have a telephone switch or T-switch?

- ☐ 1. Yes
- ☐ 2. No (Go to Section III)
- ☐ 8. Not sure (Go to Section III)
- ☐ 9. No response

2.7 Do you ever make use of your T-switch to watch television programs? (Demonstrate with illustration.)

- ☐ 1. Yes
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

2.8 How often do you use the T-switch with the phone?

- ☐ 1. All the time
- ☐ 2. Sometimes (please explain) _____
- ☐ 3. Never (please explain) _____

_____ (Go to Section III)
☐ 9. No response



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2.9 Does your T-switch assist you in using most private phones today?

- ☐ 1. Yes
☐ 2. No (please explain) _____
☐ 8. Not sure
☐ 9. No response

17

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2.10 Does your T-switch assist you in using most public pay phones?

- ☐ 1. Yes
☐ 2. No (please explain) _____
☐ 8. Not sure
☐ 9. No response

SECTION III: Safety Devices

" A number of commonly used alerting devices have been adapted for the hearing impaired. Alerting devices can employ signals such as flashing lights (which may be used for a doorbell), vibrations or mild electric shocks (which may be used with an alarm clock) or very loud noises or strong smells which may be used in a fire alarm."

3.1 For each of the alerting devices ask: Have you ever seen or heard of this type of alerting device as adapted for the hearing impaired?

doorbell or buzzer	___ 1. Yes	___ 2. No	___ 3. Not sure
smoke detector	___ 1. Yes	___ 2. No	___ 3. Not sure
alarm clock	___ 1. Yes	___ 2. No	___ 3. Not sure
very loud phone bell	___ 1. Yes	___ 2. No	___ 3. Not sure
very loud phone light	___ 1. Yes	___ 2. No	___ 3. Not sure

3.2 For each of the alerting devices, ask: Do you consider this type of device when adapted for the hearing impaired to be useful?

doorbell or buzzer	___ 1. Yes	___ 2. No	___ 3. Not sure
smoke detector	___ 1. Yes	___ 2. No	___ 3. Not sure
alarm clock	___ 1. Yes	___ 2. No	___ 3. Not sure
very loud phone bell	___ 1. Yes	___ 2. No	___ 3. Not sure
very loud phone light	___ 1. Yes	___ 2. No	___ 3. Not sure

3.3 Will you please rank these devices in terms of general usefulness to the hearing impaired. (Put a "1" beside the most important, a "2" beside the second most important, and so on.)

___	doorbell or buzzer
___	smoke detector
___	alarm clock
___	phone bell
___	phone light
___	Other (please specify) _____

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8	9	
<input type="checkbox"/>	<input type="checkbox"/>	

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13	14	
<input type="checkbox"/>	<input type="checkbox"/>	

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3.4 Do you know of any other devices which might be useful to the hearing impaired?

- ☐ 1. Yes (please specify) _____
- ☐ 2. No _____
- ☐ 9. No response

22 ☐ ☐ ☐ ☐ ☐

3.5 Will you please rank these signals in terms of general usefulness in devices for the hearing impaired. (Put a "1" beside the most important, a "2" beside the second most important, and so on.)

- ☐ strong smells
- ☐ very loud noises
- ☐ vibration
- ☐ mild electric shocks
- ☐ flashing lights

27 ☐ ☐

3.6 Do you know of any other signals which might be useful in devices for the hearing impaired?

- ☐ 1. Yes (please specify) _____
- ☐ 2. No _____
- ☐ 9. No response

29 ☐

3.7 Do you feel that you have enough alerting and safety devices?

- ☐ 1. Yes (Go to 3.9)
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

3.8 What other safety or alerting devices do you feel that you need?

- ☐ 1. doorbell or buzzer
- ☐ 2. Smoke detector
- ☐ 3. Hearing aid
- ☐ 4. alarm clock
- ☐ 5. phone bell
- ☐ 6. phone light
- ☐ 7. Other (please specify) _____
- ☐ 8. Not sure
- ☐ 9. No response

→ 3.9 Do you feel that specially adapted safety devices are readily available?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

3.10 Where do you acquire most of the devices that you use?

- ☐ 1. Commercially in Canada
- ☐ 2. In Canada, through agencies for the hearing impaired
- ☐ 3. From outside of Canada
- ☐ 4. Don't have any such devices
- ☐ 8. Not sure
- ☐ 9. No response

SECTION IV: Captioning

"This section is going to deal with captioning."

"When a T.V. programme is captioned, what is being said is printed out across the bottom of the screen."

"An alternative to captioning is super-imposed interpreting where what is being said is relayed using sign language."

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4.1 Would you use captioning if it were available?

- 1. Yes
— 2. No (please explain why not) _____

- 8. Not sure
— 9. No response
_____ (go to Section V)

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4.2 Have you ever seen captioned television?

- 1. Yes
— 2. No
— 8. Not sure
— 9. No response

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4.3 Do you have a television set at home?

- 1. Yes
— 2. No (go to 4.8)
— 8. Don't know
— 9. No response

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4.4 Do any of the stations you receive have captioning?

- 1. Yes
— 2. No (go to 4.8)
— 8. Not sure
— 9. No response

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4.5 Do you receive Canadian or American captioning?

- 1. Canadian
— 2. American
— 3. Both
— 8. Not sure
— 9. No response

4.6 About how many hours per week do you watch captioned T.V.?

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- ☐ 1. Less than 1 hour
- ☐ 2. 1-6 hours
- ☐ 3. 7-12 hours
- ☐ 4. More than 12 hours
- ☐ 8. Not sure
- ☐ 9. No response

4.7 Is this as often as you would like to watch captioned T.V.?

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- ☐ 1. Yes (go to 4.9)
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

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4.8 About how many hours per week would you like to watch captioned T.V.?

- ☐ 1. Less than 1 hour
- ☐ 2. 1-6 hours
- ☐ 3. 7-12 hours
- ☐ 4. More than 12 hours
- ☐ 8. Not sure
- ☐ 9. No response

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4.9 Do you understand sign language?

- ☐ 1. Yes
- ☐ 2. No (go to 4.14)
- ☐ 8. Not sure
- ☐ 9. No response

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4.10 Have you ever seen sign language (super-imposed interpreting) on T.V.?

- ☐ 1. Yes
- ☐ 2. No (go to 4.14)
- ☐ 8. Not sure
- ☐ 9. No response

Ask question 4.11 and 4.12 only if the person has indicated that they have T.V. (that is, they answered yes to question 4.3)

4.11 About how much superimposed interpreting (sign language) do you watch per week?

- ☐ 1. Less than 1 hour
- ☐ 2. 1-6 hours
- ☐ 3. 7-12 hours
- ☐ 4. More than 12 hours
- ☐ 8. Not sure
- ☐ 9. No response

4.12 Is this as much as you would like to watch it?

- ← ☐ 1. Yes (go to 4.14)
- ☐ 2. No
 - ☐ 8. Not sure
 - ☐ 9. No response

4.13 About how many hours per week would you like to watch signed programmes?

- ☐ 1. Less than 1 hour
- ☐ 2. 1-6 hours
- ☐ 3. 7-12 hours
- ☐ 4. More than 12 hours
- ☐ 8. Not sure
- ☐ 9. No response

→ 4.14 Would you prefer regular captioning or super-imposed interpreting (signing)?

- ☐ 1. Regular captioning
- ☐ 2. Super-imposed interpreting
- ☐ 3. No preference
- ☐ 8. Not sure
- ☐ 9. No response

4.15 Please number, in order of preference, the types of programmes you would like to see captioned or signed. (A "1" indicates first choice, a "2" second choice, and so on.)

- ☐ Documentaries
- ☐ News
- ☐ Movies
- ☐ Sports
- ☐ Children's Programs
- ☐ Serials
- ☐ Others (please specify) _____
- ☐ Not sure
- ☐ No response

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" I am going to explain the difference between "open" and "closed" captioning. With open captioning, everyone receives the captioned programme but with closed captioning people can only receive the programme if they have a special decoder."

4.16 Would you like to have a decoder when captioning becomes available?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 8. Not sure
- ☐ 9. No response

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SECTION V: Costs

5.1 How much would you be willing to pay to buy a form of amplification for your phone?

- ☐ 1. Less than \$10
- ☐ 2. \$10 - \$24
- ☐ 3. \$25 - \$49
- ☐ 4. \$50 - \$74
- ☐ 5. \$75 - \$99
- ☐ 6. \$100 or more
- ☐ 8. Not sure
- ☐ 9. No response

5.2 How much would you be willing to pay for a decoder for a television set?

- ☐ 1. Less than \$50
- ☐ 2. \$50 - \$99
- ☐ 3. \$100 - \$199
- ☐ 4. \$200 - \$299
- ☐ 5. \$300 - \$399
- ☐ 6. Over \$400
- ☐ 8. Not sure
- ☐ 9. No response

5.3 How much would you be willing to pay for some sort of special alerting device? (ie. a flashing light for a door bell.)

- ☐ 1. Less than \$10
- ☐ 2. \$10 - \$24
- ☐ 3. \$25 - \$49
- ☐ 4. \$50 - \$74
- ☐ 5. \$75 - \$99
- ☐ 6. \$100 or more
- ☐ 8. Not sure
- ☐ 9. No response

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SECTION VI : Demographic

6.1 Sex (Do not ask, record only)

- ☐ 1. Male
☐ 2. Female
☐ 9. Not recorded

"I'm now going to ask you some questions about yourself."

6.2 When were you born?

- ☐ ☐ Day
☐ ☐ Month
☐ ☐ Year
☐ No response
☐ Refused to answer

6.3 Do you live within 15 miles of a city of 50,000 or more?

- ☐ 1. Yes (urban)
☐ 2. No (rural)
☐ 8. Not sure
☐ 9. No response

6.4 What type of dwelling do you live in?

- ☐ 1. Single room
☐ 2. Apartment
☐ 3. Condominium
☐ 4. Privately owned home
☐ 5. Apartment in their family's home
☐ 6. Other (please specify) _____
☐ 8. Not sure
☐ 9. No response

6.5 How many people including yourself are in your house?

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6.6 What is your marital status?

- ☐ 1. Single
- ☐ 2. Married
- ☐ 3. Separated
- ☐ 4. Divorced
- ☐ 5. Widow or Widower
- ☐ 6. Other (please specify) _____
- ☐ 9. No response

6.7 Do you work outside the home?

- ☐ 1. Yes (please specify job and company) _____
- ☐ 2. No (Go to 6.9)
- ☐ 3. Not sure (Go to 6.9)
- ☐ 8. Refused to answer
- ☐ 9. No response

6.8 Is your employment full-time or part-time?

- ☐ 1. Full-time (Go to 6.10)
- ☐ 2. Part-time (Go to 6.10)
- ☐ 3. Refused to answer
- ☐ 9. No response

→ 6.9 What do you do?

- ☐ 1. Student
- ☐ 2. Homemaker
- ☐ 3. Retired
- ☐ 4. Unemployed
- ☐ 5. Other (please specify) _____
- ☐ 8. Refused to answer
- ☐ 9. No response

→ 6.10 Into which category would your family income fall? (Show card.)

- ☐ 1. Less than \$5,000
- ☐ 2. \$5,000 - \$9,999
- ☐ 3. \$10,000 - \$14,999
- ☐ 4. \$15,000 - \$19,999
- ☐ 5. \$20,000 or more
- ☐ 8. Refused to answer
- ☐ 9. Not recorded

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6.11 What language do you speak at home?

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- ☐ 1. English
- ☐ 2. French
- ☐ 3. Other (please specify) _____
- ☐ 9. No response

6.12 Do you regard yourself as deaf or hard of hearing?

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- ☐ 1. Deaf
- ☐ 2. Hard of hearing
- ☐ 3. Other (please specify) _____
- ☐ 8. Not sure
- ☐ 9. No response

6.13 What type of school did you attend? (Place numbers in boxes beside responses to indicate the order in which they were attended if more than one was attended.)

24

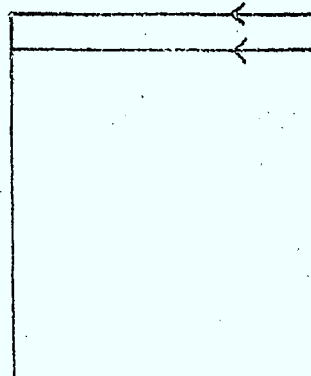
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- ☐ 1. A residential school for the hearing impaired
- ☐ 2. A day school for the hearing impaired
- ☐ 3. A special class in a regular school
- ☐ 4. An ordinary class in a regular school
- ☐ 5. A college or university for the hearing impaired
- ☐ 6. A programme for the hearing impaired in a regular college or university
- ☐ 7. A college or university with no special provision for the hearing impaired
- ☐ 8. Private tutor
- ☐ 9. Other (please specify) _____
- ☐ 10. Not stated

6.14 Would you like to return to school in the future?

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- ☐ 1. Yes
- ☐ 2. No (Go to 6.16)
- ☐ 8. Not sure (Go to 6.16)
- ☐ 9. No response



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6.15 Which type of school would you like to attend in the future?

- ☐ 0. None
- ☐ 1. A residential school for the hearing impaired
- ☐ 2. A day school for the hearing impaired
- ☐ 3. A special class in a regular school
- ☐ 4. An ordinary class in a regular school
- ☐ 5. A college or university for the hearing impaired
- ☐ 6. A programme for the hearing impaired in a regular college or university
- ☐ 7. A college or university with no special provision for the hearing impaired
- ☐ 8. Private tutor
- ☐ 9. Other (please specify) _____
- ☐ 10. Not stated

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6.16 What was your highest level of education?

- ☐ 1. Some elementary school
- ☐ 2. Completed elementary school (Grade 8)
- ☐ 3. Some high school
- ☐ 4. Completed high school
- ☐ 5. Some post secondary school education (college, university, etc.)
- ☐ 6. College degree or equivalent
- ☐ 7. University, first degree
- ☐ 8. University, some graduate work
- ☐ 9. Other (please specify) _____
- ☐ 10. Refused to answer
- ☐ 11. No response

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6.17 Are you satisfied with your education?

- ☐ 1. Yes
- ☐ 2. Somewhat
- ☐ 3. No
- ☐ 4. Not sure
- ☐ 5. No response

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6.18 Do you belong to any organization for the hearing impaired?

- ← ☐ 1. Yes
← ☐ 2. No (Go to 6.20)
← ☐ 8. Not sure (Go to 6.20)
☐ 9. No response

6.19 To which organizations for the hearing impaired do you belong?

- ☐ 1. None
☐ 2. Canadian Association of the Deaf (C.A.D.)
☐ 3. Ontario Mission for the Deaf (Bayview Community Centre) (O.M.D.)
☐ 4. Western Institute for the Deaf (W.I.D.)
☐ 5. Canadian Hearing Society (C.H.S.)
☐ 6. Canadian Co-ordinating Council on Deafness (C.C.C.D.)
☐ 7. Others (please specify) _____

☐ 8. Don't know
☐ 9. No response

→ 6.20 Do you belong to any other organizations?

- ← ☐ 1. Yes
← ☐ 2. No (Go to 6.22)
← ☐ 8. Not sure (Go to 6.22)
☐ 9. No response

6.21 To which other organizations do you belong?

- ☐ 1. None
☐ 2. Service organizations (Rotary, Lions, etc.)
☐ 3. Church organizations (Salvation Army)
☐ 4. Charitable organization
☐ 5. Others (please specify) _____

☐ 8. Don't know
☐ 9. No response

→ 6.22 Do you have any suggestions for telephone equipment or services which you would like to have?

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6.24 Do you have any more comments you would like to make on your communication problems or needs?

SECTION VII: Interview Information (To be filled out
for everyone)

7.1 Interviewer's Name _____

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7.2 The interview was carried out mainly by using:

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- ☐ 1. Speech
- ☐ 2. Sign Language
- ☐ 3. Writing
- ☐ 4. Other (please specify) _____

☐ 9. Not recorded _____

7.3 Length of interview (in minutes) _____

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7.4 Other apparent disabilities _____

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7.5 Has this person requested a copy of the report?

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- ☐ 1. Yes
- ☐ 2. No

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Appendix VI

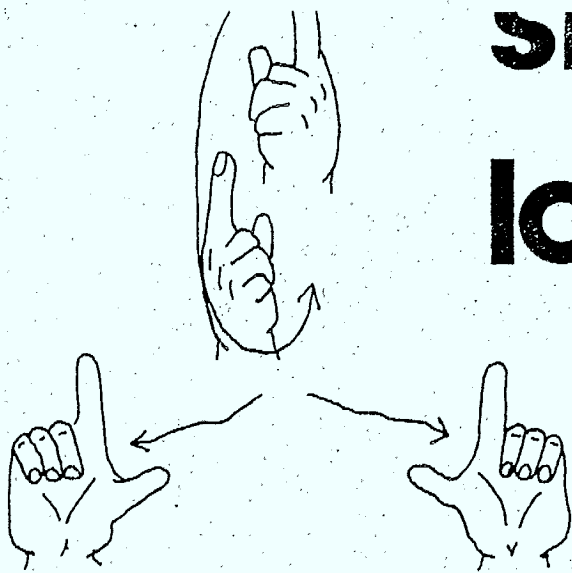
INSTRUCTIONS TO INTERVIEWERS

- Before interviewing make sure respondent is at ease. Use small talk and discuss the questions to be asked only in the most general terms, eg. length of interview, its confidentiality, etc.
- Make sure that all appropriate questions are asked and the response recorded exactly as made and in exactly the way required.
- Go through the interview in exactly the order set out.
- Avoid leading the respondent towards certain answers. Do not indicate expectation or approval of any answer
- Repeat questions or parts of questions as needed.
- If explanations of terms or concepts are needed these should be given factually and clinically.
- Do not discuss other individual respondents or the answers they gave. Avoid expressing any views you may have on answering trends.
- Note carefully specific instructions about questions that appear on the interview schedule
- Feel free to tell any respondent who asks that a summary of the results will be made available upon the completion of the survey. Make a written note of those who want this summary.
- If in doubt about any points in the interview schedule please contact the survey organizer immediately.
- Do not push to get a response from someone who refuses to answer the question; where applicable indicate "refuse to answer".
- If any interviewee appears to have a visual deficit (i.e. wears glasses) indicate in the section to be filled out by interviewer.
- When there is no category that corresponds to the person's actual response, write in the comments that the person has given.
- Any statement that has stars around it is an instruction to the interviewer and is not to be read aloud.
- If answer is obvious use discretion and do not ask the question, for example, if the respondent is wearing an aid, don't ask! 1.2, just record the answer, but question 2.1 may still be necessary to ask.

- All interviewers will be issued with an identification card for use when the interviewee questions the interviewer's association with the Project.
- All statements within quotation marks are intended to be read or closely paraphrased to the respondent.

sign language

Appendix VII

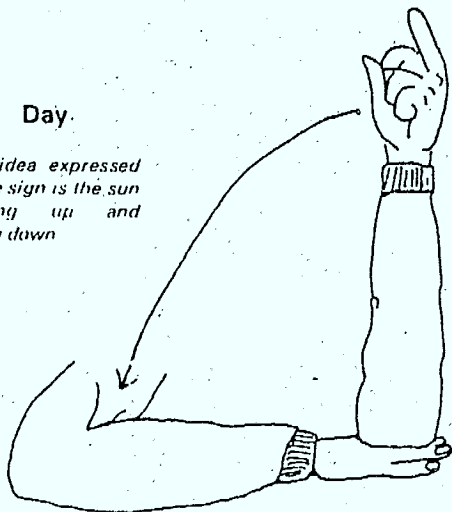


THE CANADIAN HEARING SOCIETY

Many signs, which are not pantomimes of an action are, nevertheless, very expressive of their meaning.

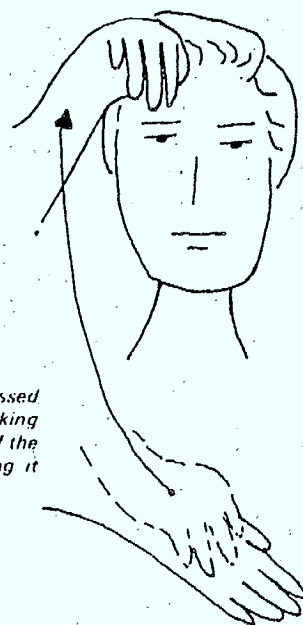
Day.

The idea expressed in the sign is the sun coming up and going down

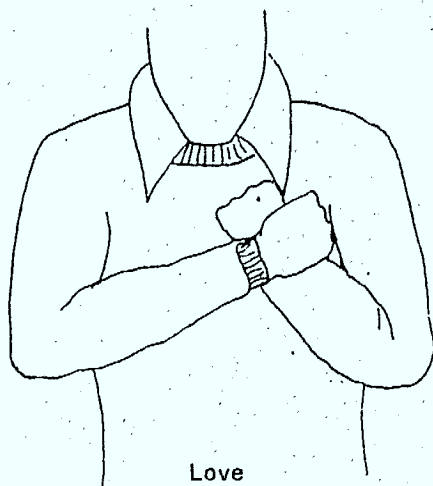


Learn

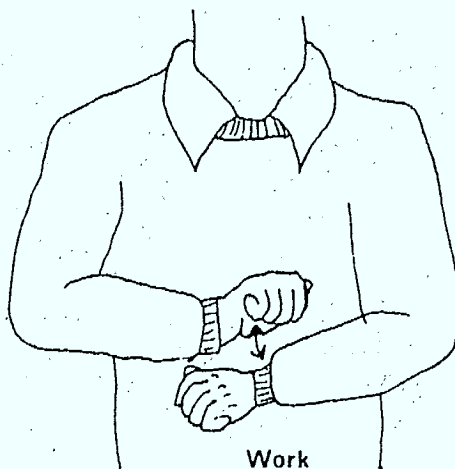
The idea expressed in the sign is taking something out of the hand and putting it into the head.



In these signs, the motion and location changes the meaning while handshape remains the same.



Love

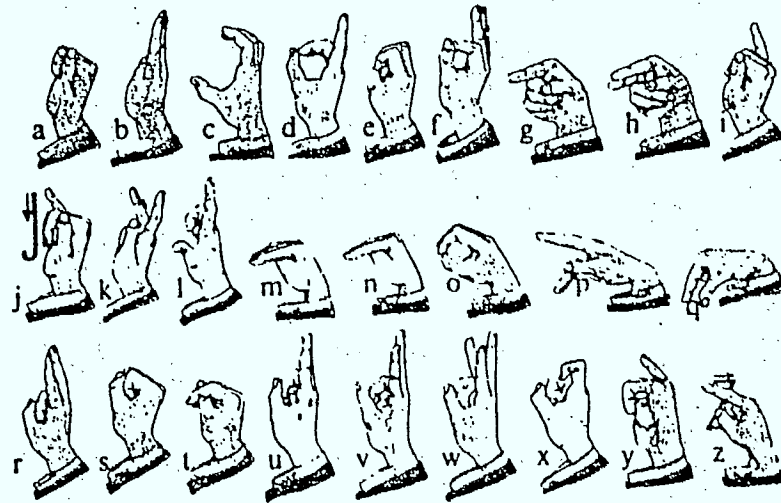


Work

Appendix VIII

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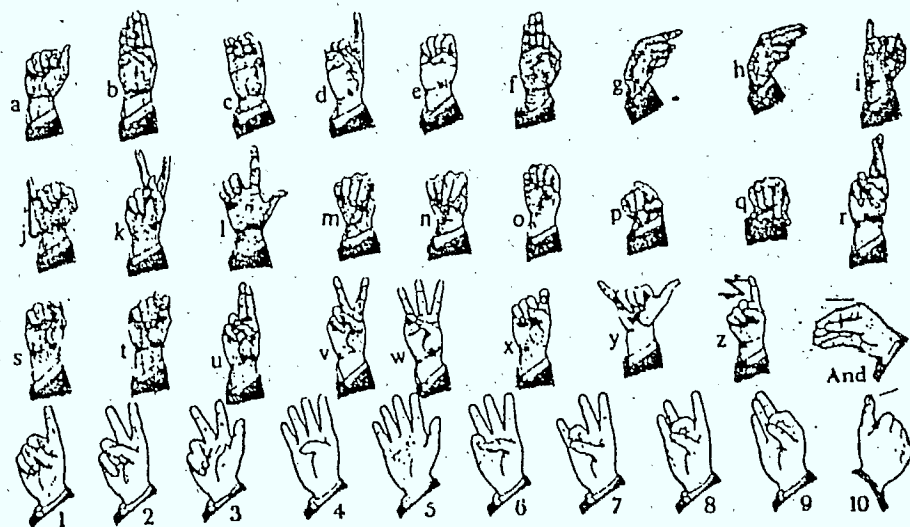
THE CANADIAN HEARING SOCIETY
60 Bedford Rd. Toronto, Ontario M5R 2K2, Tel: 964-9595



FINGER SPELLING (As seen by the sender)

Mailing Address:
HUMAN COMMUNICATION RESEARCH
Jeanne Mance Res. 3rd. Floor,
Hotel Dieu Hospital
Kingston, Ontario

THE CANADIAN HEARING SOCIETY
60 Bedford Rd. Toronto, Ontario M5R 2K2, Tel: 964-9595



FINGER SPELLING (As seen by the receiver)

QUEEN P 91 .C655 D363 1980
Darbyshire, John O.
Final report of a pan-Canadi

