

# HEARING PROBLEMS AMONG SENIORS by Wayne J. Millar

According to national data from the 2003 Canadian Community Health Survey (CCHS), about 3% of the Canadian household population aged 12 or older had some type of difficulty with their hearing.

Because hearing problems tend to increase with age, seniors are disproportionately affected. Although seniors accounted for just 14% of the 12-or-older household population, they represented 55% of people with hearing problems (data not shown). About 11% of the population aged 65 or older, an estimated 402,000 seniors, had a hearing problem. At ages 65 to 69, 5% had a hearing problem; by age 80 or older, the figure was 23%.

## More common among men

In 2003, in almost every age group, the proportion of men who had difficulty hearing was higher than that for women.

The proportion of seniors with hearing problems generally did not vary with household income or education (data not shown). These results suggest that age-related factors play a more important role in hearing loss than do socio-economic ones.

In Québec, the proportion

**Percentage of seniors reporting hearing problems—by age and sex**

	Total %	Corrected %	Uncorrected %
<b>All seniors</b>	11	7	3
65-69	5 <sup>†</sup>	4 <sup>†</sup>	1 <sup>†E</sup>
70-74	8 <sup>†</sup>	5 <sup>†</sup>	3 <sup>E</sup>
75-79	11	8	3 <sup>E</sup>
80+	23 <sup>†</sup>	16 <sup>†</sup>	7 <sup>†</sup>
<b>Men</b>	12 <sup>*</sup>	9 <sup>*</sup>	4
65-69	6 <sup>†</sup>	5 <sup>†E</sup>	2 <sup>†E</sup>
70-74	11	7	5 <sup>E</sup>
75-79	13	10 <sup>E</sup>	3 <sup>E</sup>
80+	29 <sup>†</sup>	22 <sup>†</sup>	7 <sup>†E</sup>
<b>Women</b>	9 <sup>*</sup>	6 <sup>*</sup>	3
65-69	4 <sup>†</sup>	3 <sup>†E</sup>	F
70-74	6 <sup>†</sup>	4 <sup>†E</sup>	2 <sup>E</sup>
75-79	9	7 <sup>E</sup>	3 <sup>E</sup>
80+	20 <sup>*</sup>	13 <sup>†</sup>	7 <sup>†E</sup>

*Data source: 2003 Canadian Community Health Survey*  
*Note: Subtotals may not sum to total because of rounding.*  
<sup>\*</sup> Significantly different from estimate for all seniors ( $p < 0.05$ )  
<sup>†</sup> Significantly different from estimate for totals within sex/age group ( $p < 0.05$ )  
<sup>E</sup> Coefficient of variation 16.6 to 33.3% (interpret with caution)  
<sup>F</sup> Coefficient of variation greater than 33.3% (suppressed because of extreme sampling variability)

of seniors with hearing problems (7%) was significantly lower than the national average of 11%; in Saskatchewan (16%), British Columbia (15%) and New Brunswick (15%), it was significantly higher.

## Corrected, uncorrected

Most seniors with hearing problems reported that the difficulties had been corrected. However, 3% reported uncorrected problems; that is, those not yet corrected or not amenable to correction. Overall and in each age group, the prevalence of uncorrected hearing problems was higher

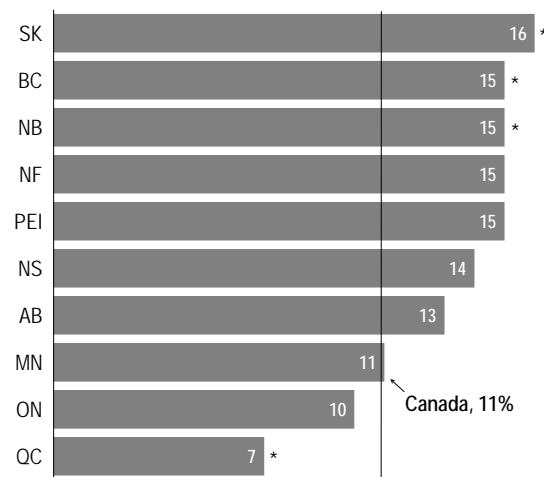
among men than women. As might be expected, the proportion of uncorrected problems was lower in the 65-to-69 age group and higher for seniors aged 80 or older.

Compared with the national rate, the prevalence of uncorrected hearing problems was significantly higher among residents of New Brunswick (data not shown).

## Consulting physicians

Annual medical examinations provide an important opportunity to monitor

**Percentage of seniors reporting hearing problems—by province**



*Data source: 2003 Canadian Community Health Survey*  
<sup>\*</sup> Significantly different from estimate for all seniors ( $p < 0.05$ )

hearing function, particularly for seniors. Based on the high prevalence of hearing problems among seniors and the proven effectiveness of intervention, current recommendations favour screening for hearing impairment.<sup>1</sup> Therefore, regular physician consultations should increase the likelihood that hearing function would be assessed. While information specifically about hearing assessments or testing is not available from the CCHS, respondents were asked about consultations with physicians.

### Small decline in hearing problems

From 1994/95 to 2003, the proportion of seniors with hearing problems declined from 18% to 11%. The decrease was evident in all senior age groups, overall and for both sexes. In 1994/95, 15% of women reported hearing problems, compared with 9% in 2003. The corresponding figures for men were 22% and 13%. Lower rates of reported hearing loss could be attributable to a real decline in prevalence, or to improvements in the quality of assistive devices.

*Percentage of seniors with hearing problems, by sex and age group—trends*

	1994/95 NPHS	1996/97 NPHS	1998/99 NPHS	2000/01 CCHS	2003 CCHS
<b>All seniors</b>	18	14	14	14	11*
65-69	11	8	6	8	5*
70-74	13	10	13	12	8*
75-79	21	15	15	15	11*
80+	33	29	28	27	23*
<b>Men</b>	22	18	18	18	13*
65-69	14	9	8	11	6*
70-74	17	15	18	17	11*
75-79	25	23	20	21	13
80+	38	32	30	31	29
<b>Women</b>	15	12	12	11	9*
65-69	9	7	5	5	4*
70-74	10	7	8	9	6*
75-79	17	10	11	10	9*
80+	29	27	27	24	20*

*Data sources:* 1994/95, 1996/97, 1998/99 National Population Health Survey, cross-sectional sample, Health file; 2001/02 and 2003 Canadian Community Health Survey

\* Significantly different from estimate for 1994/95 ( $p < 0.05$ )

About 88% of seniors with a hearing problem had consulted a physician in the past year. There was no difference in the consultation rate by whether the problem had been corrected, or by sex. Among both men and women, consultation rates were highest in the oldest age group (data not shown).

### The Questions

The estimates of *hearing problems among seniors* are based on data from questions in the Canadian Community Health Survey (CCHS).

- "Are you usually able to hear what is said in a group conversation with at least three other people *without a hearing aid?*"

If the answer was "no," the respondent was asked:

- "Are you usually able to hear what is being said in a group conversation with at least three other people *with a hearing aid?*"

Respondents who said "no" were then asked if they were "able to hear at all." Those who said "yes" were asked if they could "hear what is being said in a conversation with one other person in a quiet room *without a hearing aid.*" If they could not, they were asked about their ability to do so *with a hearing aid.*

*Corrected hearing problems* are: problem hearing in group context, corrected; problem hearing in group and individual contexts, corrected; and problem hearing in group and individual context, individual context corrected. *Uncorrected hearing problems* represent problems hearing in group context, not corrected. *Cannot hear* was a separate category. These groupings are not mutually exclusive. For example, the "corrected" category includes individuals who had difficulty hearing in both group and individual contexts, but the "correction" applies only to the problems in the individual context.

*Consultations with physicians* was based on the following question: "In the past 12 months, how many times have you seen or talked on the telephone about your physical, emotional or mental health with a family doctor or general practitioner?"

*Self-perceived health* status was based on seniors' responses to: "In general, would you say your health is excellent, very good, fair or poor?"

*Self-perceived mental health* was assessed with replies to: "In general would you say your mental health is excellent, very good, good, fair or poor?"

To evaluate their *emotional state*, respondents were asked the following question: "Would you describe yourself as being usually happy and interested in life? somewhat unhappy? unhappy with little interest in life? so unhappy that life is not worthwhile?" For this analysis, seniors in the last three categories were considered "unhappy."

## Emotional/Mental health

Seniors with hearing problems were no more or less likely than those without such problems to have negative perceptions of their health. However, the self-perceived emotional state of seniors with hearing problems differed significantly from that of seniors without such problems. Among seniors with a hearing problem, 6% said they felt sad versus 3% for those without hearing problems (age-adjusted). Self-perceived mental health was also related to the presence of hearing problems. About 9% of seniors with a hearing impairment reported their mental health as fair/poor versus 5% of those without. At the opposite end of the mental health continuum, 53% of seniors with a hearing disability said their mental health was excellent/very good, compared with 63% of those without a hearing disability. These findings are consistent with other studies reporting that the quality of life of community-dwelling elderly is significantly associated with decline in sensory function.<sup>2-5</sup>

### Hearing disabilities

Statistics Canada's Participation and Activity Limitation Survey (PALS) is a post-censal survey that collected information about people whose everyday activities were limited because of a health-related condition or problem. PALS defined a hearing disability as "difficulty hearing what is being said in a conversation with one other person, in a conversation with three or more persons, or in a telephone conversation."<sup>6</sup> Because the definitions are not the same, PALS estimates of "hearing disabilities" differ from estimates of "hearing problems" based on data from the Canadian Community Health Survey. According to PALS, 16% of the population aged 65 or older had a disability related to hearing in 2001. In the 2003 CCHS, 11% of people aged 65 or older said they had a hearing problem. The three-year difference in the survey dates may also contribute to the different estimates.

## Aging and hearing loss

A gradual decline in hearing is often regarded as an inevitable consequence of normal aging. But hearing loss is insidious: it may develop slowly and gradually so that the individual may not even be aware of any impairment, or the consequences of the impairment.<sup>7</sup> Therefore, survey estimates of hearing loss based on self-reports are likely lower than estimates that more objective measurements of hearing function would yield. As well, many seniors are reluctant to admit their hearing may be impaired.<sup>8</sup> Consequently, the estimates of hearing problems among seniors in this analysis are likely conservative indicators of the true prevalence.

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### Data sources

The Canadian Community Health Survey (CCHS) is a general survey that covers the household population aged 12 or older.<sup>9</sup> It does not include residents of Indian reserves, Canadian Forces bases, and some remote areas. Data for cycle 2.1 were collected between January and December 2003. Supplemental estimates of hearing loss were obtained from the 2000/01 CCHS and the 1994/95, 1996/97 and 1998/99 National Population Health Survey (NPHS).

*Sample characteristics, household population aged 65 or older, selected surveys*

Survey	Response rate %	Sample
2003 CCHS	80.6	7,653
2000/01 CCHS	84.7	24,134
1998/99 NPHS	88.2	2,851
1996/97 NPHS	79.0	13,363
1994/95 NPHS	88.7	3,143

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