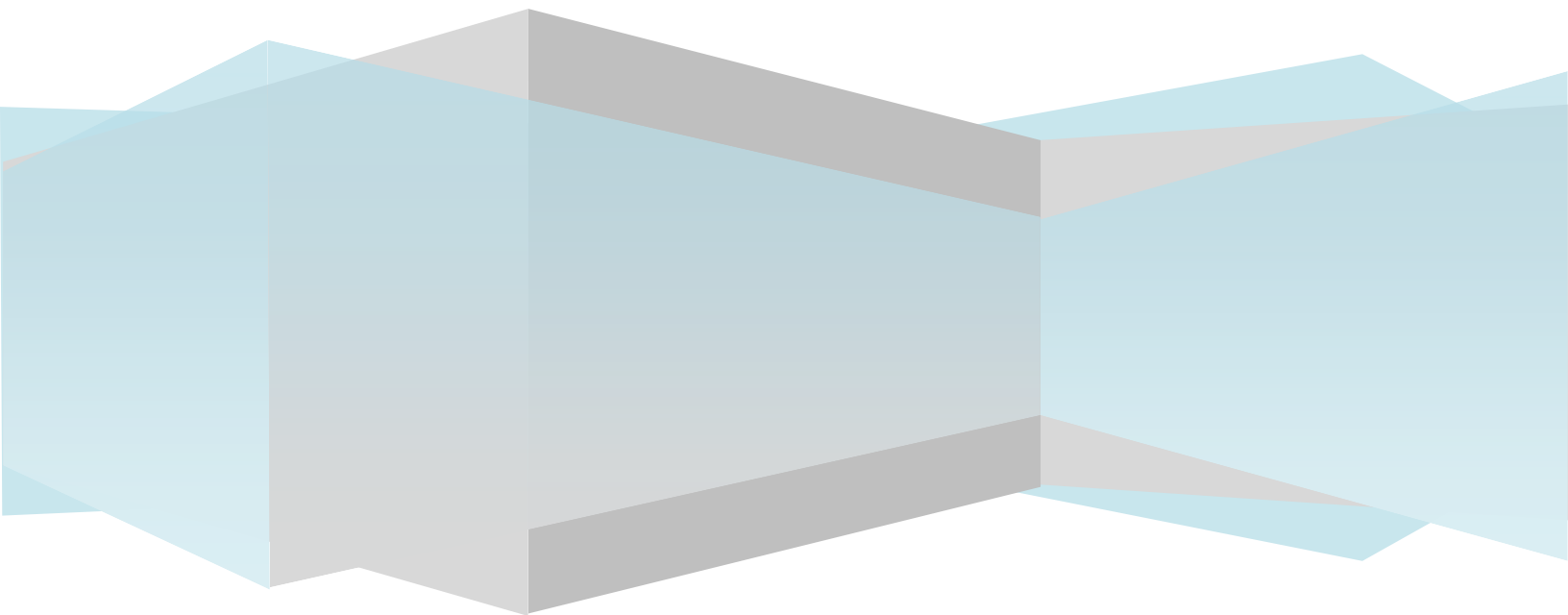


# In search of the minimum set of questions to identify the adult population with disabilities



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## **1. Objective of the research**

The objective of the research is to provide officials from Human Resources and Skills Development Canada (HRSDC) with an informed proposal for the set of questions that will allow Canadian adults with all types of disabilities to be identified in the social surveys that will form the “survey pillar” of the new disability data strategy. This set of questions will be based on an analysis of the performance of:

- the disability filter questions in the 2001 and 2006 Censuses of Population, the 2001 and 2006 Participation and Activity Limitation surveys (PALS) and the 2001, 2006 and 2009 Canadian Community Health Surveys (CCHS) and the 2001, 2006 and 2008 Survey of Labour and Income Dynamics (SLID), and
- the disability screening questions in the 2001 and 2006 PALS – adult questionnaire<sup>1</sup>.

This research is complemented by the work of an interdepartmental working group (HRSDC and Statistics Canada) that is conducting similar analyses using the PALS data. Also informing the development of this set of questions are representatives from various organizations that represent Canadians with disabilities.

## **2. Background**

The Canadian experience with questions to identify the adult population with disabilities has evolved since the early ‘80s and has had two foci – a small set of general disability questions (the disability filter questions) that have been included on the Census of Population questionnaire since 1986 and the larger set of disability-type specific questions (the screening questions) that have been used in the five disability-specific surveys conducted since 1983.

The disability filter questions used on the Censuses of Population have had two iterations – the questions used in 1986, 1991 and 1996 and those used in 2001 and 2006. (See Appendix A for a copy of the two sets of questions.) The responses to these questions have been used only as the sampling frame for the four post-censal disability surveys conducted by Statistics Canada – the 1986 and 1991 Health and Activity Limitation Surveys (HALS) and the 2001 and 2006 Participation and Activity Limitation Surveys (PALS). The data generated by these questions are not included in the Census dissemination program and are only available through special requests.

Over the years, these disability filter questions have been included on other social surveys undertaken by Statistics Canada. One can speculate that the objective for their inclusion on these various surveys was an attempt to identify the adult population with disabilities although the data derived from these questions have never been part of the dissemination programs for any of these surveys. However, researchers and program officials have used the data derived from the disability filter questions from SLID to define the population with disabilities.

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<sup>1</sup> It should be noted that the three Territories have been excluded from the 2006 PALS and the CCHS data to allow for comparison to the 2001 PALS.

The experience with the larger set of disability-type specific questions (referred to in this report as the disability screening questions) is more limited. These questions that have evolved over time with input from all stakeholders prior to the conduct of each disability-specific survey have only been used in these disability-specific surveys. Here, the use of a proxy respondent is only permitted if the selected individual was unable to respond for him/herself. The validity of these questions might differ when used in surveys that have a different focus or if the majority of respondents are proxy. As used in the 2001 and 2006 PALS, the disability screening questions identified eleven types of disabilities – hearing, seeing, speaking/communicating, mobility, agility, emotional/psychological, memory, learning, developmental, pain and unknown<sup>2</sup>.

The new disability data strategy signals a major shift in the collection of information concerning the issues facing Canadians with disabilities that prevent or impede their full participation within their community. It proposes to combine data collected in surveys (the survey data pillar) with administrative data (administrative data pillar) to form an information platform that will be broader in scope than the existing survey databases in terms of comparative data while maintaining the detailed disability characteristics (nature, severity, age of onset, underlying condition), the detailed information on the nature and extent of barriers encountered, and the use of and need for supports and devices.

In order to achieve the full potential of the survey data pillar of this new strategy, there is a requirement to develop the Disability Identification Module (DIM) that could be used on all social surveys. This research explores existing data to establish what is known about the performance of the existing disability filter questions and the disability screening questions. From this knowledge base, HRSDC will move forward to develop the DIM.

The research has been structured to respond to three questions, namely:

1. Do the existing disability filter questions produce both reliable and valid counts of the population with disabilities?
2. Are there any redundancies in the existing PALS disability screening questions?
3. Are there other questions related to disability that should be added to the DIM?

Included in the research are four surveys and cycles within each survey – the 2001 and 2006 Census of Population, the 2001, 2006 and 2009 Canadian Community Health Survey (CCHS), the 2001, 2006 and 2008 Survey of Labour and Income Dynamics (SLID) and the 2001 and 2006 Participation and Activity Limitation Survey (PALS).

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<sup>2</sup> The 2001 and 2006 PALS also included the disability filter questions and in both surveys, and to differentiate the data derived from these questions, they are referred to in this report as the PALS disability filter questions. The PALS filter questions identified a small population with limitation in activity that could not be attributed to a specific type of disability and were therefore classified as disability type “unknown” in both surveys.

### **3. Responding to the Research Questions**

#### ***3.1 Do the existing disability filter questions produce both reliable and valid counts of the population with disabilities?***

***Summary:***

1. The disability filter questions appear to be a reliable measure of disability when administered within the same context, when the same type of respondent (proxy or non-proxy) is used and the placement of the disability filter questions remain constant. The CCHS varied the placement of the questions and this may be a contributing factor to trends over time that are not consistent with the other three surveys.
2. The disability filter questions are not a valid measure of disability in that they result in different rates and response patterns when administered differently (context and type of respondent).
3. When administered in a health survey, the disability rate is significantly higher than on a general purpose survey. Also, the response patterns to the individual questions differ, with many more individuals responding positively to the first disability filter question – “Do you (Does ....) have any difficulty hearing, seeing, communicating, walking, climbing stairs, bending, learning or doing any similar activities?”
4. The number of false positives to the Census is large both in 2006 and 2001, and is particularly large for young and middle-aged adults, perhaps an indication of the impact of proxy responses and the self-completion of the Census questionnaire.
5. It was expected that the HUI might shed light on the number of false negatives. The construction of the HUI Index was such that it included many more individuals with disabilities. The HUI was rejected as a possible source to explore false positives.

***Background and methodology:***

In responding to the first research question we utilized all surveys – the 2001 and 2006 Census of Population, the 2001, 2007 and 2009 cycles of the CCHS, the 2001, 2006 and 2008 cycles of SLID and the 2001 and 2006 PALS.

Research conducted since the mid-70’s has indicated that there are a number of methodological variables that can affect the response to a general set of questions to identify the population with disabilities. These methodological variables include the context of the survey within which the disability questions are included, the use of proxy respondents and the placement of the disability questions within the survey instrument.

The *Census of Population* is a general purpose survey (context) and typically one person completes the questionnaire for him/herself as well as all other household members (proxy and non-proxy responses). The placement of the disability filter questions was the same in both the 2001 and 2006 Census.

The *CCHS* is a health survey (context) and typically the responses are provided by the respondent (non-proxy). Selection of the sample is two-stage – first the household is selected and

a household roster is completed and one individual aged 12 and older is then selected from within each household. The disability questions are included in the questionnaire completed by the selected individual. The placement of the disability filter questions within the questionnaire varied by cycle. In the 2001 cycle, the disability questions preceded the chronic condition questions and the Health Utility Index (HUI) questions (questions about limitation in activity because of a particular condition); in the 2007 cycle, the disability filter questions followed questions on chronic conditions and pain and discomfort; in the 2009 cycle, the disability filter questions followed the questions on chronic conditions, the Health Utility Index questions and questions on pain and discomfort.

*SLID* is a labour and income survey (context) and typically the responses to the survey questions are provided by one member of the household for him/herself as well as all other household members (proxy and non-proxy responses). The placement of the disability filter questions does not vary by cycle.

*PALS* is a disability-specific survey (context) and typically the responses are provided by the respondent (non-proxy). The sample is person-based and is selected from the Census (the 2001 Census of Population for the 2001 PALS and the 2006 Census of Population for the 2006 PALS). The sample represents those individuals who responded positively to the Census disability filter questions and includes those who respond positively to at least one of the PALS filter questions (a repeat of the Census disability filter questions) and/or a positive response to at least one of the disability screening questions. Persons who answered “No” to the repetition of the Census filter questions and “No” to all of the screening questions are not included as part of the population with disabilities in either the 2001 or 2006 PALS.

In addition to these three methodological variables, the reader should be aware of the differences in the sampling frame used for each of the surveys. The disability filter questions are included on the long form of the Census that is completed by one in five households. The two PALS survey population is selected from those individuals who responded “Yes” to one of the disability filter questions on the Census and who respond positively to at least one of the disability filter questions and/or one of the disability screening questions on the PALS questionnaire. The CCHS is a household-based sample with one person in the household selected to respond to the detailed health questionnaire. *SLID* is a household-based sample.

Appendix B provides a summary of this information for easy reference when reading the analysis.

### ***Analysis across surveys and across time:***

We begin by examining the disability rates for the four surveys. The data show:

- in 2001,
  - there is great variation among the four surveys – ranging from 14.6% in PALS to 31.1% in CCHS.
  - PALS has the lowest rate at 14.6% but recall that the sampled population differs from the other three surveys. The PALS population includes only those individuals who

- responded “Yes” to the Census filter questions and “Yes” to a repeat of the filter questions and/or a “Yes” to the disability screening questions.
- there is some similarity between the Census and SLID – 17.9% and 21.9% respectively – with both surveys allowing proxy response. However, there are differences when one looks at the age groups – SLID is consistently higher in the three younger age groups but similar for persons aged 65 and older.
- CCHS has the highest rate of disability – more than double the rate in PALS. For persons aged 15 to 24 years, the difference is more than five times – 3.9% in PALS, 19.9% in CCHS. The difference between the two surveys lessens as age increases but CCHS remains consistently higher. This difference might be accounted for by the different sampled populations and/or the context of the survey.
- that between 2001 and 2006,
  - the Census, PALS and SLID show in an increase in the disability rate for all four age groups with the largest change across all age groups being in SLID.
- that between 2001 and 2007,
  - the CCHS showed similar rates between the two years. The placement of the disability filter questions was different with the filter questions in 2007 following questions on chronic condition and pain and discomfort.
- that between 2006 and 2008,
  - the SLID disability rates were very similar.
- that between 2007 and 2009,
  - the CCHS disability rate showed a decline across all age groups. This difference might be partially accounted for by the placement of the disability filter questions. In 2009, these questions were preceded by not only the chronic conditions questions and questions related to pain and discomfort (the same as in 2007) but also by the HUI questions.

From our perspective, this analysis shows that:

- within a survey and across cycles, holding context, use of proxy and placement of the disability filter questions constant, a similar pattern emerges indicating that the disability filter questions are reliable. Between 2001 and 2006, Census, PALS and SLID showed an increase in the disability rate for all four age groups. However, varying the placement of the disability filter questions (CCHS) results in a different pattern indicating that the reliability of the disability filter questions may be affected by the nature of the questions that precede the disability filter questions.
- disability, as measured by the disability filter questions, are very much affected by the context of the survey putting the validity of the disability filter questions in question. The health context results in much higher disability rates while the general context and the labour/income context results in similar rates.
- allowing proxy response results in somewhat similar rates overall (SLID and Census) but there are differences when one looks at the age groups where SLID is consistently much higher in the three younger age groups but similar for persons aged 65 and older.

<b>Table 3.1 Disability rates by age group, four surveys and cycles within surveys</b>										
Age groups	Census of Population		PALS		CCHS			SLID <sup>3</sup>		
	2001	2006	2001	2006	2001	2007	2009	2001	2006	2008
<b>15 and older</b>	<b>17.9%</b>	<b>20.4%</b>	<b>14.6%</b>	<b>16.5%</b>	<b>31.1%</b>	<b>32.1%</b>	<b>28.2%</b>	<b>21.9%</b>	<b>27.2%</b>	<b>27.6%</b>
15-24	6.0%	7.7%	3.9%	4.7%	19.9%	18.9%	15.9%	8.7%	12.0%	12.2%
25-44	9.4%	10.9%	7.1%	8.0%	23.1%	23.7%	19.7%	14.1%	17.6%	17.5%
45-64	20.1%	22.2%	16.7%	18.3%	34.9%	36.3%	33.0%	25.7%	31.9%	32.5%
65 and older	45.5%	49.7%	40.5%	43.2%	56.8%	55.9%	48.3%	47.4%	53.3%	53.1%

***Analysis of responses across surveys, holding time constant***

There are four questions within the disability filter questions and Table 3.2 shows the response patterns for these questions comparing CCHS and the Census – firstly for 2001 and then for 2006. This type of analysis is not possible for SLID since the current version available through the Statistics Canada Research Data Centres (SLIDRET 4.1) only includes the disability flag and the responses to the disability filter questions themselves is only available for the 1993 to 1998 cycles.

The 2001 CCHS identified 7.6 million or 1.7 times as many adults with disabilities (persons aged 15 years and older) than the 2001 Census (4.4 million adults with disabilities). The response pattern to the four disability filter questions differed between the two surveys with a higher concentration of positive responses to the first and third disability filter questions. The differences between the two surveys are concentrated in the two younger age groups where the response patterns are very different across all four questions.

Among persons aged 15 to 24 years:

- they are 3.5 times as likely to give a positive response to one of the disability filter questions in the CCHS than in the Census, but
- 6.6 times as likely to give a positive response to the first disability filter question in the CCHS than in the Census indicating that this question in a health context that deals with specific types of disabilities elicits more positive responses than in a general purpose survey, and
- slightly more likely to give a positive response to the other three disability filter questions in the CCHS than in the Census
- showing that the additional people identified in the CCHS through the first question have limitation in their activities similar to those individuals identified in the Census .

A similar pattern is identified for persons aged 25 to 44 years.

When comparing the response patterns to the disability filter questions in the 2006 CCHS and the 2006 Census, a similar pattern emerges. The first disability filter question in CCHS identifies proportionately more responses, again particularly among younger adults.

<sup>3</sup> SLID data are for persons aged 16 and older.



It appears from this analysis that the first disability filter question identifies more young adults with disabilities when asked in a health survey than in a general purpose survey. This might mean that young adults are more likely to identify a difficulty because of health problem when asked about that difficulty in a health context.

<b>Table 3.2 Response patterns to disability filter questions, Census and CCHS, 2001 and 2006</b>						
Survey and cycle	Disability filter questions	Age groups				
		15+	15-24	25-44	45-64	65+
2001 CCHS	1	6,128,500	598,300	1,561,800	2,059,800	1,908,600
	2A	4,655,200	348,800	1,333,700	1,614,600	1,358,000
	2B	2,384,800	434,500	1,021,200	840,600	88,500
	2C	4,410,100	419,400	1,327,700	1,462,800	1,200,300
	TOTAL	7,633,000	838,400	2,184,600	2,538,800	2,071,000
2001 Census	1	2,663,300	90,400	381,700	909,300	1,282,000
	2A	2,727,800	94,000	472,600	958,600	1,202,600
	2B	1,049,400	111,400	376,100	451,600	110,400
	2C	2,452,600	97,600	463,500	870,100	1,021,300
	TOTAL	4,365,200	239,700	854,800	1,488,800	1,781,800
Ratio of proportion of responses - CCHS to Census	1	2.3	6.6	4.1	2.3	1.5
	2A	1.7	3.7	2.8	1.7	1.1
	2B	2.3	3.9	2.7	1.9	0.8
	2C	1.8	4.3	2.9	1.7	1.2
	TOTAL	1.7	3.5	2.6	1.7	1.2
2006 CCHS	1	6,950,100	568,200	1,582,800	2,678,800	2,120,300
	2A	5,182,700	327,800	1,301,300	2,057,800	1,495,900
	2B	2,785,800	453,000	1,102,800	1,146,500	83,500
	2C	4,984,000	421,700	1,348,300	1,933,400	1,280,600
	TOTAL	8,518,900	802,400	2,214,000	3,199,400	2,303,100
2006 Census	1	3,660,800	135,600	504,800	1,304,500	1,715,800
	2A	3,576,800	134,100	560,100	1,333,200	1,549,400
	2B	1,843,600	237,700	587,800	837,100	181,000
	2C	3,473,200	179,100	633,600	1,303,500	1,357,000
	TOTAL	5,123,200	315,200	942,400	1,877,600	1,988,000
Ratio of proportion of responses - CCHS to Census	1	1.9	4.2	3.1	2.1	1.2
	2A	1.4	2.4	2.3	1.5	1.0
	2B	1.5	1.9	1.9	1.4	0.5
	2C	1.4	2.4	2.1	1.5	0.9
	TOTAL	1.7	2.5	2.3	1.7	1.2

The two PALS surveys afford another opportunity to explore the reliability and the validity of the disability filter questions. Recall that the PALS sample was selected from the population who had a positive response to the Census disability filter questions. Each selected individual was re-asked the disability filter questions and then the disability screening questions. Of the 5.12 million adults who had a positive response to the disability filter questions on the 2006 Census,

18.7% or 960,500 answered “No” when asked the PALS filter questions and “No” to the screening questions on PALS. An additional 440,300 or 8.6% responded “No” to the PALS disability filter questions but answered “Yes” to at least one of the disability screening questions. This means that 27.3% of the individuals who had a positive response to the disability filter questions on the Census answered “No” to those same questions on the PALS. A similar pattern occurred in the 2001 Census and 2001 PALS. (See Table 3.3 following.)

Table 3.3 also demonstrates that the filter questions when asked in a general household survey are very ineffective in identifying young and middle-aged adults – in 2006, the false positives were 38.6% for persons aged 15 to 24 years and 26.6% for persons aged 25 to 44 years. We have no knowledge from PALS about the false negatives – those individuals who responded “No” to the Census disability filter questions and who may have answered “Yes” to the PALS disability filter questions and/or the disability screening questions.

<b>Table 3.3 Response patterns to PALS filter and screening questions, 2006 and 2001</b>					
	<b>Age groups</b>				
	<b>15+</b>	<b>15-24</b>	<b>25-44</b>	<b>45-64</b>	<b>65+</b>
<b>2006 PALS</b>					
Total population with disabilities according to the Census	5,123,200	315,200	942,400	1,877,600	1,988,000
Yes to filter questions and Yes to screening questions	70.3%	47.3%	60.6%	72.8%	76.2%
Yes to filter questions and No to screening questions	2.3%	3.0%	2.5%	1.8%	2.6%
No to filter questions and Yes to screening questions	8.6%	11.1%	10.3%	8.0%	8.0%
No to filter questions and No to screening questions	18.7%	38.6%	26.6%	17.3%	13.2%
<b>2001 PALS</b>					
Total population with disabilities according to the Census	4,365,200	239,700	854,800	1,488,800	1,781,800
Yes to filter questions and Yes to screening questions	70.1%	50.1%	65.4%	72.2%	73.4%
Yes to filter questions and No to screening questions	2.2%	3.9%	2.0%	1.8%	2.4%
No to filter questions and Yes to screening questions	6.0%	8.9%	5.9%	5.9%	5.7%
No to filter questions and No to screening questions	21.6%	37.0%	26.7%	20.0%	18.5%

***Analysis of disability filter questions in general and disability-specific survey***

The repeat of the disability filter questions provides the opportunity to compare responses given by a proxy in a general household survey to a non-proxy response in a disability-specific survey.

Tables 3.4 and 3.5 examine the responses for those individuals who responded positively to the disability filter questions on both the Census and PALS.

Table 3.4 provides the data for those individuals who answered “Yes” to the disability filter questions on PALS and “Yes” to the disability screening questions. When comparing the results of the responses to the filter questions in PALS and on the Census, one sees a pattern similar but not as pronounced as in the CCHS. Younger adults are more likely to respond to the first disability filter question than the other three questions.

Table 3.5 provides the data for those individuals who answered “Yes” to the disability filter questions on PALS and “No” to all of the disability screening questions. These individuals are classified in both PALS surveys as having an “unknown” type of disability. Many of the individuals in this group in both surveys reported migraines or arthritis as their main underlying condition. Younger adults are more likely to respond to the first disability filter question than the other three questions.

<b>Table 3.4 Response to the disability filter questions for the population with disabilities as defined by a "yes" response to both the PALS filter and screening questions</b>						
	Disability filter questions	Age groups				
		15+	15-24	25-44	45-64	65+
2006 PALS	1	3,233,700	117,600	448,400	1,231,000	1,436,600
	2A	2,743,100	94,000	445,000	1,101,400	1,102,700
	2B	1,160,400	112,300	360,900	587,300	100,000
	2C	2,667,600	101,200	450,300	1,070,600	1,045,500
	TOTAL	3,603,700	149,100	571,200	1,367,600	1,515,700
2006 Census	1	2,859,900	87,000	364,800	1,044,900	1,363,200
	2A	2,889,300	84,500	434,500	1,103,200	1,257,100
	2B	1,208,100	114,500	363,800	603,400	126,400
	2C	2,659,400	98,600	420,300	1,034,500	1,106,000
	TOTAL	3,603,700	149,100	571,200	1,367,600	1,515,700
Ratio of Census to PALS	1	1.13	1.35	1.23	1.18	1.05
	2A	0.95	1.11	1.02	1.00	0.88
	2B	0.96	0.98	0.99	0.97	0.79
	2C	1.00	1.03	1.07	1.03	0.95
	TOTAL	1.00	1.00	1.00	1.00	1.00
2001 PALS	1	2,718,900	92,700	445,700	954,700	1,225,800
	2A	2,359,000	77,900	433,300	859,900	987,900
	2B	847,700	86,200	330,900	377,400	53,100
	2C	2,258,000	83,500	444,000	835,000	895,500
	TOTAL	3,061,900	120,200	558,900	1,075,600	1,307,200
2001 Census	1	2,422,000	74,700	350,500	833,100	1,163,600
	2A	2,502,300	80,700	432,900	889,700	1,099,300
	2B	948,900	91,600	342,100	412,500	102,700
	2C	2,255,600	82,500	424,300	806,100	942,700
	TOTAL	3,061,900	120,200	558,900	1,075,600	1,307,200
Ratio of Census to PALS	1	1.12	1.24	1.27	1.15	1.05
	2A	0.94	0.97	1.00	0.97	0.90
	2B	0.89	0.94	0.97	0.91	0.52
	2C	1.00	1.01	1.05	1.04	0.95

	TOTAL	1.00	1.00	1.00	1.00	1.00
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<b>Table 3.5 Response to the disability filter questions for the population with disabilities as defined a "yes" response to the PALS filter and "no" to the PALS screening questions</b>						
	Disability filter questions	Age groups				
		15+	15-24	25-44	45-64	65+
2006 PALS	1	82,500	3,600	13,000	21,300	44,900
	2A	45,300	..	8,600	15,100	20,300
	2B	28,600	4,100	11,900	10,700	..
	2C	48,000	4,700	13,600	15,900	13,800
	TOTAL	118,600	9,500	23,600	34,400	51,200
2006 Census	1	76,400	3,700	9,900	19,000	43,800
	2A	68,100	..	10,400	18,700	36,100
	2B	36,100	5,300	11,600	15,400	..
	2C	61,800	5,000	14,100	18,600	24,100
	TOTAL	118,600	9,500	23,600	34,400	51,200
Ratio of Census to PALS	1	1.08	0.97	1.31	1.12	1.03
	2A	0.67	..	0.83	0.81	0.56
	2B	0.79	0.77	1.03	0.69	..
	2C	0.78	0.94	0.96	0.85	0.57
	TOTAL	1.00	1.00	1.00	1.00	1.00
2001 PALS	1	60,000	4,100	8,200	18,600	29,200
	2A	41,600	2,600	6,200	15,100	17,800
	2B	23,000	4,500	6,900	8,600	2,900
	2C	41,000	5,100	8,800	13,000	14,100
	TOTAL	96,200	9,400	17,000	27,200	42,600
2001 Census	1	61,900	3,700	6,400	18,100	33,600
	2A	58,500	4,200	7,800	15,200	31,300
	2B	24,200	5,800	7,500	8,500	2,400
	2C	53,700	6,300	10,600	15,600	21,300
	TOTAL	96,200	9,400	17,000	27,200	42,600
Ratio of Census to PALS	1	0.97	1.11	1.28	1.03	0.87
	2A	0.71	0.62	0.79	0.99	0.57
	2B	0.95	0.78	0.92	1.01	1.21
	2C	0.76	0.81	0.83	0.83	0.66
	TOTAL	1.00	1.00	1.00	1.00	1.00

### ***Analysis of the false negatives on 2006 and 2001 PALS***

In both the 2006 and 2001 PALS, there were almost one million persons aged 15 years and older who were classified as false positives – that is, when re-asked the Census disability filter questions and the disability screening questions during the PALS interview, they responded negatively to all questions. The false positive rate decreased as age increased in both PALS – in the 2006 PALS, the false positive rate for young adults aged 15 to 24 years was 38.6% dropping to 13.2% for persons aged 65 years and older. (See Table 3.3.)

The response patterns to the Census disability filter questions were very different when the false positives are compared to the true positives and this holds true for both the 2006 and 2001 PALS. Across all age groups for both surveys, persons classified as false positive were less likely to answer positively to the first disability filter question, less likely to report a limitation at home and less likely to report a limitation in other activities. What is interesting is that the proportion reporting a limitation at school or at work is very similar indicating that possibly this question was misunderstood.

<b>Table 3.6 Response to disability filter questions on the Census, false positives and true positives, 2006 and 2001 PALS</b>							
Year	Category	Census disability filter questions	Age group				
			15 years and older	15-24	25-44	45-64	65 years and older
2006	False positives	1	47.1%	24.0%	33.3%	46.7%	71.5%
		2a	39.1%	20.5%	28.6%	38.8%	58.0%
		2b	45.1%	76.2%	62.8%	45.9%	12.9%
		2c	53.0%	48.2%	57.5%	51.4%	52.7%
		Total	960,500	121,600	251,000	325,000	262,900
	True positives	1	77.1%	55.0%	60.9%	74.2%	88.6%
		2a	76.9%	56.4%	70.6%	77.7%	81.0%
		2b	33.9%	75.0%	62.2%	44.3%	8.5%
		2c	71.2%	62.3%	70.8%	73.2%	70.6%
		Total	4,162,700	193,600	691,400	1,552,600	1,725,100
2001	False positives	1	60.6%	40.5%	46.1%	62.0%	74.6%
		2a	50.0%	30.4%	38.2%	51.8%	61.9%
		2b	34.4%	65.8%	51.8%	41.8%	7.3%
		2c	51.2%	45.8%	50.7%	50.8%	53.3%
		Total	944,800	88,700	228,200	298,000	329,900
	True positives	1	77.9%	59.8%	60.9%	76.4%	88.3%
		2a	79.8%	62.3%	75.4%	80.5%	82.8%
		2b	30.7%	73.7%	60.0%	37.9%	7.6%
		2c	71.7%	64.6%	74.0%	73.1%	70.3%
		Total	3,420,300	151,000	626,600	1,190,900	1,451,800

***Analysis of the false negatives using the HUI and the disability filter questions***

The 2001 and 2009 CCHS and the 2006 PALS included the Health Utility Index (HUI) that is a battery of questions from which a disability measure has been derived.<sup>4</sup> It was anticipated that using the HUI index and crossing it with the disability filter questions one would be able to obtain an idea of the extent of the false negatives. The following analysis shows that this was not possible.

<sup>4</sup> <http://www.statcan.gc.ca/pub/82-003-x/82-003-x2009002-eng.pdf> - pages 43 - 50.

The HUI index is comprised of eight derived variables using questions that are similar to PALS for six of the eight but which include categories that are excluded from PALS. Table 3.8 provides an overview of the similarities and differences between the two approaches.

Table 3.9 provides the estimates derived from the 2001 PALS and the 2001 CCHS. As one can quickly see, with the exception of hearing, the type of disability estimates derived from the HUI are completely different from the PALS. This makes any analysis of false negatives to the disability filter questions impossible.

Since we were looking at the HUI, we decided to examine the responses given to those questions in the 2006 PALS. The HUI questions were included at the end of the PALS interview. Whether respondent fatigue or interview fatigue had set in is not known but the non-response to the HUI questions overall was 11.2% - much higher than for other sets of questions in PALS. The non-response increased as severity of disability as derived through the PALS screening questions increased – 8.3% non response for persons with mild disabilities to 15.9% among persons with very severe disabilities. Using the CCHS specifications to derive the overall HUI index (as described in the CCHS Codebook), we derived the HUI overall index using the 2006 PALS data. Table 3.10 provides the HUI Index results by age group and level of disability as derived by the HUI. This table shows that the HUI index could only be calculated for 3,288,300 individuals because of either total non-response (464,800) or partial non-response (409,600). It also shows that among the PALS population with disabilities for which the HUI Index could be derived, 191,600 or 5.8% were classified as not having a disability by the HUI Index with this rate decreasing as age increased.

<b>Table 3.8 PALS and HUI comparison</b>		
<b>PALS</b>	<b>HUI</b>	<b>Difference</b>
Vision	Vision	HUI includes Category 2 (weight of 0.98) that counts persons as having a vision disability if they are able to see when wearing lenses. In 2001 CCHS, this category accounted for 12.9 million persons of whom only 4.8 million answered positively to the disability filter questions.
Hearing	Hearing	HUI includes Categories 2 and 3 (weights of 0.95 and 0.89 respectively) that counts persons as having a hearing disability if they are able hear when wearing a hearing aid. In 2001 CCHS, this category accounted for 642,400 persons of whom only 464,000 answered positively to the disability filter questions.
Speech	Speech	HUI includes Categories 2, 3 and 4 (weights of 0.94, 0.89 and 0.81 respectively) that counts persons as having a speech disability that are excluded in PALS. These three categories account for 633,800 of whom 580,300 answered positively to the disability filter questions.
Mobility	Ambulation	Focus is very restrictive in HUI – deals only with ability to walk with or without technical aids
Agility	Dexterity	Focus is very restrictive in HUI – deals only with small motor movement (hands) with or without technical aids
Pain	Pain	HUI includes Category 2 (weight of 0.96) that counts persons as having a pain disability even if it does not prevent activity. In 2001 CCHS, this category accounted for 1.1 million persons of whom only 466,900 answered positively to the disability filter questions.
Memory	Cognition	Focus in HUI is broader in that it includes remembering, thinking and solving problems.
Psychiatric	Emotion	Focus is very different – HUI is a happiness scale, PALS cites mental health conditions
Learning		Not covered in HUI
Developmental		Not covered in HUI
Unknown		Not covered in HUI

<b>Table 3.9 Type of disability, 2001 PALS and 2001 CCHS</b>			
<b>Type of disability</b>	<b>2001 PALS</b>	<b>2001 CCHS</b>	<b>Ratio of PALS to CCHS</b>
Vision	594,400	13,318,900	4.5%
Hearing	1,038,100	937,400	110.7%
Speech	362,700	157,600	230.1%
Mobility/Ambulation	2,451,600	914,000	268.2%
Agility/Dexterity	2,277,000	22,128,100	10.3%
Pain	2,376,700	4,133,100	57.5%
Memory/Cognition	420,800	5,990,800	7.0%
Psychiatric/Emotion	120,100	6,040,300	2.0%
Learning	451,400		
Developmental	420,800		
Unknown	96,200		
<b>Total</b>	<b>3,601,300</b>	<b>18,288,700</b>	<b>19.7%</b>

<b>Table 3.10 2006 PALS data by age group and HUI disability Index</b>						
	<b>Total</b>	<b>No disability</b>	<b>Mild disability</b>	<b>Moderate disability</b>	<b>Severe disability</b>	<b>HUI not calculated</b>
15 and older	4,162,700	191,600	628,700	820,400	1,647,500	874,400
15-24	193,600	22,600	25,700	47,400	60,900	37,000
25-44	691,400	64,200	79,700	145,800	272,700	129,000
45-64	1,552,600	51,500	242,400	319,000	650,400	289,400
65 and older	1,725,100	53,300	280,900	308,200	663,600	419,000



### **3.2 Are there any redundancies in the existing PALS screening questions?**

The research explores the set of disability screening questions used in the 2001 and 2006 PALS to determine if there is any possibility to reduce the number of questions from 41 to a smaller set without losing any of the population with disabilities. The impact of deleting any question or set of questions is analysed by the age groups as defined earlier (15-24 years, 25-44 years, 45-64 years and 65 years and older). It should be noted here that the response patterns to the screening questions reflect the responses provided in a disability-specific survey as given by the respondent him/herself. How these response patterns might differ in surveys with a different focus or if the use of a proxy respondent is allowed will have to be tested before implementation.

Our initial proposal reduced the number of questions to 10 and the number of types of disabilities to six from 11. This proved to be overly optimistic because a further examination of the impact showed that, by eliminating one type of disability, there was residual impact on other types of disabilities. For example, there were an estimated 105,000 adults who reported only agility and pain. By eliminating the questions to identify these two types of disabilities, we had not taken into account that we would lose these individuals as well. We are now proposing 16 questions that will allow us to identify seven different types of disabilities – seeing, hearing, mobility, agility, learning, developmental and psychiatric. Appendix C provides the proposed questions along with their proposed response categories.

The current set of 41 PALS questions (the filter questions and the screening questions) identifies 11 types of disabilities. Each type of disability follows with the analysis related to the type. The analysis presented in this draft report is for the 2006 PALS only. The analysis for the 2001 PALS has been completed but only the summary appears in this report at the end of this section.

#### **3.2.1 Type 1 – UNKNOWN**

##### PALS filter questions

1. Do you (Does ....) have any difficulty hearing, seeing, communicating, walking, climbing stairs, bending, learning or doing any similar activities?
2. Does a physical condition or mental condition or health problem reduce the amount or the kind of activity you (....) can do at home?
3. Does a physical condition or mental condition or health problem reduce the amount or the kind of activity you (....) can do at work or at school?
4. Does a physical condition or mental condition or health problem reduce the amount or the kind of activity you (....) can do in other activities, for example, transportation or leisure?

The 2006 PALS filter questions identified a population of 118,600 adults who responded “No” to all of the PALS screening questions BUT at least one YES to the PALS filter questions. This population represents 2.8% of the adult population with disabilities (PWD) but accounts for 4.9% of PWD aged 15 to 24 years.

It should be noted that the PALS filter questions are not used in combination with responses to the PALS screening questions to calculate severity of disability; i.e. – once a respondent answers

“Yes” to one of the PALS screening questions, his/her responses to the PALS filter questions do not factor into the creation of the severity index.

Among the 118,600 adults with “unknown” type of disability, 72% are aged 45 years and older. The underlying conditions that were reported by this group of individuals included hearing loss and specific diseases such as diabetes, heart disease and arthritis.

Disability type	Age group				
	15-24	25-44	45-64	65+	15+
All types of disabilities	193,600	691,400	1,552,600	1,725,100	4,162,700
Unknown	9,500	23,600	34,400	51,200	118,600
Only unknown	9,500	23,600	34,400	51,200	118,600
% of PWD population lost by excluding PALS filter questions	4.9%	3.4%	2.2%	3.0%	2.8%
% of UNKNOWN type lost	100.0%	100.0%	100.0%	100.0%	100.0%

*We propose:*

- Dropping the PALS filter questions from the set of screening questions. This reduces the number of questions for the disability module by four.

### **3.2.2 Type 2 – HEARING**

<p>2006 PALS HEARING screening questions</p> <ol style="list-style-type: none"> <li>1. With your (...)'s hearing aid(s), how much difficulty do you (does ...) have hearing what is said in a conversation with one other person?</li> <li>2. With your (...)'s hearing aid(s), how much difficulty do you (does ...) have hearing what is said in a conversation with at least three other people?</li> <li>3. With your (...)'s hearing aid(s), how much difficulty do you (does ...) have hearing what is said in a telephone conversation?</li> <li>4. Which of the following best describes your (...)'s ability to hear?</li> <li>5. How much difficulty do you (does ...) have hearing what is said in a conversation with one other person?</li> <li>6. How much difficulty do you (does ....) have hearing what is said in a conversation with at least three other people?</li> <li>7. How much difficulty do you (does ....) have hearing what is said in a telephone conversation?</li> </ol>
---

Questions 1 to 3 are identical to Questions 5 to 7 – the only difference being that the first set is asked of persons who say that they wear a hearing aid and the second set are asked of persons who say that they do not wear a hearing aid. An analysis of the responses indicate that 53,000 individuals or 4.3% of the population with a hearing disability answer “Yes” to only Question 3 or 7. Among those individuals, the majority (36,500 or 69%) are aged 65 years and older. All 53,000 individuals reported having at least one other type of disability.

Disability type	Age group				
	15-24	25-44	45-64	65+	15+
All types of disabilities	193,600	691,400	1,552,600	1,725,100	4,162,700
Hearing	21,400	97,900	404,300	718,300	1,241,900
Only “.... Unable to hear what is said in a telephone conversation	..	..	12,000	36,500	53,000
% of PWD lost by excluding “...unable to hear what is said in a telephone conversation”	0%	0%	0%	0%	0%
% of HEARING lost	..	..	3.0%	5.1%	4.3%
.. Estimate too small to be reliable					

We propose:

- dropping the questions “.....unable to hear what is said in a telephone conversation”;
- incorporating the use of a hearing aid in the remaining questions thus reducing the questions from four to two; and
- incorporating the response category “unable to hear at all” into the two remaining questions.

Proposed HEARING questions

1. How much difficulty do you (does ....) have hearing what is said in a conversation with one other person, even when you wear your hearing aid if you usually wear one?
  - 1 No difficulty.....
  - 2 Some difficulty.....
  - 3 A lot of difficulty.....
  - 4 I (...) cannot hear at all .....
2. How much difficulty do you (does ....) have hearing what is said in a conversation with at least three other people, even when you wear your hearing aid if you usually wear one?
  - 1 No difficulty.....
  - 2 Some difficulty.....
  - 3 A lot of difficulty.....
  - 4 I (...) cannot hear at all .....

### 3.2.3 Type 3 - SEEING

2006 PALS SEEING screening questions

1. With your (....'s) glasses or contact lenses, do you (does he/she) have any difficulty seeing ordinary newsprint?
2. Do you (Does ....) have any difficulty seeing ordinary newsprint?
3. With your (his/her) glasses or contact lenses, do you (does he/she) have any difficulty clearly seeing the face of someone across a room, that is, from 4 meters or 12 feet?
4. Do you (Does ....) have any difficulty clearly seeing the face of someone across a room, that is, from 4 meters or 12 feet?

Our analysis determined that the only saving for the seeing questions was to eliminate the questions that dealt with wearing glasses for distance and for seeing up close.

Disability type	Age group				
	15-24	25-44	45-64	65+	15+
All types of disabilities	193,600	691,400	1,552,600	1,725,100	4,162,700
Seeing	22,300	103,800	316,800	360,400	803,300
% of PWD lost	0%	0%	0%	0%	0%
% of SEEING lost	0%	0%	0%	0%	0%

We propose:

- reverting back to the approach used in the HALS and that used in the Washington Group questions.

Proposed SEEING questions

1. Do you (does he/she) have any difficulty seeing ordinary newsprint, even when wearing your glasses or contact lenses if you usually wear them?
  - 1 No difficulty.....
  - 2 Some difficulty.....
  - 3 A lot of difficulty.....
  - 4 I (....) cannot see at all .....
  
2. Do you (does he/she) have any difficulty clearly seeing the face of someone across a room, that is, from 4 metres or 12 feet, even when wearing your glasses or contact lenses if you usually wear them?
  - 1 No difficulty.....
  - 2 Some difficulty.....
  - 3 A lot of difficulty.....
  - 4 I (....) cannot see at all .....

### 3.2.4 Type 4 - LEARNING

<p>2006 PALS LEARNING screening questions</p> <ol style="list-style-type: none"> <li>1. Do you (Does ....) think you have (he/she has) a condition that makes it difficult in general for you (him/her) to learn? Such conditions include attention problems, hyperactivity, dyslexia and others.</li> <li>2. Has a teacher, doctor or other health professional ever said that you ( .... ) had a learning disability?</li> </ol>
--

Of the 626,100 adults identified with LD in the 2006 PALS, 44.9% responded “Yes” to the first question only. Based on the response pattern analysis, we were unable to drop either question since both uniquely identified significant portions of the population with learning disabilities.

It is important to note that a learning disability (LD) is for life; it never goes away. The more severe the LD, the more negative the life outcomes. Having LD impacts on one’s ability to obtain an education, obtain employment, and negatively affects both their mental and physical health. It is imperative that these individuals continue to be identified so that their unique barriers can continue to be identified.

Disability type	Age group				
	15-24	25-44	45-64	65+	15+
All types of disabilities	193,600	691,400	1,552,600	1,725,100	4,162,700
Learning	101,800	192,600	232,400	99,400	626,100
% of PWD lost	0%	0%	0%	0%	0%
% of LEARNING lost	0%	0%	0%	0%	0%

*We propose:*

- including the two learning questions as asked in the 2006 PALS but adding degree of difficulty to the first learning question to provide additional information for developing a severity index.

<p>Proposed LEARNING screening questions</p> <ol style="list-style-type: none"> <li>1. Do you (Does ....) think you have (he/she has) a condition that makes it difficult in general for you (him/her) to learn? Such conditions include attention problems, hyperactivity, dyslexia and others.                     <ul style="list-style-type: none"> <li>1 No ..... <input type="checkbox"/></li> <li>2 Yes, and you (...) have (has) some difficulty in learning..... <input type="checkbox"/></li> <li>3 Yes, and you (...) have (has) a lot of difficulty in learning..... <input type="checkbox"/></li> </ul> </li> <li>2. Has a teacher, doctor or other health professional ever said that you ( .... ) had a learning disability?                     <ul style="list-style-type: none"> <li>1 No ..... <input type="checkbox"/></li> <li>2 Yes ..... <input type="checkbox"/></li> </ul> </li> </ol>
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### 3.2.5 Type 5 – DEVELOPMENTAL/INTELLECTUAL

2006 PALS DEVELOPMENTAL screening question

1. Has a doctor, psychologist or other health professional ever said that you (...) had a developmental disability or disorder? These include, for example, Down syndrome, autism, Asperger syndrome, mental impairment due to a lack of oxygen at birth, etc.

Of the 135,200 adults who report having a developmental disability, only very few (only 1,500 of the 135,200) report having only a developmental disability. However, people with a developmental or intellectual disability are amongst the most very vulnerable in Canada – indeed the world – across a range of fronts including very low employment level, low level of formal education, high rate of exclusion from regular education; high rate of exclusion from work-related training and high rate of poverty especially for ‘unattached’ people.

It is understood that, by definition, people with an intellectual disability will tend to have some level of difficulty with learning and so will indicate this on a disability survey if asked whether they have general difficulties with learning. It is also understood that many people with an intellectual disability have been incorrectly diagnosed at some point in life as having a ‘learning disability’ and so may also indicate this on a disability survey. However, the labels ‘mental handicap’, ‘mental retardation’, ‘developmental disability’ and even ‘intellectual disability’ carry enormous stigma and therefore few people would identify with those words in a survey. It is imperative that we keep a clear focus on their situation and that we gather statistical data that will help prevent this population from being further silenced and marginalized.

Disability type	Age group				
	15-24	25-44	45-64	65+	15+
All types of disabilities	193,600	691,400	1,552,600	1,725,100	4,162,700
Developmental	37,500	43,800	46,800	7,100	135,200
% of PWD lost	0%	0%	0%	0%	0%
% of DEVELOPMENTAL lost	0%	0%	0%	0%	0%

*We propose:*

- including the question asked in the 2006 PALS.

Proposed DEVELOPMENTAL screening question

1. Has a doctor, psychologist or other health professional ever said that you ( .... ) had a developmental disability or disorder? These include, for example, Down syndrome, autism, Asperger syndrome, mental impairment due to a lack of oxygen at birth, etc.
  - 1 No .....
  - 2 Yes .....

### 3.2.6 Type 6 – PSYCHIATRIC

2006 PALS PSYCHIATRIC screening questions
1. Do you (Does (...)) have any emotional, psychological or psychiatric conditions that have lasted, or are expected to last, 6 months or more? These include phobias, depression, schizophrenia, drinking or drug problems and others.
2. Does this condition reduce the amount or the kind of activities you (...) can do?

The 2006 PALS identified an estimated 586,000 adults aged 15 years and older with limitation in their activity as a result of an emotional, psychological or psychiatric condition.

Disability type	Age group				
	15-24	25-44	45-64	65+	15+
All types of disabilities	193,600	691,400	1,552,600	1,725,100	4,162,700
Psychiatric	44,500	178,600	279,700	83,200	586,000
% of PWD lost	0%	0%	0%	0%	0%
% of PSYCHIATRIC lost	0%	0%	0%	0%	0%

We propose:

- combining the two questions.

Proposed PSYCHIATRIC screening question
1. Do you (Does ( ... )) have any emotional, psychological or psychiatric conditions that have lasted, or are expected to last, 6 months or more? These include phobias, depression, schizophrenia, drinking or drug problems and others.
1 No ..... <input type="checkbox"/>
2 Yes, and it sometimes limits my activities..... <input type="checkbox"/>
3 Yes, and it often/always limits my activities..... <input type="checkbox"/>

### 3.2.7 Types 7, 8 and 9 – PAIN, SPEAKING, MEMORY,

To this point in the analysis, the only effect of dropping questions on the overall count of adults with disabilities has been the dropping of the PALS filter questions. The PALS filter questions that result in the UNKNOWN type of disability is unique among the types of disabilities as you can only be classified as UNKNOWN if you have no other types of disabilities.

We now are proposing dropping one or more of the screening questions used to identify PWD with any or all of the above-noted three types of disabilities. We therefore have to look at each type individually and then in combination with the other types.

2006 PALS PAIN, SPEAKING and MEMORY screening questions

PAIN

1. Do you (Does ....) have periods of pain or discomfort that reoccur from time to time?
2. Does this pain or discomfort reduce the amount or the kind of activities you (....) can do?

SPEAKING

1. Because of a condition or health problem, do you (does ....) have any difficulty speaking?
2. Because of a condition or health problem, do you (does ....) have any difficulty making yourself (himself/herself) understood when speaking?

MEMORY

1. Do you (Does ....) frequently have periods of confusion or difficulty remembering things? These difficulties are often associated with diseases such as Alzheimer's or may be the result of a brain injury.
2. Does this condition reduce the amount or the kind of activities you (....) can do?

Based on the qualitative testing undertaken by Statistics Canada in the fall of 2010, it was recommended that the pain questions be dropped from the disability module because it was their opinion that inclusion of pain questions in the disability module would result in a significant increase in the overall disability rate. Based on that advice, we dropped the two disability questions.

There were 470,500 adults with a speaking disability and of those only 4,100 or 0.9% reported that they had only a speaking disability. Similarly, of the 491,400 who reported having a memory disability, only 2,400 or 0.5% reported that they only had a memory disability.

Disability type	Age group				
	15-24	25-44	45-64	65+	15+
All types of disabilities	193,600	691,400	1,552,600	1,725,100	4,162,700
Pain	97,100	511,400	1,208,900	1,113,900	2,928,300
Speaking	51,810	112,700	168,000	138,000	470,500
Memory	37,800	110,500	170,000	173,100	491,400
# of PWD lost by excluding pain, speaking and memory	17,000	71,000	82,200	44,300	214,600
% of PWD lost by excluding pain, speaking and memory	8.8%	10.3%	5.3%	2.6%	5.2%
% of pain, speaking and memory lost	100%	100%	100%	100%	100%

*We propose:*

- dropping the two pain questions because Statistics Canada identified them as problematic when asked in a general household survey. However, an analysis of the CCHS data that



includes both the disability filter questions and the pain questions (part of the HUI) does not support that assertion.

- dropping the two speaking questions because only 4,100 of the 4.6 million PWD report only a speaking disability.
- dropping the two memory questions because only 2,400 of the 4.6 million PWD report only a memory question.

By dropping the pain, speaking and memory questions, the disability module will still be able to count the majority of the PWD with these types of disabilities because they have other types of disabilities as well but the disability module will not be able to identify these three types of disabilities. This reduces the number of disabilities that can be identified in the disability module by three.

### **3.2.8 Type 10 - Agility**

Our initial analysis had all agility questions excluded but further analysis indicated that there were 105,000 individuals who reported only agility and pain and so these individuals would have been lost to the total population with disabilities. For that reason, we revisited dropping of the agility module and are now proposing dropping Questions 2, 3 and 7 – see next page.

#### 2006 PALS AGILITY screening questions

1. Do you (Does ....) have any difficulty bending down and picking up an object from the floor (for example, a shoe)?
2. Do you (Does ....) have any difficulty dressing and undressing yourself (himself/herself)?
3. Do you (Does ....) have any difficulty getting into and out of bed?
4. Is it physically difficult for you (....) to cut your (his/her) own toenails?
5. Do you (does ....) have any difficulty using your (his/her) fingers to grasp or to handle an object, such as pliers or scissors?
6. Do you (Does ....) have any difficulty reaching in any direction (for example, above your (his her) head)?
7. Do you (Does ....) have any difficulty cutting your (his/her) own food?

There were 46,800 or 1.7% individuals lost to the population with agility disabilities by excluding the three questions with the biggest impact being among the younger adults.

Disability type	Age group				
	15-24	25-44	45-64	65+	15+
All types of disabilities	193,600	691,400	1,552,600	1,725,100	4,162,700
Agility	63,400	383,800	1,077,600	1,257,300	2,782,200
# of PWD lost by dropping the three agility questions and in combination with memory, pain and speaking	..	..	1,800	2,100	5,200
% of PWD lost by excluding the three agility questions	..	..	0.1%	0.1%	0.1%
# of persons lost to agility disability	4,100	12,800	15,400	14,400	46,800
% of agility lost	6.5%	3.3%	1.4%	1.1%	1.7%
.. Estimate too small to be reliable					

*We propose:*

- drop the three questions; and
- add the level of difficulty to the remaining four questions.

Proposed AGILITY screening questions

1. Do you (Does ....) have any difficulty bending down and picking up an object from the floor (for example, a shoe)?

1 No difficulty.....

2 Some difficulty.....

3 A lot of difficulty.....

4 I (...) am completely unable to .....

2. Is it physically difficult for you (...) to cut your (his/her) own toenails?

1 No difficulty.....

2 Some difficulty.....

3 A lot of difficulty.....

4 I (...) am completely unable to .....

3. Do you (does ....) have any difficulty using your (his/her) fingers to grasp or to handle an object, such as pliers or scissors?

1 No difficulty.....

2 Some difficulty.....

3 A lot of difficulty.....

4 I (...) am completely unable to .....

4. Do you (Does ....) have any difficulty reaching in any direction (for example, above your (his her) head)?

1 No difficulty.....

2 Some difficulty.....

3 A lot of difficulty.....

4 I (...) am completely unable to .....

### 3.2.9 Type 11 - Mobility

There were only 7,100 individuals with a mobility disability who answered only the question on moving from room to room – Question 6 within the mobility set of screening questions.

2006 PALS MOBILITY screening questions
1. Are you (Is ....) able to walk?
2. Do you (Does ....) have any difficulty walking half a kilometre or a quarter mile, that is, about three city blocks, without resting?
3. Do you (Does ....) have any difficulty walking up and down a flight of stairs, about 12 steps, without resting?
4. Do you (Does ....) have any difficulty carrying an object of 5 kg or 10 pounds, like a bag of groceries, for 10 metres or 30 feet?
5. Do you (Does ....) have any difficulty standing in line for more than 20 minutes?
6. Do you (Does ....) have any difficulty moving from one room to another?

These 7,100 individuals are lost to the population with mobility disabilities by excluding the one mobility question.

Disability type	Age group				
	15-24	25-44	45-64	65+	15+
All types of disabilities	193,600	691,400	1,552,600	1,725,100	4,162,700
Mobility	77,300	389,600	1,101,300	1,317,600	2,885,800
# of PWD lost by dropping the one mobility question and in combination with memory, pain, speaking and agility	..	..	..	..	..
% of PWD lost by excluding the one mobility question	..	..	..	..	..
# of mobility disability lost by dropping the one mobility question	..	..	3,600	2,400	7,100
% of mobility lost	..	..	0.3%	0.2%	0.2%
.. Estimate too small to be reliable					

*We propose:*

- drop the one question;
- add the level of difficulty to the remaining four questions; and
- add inability to walk to the first question.

Proposed MOBILITY screening questions

1. Do you (Does ....) have any difficulty walking half a kilometre or a quarter mile, that is, about three city blocks, without resting?

1 I cannot walk at all.....  – Skip out of mobility

2 No difficulty.....

3 Some difficulty.....

4 A lot of difficulty.....

5 I (...) am unable to .....

2. Do you (Does ....) have any difficulty walking up and down a flight of stairs, about 12 steps, without resting?

1 No difficulty.....

2 Some difficulty.....

3 A lot of difficulty.....

4 I (...) am completely unable to .....

3. Do you (Does ....) have any difficulty carrying an object of 5 kg or 10 pounds, like a bag of groceries, for 10 metres or 30 feet?

1 No difficulty.....

2 Some difficulty.....

3 A lot of difficulty.....

4 I (...) am completely unable to .....

4. Do you (Does ....) have any difficulty standing in line for more than 20 minutes?

1 No difficulty.....

2 Some difficulty.....

3 A lot of difficulty.....

4 I (...) am completely unable to .....

### 3.2.10 Summary of impact on total population with disabilities because of dropped questions

Dropping the filter questions, selected screening questions and revising questions and/or response categories reduces the number of questions in the proposed disability module from 41 to 16. The impact on the total population with disabilities as recorded in the 2006 PALS is an estimated 338,800 dropping the estimated count from 4,162,700 to 3,823,900 adults with disabilities – a reduction of 8.1%. Table 3.7 provides a profile of some variables and provides the impact of the question reduction on those variables.

The reduction in the estimate of number of adults with disabilities is concentrated in:

- the two younger age groups,
- slightly more males than females,
- persons classified as having a mild disability,
- persons who report that their first disabling condition began when they were five to 24 years of age, who require no help with daily activities such as preparing meals, doing light or heavy housework, paying bills, etc. (instrumental activities of daily living),
- persons who are employed, and
- persons who are living in New Brunswick and the western provinces.

<b>Table 3.7 Selected characteristics for 2006 PALS, actual estimates, reduced estimates and percentage change</b>				
<b>Characteristic</b>	<b>Category</b>	<b>2006 PALS</b>		
		<b>Estimate</b>	<b>Reduced estimate</b>	<b>%age change</b>
<b>Total</b>	<b>Total</b>	<b>4,162,700</b>	<b>3,823,900</b>	<b>8.1%</b>
Age	15-24	193,600	166,700	13.9%
	25-44	691,400	595,900	13.8%
	45-64	1,552,600	1,433,800	7.7%
	65 and older	1,725,100	1,627,500	5.7%
Gender	Female	2,290,400	2,107,700	8.0%
	Male	1,872,300	1,716,200	8.3%
Degree of disability	Mild	1,475,600	1,165,400	21.0%
	Moderate	1,031,900	1,007,800	2.3%
	Severe	1,096,000	1,091,500	0.4%
	Very severe	559,200	559,100	0.0%
Age of onset of first disabling condition	Birth to 4 years	230,400	216,500	6.0%
	5 to 24 years	641,900	569,300	11.3%
	25 to 54 years	1,616,300	1,468,900	9.1%
	55 to 64 years	548,300	514,800	6.1%
	65 years and older	906,700	860,100	5.1%
	Age of onset not provided	219,000	194,300	11.3%

<b>Table 3.7 Selected characteristics for 2006 PALS, actual estimates, reduced estimates and percentage change (concluded)</b>				
Characteristic	Category	2006 PALS		
		Estimate	Reduced estimate	%age change
<b>Total</b>	<b>Total</b>	<b>4,162,700</b>	<b>3,823,900</b>	<b>8.1%</b>
Support needed with daily activities	All needs for support obtained	1,379,000	1,331,900	3.4%
	Some needs for support obtained but need more	941,900	929,700	1.3%
	No needs met	196,900	183,700	6.7%
	Do not need any help with daily activities	1,644,900	1,378,600	16.2%
Highest level of schooling	Less than high school graduation	1,455,400	1,307,500	10.2%
	High school graduation certificate	950,000	869,500	8.5%
	Some post-secondary	1,756,600	1,583,100	9.9%
	Education level not provided	1,000	1,000	0.0%
Labour force status	Employed	1,349,500	1,163,300	13.8%
	Unemployed	130,000	117,900	9.3%
	Not in the labour force	2,682,500	2,537,000	5.4%
	Labour force status not provided	1,000	1,000	0.0%
Low income after tax status	Member of a non-low income economic family or a non-low income unattached individual	3,552,400	3,255,300	8.4%
	Member of a non-low income economic family or a non-low income unattached individual	597,500	559,500	6.4%
	Concept not applicable	12,800	9,200	28.1%
	65 and older	1,725,100	1,627,500	5.7%
Province	Newfoundland and Labrador	69,500	63,900	8.1%
	Prince Edward Island	20,600	18,900	8.3%
	Nova Scotia	171,800	158,200	7.9%
	New Brunswick	117,800	106,500	9.6%
	Quebec	722,600	674,400	6.7%
	Ontario	1,761,500	1,624,500	7.8%
	Manitoba	157,800	143,600	9.0%
	Saskatchewan	128,500	116,800	9.1%
	Alberta	402,600	364,100	9.6%
British Columbia	610,100	553,100	9.3%	
Rural/urban	Rural	839,300	771,100	8.1%
	Urban	3,323,400	3,052,800	8.1%

### **3.3 *Are there other questions related to disability that should be added to the DIM?***

In proposing the new set of screening questions for the disability module, we have added response categories that will enable us to develop a severity index similar to the one used in the 2001 and 2006 PALS.

We propose that consideration be given to including two additional questions that were asked of persons who were identified as having a disability – age of onset of first disabling condition and underlying medical condition.

Onset of disability is an important indicator with respect to life cycle – occurring before starting school, during school years, during working years or later in life.

Underlying condition is important because many of the community organizations represent particular chronic conditions and given that the new disability data are going to be more accessible to the community at large, being able to provide data by underlying condition would be an important addition to the usability of the data.

The proposed questions are:

1. At what age did you (...) first start having any difficulty or activity limitation?
2. What are the main medical conditions which cause you (...) the most difficulty or limit your (his/her) activities?
  - Condition 1 .....
  - Condition 2 .....
  - Condition 3 .....



## Appendix A – Census Disability Filter Questions

### Census disability filter questions – 1986, 1991 and 1996

ACTIVITY LIMITATIONS	07.	08.
7. Is this person limited in the kind or amount of activity that he/she can do because of a long-term physical condition, mental condition or health problem:		
(a) at home?	01 <input type="radio"/> No, not limited 02 <input type="radio"/> Yes, limited	01 <input type="radio"/> No, not limited 02 <input type="radio"/> Yes, limited
(b) at school or at work?	03 <input type="radio"/> No, not limited 04 <input type="radio"/> Yes, limited 05 <input type="radio"/> Not applicable	03 <input type="radio"/> No, not limited 04 <input type="radio"/> Yes, limited 05 <input type="radio"/> Not applicable
(c) in other activities, for example, in transportation to or from work, or in leisure time activities?	06 <input type="radio"/> No, not limited 07 <input type="radio"/> Yes, limited	06 <input type="radio"/> No, not limited 07 <input type="radio"/> Yes, limited
8. Does this person have any <b>long-term</b> disabilities or handicaps?	08 <input type="radio"/> No 09 <input type="radio"/> Yes	08 <input type="radio"/> No 09 <input type="radio"/> Yes

### Census disability filter questions – 2001 and 2006

ACTIVITIES OF DAILY LIVING	07.	08.
7 Does this person have any <b>difficulty</b> hearing, seeing, communicating, walking, climbing stairs, bending, learning or doing any similar activities?	01 <input type="radio"/> Yes, sometimes 02 <input type="radio"/> Yes, often 03 <input type="radio"/> No	01 <input type="radio"/> Yes, sometimes 02 <input type="radio"/> Yes, often 03 <input type="radio"/> No
8 Does a physical condition <b>or</b> mental condition <b>or</b> health problem <b>reduce the amount or the kind of activity</b> this person can do:		
(a) at home?	04 <input type="radio"/> Yes, sometimes 05 <input type="radio"/> Yes, often 06 <input type="radio"/> No	04 <input type="radio"/> Yes, sometimes 05 <input type="radio"/> Yes, often 06 <input type="radio"/> No
(b) at work or at school?	07 <input type="radio"/> Yes, sometimes 08 <input type="radio"/> Yes, often 09 <input type="radio"/> No 10 <input type="radio"/> Not applicable	07 <input type="radio"/> Yes, sometimes 08 <input type="radio"/> Yes, often 09 <input type="radio"/> No 10 <input type="radio"/> Not applicable
(c) in other activities, for example, transportation or leisure?	11 <input type="radio"/> Yes, sometimes 12 <input type="radio"/> Yes, often 13 <input type="radio"/> No	11 <input type="radio"/> Yes, sometimes 12 <input type="radio"/> Yes, often 13 <input type="radio"/> No

## Appendix B – Summary of Methodological Issues

<b>Issue</b>	<b>Census</b>	<b>PALS</b>	<b>CCHS</b>	<b>SLID</b>
Context	general purpose	disability-specific	health	labour and income
Sampling frame	one in five households in the 10 provinces	persons who respond positively to the disability filter questions on the Census - 10 provinces and who respond positively to at least one of the disability filter questions and/or one of the disability screening questions on the PALS questionnaire	households in the 10 provinces	households in the 10 provinces
Use of proxy	typically one person responds for all household members	respondent replies for him/herself unless absent during survey period or unable to respond because of illness/disability	respondent replies for him/herself unless absent during survey period or unable to respond because of illness/disability	typically one person responds for all household members
Placement of disability filter questions	same in both cycles	same in both cycles	varies by cycle - 2001 (precedes chronic conditions and HUI); 2007 (followed questions on chronic conditions and pain and discomfort); 2009 (followed questions on chronic condition, HUI and pain and discomfort)	same in all three cycles

## **Appendix C – The Proposed Screening Questions**

### **HEARING**

1. How much difficulty do you (does ....) have hearing what is said in a conversation with one other person, even when you wear your hearing aid if you usually wear one?
  - 1 No difficulty.....
  - 2 Some difficulty.....
  - 3 A lot of difficulty.....
  - 4 I (...) cannot hear at all .....
2. How much difficulty do you (does ....) have hearing what is said in a conversation with at least three other people even when you wear your hearing aid if you usually wear one?
  - 1 No difficulty.....
  - 2 Some difficulty.....
  - 3 A lot of difficulty.....
  - 4 I (...) cannot hear at all .....

### **SEEING**

3. Do you (does he/she) have any difficulty seeing ordinary newsprint, even when wearing your glasses or contact lenses if you usually wear them?
  - 1 No difficulty.....
  - 2 Some difficulty.....
  - 3 A lot of difficulty.....
  - 4 I (...) cannot see at all .....
4. Do you (does he/she) have any difficulty clearly seeing the face of someone across a room, that is, from 4 metres or 12 feet, even when wearing your glasses or contact lenses if you usually wear them?
  - 1 No difficulty.....
  - 2 Some difficulty.....
  - 3 A lot of difficulty.....
  - 4 I (...) cannot see at all .....

**MOBILITY**

5. Do you (Does .... ) have any difficulty walking half a kilometre or a quarter mile, that is, about three city blocks, without resting?

1 I cannot walk at all.....  – Skip to learning

2 No difficulty.....

3 Some difficulty.....

4 A lot of difficulty.....

5 I (...) am unable to .....

6. Do you (Does .... ) have any difficulty walking up and down a flight of stairs, about 12 steps, without resting?

1 No difficulty.....

2 Some difficulty.....

3 A lot of difficulty.....

4 I (...) am completely unable to .....

7. Do you (Does .... ) have any difficulty carrying an object of 5 kg or 10 pounds, like a bag of groceries, for 10 metres or 30 feet?

1 No difficulty.....

2 Some difficulty.....

3 A lot of difficulty.....

4 I (...) am completely unable to .....

8. Do you (Does ....) have any difficulty standing in line for more than 20 minutes?

1 No difficulty.....

2 Some difficulty.....

3 A lot of difficulty.....

4 I (...) am completely unable to .....

**AGILITY**

9. Do you (Does ....) have any difficulty bending down and picking up an object from the floor (for example, a shoe)?
- 1 No difficulty.....
- 2 Some difficulty.....
- 3 A lot of difficulty.....
- 4 I (....) am completely unable to .....
10. Is it physically difficult for you (....) to cut your (his/her) own toenails?
- 1 No difficulty.....
- 2 Some difficulty.....
- 3 A lot of difficulty.....
- 4 I (....) am completely unable to .....
11. Do you (does ....) have any difficulty using your (his/her) fingers to grasp or to handle an object, such as pliers or scissors?
- 1 No difficulty.....
- 2 Some difficulty.....
- 3 A lot of difficulty.....
- 4 I (....) am completely unable to .....
12. Do you (Does ....) have any difficulty reaching in any direction (for example, above your (his her) head)?
- 1 No difficulty.....
- 2 Some difficulty.....
- 3 A lot of difficulty.....
- 4 I (....) am completely unable to .....

**LEARNING**

13. Do you (Does ....) think you have (he/she has) a condition that makes it difficult in general for you (him/her) to learn? Such conditions include attention problems, hyperactivity, dyslexia and others.
- 1 No .....
- 2 Yes, and you have some difficulty in learning.....
- 3 Yes, and you have a lot of difficulty in learning.....

14. Has a teacher, doctor or other health professional ever said that you ( .... ) had a learning disability?

1 No .....

2 Yes .....

**DEVELOPMENTAL**

15. Has a doctor, psychologist or other health professional ever said that you ( .... ) had a developmental disability or disorder? These include, for example, Down syndrome, autism, Asperger syndrome, mental impairment due to a lack of oxygen at birth, etc.

1 No .....

2 Yes .....

**EMOTIONAL/PSYCHIATRIC**

16. Do you (Does ( .... ) have any emotional, psychological or psychiatric conditions that have lasted, or are expected to last, 6 months or more? These include phobias, depression, schizophrenia, drinking or drug problems and others.

1 No .....

2 Yes, and it sometimes limits my activities.....

3 Yes, and it often limits my activities.....

4 Yes, and it always limits my activities .....