

**CAMPBELL SURVEY RESULTS FOR
PERSONS WITH ACTIVITY LIMITATIONS**

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December 1991**

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Note: In the following tables, any percentage with an estimated coefficient of variation greater than 33% is followed by a range indicating the approximate 95% confidence interval. These estimates should be treated with caution.

CAMPBELL SURVEY RESULTS FOR PERSONS WITH ACTIVITY LIMITATIONS

General Introduction

How active are Canadians with activity limitations? The Campbell Survey results presented in this report can help to answer that question and many others regarding the physical activity of these Canadians.

The Campbell Survey on Well-Being in Canada was conducted by the Canadian Fitness and Lifestyle Research Institute in 1988. The essential purposes of that survey were threefold:

- to provide an update of the 1981 Canada Fitness Survey information
- to examine the contribution of exercise to health
- to investigate adherence over time to a regular exercise routine.

The Campbell Survey tells us about the participation rates and the most popular activities among Canadians. It also helps us to pinpoint the changes in their patterns of physical recreation and physical fitness between 1981 and 1988. As hinted by the survey's name, the advisory committee arrived at the design for the 1988 *well-being* survey by expanding the content of the 1981 Canada Fitness Survey to include more detailed information on such aspects of well-being as nutritional habits, physical and mental health, and attitudes toward physical activity.

The majority of the results were collected from 4000 Canadians by means of a questionnaire completed in select households by all members aged 10 and older. The anthropometric and fitness measurements were taken according to the Canadian Standardized Test of Fitness and collected by qualified fitness testers from household members between 7 and 69 who successfully completed the PAR-Q and agreed to the testing.

In 1990, the highlights of the Campbell Survey have been published in a 130-page report entitled *The Well-Being of Canadians: Highlights of the 1988 Campbell Survey*, written by Dr. T. Stephens and Ms. C.L. Craig. Fitness Canada's need for detailed information about special population groups has led to the publication of specific reports on the survey results as they pertain to youth, older adults, people with activity limitations, the working population, and finally, adults aged 25 to 44 with a maximum education level between grades 9 and 13.

Some of the results presented in these reports already appear in the 1990 report. However, they have the advantage of offering an analysis targeted to a population group and thus prevent the reader from having to extract information embedded in data for the whole population. The present report is part of that series and focuses on Canadians with activity limitations, with comparisons with the population without activity limitations.

CAMPBELL SURVEY RESULTS FOR PERSONS WITH ACTIVITY LIMITATIONS

Executive Summary

- This report compares the physical activity participation and attitudes of Canadians with activity limitations and disabilities to those without. Persons who indicated that they were limited either in work or leisure-time physical activity because of a long-term illness, or a permanent injury or handicap, were included in the activity-limited/disability category.
- In the 10+ population as a whole, 13% were limited in activity because of a long-term illness, a permanent injury or handicap, or both. Highest rates were in the 65+ age group, where 33% of men and 37% of women had activity limitations.
- Although persons with activity limitations are not as likely to be physically active in their leisure time, the differences between them and those without disabilities are not large. About 42% of persons with disabilities, compared with 50% of those without, participate on average every other day for at least 30 minutes at a time. When intensity of activity is considered, however, the gap between those with limitations and those without is larger.
- The five most popular activities are identical for those with activity limitations and those without. Walking (including wheeling), gardening and home exercise had very similar participation rates by the two groups. Swimming and dancing were next most popular but those with activity limitations had lower rates.
- In terms of the usual companion for physical activity, persons with activity limitations were more likely to exercise alone than those without limitations. Friends were the most frequent companions for those who did not exercise alone.
- Those with activity limitations were more likely to participate at home or outdoors without special facilities, and less likely to use recreational facilities or clubs than those without limitations. They were also less likely to participate in activities which are regularly scheduled, directed by an instructor, and competitive.
- In terms of social support, persons with activity limitations were slightly less likely to perceive encouragement to be active from their spouses, parents and friends than those without limitations. It was mainly in the 65+ age group that persons with activity limitations report less support.
- The main barriers to more participation cited by persons with activity limitations were the illness or disability itself, lack of energy, and lack of self-discipline. Others which people with activity limitations cited substantially more often than those without were fear of injury and lack of skills.
- Spare time goals were similar in the two groups, with feeling better mentally, feeling better physically and getting outdoors the top three priorities. Fewer persons with activity limitations than those without felt however that vigorous physical activity was important in reaching spare time goals. They tended to have a less positive image of physical activity and saw it as less important to health.
- Persons with activity limitations were less likely to display positive emotional well-being and tended to rate their own health status lower than those without limitations.

- In the aggregate, persons with disabilities are considerably less likely to want to start an activity in the next year. Within age groups, persons with disabilities were equally likely or only slightly less likely to want to start an activity.

CAMPBELL SURVEY RESULTS FOR PERSONS WITH ACTIVITY LIMITATIONS AND DISABILITIES

1.0 Measurement of Activity Limitation / Disability

There are several ways to measure activity limitation or disability from the questions asked in the Campbell Survey. In order to achieve consistency with the 1981 Canada Fitness Survey, the method chosen for this report is based on responses to questions 35 and 36 on activity limitation. Persons who indicated that they were limited either in work or leisure physical activity because of a long-term illness, or a permanent injury or handicap, were included in the activity-limited/disability category.

In the 10+ population as a whole, 13 % were limited in activity because of a long-term illness, a permanent injury or handicap, or both. This represented approximately 2.9 million Canadians over age 10.

Disability increases with age. While 6% of the under 45's were limited in activity, this increased among men to 17% of the 45–64, and 33% of the 65+. Among women, the rate was the same in the under 45 group, increasing to 25% of the 45–64s, and reaching 37% in the 65+ age group.

Table D1: Percent with Disabilities by Age and Sex

	Men	Women
10–44	6	7
45–64	17	25
65+	33	37

In the following analysis, persons with disabilities as defined above will be compared with those without. It must be kept in mind that the two groups have very different age structures, and that age, as well as the presence of disability, affects physical activity participation and attitudes. Seventy percent of the group without disabilities in the following tables were in the 10–44 age bracket as compared with only 35% of those with disabilities. At the other end of the spectrum, only 9% of those without disabilities were over 65 years of age compared with 29% of those with disabilities. Age breakdowns are provided at several points to help clarify the separate effects of age and disability on the results.

2.0 Current Level of Physical Activity

2.1 Pattern of Activity

The active living philosophy encourages incorporating physical activity, adapted to capacity, as a regular part of one's way of life. The following table compares persons with disabilities to those without in terms of how regularly they participate in physical activity for at least 30 minutes at a time, regardless of the level of intensity.

Table D2: Pattern of Activity by Presence of Disability

	Disability	No disability
Every other day > 30 min	42	50
Every other day < 30 min	14	13
Not regularly active	43	37

Although persons with disabilities are not as likely to be regularly active, the differences between them and those without disabilities are not large. About 42% of persons with disabilities, compared with 50% of those without, participate on average every other day for at least 30 minutes at a time.

2.2 Energy Expenditure

When intensity of activity is considered, the gap between those with disabilities and those without is larger. For the energy expenditure measure of physical activity, Table D3 shows that persons with disabilities are more likely to be in the inactive category than those without disabilities—57% vs 40%. However, it is interesting that over one-fifth do make the active level of 3+ kcal/kg/day.

Table D3: Activity Level (Energy Expenditure) by Presence of Disability

	Disability	No disability
Inactive	57	40
Moderate	21	25
Active	21	35

The following shows the percent inactive among persons with disabilities by age. The youngest group has the lowest proportion of inactives, but the effect is reversed in the next two age groups. There are proportionately fewer inactives among the 65+ age group than among those 45–65. This tendency for activity to be higher in the 65+ population is also present in those without disabilities.

Table D4: Activity Level (Energy Expenditure) by Age (Persons with Disabilities Only)

	10–44	45–64	65+
Inactive	48	65	58
Moderate	27	19	18
Active	25	16	24

2.3 Activity Change for Individuals between 1981 and 1988

The 1988 Campbell Survey data were linked with the 1981 Canada Fitness Survey records for the same individuals to form a classification of how individual activity changed over the intervening years. In the 15+ population as a whole, 27% were in the adhere category, 26% in the start category, 14% in the lapse category and 32% in the resist category. As the following table shows, persons with disabilities were more likely to be in the lapse and resist categories, and less likely to adhere to, or start physical activity, than those without disabilities. However, it is

notable that one-fifth started regular physical activity despite their activity limitation over the seven-year period.

Table D5: Individual Activity Change 1981–1988 by Presence of Disability

	Disability	No disability
Adhere	19	30
Start	21	27
Lapse	15	14
Resist	45	29

2.4 Types of Activities

The following table compares participation in the five most popular activities for those with disabilities versus those without. Walking or wheeling is the most popular activity and the rates for the two groups are almost identical. (A relatively small proportion of the sample specifically reported wheeling in this combined category.) Gardening is the next most popular, with a higher rate of participation by persons with disabilities than by those without. The proportions participating in home exercise were very similar. For the next two activities—swimming and dancing—participation rates by those with disabilities were well below those without.

Table D6: Percent Participating in Five Most Popular Activities by Presence of Disability

	Disability	No disability
Walking/Wheeling	68	68
Gardening	59	56
Home exercise	33	34
Swimming	28	48
Dancing	25	38

The following breakdown by age indicates that walking/wheeling, gardening and home exercise retain their popularity quite well across all age groups. Swimming and dancing, however, drop off substantially in the older age groups. This occurs in the population without disabilities as well, but to a somewhat lesser extent.

Table D7: Percent Participating in Five Most Popular Activities by Age (Persons with Disabilities Only)

	10–44	45–64	65+
Walking/Wheeling	69	68	66
Gardening	58	64	52
Home exercise	35	34	29
Swimming	47	23	12
Dancing	36	24	15

2.5 Comparison with 1981 Canada Fitness Survey

Although the methodologies are not exactly comparable, the following table gives some indication of changes in participation in selected activities between the 1981 Canada Fitness Survey and the 1988 Campbell Survey.

Table D8: Percent of Disabled Canadians Participating in Five Most Popular Activities, 1988 and 1981*

	1988	1981*
Walking	68	58
Gardening	59	29
Home exercise	33	22
Swimming	28	22
Dancing	25	9

*Source: *Physical Activity Among Activity-Limited and Disabled Adults in Canada* (1986:13).

Most activities increased substantially. The apparent big jump in participation in gardening and social dancing may be due to changes in question formulation between the two surveys. The inclusion of wheeling with walking in 1988 may have raised the walking rate slightly, but would not be expected to have a big effect.

3.0 Context of Physical Activity

3.1 Usual Companion

Persons with disabilities are more likely to participate in physical activity alone than those without disabilities. This is also characteristic of older adults—57% of those over 65 participated alone irrespective of whether or not they had an activity limitation.

Table D9: Usual Companion for Physical Activity by Presence of Disability

	Disability	No disability
No one	54	33
Friends	23	38
Immediate family	18	18
All others	5	10

3.2 Usual Location and Structure

Persons with disabilities were more likely to participate at home or outside without special facilities, and less likely to use recreational facilities or clubs than those without disabilities. They are also less likely to participate in structured activities which are regularly scheduled, directed by an instructor, and competitive.

Table D10: Usual Location of Physical Activity by Presence of Disability

	Disability	No disability
Home	37	27
Park/Outside	35	32
Rec facil/Club	18	27
All other	11	14

Table D11: Percent Indicating that Weekly Activity was Not Structured

	Disability	No disability
Not scheduled	82	68
Not directed	94	83
Not competitive	95	87

3.3 Social Support for Physical Activity

Respondents were asked how much various people encouraged them to participate regularly in vigorous physical activity on a five-point scale from “encourages me/very supportive” to “discourages me/very negative”. The top two scale categories were combined to derive the following table.

Table D12: Percent Indicating Support from Following Sources

	Disability	No disability
Spouse	47	55
Parents	36	41
Children	52	52
Other family	36	39
Friends	40	49
Employer	26	25
Doctor	50	49

Persons with disabilities were slightly less likely to perceive encouragement to be active from their spouses, parents and friends than those without disabilities. This may partly reflect the older age structure of those with disabilities.

The following table presents an age breakdown of the joint index of social support developed in the Well-Being report. The index is based on support from all sources.

Table D13: Percent in High Support Category by Disability and Age

Age	Disability	No disability
10–44	27	29
45–64	28	30
65+	23	34

Under age 65, persons with disabilities are almost equally likely as those without to perceive social support from significant others. It is mainly in the 65+ age group that those with disabilities are less likely to perceive support.

4.0 Barriers to Participation

The following table compares the percentage of persons with disabilities and those without who indicated each of the following was either very important or somewhat important in preventing them from participating more in physical activity.

Table D14: Percent Indicating Barrier Was Important in Preventing More Participation

	Disability	No disability
time - work/school	27	51
time - family	21	28
time - other interests	17	22
energy	34	22
skills	23	15
programs/leaders	12	11
partner	19	14
support family/friends	10	9
babysitting	3	6
cost	15	17
self-discipline	29	31
ill at ease	15	10
illness/disability	56	7
fear of injury	27	6

Top ranking barriers for those without disabilities were time due to work/school, lack of self-discipline and lack of time due to family obligations. For persons with disabilities, the illness or disability itself, lack of energy, and lack of self-discipline were the three leading barriers. Others which people with disabilities cited substantially more often than those without were fear of injury and lack of skills.

4.1 Barriers by Age

The importance of some barriers increases or decreases with age. Although the above may suggest that lack of time is less important to persons with disabilities, the following table indicates that lack of time due to work or school is almost as important to persons with disabilities as those without in the 10–44 age group but becomes relatively less important in the older age groups.

Table D15: Percent Citing Time Due to Work/School as Important Barrier by Presence of Disability and Age

Age	Disability	No disability
10–44	52	58
45–64	25	41
65+	1 (±1)	10

By contrast, lack of energy as a barrier is fairly constant among persons with disabilities across age groups and maintains its differential between those with disabilities and those without.

Table D16: Percent Citing Lack of Energy as Important Barrier by Presence of Disability and Age

	Disability	No disability
Age		
10-44	37	23
45-64	31	21
65+	36	17

Lack of self-discipline is cited most often by younger persons with disabilities where the percentage mentioning this slightly exceeds those without disabilities.

Table D17: Percent Citing Lack of Self Discipline as Important Barrier by Presence of Disability and Age

	Disability	No disability
Age		
10-44	38	32
45-64	28	32
65+	18	18

The percentage of disabled persons citing the illness or injury itself, and fear of injury, as important barriers is actually somewhat higher in the 45-64 age group than it is in the older group.

Table D18: Percent Citing Illness/Injury as Important Barrier by Presence of Disability and Age

	Disability	No disability
Age		
10-44	46	7
45-64	64	7
65+	58	12

Table D19: Percent Citing Fear of Injury as Important Barrier by Presence of Disability and Age

	Disability	No disability
Age		
10-44	22	5
45-64	31	7
65+	28	9

4.2 Choice over Participating in Physical Activity

Question 22 asked "All things considered, how much choice do you have over whether you participate regularly in vigorous physical activity?" Response options were on a five-point scale ranging from "completely my choice" to "too many constraints imposed on me." Question 23 asked "Would you agree or disagree that, if you wanted to, you could easily participate in

vigorous physical activity 3 or more times a week for at least 20 minutes at a time?" Responses were on a five-point scale from strongly agree to strongly disagree. For the following tables, the top two and bottom two scale categories were combined.

Table D20: Perceptions of Choice over Participation by Presence of Disability

	Disability	No disability
Have choice	51	62
Neutral	13	20
Constraints	35	19

Almost twice as many persons with disabilities state that there are constraints imposed on their participation. Again however, it is notable that over half indicate that they have a choice.

The following table shows that there was less agreement that they could easily participate more. Over three times as many persons with disabilities as those without disagreed with this.

Table D21: Could Easily Participate More by Presence of Disability

	Disability	No disability
Agree	39	67
Neutral	17	19
Disagree	44	14

5.0 Attitudes toward Physical Activity

5.1 Goals for Spare Time

The second question on the Campbell Survey asked respondents to rate the importance of various listed goals for their spare time. The following table shows the percentage of the two groups indicating that the goal was in the top two scale points in importance.

Table D22: Percent Saying Goal "Very Important" or "Important"

	Disability	No disability
Relax	68	63
Socialize	56	61
Have fun	49	62
Earn money	37	42
Get outdoors	68	73
Compete	27	31
Feel independent	70	70
Feel better mentally	83	81
Feel better physically	79	80
Fitness	58	65
Challenge	58	67
Control weight	61	65
Take risks	21	35

In general, the two groups rated the goals similarly. Persons with disabilities tended to give the fitness goal slightly lower importance, and to give place less emphasis on having fun and taking risks. This pattern is also characteristic of older people.

5.2 Extent to which Physical Activity Helps Reach Goals

Table D23: Percent Saying Vigorous Physical Activity Helps in Reaching Spare Time Goals

	Disability	No disability
Relax	56	67
Socialize	47	55
Have fun	55	67
Earn money	8	9
Get outdoors	68	70
Compete	13	25
Feel independent	43	44
Feel better mentally	72	77
Feel better physically	76	85
Challenge	45	55
Look better	64	71
Control weight	64	68
Take risks	20	30
Fitness	73	82
CV fitness	72	79
Strength	69	78
Flexibility	70	76

In general, fewer persons with disabilities than those without indicate that vigorous physical activity is important in reaching spare time goals. Discrepancies are largest in the case of vigorous physical activity's contribution to relaxing, having fun, competing, providing challenge and taking risks. The latter three are low priority goals to begin with. On the other hand, the goals where there is least difference over the contribution of vigorous physical activity are getting outdoors and feeling independent.

5.3 Positive Perceptions of Vigorous Physical Activity

The Campbell Survey asked a question (Q 19) about how people felt about participating in vigorous physical activity. On a five-point scale, they asked whether it was:

boring fun
 beneficialharmful
 unpleasant....pleasant
 convenient ...inconvenient
 painful not painful
 easydifficult

Responses were recoded into positive (top two scale points), neutral (middle scale point) and negative (bottom two scale points). The following table shows the percent giving a positive response among persons with disabilities and those without.

Table D24: Percent Giving Positive Response Regarding Vigorous Physical Activity

	Disability	No disability
Fun	51	59
Beneficial	70	81
Pleasant	55	59
Convenient	32	35
Not painful	37	50
Easy	22	31

On all of the items, persons with disabilities tended to have a less positive perception of vigorous physical activity than those without. The biggest discrepancy was that 13% fewer people with disabilities saw it as non-painful, 10% fewer saw it as beneficial, and 9% fewer saw it as easy as opposed to difficult.

5.4 Importance of Factors to Health

Table D25: Percent Saying Factor Is Very Important or Somewhat Important to Health

	Disability	No disability
Sleep	91	87
Diet	82	76
Weight	78	74
Social participation	36	44
Stress control	74	70
Physical activity	53	63
Smoke-free environment	61	64

The rank order is identical for both groups. The biggest difference is for the importance of physical activity, which 10% fewer persons with disabilities see as important to health.

5.5 Emotional Well-Being and Depression

The Campbell Survey used two scales designed to measure emotional well-being, the Bradburn Affect Balance Scale and the CES-Depression scale. The following table uses the same cutting-points as the Well-Being report to compare those with disabilities and those without on these measures.

Table D26: Percent with Positive Affect on Bradburn Scale and Percent Depressed on Depression Scale

	Disability	No disability
Positive affect	25	30
Depressed	19	13

Persons with disabilities were somewhat more likely to score as depressed on the CES-D and slightly less likely to display positive affect. However, the differences are not large.

5.6 Self-Rated Health

Table D27: Self-Rated Health by Presence of Disability

	Disability	No disability
Good	41	66
Average	45	30
Poor	14	4

Twenty-five percent fewer persons with disabilities rated their health as very good or good.

6.0 Activities They Would Like to Start

In the aggregate, persons with disabilities are considerably less likely to want to start an activity in the next year (Table D28). About 36% of persons with disabilities indicated that there were exercise or sports activities they would like to start compared to half of those without disabilities. However, when the results are broken down by age, it becomes apparent that the difference is largely due to differences in the age structure of the two populations. Within age groups, persons with disabilities are equally likely or only slightly less likely to want to start an activity (Table D29).

Table D28: Like to Start Exercise or Sports Activity in Next Year by Presence of Disability

	Disability	No disability
No	64	50
Yes	36	50

Table D29: Percent Wanting to Start Activity by Presence of Disability and Age

Age	Disability	No disability
10-44	58	58
45-64	31	39
65+	18	17

Although the numbers are too small for precise estimates, the activities named most frequently by persons with disabilities were swimming, walking, bicycling, exercise classes, cross-country skiing and tennis. It is interesting that home exercise, one of the most frequent current activities, did not rate highly on this list.

7.0 Intentions for Future Activity

Question 24 asked "In the coming year, how often do you intend to participate in vigorous physical activity?" The following table displays the response to this question.

**Table D30: Intentions for Future Activity
by Presence of Disability**

	Disability	No disability
Never	35	10
< once a week	13	15
1–2 times/week	24	31
3+ times/week	28	45

In the aggregate, fewer people with disabilities intend to participate in vigorous physical activity in the coming year, or to do so as frequently. However, once again there is an age gradient in both groups. In those under 45, over 70% of persons with disabilities intend to take part in vigorous physical activity more than once a week—only 8% fewer than among those without disabilities. The gap widens in the 45–64 age group where 48% of those with disabilities versus 63% of those without plan to do so, and widens still further in the older age bracket. Thus intentions to participate drop off more sharply by age among those with disabilities than in those without.

**Table D31: Percent Intending to Participate More Than Once a Week
by Presence of Disability and Age**

Age	Disability	No disability
10–44	74	81
45–64	48	63
65+	32	53