

# 1999 Alberta Survey on Physical Activity

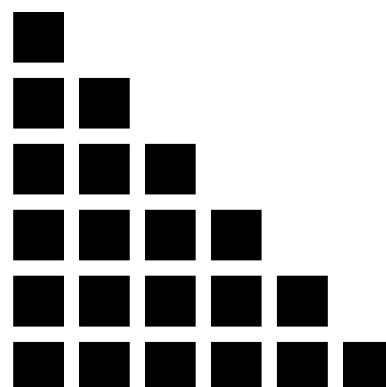
Concise Report

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Alberta  
Centre  
for  
**Well-Being**





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## PURPOSE

The Alberta Centre for Well-Being (ACFWB) has conducted a biennial survey since 1995 to monitor the status of physical activity in the province of Alberta. The Alberta survey series is part of the ACFWB's strategy to provide credible and user-friendly physical activity information to researchers and practitioners.

## METHOD

The ACFWB sponsored a series of questions on physical activity in the Alberta Survey conducted by the Population Research Laboratory, University of Alberta. Data were collected by telephone interview between December 1998 and February 1999, excluding a 2-week period over the Christmas holidays.

The sample consisted of 1202 adults aged 18 years and over. Three separate sub-samples were drawn to represent Edmonton, Calgary, and the remainder of the province. A random-digit dialling approach ensured that respondents had an equal chance of being contacted whether or not their household was listed in a telephone directory.

Information on demographics, current leisure-time physical activity (defined as 3 or more times per week, 20 minutes or more each time), past activity, and intention to participate in future physical activity were collected.

## DATA QUALITY

Fifty-eight percent of the total number of valid households responded to the survey. A random sample of this size is considered accurate within  $\pm 3$ , 19 times out of 20. While the results of the age and gender sample breakdowns can be taken as an adequate reflection of the overall Alberta population, further division into sub-groups within the sample does not necessarily represent the Alberta population. Prudent generalization of the findings to the overall population is advised.

## DATA TREATMENT

Each question was analyzed by the following:

Gender:	Female Male
Age: (years)	18-24 25-44 45-64 65+
Education: (level of schooling)	Less than Secondary Secondary College University
Annual Household Income:	Less than \$20,000 \$20,000 - \$29,999 \$30,000 - \$39,999 \$40,000 - \$59,999 \$60,000 - \$79,999 \$80,000 - \$99,999 \$100,000 or more
Provincial Location:	Edmonton Calgary Other regions in Alberta

## DEFINITIONS

The following terms were employed in this study:

- Regular physical activity:** Doing some activity in your spare time 3 or more times per week, for 20 minutes or more each time at a level which causes your breathing to be a lot faster, but where talking is still possible.
- Aerobic exercise:** Activities such as aerobics, jogging, racquet sports, team sports, dance classes, or brisk walking.
- Sedentary:** Have not been physically active within the past 6 months.

A four-step categorical algorithm was used to categorize the sample into the following six stages:

**Precontemplation:** Currently not involved in physical activity and do not intend to be in the next six months

**Contemplation:** Currently not involved in physical activity but thinking about starting in the next six months

**Action:** Currently involved in physical activity but for less than six months

**Maintenance:** Currently involved in regular physical activity for longer than six months

**Relapse  
Precontemplation:** Currently not involved in physical activity, but have participated in the past six months and have no intention to participate within the next six months

**Relapse  
Contemplation:** Currently not involved in physical activity, but have participated in the past six months and have intention to participate again within the next six months

## RESULTS

The concise report presents the highlights of each question's findings. The complete data tables are included in Appendix A.



## CURRENT PARTICIPATION IN REGULAR PHYSICAL ACTIVITY\*

- 61% of Albertans participate in regular physical activity or exercise.
- 75% of Albertans aged 18-24 are physically active. While the proportion of physically active individuals remains high throughout, this pattern decreases with age to 55% for those aged 45-64 years. However, the proportion increases to 61% for those aged 65 years and over.
- A relationship exists between level of education and current participation in regular physical activity or exercise. Rates increase from 52% with less than secondary education, to 67% for those with university education.
- Annual household income also is a moderator of current physical activity participation. As annual household income increases, physical activity participation increases. When considered with other potential moderators of physical activity, such as sex, age, and years of education, annual household income is the only significant moderator of current physical activity behavior (see Table 2).
- Residents of Calgary (63%) and Other Alberta (62%) are more likely to be currently active than those living in Edmonton (55%).

## REGULAR PARTICIPATION IN PHYSICAL ACTIVITY\* FOR AT LEAST THE PAST 6 MONTHS

- 54% of Albertans are currently physically active and have been for at least 6 months.
- No gender differences in participation rates are observed.
- Educational level is a moderator of continuous physical activity. The higher the level of educational attainment, the more likely Albertans are to report continuous physical activity.
- Percentage of Albertans involved in continuous physical activity increases with annual household income from 47% of those reporting an income of \$20,000 or less, to 70% for those with an income of \$100,000 or more.
- A greater proportion of Calgarians (56%) and Other Albertans (56%) are physically active, on a regular basis, than those from Edmonton (48%).

*\*See page 3 for the definition of “regular physical activity”.*

Note. See Table 1 in Appendix A

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## CURRENTLY INACTIVE BUT HAVE PARTICIPATED IN PHYSICAL ACTIVITY\* WITHIN THE PAST 6 MONTHS

- 20% of Albertans are currently inactive but reported being physically active in the past 6 months.
- The proportion of Albertans who are currently inactive though formerly involved in physical activity is highest (23%) for those ages 25-44 years and lowest (13%) for those aged 65 years and older.
- Education serves as a moderator for those who are currently inactive, but have participated in physical activity within the past 6 months. Albertans with a secondary education or higher are more likely to report previous physical activity than those with less than secondary education.
- Albertans with less than \$20,000 annual household income report the least amount of prior physical activity.

## CURRENTLY INACTIVE BUT HAVE PHYSICAL ACTIVITY\* INTENTION IN THE NEXT 6 MONTHS

- 23% of Albertans are currently inactive but plan to be physically active in the next 6 months.
- Inactive Albertans aged 25-44 years (27%), are much more likely to have an intention to be physically active in the next 6 months than those aged 18-24 years (16%) or those 65 years and older (14%).
- The proportion of inactive Albertans with the intention to be physically active increases with level of education.

*\*See page 3 for the definition of “regular physical activity”.*

Note. See Table 1 in Appendix A

## SELECTED STAGES OF PHYSICAL ACTIVITY\* BEHAVIOUR

- More than half (54%) of Albertans have maintained a physically active lifestyle for the past six months. However, 12% of Albertans are sedentary with no intention to begin participating in regular physical activity or exercise. Another 7% are sedentary but are considering becoming active (contemplators).
- Few differences are observed by gender across the stages of physical activity behavior except that the proportion of females is greater in the Contemplation stage.
- The proportion of Albertans in the Maintenance stage decreases with age from 69% (18-24 years) to 49% (65+ years). In the Action stage, there is a greater proportion of Albertans (12%) 65 years and older than in any other age group.
- The proportion of maintainers increases with education from 45% at the less than secondary level to 61% at the university level. Similarly, the proportion of precontemplators decreases with education from 25% at the less than secondary level to 5% at the university level.
- The stages of physical activity are moderated by annual household income with a greater proportion of the wealthiest Albertans (70%) in the Maintenance stage than the lowest income earners (47%).
- Relative to Calgary (55.9%) and other regions in Alberta (55.6%), Edmonton has a lower percentage (48.6%) of people in the Maintenance stage.

*\*See page 3 for the definition of the "stages of physical activity behaviour"*

Note. See Table 3 in Appendix A

## OVERALL SATISFACTION WITH THE AMOUNT OF AEROBIC EXERCISE\*

- The majority of Albertans (57%) believe they receive less exercise than they need.
- A greater proportion of females (60% vs. 54%) believe they receive less exercise than they need, compared with males.
- Fifty-three percent of Albertans aged 18-24 believe they receive less exercise than they need while 60% of those who are 65 years and older believe that they receive as much exercise as they need.
- Education is a moderator of Albertans' overall satisfaction with the amount of exercise they receive. The more educated Albertans are, the more likely they are to feel they receive less exercise than needed.
- Apart from those Albertans reporting a household income of \$20-\$29,999, all Albertans believe they receive less exercise than needed.

*\*See page 3 for the definition of Aerobic Exercise*

Note. See Table 4 in Appendix A

## SUMMARY

In comparison to previous Alberta Surveys (1995, 1997) of physical activity levels in the province, it appears that Albertans are just as active in 1999 if not more so than in 1997, and significantly more active than reported in 1995. In fact, 20% more Albertans report current participation in regular physical activity than was reported in 1995. While it is encouraging that more than half of Albertans surveyed in 1999 maintain a physically active lifestyle, and that older Albertans show high rates of participation, there is room for improvement. Approximately 19% of the population remain sedentary and of them, 69% have no intention of becoming active.

## RECOMMENDATIONS

The Alberta Survey on Physical Activity series does not include children under the age of 18 years. Very little information is available overall on the physical activity levels of children living in the province. Future surveys should attempt to include children or a proxy estimate on the part of a parent/guardian as to their child(ren)'s participation in physical activity pursuits.

With the release of Health Canada's *Physical Activity Guide to Healthy Active Living* (1998; 1999), accepted guidelines are now available that recommend appropriate physical activity levels and options for Canada's adult population. It is imperative that future assessments of the population's physical activity participation be undertaken in accordance with recommendations in the Guide. For instance, where the Alberta Survey asks Albertans how active they are on *three* or more days of the week, Health Canada's guidelines recommend participating in endurance activities on *four* or more days of the week. Aligning future surveys with accepted national guidelines would reflect best practice on both the research and implementation sides of physical activity participation.

Moreover, in light of the fact that socio-economic status appears to be a moderator of physical activity participation, recent policy initiatives (Alberta Active Living Strategy: Alberta Active Living Task Force, 1998) and public health campaigns (Canada's Physical Activity Guide for Healthy Active Living: Health Canada, 1998) to reduce physical inactivity need to be reviewed within a determinants-of-health framework. "Determinants of health" is the term given to a broad range of personal, social, and environmental factors beyond personal risk factors and coping skills known to have a bearing on individual and population health (Appendix B). Research now shows that influencing the physical activity level of a population requires a balance of individual behaviour change strategies and environmental change strategies (Coalition for Active Living Position Statement on Physical Inactivity, 2000). While Albertans are relatively active overall, nearly one fifth of adults remain sedentary. Encouraging more Albertans to become physically active will require a shift in policies and practices that reflect this broader health determinants thinking. Understanding physical inactivity as a public health issue, and not simply a personal problem, is a sensible place to start.

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# APPENDIX A





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TABLE 1  
PHYSICAL ACTIVITY PARTICIPATION (%) IN ALBERTA

	CURRENTLY ACTIVE		CURRENTLY INACTIVE	
	regular participation	at least the past 6 months	participated within the past 6 months	intend to participate in the next 6 months
Total Sample	60.7	54.1	20.4	23.2
Gender				
Female	61.1	53.4	18.6	24.1
Male	60.3	54.7	22.2	22.2
Age				
18 – 24 years	75.2	69.1	17.6	15.8
25 – 44 years	59.5	53.0	23.0	27.3
45 – 64 years	54.9	50.7	21.6	24.5
65+ years	60.7	48.6	12.9	13.6
Education Level				
<Secondary	51.9	45.3	14.9	18.7
Secondary	59.8	52.1	22.9	23.9
College	61.7	56.4	20.4	23.6
University	67.0	60.9	20.7	25.6
Annual Household Income				
< \$20,000	56.5	47.0	17.4	15.7
\$20 – \$29,999	53.5	46.0	23.0	25.7
\$30 - \$39,999	63.8	54.3	14.0	17.2
\$40 – \$59,999	61.3	55.9	24.8	28.1
\$60 – \$79,999	57.2	53.4	21.4	27.2
\$80 – \$99,999	64.5	57.0	21.5	24.7
\$100,000+	76.0	70.1	13.6	11.7
Region				
Edmonton	55.4	48.4	22.8	28.4
Calgary	62.8	56.1	18.4	22.7
Others	62.1	55.7	20.5	21.0

Note. Categories are not mutually exclusive, so the total across the rows could exceed 100%.

TABLE 2  
LOGISTIC REGRESSION ANALYSIS OF PHYSICAL ACTIVITY AS A FUNCTION OF DEMOGRAPHIC VARIABLES

VARIABLES	B	WALD TEST (Z-RATIO)	ODDS RATIO	95% CONFIDENCE INTERVAL FOR ODDS RATIO	
				UPPER	LOWER
Sex (Males)	0.13	0.94	1.14	0.87	1.49
Age	.01	1.43	1.01	0.99	1.01
Years of Education	-0.02	1.75	0.98	0.94	1.01
Annual Household Income (before taxes & deductions)	-0.02	8.25	0.98	0.96	0.99
(Constant)	0.05	0.02			

Note. Based on weighted sample

The higher the participants' annual household income, the less likely they are to indicate "no" to current physical activity involvement.

TABLE 3  
SELECTED STAGES OF PHYSICAL ACTIVITY BEHAVIOUR

	PRECONTEM	CONTEM	ACTION	MAINTENANCE	RELAPSE PRECONTEM	RELAPSE CONTEM
Total Sample	11.9	7.0	6.6	54.1	4.2	16.3
Gender						
Female	11.1	9.1	7.6	53.5	3.5	15.1
Male	12.7	4.8	5.5	54.7	4.8	17.5
Age						
18 – 24 years	4.8	2.4	6.1	69.1	4.2	13.3
25 – 44 years	9.6	7.9	6.5	53.0	3.5	19.6
45 – 64 years	15.2	8.4	4.2	50.7	5.4	16.1
65+ years	21.4	5.0	12.1	48.6	4.3	8.6
Education Level						
<Secondary	25.3	7.7	6.6	45.1	4.4	11.0
Secondary	10.9	6.3	7.6	52.2	5.2	17.7
College	10.9	7.3	5.5	56.4	4.0	16.0
University	5.1	7.2	6.2	60.9	2.5	18.1
Annual Household Income						
< \$20,000	21.7	4.3	9.6	47.0	6.1	11.3
\$20 – \$29,999	16.2	6.1	7.1	46.5	4.0	20.2
\$30 - \$39,999	12.9	9.7	9.7	54.8	5.4	7.5
\$40 – \$59,999	7.6	6.3	5.4	55.6	3.1	22.0
\$60 – \$79,999	12.6	8.6	4.0	53.4	2.9	18.4
\$80 – \$99,999	7.5	6.5	7.5	57.0	3.2	18.3
\$100,000+	7.8	2.6	5.8	70.1	4.5	9.1
Region						
Edmonton	13.4	8.5	6.7	48.6	3.2	19.7
Calgary	11.6	7.3	6.5	55.9	3.1	15.5
Others	11.5	6.0	6.4	55.6	5.5	14.9

TABLE 4  
 OVERALL SATISFACTION WITH THE AMOUNT OF AEROBIC EXERCISE

OVERALL, DO YOU FEEL THAT YOU GET AS MUCH EXERCISE AS YOU NEED, OR LESS THAN YOU NEED?	AS MUCH AS NEEDED	LESS THAN NEEDED
Total Sample	43.3	56.7
Gender		
Female	40.3	59.7
Male	46.4	53.6
Age		
18 – 24 years	47.3	52.7
25 – 44 years	36.9	63.1
45 – 64 years	44.6	55.4
65+ years	60.4	39.6
Education Level		
<Secondary	55.0	45.0
Secondary	43.0	57.0
College	41.2	58.8
University	37.7	62.3
Annual Household Income		
< \$20,000	45.6	54.4
\$20 – \$29,999	53.5	46.5
\$30 – \$39,999	41.5	58.5
\$40 – \$49,999	39.6	60.4
\$60 – \$79,999	37.9	62.1
\$80 – \$99,999	35.1	64.9
\$100,000+	44.2	55.8
Region		
Edmonton	41.2	58.8
Calgary	41.6	58.4
Others	45.4	54.6



# APPENDIX B



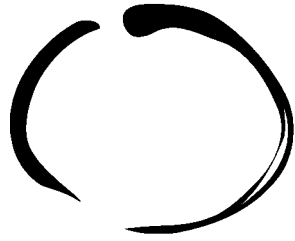


## HEALTH DETERMINANTS

Health determinants is the generic term given to the full range of personal, social and economic factors known to have a bearing on individual and population health. These factors do not work in isolation; their complex interactions have a significant impact on health outcomes. Health Canada recognizes the following health determinants:

1. Income and Social Status
2. Social Support Networks
3. Education and Lifelong Learning
4. Employment and Working Conditions
5. Physical Environments
6. Biology and Genetics
7. Personal Health Practices and Coping Skills
8. Healthy Child Development
9. Health Services
10. Gender
11. Culture

Physical activity and Active Living fall within *personal health practices and coping skills*. All of the determinants can affect physical activity participation. In turn, physical activity is one of many recognized strategies that can affect other determinants; for example, it can help foster social support networks and healthy working environments.



Alberta  
Centre  
for  
**Well-Being**

## MISSION

Supporting practitioners and organizations to improve the health and quality of life of Albertans through physical activity.

## VISION

All Albertans value, enjoy and benefit from a physically active way of life.

## FOR MORE INFORMATION

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