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The Geography of Physical Activity in BC

Participation in fitness activities and sports plays an important role in increasing health status and reducing illness and health care costs. As the BC Select Standing Committee on Health (2004) noted, lack of physical exercise is related to many disease risk factors. Although the process is not well understood, physical activity appears to be a protective factor (or wellness asset) for several chronic diseases and illnesses (Kendall, 2006). Mental health is improved because endorphins reduce stress, anxiety, and depression. The strengthening of muscles and enhancement of bone density reduces osteoporosis and improves balance, especially in older people, thus reducing the potential for falls. For seniors, recreation and active living prolong independent functioning by compressing the impairment and disease period typically associated with aging (Torjman, 2004, p. 2). Increasing the metabolic rate can help reduce diabetes. Cardiovascular functions are improved, thus reducing blood pressure and strengthening the heart and lungs. Finally, some cancers are reduced as a result of increased immunity and metabolism rates, among other things.

For young children, physical activity has been found to have an important impact on growth and maturation. Further, recreation and play are key elements for healthy childhood development. They promote the acquisition of key motor skills, social skills, and creativity. For youth, research has shown that recreation reduces boredom and associated risky behaviour (Torjman, 2004).

A recent study by the Canadian Institute for Health Information has noted that physical activity levels are higher among those who have greater contact with friends and family, and those who indicate that their neighbours are active are also likely to be active themselves. In short, social support networks are important. Furthermore, assets such as better street lighting, good sidewalks, and perceived community safety are all associated with greater physical activity, especially walking. Availability of wellness assets such as recreation facilities, parks, and sport grounds are also related to increased physical activity (Canadian Institute for Health Information, 2006a).

It was estimated in a 2000 study that 2.5% of Canada's total health care costs are directly attributable to physical inactivity. Further, a savings of \$150 million in

health care spending could be achieved by increasing physical activity by 10% (Katzmarzyk, Gledhill, and Shephard, 2000).

In the early 1970s, there was a common belief that the average Swede was in better shape than the average Canadian. In 1972, ParticipACTION introduced the famous comparison between the 60-year-old Swede and the 30-year-old Canadian in a 15-second television commercial. This belief helped contribute to a national emphasis on improving the physical fitness levels of Canadians (Canadian Public Health Association, 2004). While the program was cancelled some time ago, ParticipACTION was one of the best known health promotion branding initiatives worldwide. It is now in the process of being reinvented to focus on not just physical activity, but also on sport and fitness for the entire population.

The World Health Organization (WHO) developed a global strategy in 2004 to promote physical activity and healthy eating. The premise was that this would be an effective strategy for substantially reducing deaths and disease worldwide by improving diet and promoting exercise (World Health Organization, 2004). The strategy has four main thrusts:

- Reduce risk factors for chronic diseases that stem from unhealthy diet and physical inactivity through public health actions.
- Increase awareness and understanding of the influences of diet and physical activity on health and the positive impact of preventive interventions.
- Develop, strengthen, and implement global, regional, and national policies and action plans to improve diet and increase physical activity that are sustainable, comprehensive, and actively engage all sectors.
- Monitor science and promote research on diet and physical activity.

For the school-age population, although 54% of schools in Canada had physical education policies in 2001, only 16% indicated that they had daily physical education classes (Canadian Institute for Health Information, 2006a). The McCreary Adolescent Health Survey undertaken in 2003 showed that less than one in five (18%) students in Grades 7 to 12 exercised every day.

Only 11% of female students exercised daily, compared to 24% of male students, and nearly 1 in 10 students didn't exercise at all (McCreary Centre Society, 2006).

Physical inactivity has been defined by the CCHS as less than 1.5 kcal/kg/day, and in 2003 it was estimated that less than one-third of BC residents aged 12 and older were physically active, and nearly half of the population was not active enough to achieve the health benefits of regular activity (ActNow BC, 2006). Remarkably, the BC Nutrition Survey (Ministry of Health Services, 2004; Forster-Coull, 2004) noted that 80% of adults in BC felt that they were active enough to attain health benefits. More recently, 75% of a suburban population surveyed in BC indicated that they had been physically active during the previous week, but only 39% reported enough physical activity to meet the guidelines for health benefits (Anderson, Snodgrass, and Elliott, 2007). A study conducted in 20 communities (440 sample size per community) throughout BC in 2006 by the BC Recreation and Parks Association determined that 49% of respondents were classified as highly active; Vancouver Island communities led the way with 58% highly active, but only 42% in the lower mainland were categorized as highly active. The average for the Okanagan region was 53%, and 51% for other interior regions (Discovery Research, 2006).

In 2005, there were more than 90,000 individuals who participated in sanctioned road races in BC, and more than 633,000 members were registered in organized sports as reported by member associations of Sports BC, for an overall rate of approximately 150 members for every 1,000 people between the ages of 4 and 74 years in the province. Membership rates were higher for males than females (173 per 1,000 compared to 125 per 1,000). Rates fell from a high of 677 per 1,000 for 4- to 12-year-olds to 58 per 1,000 for 35- to 74-year-olds.

The 48 maps contained in this section of the Atlas are diverse in nature and use a variety of data and information sources. The first three maps provide information related to Action Schools, an initiative promoted by 2010 Legacies Now to encourage schools to increase physical activity among students in Kindergarten to Grade 9. This is followed by four maps that show the increase over time of the percentage of the population that reside in Active Communities, an initiative jointly sponsored by BC Recreation and Parks Association and 2010 Legacies Now to assist communities to encourage their residents to become more physically active.

The next 10 maps provide data from the CCHS for two indicators: physical activity rating and hours walked on a weekly basis, for the total population and for males and females, and also for teens and seniors separately. The next two maps provide information on walking clubs sponsored by the Heart and Stroke Foundation and on public transit use. Research has shown that those using public transit are much more physically active than those who use automobiles. Two maps provide information on assets related to physical activity and show the availability of key recreation and activity facilities and centres.

The next 20 maps, which are provided four to a page, provide information on physical activity assets such as soccer fields and softball diamonds, as well as membership in sports clubs. The final map shows the location of provincial and national park assets in BC.

Caution is required related to the maps of activity centres and sports fields. These data are based on survey data sponsored by the BC Recreation and Parks Association. As noted previously, only 88% of municipal organizations responded to the questionnaire, thus the data here are for publicly owned and or operated facilities in those municipal organizations that responded.



Action schools

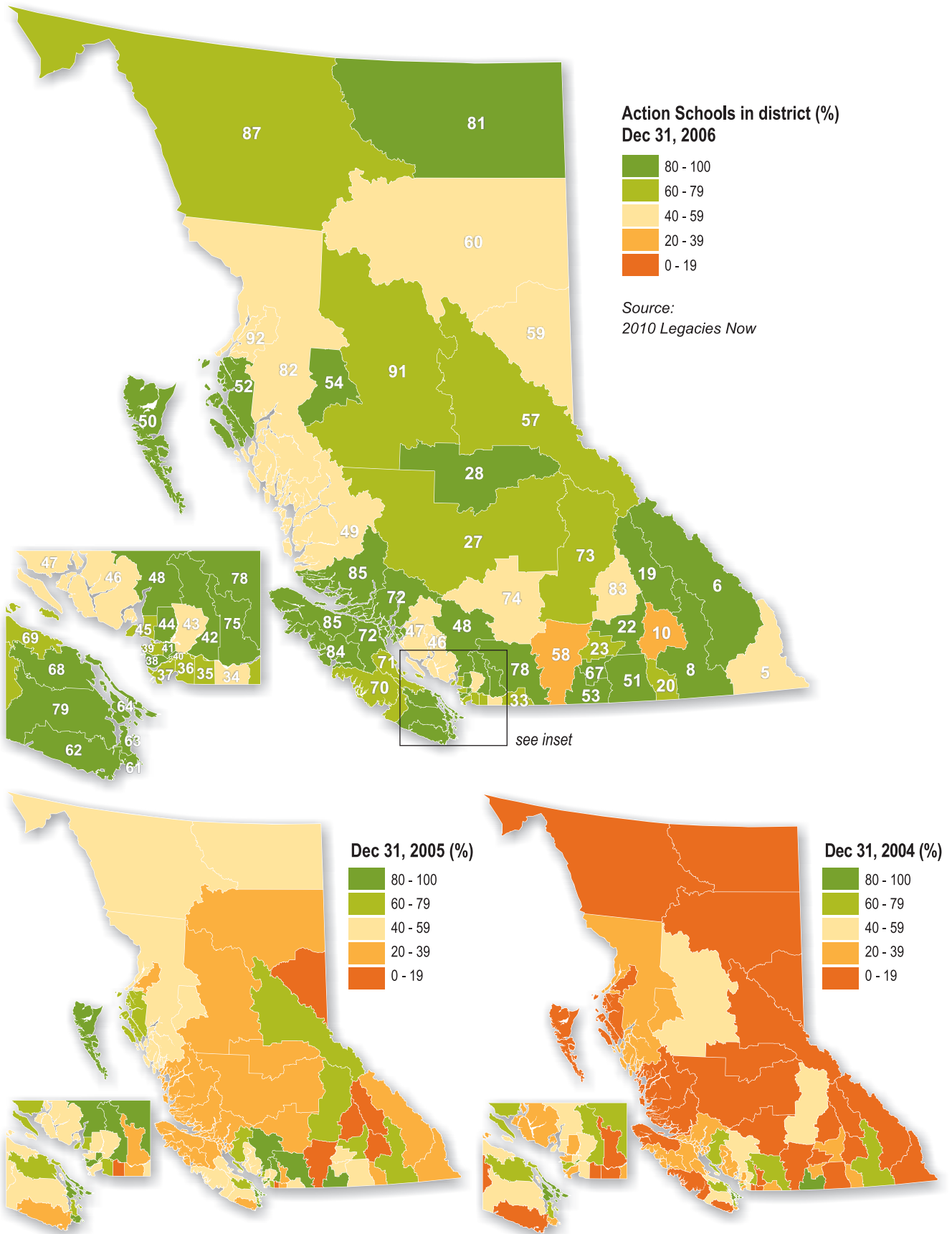
Canadian children spend about 30 hours per week in school and about 20 hours per week watching television or playing computer games outside school. In 2003, the Ministry of Health introduced a pilot initiative called Action Schools! BC to 10 schools, promoting “best practices” in physical activity designed to assist elementary schools in creating individualized action plans to promote healthy living. Physical activity and healthy eating were integrated into the school environment. The pilot evaluation showed improvements in physical activity levels, and healthy hearts, weights, eating, bones, and self. Academic performance also improved in the schools using the best practices (McKay, 2004). The voluntary initiative was first made available to all Grade 4 to 7 classes, and more recently expanded to all schools from kindergarten to middle school.

At the end of 2006, nearly 1,150 schools were participating (over 70% of eligible schools), including about 250,000 students. More than 40% of Aboriginal schools and approximately 45% of independent schools had also registered. Action Schools! BC is a framework for action involving six Action Zones: school environment; scheduled physical education; classroom action; family and community; extra-curricular; and school spirit. Registered schools are encouraged to create an Action Team and develop an Action Plan integrating all six Action Zones. All schools are encouraged to book a Classroom Action workshop for their teachers in order to access materials and resources to support teachers in providing more opportunities for more children to be more physically active more often.

The maps opposite show the rapid adoption of the initiative by schools growing from 28% to 51% between December 2004 and December 2005, and to 72% by December 2006. For 2006, this included an expanded target, as all kindergarten to middle schools were included in this initiative. School districts in the southeast (3), Okanagan (3), North Shore/Coast Garibaldi (3), lower mainland (3), and lower Vancouver Island (2) have at least 90% of schools registered. Most school districts have more than half the eligible schools registered, but seven in the central and northern interior of the province and one in the lower Fraser Valley have 50% or less of eligible schools registered. It should be noted that new schools are adopting the initiative on an ongoing basis.

School District	Action Schools in District (%)		
	Dec 31 2006	Dec 31 2005	Dec 31 2004
053 Okanagan Similkameen	100	100	100
050 Haida Gwaii/Queen Charlotte	100	100	0
054 Bulkley Valley	100	50	25
081 Fort Nelson	100	50	0
085 Vancouver Island North	100	33	8
084 Vancouver Island West	100	25	25
019 Revelstoke	100	0	0
042 Maple Ridge-Pitt Meadows	96	100	79
041 Burnaby	95	86	59
028 Quesnel	93	36	13
061 Greater Victoria	90	82	29
052 Prince Rupert	90	70	10
044 North Vancouver	90	55	27
062 Sooke	90	33	5
064 Gulf Islands	89	89	89
051 Boundary	89	50	0
038 Richmond	88	85	69
068 Nanaimo-Ladysmith	88	73	66
022 Vernon	88	65	24
072 Campbell River	88	39	20
063 Saanich	86	67	77
006 Rocky Mountain	86	36	9
079 Cowichan Valley	84	56	46
040 New Westminster	83	75	82
008 Kootenay Lake	83	68	76
075 Mission	83	33	12
048 Howe Sound	82	100	40
078 Fraser-Cascade	80	80	60
067 Okanagan Skaha	80	53	31
073 Kamloops/Thompson	79	67	51
057 Prince George	79	67	18
036 Surrey	75	60	45
087 Stikine	75	50	0
033 Chilliwack	73	46	28
091 Nechako Lakes	72	38	40
045 West Vancouver	71	70	50
069 Qualicum	71	57	46
023 Central Okanagan	68	41	14
037 Delta	67	42	32
039 Vancouver	67	42	31
020 Kootenay-Columbia	64	30	30
027 Cariboo-Chilcotin	63	29	15
035 Langley	63	13	5
070 Alberni	62	46	0
071 Comox Valley	60	44	33
005 Southeast Kootenay	59	20	13
043 Coquitlam	58	47	41
082 Coast Mountains	56	54	25
046 Sunshine Coast	55	45	36
059 Peace River South	55	4	4
047 Powell River	50	63	63
049 Central Coast	50	33	0
092 Nisga'a	50	25	0
074 Gold Trail	45	25	18
034 Abbotsford	44	25	10
060 Peace River North	44	22	12
083 North Okanagan-Shuswap	41	14	0
058 Nicola-Similkameen	38	10	0
010 Arrow Lakes	25	0	0
099 Province	72	51	28

Action schools



Active communities

BC Recreation and Parks Association, in cooperation with 2010 Legacies Now, has introduced an initiative called Active Communities to help support the province's plan to increase the physical activity undertaken by the population. There is a recognition that to meet ActNow BC wellness goals it is necessary to have many partners who are committed to improving the health and wellness of the BC population. Local government and communities are very important in this strategy given that people identify with local communities.

The Active Communities initiative has an overall goal of promoting healthy lifestyles and building healthy communities. The initiative has three main objectives:

- supporting communities to develop an Active Community plan;
- increasing local awareness of the benefits of regular physical activity; and
- creating opportunities to increase physical activity levels by 20% by the year 2010.

An Active Community promotes, through an overall strategy, integration of physical activity into daily living.

To become an Active Community, local government must adopt and officially pass a motion to accept the goal of improving physical activity by 20% among its residents. The community must also establish an Active Communities Team, develop an Active Communities plan, and commit to achieving the physical activity goal.

Those local governments that become Active Communities get access to a variety of resources including an Active Communities tool kit, which provides a workbook, fact sheets, a planning guide, and a self assessment checklist. An Active Workplace Workbook is also available for employers to develop physical activity as a component of workplace wellness initiatives. Grants are available to develop an Active Community plan or to improve, develop, and maintain walkways, pathways, bikeways, and trails.

The four maps opposite show the percentage of the population, by HSDA, residing in Active Communities in four different time periods.

By the end of 2005, more than half of the BC population (55.4%) was residing in an Active Community. The greatest coverage was in the urban lower mainland and

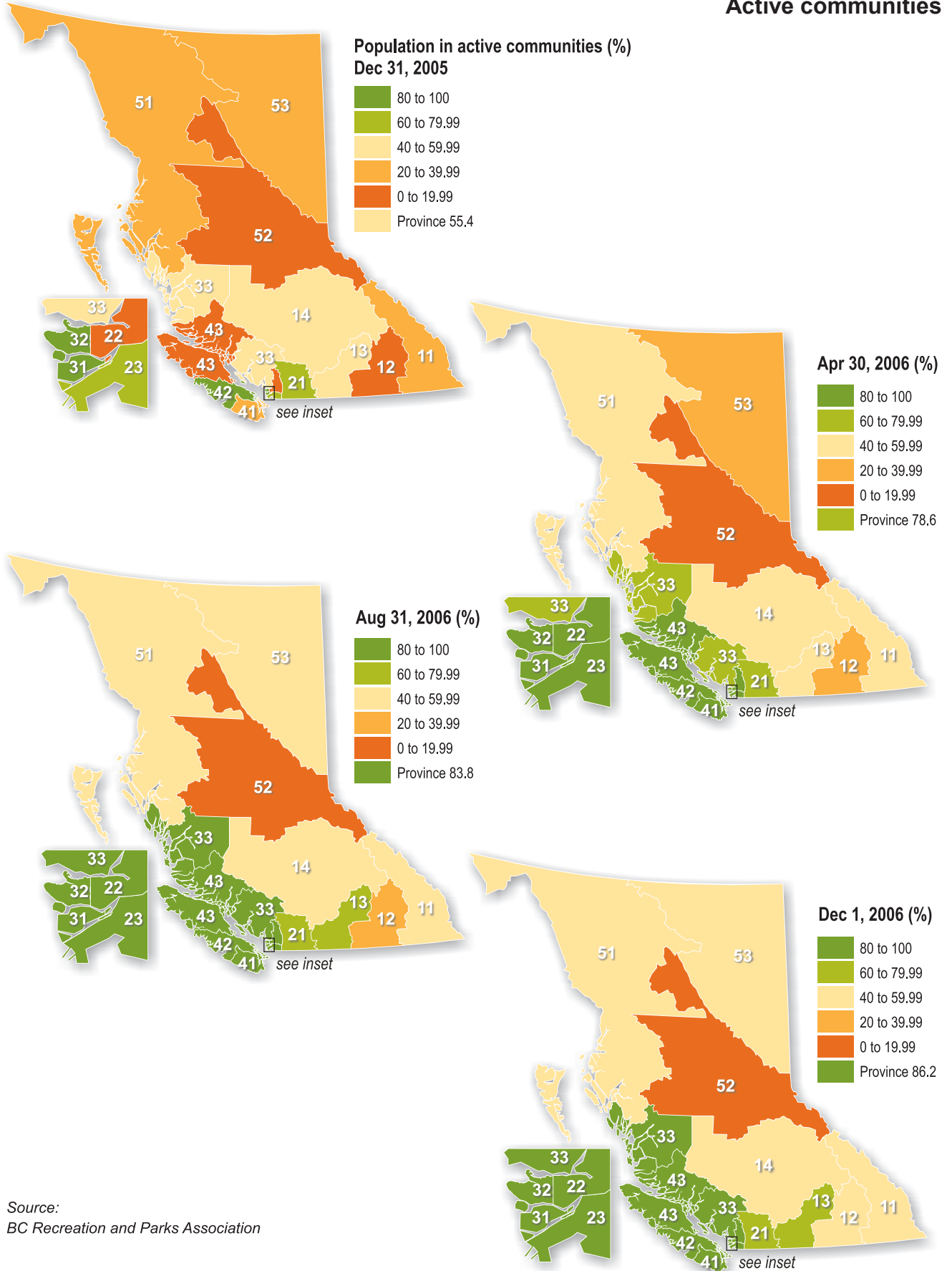
Health Service Delivery Areas	Population in active communities (%)			
	Dec 31 2005	Apr 30 2006	Aug 31 2006	Dec 1 2006
031 Richmond	100.0	100.0	100.0	100.0
041 South Vancouver Island	36.6	100.0	100.0	100.0
023 Fraser South	68.5	84.6	99.8	99.8
032 Vancouver	98.3	98.3	98.3	98.3
022 Fraser North	18.1	86.3	86.3	96.6
043 North Vancouver Island	0.3	88.5	93.3	93.3
033 North Shore/Coast Garibaldi	59.3	79.0	85.4	92.0
042 Central Vancouver Island	90.1	90.9	91.6	91.6
021 Fraser East	74.9	79.5	79.5	79.5
013 Okanagan	46.1	58.6	74.3	74.3
051 Northwest	32.6	56.1	59.6	59.6
011 East Kootenay	24.8	48.7	48.7	58.1
014 Thompson Cariboo Shuswap	44.6	48.2	56.8	56.8
053 Northeast	33.3	33.3	40.3	56.7
012 Kootenay Boundary	9.8	30.6	35.8	47.8
052 Northern Interior	8.1	8.6	16.5	16.7
999 Province	55.4	78.6	83.8	86.2

Central Vancouver Island. By April 30, 2006, 78.6% of the province's population was residing in a community that had become an Active Community. The adoption of this initiative was most evident in lower mainland, North Shore/Coast Garibaldi, and Vancouver Island communities, with less involvement in the interior, north, and eastern parts of the province.

Four months later, by the end of August 2006, 83.8% of the population was covered, and only Northern Interior and Kootenay Boundary had less than 40% of their populations residing in an Active Community. By December 1, 2006, all HSDAs but one had close to 50% or more of their populations residing in an Active Community, and only Northern Interior was under 20%. The total provincial population covered was 86.2%.

Scattered around the province there were approximately 20 Aboriginal communities (out of almost 200) that had also registered as Active Communities.

Active communities



Physical activity index

The CCHS derived a Physical Activity Index based on respondents' answers to several questions related to the frequency, duration, and intensity of their participation in certain activities. For each leisure time activity, an average daily energy expenditure was calculated. Respondents were then classified as Active if their average daily energy expenditure was 3 kcal/kg/day, Moderately Active with an expenditure between 2.9 and 1.5 kcal/kg/day, and Inactive below 1.5 kcal/day. The table on this page and maps opposite

are based on the percentage of the population in the Active and Moderately Active categories combined. For BC respondents as a whole, 57.96% were active or moderately active. This was very similar to the result for Aboriginal respondents in the province (55.76%), but significantly higher, statistically, than the average for Canadian respondents as a whole (51.19%).

For all respondents combined, there were major differences throughout the province. The range between the most active and least active regions was 17 percentage points. Geographically, the southeast of the province, South Vancouver Island, and North Shore/Coast Garibaldi areas were the most active, with Richmond and Fraser East in the lower mainland and Northeast the least active. South Vancouver Island, East Kootenay, and North Shore/Coast Garibaldi were all significantly more active, while Northeast was significantly less active than the provincial average.

There was no significant difference between genders, but there was within gender groups. South Vancouver Island and East Kootenay were significantly higher, statistically, and Northeast was significantly lower for males. For females, North Vancouver Island, Kootenay Boundary, and South Vancouver Island were statistically significantly higher. Overall, however, geographical patterns were similar to that for all respondents.

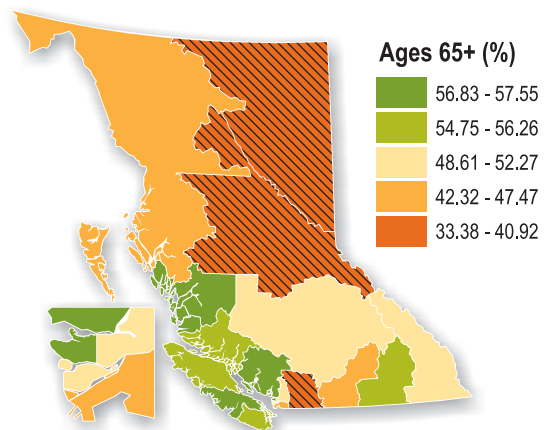
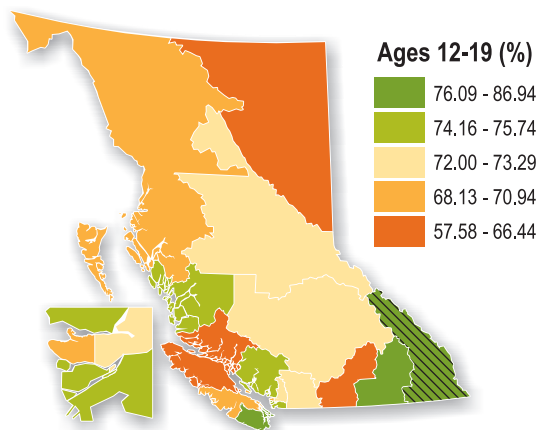
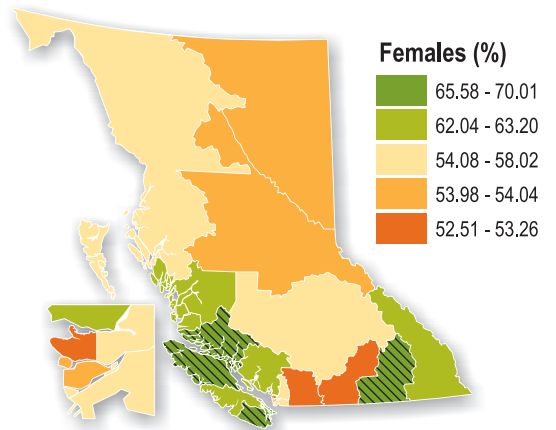
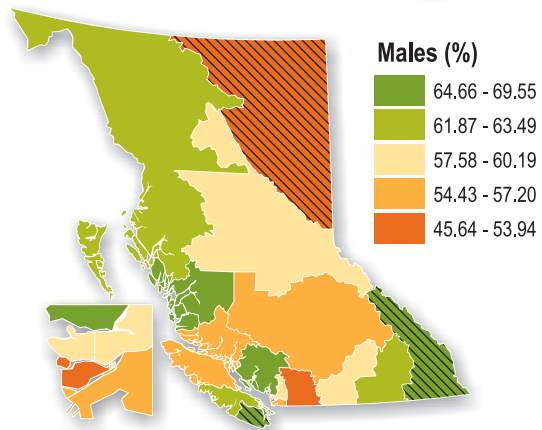
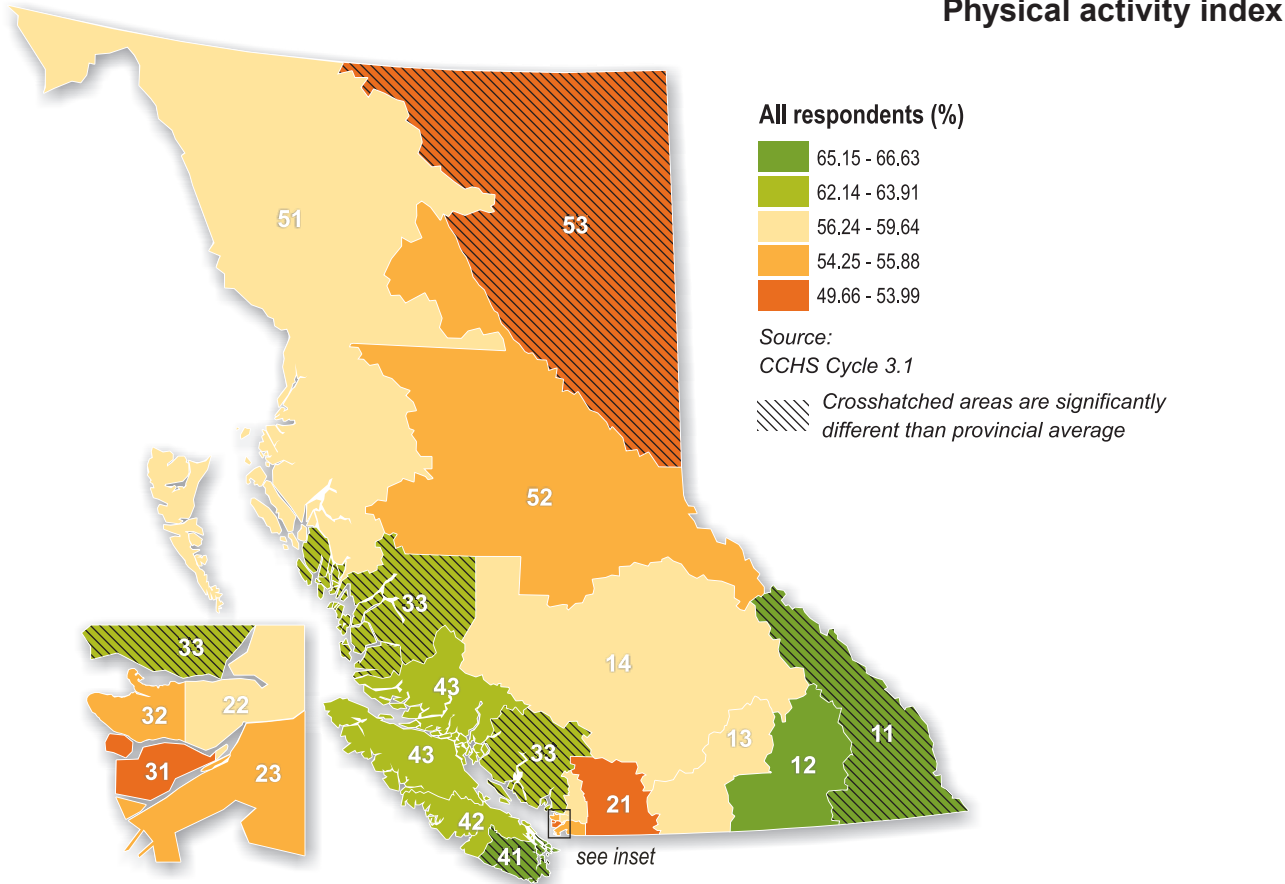
Physical activity diminished significantly with age. Teens, at 72.40%, were significantly more physically active than the middle age cohort of 20- to 64-year-olds (57.15%), which in turn was significantly higher,

Health Service Delivery Area	All respondents (%)	Males (%)	Females (%)	Ages 12-19 (%)	Ages 20-64 (%)	Ages 65+ (%)
041 South Vancouver Island	66.63	67.79	65.58	76.09	68.25	55.00‡
011 East Kootenay	65.84	69.55	62.04	86.94‡	64.92	52.27
012 Kootenay Boundary	65.15	63.49	66.81	80.31	65.13	54.75
033 North Shore/Coast Garibaldi	63.91	64.66	63.20	74.71	63.82	56.83
043 North Vancouver Island	63.64	57.20	70.01	57.58	66.45	56.26
042 Central Vancouver Island	62.14	61.87	62.39	68.13	62.59	56.94
051 Northwest	59.64	62.15	56.92	69.06	59.95	42.32E
014 Thompson Cariboo Shuswap	57.33	56.64	58.02	72.00	56.66	48.61
022 Fraser North	57.32	59.65	55.04	73.29‡	56.28	49.20
013 Okanagan	56.24	60.19	52.51	66.44	58.41	43.54‡
052 Northern Interior	55.88	57.69	53.98	72.17	55.38	36.35‡
032 Vancouver	55.39	57.58	53.26	70.94‡	53.33	57.55
023 Fraser South	54.25	54.43	54.08	75.74‡	51.61	47.47
031 Richmond	53.99	53.94	54.04	74.16‡	51.64	51.88
021 Fraser East	53.02	53.02	53.01	72.39‡	51.75	40.92
053 Northeast	49.66	45.64	53.98	64.68	48.41	33.38E
999 Province	57.96	58.88	57.07	72.40‡	57.15	50.64‡

‡ Age group differs significantly from 20-64 group.
E Interpret data with caution (16.77 < coefficient of variation < 33.3).

statistically, than the seniors group (50.64%). These significant differences occurred not only provincially, but for several individual HSDAs as well. Among teens, six HSDAs were significantly higher than the 20 to 64 year olds in their region: East Kootenay, Fraser North, Vancouver, Fraser South, Richmond, and Fraser East. At 86.94%, East Kootenay was also significantly higher than the provincial average for teens. Seniors in three HSDAs, South Vancouver Island, Okanagan, and Northern Interior, had significantly lower activity levels than their younger counterparts. Northern Interior, Fraser East, and Northeast were also significantly lower among seniors. Caution is required with respect to the Northeast result because of the high coefficient of variation.

Physical activity index



Six or more hours per week walking

The CCHS asked respondents the following question: *“In a typical week in the past three months, how many hours a week did you usually spend walking to work or to school or while doing errands?”* On average, while only 25.30% of BC residents walked six or more hours a week, this is significantly higher, statistically, than for Canadian respondents as a whole (22.85%).

For all respondents, there were major differences throughout the province. The range from highest to lowest was 52.44% for East Kootenay to 18.94% for Richmond. Geographically, this indicator had one of the highest variations among all of the CCHS indicators included in this Atlas. No fewer than 10 HSDAs had significantly different values, statistically, from the provincial average. Generally, the urban southwest part of the province had low percentages of respondents walking six or more hours a week, while the highest percentages walking for this length of time occurred in the southeast of the province and on the southern half of Vancouver Island. Significantly high values occurred in East Kootenay, Central and South Vancouver Island, and Kootenay Boundary. Significantly low levels of walking activity were recorded for Richmond, Fraser East, Vancouver, and Fraser South, all in the lower mainland of the province, Okanagan in the interior, and North Vancouver Island.

There was no appreciable difference between males and females in these patterns, although females walked more than males, but not significantly so. The geographical patterns were very similar to the pattern for all respondents, although males in Northwest (29.43%) were more likely to walk than females (19.30%), but the difference was not statistically significant.

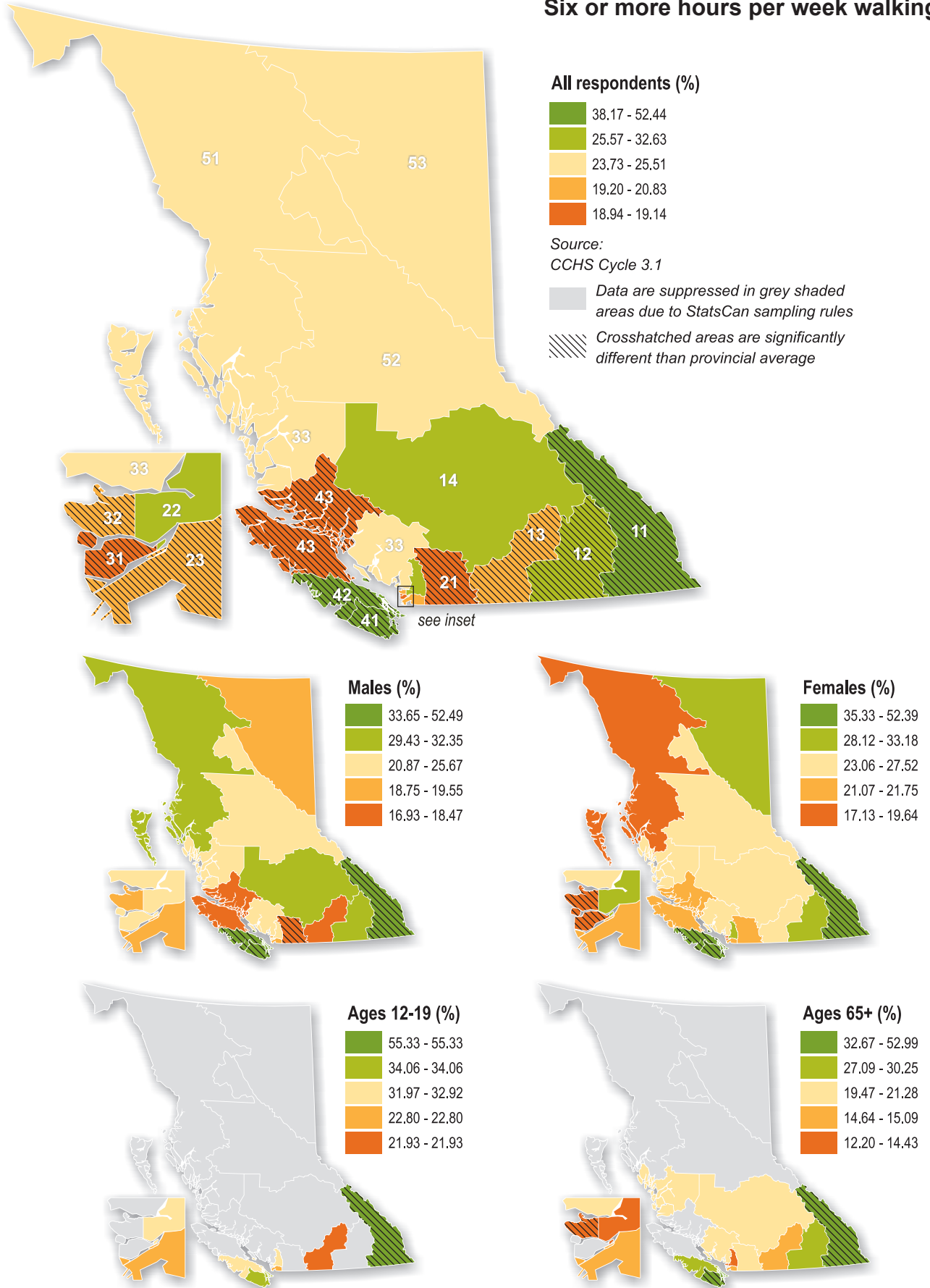
The lower two maps show that there is very incomplete data for this variable because the numbers walking six or more hours a week for both teens and seniors is too low to report for most HSDAs, and several of those that can be reported have relatively unstable values because of low numbers of people who walk six or more

hours a week. What we can say is that teens in East Kootenay are significantly more likely to walk than teens elsewhere in the province. Seniors in East Kootenay and South Vancouver Island are also significantly more likely to walk than are seniors elsewhere in the province. Vancouver seniors are significantly less likely to walk, although because of unstable values, caution should be used in interpreting this result. Overall, seniors in the province are statistically significantly less likely to walk than younger age groups.

Health Service Delivery Area	All respondents (%)	Males (%)	Females (%)	Ages 12-19 (%)	Ages 20-64 (%)	Ages 65+ (%)
011 East Kootenay	52.44	52.49	52.39	55.33	51.79	52.99
042 Central Vancouver Island	38.49	41.79	35.33	32.92	42.92	27.09‡
041 South Vancouver Island	38.17	33.65	42.25	34.06	40.24	32.67
012 Kootenay Boundary	32.63	32.08	33.18	F	34.18	30.25
014 Thompson Cariboo Shuswap	29.93	32.35	27.52	F	32.79	21.28E
022 Fraser North	25.57	22.97	28.12	31.97	26.47	14.43E‡
053 Northeast	25.51	19.55E	31.91	F	26.41	F
033 North Shore/Coast Garibaldi	25.01	25.67	24.38	F	26.61	21.12
051 Northwest	24.56	29.43	19.30	F	27.82	F
052 Northern Interior	23.73	24.17	23.26	F	26.15	F
013 Okanagan	20.83	18.47	23.06	21.93	22.44	15.09E
023 Fraser South	20.59	19.40	21.75	22.80	21.25	14.64
032 Vancouver	19.20	18.75	19.64	F	21.51	12.20E‡
021 Fraser East	19.14	17.02	21.20	F	19.50	19.47
043 North Vancouver Island	19.01	16.93E	21.07E	F	19.92E	F
031 Richmond	18.94	20.87	17.13	F	18.16	F
999 Province	25.30	24.40	26.18	23.77	26.70	19.79‡

‡ Age group differs significantly from 20-64 group.
 E Interpret data with caution (16.77< coefficient of variation <33.3).
 F Data suppressed due to Statistics Canada sampling rules.

Six or more hours per week walking



Heart and Stroke Foundation Hearts in Motion walking clubs

The Heart and Stroke Foundation of BC and the Yukon is a member of the BC Healthy Living Alliance, which is assisting government to reach its ActNow BC goals. The Heart and Stroke Foundation has reported that Canadians who are dependent on automobiles for transportation are at increased risk of being overweight or obese. Their 2005 Report Card on the Health of Canadians showed a reduction in the likelihood of being obese for every additional kilometre walked each day (Canadian Institute for Health Information, 2006a). Because lack of exercise has been recognized as a major risk factor for heart disease and stroke, the Foundation has helped to create a series of Hearts in Motion walking clubs throughout BC. The clubs have been formed to help get people organized to undertake regular physical activity through walking in groups, which are both social and supportive.

Participants who join one of the clubs throughout BC receive a handbook with tips on getting started in a safe manner, a personal activity card to record distances walked, and awards to recognize personal milestones.

This map indicates where the more than 40 current Hearts in Motion walking clubs are located throughout the province. Several communities have more than one walking club, as indicated above. Burnaby and Vancouver, for example, both have three such walking clubs, while Kamloops, Maple Ridge, Nanaimo, North Vancouver, Victoria, and West Vancouver each have two clubs.

As might be expected, the majority of clubs are located in the lower mainland area of the province, but other clubs can be found in the interior and more northern parts of BC.



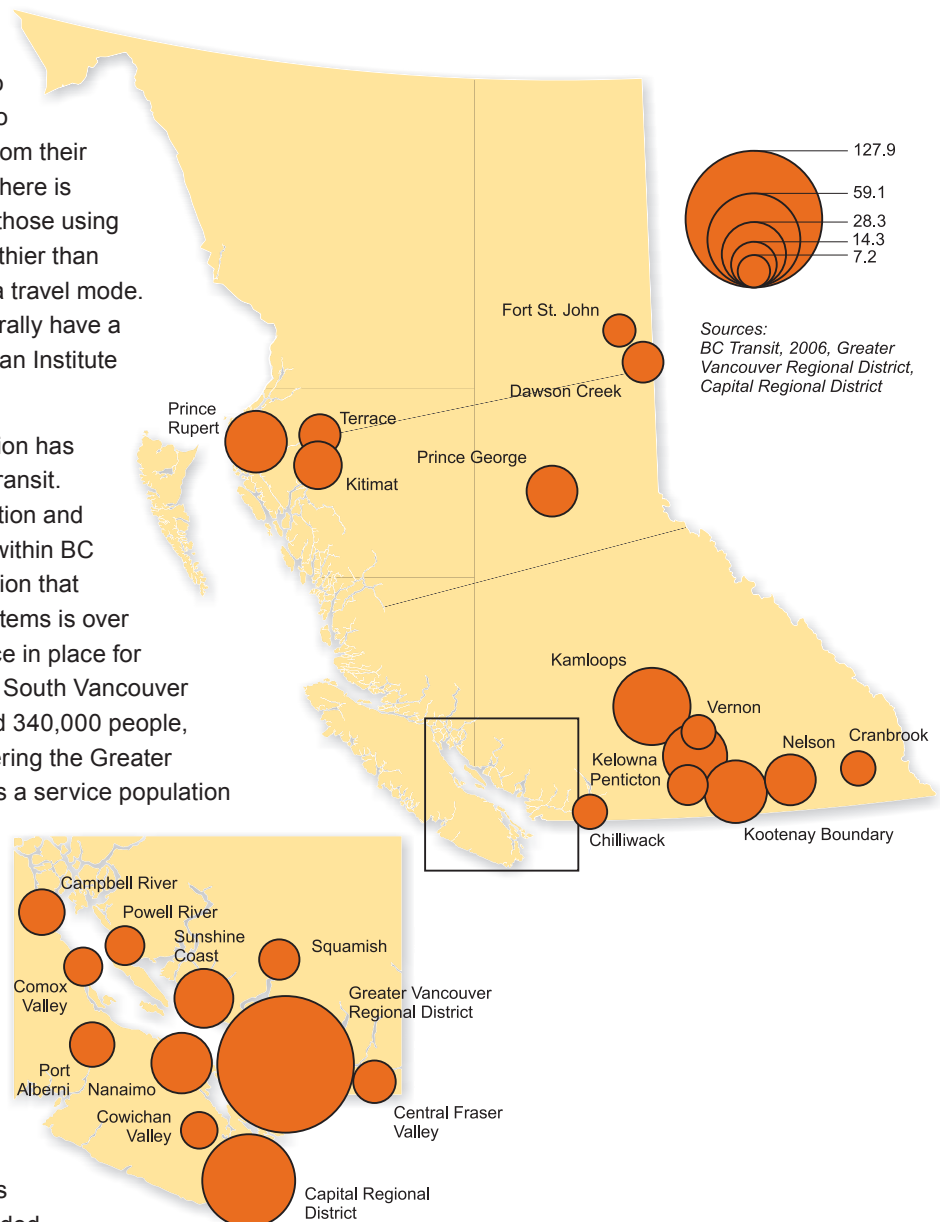
Public transit use per capita

The use of public transit can be viewed as an interrupted pedestrian activity. People who use public transit usually walk to the transit stop and then walk from their exit point to their destination. There is much research to suggest that those using public transit are generally healthier than those using the automobile as a travel mode. Those using public transit generally have a lower body mass index (Canadian Institute for Health Information, 2006a).

Within BC, much of the population has access to some type of public transit. The map above shows the location and use per capita of public transit within BC for 2005/6. In total, the population that can be served by municipal systems is over 830,000. In addition, the service in place for the Capital Regional District on South Vancouver Island covers another estimated 340,000 people, while the Translink system covering the Greater Vancouver Regional District has a service population of over two million. In total, about 80% of the provincial population has access to some type of public transit.

As the proportionate circles on the map above show, the ridership per capita varies substantially among the 25 different transit systems mapped (the system for Whistler was not included in this analysis because the data included ridership to and from Vancouver). The annual ridership rates vary from highs of nearly 130 per capita for Translink in the Greater Vancouver Regional District, followed by nearly 60 per capita for the Capital Regional District on Vancouver Island, and over 40 per capita in Kamloops. The ridership rates for Fort St. John in the northeast, Vernon in the Okanagan, and Cowichan Valley on Vancouver Island are all below 10 per capita.

Overall, transit use is much higher in the urban areas of the southwest, where higher population densities make systems a lot more accessible and efficient to operate.



Community recreation facilities

In early 2004, the BC Recreation and Parks Association published a survey of four major types of publicly owned or operated recreation facilities: indoor pools; outdoor pools; curling rinks; and ice arenas. There was a combined total of 414 facilities. The survey was funded by 2010 Legacies Now, as well as the Ministry of Community, Aboriginal and Women's Services and Pacific Sport. One of the goals of the survey was to ensure that people in BC have access to the facilities they need in order to lead healthy, active lifestyles (BC Recreation and Parks Association, 2004). A total of 185 municipalities, regional districts, and other local government organizations were surveyed, and all responded to the questionnaire. Of the communities surveyed, 65 had no facilities included in the survey, while 15 communities had all four. Of the 292 facilities for which use data were provided, there were nearly 36 million visits annually. The maps opposite and table above provide data by calculating the number of facilities per 100,000 population by HSDA.

Indoor pools

Throughout the province there was a total of 103 publicly owned or operated indoor pools for an overall rate for the province as a whole of 2.44 per 100,000 population. Geographically, Northeast, North Vancouver Island, the southeast of the province, and Northwest had the highest number of facilities per 100,000 population. It must be noted that these HSDAs are all rural in nature. The lowest rates were in the urban southwest of the province.

Outdoor pools

There were 72 outdoor pools around the province for an overall rate of 1.67 facilities per 100,000 population for publicly owned or operated outdoor pools. The highest rates were in the southeast part of the province and Fraser North in the lower mainland. Three HSDAs, South Vancouver Island, Northern Interior, and Northwest, did not have any outdoor pools.

Curling rinks

Throughout the province, there were 79 publicly owned or operated curling rinks for a provincial rate of 1.83 facilities per 100,000 population. The highest rates per

Health Service Delivery Area	Indoor pools	Outdoor pools	Curling rinks	Ice arenas
053 Northeast	8.66	2.89	11.55	15.89
043 North Vancouver Island	7.56	1.68	1.68	5.88
012 Kootenay Boundary	4.97	6.21	11.18	12.43
011 East Kootenay	4.83	3.63	8.46	13.29
051 Northwest	4.47	0.00	3.55	9.48
033 North Shore/Coast Garibaldi	3.29	0.37	0.73	3.29
052 Northern Interior	3.25	0.00	5.20	10.39
014 Thompson Cariboo Shuswap	3.15	2.25	3.60	6.75
042 Central Vancouver Island	2.77	1.19	1.98	2.77
041 South Vancouver Island	2.56	0.00	0.85	2.56
021 Fraser East	2.27	1.89	1.51	2.65
013 Okanagan	1.81	2.41	3.02	5.73
022 Fraser North	1.60	3.02	0.71	1.60
032 Vancouver	1.52	1.01	0.17	1.35
023 Fraser South	1.25	1.88	0.63	2.03
031 Richmond	1.15	1.15	0.00	1.15
999 Province	2.44	1.67	1.83	3.78

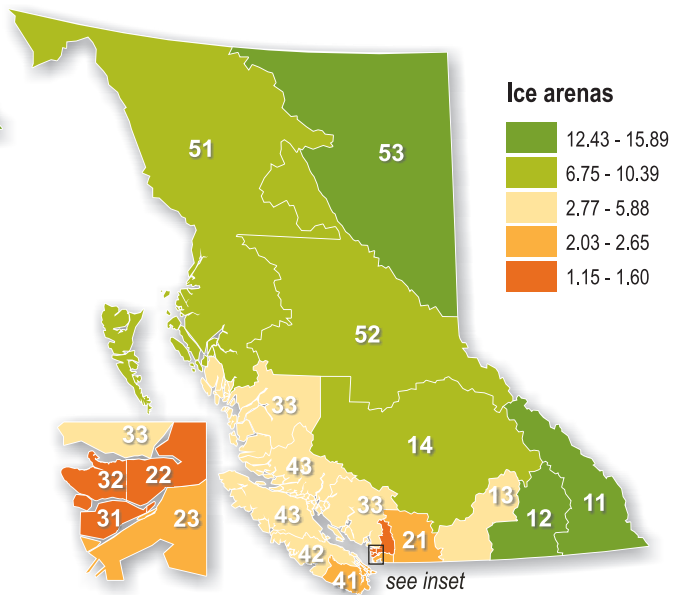
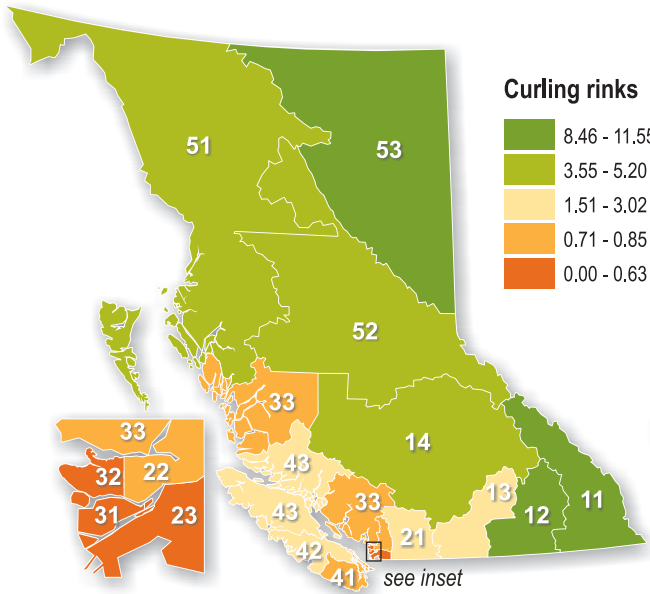
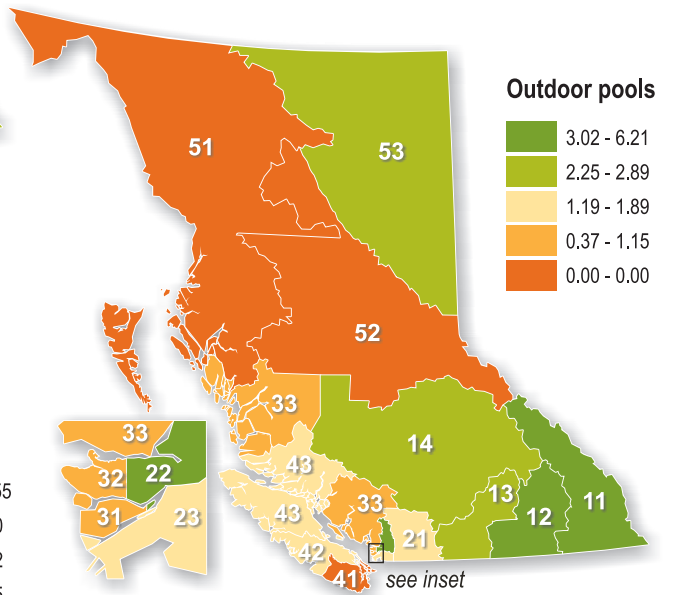
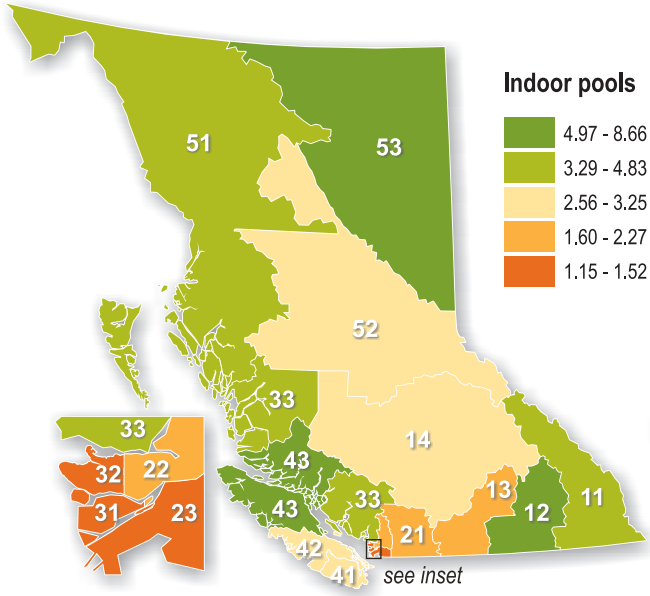
100,000 population for these facilities occurred in the extreme northeast and southeast of the province. The lowest rates were in the urban southwest of the province, and Richmond did not have any publicly owned or operated curling rinks.

Ice arenas

There were 161 ice arenas around the province, for a provincial rate of 3.78 facilities per 100,000 population. The highest rates (over 10 per 100,000 population) occurred in Northeast, East Kootenay, Kootenay Boundary, and Northern Interior. The lowest rates were found in the urban southwest of the province, and Vancouver, Richmond, and Fraser North all had rates below 2 per 100,000 population.

Overall, the facilities included in the survey tend to be more available (although not necessarily available to all) in the rural parts of the province and less so in the urban southwest of the province. In some instances, there were no facilities available for some HSDAs.

Community recreation facilities per 100,000 population



Source:
BC Recreation and Parks Association (2004),
Phase 1 Study data

Community centres

In 2006, the BC Recreation and Parks Association released the results of a second major survey of community facilities (BC Recreation and Parks Association, 2006b). The inventory collected information on different types of activity centres. These included publicly funded or operated community halls, community centres, youth centres, and senior centres. Each of these facility types are places where people can gather for different kinds of recreation and other activities. In total, there were 433 centres included in the inventory, with an estimated use of 38 million visits per year. It should be noted that only 88% of the 185 local government organizations who were sent questionnaires responded, and so the rates provided in the maps opposite and the above table are only for those municipalities who participated in the survey. Results must be used cautiously, based on this incomplete information.

Community halls

In total, there were 114 community halls scattered around the province based on the results of those municipalities that responded to the questionnaire. The highest facility rate was found in Kootenay Boundary (26.82 per 100,000 population). This region was far ahead of the next nearest regions, Thompson Cariboo Shuswap and Northwest. At the other extreme, the urban areas of the southwest had very low rates. Richmond had no publicly funded or operated community halls, while Vancouver had 0.67 per 100,000 population.

Community centres

There were 177 publicly operated or owned community centres in BC, based on the survey response. The highest facility rates were in the northwest, northeast, and southeast of the province. Again, Kootenay Boundary with a rate of 21.46 facilities per 100,000 had by far the highest rate of community centres. Low rates were again evident in the urban southwest of the province.

Youth centres

There was a total of 69 publicly owned or operated youth centres around the province. The highest rates were found in the northeast, northwest, and again, Kootenay

Health Service Delivery Area	Community halls	Community centres	Youth centres	Senior centres
012 Kootenay Boundary	26.82	21.46	8.05	10.73
014 Thompson Cariboo Shuswap	10.24	4.78	2.73	3.41
051 Northwest	9.15	12.81	5.49	5.49
042 Central Vancouver Island	4.58	3.75	1.25	0.42
043 North Vancouver Island	4.38	11.38	1.75	2.63
013 Okanagan	4.02	5.87	2.16	3.40
033 North Shore/Coast Garibaldi	3.83	12.04	2.19	1.09
052 Northern Interior	3.28	3.93	1.31	2.62
041 South Vancouver Island	3.20	3.84	1.92	1.92
022 Fraser North	3.17	3.39	2.54	2.12
053 Northeast	3.10	13.97	6.21	4.66
021 Fraser East	1.52	2.28	0.38	0.76
011 East Kootenay	1.44	10.11	1.44	4.33
023 Fraser South	1.29	2.77	1.29	1.66
032 Vancouver	0.67	2.53	1.69	1.01
031 Richmond	0.00	3.46	0.00	0.58
999 Province	3.05	4.73	1.84	1.95

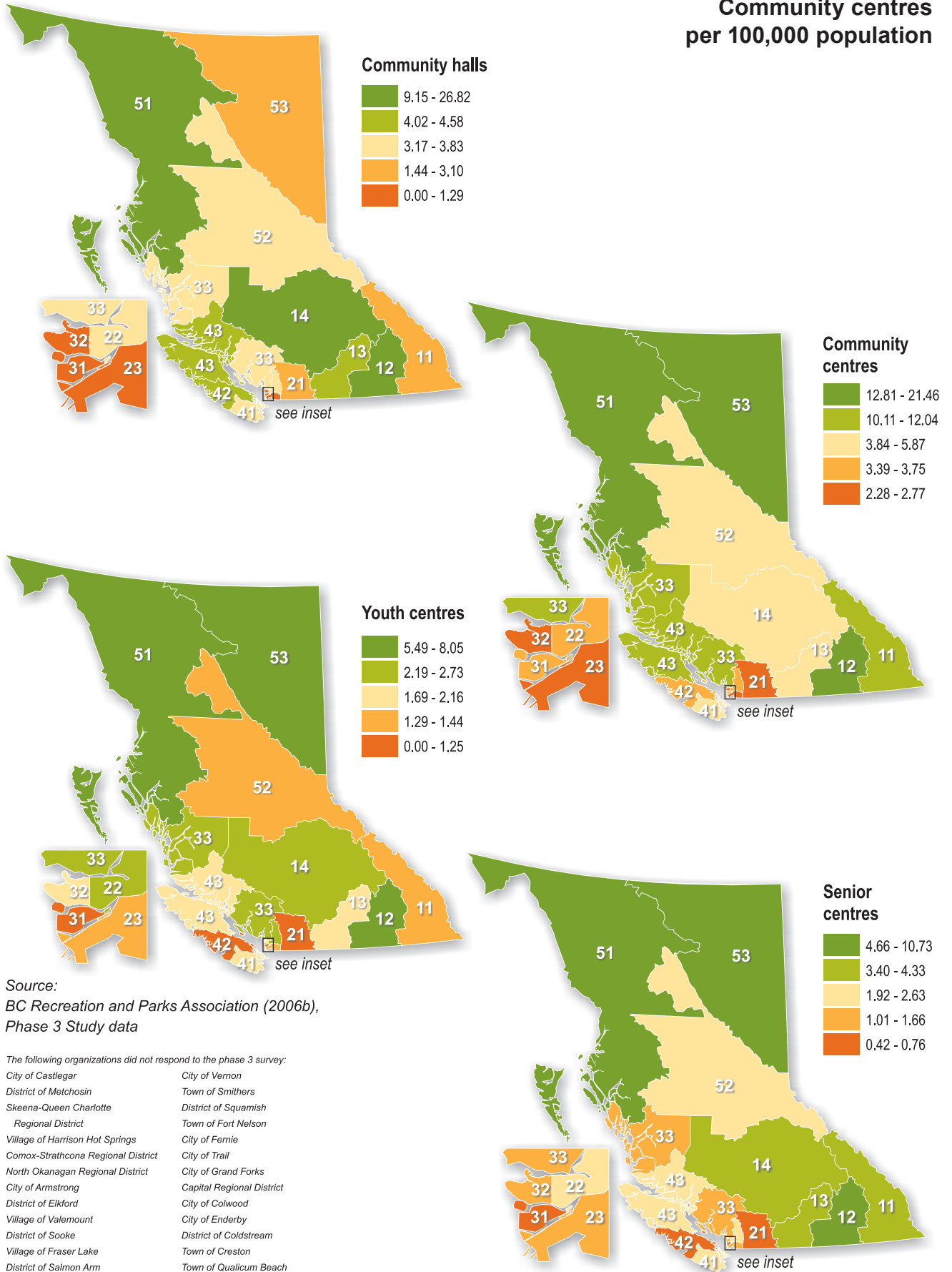
Boundary, which had the highest rate of 8.05 facilities per 100,000 population. The lowest rates were found in Richmond, which had no centres at all, and in Fraser East and Central Vancouver Island.

Senior centres

There were 73 senior centres scattered throughout the province. Kootenay Boundary again had the highest rate, with 10.73 facilities per 100,000 population. Northwest and Northeast had relatively high rates, followed by East Kootenay. Central Vancouver Island had the lowest rate, followed by Richmond and Fraser East in the southwest of the province.

In summary, the availability of these four different types of publicly owned and operated activity centres varies substantially throughout the province. The availability in the urban southwest of the province is low, while availability in the more rural parts of the province is much higher, especially in Kootenay Boundary.

Community centres per 100,000 population



Source:
BC Recreation and Parks Association (2006b),
Phase 3 Study data

The following organizations did not respond to the phase 3 survey:

City of Castlegar	City of Vernon
District of Metchosisin	Town of Smithers
Skeena-Queen Charlotte Regional District	District of Squamish
Village of Harrison Hot Springs	Town of Fort Nelson
Comox-Strathcona Regional District	City of Fernie
North Okanagan Regional District	City of Trail
City of Armstrong	City of Grand Forks
District of Elkford	Capital Regional District
Village of Valemount	City of Colwood
District of Sooke	City of Enderby
Village of Fraser Lake	District of Coldstream
District of Salmon Arm	Town of Creston
	Town of Qualicum Beach

Playing fields

A third key survey undertaken by the BC Recreation and Parks Association involved an inventory of the number of publicly owned or operated parks, natural areas, trails, and playing fields (BC Recreation and Parks Association, 2006a). Of the 185 local government organizations, 88% responded to the questionnaire. The data presented here again give rates of playing fields per 100,000 population. For those local government organizations responding, approximately 13,000 natural areas (112,000 hectares), 4,500 parks (65,000 hectares), 3,900 off-road trails (9,100 kms), and 3,600 playing fields were identified. These are all major assets for health and wellness maintenance and improvement, and accessibility encourages use. (Due to space constraints, only a limited amount of this rich data base is presented here in map form, with a focus on playing fields.)

Soccer pitches

Nearly 1,200 soccer pitches were identified in the survey. Province-wide, there were 29.37 pitches per 100,000 population, varying from a high of over 50 per 100,000 in Northeast and in Richmond in the lower mainland to less than 20 per 100,000 in Vancouver and South Vancouver Island. There were no clear geographic trends, with both high and low rates in the urban southwest, while, with the exception of Northwest and Northeast, there were lower than average rates in much of the interior.

Softball diamonds

About 1,130 softball diamonds were identified, second only to soccer pitches in terms of numbers. Provincially, the rate was 28.05 per 100,000 population. Geographically, the highest rates were scattered around the province, with Northeast, North Vancouver Island, and Kootenay Boundary all having more than 50 pitches per 100,000 population. The lowest rates were found in the southwest part of the province, with Vancouver, South Vancouver Island, and Fraser South all having rates of less than 20 per 100,000 population.

Baseball diamonds

There were almost 700 baseball diamonds identified, for a provincial rate of 17.25 per 100,000 population. Northeast and Northern Interior had the highest rates,

Health Service Delivery Area	Soccer pitches	Softball diamonds	Baseball diamonds	Football/ rugby fields
053 Northeast	51.22	55.88	40.36	6.21
031 Richmond	50.16	40.94	12.11	2.88
051 Northwest	43.51	36.71	9.52	1.36
022 Fraser North	42.67	37.34	21.87	3.20
033 North Shore/Coast Garibaldi	37.15	24.38	20.51	5.03
021 Fraser East	35.40	46.82	26.27	8.37
043 North Vancouver Island	33.53	53.18	15.03	17.34
023 Fraser South	30.33	19.54	11.73	1.88
013 Okanagan	28.25	27.09	16.64	2.71
052 Northern Interior	27.53	28.84	30.15	1.31
012 Kootenay Boundary	26.42	51.19	18.17	8.26
014 Thompson Cariboo Shuswap	22.51	39.65	14.68	3.92
011 East Kootenay	21.48	35.79	14.32	2.86
042 Central Vancouver Island	20.93	22.54	18.12	4.43
041 South Vancouver Island	18.12	14.56	18.44	1.94
032 Vancouver	12.81	12.47	10.79	2.02
999 Province	29.37	28.05	17.25	3.56

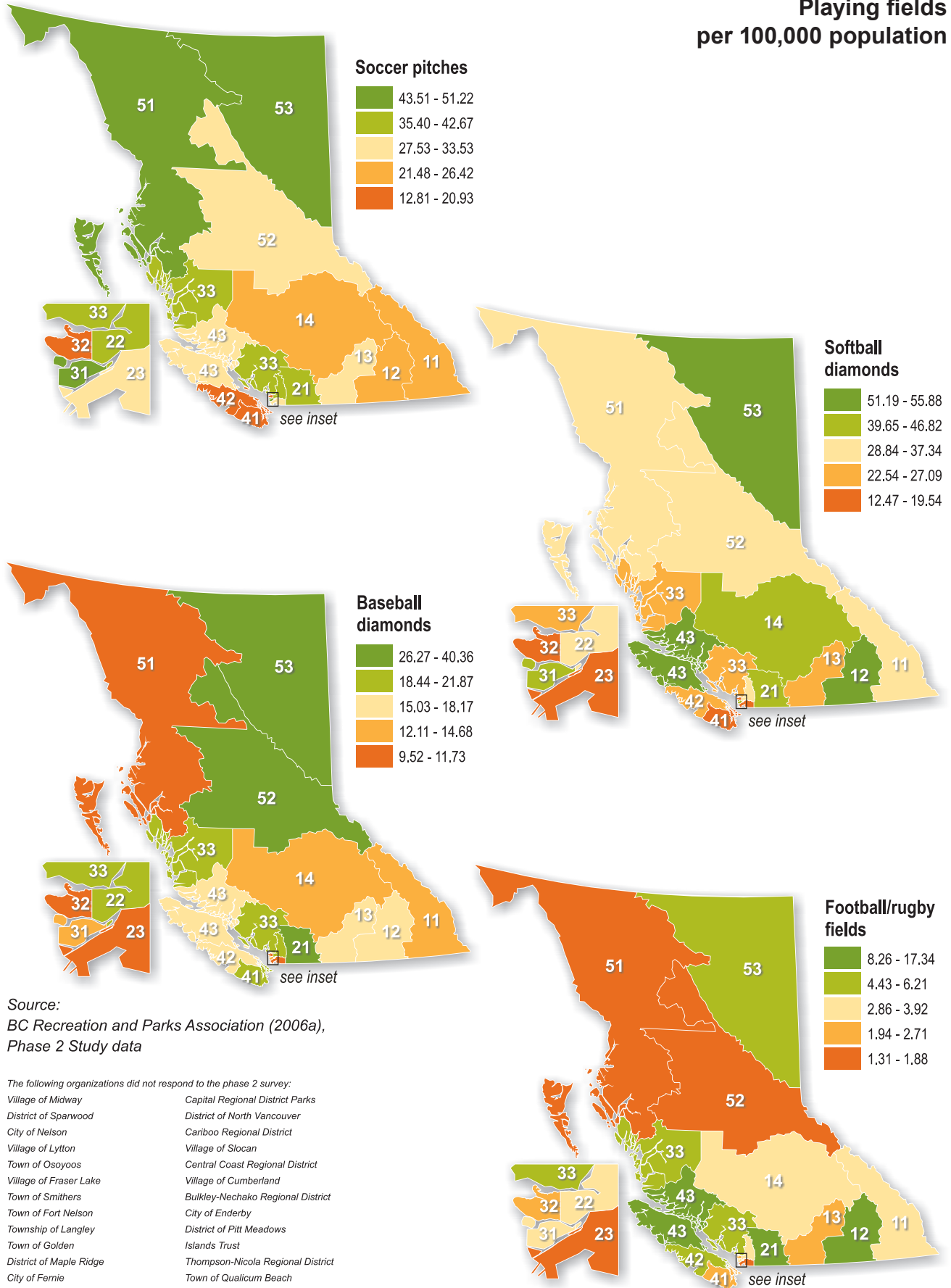
both in excess of 30 per 100,000 population, while neighbouring Northwest, with less than 10 diamonds per 100,000 population, had the lowest rate. Low rates were also evident in parts of the lower mainland (Vancouver, Fraser South, and Richmond).

Football/rugby pitches

There were more than 140 football/rugby fields throughout the province (3.56 per 100,000 population). North Vancouver Island, with 17.34 fields per 100,000, had by far the highest rate, followed by Fraser East and Kootenay Boundary, both of which had less than half the rate of North Vancouver Island. The lowest rates were in the north of the province and in Fraser South in the lower mainland.

Provincially, soccer pitches and softball diamonds are much more common than any other sports fields. Of the four sets of sports fields presented here, Northeast is best served overall in terms of rates per capita. It should be noted, however, that this is one of the most rural of all HSDAs in the province. At the other extreme, Vancouver is not well-resourced with publicly owned and operated sports fields on a per capita basis.

Playing fields per 100,000 population



Source:
BC Recreation and Parks Association (2006a),
Phase 2 Study data

- The following organizations did not respond to the phase 2 survey:
- Village of Midway
 - District of Sparwood
 - City of Nelson
 - Village of Lytton
 - Town of Ossoyoos
 - Village of Fraser Lake
 - Town of Smithers
 - Town of Fort Nelson
 - Township of Langley
 - Town of Golden
 - District of Maple Ridge
 - City of Fernie
 - Capital Regional District Parks
 - District of North Vancouver
 - Cariboo Regional District
 - Village of Slokan
 - Central Coast Regional District
 - Village of Cumberland
 - Bulkley-Nechako Regional District
 - City of Enderby
 - District of Pitt Meadows
 - Islands Trust
 - Thompson-Nicola Regional District
 - Town of Qualicum Beach

Playing fields

This second group of playing field assets are less numerous than those on the previous page, but nevertheless important from a physical activity perspective.

Running tracks

There were 95 running tracks in the province for an overall facility rate of 2.12 per 100,000 population. Tracks on a population rate basis were most numerous in Northwest (9.52 per 100,000 population) and North Vancouver Island (5.78 per 100,000). Rates were below average in the urban southwest of the province, except for Fraser North (3.56 per 100,000). Kootenay Boundary had no tracks recorded by the inventory, and South Vancouver Island had a rate of only 0.32 per 100,000 population.

Ultimate frisbee

This relatively new activity already had more fields per capita than more traditional sports such as field hockey or lacrosse. There were 1.84 per 100,000 population for the province as a whole. Fields for ultimate frisbee were most dominant in North Vancouver Island, with a rate of 10.40 per 100,000 population, and several lower mainland HSDAs also had rates above the provincial average. There were several HSDAs that recorded no fields for this sport from the municipalities responding to the questionnaire. These included South Vancouver Island, Richmond, Northeast, and Northern Interior.

Field hockey pitches

Provincially, there were 62 field hockey pitches, for a rate of 1.54 per 100,000 population. Rates were highest in North Shore/Coast Garibaldi and Kootenay Boundary, both with rates around 5 per 100,000 population or higher. The rates were lowest in the lower mainland and South Vancouver Island generally, although Northern Interior had none at all in those local governments responding to the questionnaire.

Lacrosse boxes

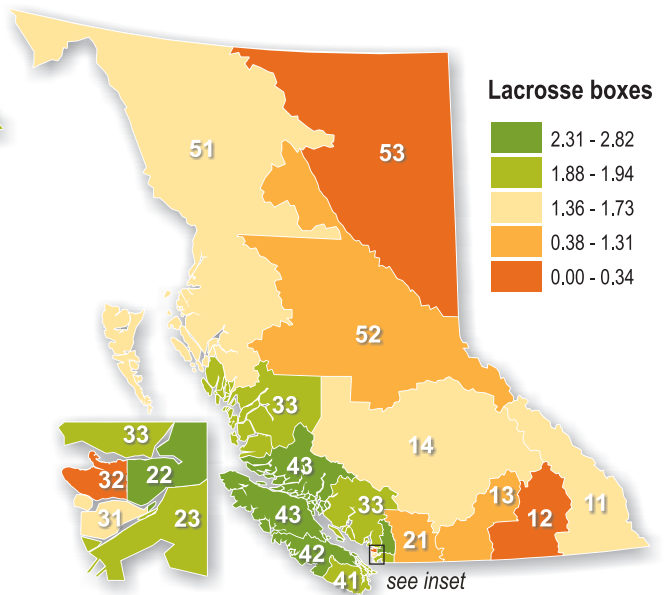
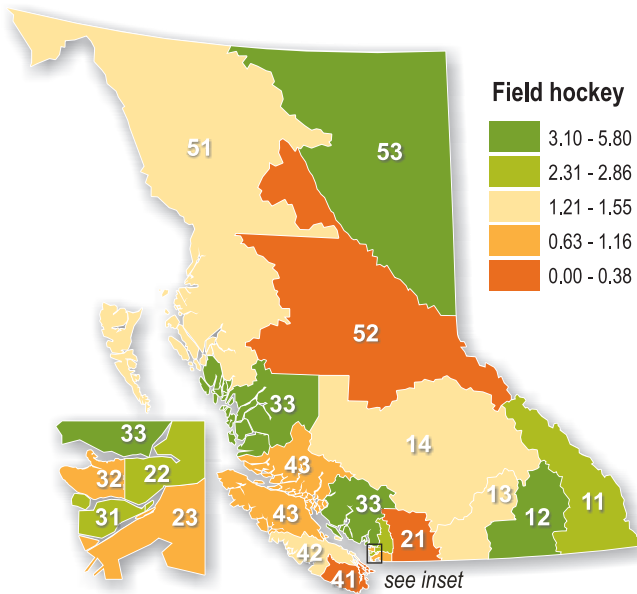
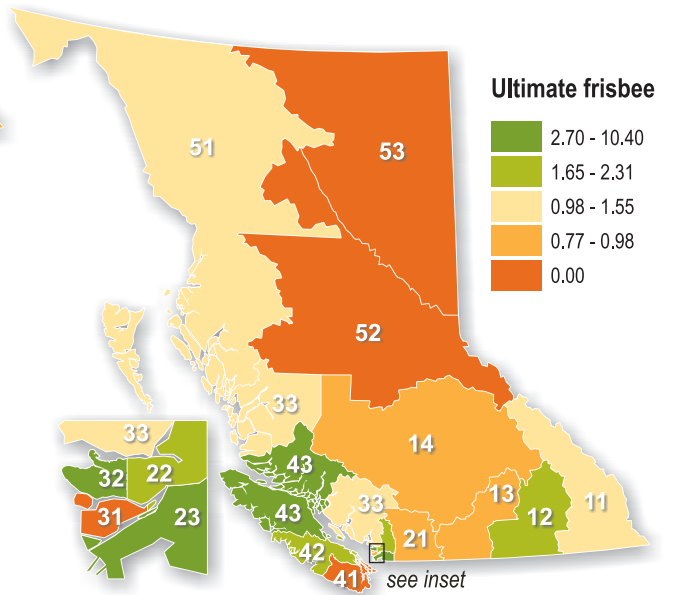
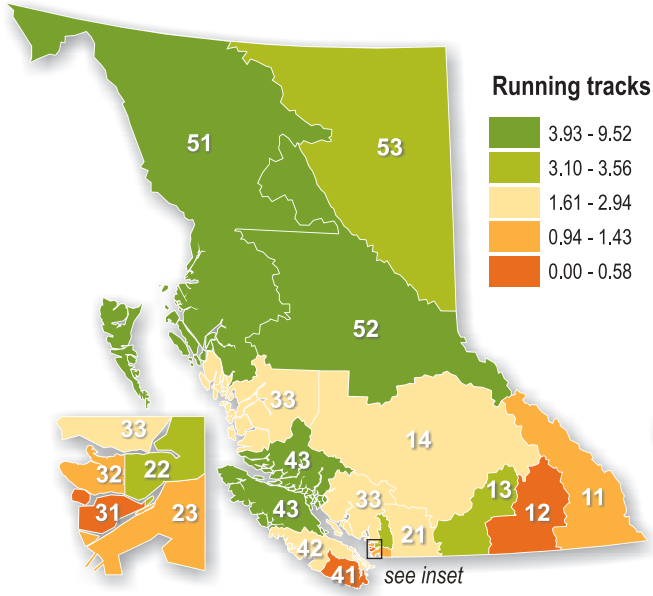
There was the same number of lacrosse boxes (62) as there were field hockey pitches, for a provincial rate of 1.54 per 100,000 population. Rates tended to be highest

Health Service Delivery Area	Running Track	Ultimate Frisbee	Field hockey pitches	Lacrosse boxes
051 Northwest	9.52	1.36	1.36	1.36
043 North Vancouver Island	5.78	10.40	1.16	2.31
052 Northern Interior	3.93	0.00	0.00	1.31
022 Fraser North	3.56	2.31	2.31	2.49
013 Okanagan	3.48	0.77	1.55	1.16
053 Northeast	3.10	0.00	3.10	0.00
014 Thompson Cariboo Shuswap	2.94	0.98	1.47	1.47
033 North Shore/Coast Garibaldi	1.93	1.55	5.80	1.93
021 Fraser East	1.90	0.76	0.38	0.38
042 Central Vancouver Island	1.61	2.01	1.21	2.82
011 East Kootenay	1.43	1.43	2.86	1.43
032 Vancouver	1.18	2.70	0.84	0.34
023 Fraser South	0.94	2.81	0.63	1.88
031 Richmond	0.58	0.00	2.31	1.73
041 South Vancouver Island	0.32	0.00	0.32	1.94
012 Kootenay Boundary	0.00	1.65	4.95	0.00
999 Province	2.12	1.84	1.54	1.54

in the lower mainland HSDAs (except Vancouver and Fraser East), as well as on Vancouver Island. Kootenay Boundary and Northeast had no lacrosse boxes in those local government organizations responding to the questionnaire.

There were major geographic variations in the sport field assets around the province. For this group of four sport field assets, North Vancouver Island was probably best served. Some caution is required in interpreting the rates, as only 88% of the local government organizations answered the questionnaire (see map on previous page).

**Playing fields
per 100,000 population**



Source:
BC Recreation and Parks Association (2006a),
Phase 2 Study Data

Sports club membership

Sports BC has supplied participation rates in about 60 sports for which they provided funding support in 2005. The data are available geographically by eight distinct BC Games Zones that cover the province, and participation is also available by age group and by gender. It should be noted that participation by individuals can occur in more than one sporting activity. Also, sport membership rates are provided on the basis of club membership per 1,000 population between the ages of 4 and 74. Although not shown in the table, rates are included in the text for the following age groupings: 4 to 12 years (4 is an estimate of lower age limit for sport membership); 13 to 18 years; 19 to 34 years; and 35 to 74 years. The upper limit of 74 years may appear at first glance to be high for some of these sports, but increasingly there is a recognition that older adults participate in active, competitive sports, a trend that is forecast to increase over time (Turcotte and Schellenberg, 2007). Since there are only eight regions depicted, these maps are based on a high, medium, or low scale rather than a quintile scale.

Soccer

Overall, the membership rate of males up to age 74 in soccer was 33.31 per 1,000 population. Membership rates declined with age for the province as a whole, going from nearly 205 per 1,000 for those 4 to 12 years old to a rate of 1.59 per 1,000 for those aged 35 to 74. Geographically, the Thompson Okanagan and Vancouver Squamish zones had the highest rate overall, both over 37 per 1,000 population. Vancouver Squamish had consistently high rates for all age groups when compared to the provincial averages. Cariboo North East had the lowest at 20.88 per 1,000, and had relatively low rates for all age groups.

For females, the provincial membership rate of 23.69 per 1,000 was about 30% below the male rate. As with males, rates fell with age from 131.36 per 1,000 for those 4 to 12 years old to 0.14 per 1,000 for those aged 35 to 74. Only Vancouver Squamish had any registered players in the oldest age grouping. Thompson Okanagan and Fraser River Delta zones had the highest overall rates (both over 32 per 1,000), and Fraser Valley, at 18.26 per 1,000, had the lowest rate.

BC Games Zones	Soccer males	Soccer females	Golf males	Golf females
002 Thompson Okanagan	37.71	33.13	42.93	17.04
005 Vancouver Squamish	37.29	22.61	15.70	6.30
007 North West	36.91	27.10	23.50	8.33
004 Fraser River Delta	33.80	32.16	14.27	5.72
006 Vancouver Island Central Coast	32.55	20.86	32.38	10.87
003 Fraser Valley	31.86	18.26	11.37	3.86
001 Kootenays	27.44	20.49	60.79	25.23
008 Cariboo North East	20.88	22.81	29.14	10.92
999 Province	33.31	23.69	23.29	8.72

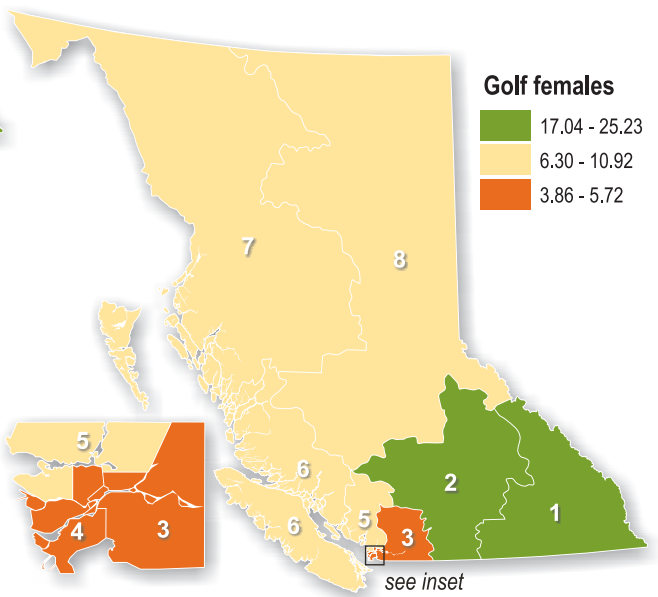
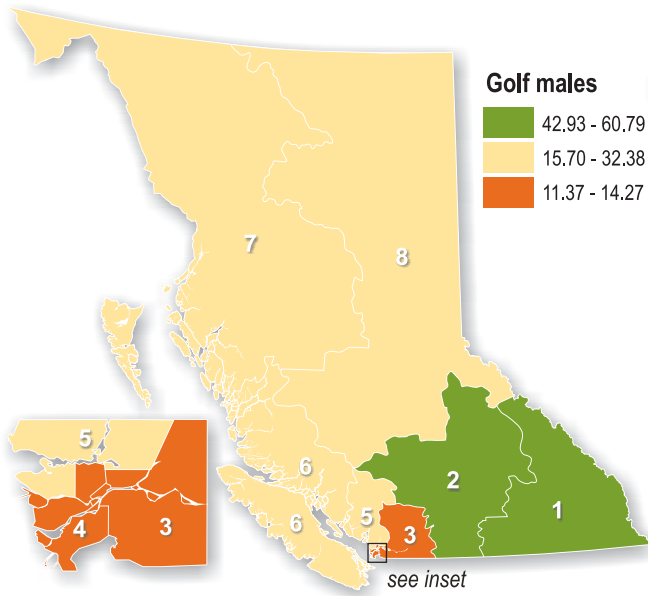
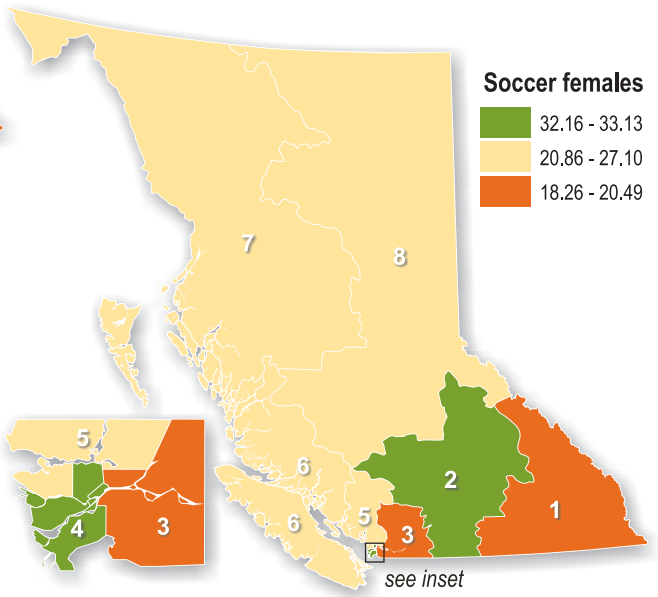
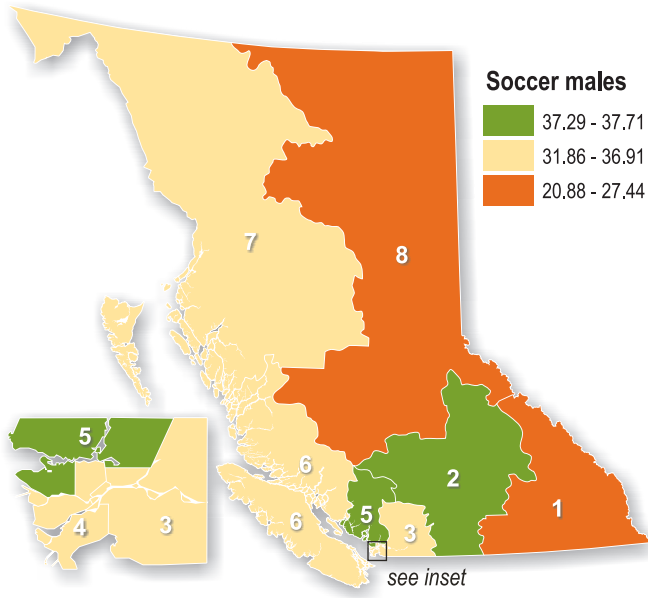
Golf

The membership rate for males was 23.39 per 1,000, with the highest rates in the 13 to 18 and 35 to 74 age groups at 35.85 and 32.29 per 1,000 respectively. The lowest membership group was the 19- to 34-year-olds at 19.34 per 1,000, and there were no registered male golfers under the age of 12. Kootenays had the highest regional participation rate at 60.79 per 1,000, while Fraser Valley had the lowest rate at 11.37.

While the membership rates were not as high for women, there were age and regional similarities. Overall, the rate was 8.72 per 1,000, with the highest rate being the 35 to 74 age group at 15.16 per 1,000 and the lowest being the 19 to 34 age group at 3.66. As was the case for males, there were no registered female golfers under age 12. Geographically, Kootenays led the way with a participation rate of 25.23 per 1,000, and, similar to males, Fraser Valley was the lowest with 3.86.

For both soccer and golf there were quite high rates of club membership for both genders, but males were more likely to be involved than females. Unlike other sport membership, golf was well represented among the older age group. Thompson Okanagan had the highest membership rates for these sports combined, and Fraser Valley the lowest.

Sports club membership per 1,000 population



Source:
SportBC, 2005 registration data

Sports club membership

Baseball (males)

Only male membership rates are included here because significantly more males participated in baseball than females (the rate for males was 19.41 per 1,000, compared with only 1.48 for females). The highest rate was in the 4 to 12 age group at 147.31 per 1,000, while the 19 to 34 age group had a rate of 4.99. There were no members registered in the 35 to 74 age group. Kootenays boasted the highest rates at 29.03 per 1,000, but rates were reasonably distributed in other regions. The lowest membership region was North West at 7.23 per 1,000.

Softball (females)

The provincial female membership rate was 11.38 per 1,000 (compared to only 3.52 for males), with the highest rates being in the 4 to 12 age group at 62.09 per 1,000 and 13- to 19-year-olds at 59.25, and the lowest rate being those over 35 at 0.07 per 1,000. Geographically, females were active in softball relatively consistently across the province. Fraser Valley was most active for females with a rate of 15.63 per 1,000, and Vancouver Squamish was the least active at 6.46.

Hockey (males)

The overall membership rate for males in hockey was 18.11 per 1,000 (compared with only 2.88 for females), with the most active age group being the 4- to 12-year-olds at 111.51. The least active group was the over 35 group at 0.47 per 1,000. The most active regions were Cariboo North East at 35.73 and Kootenays at 31.17 per 1,000, in the interior of the province, while the least active region was Fraser Valley at 9.15 per 1,000.

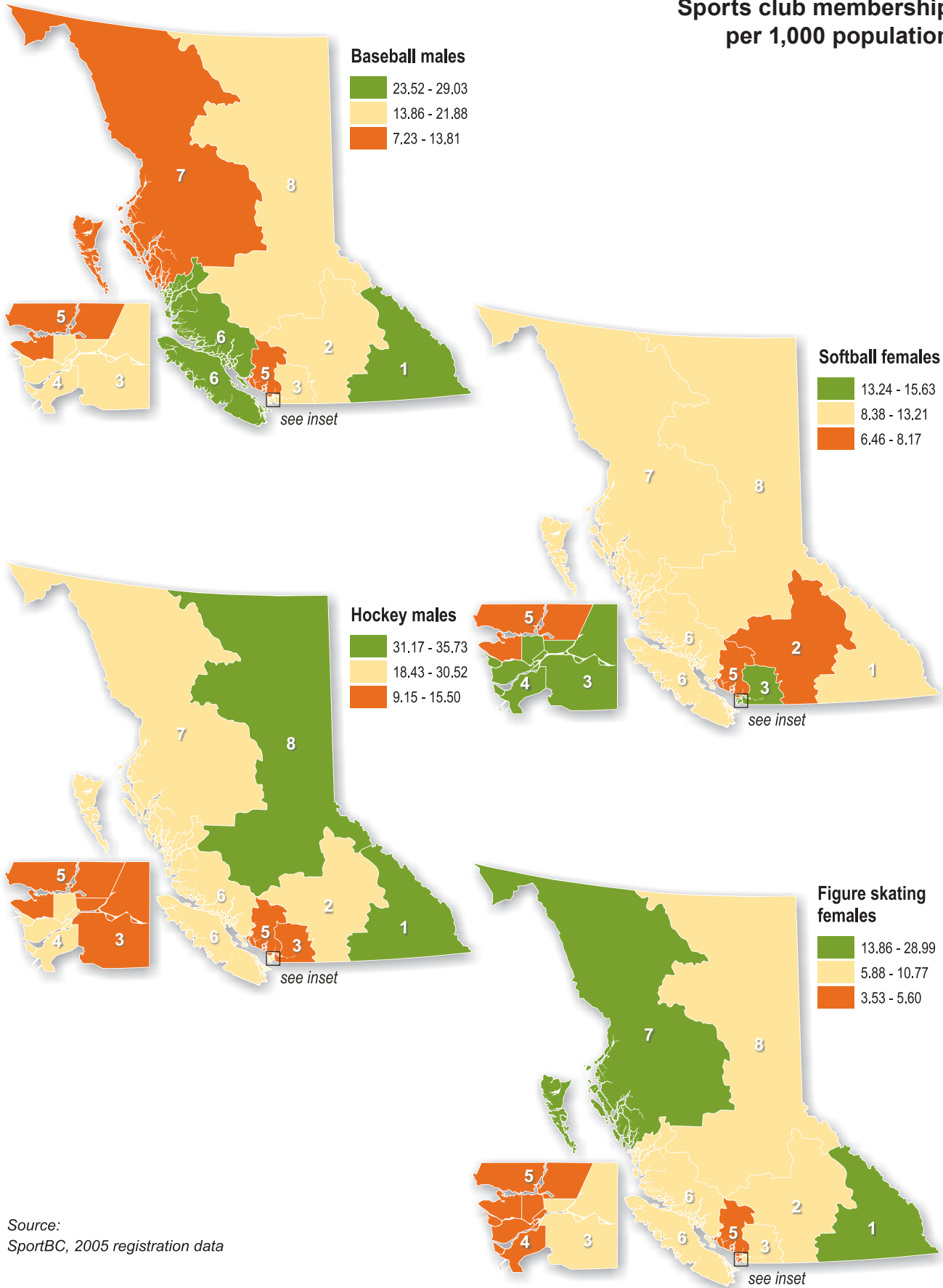
Figure skating (females)

Figure skating was very much a female sport, with a membership of 7.15 per 1,000 females. By age, the 4- to 12-year-old group had the highest rate (76.73 per 1,000). Geographically, the sport was very prominent in the North West region with a rate over all age groups of 28.99 per 1,000 female population. Kootenays and Thompson Okanagan had rates in excess of 10 per 1,000. The lowest rate (3.53 per 1,000) was found in Fraser River Delta.

BC Games Zones	Baseball males	Softball females	Hockey males	Figure skating females
001 Kootenays	29.03	9.06	31.17	13.86
006 Vancouver Island Central Coast	23.52	13.21	18.43	6.29
004 Fraser River Delta	21.88	13.24	20.15	3.53
003 Fraser Valley	21.63	15.63	9.15	5.88
002 Thompson Okanagan	17.58	8.17	23.54	10.77
008 Cariboo North East	13.86	8.38	35.73	7.44
005 Vancouver Squamish	13.81	6.46	15.50	5.60
007 North West	7.23	9.16	30.52	28.99
999 Province	19.41	11.38	18.11	7.15

Membership in the clubs described in this section shows how males and females dominate different sports. Even for those presented here, males were much more likely to be involved in club membership than were females. Among these four sports, Kootenays had the highest overall membership rate, and Vancouver Squamish had the lowest.

Sports club membership per 1,000 population



Source:
SportBC, 2005 registration data

Sports club membership

Athletics

The male membership for athletics (track and field) had a rate of 14.64 per 1,000, with the highest rate age group being 13- to 18-year-olds at 107.88 per 1,000 and the lowest being 19- to 34-year-olds at 0.47, closely followed by 35- to 74-year-olds at 0.91 per 1,000. Cariboo North East had the highest participation rates for males at 88.18 per 1,000, while Kootenays had the lowest at 0.28.

The athletics membership rate for females was slightly higher than that for males at 15.36 per 1,000, with the highest rate being for the 13 to 18 age group at 98.79. The age group with the lowest membership rate was 19- to 34-year-olds at 0.47 per 1,000, followed by 35- to 74-year-olds at 0.63. The most active region for females was Cariboo North East at 100.19 per 1,000, and Kootenays was the least active region at 0.25.

Curling

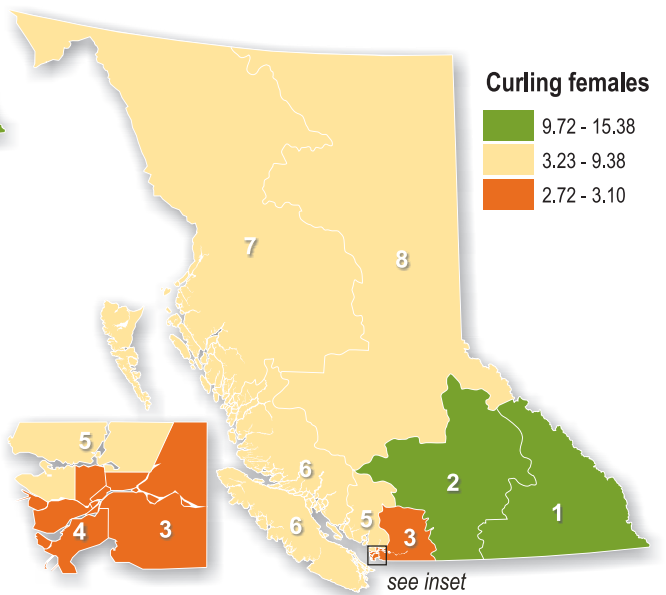
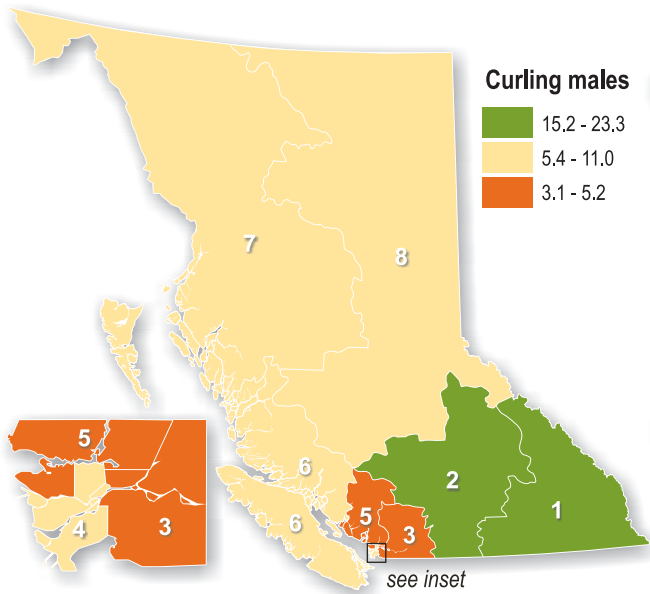
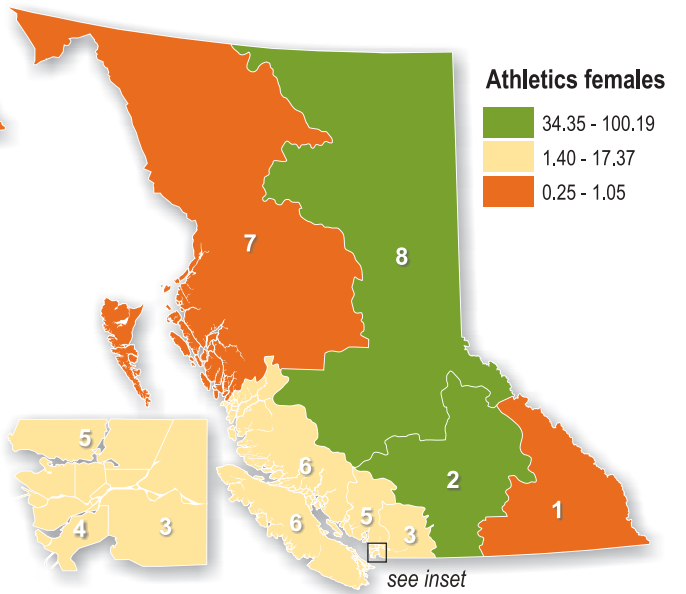
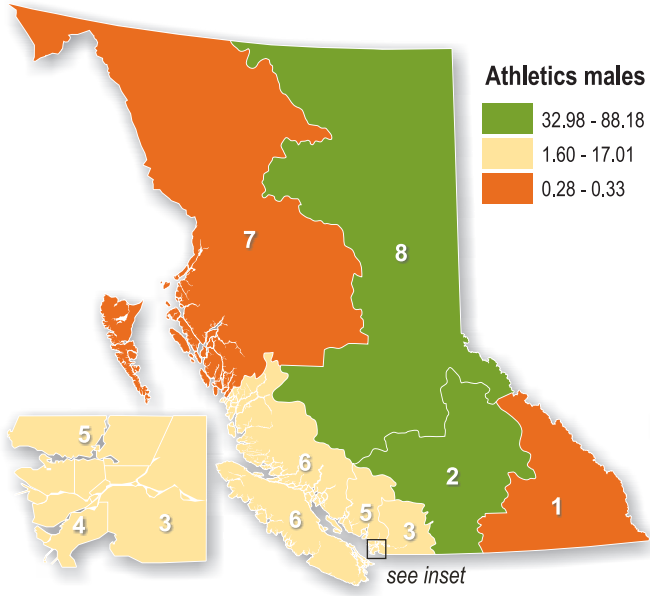
The membership rate for males in curling clubs was 7.77 per 1,000 provincially, with the most active group being the 35 to 74 age group at 12.15 per 1,000 and the least active being the 4- to 12-year-olds at 0.74. Kootenays had the most active membership rate at 23.30 per 1,000, while Vancouver Squamish was the least active at 3.07.

At 5.20 per 1,000, the overall membership rate for females was somewhat lower than that for males. As was the case for males, the 35 to 74 age group was most active for females at 8.11 per 1,000. The least active group was also the same for females as for males at 0.58 per 1,000 for the 4- to 12-year-olds. Again, Kootenays was most active (15.38 per 1,000), while Fraser River Delta was least active (2.72 per 1,000).

Both athletics and curling had some balance in club membership among the genders. Athletics had marginally more female members than males, but the opposite was true for curling. The latter had a larger membership among the older population than younger age groups. Among these two sports, Thompson Okanagan had the highest membership rate and Fraser Valley the lowest.

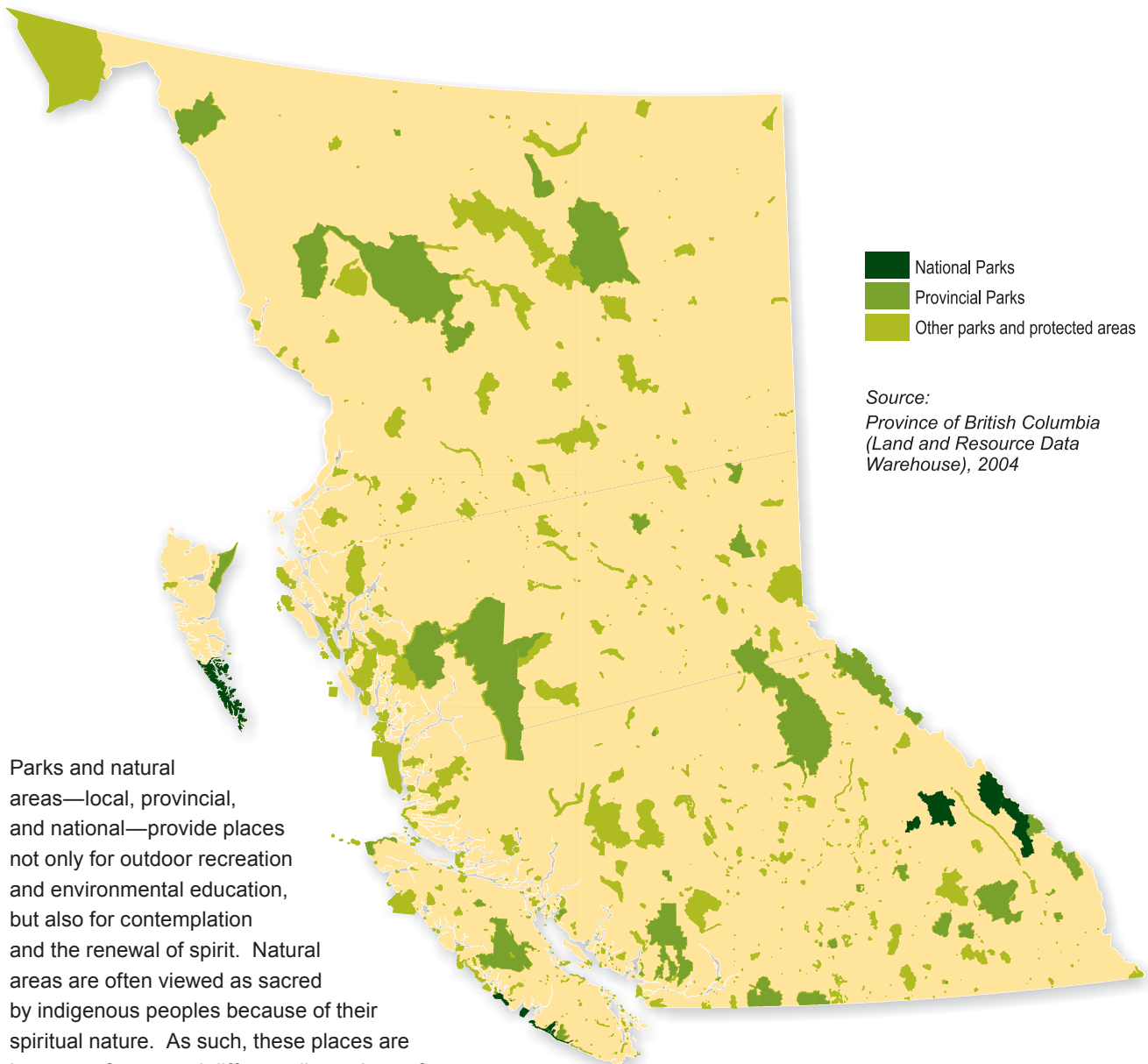
BC Games Zones	Athletics males	Athletics females	Curling males	Curling females
008 Cariboo North East	88.18	100.19	5.75	4.79
002 Thompson Okanagan	32.98	34.35	15.16	9.72
006 Vancouver Island Central Coast	17.01	17.37	10.31	6.54
005 Vancouver Squamish	9.38	9.61	3.07	3.23
004 Fraser River Delta	2.47	2.58	5.40	2.72
003 Fraser Valley	1.60	1.40	5.18	3.10
007 North West	0.33	1.05	11.01	9.38
001 Kootenays	0.28	0.25	23.30	15.38
999 Province	14.64	15.36	7.77	5.20

Sports club membership per 1,000 population



Source:
SportBC, 2005 registration data

Provincial and national parks



Parks and natural areas—local, provincial, and national—provide places not only for outdoor recreation and environmental education, but also for contemplation and the renewal of spirit. Natural areas are often viewed as sacred by indigenous peoples because of their spiritual nature. As such, these places are important for several different dimensions of wellness.

As of July 2006, BC had over 850 provincial parks and protected areas scattered around the province (see map, which shows the larger of these in light green). In total, they cover more than 13 million hectares, or nearly 14% of the total land mass of the province. Many are small and readily accessible to the urban population in the lower mainland and south and eastern Vancouver Island. However, the majority of the larger parks are less accessible, which is part of their spiritual and recreational attraction.

BC also has seven national parks (shown in dark green), some of which straddle the border with Alberta. These larger parks are less accessible than most provincial parks, but nevertheless provide spiritual and recreational wellness assets.

Summary

Increasing physical activity among the BC population is one of the key pillars of ActNow BC. This section of the Atlas has provided a diversity of wellness indicators related to this pillar which have been mapped in a variety of formats. Assets have included programs developed specifically to support ActNow BC initiatives by some of its key partners, such as 2010 Legacies Now, BC Recreation and Parks Association, and other partners from the BC Healthy Living Alliance. Other indicators are included from questions in the CCHS related to walking and physical activity. Still others look at the distribution of walking clubs and the use of public transit. There are several indicators related to activity assets that have been collected through questionnaire surveys, as well as data from SportsBC on sport club membership.

A key program, Action Schools! BC, is being used in every school district to get children more active. It has been adopted by more than 70% of all schools teaching kindergarten to Grade 7, as well as some with higher grades. There are still opportunities for greater adoption of the initiative by some school districts and by Aboriginal schools and independent schools. Active Communities is another key program to support ActNow BC, and in a very short time period, local government areas that are home to approximately 89% of the province's population have become Active Communities. There is still room for improvement, especially in the Northern Interior and other interior regions of the province.

BC respondents to the CCHS are more active in terms of leisure time pursuits and in daily living than their Canadian counterparts as a whole. However, even with this good news, only about 60% indicate that they are active enough to gain health benefits, and less than one-quarter of BC respondents walked for six or more hours a week in everyday chores or going to work/school. The number of both teens and seniors who walk is low.

Walking clubs supported by the Heart and Stroke Foundation are scattered throughout the province, although many are located in the urban southwest corner. Further, public transit serves about 80% of the population, but it is only well used in the Greater Vancouver Regional District, and the Capital Regional District on Vancouver Island. People who use public transit rather than a car are more likely to walk and have

healthier weights. There are very low rates of transit use in the north and interior parts of the province.

Publicly owned and/or operated recreational assets (pools, ice rinks, community activity centres) tend to be much more common outside of the urbanized lower mainland. The highest number on a per capita basis tend to be in the less densely populated rural areas of the interior in the southeast of the province. Because of low population densities in these regions, accessibility may be a barrier to use, while in the urban areas of the southwest part of the province private facilities may be more common.

Membership in sports organizations also varies substantially throughout the province, and also between genders and among different age groups. Generally, males have higher membership rates, but not always. Figure skating and athletics are higher for females. Most sport membership drops off with age, but not for golf and curling.

BC has a large number of provincial parks and protected areas, and while many are relatively remote, they can nevertheless provide spiritual assets for wellness when used.

Several of these indicators are novel, but most of them indicate that there are major geographical variations throughout the province in terms of wellness assets, whether they be physical assets or behavioural assets, and suggest that there is room for improvement.

