

Body Weight Issues

AMONG BC YOUTH

Body Mass Index

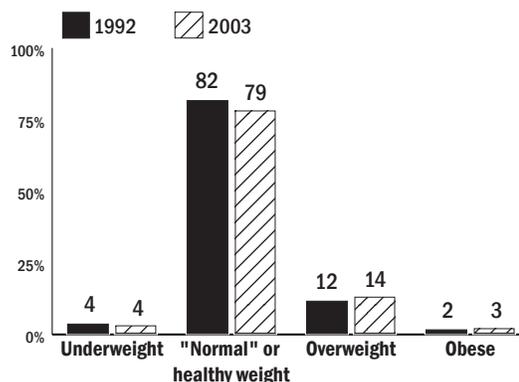
High school students in BC were asked to report their height and weight in the 2003 Adolescent Health Survey, which was used to calculate Body Mass Index (BMI). Based on their height, weight, age and gender, students were classified into four categories: underweight, "normal" or healthy weight, overweight, or obese:

- Most adolescents were a healthy weight in 2003 (79%), down slightly from 82% in 1992.
- The percentage of underweight adolescents remained the same at 4% between 1992 and 2003, while the proportion of overweight teens increased, from 12% to 14%, as did the number of obese youth (2% to 3%).
- Female students were more likely than males to be a healthy weight: 85% compared to 74%.
- There were no gender differences in the percentage of underweight students (4%). But males were more likely to be overweight than females (18% versus 10%) and obese (5% versus 2%).
- The percentage of overweight or obese teens increased slightly with age, from 16% who were overweight or obese in early adolescence (14 years and under), to 19% in late adolescence (17 years and older).

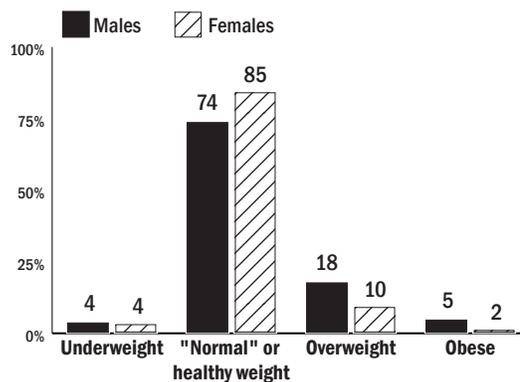
This fact sheet is one of a series on various health issues among BC youth, and may be copied for use as a handout. Data for the fact sheets were collected in the 2003 Adolescent Health Survey III, a 140-question survey completed by over 30,500 students in grades seven to twelve, in schools throughout BC. In all, 45 of BC's 59 school districts agreed to take part in the survey. The first Adolescent Health Survey was conducted in 1992, and the second in 1998. In total, more than 72,400 BC students filled out the three surveys over a ten-year period.

The Adolescent Health Surveys were conducted by the McCreary Centre Society, a non-profit organization dedicated to improving the health of BC youth through research, information sharing, and community-based projects that address the unmet health needs of young people.

Body Mass Index (BMI)



BMI by Gender (2003)



Geography

- The percentage of overweight and obese youth varied in different parts of BC, from 15% in Greater Vancouver to 23% in the Northwest region.
- And the number of healthy weight youth also varied by region, from 75% in the Northwest region to 81% in the Interior.

Body Weight Perceptions

- Overall, most adolescents felt they were about the right weight (67%).
- Males were more likely to feel the right weight than females (69% compared to 64%).
- Males were also more likely to think they were underweight than females (16% versus 7%), while females were more likely to think they were overweight than males (29% versus 15%).
- Most underweight males thought they were underweight (64%), but the majority of underweight girls (57%) thought they were about the right weight.
- 76% of healthy weight males and 72% of females thought they were about the right weight, while 22% of healthy weight females thought they were overweight, compared to 6% of males.
- Most obese boys and girls thought they were overweight (77% and 84%).

Physical Health

- Underweight and normal weight adolescents were more likely to rate their health as excellent (34% and 36%) than overweight or obese adolescents (27% and 12%).
- Almost a quarter of obese youth (24%) reported having a health condition or disability that limited their activities, compared to 10% of healthy weight youth.
- The limiting health conditions most reported by obese youth were being “overweight or underweight” (12%), or a long-term illness (8%).

| BMI by Region (2003) | | |
|----------------------|----------------------------|------------------|
| | "Normal" or healthy weight | Overweight/obese |
| Greater Vancouver | 80% | 15% |
| Capital | 80% | 17% |
| Interior | 81% | 16% |
| Kootenays | 80% | 18% |
| Upper Island | 80% | 18% |
| Northwest | 75% | 23% |
| Northeast | 78% | 19% |

| BMI and Perception of Body Weight (2003) | | | |
|--|---------------------|------------------------|------------|
| | Think of self as... | | |
| | under weight | about the right weight | overweight |
| MALES | | | |
| Underweight BMI | 64% | 35% | 2% |
| "Normal" or healthy weight BMI | 19% | 76% | 6% |
| Overweight BMI | 1% | 64% | 35% |
| Obese BMI | 1% | 23% | 77% |
| FEMALES | | | |
| Underweight BMI | 39% | 57% | 4% |
| "Normal" or healthy weight BMI | 6% | 72% | 22% |
| Overweight BMI | 1% | 27% | 72% |
| Obese BMI | 1% | 15% | 84% |

| BMI by Self-Rated Health Status (2003) | | | |
|--|-----------|------|-----------|
| | Excellent | Good | Fair/poor |
| Underweight | 34% | 50% | 16% |
| "Normal" or healthy weight | 36% | 53% | 11% |
| Overweight | 27% | 55% | 18% |
| Obese | 12% | 53% | 35% |

Physical and Leisure Activities

- Underweight and obese adolescents were less likely to exercise (35% and 37%), on five to seven days in the previous week, compared to 43% of overweight and 43% of healthy weight youth.
- Underweight and obese adolescents were also less likely to participate in supervised or unsupervised weekly sports or aerobic activities in the past year: 50% of underweight and 53% of obese youth took part in a supervised aerobic activity, one or more times a week. And 64% of underweight and 70% of obese youth participated in an unsupervised sporting activity one or more times a week.
- By comparison, 64% of healthy weight and 60% of overweight youth participated in weekly supervised activities. And 73% of healthy weight and 75% of overweight youth participated in a weekly unsupervised sporting activity.
- Underweight or normal weight adolescents were more likely to always eat breakfast on school days (52% and 50%), than overweight (45%) or obese adolescents (43%).
- Obese and underweight youth were the most likely to spend four or more hours on a school day emailing, surfing the Internet, or playing computer games (20% and 19%), compared to 14% of healthy weight youth.
- And obese youth were more likely to watch four or more hours of television on a school day (24%), compared to 16% of healthy weight youth.

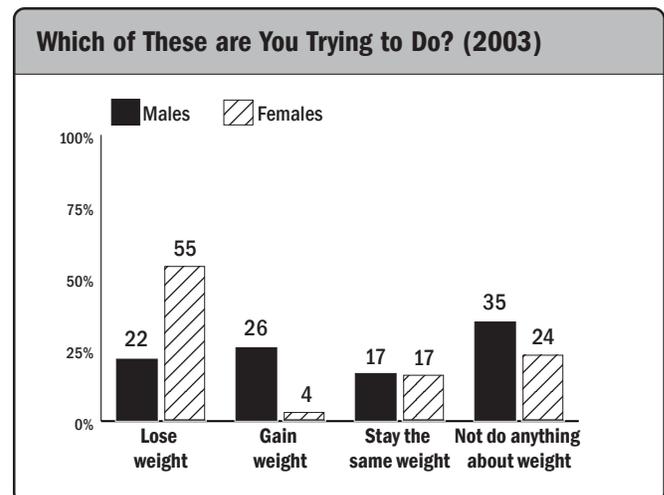
| BMI by Exercise in Past Week (2003) | | | | |
|-------------------------------------|--------|----------|----------|----------|
| | 0 days | 1-2 days | 3-4 days | 5-7 days |
| Underweight | 16% | 24% | 25% | 35% |
| "Normal" or healthy weight | 8% | 19% | 31% | 43% |
| Overweight | 7% | 18% | 32% | 43% |
| Obese | 13% | 20% | 31% | 37% |

Emotional Health

- Emotional distress does not appear to be associated with adolescents' BMI, but may be connected to their perceptions of their body weight:
 - o The majority of underweight, normal weight, overweight, and obese adolescents reported low to moderate emotional distress (92% of underweight, normal weight and overweight and 91% of obese).
 - o But adolescents who felt about the right weight were more likely to report low to moderate emotional distress (95%), than teens who thought they were overweight (85%).

Weight Control

- Overall, 39% of adolescents were trying to lose weight, while 30% were not doing anything about their weight:
 - o Not surprisingly, females were more likely to try to lose weight than males (55% versus 22%), while males were more likely to try to gain weight (26% versus 4%).
 - o 39% of underweight adolescents were not trying to do anything about their weight, and 36% were trying to gain weight.
 - o A third of normal weight adolescents were trying to lose weight (33%), and 31% were not trying to do anything about their weight.
 - o By comparison, the majority of overweight and obese adolescents were trying to lose weight (60% and 71%).



- More than half of obese adolescents (52%) had dieted one or more times in the past year. Over a quarter (29%) of healthy weight teens had dieted.
- Females were much more likely to have dieted in the past year (49%) than males (14%).
- Binge eating, defined as “eating so much food in a short period of time that you feel out of control and would be embarrassed if others saw you,” was more common at 28%, than “vomiting (throwing up) on purpose after eating,” at 5%.
- Girls were more likely to have ever binge eaten than boys (37% versus 18%), or purged (7% versus 3%).
- Obese (36%) and overweight youth (32%) were the most likely to have ever binge eaten.
- More than half of females who have been physically abused have these problem weight control behaviours (51%), 53% of those who have been sexually abused do, and 63% of females who have attempted suicide have ever binged or purged.
- And 25% of males who have been physically abused have problem weight control behaviours, 30% of those who have been sexually abused do, and 34% of males who attempted suicide have ever binged or purged.

References

Note: BMI cut-offs were calculated according to Cole, Bellizzi, Flegal and Dietz (2000), and NHANES (2000).

Cole TJ, Bellizzi MC, Flegal KM, and Dietz WH. Establishing a standard definition for child overweight and obesity worldwide: international survey. *British Medical Journal* 2000; 320:1-6

National Health and Nutrition Examination Survey (NHANES). Retrieved December 2004, from <http://www.cdc.gov/nchs/data/nhanes/growthcharts/bmiage.txt>

BMI by Dieting in Past Year (2003)

| | Never | 1-4 times | 5+ times |
|----------------------------|-------|-----------|----------|
| Underweight | 88% | 8% | 4% |
| "Normal" or healthy weight | 71% | 21% | 8% |
| Overweight | 58% | 30% | 12% |
| Obese | 48% | 38% | 14% |

Binge Eating and Purging – Males and Females (2003)

| | Males | Females |
|-------------------------------|-------|---------|
| Binge Eating | | |
| Never | 82% | 63% |
| 1-3 times a month | 14% | 30% |
| 1+ times a week | 4% | 7% |
| Ever purge (vomit on purpose) | 3% | 7% |

Risk Factors and Binge Eating and Purging (2003)

| MALES | Have binged or purged |
|--------------------------------------|-----------------------|
| Ever been physically abused | 25% |
| Never been physically abused | 19% |
| Ever been sexually abused | 30% |
| Never been sexually abused | 20% |
| Attempted suicide in past year | 34% |
| Did not attempt suicide in past year | 19% |
| FEMALES | Have binged or purged |
| Ever been physically abused | 51% |
| Never been physically abused | 37% |
| Ever been sexually abused | 53% |
| Never been sexually abused | 38% |
| Attempted suicide in past year | 63% |
| Did not attempt suicide in past year | 37% |