

## Article

### Health Fact Sheet

# Metabolic syndrome in Canadians, 2009 to 2011

Health Statistics Division

November 2012



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The following symbols are used in Statistics Canada publications:

- |                |  |
|----------------|--|
| .              | not available for any reference period   |
| ..             | not available for a specific reference period  |
| ...            | not applicable   |
| 0              | true zero or a value rounded to zero   |
| 0 <sup>s</sup> | value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded |
| P              | preliminary  |
| r              | revised  |
| X              | suppressed to meet the confidentiality requirements of the <i>Statistics Act</i>                                   |
| E              | use with caution   |
| F              | too unreliable to be published   |
| *              | significantly different from reference category ( $p < 0.05$ )   |



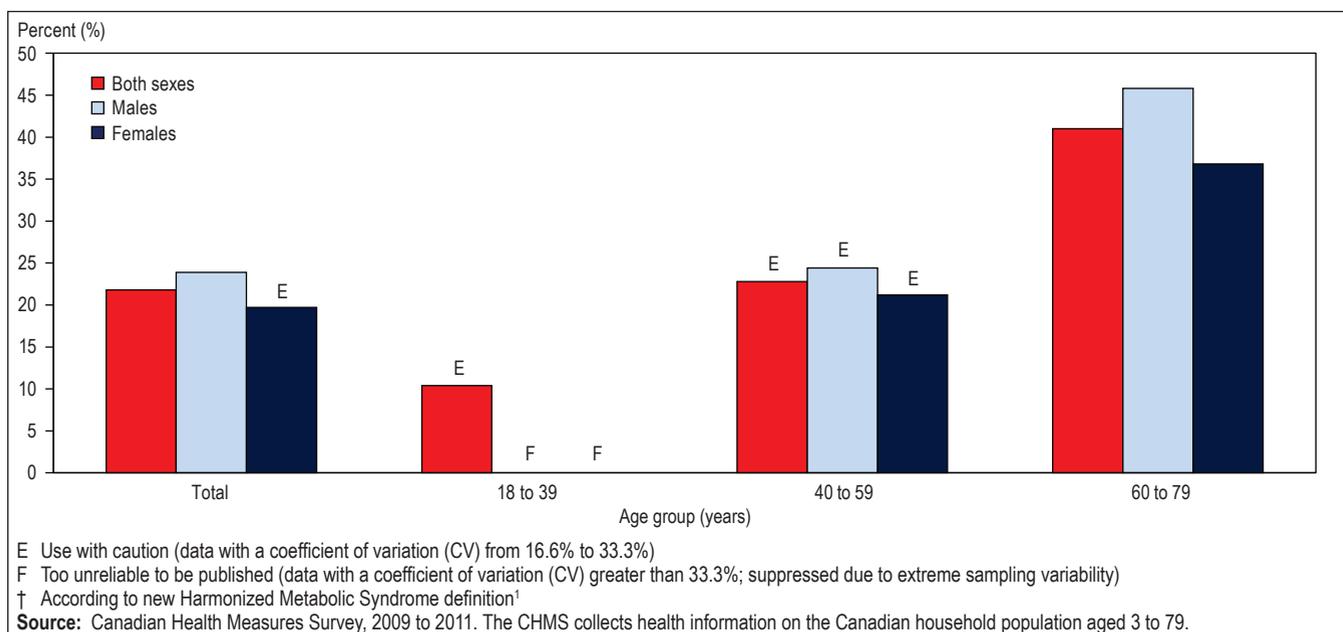
## Metabolic syndrome in Canadians, 2009 to 2011

Results from the 2009 to 2011 Canadian Health Measures Survey (CHMS) indicate that 1 in 5 Canadian adults aged 18 to 79 had metabolic syndrome.

Metabolic syndrome is a clustering of risk factors that increase a person's risk of cardiovascular disease and type 2 diabetes.<sup>1</sup> These risk factors include abdominal obesity (high waist circumference), elevated triglycerides, low high-density lipoprotein (HDL), high fasting blood glucose, and high blood pressure.<sup>1</sup>

Metabolic syndrome was found in 22% of Canadians aged 18 to 79 years (Chart 1). The prevalence of metabolic syndrome increases significantly with age such that only 1 in 10 Canadians aged 18 to 39 years were found to have metabolic syndrome compared to 4 in 10 Canadians aged 60 to 79 years. There were no significant differences found between males and females.

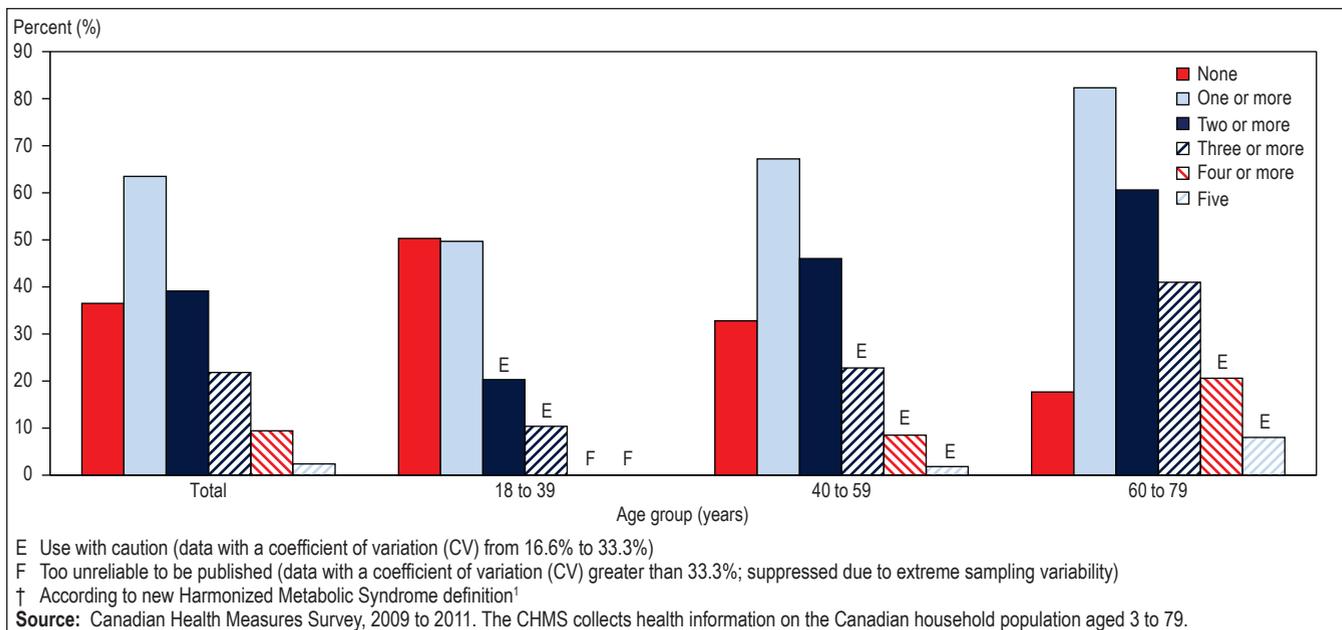
**Chart 1** Metabolic syndrome<sup>†</sup>, by age group and sex, household population aged 18 to 79, Canada, 2009 to 2011



Though only 22% of Canadian adults were determined to have metabolic syndrome based on having three or more component risk factors, 39% had two or more components, 64% had at least one, and only 37% had none at all (Chart 2). The number of metabolic syndrome risk factors increased significantly with age: approximately 5 in 10 adults aged 18 to 39 had at least one risk factor, compared to approximately 8 in 10 adults aged 60 to 79. Similarly, 2 in 10 adults aged 18 to 39 had at least 2 risk factors, compared to 6 in 10 adults aged 60 to 79. There were no significant differences in the number of component risk factors between males and females.



**Chart 2** Proportion of the population by number of metabolic syndrome components<sup>†</sup>, by age, household population 18 to 79, Canada, 2009 to 2011





## About metabolic syndrome

Metabolic syndrome was determined according to recent unified criteria.<sup>1</sup> Under these criteria, metabolic syndrome is present if any three of the following criteria are met:

**Table 1 Criteria for diagnosis of metabolic syndrome<sup>1</sup>**

Criterion	Cut-off for males	Cut-off for females
Abdominal obesity	Waist circumference $\geq 102$ cm	Waist circumference $\geq 88$ cm
Elevated plasma triglycerides	$\geq 1.7$ mmol/L	$\geq 1.7$ mmol/L
Elevated fasting blood glucose	$\geq 5.6$ mmol/L	$\geq 5.6$ mmol/L
Decreased HDL cholesterol	$< 1.03$ mmol/L	$< 1.30$ mmol/L
Elevated blood pressure	$\geq 130/85$ mmHg	$\geq 130/85$ mmHg

HDL = high density lipoprotein

Additionally, the use of any medication for any of the above criteria is considered as meeting that specific criterion.

## References

1. Alberti K, Eckel RH, Grundy SM, et al. Harmonizing the metabolic syndrome. A joint interim statement of the International Diabetes Federation Task Force on Epidemiology and Prevention; National Heart, Lung, and Blood Institute; American Heart Association; World Heart Federation; International Atherosclerosis Society; and International Association for the Study of Obesity. *Circulation*. 2009;120(16):1640-5.

For more information on the Canadian Health Measures Survey, please contact Statistics Canada's National Contact Centre (toll-free 1-800-263-1136; 613-951-8116; [infostats@statcan.gc.ca](mailto:infostats@statcan.gc.ca)).