

Frequently Asked Questions: World Health Organization (WHO) Growth Charts for Canada Set 2 (WHO Set 2)

What are the WHO Set 2 growth charts?

The WHO Set 2 growth charts were released by the Canadian Collaborative Group (comprised of Dietitians of Canada, Canadian Pediatric Society, College of Family Physicians of Canada, Community Health Nurses of Canada and the Canadian Pediatric Endocrine Group) in 2014. Both the Canadian Pediatric Endocrine Group (CPEG) and WHO Set 2 growth charts are adapted from the WHO data and are considered the gold standard for childhood growth measurement. WHO Set 2 growth charts better meet the needs of clinicians compared with the original WHO Growth Charts for Canada (Set 1) which were not chosen for use in Alberta.

Why is Alberta Health Services transitioning to WHO Set 2 growth charts?

Most Alberta Health Services (AHS) programs and sites have adopted the CPEG growth charts. However, recently the Canadian Pediatric Endocrine Group began recommending use of the WHO Set 2 growth charts. Given this, AHS is now recommending use of **either CPEG or WHO Set 2 growth charts**, with gradual transition to WHO Set 2 charts as the Alberta standard charts. This transition is subject to availability of paper charts and Meditech electronic access.

How are the WHO Set 2 growth charts different from the CPEG growth charts?

The WHO Set 2 growth charts are very similar to the CPEG growth charts. The minor differences are as follows:

Chart: 2-19 years: Weight for age:

- The CPEG chart uses a solid percentile line after age 10, while the WHO Set 2 chart uses a dotted line after age 10. The intent of the dotted line is to emphasize that monitoring weight for age alone is not recommended.

Chart: Birth-24 Months Weight for Length:

- The 85th percentile line is displayed on this WHO Set 2 growth chart and is identified by the WHO as a cut-off for 'risk of overweight'. The CPEG growth charts display the 90th percentile rather than the 85th percentile on the weight for length growth chart.
- The 99.9th percentile line is also displayed on this WHO Set 2 growth chart but not on the CPEG growth charts. In this age group, >99.9th percentile has been identified as a cut-off by the WHO associated with the growth concern 'obese', and may be useful in some clinical situations.

Chart: 2-19 years BMI for age:

- The 99.9th percentile line is displayed on this WHO Set 2 growth chart but not on the CPEG growth charts. In the 2-5 year age group, >99.9th percentile has been identified as a cut-off by the WHO associated with the growth concern 'obese' and for 5-19 years of age it is associated with the growth concern 'severely obese', and may be useful in some clinical situations.

Percentiles:

- There are minor differences in percentiles which are illustrated in Table 1.

Table 1: Percentiles on CPEG and WHO Set 2 Growth Charts

Growth Chart	Growth Chart and Parameter	Percentiles								
		3 rd	10 th	25 th	50 th	75 th	85 th	90 th	97 th	99.9 th
CPEG	Birth to 24 Months: <i>All growth charts</i>							✓		
	2 to 19 Years: <i>Height and weight for age</i>							✓		
	2 to 19 Years: <i>Body mass index (BMI) for age</i>						✓			
WHO Set 2	Birth to 24 Months: <i>Head Circumference, Length and weight for age</i>	✓	✓	✓	✓	✓		✓	✓	
	Birth to 24 Months: <i>Weight for length</i>						✓			✓
	2 to 19 Years: <i>Height and weight for age</i>							✓		
	2 to 19 Years: <i>Body mass index (BMI) for age</i>						✓			✓

How can health professionals reassure parents that their child can be plotted on either chart?

Practice Points for Health Professionals:

- Both charts are considered gold standards
- Both charts use WHO data
- Differences between growth charts are minor
- Health professionals are aware of the differences and are able to identify growth concerns using both growth charts

Example of explanation to parent:

“Both the CPEG and WHO Set 2 growth charts are considered the gold standard for growth monitoring. Both of these charts use the same data and the differences between them are minor. As a parent, rest assured that health professionals will be able to confirm a healthy growth pattern or identify possible growth concerns using either of these charts.”

Where can I get growth charts?

Paper copies of all growth charts are available from [Data Group of Companies](#)- by both form number (e.g. HG0219) and name (e.g. CPEG growth chart Boys 2-19 years) by visiting the printing website at [https://secure7.datagroup.ca/cgi/WsDDM7Live.wsc/ddmlogin7?vlanguage=EMicrosoft4.0%20\(compatible;%20MSIE%206.0;%20Windows%20NT%205.1;%20SV1;%20.NET%20CLR%201.1.4322;%20.NET%20CLR%202.0.50727;%20.NET%20CLR%203.0.04506.30;%20.NET%20CLR%203.0.04506.648\);SP3](https://secure7.datagroup.ca/cgi/WsDDM7Live.wsc/ddmlogin7?vlanguage=EMicrosoft4.0%20(compatible;%20MSIE%206.0;%20Windows%20NT%205.1;%20SV1;%20.NET%20CLR%201.1.4322;%20.NET%20CLR%202.0.50727;%20.NET%20CLR%203.0.04506.30;%20.NET%20CLR%203.0.04506.648);SP3).

Transition to WHO Set 2 paper growth charts will occur once all the existing supplies of CPEG growth charts are used up; estimated to take approximately 1 year.

CPEG growth charts are also included in many electronic systems.

Our zone just implemented CPEG charts into the Meditech system. What do I do?

Continue to use the CPEG growth charts in Meditech. The differences between CPEG growth charts and WHO Set 2 growth charts are minor; a change in charts would have minimal to no impact on patient care.

What are the next steps?

Once transition plans are developed, communication will occur and updates will be found on the [Childhood Growth Monitoring](http://www.albertahealthservices.ca/cgm.asp) page of the AHS website located at <http://www.albertahealthservices.ca/cgm.asp>