DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[Docket No. CDC-2018-0001]

CDC Sex-Specific Body Mass Index (BMI)-For-Age Growth Charts

AGENCY: Centers for Disease Control and Prevention (CDC),
Department of Health and Human Services (HHS)

ACTION: Notice with comment period

SUMMARY: The National Center for Health Statistics (NCHS),
Centers for Disease Control and Prevention (CDC) in the
Department of Health and Human Services (HHS) announces the
opening of a docket to obtain public comment on the
production of sex-specific body mass index (BMI)-for-age
growth charts for children and adolescents aged 2-19 years
specifically designed for tracking extremely high values of
BMI. The 2000 CDC growth charts include sex-specific BMI-
for-age percentile charts based on data representative of
the United States (US) population from the National Health
Examination Survey (NHES) and National Health and Nutrition
Examination Survey (NHANES). In US children and
adolescents, obesity is defined as at or above the sex-
specific 95th percentile on the CDC BMI-for-age growth
charts. Severe obesity is often defined as at or above 120% of the sex-specific 95th percentile on the CDC BMI-for-age growth charts. Currently, the highest percentile displayed is the 97th percentile. Therefore, it is difficult to assess changes in weight status in children with very high BMIs that exceed this level. The new charts will provide additional lines representing 120%, 130%, 140%, and 150% of the 95th percentile. The intent of these charts is to provide a mechanism for documenting BMI percentiles for children and adolescents with severe obesity in both clinical and research settings.

DATES: Written comments must be received on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION DATE IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments, identified by Docket No. CDC-2018-0001 by any of the following methods:

• Federal eRulemaking Portal: http://www.regulations.gov. Follow the instructions for submitting comments.

• Mail: Verita C. Buie, DrPH, Office of Planning, Budget, and Legislation, National Center for Health Statistics, Centers for Disease Control and Prevention, 3311 Toledo Road, MS-08, Hyattsville, MD 20782.

Instructions: All submissions received must include the agency name and Docket Number. All relevant comments received will be
posted without change to http://regulations.gov, including any personal information provided. For access to the docket to read background documents or comments received, go to http://www.regulations.gov.

FOR FURTHER INFORMATION CONTACT: Cynthia Ogden, PhD, Division of Health and Nutrition Examination Survey, National Center for Health Statistics, 3311 Toledo Road, MS-P08, Hyattsville, MD 20782–2064, phone: (301) 458–4405.

SUPPLEMENTARY INFORMATION: The National Center for Health Statistics (NCHS) is congressionally mandated by the National Health Survey Act of 1956 to monitor the health of the nation. The National Health and Nutrition Examination Survey (NHANES), part of NCHS, is a nationally representative health survey designed to assess the health and nutritional status of adults and children in the United States. The survey is unique in that it combines interviews with physical examinations and laboratory studies. NHANES data are used throughout Department of Health and Human Services (HHS) agencies in addition to public health researchers world-wide. NHANES data have been used to determine national obesity estimates, produce pediatric growth and BMI charts, and monitor prevalence of infectious diseases such as the human papillomavirus (HPV).

Body mass index (BMI) is calculated as weight in kilograms divided by height in meters squared and is used
in the diagnosis, clinical management, and estimation of population prevalence of obesity and severe obesity. Among adults, obesity is defined by an absolute BMI value (≥30). Among children, BMI varies with age as well as sex. Therefore, to classify obesity among children and adolescents aged 2-19 years, measurements are standardized by age and sex using BMI-for-age growth charts. The 2000 CDC growth charts include smoothed percentiles of BMI-for-age based on data representative of the US population. In the US, obesity is defined as at or above the sex-specific 95\textsuperscript{th} percentile for BMI-for-age. However, categorizing severe obesity (defined in adults as BMI≥40) is problematic given specific measures are not available in standard CDC growth charts for values beyond the 97\textsuperscript{th} percentile. Researchers have proposed using percent of the 95\textsuperscript{th} percentile as a flexible, stable measure for extreme BMI values. Consequently, severe obesity in children is often defined as a BMI at or above 120\% of the sex-specific 95\textsuperscript{th} percentile of BMI-for-age.

Prevalence of severe obesity has increased among children and adolescents and very high BMI has been shown to increase risk for obesity in adulthood in addition to adverse health outcomes such as diabetes, abnormal cholesterol levels, and high blood pressure and behavioral
health and social victimization impacts. Recent research has focused on effective management and treatment of children and adolescents with severe obesity, but researchers and clinicians lack a tool to determine BMI percentiles for these individuals. Specialized growth charts with lines reflecting 120%, 130%, 140% and 150% will provide an improved tool for documenting BMI in the clinical and research settings. Please see the draft example chart for boys (Attachment 1) and girls (Attachment 2).

Date: January 2, 2018.

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