



Adolescent-specific reporting of nutritional status

How the Demographic and Health Survey (DHS) update benefits policy and programming

Adolescent nutrition is underrepresented in national data collection systems.¹ This limits our ability to develop adolescent-responsive policies and programmes, and to monitor progress.^{1,2} In its most recent update, the Demographic and Health Survey (DHS) Program (DHS-8) reports adolescent-specific indicators of nutritional status. This technical brief outlines WHY this change was needed and HOW it will help countries better respond to adolescents' needs.

Why is adolescent nutrition important?

More than one in six people globally are adolescents (10-19 years).³ Nutrition during adolescence affects growth, health and learning in current and future generations.⁴ Improving adolescent nutrition can help build healthy and prosperous societies and support countries to achieve the 2030 Agenda for Sustainable Development.^{3,5}

Why do we lack data on adolescent nutrition?

Despite their importance, adolescents are underrepresented in national data collection systems. Since many health and nutrition indicators focus on women of reproductive age (WRA), defined as age 15-49 years, only data for older adolescent girls 15-19 years are routinely reported in nationally representative surveys as part of this age group.

Anthropometry, particularly measurements of weight and height, has been the cornerstone of nutrition surveillance in children below five years of age and in adults.⁶ For adolescents, a lack of harmonised anthropometric indicators has contributed to their exclusion from data collection systems.⁶

How did the DHS Program previously report adolescent nutrition data?

The DHS Program uses nationally representative household surveys to collect nutrition information from children under five years, women 15-49 years and, in some surveys, men 15-49 years of age. For adolescents 15-19 years, anthropometric measurements (weight and height) are collected and used to calculate population nutritional indicators, including short stature, thinness and overweight.

Until recently, country reports have primarily presented anthropometric indicators according to adult definitions: height <145 cm for short stature, body mass index (BMI) <18.5 kg/m² for thinness (mild and moderate/severe) and BMI >25 kg/m² for overweight and obesity.

Why did this need to change?

Using adult definitions to classify adolescent nutritional status does not account for differences in nutritional status between sexes and as adolescents age. This is critical, given the large variations in growth and maturation between younger and older girls and boys during this period.

- **Short stature (stunting):** For adults, height <145 cm has been used to define short stature due to the association with increased obstetric risk.⁷ Since approximately one fifth of adult height is attained during adolescence,⁴ this absolute cut-off is not applicable below 20 years of age.
- **Thinness and overweight:** Using adult BMI tends to greatly overestimate the proportion of adolescents classified as thin and marginally underestimate the proportion classified as overweight (**Figures 1 and 2**). This affects countries' abilities to accurately estimate the number of adolescents affected by malnutrition, to set appropriate targets and to monitor progress.^{1,2}

Figure 1: Comparison of prevalence estimates of thinness based on adult body mass index (BMI, kg/m²) and adolescent-specific BMI-for-age z-score (BAZ) cut-offs

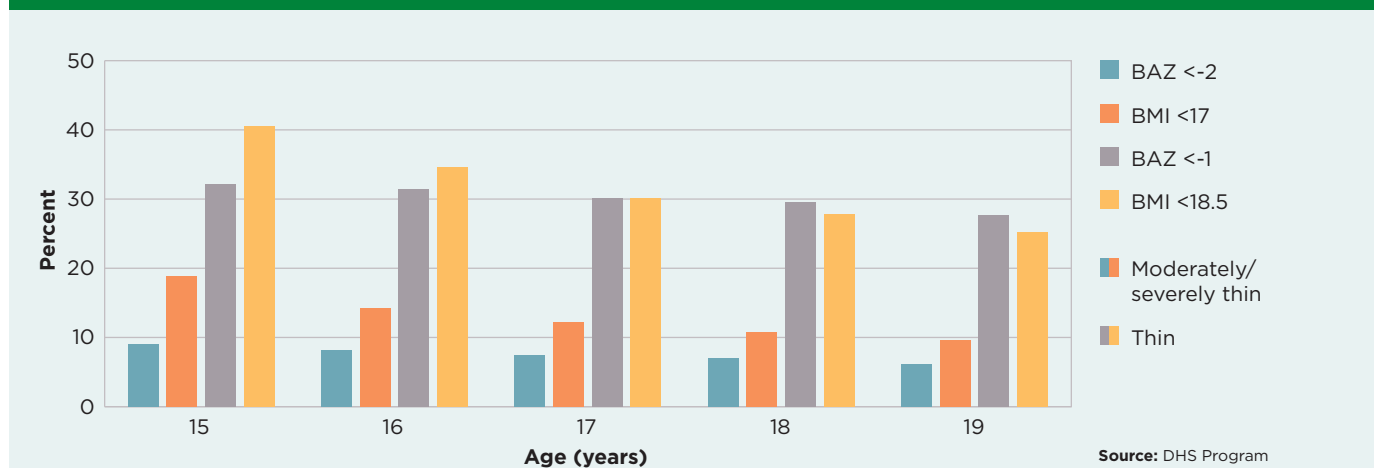
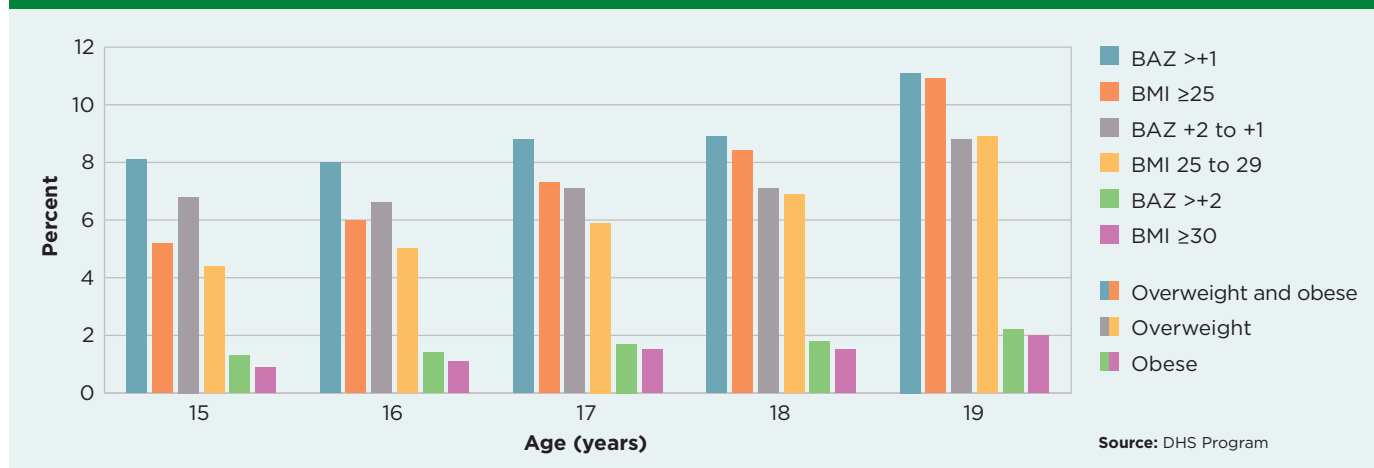


Figure 2: Comparison of prevalence estimates of overweight and obesity based on adult body mass index (BMI, kg/m²) and adolescent-specific BMI-for-age z-score (BAZ) cut-offs



What has changed?

The most recent DHS-8 update incorporated use of age- and sex-specific height-for-age and BMI-for-age to define short stature, thinness, and overweight for adolescents 15-19 years (**Box 1**). This ensures that country reports more accurately reflect the levels of malnutrition at national level to inform appropriate actions.

Box 1: Anthropometric indicators included in the DHS-8 update for adolescent girls (age 15-19 years)	
Short stature	Height-for-age z-score (HAZ) <-2
Total thin	BMI-for-age z-score (BAZ) <-1
Mildly thin	BAZ <-1 to -2
Moderately and severely thin	BAZ <-2
Overweight and obese	BAZ >+1
Overweight	BAZ +1 to +2
Obese	BAZ >+2

What does this mean for interpreting trends?

Prevalence estimates for adolescent nutritional status based on adult BMI definitions cannot be compared with those based on BMI-for-age. To correctly track changes in prevalence over time, estimates from older surveys that used adult BMI definitions for adolescents will need to be recalculated using the new adolescent-specific indicators.

What does this mean for policies and programmes?

As many policies and programmes focus on WRA 15-49 years, they will need to incorporate the new adolescent nutritional status indicators into their targets, monitoring and evaluation systems and reporting.

Where can you find more information?

- Learn more about the DHS-8 nutrition indicators (including adolescent anthropometry) in the [Introduction to DHS Nutrition Indicators e-learning course](#).
- Understand how governments can '[Invest in the Now and the Future](#)', by committing to adolescent health and nutrition.

- Read about proposed steps '[Towards standardised and valid anthropometric indicators of nutritional status in middle childhood and adolescence](#)'.
- Explore the need for '[Priority targets and indicators of nutritional status and intervention coverage for children and adolescents \(aged 5-19 years\)](#)'.
- Track key indicators adolescent health, nutrition, gender equality and adolescent empowerment in 75 countries against their finance and policy environments using [Save the Children's Adolescent Health and Nutrition Index](#).
- Join the [Global Adolescent Nutrition Network \(GANN\)](#): a network of researchers, academics, programmers, government representatives, donors, and United Nations agencies.

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