



# Dietary Supplement Use: United States, August 2021–August 2023

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## Key findings

Data from the National Health and Nutrition Examination Survey

- During August 2021–August 2023, 35.7% of youth ages 0–19 years and 60.2% of adults age 20 and older used any dietary supplement in the past 30 days.
- Among youth, dietary supplement use was highest among those ages 2–11 years, while among adults, dietary supplement use increased with age.
- Overall, 11.3% of youth used two or more dietary supplements.
- Overall, 38.7% of adults used two or more dietary supplements, and use increased with age.
- Use of two or more dietary supplements increased among youth and adults from 2013–2014 through August 2021–August 2023.

## Introduction

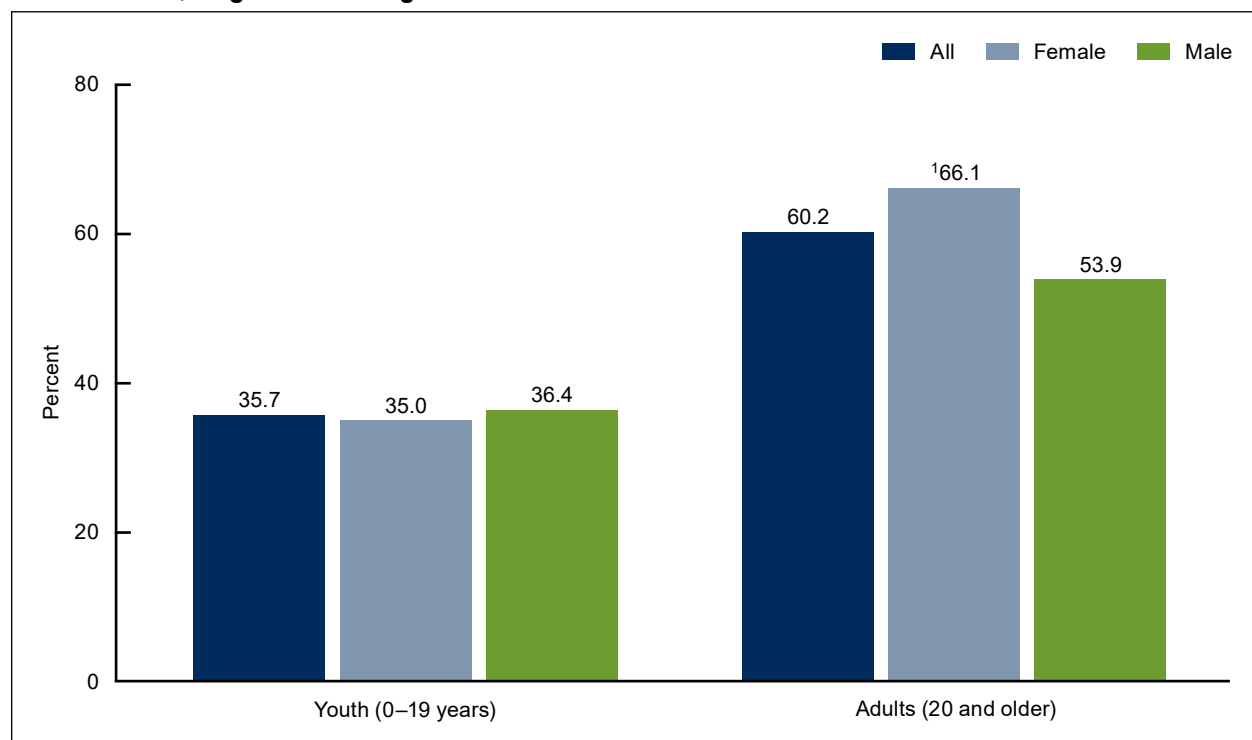
Dietary supplements are commonly used in the United States and contribute considerably to total nutrient intake in the population (1). People take dietary supplements for many reasons, including improving and maintaining health, preventing disease, and targeting specific organ systems such as skeletal or cardiovascular health (2,3). Dietary supplement use can help lessen nutritional deficiencies but may also lead to intake of nutrients above tolerable upper intake levels (4,5). This report presents estimates of any dietary supplement use in the past 30 days and the number of dietary supplements taken among youth ages 0–19 years and adults age 20 and older during August 2021–August 2023, as well as trends in usage from 2013–2014 through August 2021–August 2023.



## Dietary supplement use by sex

- Overall, 35.7% of youth ages 0–19 years took any dietary supplement in the past 30 days during August 2021–August 2023. No differences were seen by sex (Figure 1, Table 1).
- Overall, 60.2% of adults age 20 and older took any dietary supplement.
- More women age 20 and older (66.1%) than men (53.9%) took any dietary supplement.

Figure 1. Percentage of youth and adults who used any dietary supplement in past 30 days, by sex: United States, August 2021–August 2023



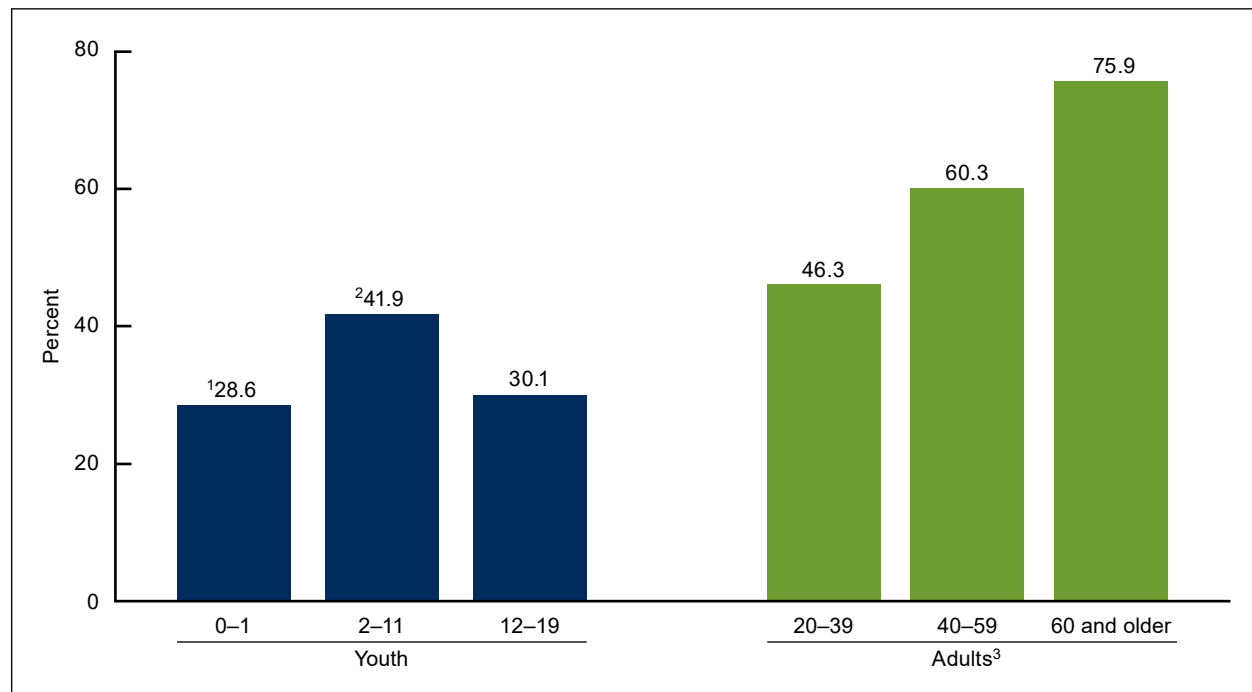
<sup>1</sup>Significantly different from males in same age group ( $p < 0.05$ ).

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, August 2021–August 2023.

## Dietary supplement use by age

- Youth ages 2–11 years were more likely to take any dietary supplement in the past 30 days (41.9%) than youth ages 0–1 (28.6%) or 12–19 (30.1%) (Figure 2, Table 2).
- The percentage of adults taking any dietary supplement increased with age, from 46.3% among those ages 20–39 to 60.3% among those 40–59 to 75.9% among those 60 and older.

**Figure 2. Percentage of youth and adults who used any dietary supplement in past 30 days, by age group: United States, August 2021–August 2023**



<sup>1</sup>Significantly different from ages 2–11 years ( $p < 0.05$ ).

<sup>2</sup>Significantly different from ages 12–19 years ( $p < 0.05$ ).

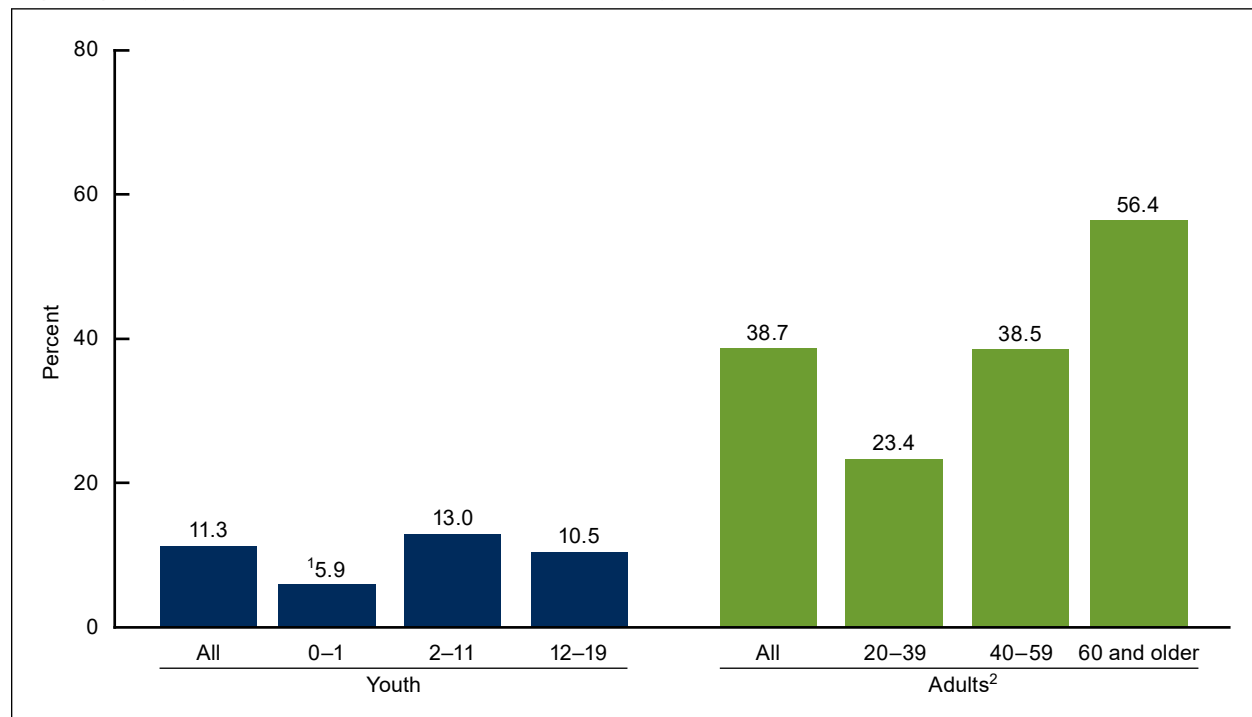
<sup>3</sup>Significant increasing linear trend among adults by age ( $p < 0.05$ ).

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, August 2021–August 2023.

## Two or more dietary supplements

- Among youth, 11.3% used two or more dietary supplements in the past 30 days (Figure 3, Table 3).
- Use of two or more dietary supplements was lower among youth ages 0–1 year (5.9%) than ages 2–11 (13.0%) and 12–19 (10.5%).
- Overall, 38.7% of adults took two or more dietary supplements. The percentage of adults taking two or more dietary supplements increased with age, from 23.4% among those ages 20–39 to 56.4% among those 60 and older.

**Figure 3. Percentage of youth and adults who used two or more dietary supplements in past 30 days, by age group: United States, August 2021–August 2023**



<sup>1</sup>Significantly different from ages 2–11 and 12–19 years ( $p < 0.05$ ).

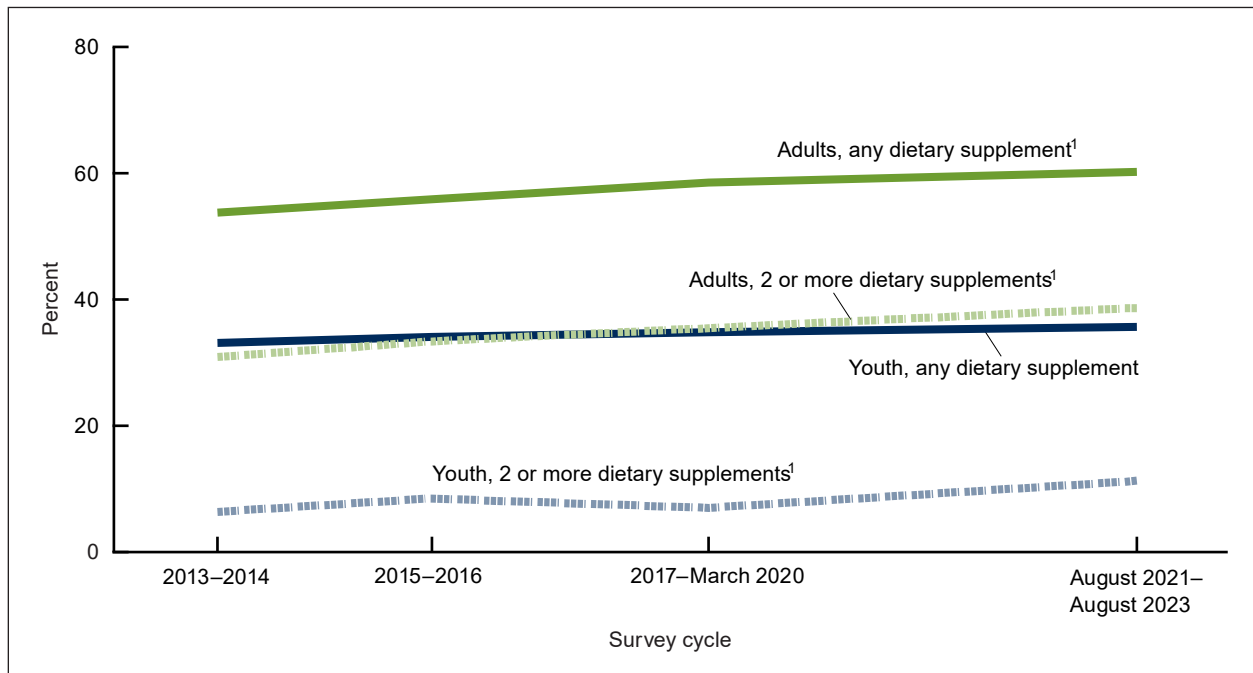
<sup>2</sup>Significant increasing linear trend among adults by age ( $p < 0.05$ ).

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, August 2021–August 2023.

## Trends

- No significant changes were seen in the use of any dietary supplement in the past 30 days among youth from 2013–2014 through August 2021–August 2023 (Figure 4, Table 4).
- The percentage of youth taking two or more dietary supplements increased from 2013–2014 (6.4%) through August 2021–August 2023 (11.3%).
- The percentage of adults taking any dietary supplement increased from 2013–2014 (53.8%) through August 2021–August 2023 (60.2%).
- The percentage of adults taking two or more dietary supplements increased from 2013–2014 (30.9%) through August 2021–August 2023 (38.7%).

**Figure 4. Trends in percentage of youth and adults who used any dietary supplement or two or more dietary supplements in past 30 days: United States, 2013–2014 through August 2021–August 2023**



<sup>1</sup>Significant increasing linear trend ( $p < 0.05$ ).

NOTE: Youth are ages 0–19 years and adults are age 20 and older.

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, 2013–2014 through August 2021–August 2023.

## Summary

Dietary supplement use remains common in the United States. During August 2021–August 2023, 35.7% of youth and 60.2% of adults used any dietary supplement in the past 30 days, and 11.3% of youth and 38.7% of adults used two or more. Among youth, dietary supplement use was most common among those ages 2–11 years. Among adults, dietary supplement use overall increased with age and was more common among women age 20 and older than men. Use of two or more dietary supplements also increased with age among adults. From 2013–2014 through August 2021–August 2023, use of two or more dietary supplements increased among both youth and adults. Use of any dietary supplement also increased among adults.

People often use dietary supplements to meet nutrient needs and support specific health goals. Because of relatively high usage in the population, the Academy of Nutrition and Dietetics stresses the need to watch for overlapping ingredients, potential excesses, and interactions, as well as the need for accessible, evidence-based information for both consumers and healthcare professionals (6).

## Definition

**Dietary supplement:** A product, other than tobacco, intended to supplement diet and not intended to replace food. Dietary supplements contain vitamins, minerals, herbs or botanicals, amino acids, or other substances. They are intended for ingestion and are labeled as dietary supplements (7). Participants were asked if they had used or taken any vitamins, minerals, herbals, or other dietary supplements in the past 30 days, including prescription and over-the-counter supplements. Participants who answered yes were asked additional information about each dietary supplement taken. Nonprescription antacids intended for use as antacids are not included.

## Data source and methods

The National Health and Nutrition Examination Survey (NHANES) is a cross-sectional survey designed to monitor the health and nutrition of the U.S. civilian noninstitutionalized population using a complex, multistage probability design. Since 1971, NHANES has collected information on dietary supplement use among participants, including 30-day dietary supplement use since 1988 (2). Before August 2021–August 2023, these questions were asked during an in-home interview. During August 2021–August 2023, the questions were asked during a telephone dietary interview following examination in a mobile examination center to minimize in-person interactions to reduce exposure to SARS-CoV-2, the virus that causes COVID-19 (8). Additional details are available on changes to the dietary supplement data collection during August 2021–August 2023 (8).

Analyses for years before August 2021–August 2023 used full sample interview weights to account for nonresponse, noncoverage, and differential probability of selection. Analyses for August 2021–August 2023 used Dietary Day 1 sample weights, which accounted for additional nonresponse to the telephone interview and day of the week of interview. Variance estimates were computed using Taylor series linearization. Statistical testing was performed for increasing or decreasing trends using linear regression and for comparisons between groups using *t* tests. Trend tests over time were performed using orthogonal polynomial regression with linear and quadratic terms and account for the unequal duration and spacing of time between each survey cycle. All differences were considered statistically significant at a *p* value of 0.05 unless otherwise noted.

Statistical analyses were performed using R (version 4.4.0) software, including the Survey package (version 4.4-2) (9).

## About the authors

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## Figure tables

**Data table for Figure 1. Percentage of youth and adults who used any dietary supplement in past 30 days, by sex: United States, August 2021–August 2023**

Age group and sex	Sample size	Percent	Standard error
Youth (0–19 years)	1,945	35.7	2.6
Female	986	35.0	2.7
Male	959	36.4	2.8
Adults (20 and older)	4,775	60.2	1.5
Female <sup>1</sup>	2,672	66.1	1.1
Male	2,103	53.9	2.2

<sup>1</sup>Significantly different from males in same age group ( $p < 0.05$ ).

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, August 2021–August 2023.

**Data table for Figure 2. Percentage of youth and adults who used any dietary supplement in past 30 days, by age group: United States, August 2021–August 2023**

Age group (years)	Sample size	Percent	Standard error
Youth			
0–1 <sup>1</sup>	184	28.6	5.6
2–11 <sup>2</sup>	1,006	41.9	3.5
12–19	755	30.1	2.1
Adults			
20–39	1,111	46.3	2.3
40–59	1,326	60.3	2.2
60 and older <sup>3</sup>	2,338	75.9	1.5

<sup>1</sup>Significantly different from ages 2–11 years ( $p < 0.05$ ).

<sup>2</sup>Significantly different from ages 12–19 years ( $p < 0.05$ ).

<sup>3</sup>Significant increasing linear trend by age ( $p < 0.05$ ).

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, August 2021–August 2023.

**Data table for Figure 3. Number of dietary supplements used by youth and adults in past 30 days, by age group: United States, August 2021–August 2023**

Number of dietary supplements used and age group	Sample size	Percent	Standard error
<b>Two or more supplements</b>			
Youth (0–19 years)	1,945	11.3	1.3
0–1 <sup>1</sup>	184	5.9	0.9
2–11	1,006	13.0	1.8
12–19	755	10.5	1.4
Adults (20 and older)	4,775	38.7	1.5
20–39	1,111	23.4	1.7
40–59	1,326	38.5	2.0
60 and older <sup>2</sup>	2,338	56.4	2.1
<b>Three or more supplements</b>			
Adults (20 and older)	4,775	23.9	1.1
20–39	1,111	10.6	1.1
40–59	1,326	23.2	1.6
60 and older <sup>2</sup>	2,338	39.9	2.0
<b>Four or more supplements</b>			
Adults (20 and older)	4,775	15.4	0.8
20–39	1,111	6.4	0.9
40–59	1,326	14.7	1.1
60 and older <sup>2</sup>	2,338	26.5	1.6

<sup>1</sup>Significantly different from ages 2–11 and 12–19 years ( $p < 0.05$ ).  
<sup>2</sup>Significant increasing linear trend by age ( $p < 0.05$ ).  
 SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, August 2021–August 2023.

**Data table for Figure 4. Trends in percentage of youth and adults who used any dietary supplement or two or more dietary supplements in past 30 days: United States, 2013–2014 through August 2021–August 2023**

Age group and survey year	Sample size	Any dietary supplement		Two or more dietary supplements	
		Percent	Standard error	Percent	Standard error
<b>Youth (0–19 years)</b>					
2013–2014	4,405	33.1	1.4	6.4	0.9
2015–2016	4,252	34.1	2.6	8.5	1.4
2017–March 2020	6,324	34.8	1.3	7.0	0.6
August 2021–August 2023	1,945	35.7	2.6	<sup>1</sup> 11.3	1.3
<b>Adults (20 and older)</b>					
2013–2014	5,767	53.8	1.4	30.9	1.3
2015–2016	5,717	55.9	1.6	33.4	2.1
2017–March 2020	9,224	58.5	0.8	35.5	0.9
August 2021–August 2023	4,775	<sup>1</sup> 60.2	1.5	<sup>1</sup> 38.7	1.5

<sup>1</sup>Significant increasing linear trend ( $p < 0.05$ ).  
 SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, 2013–2014 through August 2021–August 2023.

## Suggested citation

Stierman B, Couch CA, Gahche JJ, Mishra S. Dietary supplement use: United States, August 2021–August 2023. NCHS Data Brief. 2026 May;(561):1–11. DOI: <https://dx.doi.org/10.15620/cdc/252445>.

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**ISSN 1941–4927 Print ed. | ISSN 1941–4935 Online ed.**

CS364598