

# Study determines prevalence of iron deficiency varies with different definitions

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The prevalence of iron deficiency varies significantly with three different definitions, according to a study [published](#) online June 7 in

*JAMA Network Open.*

James C. Barton, M.D., from the University of Alabama at Birmingham, and colleagues compared the prevalence of iron deficiency among women using three different definitions based on data from the cross-sectional Hemochromatosis and Iron Overload Screening Study (HEIRS; 2000 to 2006). Multiethnic, primary care-based screening of volunteer women aged 25 years and older was performed at five field centers.

The researchers found that 3.12% of the 62,685 women had iron deficiency according to the HEIRS definition, 7.43% had iron deficiency according to the World Health Organization definition, and 15.33% had iron deficiency according to the [threshold](#) for iron-deficient erythropoiesis (IDE). Of the 40,381 women aged 25 to 54 years, 4.46, 10.57, and 21.23% had iron deficiency according to HEIRS, WHO, and IDE, respectively.

Among the 2,039 women aged 25 to 44 years who reported [pregnancy](#), the prevalence rates of iron deficiency were 5.44, 18.05, and 36.10% according to HEIRS, WHO, and IDE, respectively. In each racial and ethnic group, the prevalence of iron deficiency by the three respective definitions increased significantly, with significantly higher prevalence among Black and Hispanic versus Asian and White participants.

"For [clinicians](#), no single serum ferritin definition of [iron deficiency](#) corresponds perfectly to the continuum of laboratory and clinical abnormalities that occurs when storage [iron](#) is reduced or absent," the authors write.

**More information:** James C. Barton et al, Prevalence of Iron Deficiency Using 3 Definitions Among Women in the US and Canada,

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[10.1001/jamanetworkopen.2024.13967](https://doi.org/10.1001/jamanetworkopen.2024.13967)

Grace H. Tang et al, The Definition of Iron Deficiency—An Issue of Health Equity, *JAMA Network Open* (2024). DOI:  
[10.1001/jamanetworkopen.2024.13928](https://doi.org/10.1001/jamanetworkopen.2024.13928)

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