Worldwide prevalence of anaemia 1993–2005

WHO Global Database on Anaemia

World Health Organization

Centers for Disease Control and Prevention
Atlanta

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Preface

Anaemia is a public health problem that affects populations in both rich and poor countries. Although the primary cause is iron deficiency, it is seldom present in isolation. More frequently it coexists with a number of other causes, such as malaria, parasitic infection, nutritional deficiencies, and haemoglobinopathies.

Given the importance of this pathology in the world, numerous countries conduct interventions to reduce anaemia; particularly in the groups most susceptible to its devastating effects: pregnant women and young children. In order to assess the impact of these interventions, the adequacy of the strategies implemented, and the progress made in the fight against anaemia, information on anaemia prevalence must be collected. This is the primary objective of the WHO Global Database on Anaemia. However, estimates of anaemia prevalence by themselves are only useful if they are associated with a picture of the various causal factors that contribute to the development of anaemia in specific settings. Indeed these factors are multiple and complex, and it is critical to collect accurate information about them to provide the basis for developing the best interventions for anaemia control.

In the last three decades, there have been various attempts to produce estimates of the prevalence of anaemia at different levels including at the global level, but until the present time, there has never been a systematic review of all of the data collected and published with the objective of deriving regional and global estimates. The WHO Global Database on Anaemia has filled this gap: data from 93 countries, representing as much as 76% of the population in the case of preschool-age children, were analysed and used to develop statistical models to generate national prevalence estimates for countries with no data within the time frame specified.

It is surprising that given the public health importance of anaemia, there are numerous countries lacking national prevalence data. Moreover, most survey data are related to the three population groups: preschool-age children, pregnant women, and non-pregnant women of reproductive age, which is why the report focuses on these groups. The data available for school-age children, men, and the elderly were not sufficient to generate regional or country-level estimates for these groups, and therefore only global estimates for these groups are presented.

In addition, despite the fact that iron deficiency is considered to be the primary cause of anaemia, there are few data on the prevalence of this deficiency. The likely reason is that iron assessment is difficult because the available indicators of iron status do not provide sufficient information alone and must be used in combination to obtain reliable information on the existence of iron deficiency. Furthermore, there is no real consensus on the best combination of indicators to use. Another reason is that the role of factors other than iron deficiency in the development of anaemia has been underestimated by public health officials, because for a long time anaemia has been confused with iron deficiency anaemia, and this has influenced the development of strategies and programmes designed to control anaemia.

In this report, the prevalence of anaemia is presented by country and by WHO regions. Because these prevalence data may be used to identify programme needs by other United Nations agencies, we have presented the estimates classified by United Nations regions in the annexes. In addition, one chapter is dedicated to the criteria used to identify, revise, and select the surveys, and the methodology developed to generate national, regional, and global estimates.

A lesson learned from producing this report is that in order for the database to reach its full potential, data should be collected on other vulnerable population groups such as the elderly and school-age children, and surveys should be more inclusive and collect information on iron status and other causes of anaemia.

This report is written for public health officials, nutritionists, and researchers. We hope that readers find it useful and feel free to share any comments with us.

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