# Global prevalence of vitamin A deficiency in populations at risk 1995–2005

*WHO Global Database on Vitamin A Deficiency*

World Health Organization

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# Preface

Part of the World Health Organization's mandate is to provide information on the health status of the population at the global level. In this respect, since 1991, the Department of Nutrition for Health and Development (NHD) has been maintaining the Vitamin and Mineral Nutrition Information System (VMNIS), which includes three databases related to three micronutrient disorders of public health significance globally: iodine deficiency, iron deficiency and anaemia, and vitamin A deficiency. The objectives of VMNIS are to assess the status of the population at the global level in order to increase the awareness of the public health community and policy makers, evaluate the impact of interventions and measure progress towards the goals endorsed by the international community, to compare data between countries, track changes over time, and increase the capacity of countries to manage health data related to micronutrients.

WHO estimates of the global prevalence of vitamin A deficiency were first published through its Micronutrient Deficiency Information System in 1995. Since then, large programmes on vitamin A deficiency control have been implemented in several countries where vitamin A deficiency was a public health problem – many of these programmes involved vitamin A supplementation and were strengthened by being combined with polio eradication campaigns. Additionally, vitamin A status indicators, especially symptomatic reporting of night blindness and serum retinol concentrations, have been assessed in many more es of life of high nutritional demand (e.g. early childhood, pregnancy and lactation). A variety of interventions are being used to improve the vitamin A status of populations: dietary diversification, vitamin A supplementation and fortification.

In 1987, WHO estimated that vitamin A deficiency was endemic in 39 countries based on the ocular manifestations of xerophthalmia or deficient serum (plasma) retinol concentrations (<0.35 µmol/l). In 1995, WHO updated these estimates and reported that vitamin A deficiency was of public health significance in 60 countries, and was likely to be a problem in an additional 13 countries. The current estimates reflect the time period between 1995 and 2005, and indicate that 45 and 122 countries have vitamin A deficiency of public health significance based on the prevalence of night blindness and biochemical vitamin A deficiency (serum retinol concentration <0.70 µmol/l), respectively, in preschool-age children.

In this present edition, estimates of vitamin A deficiency are provided for preschool-age children as in the previous edition, and also for pregnant women. They are based on an increasingly assessed history of night blindness and a now more widely adopted serum (plasma) retinol concentration, using a cut-off of <0.70 µmol/l (<20 µg/dl) to define deficiency. Despite a marked increase in submitted data, there are still numerous countries lacking national prevalence data. There is a need to inform and motivate governments and agencies to collect, and report to WHO, national