
Introduction

Iron deficiency adversely affects cognitive development and behavior in infants and children and is the most common micronutrient deficiency among children worldwide (*United Nations Administrative 2005*). The prevalence of iron deficiency among children in developing countries exceeds 50% and is usually attributed to inadequate nutrition (*MMWR Morb 2002*).

Iron deficiency among children in most high-prevalence areas has been attributed primarily to poor nutritional intake or parasitosis (*Stoltzfus et al, 1997*).

However, evidence has not supported a substantial role for either of these common causes of iron deficiency (*Henrry et al, 2006*). Three separate studies found that the average daily iron intake among rural area was very near or above the US recommended dietary allowance (*MMWR Morb 1999*). Excessive parasitosis among this population has not been reported by the Alaska Division of Public Health (*Kappus et al, 1991*).

Many areas of the world with high iron deficiency prevalence's also have high helicobacter pylori prevalence's where seroprevalence among adults exceeds 80% (*Parkinson et al, 2000*). Recent investigations among Alaska Natives (*Yip et al, 1997*) and other populations worldwide found an association between iron deficiency and H pylori infection (*Yang et al, 2005*).

H.pylori infection may be an important risk factor for iron deficiency and iron-deficiency anemia among children in rural area and possibly in other areas of the world where these conditions are highly prevalent (*Henrry et al, 2006*).

Proposed four mechanisms by which H pylori infection might lead to iron deficiency anemia or growth disturbance. First, that it could cause dyspeptic symptoms. Second, that the infection could result in a low energy intake and malnutrition. Third, that a long standing infection induces low grade chronic gastric inflammation and the release of cytokines that could affect growth. Finally, that H. pylori might be associated with poor socioeconomic background, malnutrition, and exposure to other chronic diseases, which could affect growth (*Perri et al, 1997*).