

excessive consumption is not favorable. There is consumption of 2-3 times (34.3%) or once (41%), but also daily (6.7%). The studies report that there is a small or apparently absent consumption in mothers with secondary education, while in rest, consumption is 2-3 times a week ($p < 0.05$). Mainly, eating habits are different, but consumption exists, which is a positive thing. Conclusion: There are many problems related to infant's nutrition. In some cases, cheese, eggs, fish, fats are absent in their diet. In other cases, some products are excessively consumed. So, cereals derivatives and sugar products are frequently consumed daily, which is a risk factor. The target of such studies are the specialists, and national priority programs should be discussed (a national program of fruits consumption would be beneficial for these children).

Economic Impact of Iron Deficiency Anemia for the Republic of Moldova

Ciobanu Angela, Enachi Victor, Turcan Mariana

Academic adviser: Bahnarel Ion, Ph.D., Associate Professor

The National Scientific and Applied Center for preventive Medicine, Chisinau, Republic of Moldova

To estimate the economic impact of iron deficiency anemia associated with cognitive deficits in young children and productivity losses in adults for the Republic of Moldova (RM). Methods. To assess the economic losses caused by iron deficiency anemia we used algorithms proposed by Jay Ross and Susan Horton in the work "Economic consequences of iron deficiency", data from the Demographic and Health Survey, 2005 (DHS) and Statistic Yearbook of the Republic of Moldova. Iron deficiency is the most common nutritional disorders in the world that frequent leads to anemia. A lot of studies document association of iron deficiency anemia (IDA) with poor motor and mental performances in children, low work productivity in adults, and poor pregnancy outcome. The consequences of iron deficiency are extending far beyond the population with iron deficiency anemia due to many physiological functions of iron other than its role in hemoglobin synthesis. Combining the effects of childhood anemia on cognitive achievement with those of adult anemia on physical productivity, total productivity loss due to iron deficiency anemia was estimated from the following: $\text{Cog loss} + \text{BC loss} + \text{HML loss} = [0.04 \times \text{WS} \times \text{GDP/cap} \times \text{Pr}(\text{child})] + [0.01 \times \text{WS} \times \text{BC Share} \times \text{GDP/cap} \times \text{Pr}(\text{adult})] + [0.12 \times \text{WS} \times \text{HML} \times \text{GDP/cap} \times \text{Pr}(\text{adult})]$ Where: Cog loss is productivity losses due to lower cognitive scores related to childhood IDA; BC loss - losses in productivity for blue-color workers; and HML loss - losses in productivity for blue-color workers performing heavy manual labor; WS - wage share (labor) in GDP; GDP/cap - per capita GDP; BC Share - share of blue collar employment in total employment; HML - heavy manual labor share in GDP; Pr (child) - prevalence of anaemia in children; Pr (adult) - prevalence of anemia in children. Applying the most recent data (the last study that evaluates prevalence of anemia was done in 2005 - DHS) we calculated total productivity loss due to iron deficiency anemia for the RM: $\text{Cog loss} + \text{BC loss} + \text{HML loss} = [0.04 \times 0.38 \times 10225 \text{ lei} \times 0.33] + [0.01 \times 0.38 \times 0.36 \times 10225 \text{ lei} \times 0.195] + [0.12 \times 0.38 \times (0.575 \times 0.16) \times 10225 \text{ lei} \times 0.195] = 62.38 \text{ lei}$ This calculation yields an annual loss of 62.38 lei MD per capita in 2005, equivalent to 0.61% of GDP for this year. Effect associated with cognitive deficits in children and low work productivity in adults provides the justification to the urgent need to prevent iron deficiency in all groups of population, beginning with young children.