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Urban-Rural Infant and Young Child Feeding and under nutrition, Gilgit-Baltistan

Background:

Pakistan has one of the highest rates of maternal and child under-nutrition in the world. According to WHO's survey, 2011, 30% of children under five are mal-nourished however, this survey does not include Gilgit-Baltistan (GB). Another nationwide survey was done in 2011, including GB, by UNICEF and the Aga Khan University (AKU), showed the following data: only 8% of all children aged 6 to 23 months received a minimum acceptable diet nationwide. Among children under five 43.7% were stunted, and 31.5% underweight. Also micronutrient deficiencies were widespread in children such as Anemia 61.9%, Iron deficiency 43.8%, Vitamin A deficiency 54%, Zinc deficiency 39.2% and Vitamin D deficiency 40%.



There may be multiple reasons behind mal-nutrition and micro-nutrition deficiencies, but this study focused on diets of young children and feeding habits of infants. We have very limited to no data about health status of the residence of GB. It is importance to examine GB rural-urban division on child nutrition. Potentially it may helpful for health professionals and local people to have an eye bird view about the health status of GB. In addition, it is important to intervene in dietary habits of local people to reduce high rates of nutrition deficiencies and to provide awareness about importance of balanced diet for young children. Balance diet and better nutrition is very important since most of the brain grows in first five years of a person's life. To have mentally sound and physically health individuals we must have proper diet in the early age.

Project Objectives:

This research aims to understand infant and young child feeding practices, diets and growth among 100 infants and young children from rural and urban division of GB. Our project has focused on the following questions:

1. How the infants are faring nutritionally and diet-wise?
2. What is infant growth status in reference to WHO in the locations surveyed?
3. How does the GB infant feeding measure up in terms of the WHO infant and young child feeding recommendations and indicators?

Results:

Macronutrients are required in large amounts that provide the energy needed to maintain body functions and carry out the activities of daily life. Carbohydrates, proteins and fats are the main macro-nutrients. Table1 shows that macro-nutrients intake of infants less than 2 years old in Gilgit-Baltistan, which shows that protein intake by infant is satisfactory but carbohydrate intake is very less and fat intake is very high as compare to WHO recommendations.

Table 1: Average amount of Macro-nutrients consumed per day by infants >2yrs in Gilgit-Baltistan with reference to WHO recommendations

Sr. No	Macro-Nutrients	Average amount of Macro-nutrients consumed per day by infants >2yrs	WHO Recommendation Infants >2yrs
1	Protein	14.3942 g	11.87
2	Carbohydrates	79.9904 g	130
3	Fat, Total	23.2532 g	10
5	Saturated Fat	8.6617 g	

Micro-nutrients are needed by body in very tiny amount and they are necessary for the healthy functioning of every system in the body and are vital for good health. Lack of micro-nutrients causes severe health problems. According to WHO, “Iodine, vitamin A and iron are most important in global public health terms; their lack represents a major threat to the health and development of populations.” Survey data shows that in Gilgit-Baltistan infants >2yrs of age have better supply of Calcium, Iron, Riboflavin, Vitamin K, Magnesium, and Zinc. However, Vitamin A, Vitamin C, Vitamin E and Dietary Fiber intake is less as compared to WHO’s recommendations and needs to be taken care in order to better growth of infants and young children.

Table 2: Micro-Nutrients average amount of Micro-nutrients consumed per day by infants >2yrs in Gilgit_Baltistan with reference to WHO recommendations

Sr. NO#	Micro-Nutrients	Average amount Micro-nutrients consumed per day (0 to 2yrs)	WHO Recommendation (0 to 3yrs)
1	Vitamin A (RE)	378.6191	400
2	Vitamin C (mg)	20.5382	35
3	Calcium (mg)	507.2522	386.67
4	Vitamin D (µg)	0.2054	11.67
5	Vitamin E (mg)	1.1126	5
6	Riboflavin (mg)	1.2132	0.4
7	Vitamin K (µg)	5.6903	2.5
8	Magnesium (mg)	117.7902	61.67
9	Zinc (mg)	2.6323	2.67
10	Dietary Fiber, Total	4.3479	

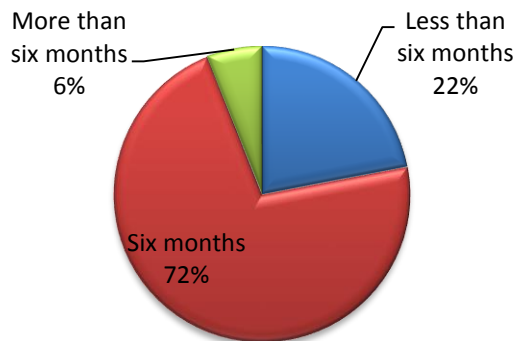
	(g)		19
12	Caffeine (mg)	16.9042	18
13	Sodium	466.8861 mg	497.67
14	Iron	7.1746 mg	6.09
15	Sugar, Total	6.9083 g	
16	Glucose	1.70865 g	

According to World Health Organization exclusive breastfeeding should be 100% to ensure better growth of baby. It means that infants up to six months should only be fed mother's milk. Only after six months liquid food should be introduced to infants up to 8 months and then only small quantity of solid food can be given to infants. Table 3 shows the results of breastfeeding behaviors in rural and urban divisions of Gilgit-Baltistan. The trend of exclusive breastfeeding reported in rural areas is only 58% and in urban areas 72%. Which suggest that public health professional and health sector should arrange awareness programs about the importance of exclusive breastfeeding in rural and urban Gilgit-Baltistan.

Table 3: Breastfeeding trends in rural and urban Gilgit-Baltistan

Area	Less Than 6 Months	6 Months	More than 6 months
Rural	14	29	7
Urban	11	36	3

Urban: Exclusive Breast Feed



Rural: Exclusive Breast Feed

