

Table 4: Supplementation:															
<u>Geographic area(s) covered by this table (community, province, country, region)</u>	Vadodara, Gujarat, India														
<u>Project Name (if relevant)</u>	<i>Introduction of Dehydrated Drumstick Leaf Powder Into the Salty Recipes of the Supplementary Feeding Programme of the ICDS – Feasibility and Acceptability Trials</i> <i>Daily and Intermittent iron-folate supplementation : does it improve growth in girls in early adolescence?</i>														
<u>Supporting Agencies (if relevant)</u>	Department of Foods and Nutrition														
<u>Approximate # of subjects or beneficiaries for each project described</u>	80 Anganwadi Children Aged 1-5 years, 40 Pregnant and Lactating Mothers														
	Micronutrients														
<u>Activities</u>	Iodine	Iron	Folate	Zinc	Calcium	Vit A	Vit B-12	Vit C	Vit D	Vit B-1	Vit B-2	Vit B-3	Vit B-6	Vit K	Vit E
<i>Prevention Program</i>															
<i>Treatment Orientation</i>															
<i>Supplementation project size</i>															
<i>Efficacy Trials</i>															
<i>Community Effectiveness Trials</i>															
<i>Pilot Interventions</i>															
<p>Our earlier research has shown that anemic adolescent girls showed compromised growth (BMI gains) vs. non-anemic girls; and that daily iron-folate (IFA) supplements enhanced not only hemoglobin levels, but growth as well (<i>Kanani S and Poojara R. Supplementation with iron folic acid enhance growth in adolescent Indian Girls. J Nutr. 2000; 130: 452S-455S</i>). Of the growth taking place in the adolescent period, about 80% of the weight and height gain takes place during early adolescence (10 to 15 years). The year prior to menarche is the phase of rapid pubertal growth. Though supervised once weekly IFA supplementation is already accepted as an effective</p>															

Through Private Channels	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>												
Supplements Compliance Promotion	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>												
Supplements in Emergencies	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>												
Supplementation Monitoring/Evaluation	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>												
Supplement related Research	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>												
Supplementation Targeted Groups																	
Women	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>												
Pregnant women	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>												
Children in School	<input checked="" type="checkbox"/>																

Table 5: Dietary Diversity to Improve Micronutrient Nutrition:

<u>Geographic area(s) covered by this table (community, province, country, region)</u>	Vadodara, Gujarat, India														
<u>Project Name (if relevant)</u>	Effect of Drumstick Leaves (<i>Moringa oliefera</i>) and lemon juice supplementation on Hematological Indices of young girls (16-21 years) from urban Vadodara														
<u>Supporting Agencies (if relevant)</u>	Department of Foods and Nutrition														
<u>Approximate # of subjects or beneficiaries for each project described</u>	Young Girls 16-21 Years														
	Micronutrients														
<u>Activities</u>	Iodine	Iron	Folate	Zinc	Calcium	Vit A	Vit B-12	Vit C	Vit D	Vit B-1	Vit B-2	Vit B-3	Vit B-6	Vit K	Vit E
Dietary Policy and Advocacy		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>									
Other areas using diet improvement to improve micronutrient nutrition.		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>									

Table 6: Other Public Health Intervention Links:

<u>Geographic area(s) covered by this table (community,</u>	Urban poor, Vadodara, Gujarat, India
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province, country, region)	
Project Name (if relevant)	<i>Deleterious impact of anemia on physical work capacity and cognitive functions on school girls in early adolescence</i>

Activities	Micronutrients													
	Iodine	Iron	Folate	Zinc	Calcium	Vit A	Vit B-12	Vit C	Vit D	Vit B-1	Vit B-2	Vit B-3	Vit B-6	Vit K

School Nutrition/Health Programs															
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In schoolgirls entering adolescence, iron deficiency anemia not only compromises hematinic status but also may reduce physical work capacity and cognitive function. In a school based study, we assessed physical work capacity and cognition of underprivileged anemic schoolgirls in Vadodara (9-14 years) as compared to their non-anemic counterparts. The girls (n=230) were studied as regards their hemoglobin status, physical work capacity and cognitive functions using standard methods : physical work capacity using Modified Harvard's Step test and cognitive functions using selected tests from the modified Wechsler Intelligence Scale for Children (WISC), suitably adapted for this group. **Results:** The mean hemoglobin was 11.32 g/dl, and anemia prevalence: 67 %. A higher number of steps were climbed and a shorter time was taken to revert to the basal pulse rate (recovery time) by non-anemic girls compared to anemic girls (p<0.001). Significantly lower scores in digit span and visual memory test were seen in anemic compared to non-anemic girls. The adverse impact of anemia remained after controlling for under nutrition (BMI). **We conclude** that anemia is likely to adversely affect physical work capacity and cognition in young adolescent girls undergoing pubertal development and that this is an additional rationale for urgently implementing anemia control programs not only for the older adolescent girls in secondary schools, but in primary schools as well. These younger girls in primary schools are fortunately accessible in larger numbers compared to secondary school girls. Further research should be conducted in both school and community based settings to cover non-school going children (girls and boys).