



Key Findings of Impact Evaluation of Karnataka Multisectoral Nutrition Pilot Project – National Institute of Nutrition

Quantitative/Qualitative Results- Health Services and Convergence

- Majority of the mothers in their last pregnancy had undergone ANC check-ups (>98%) in both the groups. However, the place of ANC was Primary Health Centre (PHC) (65.5%) in the Intervention Blocks compared to the Control Blocks (51.6%).
- A higher proportion in the Control Blocks were visiting private facility (45.6%) compared to the Intervention blocks (32.2%).
- In general, counselling on health and nutrition was higher in the Intervention Blocks compared to the Control Blocks during the ANC visits.
- A higher proportion of mothers in the Intervention Blocks (98.2%) were consuming extra food during pregnancy, compared to the Control Blocks (95.4%).
- Similarly, a higher proportion of mothers in the Intervention Blocks (95.2%) were receiving Take Home Ration (THR) food during pregnancy, compared to the Control Blocks (88.7%).
- A higher proportion of mothers in the Control Blocks (8.9%) did not receive Tetanus Toxoid (TT) injection, compared to the Intervention Blocks (2.7%).
- Morbidities in children were in general lower in the Intervention Blocks compared to the Control Blocks in the last 15 days.
- Similarly, more children received 2 doses of Vitamin A and de worming in the Intervention groups compared to the Control Blocks.
- A higher proportion of the mothers in the intervention group (96%) compared to the control group (58.1%) washed hands with soap before feeding the child, suggesting the impact of counselling on Water, sanitation and Hygiene (WASH) practices.
- There was a higher proportion of mothers and adolescent girls in the Intervention block compared to the Control Blocks, who were aware of basic nutrition and health related issues.





- There was a higher proportion in the Intervention Blocks of beneficiaries in the Mid-day Meal programme at schools and those receiving Iron folic acid (IFA) tablets in the past one year.

Quantitative/Qualitative Results- Nutrition Indicators

- Mean Height for age Z scores, an indicator for chronic malnutrition, was significantly better in children in the Intervention Block, while Mean Weight for height Z score was lower in the Control Blocks, though not statistically significant.
- Stunting in under 3 children was about 6% lower in the Intervention Blocks (46%) compared to the Control Blocks (52.1%) and was statistically significant ($P < 0.05$).
- The overall prevalence of anaemia was 84.8% and was significantly lower ($P = 0.001$) in the Intervention Blocks (81%) compared to the Control Blocks (89.5%) suggesting an improvement in nutritional status of adolescent girls of the Intervention Blocks.
- Majority of the mothers and adolescent girls reported regular counselling, group meetings, house visits, and growth monitoring and food supplementation given by Village Nutrition Volunteers (VNVs).
- Mothers of under 3 children reported that they found both counselling and nutrition supplementation useful. They could see a perceptible influence in their child nutritional status like weight and also a feeling of wellbeing.
- Adolescent girls also reported that nutrition education and nutrition supplementation was useful and felt an overall well-being in addition to increase in weight.
- Mothers of under 3 children as well as adolescent girls reported good acceptability of Shakti Vita.
- Mothers of under 3 children and adolescent girls felt that counselling alone was also beneficial as it impacted their behaviour change in terms of hygiene, sanitation and dietary intakes. Both mothers of under 3 children as well as adolescent girls requested for the continuation of VNVs and Shakti Vita as they found both to be helpful and have asked for the continuation of the programme.
- There was a significant difference in the Intervention Blocks compared to the Control Blocks in the nutritional status as indicated by lower stunting of children





and lower anaemia in adolescent girls in the Intervention group compared to the control group.

- There was a significant difference in the Intervention Blocks compared to the Control Blocks on awareness of nutrition, health and sanitation related issues and utilization of various government programs, which were better off in the Intervention Blocks.
- Low birth weight prevalence based on records was 8.7% in the Intervention Blocks compared to 11.9% in the Control Blocks. Majority of the deliveries happened in government hospital in both the blocks. Home Deliveries were higher in the Control Blocks (9.6%) Compared to Intervention Blocks (5.8%).
- Mean (SD) weight of the children in the Intervention Blocks was 8.1 (1.8) kg compared to 7.9 (1.8) kg in the control blocks ($P = 0.05$).
- Mean height of children in the Intervention Blocks was about 1.5 cm taller than the control blocks ($P < 0.05$).
- Mid Upper Arm Circumference (MUAC) was also significantly higher in the Intervention Blocks compared to Control Blocks ($P < 0.001$).
- The overall prevalence of stunting was 49%. Stunting was about 6% lower in the Intervention Blocks (46%) compared to the Control Blocks (52.1%) and was statistically significant ($P < 0.05$).
- The overall prevalence of underweight was 41.7%. There were no significant differences in the prevalence of underweight in the Intervention Blocks (42.9%) compared to the Control Blocks (40.6%).¹
- Children with MUAC less than 12.5 cm, an indicator of moderate acute malnutrition was significantly lower in the Intervention Blocks (25.7%) compared to the Control Blocks (32.0%). Both severe wasting and moderate acute malnutrition was not significantly different between the groups.



¹ The sample size for the study was estimated to detect a 10% point decrease in the stunting from the control, estimating the starting levels i.e control levels of stunting at 45%. The objective of the study was not focused on detecting improvement in 'underweight', and hence the sample was not designed to estimate the same. However, the mean weight of children in the Intervention Group was higher than the mean weight of children in the Control Group.

This has been discussed with eminent statisticians, who have come to this conclusion





- Mean (SD) weight of adolescent girls was 35.1 (7.6) kg. Mean weight of adolescent girls in the Intervention Blocks was about 1kg higher compared to Control Blocks and was significant ($P < 0.05$).
- Adolescent girls in the Intervention Blocks were about 1.4 cm taller than those in the Control Blocks ($P < 0.05$). However, there were no significant differences in the thinness in the Intervention and the Control Blocks.²
- Mean (SD) haemoglobin was 10.4 (1.7) g/dl and was significantly higher in adolescent girls of Intervention blocks compared to the control blocks ($P < 0.001$). The overall prevalence of anaemia was 77.4% and was significantly lower ($P = 0.001$) in the Intervention Blocks (71.8%) compared to the Control Blocks (86.2%).

Block wise Statistics for Chincholli and Devadurga Blocks have also been given in the detailed report

Conclusion: There was a significant difference in the Intervention Blocks compared to the Control Blocks in the nutritional status as indicated by lower stunting of children and lower anaemia in adolescent girls in the Intervention group compared to the control group. There was a significant difference in the Intervention Blocks compared to the Control Blocks on awareness of nutrition, health and sanitation related issues and utilization of various government programs, which were better off in the Intervention Blocks compared to the Control Block. There was overall wellbeing in children and adolescent girls in the Intervention group as assessed by qualitative methods.



² For the estimation on the thinness of the adolescent girls, the control levels were estimated at 45% however during the study the control levels were around 28%, the power of the sample was lower. i.e to detect a 10% point reduction in the thinness levels in the intervention, the sample size of 1200 fell inadequate. This probably explains that the change in the thinness in amongst the girls was insignificant. The average BMI and weight of the girls however had been higher in the intervention areas.

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