Objective: To study the impact of capacity building, on Infant and Young Child Feeding Practices (IYCF) and Growth Monitoring and Promotion (GMP), of Integrated Child Development Services - ICDS frontline workers (Anganwadi Workers – AWW), on the nutritional status of children under twos. Design: Interventional operational research, involving two cross sectional anthropometric assessment of all under twos. Setting: Two ICDS sectors, covering 17 (control) & 19 (intervention) community based centre(Anganwadi- AWC) in semi tribal region of Gujarat state in India. Subjects: All children 0 to 23 months (951 at baseline and 914 post intervention). Results: The baseline prevalence of underweight was very high among the intervention (52.4 percent) and control (45.3 percent) study population. Other than stunting, the differences between the two groups, undernutrition status i.e., Underweight and Wasting, were statistically significant. One year of intervention show a protective effect on the prevalence of SAM (12-23 mo.), Wasting (0-5 mo.), Stunting (12-23mo.) and MUACZ<3SD (except 0-5 mo. & 6-11 mo.) in intervention (RR<1), as against an increased risk in control. The intervention had less risk of underweight, stunted, wasted and SAM children by 3.4, 0.9, 4.5 and 4.5 percent points respectively, as compared to control. Conclusion: Capacity building on IYCF, in programatic setting, makes a significant difference in SAM, as well as, stunting among children 12-23 mo., but not on moderate nutrition. IYCF promotion even in the absence of other inputs could be used as an effective capacity building approach for preventing cases of severe nutrition.