

## Form2: Evidence Review for Growth Promotion & Complementary Feeding

**Name of Intervention: Tamil Nadu Integrated Nutrition Program (TINP)**

**Date of Review: July 2007**

### 1. Location and Scale

Number of villages by block, district and state names	Population covered	Comments	Time Period
TINP-I- 9000 child nutrition centers, TINP-II-18500-CNCs covering 80% of rural population of the state. Coverage of 20,000 villages	TINP I: Covered 173 Rural Blocks in 6 districts( about 9 million beneficiaries) Over 30 million population covered in the entire project period	The Tamil Nadu Nutrition Program is one of very few around the world which have reduced malnutrition on a large scale, and over a long period.	The first project, TINP I, ran from 1980 to 1989, and the second, TINP II, from 1990 to the end of 1997

### 2. Agencies

Lead agency(ies)	Other Key Agencies (Partners)	Implementing agencies	Sponsor/Donor	Comments
		<b>List</b>	<b>Category of agency</b>	
Social welfare department and WCD department government of Tamil Nadu	The Work Bank	Social welfare department and WCD department government of Tamil Nadu	Government	The Work Bank

### 3. Intervention Description

Goal /Objectives	Key Strategies (5-10)	Key Components (3-5)	Primary target group	Secondary target group
<p>TINP I: Improve the health and nutritional status of pre-school children and to extend health and related services to other high risk groups such as pregnant and lactating women</p> <p>TINP II: Improve the nutrition and health status of children 0-72 months with emphasis on 0-36 months and pregnant/lactating women</p> <p>To improve the nutritional and health status of pre-school children (6months to 36 months), pregnant mothers and nursing mothers through a package of services which includes nutrition education, primary health care, supplementary on site feeding of children who are severely malnourished or whose growth was faltering, education for diarrhea management ,administration of Vitamin -A, periodic supplementary feeding and deworming of a limited number of women.</p> <p>The main characteristics of this project was the use of growth monitoring through monthly weighing of all children 6-36 months of age at such a scale</p>	<p>Establishment of a Community Nutrition Centre (CNC) to cover a population of 1500</p> <p>The CNC is run by a trained Community Nutrition Worker (CNW). The CNW is assisted, guided and supervised at different levels by Nutrition Supervisor, Nutrition Instructress at block level, Taluk Project Nutrition Officer and District Project Nutrition Officer. The ratio of supervisor to worker was 1:10.( ICDS norm is 1:20)</p> <p>Community Nutrition Worker and helper focussing on children under 3 and their mothers and a Community Welfare Organizer to cater to children 4-6 yrs as well as a helper.</p> <p>Initiation of the 'two worker model' plus two helpers.</p> <p>Project Coordination Office at state level divides into 4 units: nutrition; communication; training; operations research and monitoring.</p> <p>TINP's field workers were paid, very few dropped out.</p> <p>Pre-service training, in-service training and supervision system was unusual, in that it was entirely field rather institution based</p>	<p>Supplementary nutrition was provided to children in Grade 3 and 4 malnutrition and those children faltering after 3 consecutive months.</p> <p>For 6-12 month olds feeding was initiated if a child failed to gain 300 g per month for 2 months.</p> <p>For children 12-36 months 4 months of failure to meet this criteria were required.</p> <p>All children in Grade 3 and 4 were fed double ration. Once begun feeding continued once per day for a minimum of 3 months or until age 36 months. If a child gained 500 g or more by that time feeding ceased other wise child was referred to a health sub centre.</p> <p>Every day monthly weighing of children 6-36 months.</p> <p>NHE, primary health care activities, VAS and deworming, supplementary food for malnourished children, vitamin A, deworming and immunization provided to all.</p> <p>Counselling to mothers on IYCF</p> <p>Expand nutrition supplementation to more children (less strict criteria for providing supplementary food) and integration of the state-wide Noon Meal Program (NMP) covering ages 3-6 yrs with TINP by combining centres.</p> <p>Monthly weighing of children 6-36 months. Interventions targeted to those in grade 3 and 4 malnutrition and those children faltering.</p> <p>Initiated non-formal pre-school education.</p>	6-36 months children and pregnant/lactating women	Family and community nutrition workers

4. Information Sources				
Publication Name		Website's)/on-line	Unpublished project documents	Comments
Impact evaluation report Word Bank and Lessons and Issues in Management and Capacity Development Richard Heaver, November 2002, HNP discussion paper By Richard Heaver		<a href="http://www.worldbank.org">www.worldbank.org</a>		
5. Results and Data (Part1)				
Methodology		Key measures/variables	Key lessons learnt (share challenges or negative results, if possible)	
Designed	Implemented	<p>The impact of the TINP on the nutrition and health status of the target population</p> <p>What program inputs created the impact?</p> <p>How cost effective has this project been?</p> <p>Any sign of results achieved so far are likely to be sustainable?</p>	<p>Statistically significant improvement in weight-for-age over period 1982 to 1990</p> <p>Tamil Nadu's nutrition program is one of a very small number of community nutrition programs around the world which have made a significant impact on PEM on a large scale, and which have been sustained over a long period—from 1979 to 1998 with the original TINP strategy, and from 1999 to the present day with a mix of TINP and ICDS strategies.</p> <p>TINP's most important overall lesson is that large scale growth promotion programs can work, if they are carefully designed and managed—and, if, as in the TINP case—investment in growth promotion is coupled with simultaneous improvement in the coverage and quality of primary health services</p>	
Baseline and endline	Baseline and endline			
6. Program Cost				
Total per year		Estimated cost per component	Estimated cost per beneficiary/unit	Comments
IDA credit of 96 million for a period of 8 years in 1991				

## FORM 3a - Data sheet for Effectiveness - Growth Promotion & Complementary Feeding

Name of Intervention: Tamil Nadu Integrated Nutrition Program (TINP)

List of "impact" indicators with achievements(1)	List of "outcome" indicators with achievements(1)	List of "output" indicators with achievements(1)	List sources of impact, outcome & output data	Quality of data(2)	Specify if the intervention targeted and reached women and/or vulnerable(3)
<p>There is a steady drop in malnutrition rates for all ages included. The mean weight of 6 month olds in 1990 are 360 g heavier than in 1982 (6.5% gain in weight).</p> <p>At 36 months age the weight difference from 1982 to 1990 was 650 g (6.2% gain in weight).</p> <p>These differences were statistically significant in all monthly ages between 6 and 36 months. % of children below -2SD of NCHS decreased by 10.12 percentage points between 1982 and 1990.</p> <p>Nutritional Status: Severe Malnutrition - declined by a third and a half among children 6-24 m and by about half among 6-60 months.</p> <p>Moderate malnutrition decreased by 14% in the 1st project areas and increased in the areas in 2nd and 3rd phases</p> <p>Independent survey - severe malnutrition declined by 44% over 5 year period.</p> <p>Moderate malnutrition in new areas (where TINP1 was not being implemented) saw a 23% reduction</p>	<p><b>TINP I</b> VAS increased from 46% in 1982 to 70% in 1986 but dropped to 57% in 1990.</p> <p>Deworming coverage increased from 42% in 1982 to 66% in 1986 and dropped to 51% in 1990.</p> <p>63% of children were completely immunized in 1982, this increased to 79% in 1986 and further increased to 83% in 1990.</p>			<p>Several weaknesses in the impact evaluation of TINP were noted in previous sections, including the inadequate matching of controls in the TINP I mid term and terminal evaluations; the delays in the TINP I mid term evaluation and the poor quality of much of the data collected; and, more generally, an inadequate effort in four out of five terminal evaluations</p> <p>The consequences of flawed evaluation were significant, in terms of controversy about TINP's achievements and consequent difficulties in knowing how far TINP was a model for the ICDS or other nutrition programs to emulate.</p> <p>This evaluation also failed to address several key impact and cost-effectiveness questions, a problem of design rather than implementation.</p>	

(1) Achievements as compared to baseline and/or control group

(2)Comments should include factors such as rigor of evaluation design, independence and multiple sources

(3)Comment as whether the intervention reached and/or had impact, outcome and output results on women and/or vulnerable. List the results