5. LESSONS LEARNT

Major lessons learnt about the problems in implementation of NPAG during the evaluation are summarised in this chapter along with the discussion on some of the remedial measures.

Fund release

The major bottleneck in the initial two years was the cumbersome mechanism of fund release. This has been sorted out and **currently the funds are sent directly from the MWCD to the state DWCD. This procedure can be continued in the future.**

Food grain allocation and use

The second major bottleneck was the allocation and lifting of the food grains. The central Department of Food and Civil Supplies allocates food grains at the BPL issue cost to the state Department of Civil Supplies. The district DWCD officers compute the number of the undernourished persons (currently only adolescent girls) based on the listing of undernourished adolescent girls provided by the AWWs and based on this the district Civil Supplies office sends the food grains to the village/ urban ration shops. This procedure is time consuming and not necessarily accurate because attempts for identification of adolescent girls may have been done when there was no food grain supply. As and when they come to know that food supplements are being provided many more girls may come to the anganwadi for weighment and more undernourished girls needing food grain supplements might be detected. If there are delays in obtaining and consolidating the lists of undernourished girls and getting the grains released to ration shops, the grains allocated by the Food and Civil supplies may not be utilised within the three month period; if the grains allotted were not used further supply is curtailed by the Department of Civil Supplies. This results in disruption in the programme and the undernourished persons do not get food grain supplements. **In order to avoid this problem it is suggested that at first instance the available estimate of the number of the undernourished persons in the district is used to get the food grains released to ration shops and on the subsequent months appropriate adjustments made on the basis of actual number of undernourished girls. This system would ensure prompt delivery of the food grains at ration shops and its utilisation and pave way for future timely releases of food grains.**

In most states, there were complaints that the family was unable to collect the grains at first visit because the ration shop was not open or food grains were not available. In some states efforts were made to utilise alternate modes of supply of food grains to the identified undernourished girls such as giving the grains to the AWW or PRI for distribution. While these alternatives may be appropriate in places where there are no ration shops, they may in the long run prove to be

more troublesome than the ration shop. Data from the Evaluation indicated that over 80% of the households surveyed held a ration card and collected part of the food grains required for the household from the ration shop. **It is suggested that the AWW and ANM may request the PRI that the ration shops in the village should be open on the Health and Nutrition days when the majority of the households can collect the food grains. As food grains are provided totally free of cost the households should not have any problems in following this procedure. The ANM and AWW can use the opportunity to provide nutrition education. However if households for any reason could not collect the food grains on the Health and Nutrition days they may go on other days when the shop is open to collect the food grains.**

Training, IEC and operationalisation of the NPAG

The responsibility of training and development of appropriate IEC material was given to the state Departments of Women and Child Development. Right from the first year the IEC and training operations were completed on time in all the states. All the AWWs understood the programme and how it is to be implemented. Every year, all the states fully utilised the funds provided for IEC and training. Adult weighing balances were procured in the very first year and weighing of adolescent girls and pregnant and lactating women were initiated. Excellent IEC materials were prepared for the community and family regarding the programme. **The fact that community understood the rationale of weighing all the persons belonging to the vulnerable groups, identifying those who are undernourished and distributing the grains to them and extended full cooperation to the AWW in her task of identifying, weighing and detecting the undernourished persons is the best testimony both to the excellent skills of the AWW and the maturity of the community.** It is indeed remarkable that the paradigm shift was so well accepted by the community and very well operationalised by the AWWs in the very first year.

The experience with the programme shows that the AWWs

- Were able to identify majority of pregnant and lactating women and adolescent girls,
- Adjusted the zero error in the balances and weighed the adolescents and adults correctly and
- List those who were under weight.

In most of the districts they provided the chits and the family collected the food grains free of cost from the ration shop. The families did experience some difficulty in accessing food grains from ration shops because they were not open on all days or did not have food grains on all days but majority collected the grains for three consecutive months.

Programme implementation in 2003-04

The programme with all the three vulnerable groups receiving the food grains supplements was implemented in the year 2003-04 which was the first year when programme had been implemented in all the states. The monitoring system for the programme was being set up during the year and therefore all the reports may not have been sent / compiled and reported during the year. For instance according to the reports that were collected from Haridwar district during the evaluation, 17,360 pregnant women, 19,893 lactating mothers and 1,72,251 adolescent girls received food grains during 2003-04, but according to the reports available at MWCD only 4,778 pregnant women, 5,923 lactating women and 53,525 adolescent girls received food grain supplements. The reported number of undernourished adolescent girls, pregnant and lactating women who received food grains in 2003-04 in the ten districts taken up for evaluation according to the data available with the MWCD is given in Table 5.1. As expected over 70% of the persons who received the supplements were adolescent girls.

Table 5.1: Number of beneficiaries under NPAG in 2003-04

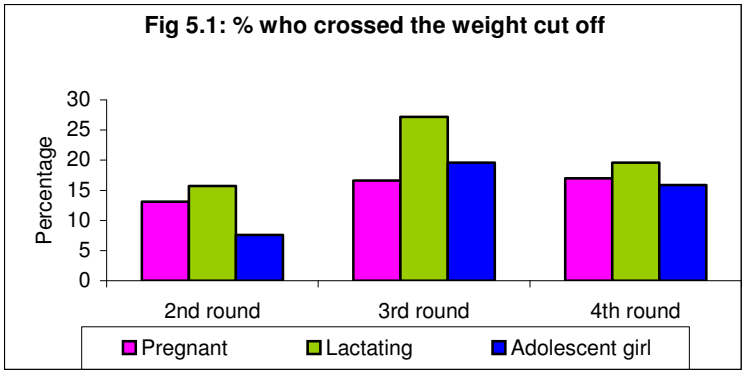
S. No.	States	Adolescent girls	Pregnant women	Lactating women	Total
1	Chattisgarh	64696	10285	13639	88620
2	Gujarat	41419	4288	4364	49964
3	Kerala	40680	2282	1719	44681
4	Mizoram				
5	Orissa	46526	5788	6488	58802
6	Rajasthan	20722	4147	4642	29561
7	Tamil Nadu				58656*
8	Uttar Pradesh	9603	6790	7170	25563
9	Uttaranchal	53525	4778	5923	64226
10	Delhi				
Total		277171	38358	43945	361417

Source: MWCD

Coverage and impact of the food grain supplementation

As food grains were to be collected once a month, majority of the families were able to collect the food grains for three consecutive months. The proportion of pregnant and lactating women accessing food supplements the ICDS services are no more than 20-30 % and even those who access do not do so consistently everyday for three to six months. The overworked undernourished pregnant or lactating woman cannot come daily to the anganwadi to collect the food but urgently needs additional food to improve both her and her child's nutritional status. **Unlike the other ICDS based food supplements, the NPAG programme in 2003-04 provided consistent food supplements to pregnant and lactating women throughout pregnancy and lactation effectively.**

Some states like Uttaranchal attempted to assess the impact of the NPAG on body weight. The data on changes in body weight reported in the three groups is given in Figure 5.1. There are problems in using this approach. Analysis of the data from the three monthly weighment showed that majority of lactating women showed weight gain, though majority did not cross the cut off point of 40 kg, the proportion of underweight individuals crossing the cut off point was highest in this group. This might partly be due to the fact that the community and the family recognised that the lactating women require more food and gave them their due share in the food grains. The fact that with waning lactation, lactating women tend to regain some weight that they had lost earlier could also have contributed to this trend. However only about 20% crossed the cut off point, because even if they consume adequate quantities of food these women cannot gain more than a kilogram in three months; if she weighed less than 35 kg earlier she is unlikely to cross the cut off point of 40 kg even if she continued to receive food grains for 6-12 months.



Most households reported that they did ensure that the pregnant woman received her due share in food grains but it is not possible to assess the proportion of who gained weight due to food grains. All pregnant women gain weight during pregnancy; weight gain cannot be attributed to the food grain supplementation because foetal growth and physiological changes during pregnancy also contribute to weight gain. Substantial numbers of women deliver and so lose about 5 kg of weight; so apparent failure to gain weight may be due to delivery and not lack of improvement in dietary intake. Thus neither the weight gain nor the apparent lack of weight gain can be related to the food grain supplements in pregnant women.

Available data on three monthly weighment in adolescent girls indicates that average weight gain over one year is about 2 kg but only very small proportion crossed the cut off point of 35 kg. Majority of girls between 10-14 years weighed less than 30 kg and it will not be possible for them to cross the cut off point even if they did get substantial amount of the food grain supplementation. Except in Delhi, majority of the girls in the 15-19 year age group also weighed less than 35 kg. In all centres some of the adolescent girls whose weights were near the cut off point did cross 35 kg over one year. But weight gain in one year in girls from Mizoram who received food grains through out the year was not substantially different from Delhi girls who did not get any food grain supplements.

Programme in 2005-06

The programme was modified to take care of the major bottlenecks in fund release. The funds for the year 2005-06 were released in July- Aug. 2005 directly by MWCD to the state Department of Women and Child Development. The Guidelines for the revised programme with only adolescent girls as the target group were issued by the MWCD. The Central Food and Civil Supplies Department made the allocation of food grains as per the request from the central MWCD. The revised programme was discussed with the state DWCD secretaries during the State Secretary's meeting in 2005. As all the states had earlier implemented the programme well in the very first year (2003-04) and the only change over time was that the programme no longer covered pregnant and lactating women and was restricted only to adolescent girls, the central MWCD had expected that the implementation would start immediately. There were however difficulties in restarting the programme in most states. Of the ten states in which evaluation was taken up only Mizoram, Orissa were able to utilise all the funds released; Tamil Nadu and Rajasthan partly utilised the funds.

Programme in 2006-07

NPAG evaluation was taken up between June and October 2006 in most of the states. In all the states the AWW had completed weighing adolescent girls at least once, had prepared the list of adolescent girls and sent it to CDPO. Data from the Evaluation showed that there were wide variations in the proportion of girls who were identified and weighed. In some states like Delhi, families were reluctant to allow the weighing of adolescent girls because though they had been weighed and undernourished girls were identified, their families had never received any food grains during the previous three years. At the other extreme was the state of Mizoram where the programme had continued and adolescent girls received food grains irrespective of their weight without any interruption during the last three years and the population cooperted in weighing of girls. In states like Uttaranchal, where the programme was fully operational through out 2003-04, the families cooperated because they felt that the programme will again result in the undernourished girls getting food grains so that nearly 90% of the girls were identified and weighed by AWW. In most of the states the families were not getting the food grains at the time of evaluation though ICDS functionaries informed the families that they were expecting the fund release and food grain allocation to be done shortly. The state and the district officials stated that they would be able to initiate the programme as soon as they receive the funds. Follow -up with the district officials and the population showed that the programme was fully operational in all states except Uttaranchal within two months after release of funds and food grain allocation.

Implementation of NPAG by Anganwadi Workers

Acceptance of the concept of food grains for undernourished persons

Initially some AWWs faced problems in some areas when the weighing to identify the undernourished persons was used as the criterion for providing the food grain supplements. However once the concept was explained, the community, families and PRI understood the rationale, they supported the programme**. During the evaluation in response to specific query on use of weight as the criterion for selection of undernourished persons requiring food supplements and providing food grains to their families, vast majority of the households agreed that it is right to have a nutrition criterion to identify those requiring nutritional supplement to improve nutritional status. AWW are able to provide chits to the undernourished persons so that their family could collect the food grains from the ration shop.** In some states the AWW has been given the task of distributing the food grains because there were no ration shops in the vicinity. In some areas the distribution of food grains by AWW has been found to improve access but there were other areas where the community did not think so.

Nutrition education

One major intervention under NPAG was nutrition education. Under the NPAG all AWW were trained in and were given specific messages pertaining to the project. These included

- Pregnant, lactating women and adolescent girls are nutritionally vulnerable groups.
- Undernutrition is identified through weighment.
- Families of all undernourished persons identified will get 6 kg of food grains/month.
- The food grains should be mainly given to the undernourished person so that over the next three months there is improvement in nutritional status.

These messages were clearly communicated especially in rural areas; in urban areas where there was space and time constraint and the NPAG programme was not operationalised well, messages did not get reiterated as often as in rural areas. AWW's knowledge on steps to improve nutritional status in women and children and their communication skills were sub optimal; their nutrition education attempts for 0-3 and 3-6 year old children were often outdated (not stressing on exclusive breast feeding, timely complementary feeds from home food), sketchy and not comprehensive.

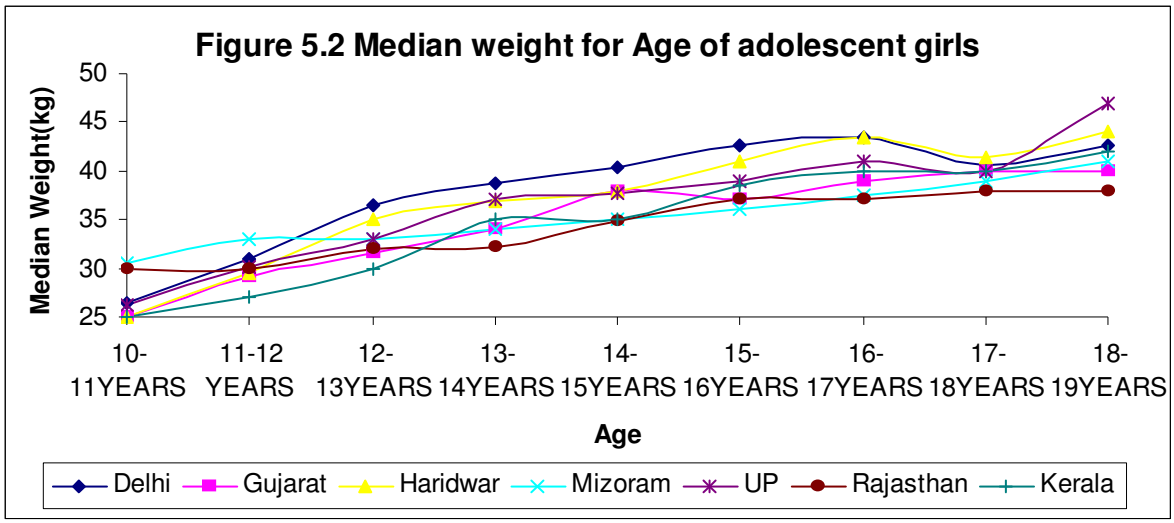
Pregnant and lactating women

It would appear that the anganwadi workers have performed their role quite effectively in implementing the programme NPAG programme for pregnant

women in 2003-04. They have shown that is possible for them to identify all pregnant and lactating women. However household survey showed that **in 2005-06 none of the centres identified 100% of all the pregnant and lactating women. It is important that the AWW identifies all pregnant and lactating women so that they can benefit from the ICDS programme or NPAG. In most centres pregnant and lactating women not weighed once in three months i**n 2006-07, even though, AWWs had the adult weighing balance and knew how to use it to define women as undernourished and normal using cut off points.

Many AWW and DWCD officials suggested that using the same cut off point for pregnant and lactating women is inappropriate; inspite of being undernourished pregnant women may be above the cut off point because during pregnancy there is gain in weight due to growth of the foetus. This is a valid point. When the NPAG project guidelines were finalised it was felt that giving different cut off points for pregnant and lactating women may lead to confusion and come in the way of effective screening of the women for undernutrition by the AWW. **However data from 2003-04 showed that AWW handled identification of undernourished persons using different cut off points (35 kg for adolescent girls and 40 kg for pregnant and lactating women) quite well. In view of this experience, it may be appropriate to define separate cut off points (40 kg for lactating women and 45 kg for pregnant women) for detecting undernourished pregnant and lactating women.**

Adolescent girls



During the evaluation all the adolescent girls in the identified households were weighed and the weight was compared with the weight recorded by the AWW in her register. In all the states most of the weights recorded by AWW in their register were within + or - one Kg from the weight recorded by the evaluation team indicating that the weighment by AWW was reasonably accurate.

Data on median and mean body weight of girls (year wise) between 10-18 years in different states computed form the data collected by the evaluation team is shown in Figure 5.2 and Table 5.2. It is obvious that there are considerable differences between states in weight of adolescent girls; between 10-19 years the girls gain between 12-20 kg of weight (Table 5.2). In spite of the fact that none of the girls in Delhi had received any food grain supplement during the

Table 5.2 Body weight of adolescent girls in different states

Age in yrs		10	11	12	13	14	15	16	17	18	19	Total
Delhi	N	16	51	55	48	65	57	52	42	46	25	**457**
	Mean Wt	25.9	29.2	31.8	35.3	39.1	41.4	41.8	44.2	42.5	44.1	**37.9**
	SD	2.79	7.59	6.17	7.54	6.47	7.47	10.73	9.43	9.18	6.58	**9.55**
Gujarat	N	13	31	58	68	51	53	45	34	42	10	**405**
	Mean Wt	27	25.7	29.7	32	34.2	38.2	39.2	38.6	41.3	39.6	**34.6**
	SD	6.99	4.09	5.34	7.11	5.52	6.54	8	6.51	6.19	5.17	**7.91**
Haridwar	N	34	56	75	67	68	57	77	42	40	19	**535**
	Mean Wt	25.9	26.3	29.9	35.5	36.5	37.3	41.3	43.7	42.2	43.4	**35.7**
	SD	7.59	4.46	4.27	7.11	5.18	5.29	5.23	5.46	6.79	6.59	**8.18**
Mizoram	N	26	76	95	73	107	93	110	110	104	32	**826**
	Mean Wt	26.1	30.9	31.8	32.1	34.4	35.4	37.3	37.3	39.5	40.7	**35.1**
	SD	5.23	3.53	3.85	5.33	4.66	3.83	4.2	2.9	5.31	4.44	**5.43**
Uttar Pradesh	N	68	32	86	53	47	58	37	28	37	3	**449**
	Mean Wt	26.9	27.2	31.9	33	36.4	37.3	39	40.2	41.3	45.2	**34.1**
	SD	6.53	4.52	8.36	5.91	6.38	6.33	7.02	4.49	7.12	4.27	**8.2**
Rajasthan	N	4	46	84	42	42	42	42	27	49	2	**380**
	Mean Wt	32.8	29.4	30.5	31.9	33.1	36.3	36.6	37	37.5	38	**33.6**
	SD	5.97	4.84	4.78	3.79	5.75	5	5.64	3.14	4.9	0	**5.68**
Kerala	N	22	23	34	41	34	46	44	33	45	29	**351**
	Mean Wt	25.9	24.7	27.1	31.7	33.9	37.5	38.5	41.8	41	41.4	**35.2**
	SD	7.1	6.34	5.52	5.61	6.39	8.73	9.58	10.27	4.64	5.45	**9.28**
Orissa	N	43	62	117	112	102	93	87	47	71	15	**749**
	Mean Wt	25.9	24.2	27.4	32	33.7	36.1	35.9	37.4	37.5	37.5	**32.5**
	SD	5.25	4.75	4.72	5.69	6.39	4.63	4.72	5.4	5.37	5.34	**6.88**
Chattisgarh	N	8	18	32	19	22	11	13	2	7	2	**134**
	Mean Wt	24.5	26.2	29.6	27.3	30.6	31.4	36.5	31	37.7	37.5	**30.1**
	SD	10.09	3.93	4.09	7.61	4.12	3.07	4.43	5.66	2.21	0.71	**6.16**
Tamil Nadu	N	3	23	45	66	51	62	58	55	40	20	**423**
	Mean Wt	34.1	25.7	28.8	32.9	35.2	37.7	40	43.2	41.7	42.4	**36.7**
	SD	0.81	5.25	6.29	6.26	6.78	5.2	6.37	5.68	6.56	11.06	**8.17**

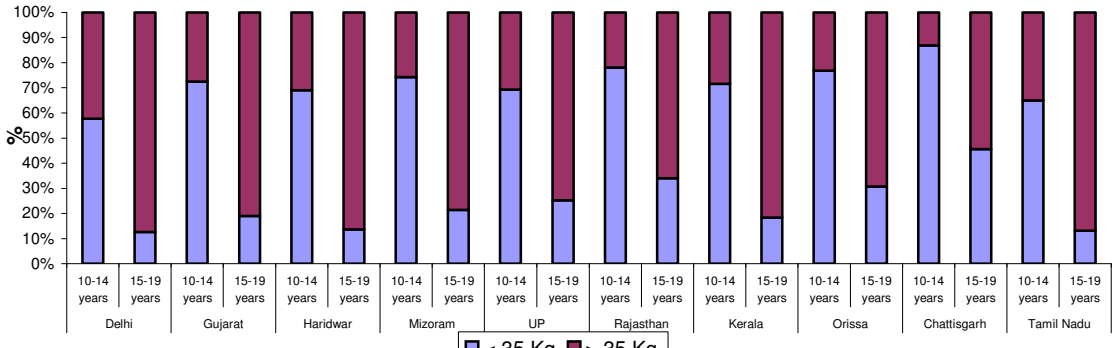
period 2002-03 to 2005-06 under NPAG programme, their body weight is higher

than that of the Mizoram girls, majority of whom had received food grain/food supplements continuously for the period 2002-03 to 2005-06. **From the data it would appear that food/ food grain supplements even when continued for 3-4 years as has been done in Mizoram might not result in significant impact in terms of improvement in body weight in adolescent girls. This is in line with the findings from NPAG reporting formats sent by different states which indicate that food grain supplements upto 12 months in adolescent girls resulted in only 10 % of girls crossing the cut off point of 35kg.**

AWW and DWCD officials had repeatedly raised the issue of appropriateness of use a single weight cut off point for detection of undernutrition in adolescent girls between 10-19 years. They pointed out that by this criterion over 75% of the 10-14 year old girls are undernourished and will not cross the cut off point for several years. In view of this some DWCD officials even suggested that AWW may be given a weight for age chart for adolescent girls, similar to the **weight for age chart for children which have been in use in anganwadi for over three decades in the anganwadi for identifying undernourished adolescent girls. However when tested AWW's performance on assessment of nutritional status of children using weight for age charts was sub optimal. It is therefore unlikely that they will be able to use weight for age charts for adolescent girls and correctly identify under nourished girls.**

Median weight of adolescent girls in the 10-14 year age group is around 30 kg and median weight of girls between 15 and 19 is 35Kg (Figure 5.3). So it

Figure-3 Interstate difference in pevalence of undernutrition in adolescent girls



may be useful to use two cut off points 30kg for those below 15 and 35kg for over 15 years of age may be attempted. However before adopting these criteria, it should be realised that even if two cut off points are used majority of girls will still not cross the cut off point within one year (Figure-5.3).

Identification and weighing efficiency

There are substantial differences between districts in the efficiency with which the AWW identified and weighed the adolescent girls, pregnant and lactating women. The identification and weighing efficiency under NPAG was essentially similar to the completeness of the identification and weighing of the preschool children in these anganwadis. The identification and weighing efficiency is higher in rural areas as compared to the urban areas.

Perception of the Households

Data from the Household survey indicated that Anganwadi is known to majority of the urban and rural community; the community regarded Anganwadi as a place where food supplements are distributed to vulnerable groups. **The families accept that preschool children, adolescent girls, pregnant and lactating women are nutritionally vulnerable and require care. They understand the rationale for weighment and identification of undernourished persons and accept the concept that priority should be on providing food supplements to undernourished persons.**

Majority of the household both in urban and rural areas have ration card and obtain at least part of the food grains required for the family from the ration shop. In most areas the food grain distribution for NPAG is through the ration shops**; while majority stated that they had faced problems in accessing the food grains through PDS, they accepted that it is the most viable option available.** Alternative modes of distribution of food grains to the undernourished person's family, which have been tried, include distribution through anganwadis and PRI. In some areas where there are no ration shops they may be the only mode available but each of these the alternatives have their own sets of disadvantages.

Women in these households stated that they would try to provide adequate food to the undernourished persons especially to pregnant and lactating women so that their nutritional status improves. There was a clear understanding that food supplements given for a limited period (till they deliver in pregnant women or until they complete one year of lactation in lactating women) to undernourished pregnant and lactating women will benefit both the mother and her offspring. The community and the family were therefore willing to do their best to ensure that undernourished pregnant and lactating women get additional food.

Pregnant and lactating women are two groups that have been receiving supplements from ICDS right from its inception. But available data suggest only about a fourth of all pregnant and lactating women are able to come to anganwadi and receive food supplements; only about a fourth of those who came are able to come and collect food for more than 20 days in a month. Data from

NPAG in the first two years of implementation suggest that majority of pregnant and lactating women were able to collect rations for three months as food grains are to be collected once a month. NPAG was thus able to provide food grain supplements continuously for three months in pregnant and lactating women. **In view of the experience with NPAG and the fact that women from poorer segments of population will not have the time to come to anganwadi every day to collect food, it might be appropriate to universalise weighing, identification of undernourished pregnant (<45 kg) and lactating women (<40kg) and providing 6 kg of food grains/month free of cost to identified undernourished pregnant women for the remaining period of pregnancy or lactating women for the remaining period of first year of lactation.**

The attitude of families towards food grain supplements to adolescent girls was rather equivocal. Some of the better off segments of the population felt that they are providing adequate food to adolescent girls and did not feel there was need for additional food grain supplements to be given to them. There were anecdotal reports from some centres that some households during the school re-opening period sold the food grains and used to money for buying books or school uniform. Among the poorest sections of the population both in urban and rural areas, the women of household felt when there are other persons in the family who are also not having adequate food and so they have to use the food grains to improve the household food security; therefore they cannot give all the additional food grain they got to the identified undernourished adolescent girl. Many educated family members stated **that majority of younger adolescent girls were catogorised as undernourished by using a single cut off weight and very few of the adolescent girls crossed the cut off point even after several months of supplements; they raised the question whether it feasible to give food grains supplements to families of adolescent girls for several years continuously**