

End of Tour Report

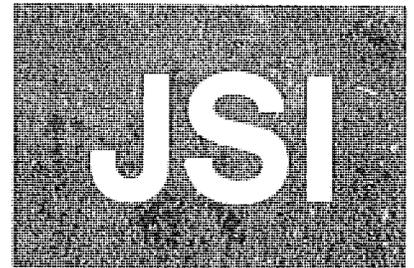
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January 1985 - August 1986

**USAID Contract No:
386-0476-C-00-4030-00**



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I. Summary

A. CHIEF OF PARTY RESPONSIBILITIES

The Chief of Party / Management Information Systems Advisor was the first of the two long-term advisors in India. Arrival at post was on January 17, 1985.

Initial administrative tasks included:

- Renting office space
- Renting accommodations
- Procurement of office equipment and furniture
- Recruitment and training of an Administrative Assistant and Secretary
- Establishment of office administrative and financial procedures
- Recruitment of field officers.

Due to the absence of a Training/NHED Advisor during the first six months of the tour, early responsibilities included coordination with consultants from Manoff International, the NHED subcontractor for the JSI ICDS Project.

With the selection of field officers, offices were opened in Maharashtra and Gujarat States, administrative procedures were initiated, training was begun, and vehicles were leased in both Godhra and Chandrapur for field officer transportation within the districts.

Continuing Chief of Party responsibilities included:

- Supervision of office staff
- Supervision of field officers
- Financial and administrative monitoring.

B. STRATEGIES FOR TECHNICAL ASSISTANCE

The USAID ICDS project requires interventions at five sites including:

- The Delhi-based ICDS-related offices of the Government of India (GOI), para-statal organizations, private voluntary organizations, and other donor agencies
- The Department of Health for the State of Gujarat which includes the USAID-assisted ICDS district of Panch Mahals
- The Rural Development Department for the State of Maharashtra which includes the USAID assisted ICDS district of Chandrapur

- Panch Mahals District in its entirety
- Chandrapur District (eight of the ten blocks).

Early visits to each of these five sites resulted in the conclusion that priority MIS objectives varied with the level of the administrative unit (i.e. union govt., state govt., district/ local level).

At the CENTRAL OR UNION GOVERNMENT level, work had already commenced on a comprehensive document which described existing information systems used within ICDS. At the request of the GOI, participation in the completion of this document became the highest and most immediate priority. The selection, purchase, and installation of the USAID funded microcomputer became the second priority. Visits to other Delhi based offices suggested that MIS revisions that required inter-organizational and inter-ministerial decisions might best be delayed until a later phase in which MIS had been strengthened within the nodal ICDS unit at the central level.

At the STATE level, interest focused on the installation of microcomputers within the nodal departments for ICDS. The process of installing and the appropriate use of these computers would become the medium for achieving MIS design revisions. In both states, the appointment of MIS coordinators was both a "condition precedent" for the USAID project and a necessary precondition for the installation of the microcomputers. Different organizational structures within the two states led to variation in the implementation of the State level objectives.

At the DISTRICT OR LOCAL level, large quantities of data were being collected monthly and were being aggregated and submitted to the next highest level of organization without being used for management purposes. The priority objective at the local levels was clearly the design and implementation of systems to demonstrate how the collected data could become information used to improve management decisions.

Resulting from early analysis, this strategy, focused on concurrent implementation of three different priorities at the five sites:

central	the IMIS document installation of computer
Maharashtra State	installation of computer
Gujarat State	installation of computer
Panch Mahals District	local use of information for management purposes
Chandrapur District	local use of information for management purposes

A visit by Dr. David Pyle, Project Director, in September - October 1985 included a tour of project sites, interviews with ICDS officers at the block, district, state and central levels, and a visit to the World Bank supported Tamil Nadu Integrated Nutrition Project. The resulting report

proposed a four phased approach to the implementation of an experimental design for MIS interventions. The first two stages of the approach emphasized a Minimal Essential Information System beginning with a Program Effectiveness Rating based on coverage (i.e. percentage of children weighed) and nutritional status (i.e. percentage above III degree). Phases proposed for later implementation focused on use of MIS to improve supervision, attention to the most vulnerable, and the introduction of Mothers and Children Health / Nutrition Records as an alternative to registers.

C. SUMMARY OF RECOMMENDATIONS

1. Local Level Activities

- a. Extensive training needs to be offered to ICDS staff in Chandrapur to assure success of the redesigned MIS (including survey procedures, new registers, key indicator wall hangings new Anganwadi MPR's, and the Monthly Monitoring Card system)
- b. Home visit cards should be introduced on a phased field test basis, first in a circle, then in a block.
- c. The replication of the redesigned MIS in Panch Mahals should include better coordination of indicators.
- d. The replication of redesigned MIS should include more emphasis on coordination with the health MIS.
- e. The installation of computers at the district level should be undertaken with great care and according to the suggestions in the following text.

2. State Level Activities

- a. The management systems that use the type of computer graphics feedback demonstrated at the JSI office should be implemented by RDD according to the steps suggested in the following text.
- b. The unique opportunity for coordination of MIS for Health, ICDS, and CARE in Maharashtra should be pursued according to the detailed suggestions and should serve as a model for improved coordination between these units nationwide.
- c. Replication of the RDD / ICDS computer installation in Bombay should be undertaken in a manner that includes the following six suggestions:
 - The designation of two officers on the staff of DWW who's role will be the support of state

level ICDS computer installations

- Extensive training of these two individuals, particularly in DBASE III, perhaps at IIM/Ahmedabad
- A review of the DBASE system used in Maharashtra and the completion of any adjustments required to enable this software to be used as a national standard
- A request to CARE for technical assistance in the replication process. This could perhaps be funded under the USAID Child Survival grant to CARE / India. It would be consistent with CARE's intent to computerize its own state offices. It would increase compatibility if not integration of ICDS and CARE MIS. Presumably the World Food Programme could provide similar technical assistance once their field offices are opened and staffed.
- Individual training should be provided at each site upon arrival of the computer. The number of trainees should not be less than four in order to protect the installation against sudden transfers, resignations, and long leaves. The number of trainees should not be more than six in order to guarantee hands-on training. Training could be conducted by one of the support officers from DWV together with a trainer from the vendor.
- Installations should be scheduled for one every two months in order to guarantee the attention and training required at a new site.

3. Central Level Activities

- a. Improved interagency coordination of MIS at the central level can be achieved through the five suggestions:
 - WFP and the ICCW are the only ICDS agencies that have not yet purchased and that do not plan to purchase compatible software and hardware. WFP should be encouraged to make this purchase as soon as possible and to begin developing within its Delhi office DBASE III programming expertise. Such expertise would allow WFP to provide technical assistance to support the installation of microcomputers at the state ICDS nodal departments in those states covered by WFP

(or alternatively to the new WFP state offices which in turn could provide technical assistance to the nodal departments).

- ICCW and NIPCCD should be encouraged to develop compatible reporting formats. ICCW should be assured access to the NIPCCD computer for the processing of reports from ICCW training centers.
- DWW should develop a cadre of DBASE III programmers able to meet the information needs of DWW. The cadre would also be able to assume technical leadership in the development of appropriate databases at the ICDS agencies, and to provide on-going support to state ICDS installations.

Development of such a cadre will require clarification of supervisory authority and extensive training for approximately five programmers. Such training might best be provided by the Computer and Information Sciences Group at the Indian Institute of Management at Ahmedabad (IIM/A). IIM has fifteen computers that are identical to those being used by the ICDS agencies and that are organized in a training format. The Computer and Information Sciences Group includes staff familiar with formats and the processing requirements used by ICDS agencies. The Group also has considerable experience training government civil servants to use this equipment and DBASE software.

The ability of these programmers to support state installations will depend upon their ability to travel to installation sites. Should this not prove feasible, reliance upon CARE and WFP (as described in the text above) could serve as an alternative for state support. In any case, support for ICDS agencies within Delhi should come from a specially trained DWW programming cadre.

- Because a major advantage of the selected software is its user-friendliness, sufficient training should be offered to managers in ICDS agencies to enable them not only to understand the capacities of the installations but also to achieve at least minimal competence in using simple applications.
- More extensive training should be provided for

the maximum number of staff at each installation. The DWW installation, for example, was accompanied by the training of nine staff. In contrast, the NIPCCD installation was accompanied by the minimal training of only one individual. The frequent transfers and unpredictable leaves characteristic of government service makes it inadvisable to rely upon one individual. The user-friendly aspect of the software makes it possible for most staff members to be trained to do their own work on the computer.

- b. Plans for the updating of the IMIS document should commence immediately and should consider assigning particular attention to the following eleven suggestions:
 - Consideration of some format which would make revisions possible without republishing the entire document.
 - Inclusion of protocols and formats which would facilitate coordination between Health and ICDS workers at the village, circle and block levels. This could include:
 - i. a suggestion that, wherever possible, supervisory circles for the Mukya Sevika and the LHV be made identical
 - ii. a suggestion that a minimum number of Mukya Sevika/LHV joint visits be required monthly
 - iii. a sample protocol that could be used to direct activities during these joint visits
 - iv. a suggestion that Mukya Sevika and LHV's meet jointly once a month
 - v. a sample curriculum prepared by NIPCCD that could be used by CDPO's and MO's at these monthly meetings for in-service training.
 - The introduction of mechanisms (e.g. registers, home visit cards, alterations in the Anganwadi Workers MPR) that would focus the Anganwadi Workers attention on those families most in need of assistance and that would encourage visits on the part of the Anganwadi Worker, the ANM, and both ICDS and Health supervisory staff to those households.

- Suggested formats for wall hangings on which the Anganwadi Worker could display the results of her work and that would demonstrate that the ICDS does much more than child care. (Demonstration wall hangings in Chandrapur and Panch Mahals have cost approximately Rs. 11 per Anganwadi.)
- Careful instructions on the conduct of village surveys with an emphasis on coordination with the ANM whenever possible.
- Revised registers that are compatible whenever possible with those kept by the ANM. This should facilitate the exchange of information between the Anganwadi Worker and the ANM.
- Revised Anganwadi MPR's which move static information (e.g. educational status of the Anganwadi Worker) to another format and that are submitted annually.
- The introduction of specific systems to strengthen the role of the ICDS supervisor. These might include the monthly monitoring cards described above or a register based version of the same.
- Revised CDPO MPR's. Although the current formats are well done, they will need to be altered to delete some static information and add more boxes where required by large blocks.
- A suggested role for the state nodal ICDS departments in computerized the MIS. Specific computer training curriculum, operational procedures, and feedback formats need to be suggested. Formats for reporting to DWW once computers have been installed at the state level also need to be prescribed.
- A revised role for the DWW in a computerized MIS context needs to be suggested. This would include commitments for feedback to the state departments and procedures for the sharing of information between Delhi-based ICDS agencies.

4. Participant Training Activities

- a. MIS training for new CDPO's in Panch Mahals is badly needed in the immediate future.
- b. NIPCCD should be provided with the training necessary to assure the best use of their newly

purchased computer.

- c. Additional in-service training is required for the staff of the two existing computer installations.
- d. Training similar to that provided in Bombay and Delhi should be provided in support of the new ICDS installation in Ahmedabad.
- e. CDPO management training either should commence soon, or the NPC should be requested to return the advanced funds.

II. Systems at the Local Level

A. STRATEGY FOR TECHNICAL ASSISTANCE

The village level ICDS worker uses a significant portion of her time to collect data. She does this through the maintenance of registers that usually number between 10 and 20 and that often vary from block to block in number and format. Separate monthly reports are compiled by the Anganwadi Worker for the state nodal ICDS department, the All India Institute of Medical Science (AIIMS), and CARE. Information from these monthly reports is aggregated at the block and district before being sent to the state and central offices.

Visits to approximately 150 Anganwadis suggest a number of MIS problems that require resolution:

- Inaccurate information from the Anganwadis is included in the aggregation.
- The reporting formats are so extensive and comprehensive that they fail to indicate to the Anganwadi Worker some sense of priorities.
- Data collected by the monthly reports is not used on a regular and systematic basis to improve management and facilitate supervision.
- The data collection system fails to provide feedback to the community regarding the performance of the Anganwadi in their village.

The interventions that are discussed immediately below were taken to meet these needs.

B. MAJOR ACTIVITIES AND ACCOMPLISHMENTS

1. Key Indicator Wall Displays

Some surveys have suggested that people have little familiarity with the range of services that they should expect from the Anganwadi in their village. They also do not know the extent of the beneficiary groups. These wall hangings display this information in the Anganwadi. Of particular importance is the evidence that the Anganwadi is expected to serve and does serve pregnant women and lactating women in addition to pre-school children.

In many cases, the Anganwadi Worker does not understand which of her many tasks are the most important. The completion and display of a limited number of indicators cause the worker to focus her attention on services reflected by these selected indicators.

No calculations are required to complete the wall hangings. Instead, related indicators are positioned next to one another. For example, the number of pregnant women who receive supplementary nutrition and the number of pregnant women who have received two doses of tetanus toxoid immediately follow the number of pregnant women surveyed in the village.

The wall hangings are screen painted onto black plastic with horizontal dowling at each end. Monthly numbers are written in with chalk. When purchased in bulk, the cost per wall hanging is approximately 92 cents.

Demonstration wall hangings were first hung in one Anganwadi in each block. They were placed with the assistance of the field officer, the Supervisor, and the CDPO. During the second phase, the field officer conducted block training for which each supervisor brought one village worker and her registers.

An example key indicator wall display is included here.

BEST AVAILABLE

ANGANWADI KEY INDICATORS

Month _____

- A. 1) Number of pregnant women
2) Number of these women fed 15 days or more
3) Number of these : with second dose of T.T.
- B. 1) Number of nursing women with children under 6 months of age
2) Number of these women fed 15 days or more
- C. 1) Number of children under 6 months of age weighed
2) Number of children 6-36 months of age weighed
3) Number of children 0-36 months of age gaining weight
- D. 1) Number of Children 6-36 months of age in grades II, III, IV
2) Number of these children fed 15 days or more
- E. 1) Number of children under 12 months of age
2) Number of these children with third dose of Polio
- F. 1) Number of children 12-36 months of age
2) Number of these children receiving Vitamin A during the last six months
- G. TOTAL POPULATION = _____

BEST AVAILABLE

2. Revised Registers

Registers used at Anganwadis in both districts vary from block to block. These were collected, examined, and compared to the registers proposed in the IMIS document. Draft registers were prepared and presented for review by the Chief Executive Officer and the CDPO's in Chandrapur District.

The proposed registers include the following alterations:

- The number of registers has been reduced to seven.
- All supplementary nutrition registers have been combined register into one to facilitate daily record keeping.
- Registers for pregnant and lactating women have been merged into one register that is compatible with the information required by health workers.
- The Supplementary Nutrition register is modified to list children by age and nutritional grade.
- A register that summarizes work done in the village by health workers is introduced in order to encourage the provision of health improved services and coordination with health workers.
- A register listing at-risk children (grade III, grade IV, and children with weight loss) allows the village worker to improve the monitoring of children who are most in need of attention and of the duration of their at-risk status.

These registers are organized to facilitate their completion by the Anganwadi Worker of the redesigned monthly progress report (MPR's). The revised MPR'S are discussed below.

3. Revised Anganwadi Monthly Progress Reports

The MPR that is completed by the Anganwadi Worker is in the local language, and the format is determined by the state nodal ICDS department. Most versions are many pages long and collect large amounts of data. Much of the data rarely changes, and some of it is nearly impossible to collect in a reliable fashion.

The redesigned Anganwadi MPR fits onto two sides of one sheet. This is made possible by moving all static information to a separate sheet that is filled annually or whenever the static information changes. The education level of the village worker is an example of the kind of information that does not need to be reported monthly.

Other significant changes included in the revised MPR include:

- The concept of weight gain / weight loss is introduced for children under three.
- Immunization coverage is reported for children under one (rather than children under six years of age).
- The number of joint visits by Health and ICDS supervisors are reported.
- Vital statistics are reported separately for children under one year of age.

The redesigned MPR was presented to the Chief Executive Officer and to the CDPO's. The revised MPR that results from these discussions include the following improvements:

- Expected numbers of beneficiaries are included in the format to ensure that supervisors can assess the probable completeness of the survey coverage.
- Child deaths are listed by family name to facilitate follow up by the supervisor.
- Additional information is reported for children in at-risk categories.
- "Negative indicators" (numbers not served) are included in an attempt to strengthen immunization, vitamin A, and folic acid coverage.

The redesigned and revised MPR's are arranged to facilitate the calculation of indicators that are included in the monthly monitoring cards. These cards are described in the following paragraphs. An example revised MPR is included here.

I.C.D.S. ANGANWADI WORKERS'
MONTHLY PROGRESS REPORT

MONTH..... 198...

ANGANWADI WORKER..... ANGANWADI

VILLAGE ANGANWADI NO.

POPULATION COVERED BY ICDS BLOCK

SUPPLEMENTARY NUTRITION:

number of feeding days =

TOTAL	NO.	RECEIVING
SURV.	SELECTED	REC.
		=>15 DAYS

Pregnant women*

Lactating mothers (up to 6 mos)*

Children; 6 mos to 3 yrs.

(no. Grade II, III, IV)

Children; 3 yrs to 6 yrs.

	GROWTH MONITORING; WEIGHING:		ARM CIRCUMFERENCE
	0 - 3	3-6	CHILDREN 1 - 6 YEARS
		TOTAL	
TOTAL			TOTAL
NORMAL			GREEN
I			YELLOW
II			RED
III			TOTAL
IV			

No. of children under 3 gaining weight =

No of children referred to PHC, Sub-centre, Hospital =

IMMUNIZATION; (completed for children under 1 year of age)

DPT (3rd dose) BCG (1 dose) POLIO (3rd dose)

I.C.D.S. ANGANWADI WORDERS

STATUS SHEET

NOTE: The anganwadi worker should complete two copies of this sheet. She should give one copy to the supervisor and keep one copy at the anganwadi. When any information on this sheet changes the anganwadi worker should complete a new sheet (two copies), circle the changed information and give one copy to the supervisor.

This status sheet should be shown to the supervisor each time she visits. It should also be submitted annually on March 31.

ANGANWADI WORKER..... ANGANWADINo.

DATA SANCTIONED VILLAGE BLOCK

HOURS OF ANGANWADI WORKER: trained / untrained

EDUCATIONAL STATUS OF WORKER: matriculate literate illiterate

Does the Anganwadi worker live in the village: YES/ NO

PHC Sub-centre

ANGANWADI BUILDING (circle one): other (not below).....

house given by village panchayat / rented house / school / private house

CIRCLE INSUFFICIENT ITEMS:

- | | |
|----------------------------|----------------------------------|
| Utensils, food preparation | Utensils, food distribution |
| Weighing scales | Mid Upper arm circumference tape |
| Growth charts | Stationary and forms |
| Non formal education kit | Anganwadi job chart |
| others (list) | |

DRINKING WATER SUPPLY : normal summer

MAHILA MANDAL: yes / no MAHILA MANDAL REGISTERED: yes/no

DO LOCAL WOMEN HELP IN COOKING AND FEEDING? yes / no

DOES THE ANGANWADI RECEIVE CASH CONTRIBUTIONS FROM THE COMMUNITY? yes /no

.....
signature of Anganwadi Worker

revismor:000:5 apr

NOTES ON REVISED ANGANWADI
MONTHLY PROGRESS REPORT (MPR)

The attached MPR is a proposed revision of the Anganwadi MPR currently in use in Chandrapur. All of the required information exists in current and proposed anganwadi records and registers. This MPR includes all information necessary for the proposed Anganwadi Monitoring Card and for the MPR's submitted by the CDPO's to the State ICDS Directorate and the Department of Child and Women's Welfare.

In summary the revisions are:

1. Relatively static information, that which is unlikely to change on a monthly basis (i.e. educational level of anganwadi worker) has been moved to a separate "STATUS SHEET" which is kept both by the anganwadi worker and the supervisor, reviewed during each supervisor visit to the anganwadi and resubmitted by the anganwadi worker annually or when information on this sheet changes. This reduces the time each month required for the MPR.
2. The number of feeding days is listed only once rather than for each category of beneficiary. This number is almost always constant for each category of beneficiary.
3. Supplementary nutrition beneficiaries receiving feeding for 15 days or more during the month are listed separately.
4. A separate line has been added in order to identify those children 6 months to 3 years who are grade II, III, and IV who are being fed 15 days or more each month. These numbers allow assessment of the numerical goal listed in the USAID project paper (attached). By including this row in the revised MPR we eliminate the need for a separate reporting format. This information comes easily from the supplementary feeding register where children under three are listed by nutritional grade.
5. Under growth monitoring, weighing information for children under three years of age, three to six years of age, and total are reported. This will allow supervisory staff to assess the degree of success in weighing the children under three. These children are most at risk and, unfortunately, the least likely to be weighed.

6. NO. OF CHILDREN UNDER THREE GAINING WEIGHT. This is probably the single best indicator of the health of the most at risk children. It is easy for the anganwadi worker to understand and it comes directly from the "key indicator" anganwadi wall display.
7. Immunization of DPT, BCG, and Polio for children under one year of age is listed separately. This is easily collected from the register and is a very important indicator of timely immunization.
8. Joint visits of the supervisor and LHV are counted separately.
9. Child deaths are listed for children 0 - 1 year of age, and 1 - 6 years of age. This allows managers to focus on the 0 - 1 yr age group where most deaths occur and allows calculation of the infant mortality rate.

revisapr:CDO:05 April

4. Monthly Monitoring Cards

Preliminary analysis demonstrated that supervisors had only subjective impressions about the performance of the Anganwadi Workers under their supervision. They all had opinions about the relative competence of village workers, but there was little correlation between their opinions and the data reported by the Anganwadi Workers on the MPR's. For example, very few supervisors were able to respond correctly when they were asked to use the information from the MPR's to identify which of the Anganwadis in their circle were reporting the worst levels of malnutrition. Some supervisors were able to identify villages that report the largest number of malnourished children, but few were able use these numbers in relation to the size of the village.

The monitoring card system requires that collected data be used by CDPO's at the block level to direct the work of supervisors.

Horizontally across the top of the card, selected indicators for children are listed on one side, and indicators for pregnant and lactating women are listed on the other. Whenever possible, the selected indicators are presented as percentages in order to allow for the comparison of the performance of Anganwadis regardless of the size of the village. For example, the number of surveyed children under the age of three will vary with the size of the village, but the percentage should approximate 8% regardless of the size of the village.

The design of the Anganwadi MPR makes it easy for the supervisor or the block statistical assistant to complete the monitoring card. There is one for each Anganwadi. One line of data is added for each month. A monthly review of this card allows the supervisor to note potential deficiencies in the provision of services and to observe progress in the resolution of the problems. This card becomes the focus of discussion between the supervisor and the Anganwadi Worker.

A second card design has indicators listed on both sides that are identical to those of the above card. However, on this card the names of the Anganwadis rather than of the months are listed down the left margin. This card is completed monthly by copying lines from the card described above. It allows the CDPO to compare the relative performance of Anganwadis within the supervisors circle of responsibility. By reviewing this card monthly with the supervisor, the CDPO is able to apply management by exception techniques, identify the most significant indicators of inadequate performance, and suggest how the supervisor should use her time during the following month to resolve these problems.

For example, the CDPO notices that all but one of the Anganwadis in the supervisors' circle report a number of pregnant women between 1 and 2% of the village population and that one Anganwadi reports only 1/4 of 1% of the population pregnant. The CDPO would then explain to the supervisor the importance of complete coverage of pregnant women and suggest that she be included in the supervisors tour program for the coming month.

By using this second card the CDPO can assist the Supervisor to complete her tour program for the coming month.

A third card has the identical indicators listed across the top of each side but has the name of the supervisors listed down the left margin. Lines of information can be copied exactly and quickly from the bottom of the Anganwadi monitoring card to this card. This third card allows the CDPO to review the relative performance of the Anganwadi by supervisor circle. A copy is also submitted to the District Programme Officer who is able to use these forms to compare performance of supervisors and blocks.

An example Monthly Monitoring Card are included here.

आंगणवाडी सनियंत्रण तफ्ता
(मातासाठी)

केंद्र : Center
 आंगणवाडी कार्यक्षेत्रीचे नाव : Narmada
 पर्यवेक्षिका : Supervisor
 स्वतंत्र उपकेंद्र : Sub-center
 आरंभिक आरोग्य केंद्र : P.S.C.

नाही होय नोंदणी

क्र. सं.	नोकरी शाखेच्या		विद्यार्थ्यांच्या		एकूण निवड शाखेच्या नोकरीची संख्या	मुखाचा वाटप विषय		मस्तीकरण		(बातम्या)				मेटोचे विवरण				सकामाची बाताळ	एकूण वर्ग संख्या	एकूण वर्ग संख्या	बातविनास प्रकल्प अधिकारी यांचा बेरा					
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Populats 1981

लोकसंख्या (१९८१)

अपेक्षित मुल Project-...

अ) ० ते ६ महिने ① 0 to 6 month

ब) ६ महिने ते ३ वर्ष ② 6 mth to 3 yrs

क) ३ वर्ष ते ६ वर्ष ③ 3 yrs to 6 yrs

Anganwadi, M.P. ...
आंगणवाडी, म.प्र. ...

(बालकासाठी)

Center No.

केंद्र क्रमांक :

- १) गावाचे नांव : Name of village
- २) आंगणवाडी कार्यकर्ते नांव : Name of Anganwadi worker
- ३) पर्यवेक्षिका : Supervisor
- ४) स्वाभ्य उपकेंद्राचे : Sub center अंतर : Distance
- ५) प्राथमिक आंगण केंद्र : P.M.C. अंतर : Distance

वजनकाटे :
weighing scales

नाही

आहे

NO

YES

Month	Selected		Selected		Selected		Health				Immunisation			Dental			Other		Total	Remarks
	1-3	4-6	7-9	10-12	13-15	16-18	19	20	21	22	23	24	25	26	27	28	29	30		
एप्रिल
मे
जून
जुलै
ऑगस्ट
सप्टेंबर
ऑक्टोबर
नोव्हेंबर
डिसेंबर
जानेवारी
फेब्रुवारी
मार्च

Target

INSTRUCTIONS
CDPO MONTHLY MONITORING CARD
(front side)

The CDPO Monthly Monitoring Card allows the ICDS district programme officer and the Chief Executive Officer to quickly review monthly performance of ICDS projects according to the most important indicators.

Results can be discussed with CDPO's at monthly CDPO meetings.

Calculations can be performed by the district ICDS statistical assistant. A separate card should be kept for each project. A new line should be entered for each new month.

Source information is found on the (1) feeding days tally sheets, and (2) on existing CDPO MPR's.

COL. INSTRUCTIONS

1. Write the name of the month.
2. FEEDING DAYS, <15: From the feeding days tally sheet, count the number of anganwadis with less than 15 feeding days. Divide this by the total number of anganwadis in the block (reverse side).
3. FEEDING DAYS, >20: From the feeding days tally sheet, count the number of anganwadis with more than 20 feeding days. Divide this by the total number of anganwadis in the block (reverse side).
4. % ANGANWADIS REPORTING: From the MPR, page 4, divide the number of anganwadis reporting by the total number of anganwadis in the block.
5. SUPPLEMENTARY NUTRITION COVERAGE, PREGNANT WOMEN: From the MPR, page 4, divide the number of pregnant women actually receiving supplementary nutrition (eligible + non-eligible) by the estimated number of pregnant women (reverse side).
6. SUPPLEMENTARY NUTRITION COVERAGE, LACTATING MOTHERS: From the MPR, page 4, divide the number of nursing mothers actually receiving supplementary nutrition (eligible + non-eligible) by the estimated number of nursing mothers (reverse side).
7. SUPPLEMENTARY NUTRITION COVERAGE, 6 MOS - 3 YEARS: From the MPR, page 4, divide the number of children 6 months to 3 years actually receiving (eligible + non-eligible) by the estimated number of children 6 months to 3 years (reverse side).
8. SUPPLEMENTARY NUTRITION COVERAGE, 3 - 6 YEARS: From the MPR, page 4, divide the number of children 3 yrs to 6 years actually receiving by the number of estimated number of children 3 yrs to 6 years (reverse side).
9. GROWTH MONITORING COVERAGE, 0 - 3 YEARS: From the MPR, page 5, divide the total number of children 0 - 3 years of age weighed, by the estimated number of children 0 - 3 years of age (reverse side).

10. GROWTH MONITORING, ARM STRIP, 3 -6 YEARS: From the MPR, page 5, divide the total number of children 3 -6 years of age whose upper mid-arm circumference was measured by the estimated number of children 3 -6 years of age (reverse side).
11. NUTRITIONAL GRADE, I: If column 9 is more than 70%: from the MPR, page 5, divide the number of children 0 -3 years of age with normal weight by the total number weighed.

If column 9 is 70% or less, leave this column blank.
12. NUTRITIONAL GRADE, II: If column 9 is more than 70%: from the MPR, page 5, divide the number of children 0 -3 years of age in grade I by the total number weighed.

If column 9 is 70% or less, leave this column blank.
13. NUTRITIONAL GRADE, II: If column 9 is more than 70%: from the MPR, page 5, divide the number of children 0 -3 years of age in grade II by the total number weighed.

If column 9 is 70% or less, leave this column blank.
14. NUTRITIONAL GRADE, III: If column 9 is more than 70%: from the MPR, page 5, divide the number of children 0 -3 years of age in grade III by the total number weighed.

If column 9 is 70% or less, leave this column blank.
15. NUTRITIONAL GRADE, IV: If column 9 is more than 70%: from the MPR, page 5, divide the number of children 0 -3 years of age in grade IV by the total number weighed.

If column 9 is 70% or less, leave this column blank.
16. IMMUNIZATION COVERAGE, DPT: From the MPR, page 6, divide the number of children immunized with DPT (3 doses) by the estimated number of children 0 - 6 years of age (reverse side).
17. IMMUNIZATION COVERAGE, BCG: From the MPR, page 6, divide the number of children immunized with BCG (1 dose) by the estimated number of children 0 -6 years of age (reverse side).
18. IMMUNIZATION COVERAGE, POLIO: From the MPR, page 6, divide the number of children immunized for Polio (3 doses) by the number of children 0 -6 years of age (reverse side).
19. PRE-SCHOOL EDUCATION ATTEND: From the MPR, page 6, divide the number of children attending under Non-formal Pre-School education by the estimated number of children 3 years to 6 years of age (reverse side).

CDPO MONTHLY MONITORING CARD
(reverse side)

BLOCK CDPO

INSTRUCTIONS: The district ICDS statistical assistant should complete this reverse side before completing any of the monthly information. The numbers calculated below will serve as denominators for percentages on the front side of the card.

This reverse side need not be revised when the number of anganwadis or the population covered by these anganwadis changes.

The percentages used in these calculations are derived from the 1981 census.

TOTAL NUMBER OF ANGANWADIS

TOTAL POPULATION COVERED BY THESE ANGANWADIS =

Estimated pregnant women (2% X TOTAL POP.) =

Estimated nursing mothers (2% X TOTAL POP.) =

Estimated children 6 mos to 3 years of age (7% X TOTAL POP.) =

Estimated child, 3 years to 6 years of age (8% X TOTAL POP.) =

Estimated children 0 - 3 years of age (8% X TOTAL POPULATION) =

Estimated children 0 - 6 years of age (15% X TOTAL POPULATION) =

NARRATIVE

CDPO MONTHLY MONITORING CARD

BACKGROUND. Currently copies of CDPO MPR's are sent to the district ICDS cell but there is no process for analyzing this data and using it to facilitate better supervision of CDPO's by the District Programme Officer.

The CDPO Monthly Monitoring Card selects key indicators from the CDPO MPR (and the Feeding Days tally sheets) and presents these in a format which allows quick comparisons over time and between project blocks. The District Programme Officer would use these cards to assist CDPO's in designing action plans which would focus on deficient services.

INDICATORS. The key indicators selected for presentation are:

- FEEDING DAYS
- SUPPLEMENTARY NUTRITION COVERAGE
- GROWTH MONITORING COVERAGE
- NUTRITIONAL GRADE
- IMMUNIZATION
- PRE-SCHOOL EDUCATION ATTENDANCE

The growth monitoring and nutritional grade indicators will require the Anganwadi worker to alter the existing MPR by drawing two vertical lines on page four and report this information broken into age groupings. This reflects an attempt to assure growth monitoring of the under 3 years of age population which is most at risk.

IMPLEMENTATION. The CDPO Monthly Monitoring Card would be field tested in one district, probably Chandrapur, and revised based upon this experience. The CEO in Chandrapur has expressed an interest in this process.

CDO; draft 30/11

5. Coordination With Health Workers

Many of the most important services that are provided under ICDS, particularly those most important to child survival issues, are the responsibility of the Health worker rather than the ICDS Anganwadi Worker. Immunization, for example, is done by the Health staff, and the ICDS village worker can best serve by monitoring coverage and by bringing inadequate service to the attention of her supervisor.

In both of the USAID supported ICDS districts, the field officers have worked with the highest level district officers to realign supervisory boundaries for the Health staff to ensure that they coincide with those of ICDS. District officers have also issued instructions that Health and ICDS supervisors should make a minimum number of joint visits each month and that supervisors from the Health and ICDS should meet jointly at the relevant Primary Health Centre monthly.

C. RECOMMENDATIONS FOR FUTURE ACTIVITIES

1. Training in Integrated MIS

The system described above is accompanied by written instructions which allow ICDS staff at the local level to dependably complete and submit forms. Selected training has been offered, particularly in the use of the monitoring cards and the Key Indicator Wall Displays for CDPO's and Supervisors. Additional in-service training is necessary to ensure that the staff are able to put the new formats to their best use in improving management and supervision.

Training must be offered to the Anganwadi Workers and additional training will be required by CDPO's and Supervisors. At the least, an orientation to the MIS should be provided to the Health Workers in order to maximize opportunities for integrating Health and ICDS MIS.

The content of the training should include:

- Community survey techniques
- Maintenance of the revised registers
- Use of the registers to complete the redesigned Anganwadi MPR's, use of the redesigned MPR's to complete the Monthly Monitoring Cards
- Use of the Monitoring Cards in determining Supervisor's tour programs, and the monthly review of these cards in order to assure progress in problem resolution.

This training must be organized independently of other project training. The Mobile In-service Training described in the project paper has been considerably delayed and its scheduling unclear. Preliminary plans for the curriculum of the Mobile In-service Training suggest that the

time available for MIS segments would be insufficient for the content described above.

In addition, CDPO Management Training will cover a broad range of management issues. Management training will not allocate sufficient time to MIS to cover the required content.

Both the Mobile In-service Training and the CDPO Management Training can reinforce independent MIS training. The independently offered MIS training would include the following:

	<u>total number</u>	<u>no./ session</u>	<u>no. of sessions</u>	<u>duration of session</u>
Anganwadi Workers	3,000	20	150	3 days
ICDS supervisors	200+	10	20	5 days
Statistical asst.'s	19		2	5 days
CDPO's	19		2	5 days

2. Home Visit Cards

ICDS national policy calls for the provision of many services in the home. Unfortunately, the weight of the workload makes it difficult for village workers to undertake time-consuming tasks that require travel from home to home. As a result, either reports of home visits are not accurate, or the home visits are done so quickly as to be of little value. Anganwadi Workers who do choose their home visits selectively tend to choose homes of families who fail to send their children to pre-school education classes.

CDPO's have suggested that if home visit cards are kept in the home of families with at-risk children, it would allow supervisors to better monitor the conduct of home visits and also would focus the attention of Anganwadi Workers on those families who are most in need of attention.

Local ICDS staff have been impressed with the success of home visit cards used in the malaria eradication program in their area. They believe that home visit cards would ensure that Anganwadi Workers and health workers extended their service into the homes. By placing the home visit cards in the homes of families with at-risk children (grade III, grade IV, and weight loss), Anganwadi and health workers would be directed to the homes most in need of assistance. The most essential health education services are provided by including on the card those services Mobile for at-risk children and by asking that the Anganwadi Worker and supervisor discuss these services with the family as they place the card in the home.

Health and ICDS workers are asked to sign in and date their visit. This allows supervisors to assess at least the frequency at which village level workers visit the homes of the most needy families.

The reverse side of the the card includes a modified growth chart. This chart covers only the first three years. Weight is marked along the longest axis, and this dramatizes weight gain/weight loss. ICDS growth charts are kept at the Anganwadi. Putting the growth chart on the reverse side of the home visit card would allow an assessment of the advantages of placing the growth charts with the mother.

Although the proposal to use home visit cards arose from local level ICDS workers and has considerable support within the districts, it has not yet been tested. It might best be tested in phases, first in a single supervisor's circle and later in an entire block. A sample home visit card is included here.

AT RISK CHILD (0 - 3 years of age)
HOME VISIT CARD

VILLAGE _____ A.W.W. _____
ANGANWADI _____ A.N.M _____
CHILD'S NAME _____ AGE _____ SEX _____
FATHER'S NAME _____ MOTHER'S NAME _____

IMMUNIZATION STATUS (DATES): BCG _____ VIT A (1st) _____ (2nd) _____
DPT (1st) _____ (2nd) _____ (3rd) _____
Polio (1st) _____ (2nd) _____ (3rd) _____
Iron & folic acid: _____

DATE:
Weight:
Grade:
Gain/No gain

VISIT NOTES:

DATE	ADVICE	TREATMENT	DESIGNATION & SHORT SIGNATURE
------	--------	-----------	----------------------------------

NOTE FOR PARENTS:

1. This card should be kept at home.
2. This card shows that your child is at risk. The child requires special attention and extra nutrition, if you will follow the advise given by the A.W.W. and the health staff your child will improve.
3. Your child should be weighed monthly.
4. When any health staff comes to your home please show this card.

NOTES/EXPLANATION OF:

AT RISK CHILD
HOME VISIT CARD

PROBLEMS:

Observations suggest that the anganwadi workers require assistance in the conduct of home visits. Currently, at least in Panch Mahals and Chandrapur, Anganwadi workers, depending on their level of competence and commitment either:

1. Don't do home visits.
2. Visit homes that are most accessible.
3. Visit homes on a rotating basis.

This problem most likely arises from the limited time available to the Anganwadi worker for the extensive work required of her.

Home visits are essential for assuring interventions that assure improved health for at risk children.

DEVELOPMENT:

The attached card and the procedures described below were developed in a meeting in Panch Mahals including the ICDS DPO, the JSI field officer, the JSI MIS Advisor, Saresh Sengupta, and two CDPO's.

It was then reviewed at a USAID/ICDS session.

Medical officers in the appropriate PHC's have been contacted and agreed to assist in the process.

SUGGESTED INTERVENTIONS:

1. The attached card will be printed in Gujarati and hung on the wall in homes of children who are not gaining weight or who are Grade III or Grade IV (i.e. children most at risk).
2. The contents of the card will be reviewed with the parents to assure they understand the condition of the child and the attention required.
3. Anganwadi workers and ANM's will be instructed to visit these homes at least monthly and note the activities undertaken during the visit.
4. ICDS supervisors and LHV's will visit a sample of these homes during their anganwadi visits to assure the anganwadi worker is visiting and to offer additional assistance when needed.

CDO: 02/01

PREGNANT AND LACTATING WOMEN
HOME VISIT CARD

VILLAGE _____ A.W.W. _____
ANGANWADI _____ A.N.M _____
WOMAN'S NAME _____

PREGNANT WOMEN (dates): T.T. (1st) _____ (2nd) _____
if vaccinated with T.T. during last pregnancy (booster) _____
Iron & folic acid: _____

DELIVERY: date __/__/__ Live birth ___ Still birth ___
Birth weight _____

VISIT NOTES:

DATE	ADVICE	TREATMENT	DESIGNATION & SHORT SIGNATURE
------	--------	-----------	----------------------------------

NOTE FOR PREGNANT AND LACTATING WOMEN:

1. This card should be kept at home.
2. Pregnant and Lactating women require special attention and extra nutrition, if you will follow the advise given by the A.W.W. and the health staff you are more likely to have an easy delivery and a healthy child.
3. Your child should be weighed immediately after birth and then every month.
4. When any health staff comes to your home please show this card.

3. Coordination of Indicators

The redesigned MIS described above emphasizes the same indicators from the revised registers maintained daily by the village worker, through the MPR, through the Monthly Monitoring Card system up to the District Programme Officer. By consistently using the same indicators in the same formats, all of the ICDS workers are receiving the same impressions concerning the relative importance of different services included in ICDS.

Although the indicators on the wall hangings approximate those in the larger redesigned system, a more exact correlation would cause the Anganwadi Worker less confusion and simplify her record keeping.

The wall hangings might also be improved by displaying numbers for three months at a time. Three columns along the right margin of the hanging rather than one will accomplish this without causing the the village worker additional work.

4. Comptability With Health MIS

Health and ICDS workers keep registers on the same information (e.g. immunization, pregnant women). Both the ICDS Anganwadi Worker and the Assistant Nurse Midwife (ANM) conduct periodic surveys in the village. At times we have asked the Anganwadi Worker and the ANM to compare their lists of pregnant women for the village. Rarely are the lists identical. Systems which assure greater coordination between the ICDS and Health MIS will increase reliability and diminish the amount of time workers must devote to record keeping.

Increased comptability could be achieved through the following innovations:

- Introduction of identical survey register formats that could be used by both workers until the the survey work of Anganwadi Workers produced sufficiently reliable results to justify a reduction in the survey work of the health worker by eliminating duplication
- The development of protocols to be used by Health superand ICDS visors during their joint visits
- Training for Health and ICDS workers which demonstrated how the monthly comparison of registers could increase reliability of survey information and facilitate the delivery of health services to those families most in need.
- Eventual integration of Health and ICDS MIS databases on district- based microcomputers.

5. District Level Computer-Based MIS

Donor agencies and state governments have expressed considerable interest in the use of microcomputers at the district level. In the new Health Project Paper, USAID has proposed computers at every district in two states.

As mentioned above, the overlap of the contents of an ICDS database and of a health database at the district level would suggest that any computer installed for health should also serve ICDS. The indicators that are important to ICDS but that are not already included in health MIS formats are few and would require only a small expansion of the Health database.

The most important constraint on the use of computers at the district level is the lack of appropriate staffing. The success of the installation will depend on the availability of:

- Very friendly, menu driven, pre-packaged procedures for data entry and periodic report generation
- The cooperation of the Chief Executive Officer / District Development Officer in appointing his very best administrators or statisticians as computer operators
- The availability of extensive, patient training for a minimum of four computer room personnel immediately upon installation of the computer
- A provision for extensive and frequent in-service computer training for operators
- The availability of advanced training for computer operators who show promise of further skill development
- The availability of back-up support services able to travel to installation site upon demand
- A willingness to begin processing at relatively superficial levels of organization (i.e health centers and ICDS project blocks) and to expand down to supervisory levels only after computer operators have achieved a minimum level of confidence
- A willingness to phase in installations slowly to ensure that potential problems can be solved before they are replicated at multiple sites.

IBM / PC compatible hardware is manufactured in India and supports user friendly software commonly used in India. The inclusion of hard disks

diminishes the need to use floppy disk drives. Fewer problems occur with damaged disks and damaged drives if the operators are able to use the hard disk drive.

Assuring the success of the initial district level installations will require considerable attention, support, and resources.

III. State Processing

A. STRATEGY FOR TECHNICAL ASSISTANCE

The responsibility for the ongoing management of ICDS lies to a large extent with the nodal ICDS department at the state level (The Department of Health in Gujarat and the Rural Development Department in Maharashtra). The state level departments determine the format of the monthly reports that come from the village level. They issue circulars that instruct ICDS staff on how to complete the MPR's. They require Monthly Progress Reports from the block level CDPO's that duplicate information included in reports that are sent to Delhi but that are used in an entirely different format. In Gujarat, the Department of Health issues an approved format for village level ICDS registers different from the one prescribed by the central level. The state level directorates receive and (to varying degrees) process the monthly reports from the ICDS blocks.

Also at the state level, CARE field offices monitor the distribution of supplementary feeding commodities, the number of beneficiaries, and other indicators. They receive both their own monthly report and a copy of the MPR sent to the Department of Social Welfare in New Delhi.

Reports on the provision of health services, many of which are included in the ICDS scheme, are received by the Department of Health in Maharashtra and the Health Directorate in Gujarat. Both organizations function independently of offices with nodal responsibilities for ICDS.

Although design issues relating to ICDS MIS are at times discussed at the Delhi level, the information system serving ICDS is managed by offices at the state level. Many of the decisions relating to the operation of the ICDS MIS are made at state offices. Most interventions and training activities undertaken under the project, even in the USAID-assisted districts require approval from the state offices.

The project paper for the USAID assistance to ICDS does not suggest activities at the state level but does include budgeted funds for the purchase of a microcomputer to be installed at the state ICDS nodal offices. The purchase, installation, and use of this USAID funded microcomputer presents an opportunity to gain access to many of the offices that and officers who have the daily responsibility of ICDS MIS.

B. MAJOR ACTIVITIES AND ACCOMPLISHMENTS

1. Selection, Purchase, and Installation of Computer

Discussion with DWW regarding the purchase of computers began in April 1985. A consultant reviewed the needs and recommended hardware and software during May of the same year. Computers were installed at DWW and RDD during early 1986. The purchase orders were approved in a final draft in March of 1986.

The computers installed at the two USAID-assisted state ICDS offices are to be the first in a nationwide system. The Department of Women's Welfare plans to install computers dedicated to ICDS in each of the state nodal offices. The installations in Maharashtra and Gujarat will serve as replicable models.

Prior to initiating any purchase at USAID, the DWW was asked to specify the hardware and software that they wished to use for ICDS nationwide. Although informal discussions demonstrated a pre-existing preference in both hardware and software, the project offered to fund a consultant to review needs and recommend the appropriate software and to delineate technical specifications for the hardware.

In response to the DWW's preference for an Indian national consultant, Professor Subash Bhatnager was chosen for the consultancy. Professor Bhatnager's report recommended DBASE III software supported by Indian manufactured PC compatible microcomputers with hard disks. Indian manufactured computers were necessary because the two states were to serve as models for the nationwide ICDS system in which the GOI would certainly buy Indian manufactured hardware. The report went on to point out that, given plans for a national system, hardware should be purchased from a company which could offer nationwide servicing. Only one company was able to meet this requirement. During informal submission of cost quotations, the same company submitted the lowest bid.

DBASE III was chosen because it is relatively easy to use. Lotus 1-2-3 was included because of its easy to use graphics. The objective at the state level was to train civil servants with no prior computer experience to conduct simple manipulations of data bases built from the MPR's. IBM / PC compatibles were chosen for their ability to support DBASE III and Lotus 1-2-3. Hard disks were recommended to minimize the down time due to mechanical problems that often are associated with floppy disk drives. Maximum memory allowed greater freedom for inexperienced programmers.

After acceptance of the consultancy by the DWW, the MIS Advisor initiated paper work that allowed the project officer to place sole source purchase orders for computers at the two states and one at the DWW (as per the project paper). The consultancy occurred in May of 1985, and the purchase orders were finally approved in late March of 1986. Nevertheless, both the Maharashtra and DWW / Delhi computers were installed during early 1986. The Gujarat computer was delayed due to the lack of appropriate staffing to support the installation.

2. Selection and Orientation of MIS Coordinator

At RDD, the nodal ICDS department for Maharashtra, the Secretary called 30 existing employees for interviews by the MIS Advisor. From these 30, five were chosen. Two were Class One officers trained as water and sanitation engineers. The remaining three were Class three, or upper division clerks. Because the USAID project paper had agreed to find only one position, the appointment of all five to the ICDS MIS unit was evidence of the enthusiastic support from the Secretary of RDD (the highest level

civil servant within the department).

Since none of the five had experience with ICDS, the MIS Advisor took the five to Chandrapur for orientation to ICDS MIS. The orientation was accomplished in two separate trips of three days each.

In Gujarat, the MIS coordinator was appointed at the end of July 1986 just prior to the departure of the MIS Advisor. The appointment of a person to this position was listed as a condition precedent for the USAID project. Repeated visits to the appropriate state level offices had failed to produce an MIS Coordinator prior to July 1986.

3. Computer Training

In Maharashtra, the five MIS Coordinators were enrolled in course work at the Bombay office of NIIT immediately following their appointment. The course was a classroom-based orientation to computers. The class met two hours a day over a three week period and provided the coordinators with a basic knowledge of the vocabulary and concepts required to work with microcomputers. The three weeks of training coincided with the three weeks between the placement of the order for the computer and the delivery.

Upon completion of the three week orientation course and the arrival of the computer, the five commenced full-time training for an additional three weeks. This training was provided by the vendor. Because only the five coordinators from RDD participated, it was possible to tailor the curriculum to their needs. Two of the three weeks were devoted to DBASE III. The remaining week was divided between LOTUS 1-2-3, Wordstar, and an orientation to the hardware. During the three weeks, the trainees joined vendor staff in developing DBASE applications that would be used to enter data from ICDS MPR's and generate periodic reports.

Although training for the five was identical, the trainees informally chose specializations during the course of the training. This ensured that upon completion, two were competent data processing managers, one was an enthusiastic programmer, and the remaining two were excellent operators.

4. Standardization of Reporting Formats

As mentioned earlier, the state nodal ICDS department, RDD, used an MPR which differed considerably from the format chosen by the DWW in Delhi. As a result, CDPO's at the block level completed one MPR for the DWW in Delhi and another for the state. Both contained essentially the same information. The format designed by DWW in Delhi had the advantage of being both shorter and better organized for easy keyboard entry. In a meeting with the Class I coordinators and the deputy secretary of RDD, it was decided to replace the older state MPR format with the DWW format and to insert a additional page that would allow the state to gather the extra information they required on village water supply, etc. while successfully standardizing the formats, complying with the DWW designated format, and facilitating data entry.

It was also agreed that with the installation of the computer in the Bombay offices of RDD, the ICDS directorate would be moved to a closer location and MPR's would be sent directly to the MIS coordinator at the computer room.

5. Demonstration of Computer Applications

While waiting for the state computers to become operational, the MIS Advisor collected summary data from the MPR's in Chandrapur. This information was entered monthly into a DBASE data file. Each month selected information was exported to LOTUS spreadsheets from which bar graphs were generated. The bar graphs were mailed to the district program officer and CDPO's.

Initial bar graphs illustrated:

- The number of children weighed in a particular block as a percentage of the expected number of children under the six years of age
- The percentage of children weighed falling within each nutritional grade
- The number of pregnant women surveyed as a percentage of the expected number of pregnant women for the reported population served
- The number of lactating women surveyed as a percentage of the expected number of lactating women for the reported population being served.

Each block received only two bar graphs each month. One showed progress over time on the selected indicator, and the other illustrated the achievement of that block compared to the other blocks in the district.

The indicator selected for a block depended on the service deficiency indicated by the data included in the MPR. Blocks which reported low coverage of weighing for children received graphic illustrations of their coverage until the coverage reached 80%. Blocks claiming more than 80% coverage received the more complicated bar graphs indicating relative amounts of malnutrition.

The emphasis shifted to survey of pregnant women as child weighing coverage reached more acceptable levels throughout the district and as field work indicated coverage of pregnant women to be a more serious problem.

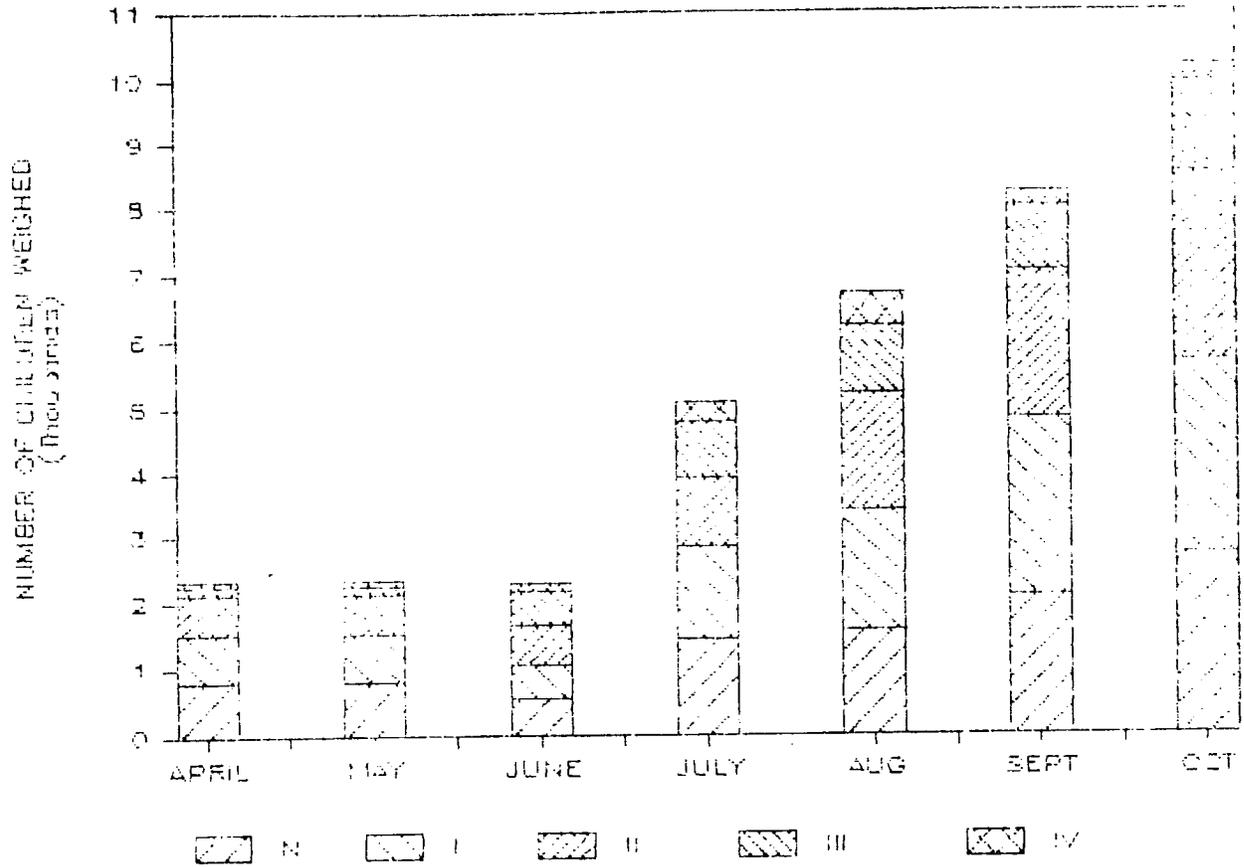
With the arrival of the new Chief Executive Officer in Chandrapur, graphic feedback was passed through the CEO's office at his request. He would review the bar graphs and add notes to the CDPO's before asking the district program officer to distribute them.

The demonstration of computer processing of the MPR's and the

distribution of the bar graphs were discontinued at the request of the USAID Project Officer.

A sample graphic feedback follows.

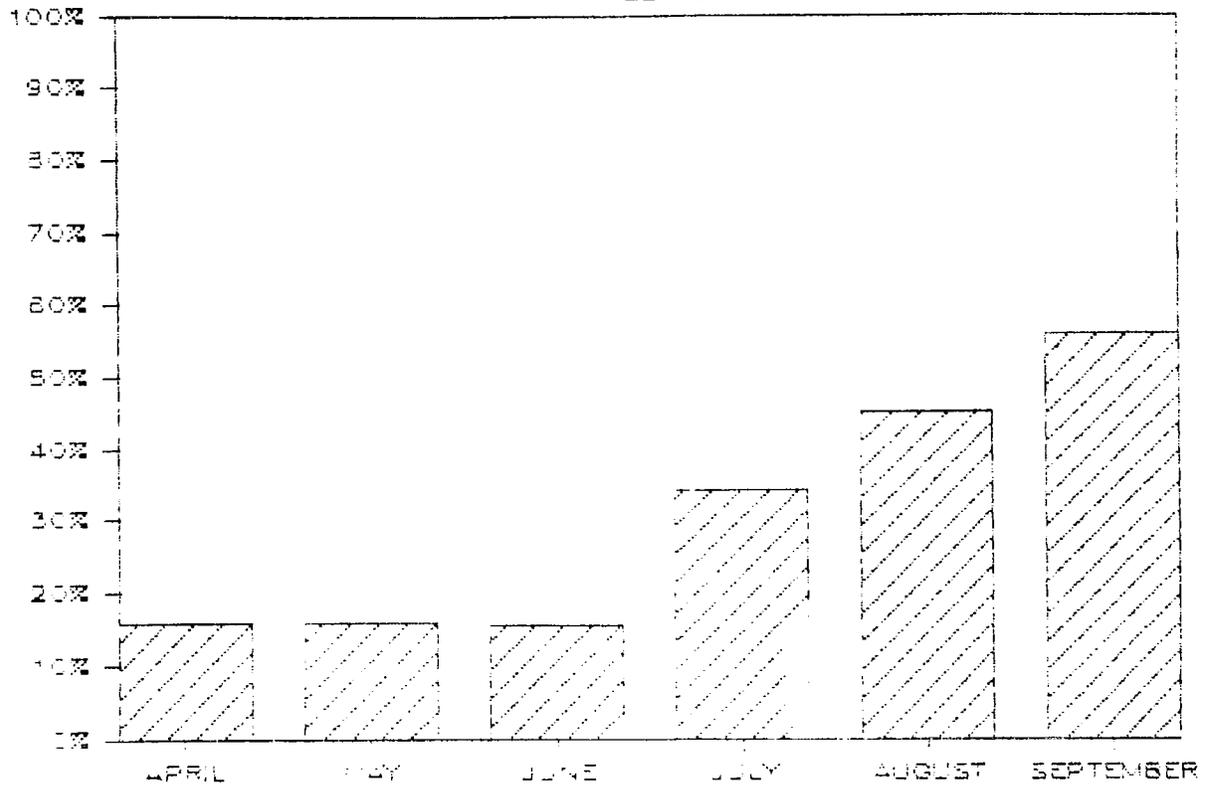
CHILDREN WEIGHED, NUTRITIONAL GRADES



BEST AVAILABLE

COVERAGE BY WEIGHING, CHILDREN 0-6

MAGSHID



BEST AVAILABLE

C. RECOMMENDATIONS FOR FUTURE ACTIVITIES

1. Implementation of Feedback-Based Management System

The computer application described in the above paragraphs should be undertaken by the ICDS MIS unit in Maharashtra. This would require the following steps:

- a. The decision to standardize the MPR's coming from the block level CDPO's must be implemented with circular and follow up monitoring.
- b. The MPR's must be sent directly to the ICDS MIS unit for immediate entry.
- c. A small committee chaired by the deputy secretary and including the ICDS State Director and the two Class 1 ICDS MIS officers should select a limited set of the most important indicators that they would like to monitor (e.g. weighing coverage, survey coverage of pregnant women).
- d. Each month the committee should review the summary data and decide the most relevant indicator for each region. Two bar graphs, one showing progress over time, another showing performance relative to other blocks in the region, should be sent to each block in the region. Copies should be sent to the regional nutritional officer.
- e. Before any feedback is distributed, the Regional Nutritional Officer should be called to Bombay for thorough instruction in the use of the bar graphs in motivating and supervising the CDPO's within their region.
- f. This management feedback system should be installed in one region at a time. Commencement of feedback to a region should be accompanied by training provided on site to assembled CDPO's. At the completion of the training each CDPO will demonstrate his ability to use the bar graph as motivational and supervisory tool.

2. Coordination with DOH and CARE

Throughout India, ICDS is typically a responsibility of the social welfare department in the state government. Health services that are essential to the child survival aspects of ICDS always fall under the Department of Health. The responsibility for the distribution of food commodities to the Anganwadi sometimes belongs to CARE, sometimes belongs to the World Food Programme, and sometimes belongs to the state or local governments. Each organization has developed its own MIS. Rarely is the

information shared between offices at the state level.

Maharashtra presents a unique opportunity to demonstrate the coordination of the information systems related to ICDS. The DOH in Maharashtra already has in operation an MIS that includes feedback used for management purposes. Health reports received at the state level are computer processed by a private firm under a contractual agreement. The DOH has already expressed a willingness to cooperate in the development of a coordinated ICDS MIS. It has also expressed an interest in decentralizing its processing and feedback by placing microcomputers on an experimental basis at the district level.

CARE / Maharashtra already uses Indian assembled versions of the Radio Shack Model 4 and plans to purchase an Indian assembled IBM / PC compatible in the very near future. This will make the CARE computer compatible with the microcomputer installed for use by ICDS in the Rural Development Department.

Most of the indicators important to ICDS are collected by at least two of these three organizations. Improved coordination of ICDS MIS between the organizations could be accomplished through the following procedures:

- A small committee with representatives from the three organizations should meet to identify a short list of significant indicators required for the optimal management of ICDS services.
- Staff should identify which indicators are available from existing collection procedures and should commence sharing these indicators at monthly meetings.
- The committee should decide which indicators would be of most value to field staff (Health, ICDS, and CARE) and which format would best present these indicators.
- Training should be offered to field staff in the use of these indicators for improved management and supervision.
- Feedback to field staff should be phased in on a region by region basis.
- Alterations should be designed to produce any indicators that are required but not currently available.
- After some time, the committee should review the reporting formats and suggest deletions that eliminate duplication, additions where required, and alterations to the formats in order to facilitate computer entry.

Implementation of a coordinated ICDS MIS requires careful monitoring of the accuracy of the information being collected. The presence of both CARE and JSI field officers in Chandrapur suggests this district as the initial model district for the integrated system.

USAID plans for the installation of computers serving Health at the district level could be adjusted to implement comparable integration of the MIS at the district level. Since hard disks are recommended for ease of use, the additional capacity they provide can easily accommodate the extra storage required for an integrated MIS.

3. Replication In Other States

Experience with the ICDS computer installation at RDD in Maharashtra suggests that successful replication in other states will require considerable training and back-up.

Preliminary DWW plans call for the provision of a course in Delhi for two persons from each state after which computers are to be installed simultaneously in each state. Currently, there is no officer at DWW with the responsibility of providing back-up to these installations. The vendor is not likely to take on the task of supporting such an ambitious plan.

A more cautious alternative might include the following steps:

- Designate two officers on the staff of DWW who's role will be the support of state level ICDS computer installations.
- Train these two individuals extensively, particularly in DBASE III, perhaps at IIM/ Ahmedabad.
- Review the DBASE system used in Maharashtra and the completion of any adjustments required to enable this software to be used as a national standard.
- Request from CARE technical assistance in the replication process. This could perhaps be funded under the USAID Child Survival grant to CARE / India. It would be consistent with CARE's intent to computerize it's own state offices. It would increase compatability if not integration of ICDS and CARE MIS. Presumably the World Food Programme could provide similar technical assistance once their field offices are opened and staffed.
- Individual training should be provided at each site upon arrival of the computer. The number of trainees should not be less than four in order to protect the installation against sudden transfers, resignations and long leaves. The number of

trainees should not be more than six in order to guarantee hands-on training. Training could be conducted by one of the support officers from DWV together with a trainer from the vendor.

- Installations should be scheduled for one training session every two months to ensure the support and continued skills training required at a new site.

IV. Central Level Coordination

A. STRATEGY FOR TECHNICAL ASSISTANCE

Between the development of the Project Paper and the arrival of the MIS Advisor, the Ministry of Social Welfare had, with assistance from UNICEF, assigned an individual to develop a comprehensive document describing the the information systems involved in ICDS. The MIS Advisor arrived two weeks before the final review of this document. The Ministry believed that the document was in final form and that it was not available for alternations. The plan was to distribute it to all block level CDPO's as soon as the printing was completed. The only problem that the Ministry recognized was the need for extensive editing of the draft document. With the approval of the the project officer, the MIS Advisor offered to serve as editor. Written instructions from the Ministry made it clear that assistance from the JSI office should be limited to editing in the narrowest sense of the work and that the content should not be modified.

The second area of interest emphasized by Ministry officials was the installation of microcomputers for the processing of ICDS block level Monthly Progress Reports.

A third objective was the integration of reporting systems of the various agencies involved with ICDS. As mentioned in the summary section above, this task involved considerable coordination of multiple ministries, para-statals, and private voluntary agencies. As a result, the pursuit of this objective was delayed until base accomplishments were achieved in each organization.

B. MAJOR ACTIVITIES AND ACCOMPLISHMENTS

1. Integrated Management Information Systems for ICDS

Upon the arrival of the MIS Advisor, the IMIS document was in a very rough format and included illegible text in the margins. Therefore, editing proved a significant task, and close analysis led to the discovery of inconsistencies and vague text. The process of editing and rewriting was undertaken by local professional editors. Substantive issues were referred to the MIS Advisor and resulted in repeated discussions with the Jt. Secretary at the Ministry. During these discussions, a number of substantive changes were incorporated into the document. Examples of these include:

- The Anganwadi Workers' Monthly Progress Report was revised to include the weighing of children by two age groups (0-3 years of age and 3 -6 years of age). This reflects a concern that the the village level workers may be weighing only those children who attend the pre-school Anganwadi sessions and may not be weighing the younger children who are more at risk and for whom growth

monitoring can better serve to assure appropriate interventions.

- Immunization reports were altered to include a separate section on coverage of children under one year of age for DPT, Polio, and BCG.
- Supervisory structures for Mukya Sevikas were improved.

The JSI / India office had promised to use word processing and spreadsheet capacities to produce a photo-ready copy of the document. Considerable clerical effort was invested in this task because the document includes a large amount of technical information and many sample reporting formats. The final draft was delivered to the Ministry on the first of January 1986. Printing was completed in July. A copy is available for review at the the JSI office in Boston or in India.

2. Computer Selection, Purchase, and Installation

Selection, purchase, and installation of the microcomputer for the Ministry of Social Welfare / DWW followed the same procedures as those described above for the purchase of the computer for Maharashtra state ICDS offices. Purchase considerations were constrained by the intent to use the installation as a model for nationwide duplication. In his consultant's report, Professor Bhatnager recommended the same hardware and software for the DWW installation. The only variation was an indication that the central level may require additional memory in the future. The USAID purchase order for the DWW computer moved through the process with the purchase order for the RDD computer.

3. Training

With the assistance of two Under Secretaries from the DWW, nine candidates were selected for training in use of the software and computer. Of the nine, six had no experience with computers. These six trainees attended a full time one week-long course offered by the vendor. The course served to introduce them to the hardware, software and to advance their level of computer literacy in preparation for the three week intensive course. The three week course was offered once for four trainees and a second time for five trainees. Both sessions consisted of two weeks of training in the use of DBASE III and one week of orientation to DOS, LOTUS 1-2-3, and Wordstar.

To facilitate supervision, training was offered in the building that houses the JSI offices.

C. RECOMMENDATIONS FOR FUTURE ACTIVITIES

1. Interagency Coordination of MIS

As described at the beginning of this report, in addition to the initiatives originating with nodal ICDS offices at the state levels, information systems serving ICDS have been installed by many departments, institutes, and private voluntary agencies. Basic information on the implementation of ICDS is sent to the DWW. Health specific information is sent to the All India Institute of Medical Science (AIIMS). Supplementary foods commodity and beneficiary reports are sent to CARE and the World Food Programme (WFP). Information on the training of ICDS staff is sent to the National Institute for Public Cooperation and Child Development (NIPCCD) and the Indian Council of Child Welfare (ICCW).

The percentage of reports that are actually received and the accuracy of the information in them varies between the systems. Each organization has designed formats to meet its specific needs. Maintenance of these formats allows each agency to assess performance over time. There is no interest in immediately abandoning the existing independent systems to replace them with a single integrated system.

There is a keen interest in computerizing the processing of the information that is submitted to each agency. It appears that the DWW has set the standard for software and hardware through the USAID purchase of the HCL Busybee PC/XT and the reliance upon programmed DBASE III. NIPCCD has already purchased identical hardware and will use DBASE III if the staff is able to receive appropriate training. AIIMS and CARE are both considering the purchase of the same hardware and software as well.

The possibility of all of the ICDS agencies using the same software and hardware suggests the potential for increased coordination. This should be achieved through the following interventions:

- a. WFP and the ICCW are the only ICDS agencies that have not yet purchased and that do not plan to purchase compatible software and hardware. WFP should be encouraged to make this purchase as soon as possible and to begin developing within its Delhi office DBASE III programming expertise. Such expertise would allow WFP to provide technical assistance to support the installation of microcomputers at the state ICDS nodal departments in those state covered by WFP (or alternatively to the new WFP state offices which in turn could provide technical assistance to the nodal departments).
- b. ICCW and NIPCCD should be encouraged to develop compatible reporting formats. ICCW should be assured access to the NIPCCD computer for the processing of reports from ICCW training centers.
- c. DWW should develop a cadre of DBASE III

programmers able to meet the information needs of DWW. The cadre would also be able to assume technical leadership in the development of appropriate databases at the ICDS agencies and to provide on-going support to state ICDS installations.

The development of such a cadre will require clarification of supervisory authority and extensive training for approximately five programmers. Such training might best be provided by the Computer and Information Sciences Group at the Indian Institute of Management at Ahmedabad (IIM/A). IIM has fifteen computers that are identical to those being used by the ICDS agencies and that are organized in a training format. The Computer and Information Sciences Group includes staff familiar with formats and the processing requirements used by ICDS agencies. The Group also has considerable experience training government civil servants to use this equipment and DBASE software.

The ability of these programmers to support state installations will depend upon their ability to travel to installation sites. Should this not prove feasible, reliance upon CARE and WFP (as described in the text above) could serve as an alternative for state support. In any case, support for ICDS agencies within Delhi should come from a specially trained DWW programming cadre.

- d. Since a major advantage of the selected software is its user-friendliness, sufficient training should be offered to managers in ICDS agencies to enable them not only to understand the capacities of the installations but also to achieve at least minimal competence in using simple applications.
- e. More extensive training should be provided for the maximum number of staff at each installation. The DWW installation, for example, was accompanied by the training of nine staff members. In contrast, the NIPCCD installation was accompanied by the minimal training of only one individual. The frequent transfers and unpredictable leaves characteristic of government service make it inadvisable to rely upon one individual. The user-friendly aspect of the software makes it possible for most staff members to be trained to do their own work on the computer.

2. Update of Integrated Management Information Systems (IMIS) for ICDS

As the authors of the IMIS document point out in their introduction, the development of Management Information Systems is a dynamic process which must be able to adjust quickly as the needs of management (at all levels) change or develop. The introduction of the recently published IMIS document should be seen not as an overdue standardization of the reporting process but rather as the beginning of initiatives which bring managers into the process of designing systems that provide them with the information they require.

Training in the use of the IMIS document should stress this point and should invite CDPO's and other managers to begin collecting suggestions for improvements as they implement formats and procedures included in the IMIS document. The introduction of the IMIS document should include the commencement of a system that will collect comments on the formats and systems included in the document. It should also encompass plans for a more systematic assessment of the effectiveness of the systems included in the document.

DWV officers may want to begin planning priority topics for the next revision of the document. Suggestions might include:

- a. The consideration of some format which would make revisions possible without republishing the entire document.
- b. The inclusion of protocols and formats which would facilitate coordination between Health and ICDS workers at the village, circle and block levels. This could include:
 - A suggestion that, wherever possible, supervisory circles for the Mukya Sevika and the LHV be made identical
 - A suggestion that a minimum number of monthly Mukya Sevika / LHV joint visits be required
 - A sample protocol that could be used to direct activities during these joint visits
 - A suggestion that Mukya Sevika and LHV's meet jointly once a month
 - A sample curriculum prepared by NIPCCD that could be used by CDPO's and MO's at these monthly meetings for in-service training.
- c. The introduction of mechanisms (e.g. registers, home visit cards, alterations in the Anganwadi Workers MPR) that would focus the Anganwadi Workers attention on those families most at need

of assistance and that would encourage visits on the part of the Anganwadi Worker, the ANM, and both ICDS and Health supervisory staff to those households.

- d. Suggested formats for wall hangings on which the Anganwadi Worker could display the results of her work and that would demonstrate that the ICDS does much more than child care. (Demonstration wall hangings in Chandrapur and Panch Mahals have cost approximately Rs. 11 per Anganwadi.)
- e. Careful instructions on the conduct of village surveys with an emphasis on coordination with the ANM whenever possible.
- f. Revised registers that are compatible whenever possible with those kept by the ANM. This will facilitate the exchange of information between the Anganwadi Worker and the ANM.
- g. Revised Anganwadi MPR's that move static information (e.g. educational status of the Anganwadi Worker) to another format and that are submitted annually.
- h. The introduction of specific systems to strengthen the role of the ICDS supervisor. These might include the monthly monitoring cards described above or a register based version of the same.
- i. Revised CDPO MPR's. Although the current formats are well done, they will need to be altered to delete some static information and add more boxes where required by large blocks.
- j. A suggested role for the state nodal ICDS departments in the computerized MIS. Specific computer training curriculum, operational procedures, and feedback formats need to be suggested. Formats for reporting to DWW once computers have been installed at the state level also need to be prescribed.
- k. A revised role for the DWW in a computerized MIS context needs to be suggested. This would include commitments for feedback to the state departments and procedures for the sharing of information between Delhi-based ICDS agencies.

3. Replication of Computer-Based ICDS Processing to Other States

The difficulties involved in the successful installation of computerized ICDS processing units in almost all States should not be underestimated. Discussions under III. C. 3. on replication to other states and the discussion above in IV. C. 1. on staffing and training requirements summarize the suggested steps that are required to replicate state level installations.

V. Participant Training

A. STRATEGY FOR TECHNICAL ASSISTANCE

Following a needs assessment study tour conducted together with the Chief of Party / MIS Advisor, the JSI/ICDS Participant Training Plan was completed in July 1985 by Barbara Lamphere from the JSI home office. Interviews were conducted at the Block, District, State, and Delhi ICDS offices. The plan included training in both management and MIS.

Management training included a Management Seminar, CDPO Management Training, a US based course in "Management Issues for International Health," and a course in Project Management offered by IIM/A.

MIS training included a series of training events to support the installation of microcomputers at the two states and at DWW. It also included in-service training and advanced training at IIM/A to maintain and advance skill development at the ICDS microcomputer installations. Additional MIS microcomputer training was included to support installations processing data from the USAID project baseline study.

Overall and specifically in Management and MIS, the training plan reflects the unique availability of good training institutes in India by emphasizing in-country training and by relying minimally on U.S. based training.

B. MAJOR ACTIVITIES AND ACCOMPLISHMENTS

1. "Management Issues for International Health"

Mr. S.Y. Quraishi attended the three week course "Management Issues for International Health." This is the only Management training that was scheduled to occur in the U.S. The content is described in the Participant Training Plan that is available in the the JSI office.

2. MIS Training

MIS operations training for computer room staff at RDD in Maharashtra and for DWW occurred in two phases- an orientation and three weeks intensive training. This training is described above under the state and central level activities.

3. CDPO Management Training

CDPO management training is intended to supplement the original training offered to these block level ICDS managers. Emphasis is placed upon improved supervision and a number of management techniques. A more complete description is available in the Participant Training Plan.

After discussions with a number of training institutes, the National Productivity Council (NPC) was chosen to provide this training. Visits were made to NPC offices in both Maharashtra and Gujarat. Discussions were held with representatives from the national office in Delhi. The initial training was to be offered in Chandrapur. However, on advice from USAID, the site was changed to Panch Mahals, and a contract was signed with NPC. Task analysis commenced, but on advice from USAID, the initial site was changed back to Chandrapur. Status and scheduling of the training was unclear at the time of the departure of the MIS advisor.

4. Workshops and Seminars

MIS training was included in workshops and seminars whenever possible and offered at times on an independent basis. These included:

- A six day training for CDPO's and Statistical Assistants in Chandrapur conducted with the Maharashtra MIS Coordinator in April of 1985
- The five day seminar in Bombay on the design of reporting formats (described above under state activities) in June 1985
- A state government sponsored workshop for new CDPO's at Bowla, Gujarat in December 1985
- A USAID funded NIPCCD workshop for ICDS staff held at Kadanna dam in Panch Mahals in April 1986.

C. RECOMMENDATIONS FOR FUTURE ACTIVITIES

1. CDPO MIS Training

The section above on local level activities describes the training that is required for CDPO's in Chandrapur. That training will allow them to use the revised MIS that is being introduced in that district.

In Panch Mahals, the CDPO's have management skills that are far less developed than those of the CDPO's in Chandrapur. Many of them have been appointed during the last few months, and most of them have not yet received basic CDPO training provided by NIPCCD. Their candidacy for such training is delayed by questions about their status under state civil service commission regulations. In the meantime, they have access to very little information about even the simplest tasks such as correctly completing the CDPO MPR's. Brief informal sessions on these topics at both the Bowla and Kadanna workshops indicate a keen interest in a proposed training session that would last several days and would occur within the district. The training would assist them to make the best use of the systems that are already in place rather than by introducing improved systems.

District level officers welcomed plans for such training, but approval was not forthcoming from USAID.

2. NIPCCD Computer Training

NIPCCD has recently purchased hardware and software identical to the package purchased for DWW by USAID. The cost was reduced by eliminating the training component included in the purchase orders used for RDD and DWW. As a result, the NIPCCD installation is currently used by a single operator who has studied the LOTUS 1-2-3 in order to provide limited applications. The reliance upon a single programmer / operator is not appropriate, nor does it make optimal use of the user-friendly software.

Earlier plans that were submitted by the MIS Advisor for training at NIPCCD are included in the appendix. These should be implemented as soon as possible.

3. Additional Training for Computer Installation Staff

In-service training is required for staff at both existing installations. In addition, the best programmers should be enrolled in the DBASE III for Managers course offered at IIM/A. Provision has been made for this training in the Participant Training Plan.

4. Training for the Gujarat MIS Coordinator and Staff

The MIS Coordinator for Gujarat was appointed the week before the MIS Advisor's departure. The Coordinator should be interviewed to determine his experience and skills. Additional staff should be selected from the ICDS directorate and related units. A minimum of five carefully selected staff members should begin attending computer orientation courses in Ahmedabad that are similar to those that were provided in Bombay and Delhi by NIIT.

Upon the completion of these orientation courses and upon the arrival of the hardware, the HCL staff from Bombay (rather than the staff from Ahmedabad) should conduct the three weeks of intensive training.

5. CDPO Management Training

Unless preparation for this training can commence immediately, NPC should be asked to refund the Rs. 30,000 advanced for this purpose.

APPENDICES

APPENDIX 1

ACCOMPLISHMENTS ORGANIZED BY ANNUAL WORKPLAN

APPENDIX 1

ACCOMPLISHMENTS ORGANIZED BY WORKPLAN

The following text reviews the work accomplished according to the tasks identified in the Annual Workplan covering the period August 1, 1986. Only the specific tasks are repeated here. Additional explanatory text can be found in the Annual Workplan itself.

"1.0 STATE LEVEL ICDS MICROCOMPUTER PROCESSING:

1.1 Maharashtra:

1.1.1 Appointment of a new MIS Coordinator to replace the previous MIS Coordinator."

The Secretary of the Rural Development Department invited the MIS advisor to interview existing RDD staff. Thirty candidates were interviewed. Five were selected for computer training. After completion of training, one was designated as MIS Coordinator.

"1.1.2 Placement of an order for the microcomputer."

The order was placed during November 1985.

"1.1.3 Orientation of the new MIS Coordinator to ICDS through field visits to projects in the USAID assisted district."

One trainee completed a three day orientation visit during October 1985. Two others, including the MIS Coordinator, completed orientation visits during January 1986.

"1.1.4 Training of the new MIS Coordinator in computer management techniques through courses offered by the supplier and NIIT."

All five trainees completed coursework offered by both NIIT and the supplier.

"1.1.5 Programming of the selected software application packages to produce the reports designed during the June workshop. This will be done by the supplier with guidance from the JSI MIS advisor and the MIS Coordinator."

Programming for data entry and selected reports was completed prior to and during vendor sponsored training.

"1.1.6 Installation of the hardware and programmed software."

Installation occurred upon completion of the computer room preparations the beginning of February 1986.

"1.1.7 Testing and debugging of the system with actual data."

Testing and debugging was undertaken before payment was authorized.

"1.1.8 Training of ICDS managers at the district and state levels in the use of the computerized MIS reports."

Training was provided to district level officers. Training was offered to state level officers but had not occurred due to scheduling difficulties.

"1.1.9 Initiation of monthly CDPO meetings and training for CDPO's in Chandrapur in management and monitoring techniques to be used in conjunction with the new reporting system."

Monthly CDPO meetings were initiated and training was offered in MIS innovations.

"1.1.10 The MIS Coordinator will attend the Indian Institute of Management at Ahmeadabad's (IIM/A) one week course in Computers in Management."

The course was cancelled.

"1.1.11 Alteration of the MIS to allow data collection from and reporting to the supervisory level. This will require design of MPR's for supervisors, training of supervisors and CDPO's in the use of these forms, and modifications in the processing software and report generation."

MPR's for supervisors took the form of Monthly Monitoring Cards. Supervisors and CDPOs were trained in their use. Computer processing of these forms proved inappropriate.

"1.1.12 Coordination with the Maharashtra Department of Health MIS."

This had not yet been implemented.

"1.2.0 Gujarat

1.2.1 Appointment of an MIS Coordinator.

1.2.2 Placement of an order for the computer."

The MIS Coordinator was not appointed. Neither was the order placed for the computer. Both tasks were the responsibility of the Department of Health. Without the coordinator and the computer, tasks 1.2.3 through 1.2.11 were not possible.

"2.0 CENTRAL LEVEL MICROCOMPUTER ICDS PROCESSING:

2.1 Place an order for microcomputer."

The order was placed during October 1985.

"2.2 Review management decisions made by state and central level ICDS managers, and the information available from the existing CDPO MPRs. Design reporting formats that present indicators relevant to these decision making processes."

Review meetings did take place at both the central and state levels. Reporting formats were chosen that reflected those included in the IMIS document.

"2.3 Review of draft reporting forms by representative state ICDS officials."

Completed in Maharashtra.

"2.4 Programme software applications to produce required reports."

Completed.

"2.5 Computer and software installed."

Installation was completed in March 1986.

"2.6 Tutorial training for MOSWW in the use of Lotus 1-2-3 and DBASE III."

Completed in February 1986.

"2.7 MOSWW staff will attend the IIM/A course in "Computers in Management."

The course was cancelled.

"2.8 Testing and debugging of the system."

Completed in March 1986.

"2.9 Train state ICDS recipients in the appropriate use of the MIS reports through the conduct of regional workshops."

Issuing of reports to states had not yet commenced.

"2.10 Commence discussions concerning the incorporation of data from other reporting systems with information relating to ICDS."

Discussions commenced, particularly with CARE and NIPCCD.

3.0 HIRING, TRAINING, AND SUPERVISION OF FIELD OFFICERS IN EACH OF THE USAID ASSISTED DISTRICTS:

3.1 Selection of the candidate for the position in Chandrapur.

3.2 Identification of housing, office space, and conveyance in Godhra.

3.3 Meetings with Food for Development, CARE and the Panch Mahals ICDS Programme Officer to define procedures and a checklist to be used by the field officer in his regular visits to Anganwadis.

3.4 The Field Officer for Panch Mahals joins and commences training under direction of the JSI MIS advisor and in close collaboration with the district programme officer.

3.5 Identification of housing, office, and conveyance for field officer in Chandrapur.

3.6 The Field Officer for Chandrapur joins and commences training as described in 3.4 above.

3.7 Planning of a week long orientation and training seminar in Delhi for the field officers.

3.8 The above training seminar occurs in Delhi.

3.9 Supervision of field officers through monthly visits to each district by the JSI MIS advisor."

All of the above tasks were completed except for the Delhi-based field officer training. Repeated attempts to schedule this training failed to identify an agreed upon date and schedule. A field officer began in Panch Mahals in September 1985. A field officer began in Chandrapur in January 1986.

"4.0 INITIATION OF REVISED ICDS MIS PROCEDURES IN THE TWO USAID ASSISTED DISTRICTS:"

The presence of both a supportive CDPO and a newly employed field officer made Chandrapur, rather than Panch Mahals, the most advantageous site for testing MIS innovations.

"4.1 Review of proposed Anganwadi Registers and Records with the Programme Officer and CDPOs in Panch Mahals."

The registers and records were reviewed in both Panch Mahals and Chandrapur. In Chandrapur, review was accomplished through a series of meetings with the District Programme Officer and CDPOs, both independently and jointly. The review was undertaken in conjunction with the design of the monthly monitoring cards and the revised monthly progress reports.

"4.2 Suggested revisions of same."

In Chandrapur the changes in the registers decreased the number of registers, made them easier to use, and assured the information required by the new monitoring system described below.

"4.3 Development of revised procedures for the supervisors and revised MPRs for the Anganwadi workers and CDPOs."

In Chandrapur the revised procedures for the supervisors are the Monthly Monitoring Cards. In Panch Mahals the Supervisors are, for the most part, newly appointed and training was provided in improved use of existing procedures.

"4.4 Review of the same by Programme Officer and CDPOs and translation and printing of the same."

Done in Chandrapur.

"4.5 Intensive training for CDPOs and Supervisors in the use of the revised system."

Training was provided in the use of the new system in Chandrapur and in the better use of the existing systems in Panch Mahals.

4.6 Training of "Anganwadi Workers by Supervisors in the use of revised system."

Training was provided in selected circles in Chandrapur.

"4.7 Feedback via the field officer on problems encountered in the use of the new procedures."

Feedback was provided on an ongoing basis.

"4.8 The same sequence of events will be implemented in Chandrapur, but will be phased in at later dates."

As discussed above, changes in staffing made Chandrapur, rather than Panch Mahals, the most appropriate site for initial implementation.

"5.0 EXPERIMENTAL IMPLEMENTATION OF MIS INTERVENTIONS AT THE BLOCK LEVEL:"

Methods of recording changes in weight gain were included in the design of the new registers, the new Monthly Progress Reports and the Monthly Monitoring Cards. A simple tally method was incorporated into the appropriate register. Protocols will be developed in NHED components to be used in response to the identification of at risk children through the weight gain methods. Wall hangings demonstrated key indicators of the Anganwadi's success. Training was provided to Anganwadi Workers, Supervisors, and CDPOs to assure the proper implementation of these interventions.

"5.1 A consultancy by Dr. David Pyle from JSI/Boston to assist in the further development of these interventions will occur."

Dr. Pyle's consultancy occurred during September and October 1985.

"5.2 Preparation of materials and logistical arrangements for the implementation of selected interventions."

This occurred after completion of the design phase.

"5.3 "A second consultancy by Dr. Pyle to assist in the implementation of the interventions at selected sites, particularly through the conduct of intensive training sessions. Staff from Community Systems Foundation will join in this training."

The USAID Project Manager did not approve the proposed second visit of Dr. Pyle. Community Systems Foundation staff were not available.

"5.4 Monitoring of implementation by the field officer and the JSI MIS Advisor."

This occurred during March - August 1986.

"5.5 A third consultancy by Dr. Pyle to assess the effect of the interventions and report on results."

This did not occur.

"6.0 PARTICIPANT TRAINING:"

Management Training for CDPOs. IIM/A declined to provide management training to CDPOs. The National Productivity Council (NPC) was chosen after office visits and interviews with staff in Bombay, Ahmedabad, and Delhi. A contract was signed to provide training to CDPOs in Panch Mahals. In July 1985, the Project Manager suggested that the site be changed to Chandrapur or that the training be delayed.

Management Training for CDPOs is the only participant training even listed in the Annual Workplan. The Participant Training Plan also lists the US based course, "Management Issues for International Health," MIS training for computer staff at state and central levels, and workshops and seminars. These are described in the main text of the End of Tour Report.

"7.0 DEVELOPMENT OF MIS CURRICULUM FOR INCLUSION IN MOBILE IN-SERVICE TRAINING WORKSHOPS"

As of August 1986, no contracts for mobile in-service training had been signed. Neither did it appear that any such contract would be signed in the near future.

APPENDIX 2

PROPOSAL FOR NIPCCD COMPUTER TRAINING

PROPOSAL FOR

DEMONSTRATION TUTORIAL COMPUTER TRAINING FOR NIPCCD STAFF

BACKGROUND: NIPCCD has placed an order for the same computer hardware and software packages that the DWW and USAID has selected for RDD/Bombay and DWW/ Delhi; but the NIPCCD purchase order does not include the three weeks of tutorial training that USAID has included in its comparable purchase orders.

Experience with the installations at RDD and DWW suggest that the three weeks tutorial training is essential in assuring optimal use of the computer installation. The HCL customer training offered to NIPCCD will serve only as an orientation for existing staff. The computer programmer position at NIPCCD will prove inadequate to accomplish the amount of application work they hope to achieve. Reliance on a single individual to develop applications contradicts the rationale for selecting this hardware; i.e. its ability to support user-friendly software which makes the computer capacity accessible to existing managerial staff.

PROPOSAL: JSI/USAID participant training funds should be used to provide, on a demonstration basis, one three week tutorial training course comparable in content to training offered to RDD/Bombay and DWW/Delhi. The course would commence early in April as soon as possible after installation of the computer. The optimal number of trainees would be four. Projected cost would be approximately Rs. 12,000 depending on the availability of consultants to provide the training. Costs to JSI would be limited to consultant fees for the trainers.

In order to justify use of JSI/USAID participant training funds the trainees would have to be those NIPCCD staff responsible for ICDS training and monitoring activities. As in Bombay and Delhi, trainees would be expected to develop applications during their training. These applications would be developed to be compatible with and not replicate data collection systems at the DWW.

All trainees would be required to complete the one week HCL customer training course prior to tutorial training, and be fully available for the scheduled hours of the training.

NIPCCD would be responsible for the following materials costs:

Database III	(@ Rs. 400)	Rs. 1,600
LOTUS	(@ Rs. 150)	Rs. 600
Wordstar	(@ Rs. 80)	Rs. 320

in addition to assuring floppy disks and printer paper. Training materials would remain part of the NIPCCD computer library and be available for future training session.

The number and diversity of computer applications proposed at NIPCCD suggest that NIPCCD may want to replicate this tutorial training for additional staff after assessing the the value of the demonstration course.

compnipc:cdo:20mar

March 3, 1986

Cliff

Mary Ann, Saeresh, Judith

SUBJECT: Proposal for Tutorial Computer Training for NIPCCD Staff

I have attached a draft of the proposal for tutorial computer training for NIPCCD.

Dr. Sharma and Dr. Bose seem to welcome the idea of us offering tutorial training.

It might be routed through the Ministry with the assistance of Mr. Suman Nair, under secretary for Monitoring and Evaluation. He will by that time have completed the three week training. He clearly understands the advantage of this hardware/software to "democratize" access to the computer. He also understands the need to revise some of the NIPCCD formats.

APPENDIX 3

(ARTICLE ONE) MIS

MANAGEMENT INFORMATION SYSTEMS
FOR
INTEGRATED CHILD DEVELOPMENT SERVICES

- An innovative approach

Mr. S. Sonni, CEO, Chandrapur, Maharashtra; Dr. Aziz Popatiya, Field Officer, JSI/USAID; Mr. C.D. Olson, M.I.S. Advisor, JSI/USAID

Chandrapur District in Maharashtra has adopted formats and procedures which convert an ICDS data collection process into a Management Information System (MIS). Each level of ICDS worker is assigned responsibilities for using collected data to improve services. As a result, the aggregation of errors decrease and services improve. Well-focused indicators assign attention to the most important services.

BACKGROUND: Data collection systems for the Government of India's Integrated Child Development Services (ICDS) report most of the information that might be useful. Too often, State, District, and project block ICDS staff use the information only to collate for the next highest level of organization. Lack of attention to the data at these local and intermediate levels results in the aggregation of errors and missed opportunities for improved supervision and lack of interventions which would result in improved performance.

The USAID-assisted Chandrapur District has initiated Management Information Systems which require that each level of ICDS worker assume responsibility for performance of ICDS services in areas under his or her responsibility. Management by exception techniques focus attention on services and service centres with poor performance. By assigning attention to identified poor performance, problems are resolved and the general quality of service improves.

Well focused indicators assign attention of service providers to the most important services from which maximum impact can be expected.

Elements of the innovative MIS occur at the following levels of organization:

<u>LEVEL</u>	<u>INNOVATION</u>
Village	"Key indicator" wall displays Revised Monthly Progress Reports (MPRs)
Supervisor	Anganwadi Monitoring Cards

Project Block	Supervisor (Mukhya Sevika) Monitoring Cards
District	Child Development Project Officer (CDPO) Monitoring Cards
State	Computerized Graphic feedback to ICDS District Programme Officers (DPOs)
Central govt.	Computerized tabular feedback to state ICDS nodal departments

VILLAGE 'KEY INDICATOR' WALL DISPLAYS:

ICDS Anganwadi Workers in each village recognize their important role in providing pre-school education to children in remote, tribal or urban slum areas; but they too often fail to appreciate the potential of their child survival role as providers of supplementary feeding and health services.

"Key Indicator" wall hangings (attachment A) allow the Anganwadi Worker to display her performance on these child survival services. Village parents and visiting supervisors from both ICDS and Health can quickly review the display and assess the services provided at the Anganwadi. They have been chosen to illustrate the most important ICDS child survival services. Each indication compares the beneficiary population (first lines) with the number receiving the required services (following lines). The magnitude of discrepancies between optimal and actual beneficiaries indicate the performance at that Anganwadi. Completion of these indicators can be done quickly (approximately 30 minutes per month) from the simplified registers introduced by the central government (Department of Child and Women's Welfare).

SUPERVISOR'S ANGANWADI MONITORING CARDS:

Village Anganwadi Workers in Chandrapur use simplified Monthly Progress Reports (attachment B). Only information which changes frequently (i.e. beneficiaries, nutritional gradation) is reported monthly. Information on supplies and status which change less frequently is reported on separate "up-date" forms submitted annually or as changes occur.

From these simplified MPRs the supervisor compiles Anganwadi Monitoring Cards (attachment C). One card is prepared for each Anganwadi. Each card has one side for services to women (pregnant and lactating) and one side for services to children 0-6 years of age. Indicators are presented as percentages to facilitate appropriate comparison between Anganwadis.

The cards (20 per supervisor) are maintained by the supervisor and statistical assistant. Indicators are listed horizontally; months vertically. With the assistance of the CDPO, the Supervisor compares

performance to targets and then circles indicators of poor performance. Anganwadis with the maximum circles (the worst performance) are selected for particular attention in the following month. CDPOs review the cards with supervisors monthly in order to assure elimination of instances of poor performance. Anganwadis with the maximum circles (the worst performance) are selected for particular attention in the following month.

SUPERVISORS' AND CDPO MONITORING CARDS.

The performance of Supervisors and CDPOs is assessed through the same technique. A monitoring card is maintained for each supervisor's circle. The same indicators are listed horizontally and months vertically. These cards allow the CDPO to assess relative performance of supervisors (6 - 12 per project block). The CDPO, using the same management by exception techniques described above, uses his time in the following month to upgrade performance of the worst performing supervisor circles.

Likewise, monitoring cards are kept for each CDPO (10 in Chandrapur) and the ICDS District Programme Officer (DPO) provides particular attention to the project blocks with the worst performance on the most important key indicators.

STATE COMPUTERIZED FEEDBACK:

Monthly Monitoring Reports from each project block are submitted to the state ICDS directorate. These MPRs are processed on a recently installed Indian manufactured IBM PC compatible computer. Trained staff produce selected bar graphs from each district which illustrate relative performance on particular indicators (i.e. beneficiary coverage, relative malnutrition) from each project block within the district and progressive performance for the district over time (attachment D). These computer generated graphic illustrations have proved particularly useful in motivating CDPOs to improve services. The monthly meetings produce specific action assignments for each CDPO. Impact resulting from these activities are reviewed at meetings during the following months.

CENTRAL GOVT. COMPUTERIZED TABULAR FEEDBACK:

The same project block MPRs are submitted to the central government Department of Child and Women's Welfare (DCWW). A similar computer installation generates tabular summary reports which are distributed to each state. These report progress in the implementation of ICDS projects (ICDS is projected to increase coverage by nearly 50% in the next five years). Sanctioning, appointments, and training of ICDS staff are listed with deficiencies identified.

CONCLUSION:

These innovations convert a data collection system into a Management Information System. Each level of ICDS staff is required to use the information to improve services. When people are required to use the collected data for management purposes, errors are diminished and overall accuracy is increased. The collection and aggregation of information becomes a service to conscientious workers rather than a time-consuming mundane task.

APPENDIX 4

(ARTICLE TWO) GROWTH MONITORING; LACTATING MOTHERS

DRAFT FOR PRELIMINARY REVIEW

ICDS AND CHILD SURVIVAL

FOCUS ON THE MOST AT-RISK

Mr. M. Sahu, District Development Officer, Panch Mahals; Dr. N. Gami, Field Officer JSI/USAID; Mr. C.D. Olson, MIS Advisor, JSI/USAID

INTRODUCTION

Anganwadi Workers at the village level of ICDS are most competent at providing services to children three to six years of age who attend daily pre-school education classes at the Anganwadi Centre. From a Child Survival perspective, the important interventions are supplementary feeding, growth monitoring and immunization - and these interventions are best focussed on pregnant women, lactating women and children under the age of one year, rather than the older children at the pre-school education classes.

In Panch Mahals District of Gujarat a programmatic intervention has been designed and implemented which enables the Anganwadi Worker to provide and facilitate these child survival services in an efficient and effective manner. Lactating women are called to the Anganwadi one day each month for the weighing and immunization of their infants.

Focus group interview sessions conducted by a marketing research firm, MODE, under contract with John Snow Inc./USAID indicated that lactating mothers of infant children have diminished agricultural responsibilities. They either stay at home or work in fields close to the home and for fewer hours. They are therefore more available for growth monitoring/health education sessions conducted by the Anganwadi Worker.

In two villages recently visited, the Anganwadi helper was able to collect 100% and 82% respectively of registered lactating women within 20 minutes for an unannounced growth monitoring/health education session.

GROWTH MONITORING; HEALTH EDUCATION SESSIONS; CONTENT AND MESSAGES

Once the lactating mothers are gathered the Anganwadi Worker proceeds to weigh each child. She then plots the weight of each child in front of the mother and discusses the results with the mothers collectively. These observed sessions lasted about 1 hour. Much attention is given to encouraging introduction of weaning foods.

Three NHED messages are particularly encouraged:

1. God gave children teeth in order to chew. When the first teeth begin to come in, it may be time to introduce foods which supplement breast feeding. CSM is fed to children with teeth during the NHED sessions to demonstrate to dubious mothers the ability of the child to eat these foods.
2. Mothers are asked why they use urea at the base of young corn stalks in their own fields. When they reply that it encourages healthy and productive corn, they are told that the introduction of weaning foods at the appropriate time serves the same purpose in the growth of their children.
3. Growth charts are reviewed for evidence of growth slackening after the age of six months. These mothers are told that the growth should increase at the rate indicated by the upper line on the growth chart and any growth slackening may be an indication of inadequate supply of weaning foods.

In reviewing the growth charts, mothers are encouraged to make comparisons in the growth of children. Observed examples include:

1. Sanjay and Ramesh are the same age (11 months). Last month both mothers were advised to begin giving additional foods because the Anganwadi Worker had observed a lack of growth in both the breast fed children. This month Sanjay had gained weight. Ramesh had not. Sanjay's mother described for Ramesh's mother how she had given the child rice and milk. Ramesh's mother confessed she had not given additional food.
2. At another Anganwadi, four children had gained weight while the fifth had not. The mothers agreed that four children were strong, one was weak.
- 3) Two children of the same age (3 months) had histories of low birth weight suggested by the first month's weighing. One of the children had gained considerable weight achieving a Grade I status, while the second had gained less. The Anganwadi Worker compared the growth charts for the mothers and suggested supplementary foods for the child with the slower growth.
- 4) Another child of seven months had lost weight. The mother explained that the child had diarrhoea. The Anganwadi Worker reviewed for the mother how she should make and use oral rehydration solution. (CARE had provided DRT training during recent months under a contract with USAID.).

IMMUNIZATION

The sessions for lactating women are held on the same day each month and ANMs are requested to visit on this day in order to provide the required immunizations. The importance of immunization and the schedule of immunizations can be explained to all of the mothers while they are together. Immunization can be provided to children under one year of age at the Anganwadi since children of this age obviously cannot "run away from the Anganwadis".

RECEPTIVITY

In both Anganwadis visited it was obvious that the lactating mothers enjoyed the sessions. Mothers arrived promptly when called to the session. Both sessions were conducted in a light-hearted and relaxed manner, and included many smiles and some laughter. At the conclusion of the sessions the mothers assured the observer they had found the session both informative and fun and would certainly plan to attend the session scheduled for the following month.

The regular contact between the ANM and the lactating mothers and the confidence in the ANM which accrues through these sessions expands her community role beyond that of a pre-school instructor and better enables her in the future to organize similar sessions for pregnant women in which she can encourage consumption of supplementary foods by dispelling false beliefs such as:

1. There is not enough room in the stomach for both the baby and extra food.
2. Extra food will produce larger babies and therefore cause more difficult deliveries.

and better assure regular check-ups and TT immunizations.