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ORT PROMOTIONAL VISIT:
IMPLEMENTATION OF SELECTIVE PRIMARY
HEALTH CARE ACTIVITIES IN USAID AREA
PROJECT - MAHARASHTRA

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During The Period:
MAY 6 - 12, 1984

TECHNOLOGIES FOR PRIMARY HEALTH CARE (PRITECH) PROJECT
Supported By The:
U.S. Agency For International Development
AID/DPE-5927-C-00-3083-00

AUTHORIZATION:
AID/S&T/HEA: 9/11/84
ASSGN. NO: DC 24

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IMPLEMENTATION OF SELECTIVE PRIMARY HEALTH CARE
ACTIVITIES IN USAID AREA PROJECT - MAHARASHTRA :
FINDINGS AND RECOMMENDATIONS FROM FIELD TRIP

MAY 6 - 12, 1984

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1. Upon the invitation of USAID, Delhi, we visited India May 6 - 13 holding meetings with USAID staff, Ministry of Health and representatives of other international assistance agencies in Delhi with a three-day field trip to Maharashtra in Parbhani district, concluding in a seminar/workshop during which findings were discussed and recommendations for future action made. We conclude that activities to promote Oral Rehydration Therapy and the introduction on a wide scale of measles vaccine with appropriate strengthening of measures to monitor and evaluate these interventions are both timely and welcome and would lead to a substantial improvement in infant health and survival in the target project areas. Activities could best begin immediately through the existing funds in the IRHP leading to the development of a state-wide ORT and immunization program with funding through a follow-on project that might be entitled, "Improved Health Services Through Targeted Disease Control."

2. Delhi Meetings

Following a briefing by USAID Health and Nutrition staff and meeting with the Ministry of Health, ORT and Communication personnel, Dr. K.B. Banerji and Dr. Pandit, a formal seminar presentation was made on May 8 to 35 members of the Ministry of Health including officials from the 5 states in the

IRHP Project. (See Appendix for names and titles of persons present). During this seminar the latest advances in ORT/EPI technology with particular attention to wide scale implementation, training strategies and communication technologies were presented. Discussions were held on the desirability and likely implementation

While seminar participants agreed uniformly to the importance of a substantial attack on diarrheal diseases, they were divided on the appropriate technologies for use and its acceptability, both by health professionals as well as the lay public. Home mix is felt by some to be unacceptable by the lay public. Others claim doctors will never accept ORT due to implied financial loss. All agreed that a mass strategy is required but further field demonstration on a large scale will be required to obtain a reasonable concern.

Measles is still considered by many to be an unimportant childhood disease and the vaccine is incorrectly believed to be expensive and difficult to use. There is nonetheless considerable optimism regarding the present expansion of EPI and the ability of the government to administer measles vaccine if this becomes national policy.

The seminar concluded that both Oral Rehydration and improved immunization coverage would certainly be recommended to state governments but that implementation would be largely left to the states.

An afternoon seminar was held with a rather similar presentation to representatives of international agencies who were, by and large, enthusiastic regarding the need for improved ORT and measles vaccine implementation. Active discussion on appropriate use of

home-made solutions and the importance of improved communication strategies was held. During the evening, the Secretary of Health hosted a dinner of Ministry of Health officials during which productive discussions revealed confidence that both these technologies would receive high level support in the months and years ahead.

3. Field Visit to Maharashtra State, Parbhani District

Travelling to Parbhani district on Wednesday, May 9, we met with the Divisional Commissioner, Rajwade in Aurangabad and his health staff finding considerable interest on their part in developing an action program as soon as possible in the field. On Thursday and Friday, field visits were made throughout the district which included visits to the Civil Hospital and Pediatric Wards, Rural Hospitals, several Primary Health Centers, Primary Health Units, Civil Dispensaries, numerous subcenters and several villages involving home visits to see community health guides and various randomly selected village households. At the District headquarters, records for the past two years were inspected both for service delivery and epidemiologic reports. Particular attention was given to the MRS (Model Registration System) meaning births and deaths by age and cause in a sample population of 52,000 and, MIS (Management Information System) with its 165 indicators of primary health care performance, quarterly morbidity reports and special epidemic reports for diarrhea, measles and other infectious diseases. Civil officials were interviewed as well as the Director of All India Radio station, Parbhani. The visit concluded on May 12 with a five-hour seminar/workshop on Oral Rehydration and Immunization during which were discussed recent advances, findings of the field trip, suggestions for action and concluded with planning sessions by each of the three AID districts preparing action plans for immediate implementation of expanded activities in

ORT and immunization in their respective districts. The meeting, chaired by Dr. Panse, State Joint Director of Health Services, (see Appendix for list of other participants) concluded with a strong commitment for the development of immediate action programs for each district and implementation of initial activities to strengthen Oral Rehydration before the forthcoming diarrhea season, expected in June/July/August. During this year an improved information monitoring system will be put in place to measure the impact of improved ORT and immunization and should conclude before next hot season with introduction of measles vaccination in the area. Successful action under the existing IRHP Project will lead to detailed planning for a state-wide project within the next year.

Major Findings :

1. Health statistics clearly show that diarrhea is a major cause of childhood death in both infants and young children throughout India. This impression is strengthened at the periphery where interviews with health workers and public alike indicate that diarrhea and dysentery are the most single important and common disease of children. That this is not shown in the statistics of death or morbidity may in some way reflect both mis-diagnosis and more likely, a strong emphasis from the state government demanding a reduction in diarrhea with a result in under-reporting of the disease. Fully one-third to one-half of pediatric admissions in hospitals are for diarrheal disease.
2. While we encountered initial skepticism in Delhi for the acceptability of ORT, particularly those strategies based on home made sugar/salt solutions, we found widespread use of ORS in all health facilities and high level of knowledge, acceptance and use

throughout the villages during our visit. (This situation is, however, unique among the 5 USAID-supported states - and probably among most of the other states, where ORT has not received high priority.) Home-made sugar/salt solutions are believed by health workers and public alike to be effective, appropriate and acceptable. At present the multiplicity of formulas used with uncertain volume measurements and what appears most certainly to be too small a recommended quantity of salt is of particular concern. This requires only a modest modification, widespread standardization and a strong emphasis on uniform communication through health staff and multi-media to assure implementation and acceptance. ORT is used in hospitals and health centers but most often in combination with antibiotics and anti-diarrheals. Doctors appear least confident in its use while ANMs, CHGs and mothers appear both confident and satisfied with ORT alone. It is interesting that in Maharashtra alone among the USAID project states, the usual sulfaguanadine and kaolin powder items in the village volunteer kits have been dropped and replaced by 10 packets of ORS, which are the only anti-diarrheal treatment in the kit.

3. While measles is almost absent from health statistics at the central, state and local level, almost all individuals interviewed -- particularly in the periphery - midwives, ANMs, CHGs and lay public alike, felt that measles is a first or second priority in child health. Investigation in several villages during our visit revealed measles cases with obvious complications present in three out of four villages although none had sought medical help. Measles is widely viewed as a non-medical problem, but at the same time an extremely serious one. We believe that the extremely high mortality rates seen in late infancy and throughout early childhood due to respiratory diseases start, to a large degree, with measles infection progressing to malnutrition, pneumonia and in a large number of cases, death.

4. The present coverage of immunization through EPI in Parbhani district appears to be extremely good as verified from records in subcenters and villages during our visit. This state has set high priority on complete immunization prior to 12 months of age with 100% coverage of newborns the goal. Monthly reports provide marks for fulfillment of this goal, discussed on a monthly basis at the state headquarters. Clearly the importance of targets based on population are recognized and a cold chain appears to be adequate to provide effective vaccines once per month in each village using the present system. Simple improvements to cold chain with more thermometers, better recording of temperatures at each step along with improved recording methods at the village level to assure that all children are covered are definitely needed. In particular, family registers should be improved and registration of vaccinations given co-related with registration of all births in the village. Measles vaccine could easily be introduced into this system and could reasonably be administered during the winter months of 1985 covering all children age 9-24 months, with particular emphasis on the younger group prior to next measles season.
5. ANMs with their related CHGs form the backbone of the rural health system. Their training requires further improvement with more focus on their tasks particularly in ORI and immunization. Greater efforts are needed to strengthen their credibility, respectability and acceptability in their villages. It is rare for PHC doctors to visit them in their villages and the extremely limited drugs available to them make their curative services generally viewed as mild and symptomatic. We were uniformly impressed with their knowledge of the village, although record keeping, particularly of family records requires further improvement. Relationships with other practitioners in the village require improvement and will

need attention from doctors in order to realize their full potential. In many cases means of transportation, such as a mobilette would be required to assure better coverage of outlying families. Consideration might also be given to increasing the number of ANMs and decreasing the male workers at this level.

6. The present information system for both epidemiologic information, mortality, morbidity and program monitoring is ambitious and at this stage still highly unreliable. It is however well thought out, and with further revision considerable simplification should provide reliable data by which to measure impact of primary health care interventions. The present system is not capable of accurately measuring nutritional status of the children nor of accurately defining mortality rates. A sample survey based on recognized demographic techniques could be carried out to define recent mortality and present nutritional status, particularly of 24-36 month olds, those who are most susceptible to recent attacks by measles and diarrheal disease. Such an epidemiologic monitoring system would be necessary to measure the impact of the program suggested below.
7. Practical experience with multi-media communication campaign is extensive in India. Both private and public sector resources for communication planning are impressive. Past programs, particularly in family planning have successfully used a wide array of broadcast, print and non-conventional media such as theatre, puppets, and community demonstrations. The private sector through commercial advertising and marketing firms have advanced research and design capacities. But within the Ministry of Health, mass media is still perceived as a relatively superficial means to "popularize" a simple slogan or jingle. Many officials did not seem to appreciate the actual "teaching" potential which a well-planned and integrated communication strategy could contribute

to the diarrheal control program. Radio as a medium is particularly underutilized. Programming formats have little variety and the general esteem for radio was surprisingly low. Radio listenership appeared to be high, although it was clear that no one channel, not even radio, dominates in India. A multi-media channel would be essential to reach a majority of the audience in a short period of time.

8. The diarrhea control program presently has no recognizable communications strategy. There is no logo, no slogan, no theme, no standardized formula. More information is needed to determine a positioning strategy for sugar and salt vis a vis WHO formula salts. Anecdotal information suggested significant variation in existing diarrheal beliefs and practices among the many linguistic, religious, and cultural sub-groups in India.

Specific Recommendations for Action in USAID-Assisted Districts in Maharashtra :

1. Carefully standardize the recommended approach to ORT including a single standard formula for home-made sugar/salt solution. Carry out an integrated campaign to introduce ORT using health professionals, paramedics, guides and lay public to include schools, school children, mahila mandals, gram sevikas etc. Demonstration training would be the key strategy throughout the system starting with doctors who would be expected to pass a two-week inservice practical training program in the district hospital, development in each health facility of an OPD rehydration activity and demonstration at all levels of making of sugar and salt solution with administration to children under medical supervision. Uniform use of sugar/salt solution in the village, subcenters, PHCs, rural hospitals and district hospitals will assure a single coordinated communication approach to give credibility and acceptability to this technology.

2. Support the demonstration teaching approach with a unified communication strategy which will popularize an attractive name, a uniform mix, clear actions for administration and referral. This will be supported by the careful development, field testing and production of a single pictorial flyer to transmit this message, to be widely distributed throughout the project area. Radio spots, jingles, and slogans, once carefully tested, will be put in place giving a strong media support to the demonstration of sugar/salt ORT. A private sector advertising firm should be contracted to supplement existing public sector resources.
3. Pulsing of key messages should be centered around the diarrhea season and special attention should be given to innovations in radio programming using testimonials, humor, and fictitious characters.

Small operational research studies, utilizing ethnographic and focus group techniques should be conducted as soon as possible. Ethnographics should be used to expand the understanding of existing diarrheal practices and explore specific ways that ANMs and traditional healers can work more closely together. Four groups with present users of ORS - mothers who have tried it at least once - should attempt to identify both attitudes and obstacles related to ORS in the home. Special attention should be given to how well they are actually able to make it, how much they believe should be given, and what concerns they have about its use.

4. A uniform treatment strategy starting in each case with a home sugar/salt solution, backed up by ORS packets, and using intravenous infusions only in the most severe cases, would be implemented at all levels. Monitoring of use of IV and antibiotics will be carried out strongly encouraging a reduction in their use with greater implementation of SSS (sugar/salt solution). Sample village surveys will verify implementation of this strategy.

5. Encourage innovative approaches to widespread use through village based contests, sample surveys and rewards to health guides for successful knowledge and use of sugar/salt solution among the families in their area. Recognition would be given at each level of the health system for most successful introduction and use of ORI.

6. Introduce measles vaccine in adequate quantities to cover the entire age group from 9 - 24 months of age in the first three months of 1985. Particular attention to high coverage exceeding 90% should be made prior to the onset of measles season which can be expected in late March and April. Spot checks of village immunization would be made to verify coverage. An incentive similar to those used during smallpox eradication campaign would be used to identify any outbreak of measles during the subsequent months. Investigation of any measles outbreaks will be made by district level epidemiologic team who will attempt to identify the reasons for any outbreak and to control its spread through containment. Strong public attention to the importance of outbreaks and their containment should lead to improved reporting and ability to assess the completeness of this vaccination drive. Routine vaccination would of course follow the hot season with an annual emphasis in the month of March prior to onset of the season. Vaccination age would drop to 9 - 18 months following the first year.

A Communications campaign should precede and accompany the immunization campaign to educate and promote the need for the immunization, and to overcome the widespread beliefs about the nature of the disease and how it can be prevented and treated.

7. Establish an evaluation system -- possibly designed by a research institute -- choosing an appropriate sample size to be able to monitor significant changes in mortality and nutritional status over the course of the next two years. Particular attention will be given in nutritional status of children aged 24 - 36 months and to the mortality of infants and children by each single year of age group through 5 years. This evaluation system independent of the existing health information and monitoring system will serve as a crosscheck and should have an adequate sample size to give 95% confidence limits to an improvement in nutritional status of 5% of the weight standard and a reduction in mortality of 10% or more in each age group.

8. Encourage innovative study in at least one block per district to improve the credibility and effectiveness of ANMs and enhance their acceptance in their communities. This will include an expanded drug list with oral antibiotics, obstetrical drugs, stronger analgesics and local anesthetic and other items taken from the WHO essential drugs list. Regular visits by PHC doctor to the subcenter will include quarterly meetings with all practitioners in the village during which time the capabilities of the ANM will be emphasized and her willingness to assist practitioners in such actions of public health importance as treatment of diarrheal disease, of pneumonia and reporting of all cases of infectious disease in the village. Various approaches will be used in an attempt to improve respectability, credibility and acceptance of the ANM monitoring her effectiveness in both maternal child health and family planning activities resulting therefrom. It is expected that a substantial improvement in child health survival, nutritional status and acceptance of family planning will be seen following such efforts.

9. In collaboration with state and district level officers, prepare a detailed implementation plan for state wide expansion of significant ORT and immunization activities to occur in a follow on project to IRHP. The present three districts would be the site of quarterly meetings for other state district officers who will view firsthand the implementation of these technologies learning the training strategies, management procedures and monitoring supervision and evaluation techniques which they will then implement in their own districts in the next major project. Involvement of state and district level officers throughout Maharashtra in the innovative approaches suggested here is an integral part not only of planning the next project but of its implementation on a wide scale. Baseline mortality and nutritional status information should be collected throughout the State as soon as possible on a sample basis to serve as a baseline for the implementation of these activities.

CONCLUSIONS

With the improved infrastructure of the rural health delivery system in Maharashtra state, there is a strong desire on the part of state and district health officials to obtain measurable, desired impact on mortality and the quality of child survival. Along with those officials we believe that an intensified approach to Oral Rehydration based on a universal implementation of home-made rehydration solutions backed up with adequate supplies of packaged ORS and a trained health corps will substantially reduce childhood mortality and the morbid results of diarrhea. Coupled with this introduction on a high coverage of measles vaccine is likely to substantially reduce pneumonia deaths in infants and children and be accompanied by improved nutrition in this young population. Implementation of this strategy over the past years in

Jamkhed block in Central Maharashtra state has been largely responsible for the remarkable improvement in survival in that area now boasting infant mortality of 18, crude birth rate - 23, crude death rate - 6. The prospect of the entire state achieving infant mortality rates below 50 in the next five years with a comparable improved acceptance of family planning seems highly likely if this strategy is pursued.

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