



REACH

RESOURCES
FOR CHILD
HEALTH

National Control of Acute Respiratory Infections Program: Initial REACH Project Review and Assessment

USAID/Manila

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TRIP REPORT

**NATIONAL CONTROL OF ACUTE RESPIRATORY INFECTIONS PROGRAM:
INITIAL REACH PROJECT REVIEW AND ASSESSMENT**

PHILIPPINES

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LIST OF ACRONYMS

ABCSD	Area Based Child Survival and Development
AIDAB	Australian International Development Assistance Bureau
AIDS	Acquired Immune Deficiency Syndrome
ARI	Acute Respiratory Infections
BHWs	Barangay Health Workers
CARI	Control of Acute Respiratory Infections
CDC	Centers for Disease Control
CDD	Control of Diarrhoeal Diseases
CSP	Child Survival Program
DOH	Department of Health
EPI	Expanded Programme on Immunization
FHSIS	Field Health Services Information System
FIC	Fully Immunized Child
GOP	Government of the Philippines
IE&C	Information, Education and Communication
MCHS	Maternal and Child Health Services
NCR	National Capital Region
NPSA	Non-Project Sector Assistance
PHDP	Primary Health Development Project
PPS	Philippines Pediatric Society
PIO/T	Project Implementation Order for Technical Services
REACH	Resources for Child Health Project
RHU	Rural Health Units
RITM	Research Institute for Tropical Medicine
TB	Tuberculosis

UNICEF United Nations International Children's Fund
USAID United States Agency for International Development
WHO World Health Organization
WPRO WHO Western Pacific Regional Office

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1. EXECUTIVE SUMMARY

1.1. REACH technical staff undertook a two week review of the national program for the control of acute respiratory infections (CARI) of the Philippines Department of Health (DOH). The review included document review, discussions with relevant DOH officials, visits to numerous public health offices and health facilities within the National Capitol Region and Region VIII, the Research Institute for Tropical Medicine, the Philippine Pediatric Society, WHO, UNICEF, and USAID/Manila and its Child Survival Program technical assistance contractor.

1.2. The need for an effective national strategy directed at childhood pneumonia is unquestionable. Pneumonia has been documented to be the leading cause of death among children in the Philippines, the leading cause of morbidity resulting in visits to health facilities, and the leading cause of childhood hospitalizations. The need is not one of establishing services directed at ARI but rather one of expanding and improving the effectiveness of services which are already being provided.

1.3. An extremely positive picture has emerged through this review. Global programming for ARI is in its infancy, and currently there is no fully operational nationwide model anywhere in the world. Substantive investment in the Philippine CARI Program would enable USAID to play a key leadership role in the development and testing of such a model. As a result of such an investment, USAID could assist the Philippines within a few years to demonstrate the world's first fully national ARI program as an integral part of the primary health care and child survival service delivery system. The probability of success of this effort is high, given current levels of policy commitment, training capacity, staff motivation, and infrastructure.

1.4. Policies adopted by the DOH with respect to the CARI program are highly appropriate. With or without additive USAID support, this program will move forward. Support, however, would add three important ingredients: a considerably more rapid pace of full implementation and national coverage; the mechanism for more rigorous quality assurance, internal evaluation and documentation; and a greater outreach beyond the current static health facilities with the potential of greater impact on overall population mortality. The team believes these additional elements would be well worth the investment, both in terms of impact on child survival in the Philippines and of lessons for future A.I.D. support to global ARI efforts.

1.5. Implementation is currently constrained by staffing and related considerations. The program is appropriately focussing on rigorous training of health personnel at all levels using materials and methodologies developed with assistance from WHO. In rejecting a model of "echo training", in which critical knowledge and skills run a high likelihood of becoming diluted and lost with each successive level, the CARI program has committed itself to a measured pace of expansion, relying on well-trained and supported supervisory staff for each successive training.

1.6. Additional staff within Maternal and Child Health Services dedicated to the CARI program would allow considerably faster expansion without loss of quality; they would of course require additional resources such as travel and training budgets. Given that this program is concentrating in its early phase on training health personnel throughout the country, these staffing and related costs would not be a permanent recurrent cost to the DOH. Consideration should be given initially to adding 4 temporary staff positions, with a further 2 to 4 positions within the following year. This could be done using Child Survival Program support funds as well as Philippine Health and Development Project funds.

1.7. A critical component of any effective pneumonia treatment program is the supply of antibiotics. It appears that this will not be a major limiting factor for program expansion in the Philippines. The team estimates the total national pneumonia caseload to be between 1.5 and 2 million children per year, which at current national bid prices for co-trimoxazole would amount to approximately 10 million pesos; REACH was told that this is within the resource capabilities of the DOH. Significant additional cost savings could be achieved by reducing unneeded and inappropriate drug treatment, following the policies already established by the DOH. However, the movement of these antibiotics to the point of service delivery will require continuing attention as well as limited technical assistance.

1.8. The national program would benefit significantly from ongoing assistance in quality assurance, internal evaluation, and documentation. The team believes that this need would best be served through a full-time advisor with further direct short-term technical inputs from the REACH Project. Since the Philippines program is a pioneering effort without other fully functional national program models from which to draw experience, this assistance will serve two major functions:

- o early rigorous assessment of program strengths and weaknesses and resultant programmatic adjustments which will directly benefit the effective expansion of the program, and
- o the generation of lessons which can be applied to programs to be developed in other countries over the next several years.

1.9. Given that a substantial portion of the benefits of this assistance would be used internationally, the team believes it would be appropriate for the costs of such assistance to be shared between country-specific funding sources and those with a global scope.

1.10. As currently envisioned, the national CARI program is likely to result in major improvements in the care of those children with pneumonia who are brought to government health facilities and to physicians trained in the standardized case management protocol. However, even if this effort were to be completely successful, many children at highest risk for pneumonia death may still fail to enter the health care system in a timely fashion. In order to achieve overall mortality reduction it will be necessary to develop and test strategies for improving maternal motivation for early and appropriate care-seeking, and to facilitate such action.

1.11. These strategies will need to go considerably beyond conventional mass media communications approaches and point-of-delivery health education, and must encompass alternative sources of care, current patterns of response to illness, and generation of carefully targeted points of intervention. The team believes that the complexity of these issues and their potential for improving public health warrant full-time technical assistance in this area, preferably through an appropriately trained host country national with technical guidance and periodic short-term inputs.

1.12. It is clear that the Philippines is already well on its way to the establishment of a solid national program for the control of acute respiratory infections. With the additional resources the team has described, there is a high probability that this program will substantially diminish the death toll due to pneumonia and in the process provide valuable lessons for other national programs. The team believes that USAID's investment in the Philippines' CARI program is therefore strongly warranted.

2. PURPOSE OF VISIT

2.1. USAID/Manila requested the REACH Project to field a technical team to review the Philippines national CARI Program in December of 1990. The team, comprised of Dr. Nils Daulaire and Dr. Mary Carnell, was requested to make recommendations to USAID/Manila concerning the direction, pace, prospects for success and potential benefits for child survival of the CARI Program, to review all major resources available to the program, and to assess the potential added benefit of USAID resources directed towards this program.

2.2. The detailed scope of work for this consultancy was as follows:

- o Assist the Department of Health and USAID in assessing the current status of the ARI National Program.
- o Explore how Child Survival Program funds can be mobilized to more fully address ARI program objectives.
- o Review the current budget and benchmarks for ARI and offer recommendations concerning technical assistance that may be needed to facilitate meeting ARI program goals.

2.3. In initial briefings with USAID/Manila, the consultants were asked specifically to focus their attention on a review of the policy and planning framework under which the CARI Program was being carried out, and to provide feedback on the direction, speed, and appropriateness of plans for expansion of the program, as well as how program fits within the planning and budgeting process of the Department of Health (DOH) and of the provincial level health services.

2.4. Within this context, the consultants focused on answering the following questions:

- 2.4.1. Does the Philippines CARI Program have sufficient potential for success to warrant further investment on the part of USAID/Manila and A.I.D./Washington?
- 2.4.2. If so, what types and levels of USAID-sponsored assistance would best contribute to the goal of reducing childhood mortality due to pneumonia throughout the country?
- 2.4.3. How could such assistance best fit within the framework of existing support through the Child Survival Program and potential support through the REACH Project?
- 2.4.4. What concrete follow-up actions should be carried out based on the findings of this consultancy?

2.5. In addition to the assessment of the CARI Program, USAID requested REACH assistance during this visit to discuss recent requests from the DOH for several short-term technical assignments in EPI.

3. BACKGROUND

3.1. The Philippines has documented a tremendous burden of childhood respiratory disease. Based on national statistics, ARI has been found to be the leading cause of childhood mortality, accounting for 35% of all deaths among children under the age of 5; fully 25% of infant deaths and 50% of deaths in children aged 1 to 4 are due to ARI.¹

In terms of morbidity, ARI is the leading diagnosis among children being seen as outpatients in health facilities, and pneumonia is the leading diagnosis among hospitalized children. Even before the recent institution of a comprehensive national ARI control program, annual incidence of pneumonia cases seen in health facilities was reported as 59 cases per thousand children per year; most of these children received a variety of drugs, including antibiotics and often cough and cold remedies. Data from community-based research studies indicate even higher incidence levels, in some urban areas perhaps even as high as 500 cases of pneumonia per thousand children per year.² Although this may seem high, a number of community-based morbidity studies carried out in other countries (Papua New Guinea, Pakistan, Nepal) have found even higher annual incidence rates.

¹ Dr. Elvira Dayrit: Philippine CARI Program Plan. Presented at the Awareness Raising Conference on Acute Respiratory Infection, April 1989.

² Dr. Thelma Tupasi et al. Journal of Infectious Diseases, April 1988.

3.2. Because of the recognized importance of this problem in the Philippines, and because of the presence of skilled researchers, one of the earliest large-scale ARI intervention studies in the world was undertaken starting in 1984 under the auspices of the Research Institute for Tropical Medicine (RITM) on the island of Bohol. This study served as the testing ground for many of the approaches considered for broader application in a national program, and has provided a considerable body of valuable experience. More recently the RITM has also undertaken a study of ARI in an urban Metro Manila setting.

3.3. In 1989, the DOH launched the national CARI Program, which was located institutionally within the Maternal and Child Health Services (MCHS). It was decided that the CARI Program would not be carried out as a separate vertical program, but would be implemented within the framework of national maternal and child health services. A CARI program manager, who also has responsibility for national EPI services, was named. Over the past year she has concentrated on program development activities. In 1990, a set of proposed policies was established and submitted for approval to the DOH (see Appendix 2); although formalized approval had not been granted as of the time of this consultancy, the norms and programmatic policies described in the document have been fully accepted and are already being implemented.

3.4. Having been well established institutionally, the CARI Program is currently in its expansion phase. Current priority is for full-scale implementation in two regions, the National Capitol Region (NCR) and Region VIII, encompassing the islands of Leyte and Samar. In addition, training for supervisory skills in ARI was underway in 14 regions prior to the initiation of clinical management training, which is scheduled for 1991.

3.5. In 1989 USAID/Manila began the Child Survival Program (CSP), which provides bilateral assistance to the DOH. The CSP focuses on targeting high-risk populations and underserved geographical areas for the expanded delivery of ten child survival-related services. Rather than providing project funding, the CSP is a performance-based sector assistance program, which allows the Government of the Philippines (GOP) broad latitude in the utilization of these funds as long as basic, mutually agreed-upon objectives are achieved in the areas of policy reform and service delivery. A technical assistance contractor was selected for the CSP in mid 1990, again with broad responsibilities for institutional support in health planning and management, information systems, health care financing, and communication.

3.6. ARI was recognized as an important problem to be addressed through the CSP, but the principal focus of the first year of the CSP concentrated on broad institutional and policy issues. Also during the course of 1990, ongoing USAID-funded resident technical assistance in support of both EPI and diarrheal disease control came to an end, leaving behind a solid body of technical capability in these programs within the DOH. The fledgling CARI program has not received such assistance up to this time.

3.7. A.I.D. has designated the REACH Project as its lead contractor in the development and support of ARI activities globally. Along with its mandate to respond to mission-generated short-term technical assistance requests, the REACH Project has a mandate to provide long-term assistance in up to five countries in the development of EPI and ARI programs. The request from USAID/Manila to provide assistance in assessing the needs and prospects of the CARI program falls directly within REACH's mandate.

4. TRIP ACTIVITIES

4.1. The consultants arrived in the Philippines on December 1 and 2, and departed on December 15, 1990. Over the first several days of their consultancy they met with officials of USAID/Manila and the Philippines DOH to get full background information on current activities and plans with respect to ARI. They then travelled for several days to Region VIII to visit field sites in which the CARI Program had begun implementation, and to assess the program's principal constraints and achievements to date.

4.2. In the second week of the consultancy, the consultants returned to Manila and visited facilities at various levels within the NCR. They also met with officials of WHO and UNICEF, as well as staff of RITM, officials of the Philippines Pediatric Society, and expatriate advisors to the DOH.

4.3. Discussions concerning preliminary findings and draft recommendations were discussed prior to departure with USAID/Manila as well as with officials of the DOH.

4.4. Details of day-by-day activities and a listing of individuals met are found in Appendix 1.

5. ARI PROGRAM FINDINGS/CONCLUSIONS/RECOMMENDATIONS

5.0. During the course of this visit the team received a thorough overview of the CARI Program and had the opportunity to observe program activities in the field and in institutions. No effort was made by DOH staff or others to "sell" this program or to minimize the obstacles which are being faced, and the team's impression was that the view we were given was fair and representative.

5.1. Policy

5.1.1. The policy framework under which the CARI Program operates (Appendix 2) is entirely appropriate, both from a technical and implementation standpoint. These policies are consistent with WHO standards, as well as with the draft A.I.D. strategy on ARI. They serve as a solid foundation for the implementation of the program and do not, in the team's opinion, require any modification.

5.2. Planning

5.2.1. An adequate review of the overall planning and resource allocation process carried out within the DOH was not possible within the time period of this consultancy. The consultants did attend part of a review meeting within the DOH for the World Bank-supported Primary Health Development Project (PHDP), in which it appeared that priorities were well set, milestones appropriately weighted, and constraints realistically dealt with. Up until this point, ARI has received limited priority within the national planning activities of the DOH because program development was not yet at the stage at which significantly greater resources could be effectively absorbed. Discussions with top officials of the DOH indicated that the CARI program is now in a position to attract considerably greater resource support from within the Government of Philippines' (GOP) allocation framework. The team has no reason to doubt this, given the top priority given to ARI by the Secretary of Health, but is not in a position to judge how rapidly this is likely to come about.

5.2.2. Planning at the programmatic and provincial level is appropriate and realistic. The program should be congratulated for not trying to exceed a feasible speed for national expansion, although its plans continue to be ambitious and are likely to be achieved on schedule only if there are no delays in parts of the system (finance, drug supply, staffing) which are totally outside the control of the program.

5.2.3. At both the national and provincial level, the greatest constraint to planning appears to be the fact that manpower is stretched so thinly in attempting to implement this program that little time is left to focus on the painstaking steps of detailed operational planning. **This is an area that deserves considerable attention in future support to minimize the risk that programmatic elements (e.g. trained manpower at various levels of the health system as well as antibiotics) become unsynchronized as the program expands.**

5.3. External Resources Available for ARI Program Development

5.3.1. **UNICEF**

5.3.1.1. UNICEF plans to support region-wide ARI activities in Regions VIII and NCR over the next three years at a level of approximately US \$200,000 per year from general funds. Support is primarily for training of hospital and RHU personnel in proper case management with small amounts for IE&C and the purchase of cotrimoxazole and timers.

5.3.1.2. In addition, ARI will be a component of the ABCSD (Area Based Child Survival and Development) project currently in seven provinces, with eighteen provinces to be added in 1991. These activities will be supported from supplementary funds from AIDAB, but no detailed plans and budgets have been developed.

5.3.1.3. UNICEF Project Officer for EPI/CDD/ARI identified the following currently unmet resource needs in the ARI Program:

- training support for other regions
- additional training materials
- documentation of performance to assist in future programming
- supervision
- developing systems for logistics and drug usage
accountability

5.3.2. WHO

5.3.2.1. Visits were made to the Western Pacific Regional and WHO/Philippines Offices (WPRO) to discuss their anticipated support to the ARI Program. In the 1990-91 two year program cycle, the budget for ARI is US\$55,000. Monies are allocated for training, establishing the national ARI Clinical Training Unit, surveys, and training materials. No short term technical assistance has been budgeted.

5.3.2.2. The two year 1992-93 budget is combined for all MCH programs and has a total of US \$205,000 in regular funds. Supplementary funds are anticipated to be limited. Approximately US \$55,000 of this total budget will go towards ARI, including two months of short term technical assistance and local costs for ARI Program Review and surveys, ARI Treatment Unit supplies and equipment, and ARI training materials.

5.3.2.3. The WHO/Philippines CDD/ARI Medical Officer hopes to increase the proportion of his time devoted to ARI to about 30%. However, he expressed some reservations due to current DOH staffing in CDD markedly declining at the end of 1990, indicating that he may need to continue devoting a considerable proportion of his time to CDD.

5.3.2.4. The WPRO Medical Officer for ARI plans to continue his support to ARI Program in the Philippines. He travels approximately 50% of his time in the Western Pacific Region. He stated that a finalized Household Morbidity and Mortality Survey instrument should be ready from WHO/Geneva by June 1991. A shorter, simpler Health Facility Survey is also being developed. He stated that WHO will need to identify consultants to assist in the development, implementation, and analysis of these surveys. In addition, health education components require more development.

5.3.2.5. WHO/Geneva has supplied several consultants in the past to ARI, including assistance in the establishment of the ARI Clinical Training Unit, a facilitator for the ARI Awareness Conference in 1989, and field testing of a survey instrument in 1990.

5.3.3. Child Survival Program

5.3.3.1. USAID began a four year \$45 million Non-project Sector Assistance (NPSA) program in health in the Philippines in 1989. An initial \$9 million was transferred to the Department of Health in December 1989. After achievement of a set of agreed indicators in ten child survival areas, another \$11 million tranche is programmed for December 1990.

5.3.3.2. In addition to the NPSA, an USAID Child Survival Program (CSP) resident management team is in place, composed of four technical specialists in management, communication, finance, and information systems. The CSP has a limited budget for short term technical assistance that will have to be spread over a wide spectrum of activities during the next four years.

5.3.3.3. Of the 10 million Pesos requested by the CARI Program in 1990 from CSP funds for ARI, only about 10% were received (US \$33,000).

5.3.4. Philippine Health and Development Project

5.3.4.1. The World Bank has established a five year US \$70 million loan with the Philippines for the period 1990-1994. Building provincial management capacity is a large part of this project. Four priority programs are included: schistosomiasis, malaria, tuberculosis, and MCH. The budgets for these priority programs are as follows:

- MCH	64 million Pesos	(US \$2.3 million)
- malaria	415 million Pesos	(US \$14.1 million)
- TB	312 million Pesos	(US \$10.1 million)
- schisto.	165 million Pesos	(US \$5.8 million)

5.3.4.2. Within the MCH portion of this budget, approximately 28 million Pesos (US \$1 million) is allotted to ARI over five years:

- cotrimoxazole	14	million Pesos
- timers	3	" "
- oxygen concentrators	4.7	" "
- Penicillin G	3.4	" "
- Chloramphenicol	1.1	" "
- ARI manuals	1	" "

	27.2	

5.4. Drug Supply

5.4.1. Antimicrobials used for the treatment of pneumonia cases are critical and essential elements of any ARI control program. Given that these drugs are a permanent recurrent cost element of such a program, the availability and mobilization of internal resources for sustained procurement is a key element to consider in assessing the potential for programmatic success.

5.4.2. As noted earlier, the policy framework for the use of drugs is entirely appropriate. This pertains not only to the appropriate selection of antimicrobials for the treatment of childhood pneumonia -- a cost of program implementation -- but also to the appropriate discouragement of useless, inappropriate or dangerous drugs -- a potential cost savings to the health system.

5.4.3. In determining expected costs, the need for supplies is obviously dependent on the expected number of cases. Current health service statistics report 59 cases of pneumonia per thousand children per year. With an estimated 9,000,000 children under five nationwide, this would result in approximately 550,000 cases per year. However, the team's opinion is that this rate is likely to be an underestimate. Estimates of percentage of pneumonia cases not seeking care from a trained health worker range from 25% (from routine health services surveillance reports) to 40% (in the recently completed Mindoro household survey); these trained health workers include both government service and private health providers, and therefore many of these cases would not be reported in the routine statistics.

5.4.4. Although the incidence rate of 500 cases of pneumonia per thousand children per year reported for Pasay City by RITM is probably higher than the national average, REACH believes that a reasonable estimate on which to base national projections would be in the range of 150 to 200 pneumonia cases per 1000 under-fives per year (the Mindoro household survey found an annual prevalence rate of 16 to 18%, or 160 to 180 per 1000). This would result in approximately 1.5 to 2 million childhood pneumonia cases per year nationwide. If treated with co-trimoxazole tablets according to CARI program norms (one tablet twice daily for five days), this would require up to 20 million tablets per year. In addition, of course, would be the need for second line antibiotics as well as supplies needed for hospitalized children, based on a projected percentage of cases requiring hospitalization. The team focussed attention on first line antibiotics and have not yet carried out this estimate on second line antibiotics.

5.4.5. According to figures provided by the DOH, current central-level procurement of cotrimoxazole (the accepted and appropriate first-line antimicrobial for childhood pneumonia in the Philippines) for 1990 amounted to just under 8 million tablets, with an additional 680,000 bottles of cotrimoxazole syrup (roughly equivalent in terms of effective dosage to 6.8 million tablets) also procured. Current centralized procurement costs of cotrimoxazole amount to 52 pesos per bottle of 100 tablets (P 5.85 per bottle of syrup). Even if none of the currently procured cotrimoxazole were used for treatment of childhood pneumonia, which is unlikely, the total annual cost of procuring the needed quantity of antibiotic would amount to just over 10 million pesos, exclusive of transportation costs to the regions. This should be considered in light of the current central level expenditure of 8 million pesos for cotrimoxazole, as cited above, with an additional 2 million pesos expended in 1990 for dexamethoprim cough syrup, despite CARI policy which calls for discouraging the use of cough medicines.

5.4.6. These figures indicate that the **expenditures required for complete national antibiotic procurement**, even using the team's projected pneumonia incidence rates which are considerably higher than figures currently used by the CARI program, are **well within the current means of the DOH**. In addition, savings are possible within the current supply and allocation system of the DOH with a rationalized procurement policy. The team was also informed that an additional 1 million pesos per province is provided to each region for the local purchase of medications for Rural Health Units (RHUs), where a majority of cases of pneumonia are likely to be first seen and treated; some of these funds would certainly be appropriately allocated for pneumonia case treatment.

5.4.7. Another positive indication with respect to the potential mobilization of internal health services resources is the fact cited to the team that most of the DOH budget is currently allocated to the provision of public health services rather than to hospitals.

5.5. Service Burden

5.5.1. At all levels of the health system which the team visited, ARI was seen to be a priority, and the rationalization of treatment promoted by the CARI program was welcomed. At peripheral service delivery sites in which ARI case management had been instituted, the team was informed that field workers were not additionally burdened by this program, since they previously had to deal with ARI in any case, and generally in a much more haphazard manner which meant considerably more time and resources spent on mild cases.

5.5.2. The team was also informed that there was some early evidence that the rationalization of outpatient antibiotic care of pneumonia was reducing hospital occupancy, and that some of the urban clinics where this program has been underway for some time were seeing a higher proportion of pneumonia among all their ARI cases, suggesting that mothers were beginning to recognize when a case did not require medical treatment. **None of these perceptions, however, are based on hard statistics, and research studies on morbidity and care seeking such as the one currently underway in Pasay City under the auspices of the RITM will help in quantifying the likely costs or savings to the health system brought about by improved case management.**

5.5.3. However, a repeated concern expressed both in Metro Manila and in Region VIII related to pressures on health providers to dispense drugs for all cases brought for care, regardless of level of severity. This pressure comes from mothers as well as from private medical practitioners in the community, who criticize government health services for "inadequate care." In health facilities in which CARI clinical management training had not yet been carried out, it was not uncommon to find cough medicine widely used, and a variety of antibiotics commonly employed in coughs and colds to "prevent the onset of pneumonia". Although this has been clinically disproven in a number of global WHO research studies, it remains an article of faith among many medical practitioners. It is clear that an important priority in the educational and communications aspect of the CARI program will be to discourage inappropriate drug use, both on the demand and supply side. As was documented in the Control of Diarrheal Disease Program, it will be very important to the

credibility and success of the CARI Program to bring the private medical practitioners on board with the CARI diagnostic and treatment protocols if they are to help promote rather than undermine the program.

5.6. Training

5.6.1. Supervisory training

5.6.1.1. Two basic aspects of the training carried out through the CARI program were reviewed during this consultancy. The first was the supervisory skills training, and the second was clinical management of ARI. WHO training materials are used in both.

5.6.1.2. Field costs of supervisory skills training have been supported by both the CSP and by UNICEF during this past year. Carrying out this training program is a managerially complex task, since it requires the establishment of a core group of approximately 10 trainers in each region, themselves well trained, who have ongoing responsibility for further training within the region, as well as ongoing management of the program. Each region has, or will shortly have, an ARI coordinator, who reports to the Regional Director but who takes technical guidance from the national CARI program.

5.6.1.3. The challenge faced is not in the presentation of the materials used in training; these are well thought out and appropriate, and observations made during this consultancy indicate that this training was generally effective. Rather it is in the sheer numbers of health workers who require training. Given limited national level staff and the demands on their time for other elements of the program as well, it will take several years to accomplish the initial training of core regional level staff. Regional training staff in turn have an enormous body of provincial and district health staff whom they must reach. The planned phasing of the training is well considered, starting with municipal health officers and hospital staff to assure first that clinical management at referral and supervisory levels is appropriate. Beginning with the outreach level, while appealing from the standpoint of increasing access to standard case management, would likely result in confusing and contradictory messages reaching lower level staff and the public. Consequently, public health nurses and midwives, and in some underserved areas barangay health workers, will receive their training after referral and supervisory staff have received theirs.

5.6.1.4. The temptation in a program of this magnitude is to carry out direct training of only the first or second layer of health care providers (e.g. hospital doctors) and rely on "echo training" to spread the knowledge throughout the health system. The CARI program has made a well-considered decision to carry out full and rigorous training of all layers of health care providers, and have modified materials for use specifically with midwives. The team believes that this decision is appropriate and necessary for assuring quality of care at a level likely to have impact on pneumonia mortality. The team commends the program for not taking the easy route of simply assuming that use of a trickle-down methodology would assure that needed clinical skills would be acquired.

5.6.1.5. Such a large training task will have a large initial draw on resources, both in terms of personnel and finances. The team believes that the program could effectively absorb and utilize a considerably larger training staff, optimally an additional four people starting in 1991 with an additional two to four in the following year, in order to significantly speed the pace of national implementation. Once fully instituted on a national level, however, this additional staff would not be required on a recurrent cost basis, resulting in significantly lower maintenance costs. This would be an appropriate area for support through the CSP.

5.6.2. Clinical training

5.6.2.1. In addition to the sheer numbers who have to receive training, the clinical management training faces the added difficulty of finding enough clinical facilities with sufficient numbers of pneumonia cases to make the training effective. This is especially true with respect to the training of midwives and BHWs, and along with budget serve as the principal limiting factors for rapid expansion of the program at the field level. It has been found in the Philippines and elsewhere that practice and observation of real cases is the key to assuring that peripheral health workers retain the skills needed for appropriate case management. Setting up arrangements within the provincial and district hospitals for such training to be effective, and assuring an adequate caseload during training, will require a level of attention, and commensurate resources, which it has not yet received.

5.6.2.2. Currently, clinical training in case management is carried out at the national level in the San Lazaro Hospital. They have the stated capacity to train 15 to 20 doctors and nurses at a time over a five day period. In principle this means that between 500 and 1,000 clinicians per year could be trained here, but this number is considerably reduced by the fact that this is also the site of national CDD training (the CDD training facility built with USAID/Manila assistance will be used for ARI training as well). Space constraints as well as limited lodging facilities do not readily permit concurrent training. Yet even with maximum output it seems evident that San Lazaro does not have the capacity to serve as the sole source of clinical training even for Metro Manila, unless the original program expansion is to be stretched out over a decade or more. Over the next few years several more clinical training sites will need to be established within the Metro Manila area, as well as in regional hospitals throughout the country. This effort will require considerable effort and added resources.

5.6.2.3. It was evident from the team's visit to the pediatric unit at the Leyte Regional Hospital that such facilities have significant potential to serve as such sites. Case management as practiced there was of consistently high quality and directly in line with CARI policy, and the documented results of this approach over the last year was a clear decline in pneumonia case fatality rates, a higher number of patients cared for on an outpatient basis, and shorter hospitalizations. Such potential centers of excellence no doubt exist throughout the Philippines and should be mobilized for this effort. The Philippines Pediatric Society (PPS) has expressed enthusiasm for playing a role in this process, as they have done with CDD, and mechanisms should be found to assure their ongoing involvement.

5.6.3. Medical and Nursing School Training

5.6.3.1. In addition to clinical in-service training, an important focus over the next five years should be the incorporation of appropriate norms into the pre-service training conducted in the numerous medical and nursing schools throughout the country. This will assure that new graduates will not need immediate retraining, and will also begin to make inroads into the apparent resistance of private medical practitioners to the rationalization of ARI case management. Again, it is likely that the PPS could play a significant role in this regard, but external assistance in this effort was mentioned to the team on several occasions as also needed.

5.7. Quality Assurance and Program Management

5.7.1. With regard to training, a key program area which has not yet received the attention it will need is that of quality assurance. There is no benefit to training thousands of health care providers if that training does not result in significant changes and improvements in the clinical care of ARI. Although the impressions the team had from their limited field observations were generally positive, evaluation mechanisms to assess the effectiveness of training and supervisory systems on practices, and the use of this information to modify the CARI program as it matures, have not yet been developed. This is not a criticism of the program or its staff, who are aware of this need but have simply not had the time to devote to this issue in the context of all the other activities which need to be carried out. Technical assistance in this area is one of the highest priorities in the near future.

5.7.2. Management of the national CARI program is still in its early stages. As noted above, staff and leadership of the program are impressive for their level of dedication and ability. Nonetheless, they are stretched very thin simply in addressing the considerable requirements for getting this program moving. At present they do not have the time necessary for a thorough review of current and future management systems which will be needed to support the implementation of a high quality program. This should be a high priority for assistance in the near future, and will probably benefit from ongoing assistance over the course of several years. Considerable technical attention will particularly need to be directed at the development, field testing and implementation of the monitoring systems needed for quality assurance -- the key element of ARI case management. The team would recommend that this be the principal focus of a follow-up consultancy in the near future, and that it is of sufficient importance to warrant long-term technical assistance. The team would note that the experience gained through this would also be of considerable value in the development of other national ARI programs worldwide, since the Philippines program is among the most advanced.

5.7.3. While quality assurance is important for all child survival activities, there is no program in which it plays a more critical role than in ARI case management. ARI case detection and treatment is the most clinical of all the priority child survival interventions. As a consequence, it is also the most provider-dependent, and requires continuing oversight of their clinical practices. Quality assurance in the context of primary health care delivery in the developing world is still in its infancy as a technical field, but there is a considerable body of knowledge and a conceptual framework for quality assurance which has been developed over the past decade in the U.S. This is an area which has been identified by REACH as a priority for general technical development in its global ARI assistance efforts and the team believes that the Philippines would be an appropriate setting in which to apply these tools. Such an effort warrants consideration of considerable technical assistance investment.

5.8. Documentation

5.8.1. Documentation of experiences gained through the early years of the Philippines CARI program will be important both for national and international use. This is a difficult demand to make on already pressed national program staff, whose first priority, understandably, is getting things done rather than documenting them. It is probably not reasonable to expect that this will receive high priority in the foreseeable future, which means the need will have to be filled through an alternative mechanism. Again, this would be an appropriate task for ongoing technical assistance.

5.9. Communications and Education

5.9.1. The importance of communications and education are mentioned earlier. At this phase of program development these issues are not a top priority for immediate programmatic implementation, since services must first be in place before communications and information have a useful role to play. Generation of demand prior to the establishment of quality services would be highly counterproductive, and be likely to lead to strong pressures for excessive and inappropriate drug treatment.

5.9.2. However, motivation of mothers for appropriate care-seeking is a key component of a successful ARI program, and the development of tools to accomplish this end are a time-consuming process. In the team's opinion, that process should begin now in order to assure sufficient pretest, experiment and modification time so that when wide-scale implementation is carried out, time will not be lost in determining the most appropriate set of household-appropriate behaviors for ARI, and the most effective way to encourage them.

5.9.3. REACH stresses that the IEC tasks involved in supporting national ARI activities differ substantially from those in other programs and require far more integration with service delivery systems. In CDD it may be appropriate in some cases to carry out such a program before the establishment of effective clinical services, and to rely on mass communications, since one of the desired behaviors relates to changes in the way diarrhea is viewed and treated in the household using therapy potentially available to mothers; in EPI, the desired behavior is to get all mothers to bring their children for

routine preventive immunizations regardless of their health status. There is no appropriate and effective home treatment of pneumonia, and a basic level of triage in the home or community is needed so as not to swamp the health care system with cases not requiring treatment.

5.9.4. Therefore the messages developed, and the means by which these messages are transmitted, must be specifically geared towards appropriate care-seeking from appropriately trained and supplied health care personnel. Accordingly, both messages and vehicles must be much more carefully crafted and tested, and must be introduced at a pace and in a manner that is thoroughly appropriate to the status and response capacities of the program. The team strongly advises that such an effort not be subsumed under broader and less targeted child survival communications efforts.

5.9.5. Similarly, traditional health education provided at the point of contact between provider and client is a necessary but not a sufficient element in ARI programming; it deals only with those mothers who bring their children for care, and not the 25% to 40% (cited above), or more, who do not. The messages which will be needed must not only stress indications for care seeking but also indications for "watchful waiting" so as not to overburden the health system with the mass of mild ARI cases not requiring care; a rough estimate of the number of such episodes comes to approximately 45 million a year, which would surely swamp efforts at effective health care delivery.

5.9.6. Because of these numerous critical elements, it is the team's opinion that technical assistance for ARI in the Philippines should include a significant component directed at motivation for appropriate care seeking. While technical inputs into an overall technical direction of this process should come from individuals with considerable international experience in ARI, day-to-day assistance would be most effectively provided through a locally recruited specialist.

5.10. Private Sector

5.10.1. Finally, as this program develops it will be important to keep in mind the fact that perhaps a minority of the care provided for ARI nationwide comes through government health services. This is in part due to the robust private sector in health which exists in the Philippines. This situation is unlikely to change, and it will be important to develop strategies which include alternative service delivery mechanisms. In particular, attention should be paid to pharmacies, often the point of initial contact with a mother who has a sick child, with private practitioners, and with traditional healers. This consultancy did not offer the time to investigate these issues in sufficient depth, but at some point in the next one to two years they should receive particular attention.

5.11. Conclusion

5.11.1. The team found that the Philippines CARI program has every likelihood of success, with or without USAID support, and that further USAID investment would be well warranted as a means for speeding the process of national coverage and for assuring a high level of quality throughout the country with adequate documentation.

5.11.2. The types of assistance which would be most critical include both technical and material support. On the technical side, it is REACH's strong opinion that a long-term expatriate advisor would be highly desirable to provide the CARI program with assistance in the development of quality control mechanisms, monitoring tools, and management systems. In addition, assistance through a locally recruited specialist in IEC, with strong technical guidance to avoid the traps of oversimplification and overpromotion, would be highly advantageous at this time, so that instruments would be ready when they will be needed in a few years. In addition, periodic short-term technical assistance in a broad array of technical areas would be highly desirable. To name a few: supply and logistics system development to assure adequate supplies of antibiotics; medical and nursing school curriculum development; small scale operational research into both provider and client perceptions and behaviors.

5.11.3. In addition to the technical support, material support to the CARI program would be highly desirable, particularly in terms of four or five additional staff for the national program. Discussions of additional staff always lead to the concern of sustainability, and this is an appropriate consideration here. It is the team's opinion that such additional staff would truly only be temporarily needed as a means of speeding up the process of establishing and disseminating the program nationally. They would also need support costs, particularly travel and per diem, since their major function would be training and monitoring in the regions. It appears that there may be some possibility that some of the CSP sector support funds could be directed toward this end, but the demands on these funds are great, and policy discussions between USAID/Manila and DOH decisionmakers will be needed to try to free up these resources for ARI.

5.11.4. There appear to be two principal mechanisms through which the types of technical assistance discussed here could be provided, namely the technical assistance contract for the CSP and the REACH Project. Discussions with the TA Chief of Party indicated that a considerable portion of the level of effort available to the Project was already committed to various institutional strengthening tasks, and that at the most one or two months a year over three years could be targeted toward ARI-specific tasks. It would be particularly appropriate for this assistance to include support for the supply and logistics requirements of the CARI program. Long-term assistance as discussed above, as well as numerous of the ARI-specific short-term technical needs, if these recommendations are accepted, will need to come through a different mechanism. The REACH Project could be the most appropriate mechanism both in terms of mandate and capacity. What remains to be determined, if these recommendations are accepted, is the mix between centrally-funded support and mission-funded support, which is beyond the scope of this consultancy.

5.11.5. In addition to the direct benefits of timely assistance, the Philippines CARI program provides a tremendous opportunity for USAID to move to the forefront of global ARI efforts. The Philippines is among the world's most advanced countries in terms of national program development. The likelihood of success is high. There is a great deal that can be learned through the process of assisting this program to meet its potential, and these lessons can be applied in many other USAID-assisted countries as they move into implementing ARI control activities. For this reason, investment in this effort will have a major benefit for USAID-sponsored ARI program support globally, and be made a high priority.

6. EPI PROGRAM FINDINGS/CONCLUSIONS/RECOMMENDATIONS

6.0. Although the emphasis of the visit was on the ARI assessment, several issues relating to EPI were discussed with USAID, WHO and the Department of Health.

6.1. USAID

6.1.1. USAID expressed its continued commitment to the EPI and its interest in sustaining the progress that has been made in the last few years. USAID may investigate having a larger program in hepatitis B that would include IE&C, but it needs to further assess what the CSP can pay for in local funds as other monies are quite limited. Of the total \$5 million for health over the next four years, approximately \$1 million is budgeted for evaluation, \$3 million for the CSP (four resident advisors plus forty months of short term TA), and \$1 million remains for all other programs (Field Epidemiology Training Program running costs, EPI, ARI, AIDS, etc.).

6.1.2. Discussions were held regarding the following upcoming technical assistance requests from the DOH:

- Comprehensive Immunization Program Review February 4-March 1, 1991
- Coverage Surveys/Evaluation Follow-up April 22-May 3, 1991
- EPI Costing Studies May 6-May 31, 1991
- Cold Chain Information System 3 weeks

A PIO/T for the above assignments is being prepared by USAID for submission to A.I.D./Washington by the end of 1990. Hepatitis B work will be handled separately as USAID prefers to group all hepatitis B assignments under one request.

6.2. DOH

6.2.1. Dr. Carnell attended the REACH Resident Advisor's debriefing at the completion of his two year assignment with Dr. Roxas, Undersecretary for Public Health Services. During this meeting, Dr. Roxas raised several issues about EPI that concerned him:

o Evaluation: Dr. Roxas feels there is a need to look for a common indicator to reflect coverage and effectiveness of EPI, ARI and CDD. He stated, "Fully Immunized Child (FIC) is very strict for EPI. What can be used to indicate ARI and CDD program progress? What can be used for a combined indicator? Perhaps 'fully served family' in these three program areas could be an overall indicator?"

Although Dr. Roxas recognized a need to maintain separate program indicators, he feels a need for an overall integrated indicator. Surveys would be needed as well as routine reporting to examine the usefulness of any such indicators.

o Training: Dr. Roxas is concerned by the mix of formal and on-the-job training. He would prefer that the current balance of 60% formal/40% informal be changed to 10% formal/90% informal with the emphasis on training during supervisory visits.

o Information/
Social
Mobilization: There is a need to develop new strategies for changing the attitudes of mothers and health care workers. Studies have already documented the negative influence of some midwives' attitudes on the acceptability of immunization services. Other studies have identified the need for Saturday clinic hours when mothers are free to attend; the loss in credibility when mothers have come a long distance and no vaccines are available; and the need to improve the quality of services. Yet, the results of these studies have not been used. Training in these areas cuts across all health services and could be handled by the training services.

o Sustainability
of EPI: This requires going beyond EPI into an integrated approach aimed at meeting the total needs of the family. If demand can be maintained, then midwives will be faced with having to provide these services.

6.3. Hepatitis B

6.3.1 The REACH consultancy of Dr. James Maynard to assist in a pre-bid meeting for purchase of hepatitis B vaccine was very much appreciated by USAID and the DOH.

6.3.2. Current budget constraints due to overall government budget cuts may affect the DOH's plans to purchase hepatitis B vaccine. Clearly such decisions will have important implications for future USAID technical assistance in hepatitis B.

6.4. Polio

6.4.1. Dr. Roland Sutter, CDC consultant to WHO for polio eradication, planning was in the Philippines for a four week assignment during the period of our visit. Dr. Carnell attended the debriefing for his assignment held during the Interagency Coordination Committee meeting for EPI.

6.4.2. Polio coverage in the Philippines in 1989 was 86% for OPV3. The range of coverage by region was from 67% in Region VI to 97% in NCR with 90% coverage for the nation in 1990 likely. Although only 300 cases are reported annually, it is thought that polio is grossly underreported, with expected cases annually probably about 5,000. Sentinel surveillance at San Lazaro Hospital has shown a decrease from 71 cases in 1988, to 33 in 1989, to 11 by December 4, 1990.

6.4.3. In 1987, all regions were still reporting cases indicative of widespread circulation of wild polio virus.

6.4.4. Dr. Sutter presented a very elaborate discussion about "effective immunity":

Effective Immunity = vaccine coverage X seroconversion rate.

6.4.5. Because of the interplay between lower seroconversion rates and lower median age of infection in the Philippines as compared to the U.S., he estimated that approximately 94% coverage with OPV3 would be required to achieve herd immunity in the Philippines. Therefore, he concluded that routine EPI cannot achieve effective immunity that will be sufficient to eradicate polio.

6.4.6. Dr. Sutter supplied the epidemiological and historical background for use of the mass campaign approach to polio eradication. Because the polio virus does not have any non-human reservoirs or long-term carrier state, it is "only" necessary to interrupt transmission in order to eradicate the virus. Cuba was able to eradicate polio with no routine vaccination programs but, rather, by two national vaccination days annually.

6.4.7. It is thought that mass campaigns serve to displace the wild polio virus from the environment due to the simultaneous presence of massive amounts of vaccine virus.

6.4.8. The programmatic objective Dr. Sutter recommended is the administration of thirteen doses of OPV by five years of age.

6.4.9. The major elements for eradication include:

- surveillance: case definition, investigation of cases within 48 hours, weekly reporting including zero case reports
- vaccination coverage: biannual national vaccination days, use of mop-up and containment activities
- reference laboratory
- organization: national commission, polio eradication unit.

6.4.10. Interdepartmental coordination was identified as the key to successful eradication operations. This should include the Departments of Health; Education; and Welfare; the military; non-governmental organizations; Philippines Pediatrics Society, etc.

6.4.11. It was estimated that an additional 20 million doses of OPV would be needed for 1992 to provide two doses to all children under five during national vaccination days. This is in addition to vaccine needed for mop-up and containment activities.

6.4.12. Additional interventions, such a vitamin A, to be delivered at the same time as OPV, were mentioned in order to capitalize on program efforts to reach the population.

6.5. FHSIS

6.5.1. The Field Health Services Information System (FHSIS) has established weekly notifiable disease reporting. Reporting is age-specific by under one year, one-four years, etc. At the most peripheral level (Barangay Health Station), there are six weekly notifiable diseases: measles, bronchitis, pneumonia, diarrhea, chickenpox, and "others". At the Rural Health Unit and Medical Health Center levels, there are nineteen weekly reportable diseases; those pertaining to EPI include measles, diphtheria, polio, tetanus (no neonatal tetanus distinction), TB meningitis, TB other forms, and infectious hepatitis.

7. FOLLOW-UP ACTION REQUIRED

- 7.1. The essential first step will be A.I.D.'s determination as to what resources will be made available specifically for support of the Philippines CARI program, and what mechanisms will be used for providing this support. This decision should be made in the first quarter of 1991.
- 7.2. If A.I.D. decides to proceed, this initial consultancy should be followed up within four months with a REACH consultancy to define the precise scope and time frame for further assistance.
- 7.3. If these recommendations are accepted, a long-term advisor for quality assurance and management assistance should be recruited and posted. Optimally, long-term assistance should begin in mid 1991, since the program is now ready for such inputs.
- 7.4. A short-term consultancy should be planned for mid to late 1991 in conjunction with the recommended long term technical assistance to develop the detailed framework for quality assurance with the ARI services of the DOH. This should not be dealt with as a research issue but rather as a practical management tool and should be thoroughly integrated into the technical development of the CARI program.
- 7.5. During 1991 a more detailed cost projection for the pharmaceutical requirements of the CARI program should be carried out, which should also include a detailed description of small scale studies needed to determine what cost savings may realistically result from rationalization of services. These studies should take into consideration mechanisms for making use of current RITM research presently underway.
- 7.6. USAID/Manila and the DOH should discuss mechanisms for supplying the additional training staff needed by the CARI program for rapid national expansion.
- 7.7. USAID/Manila, the DOH and the PPS should jointly develop a mechanism for PPS training teams to play an active role in the expansion of clinical training; such an agreement should be finalized in the first half of 1991.
- 7.8. REACH or local TA contractor assistance should be utilized for assisting in the development of a plan for expansion of clinical training sites in ARI; this activity should take place in the second half of 1991.
- 7.9. Starting in late 1991, short-term technical assistance should be provided on a periodic basis in the revision of medical and nursing curricula. This effort should be carried out in coordination with the PPS under the guidance of the CARI program.
- 7.10. At the same time, assistance should be provided to the CARI program in the development of a detailed plan of action regarding appropriate mechanisms for involving private medical practitioners, pharmacists, and traditional healers in the rationalization of ARI services.

7.11. REACH should field a team of consultants for approximately month in mid 1991 to review available documentation and program experience concerning appropriate ARI messages for mothers and providers, and to develop a three year program for field studies aimed at developing optimal messages and tools.

7.12. At the time of the above consultancy, a locally-recruited long-term advisor should be hired to follow through on these recommendations for the development of appropriate care-seeking responses on the part of mothers with children suffering from ARI. In addition, the advisor's function would be to oversee ongoing studies, and to work closely with the CARI program in its development.

FOLLOW-UP ACTIONS ON EPI

7.13. Mr. Alasdair Wylie is scheduled to participate in the Comprehensive Program Review to be held February 6-27, 1991. Following the review, he will assist USAID with any requests for technical assistance in EPI which result from the review's recommendations.

7.14. Mr. David Boyd, REACH/Washington Technical Officer, and Mr. Wylie will work with the data from Philippines coverage surveys to develop summaries that can be shared at the biannual EPI Consultative Meeting in April, 1991.

8. APPENDICES

APPENDIX 1

1. PLACES AND PERSONS VISITED

12/3/90

USAID/Manila
Department of Health
WHO/WPRO

12/4/90

Region IV Health Department
DOH
Makati Municipal Health Office
Valenzuela Periculture Center

12/5/90

Research Institute for Tropical Medicine
DOH

12/6/90-12/8/90

Field Trip to Region VIII, Tacloban, Leyte Province

Region VIII Health Department
Western Samar Provincial Health Office
Provincial Hospital
Silanga Barangay Health Station
Paranas Rural Health Unit
Calbiga RHU
Basey District Hospital

12/10/90

San Lazaro Hospital
DOH
National Capitol Region Health Department

12/11/90

DOH
Pasay City Health Office
Pasay General Hospital
Pasay City Main Health Center
San Isidro Health Center
UNICEF/Philippines

12/12/90

DOH
Philippines Pediatric Society

12/13/90

DOH

PERSONS CONTACTED

Department of Health	
Mr. Taguiwalo	Chief of Staff
Dr. Roxas	Undersecretary of Public Health
Dr. Elvira Dayrit	Director MCHS
Dr. Maritel Costales	Officer in Charge for EPI/ARI
Dr. Carmen Gervacio	MCHS Program Coordinator
Dr. Edwin Ballelos	ARI officer
Ms. Nilda Silvera	Nurse Program Supervisor for ARI
Region IV	
Dr. Azucena Aro	Regional ARI Medical Coordinator
Dr. Andres Cubacub	Chief, Technical Division, Quezon City
National Capital Region	
Dr. Infantado	Chief, Technical Services
Dr. Lopez	Regional ARI/STD/AIDS Coordinator
Dr. Elvira Lagrosa	Chief, Pasay City Health Dept./Chief, Pasay General Hospital
Dr. Cleofe Cruz	Pasay City District Health Officer
Dr. Jean Chan	Pasay General Hospital Health Officer
Dr. Dolina	Pasay General Hospital Medical Resident
Dr. Pilar Perez	ARI Coordinator/San Isidro Health Center
Dr. Lourdes Salud	Makati Municipal Health Officer
Dr. Nora Villanez	Makati Municipal Health Officer
Dr. David	Valenzuela Periculture Center
Region VIII	
Dr. Prudencio Ortiz	Regional Director
Dr. Alfredo Perez	Assistant Regional Director
Dr. C. Sabulao	Regional Medical ARI Coordinator
Ms. A. Cordero	Regional Nurse ARI Coordinator
Dr. Rafael Omega	Chief, Regional Hospital
Dr. Dolores Saucelo	Chief, Pediatrics
Western Samar Province	
Dr. Juanito de la Cruz	Provincial Health Officer
Ms. Salome Patusa	Provincial ARI/CDD/HE Officer
Dr. Vitus Hobuyan	Asst. Provincial Health Officer
Ms. Alma Aladun	Midwife, Silanga Barangay Health Station
Dr. Ortega	Munc. Health Officer, Paranas RHU
Dr. Cristina Celestial	Munc. Health Officer, Calbiga RHU
Dr. Lebrado Lajara	Chief, Basey District Hospital
Ms. Alma Bandy	Basey District Nurse Supervisor
Ms. Adelfa Amascual	Basey District Hospital Chief Nurse
Dr. Maribal Padrigal	Basey District Hospital Resident Physician

San Lazaro Hospital
Dr. Virgilio Gonzales Director
Dr. Silvina Cinco Head, Pediatrics Respiratory Ward
Dr. Casiana Malañtic Medical Specialist, Respiratory Dept.
Dr. Violeta Agatep Head, Outpatient Dept.

Public Information and Health Education Services (PIHES)
Dr. Manuel Dayrit Director

Research Institute of Tropical Medicine
Dr. Mediadora Saniel Director
Dr. Marilla Lucero Bohol ARI Project Director
Dr. Rose Capeding Chief, Laboratory Services
Dr. Medalia
Dr. Lupisan

Procurement and Logistics Services
Attorney Tayao Chief

Philippines Pediatric Society
Dr. Hermogenes Purugganan President

USAID
Dr. Emmanuel Voulgaropoulos Chief Health Population and Nutrition
Ms. Patricia Moser Health and Nutrition Officer
Ms. Marichi de Sagun EPI/ARI/CDD/Nutrition Officer
Mr. Alasdair Wylie EPI Advisor-REACH/JSI
Dr. Stephen Solter Child Survival Program COP- MSH

UNICEF
Dr. Wilfredo Varona ARI/EPI/CDD Project Officer

WHO
Dr. Shimouchi Western Pacific Region ARI Medical Officer
Dr. Sergio Pieche Philippines CDD/ARI Medical Officer
Dr. Augustino Borra Western Pacific Region EPI Medical Officer
Dr. Roland Sutter Consultant on Polio

APPENDIX 2

STATEMENT OF POLICIES OF THE ARI PROGRAMME (Draft not yet formally approved by the DOH)

General Policies

1. The program to control acute respiratory infections (CARI) will be an impact program of the Philippines. Its primary objective at this stage is to reduce mortality due to pneumonia among children five years old.
2. The primary strategy to reduce mortality is the institutionalization of a Standard Management of ARI Cases among all children under five years old.
3. The process of making this Standard ARI Case Management available at all health facilities shall be the focus of the initial activities of the CARI program. This process shall include capability-building such as: training; provision of essential equipments and supplies; upgrade of facilities; and refinement of management systems such as drug distribution, field supervision and monitoring and referral systems to and from the hospitals.

Standard ARI Case Management

4. All children with cough and difficult breathing shall be assessed and managed according to the following assessment and treatment chart:
5. The standard antibiotic treatment for children age 2 months to 5 years old with early pneumonia shall be oral co-trimoxazole. This shall be dispensed by all Department of Health and government midwives according to the Standard ARI Case Management Chart. Adult co-trimoxazole tablets shall be used, divided in 2 and given with food. In special circumstances, such as far flung barangays and isolated island municipalities where there are no midwives, volunteer or barangay health workers may be trained to assess and classify ARI cases and dispense oral co-trimoxazole according to the Standard ARI Case Management Chart under. These volunteers shall be given good supervision.

6. The standard antibiotic treatment for children aged 2 months to 5 years old with severe pneumonia shall be intramuscular benzylpenicillin; while those children aged 2 months to 5 years with very severe pneumonia shall be intramuscular chloramphenicol.
7. The standard antibiotic treatment for children aged 2 months to 5 years old with severe pneumonia shall be intramuscular benzylpenicillin; and gentamycin.
8. Children with early pneumonia shall be treated at home while children found to have severe pneumonia or very severe pneumonia disease shall be promptly referred for hospital admission.
9. Oral salbutamol shall be the standard treatment for children with wheezing who are not in respiratory distress; for children with wheezing and respiratory distress, faster-acting bronchodilators such as nebulized salbutamol or subcutaneous epinephrine shall be given as appropriate.
10. The standard antibiotic treatment for children with acute otitis media shall be oral co-trimoxazole.
11. The standard antibiotic treatment for streptococcal sore throat shall be intramuscular benzathine penicillin.
12. There shall be no routine skin-testing of penicillin among children under five years old. Instead, the following measures shall be adopted:
 Proper history-taking of previous allergic reactions
 Thirty minutes observation after penicillin injection
 Standby emergency drugs and supplies especially subcutaneous adrenaline
 adrenaline and sterile needles and syringes.
13. Children with simple cough or cold with no pneumonia shall not be given any antibiotic. Home-made fruit juices to soothe the throat are to be encouraged. In general, all commercial cough medicines are to be discouraged. Only the following cough medicines for the following clinical conditions are to be given:

Single ingredient cough suppressant: for the child with very severe pertussis who cannot sleep at night. The cough suppressant may be prescribed only at night to allow the child to sleep.

Single ingredient antihistamine: for definite allergic conditions only.

There is no place for expectorants in the treatment of ARIs.

If a mother insists on a cough medicine, a single ingredient mucolytic may be prescribed to soothe the child's throat to reassure its mother; but health education, in line with the overall strategy to institutionalize rational drug use, must be clear and firm about the unnecessary use of mucolytics as well as the unnecessary expenses.

14. The standard drugs needed in the Standard ARI Case Management Plan shall be made regularly available in all facilities especially the hospitals. Procurement personnel shall make sure these essential drugs are included in the regular supply.
15. The resistance of bacteria to co-trimoxazole, penicillin, gentamycin and chloramphenicol shall be monitored by intermittent sampling in selected hospitals. This shall be done in coordination with the Research Institute for Tropical Medicine (RITM) and the Philippine Association of Microbiology and Infectious Diseases.

Home Care

16. Home care for a child with ARI or early pneumonia shall consist of the following:

Continuation of breastfeeding/feeding
 Giving of increased fluids
 Warm fruit juices to soothe throat
 Advise on when to seek treatment

17. Family members should seek treatment from a health worker for a child with ARI if the child has any of these signs: rapid respiratory rate and chest indrawing, difficult breathing, acute ear infection, sore throat.

Training

18. ARI Training Units (ATUs) shall be developed in large and medium-sized hospitals. The San Lazaro Hospital shall be the National ATU. Hospital guidelines shall be modified to ensure compliance of all hospital staff with the Standard ARI Case Management Chart.
19. Case Management of ARI cases in hospitals shall be taught in Clinical Management Courses for all doctors and nurses (government and private) responsible for treating children with ARIs.
20. Case Management of ARI cases in the first level health facilities with basic planning, monitoring and evaluation shall be taught in Supervisory Skills Courses for supervisors at the regional, provincial/city and district levels.
21. Case Management of ARI cases (pneumonia, wheezing, otitis media, and sore throat) in the first level health facility shall be taught in ARI Case Management Courses for doctors and nurses in municipal and city health centers.
22. Case Management of pneumonia cases in the first level health facility (i.e. without the portions on wheezing, otitis media and sore throat) shall be taught in Pneumonia Management Courses for Midwives at all health facilities.

23. All the clinical management courses for hospital and first level health facilities shall incorporate hands on practice of the appropriate case management procedures.
24. There will be advanced training and implementation in Regions VIII and NCR, and in the following priority provinces under the special projects:

ABCSD Provinces

1. Ifugao
2. Negros Occidental
3. Maguindanao
4. Lanao del Sur
5. Sulu
6. Tawi-tawi
7. Basilan

PHDP/CS Provinces:

- | | |
|------------------------------|------------------------------|
| 1. Abra (PHDP) | 23. Nueva Ecija (PHDP) |
| 2. Quirino | 24. Kalinga Apayao (PHDP) |
| 3. Quezon | 25. Aklan (PHDP) |
| 4. Aurora | 26. Negros Oriental (PHDP) |
| 5. Mindoro Occidental (PHDP) | 27. Zamboanga del Sur (PHDP) |
| 6. Mindoro Oriental | 28. Lanao del Norte (PHDP) |
| 7. Sorsogon | 29. NCR (PHDP) |
| 8. Camarines Norte | |
| 9. Camarines Sur (PHDP) | |
| 10. Catanduanes (PHDP) | |
| 11. Albay | |
| 12. Antique | |
| 13. Capiz (PHDP) | |
| 14. Negros Occidental | |
| 15. Northern Samar (PHDP) | |
| 16. Eastern Samar | |
| 17. Western Samar (PHDP) | |
| 18. Sulu | |
| 19. Bukidnon (PHDP) | |
| 20. Agusan del Sur | |
| 21. Surigao del Norte | |
| 22. Surigao del Sur (PHDP) | |

Health Education

25. The primary method of educating mothers, parents and childminders shall be through one-on-one health education dialogues. There shall be no use of radio, television and newspaper in mass media campaigns until after the Standard ARI Case Management has been institutionalized in at least 60% of all health facilities in the country. This is to assure that services are already in place to meet the demand that will be increased by mass media.

26. Health education materials shall be developed and shall contain the following basic messages for mothers, parents and childminders:
- a. How to manage simple coughs at home
 - b. How to detect pneumonia early using simple signs such as rapid breathing and chest indrawing
 - c. When, where and how to bring the child with pneumonia for treatment
 - d. What antibiotics to give at home and how
 - e. Reasons why cough medicines and antibiotics are not necessary for most acute respiratory infections