

# Resources for Child Health

REACH

## DISSEMINATION OF NEW RESEARCH FINDINGS AND TECHNOLOGIES IN THE FIELD

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### I. INTRODUCTION

Almost all countries now support the goal of Global Immunization of their children by 1990. A significant amount of national and international resources has been mobilized to assist national EPI in reaching their goal. The REACH project is one of these resources. Over the last five years, there has been an extraordinary surge of interest in immunization: ambitious targets have been set (for example, the eradication of poliomyelitis from the Americas); new immunization schedules have been suggested; new vaccines are being developed; acceleration strategies have been defined and are being implemented (National Days of Vaccination are being widely adopted); better refrigerators and cold chain monitoring devices are being marketed; etc.... In short, the field of Immunization appears to be buzzing with new technical innovations and ideas which should hold promises of better and easier results. Similarly, lessons have been learned from the field, whether from successes or from difficulties; and a body of knowledge now exists which should be fed back to countries in order to improve their progression towards the goal of Global Immunization.

Despite the encouraging successes of the EPI in several countries or regions, progress, although real, has been rather slow in the majority of the less developed countries. The paradox seems to be that, despite the arsenal of nearly adequate technology (with the exception, perhaps, of the pertussis vaccine), we still face significant IMPLEMENTATION problems or delays in the field and appear to stumble on yet unresolved issues. Even when the research findings and technologies exist, we seem to have difficulties in disseminating them.

This humbling experience raises questions not so much on the adequacy of the presently available technology but rather on our ability to identify the conditions under which the EPI strategies should be implemented, and, more specifically, on the difficulties in translating them into operational terms, both functional and acceptable, to the public and to the health workers. In the following lines I would like to share some thoughts on the issue of the dissemination to the field of new research findings and technologies. I apologize in advance for the distance I seem to have taken with the subject: I indeed do believe that our approach needs to be refocussed. The point I hope to make is that the issue is less TECHNICAL than a symptom of our difficulties in perceiving adequately what the needs are and in COMMUNICATING with the health workers and with the public.

## II. GUIDELINES FOR PROGRAM IMPLEMENTATION

As a preamble let us be reminded that the technology and the strategies that we propose to the field should always address countries' needs in an appropriate way. Our aim should be to facilitate and to improve the implementation of national EPI and their safety. Ideally, the technologies and the strategies that we propose should be answers to questions or concerns which originated in the field and for which a tentative solution has been produced either in laboratories or from carefully designed research studies in culturally appropriate settings.

Also, despite the goal of GLOBAL Immunization, our strategies should be COUNTRY SPECIFIC. We must make efforts to tailor our recommendations to the actual needs of each of the countries we plan to assist, taking into account: the present state of development of their EPI; the level of the vaccination coverage rates; the epidemiological patterns of the EPI preventable diseases; the MOH ability to keep up the pace and to absorb changes, etc....

Another concern relates to the country's ability to absorb changes: new ideas or practices should be carefully examined for the benefits to be accrued and these benefits weighted against the disruption and costs they might induce in the EPI. In short, only essential changes with demonstrated benefits should be introduced and not too often.

Last, whenever we provide recommendations, we should also provide the resources to implement them. This does not only refer to capital expenditures (like equipment) but also to recurrent expenditures. Because of the donors' frequent reluctance to assume recurrent expenditures, recommendations and programmatic guidelines are not implemented as they should because of the MOH inability to mobilize resources.

## III. WHAT HAVE WE LEARNED THAT WE SHOULD DISSEMINATE IN THE FIELD? HOW MIGHT IT BE DONE?

### 1. IMMUNIZATION LEVELS MUST BE INCREASED IN TARGET GROUPS

It has been suggested elsewhere that "EPI should look beyond immunization coverage to reductions in disease morbidity and mortality". This recommendation has been understood as a warning: in addition to an emphasis on coverage, EPI should also pay attention to the pattern of disease transmission and to the rates of seroconversion in each age group in order to define more effective strategies. Data from Africa show that:

- \* not enough emphasis is yet put on the less than one year of age group in many EPI activities; as expressed in their broad target groups (0-5 or 0-3 years of age):
- \* significant changes in disease transmission are unlikely to occur unless high immunization levels have been obtained;

- \* many EPI managers still think in terms of vaccination coverage rates instead of immunization levels; and
- \* many national EPI have not yet been able to find the appropriate approaches to have mothers bring their children for second and third doses when necessary, as witnessed by the high rate of drop-out.

POSSIBLE SOLUTIONS:

- a. Stratify the population (erroneously perceived as homogeneous) into different target groups; identify their specific needs and design for each of them an appropriate approach.
- b. Pay more attention to the vaccination staff as a priority target group. What are their beliefs, knowledge and practices on EPI preventable diseases and on vaccinations? Are they convinced of the efficacy of the EPI? What are the vaccination coverage rates among their own children? How can they be made part of the EPI in a more participatory way and the EPI successes made their professional successes?
- c. Facilitate the return of the mothers by giving them a specific date of return verbally and IN WRITING on their child's vaccination card.
- d. IDENTIFY, for each specific culture, how the concepts of prevention and of " a-little-evil-to-avoid-a-greater-one " are defined and in which terms (the exact phonemes). This is probably the only way to have mothers accept the vaccination side effects and, despite them, return the next time.
- e. MAKE EVERY CONTACT BETWEEN A CHILD AND THE HEALTH SYSTEM COUNT. A necessary step might be to systematically ASSOCIATE Immunization with the routine health activities instead of allocating specific times or days. Let us not have our EPI be the sagas of "missed opportunities" (to quote Dr. Stan Foster, a second time) over and over!
- f. FOCUS ON THE LESS THAN ONE YEAR OF AGE OLD GROUP for the children and ON ALL WOMEN BETWEEN 14 AND 45 YEARS OF AGE for Tetanus Toxoid immunization. In Africa, Immunization with TT is still at a low level.

2. MONITOR THE QUALITY AND THE POTENCY OF THE VACCINES ALONG THE COLD CHAIN

Technologically efficient devices now exist for the monitoring of the quality of the cold chain from central stores to the periphery (cards 3M and color monitors on vials). However, according to the WHO in Geneva, very few countries, so far, monitor with objective indicators the potency of the vaccines from the central stores to the vaccination sites. Are we presently satisfied with the way the EPI Cold chains are being monitored?

Experience from the field indicates that breaks in the cold chain do occur, sometimes without the knowledge of the health staff as witnessed by outbreaks of measles among children with documented vaccinations.

POSSIBLE SOLUTION: Supply cold chain with monitoring devices in sufficient quantities and train the vaccination staff on how to use them.

### 3. THE SAFETY OF INJECTIONS

There is presently a growing concern over the safety of injections and over the possible role of the EPI in the transmission of viral diseases (Hepatitis B and AIDS among others).

Knowing what we do about the time and costs it takes to sterilize needles, about the infrequent supervision of the staff in the field, about the general scarcity of resources in the health facilities and their needs for needles it seems indeed naive to propose anything but non-reusable devices to administer the vaccines. If the risk is real (based on scientific evidence) and its magnitude of sufficient concern, then the EPI cannot take a chance. As has been suggested at the recent APHA annual meeting, EPI should set the standards of safety in injections.

POSSIBLE SOLUTION: Availability of single-dose-non-reusable devices. The cost is certainly very high but has this consideration ever stopped the accelerated strategies presently implemented?

### 4. MEASLES AND VACCINATION

We are aware that our present recommendation to vaccinate children for measles at 9 months of age does not address, at least in Africa, the needs of the group of children getting the disease before reaching the age of immunization. In some cities of Africa, between 20% and 30% of all measles cases are reported to occur among children of less than 9 months.

POSSIBLE SOLUTIONS: In the absence of a better vaccine, a different vaccination schedule with 2 doses might be tried and its impact of the seroconversion carefully monitored.

### 5. VACCINATION STAFF AT THE PERIPHERY

The role of the vaccination staff at the periphery has often been misunderstood: its negative role upon the mothers as an effective barrier to a better vaccination coverage; its potential role as a channel for acceleration and improvement. Experience shows that the staff at the periphery often has a poor understanding of the EPI and does not contribute enough to its success. This must change if we want program sustainability.

POSSIBLE SOLUTION: TRAINING, TRAINING and TRAINING. The WHO has conducted regional and inter country training sessions for national and mid-level managers and has strongly recommended to countries to conduct additional training sessions at the periphery. Often it has not been done in sufficient numbers or at sufficient intervals. A vigorous training

program must be implemented at the periphery for all EPI workers to make immunization a concrete element of their professional life. Simple training aids in vernacular language must be produced.

#### 6. MONITORING OF EPI

WHO insists on the importance of monitoring the progress of the EPI, by collecting data on operational indicators and disease specific morbidity and mortality data whenever possible. In addition, vaccination coverage surveys are recommended. Experience shows that national EPI often have difficulties:

- \* in setting up a reliable surveillance system;
- \* in analyzing the data collected; and
- \* in publishing reports and feeding the information back to the periphery in time.

POSSIBLE SOLUTIONS: Assist the national EPI in collecting the data they need and in producing quarterly and yearly reports in time so that the EPI can be monitored and readjustments introduced as soon as they are needed.

#### IV. THE POSSIBLE ROLE OF REACH

In the countries where it will be working REACH should attempt to address some of the issues mentioned above. Several come to mind:

1. Focus on the health staff involved in the EPI at the periphery by:
  - \* helping the national EPI in conducting KAP surveys among the health staff;
  - \* organizing training sessions for the health staff at the periphery;
  - \* designing practical EPI aids; and
  - \* in the francophone countries, producing and disseminating a newsletter of the type of Diarrhea Dialogue.
2. Facilitate the preparation of quarterly and annual EPI reports to be used for the monitoring of the program by the EPI central team. This would include:
  - \* the design of a simplified EPI monitoring system;
  - \* the design of a simplified form for the collection of operational data (like the number of doses injected by age groups and the number of doses provided for example) and some disease surveillance data (on measles at least);

- \* the preparation and utilization of basic templates on a computer to generate tables and graphs; and
- \* the training of the EPI central staff in basic project monitoring.

## V. CONCLUSION

To conclude, let us quote Dr. Steve Joseph: " An important phenomenon is taking place: the transformation of a health program into a social movement". Let REACH be a contributing partner in this adventure!