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HEALTH EDUCATION IN RELATION TO
MALARIA ERADICATION

by

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I. INTRODUCTION

Sustained understanding, cooperation and assistance from governmental and non-governmental agencies, health workers and other community workers and the public is essential for the success of the malaria eradication programme. Therefore planning for and carrying out effective educational activities properly, integrated with every step of the malaria eradication campaign becomes imperative. At the European conference on Health Education of the public held in London in 1953, Pierre Delore pointed out that:

"Over and above each technical act, there is a corresponding educational function which doubles the value of the act, prolongs it, increases its efficacy, and endows it with real human and social value". (12)

In a programme where vast technical, human and financial resources are amassed in an attempt to liquidate an age old scourge of mankind such as malaria, an activity which possesses the attributes claimed for the educational function by Pierre Delore should not be overlooked.

At another meeting held in our own region at Teheran

last year the following recommendations were made:

"In the planning of and budgeting for projects such as..... malaria control, Health Education should be included as one of the most important elements".

"A Health Education section should be included within the malaria eradication organization to (a) study the social and anthropological aspects of the people concerned, and (b) to plan the educational programme necessary at all four stages of the eradication programme"(13).

"Still another useful suggestion comes from the Inter-American Health Education Seminar held in Huampani, Peru in 1957 where it was resolved that:

"Since malaria eradication campaigns are confronted by problems requiring health education methods and resources for their solutions, the Inter-American Seminar on Health Education recommends:

"1. That the national Health Education Department collaborate in the planning, development, and evaluation of the activities of the malaria eradication programme". (3)

The Singur Health Center in India provides an example of how tangible results can be obtained through well planned health education.

"A study of the proceedings of the weekly staff meetings will show that during malaria spray, when people were educated in malaria control and the necessity for spraying prior to the advent of the spray team to the village, the percentage of the households refusing DDT spray dropped to 1% or even less, but when no prior health education programme was conducted, refusals normally ran from 6 to 10%. This easily proves that a little effort and a timely educational activity can produce a surprisingly encouraging result which in this case has not only saved people from malaria and assisted in breaking the chain of transmission, but has also minimized the effort of malaria workers in continued referrals to the houses unsprayed".(7)

II. Integrating Health Education with every stage of the campaign -

The Malaria Eradication Programme is organized to be executed in four stages: (1) Preparatory Stage, (2) Attack Stage, (3) Consolidation Stage and (4) Maintenance Stage.

A. PREPARATORY STAGE:

1 - Studies to define the problem - As the malariologists are making studies to define the technical problems related to occurrence of and transmission of malaria in an area, concurrent studies should also be made by the health educators and other social science specialists to define the educational problem. This would include :

a - Studies of the understandings, attitudes, beliefs and practices the people have concerning malaria and related health problems.

b - What have the experiences of the people been with malaria in the past and how will this affect their response to the malaria eradication campaign?

c - How is information transmitted among the people, what channels of communication operate in the community?

d - What barriers exist for the dissemination of malaria information?

e - Who are the people that command the respect of community? Who gives effective leadership to the community especially concerning health matters? These may include elders, traditional or modern medical practitioners, religious leaders, school teachers, community workers, governmental officials or others.

f - What is the educational level of the people?

g - What is the socio-economic status of the community?

2 - Planning, pilot projects and evaluation of different methods. The educational aspects of the campaign need to be planned along with the technical aspects of the programme. This planning should be based upon the findings of the initial study just as the malariologists will plan their approach based on the data collected during the initial studies. This planning needs to be done by the malariologists and the health educators working together since the health education specialists must know from the malariologists what kind of action is required of the public for success of the programme and the malariologists must understand the educational plan, the reasons behind it, and the part they will have in carrying it out.

Concurrent with the pilot projects and evaluation of different methods of control the plans for educational activities can also be tried out. This offers an excellent opportunity to test a number of different educational methods to determine which have greatest potential for effectiveness before being used on a large scale.

3 - Training of personnel -

All personnel who are to participate in the campaign from the top administrators to the spray crewmen should have included in their preparatory training an explanation of the educational activities of the programme and some specific training in health education principles and methods and a proper approach to individuals and communities based upon the findings of the initial studies.

The Dembia Plain Pilot Project in Ethiopia gives its malaria workers instruction on the purpose of the malaria eradication programme and how malaria eradication is carried out so that they understand the importance of their own part in the programme and so that can explain it to the villagers. They are given a chance to consider questions to be expected from villagers and good answers to be given. An emphasis is placed on the importance of taking time to answer questions and explain to people the purpose of the programme.

The malaria eradication programme offers an excellent opportunity to educate the public regarding other health problems. It would be useful if all malaria workers had a general rudimentary knowledge of the other major health problems of the area that they will be working in. Something simple, but accurate concerning what causes these and what people themselves can do to prevent them.

It is also important to train malaria workers to recognize the limitations of their knowledge and skills so that they will call upon more qualified persons for assistance when something comes up that they are not able to handle and so that they will be willing to say "I don't know" when necessary.

4 - Preparation of equipment and supplies -

Educational equipment and supplies need to be prepared to be used to draw the attention of the public to the purpose of the programme and to support the educational efforts which all the malaria team members are making in their contacts with individuals and groups for the purpose of gaining the understanding, cooperation and assistance of the public.

B. ATTACK STAGE -

The malaria eradication section of the Teheran Seminar on Health Education of the public recommended that:

"The educational programme should be begun before the 'attack stage', and should be evaluated and adjusted periodically as the total programme develops". (13)

How much time ahead of the attack stage educational efforts are begun will vary with the circumstances. The earlier the better, especially in so-called "developing countries" where the educational level of the population as a whole is still low, since in such areas public educational efforts of any kind will take longer.

In Mexico the educational programme was planned to begin two to three years before the "preparatory stage".

C. CONSOLIDATION STAGE -

During this stage very effective understanding, cooperation and assistance is needed from the public in reporting all fever cases and in the taking of repeated blood smears from the same small children over a period of three years. This requires a major educational effort since the public will have to understand the importance of reporting fever and also why little children must submit to repeated blood smears. Unless they clearly understand the importance of these procedures and how they help to keep the community free of malaria, people are not likely to want to cooperate.

D. MAINTENANCE STAGE

During this stage sustained cooperation and assistance are also needed from governmental and non-governmental agencies, health workers, other community workers and the public to ensure success in keeping malaria out of an area. When local people, leaders and agencies will assume major responsibilities and actively participate in the jobs to be done to assure maintenance, this stage will be successful.

III. The Approach

Since the malaria eradication programme is a sustained effort over ten to fifteen years or more, long range educational approaches which promise to provide optimum sustained public support over a long period of time need to be considered.

START WITH PEOPLE'S "FELT NEEDS" -

Wherever it is practical and possible to do so the paramount educational principle of starting with the so-called "felt needs" of the people should be incorporated in the planning. The reason for advocating this approach in as directive a programme as malaria eradication is that in the long run such an approach will more likely ensure the sustained cooperation of the public. More cooperation is forthcoming when the people's needs are known.

UTILIZE "TEACHABLE MOMENTS" -

Educators have coined a phrase which says that "the inner logic of experience" is one of the best teachers there is.

If people experience something they are more likely to learn from the experience than if they had been told about it. "Teachable moments" are those times when people experience "what happens when".

Malaria eradication has provided an excellent example of this in Ethiopia. When the catastrophic Malaria Epidemic of 1958 hit Ethiopia there were in operation a number of pilot projects being carried on by the Ethiopian Government, WHO and ICA as part of the Preparatory Stage of Malaria Eradication in this country.

The incidence of malaria reached as high as 80% in the area surrounding Lake Tana with a mortality of up to 20% of those who became ill with malaria. A malaria spraying Pilot Project had been operating in the Dembia Plain where the incidence was very low (eighty cases in an estimated population of 60,000 with no deaths reported). (2) The inhabitants around Lake Tana are very much aware of the relative absence of malaria in Dembia Plain and are now much more accepting of the idea that the malaria workers are right in their contention that malaria is spread from person to person by mosquitoes. Previously, very few believed that the spraying operation or mosquitoes had any thing to do with malaria. They accepted the spraying since it benefited them by ridding their houses of flies, lice, fleas, bedbugs, and other pests at least on a temporary basis. On Dembia Plain, the people believed that malaria came only on the wind from Lake Tana. Having experienced the relative absence of malaria when the rest of the country was suffering desperately from the disease, the people are now more accepting of the scientific explanation and consequently more cooperative with the programme. From an educational standpoint, pilot projects in the "Preparatory Stage" have the advantage of providing the population with the opportunity to experience the effects of the programme. The experience the population has as a result of such a demonstration should serve as a primary focal point for all efforts of malaria workers to interpret to people the purpose of the malaria eradication programme.

RESISTANCE TO CHANGE AND THE SOCRATIC METHOD

Seghal states that "Man by nature shows a resistance to change for the fear that it may upset his normal way of living. This is especially so among people cut off from the outside world, and where the educational level is low and traditions and beliefs have religious and group sanctions. Furthermore, changes based on theories and concepts far removed from the villagers' own ideas will be greatly resisted". (9) Since these circumstances are found present in the countries of this region, we need to provide educational experiences in which learning can most readily take place. In such circumstances the Socratic method has proven more effective than the didactic approach. Greatest effectiveness is achieved when working with individuals or small groups. The learning process is accelerated in the Socratic approach when an atmosphere of acceptance, belongingness and peer equality can be effected. The Socratic approach also has the advantage of providing group support for changes and it gives malaria workers direct access to local sources of information.

PARTICIPATION IN PLANNING

Krishnaswamy and Ramakrishna point out that, "Popular acceptance of a programme is in direct ratio to the degree the local representatives participate in the conception and formulation of programmes. Participation should be from all segments of the community.....

"The planning process itself is an educational method which has the potentialities for stressing the major psychological factors to bring about change. Planning provides the participants a situation for reducing tensions which can serve as a motivating force for learning and taking action. People who undergo this process are committed to the programme they have planned and they are bound to say: 'We do not easily give up something we have helped to plan!'. (6)

APPROACHING THE PROBLEM WITH THE INTERESTS OF THE PEOPLE IN MIND

We quote an incident reported at the Teheran meeting:

"An interesting example of the importance of presenting any proposed health improvement in such a way that the people can see some practical benefit, important to them, emerged from an account of the installation of a safe well. Explanations of the effect of river water on the health of the family proved unconvincing. Freedom from disease cannot be

imagined before it is experienced. The argument that the buffalo, a valued asset indispensable to the working life of the whole family - would not longer risk breaking its leg in the mud, as sometimes happens, proved successful and the well was constructed". (13)

In Ethiopia it would seem better to point out the value of preventing malaria so that people will be well to protect and harvest their crops rather than just to prevent suffering from the disease itself.

SELF HELP -

"It is the task of every health worker to encourage selfhelp among the people by making health programmes as people's programmes. The success of the programmes depends upon the extent of active participation of the people either in their individual or group capacity. A control with consent imposed from within is more potent in changing the pattern of living than that superimposed from the outside".(6)

H.E. Ato Abebe Retta, Minister of Public Health and Acting Minister of National Community Development in Ethiopia has pointed out that self-help and cooperation among the people and between the people and the government has become an important factor in the thinking and methods of work in national development programmes. (1) Malaria Eradication is one of these programmes.

OBSTACLES -

"To ignore opposition is a sure way for increasing opposition and to talk with enemies is the best way of getting their consent". (6)

Beware of religious and political conflicts and avoid these as much as possible. They will be present in one form or other in almost every village.

LOCAL RESOURCES -

Assistance from religious leaders, educators, agriculturalists, the veterinary service, the police, voluntary agencies, governmental officials, the schools, and others should be sought since these represent potent forces in securing the understanding, cooperation and assistance of the public.

FACILITATION FROM NATIONAL AGENCIES -

Wherever possible, the Community Development framework or some other similar national coordinating body, which has at its disposal many agencies and personnel, should be utilized at the national level for an organized and coordinated effort to gain a wide base of cooperation and assistance. The fact that malaria eradication is a formidable force in releasing new human forces for development of a country's resources alone is adequate justification for requesting this kind of assistance.

Such an agency is also the most logical body to help plan for handling the results of malaria eradication, such as the progressive enlargement of the population due to the effect of the program on survival rates. The Malaria Eradication issue of Swasth Hind reports that "typically, successful control of malaria may lead to the expansion of the population at a rate of 2 to 2.5 per cent. per annum, which would increase the population by 20 to 28 per cent. in ten years, or by 49 to 65 per cent. in 20 years.

"The first and immediate implication is that all programmes of public welfare, whether medical, environmental, educational or a different type, must expand progressively if they are to maintain their previous relationship to the population they serve, and the greatest expansion will be needed in the field of child welfare".

There is also another implication. When population increases rapidly, usually the agricultural economy of a country cannot absorb the increase so many people flock to the cities. This soon creates expanding slums unless social agencies adequately plan and prepare for the increase. (10)

IV. SUMMARY -

"In most health problems there are two equally important and interdependent aspects which have to be understood -- the nature of the health problem, and the nature of the educational problem. Too often **only** the former is given the careful scientific analysis necessary, and the educational problem is either unrecognized, ignored, or examined superficially", according to the report on the Health Education Seminar in Teheran last year. "This is particularly unfortunate because, although the solution

of a technical health problem may be practically the same in many parts of the world, the educational problem is always unique and varies with each individual or small group of individuals". (13)

Since an effective education effort is important along with the technical operations of the malaria eradication programme to assure success of the program, health education should be budgeted for when malaria eradication programmes are being set up.

A health education section should be set up in the malaria eradication programme to (a) study the social and anthropological aspects of the people concerned, and (b) to plan the educational programme necessary at all four stages of the eradication programme. If trained health educators or other social science specialists are not readily available, collaboration from the national health education department should be requested in the planning, development and evaluation of the educational activities of the malaria eradication programme. Joint programme planning between malariologists and health education specialists is essential.

The educational programme should be started before the 'Attack Stage' and sustained throughout the Consolidation and Maintenance Stages with every possible national and local resource mobilized to assure optimal understanding, cooperation and assistance from the public. Such activity effectively integrated with a sound technical approach will do much to assure the success of the effort to obliterate malaria from our lands.

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