

CONSULTANTS IN INTERNATIONAL MEDICAL ENTOMOLOGY

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ABSTRACT. Consultants in medical entomology selected from affluent developed countries and assigned to developing countries in tropical and subtropical areas are usually technically competent but are often less successful than anticipated. The reasons for this

The topic of consultants in medical entomology working in foreign lands offers more complexities than can be considered here. Therefore, this presentation will involve a consideration of consultants from the affluent Western countries of Europe and the United States going to developing countries of the tropics and subtropics and deals primarily with those whose responsibilities are concerned with vector control programs designed to reduce or eradicate vector borne diseases or with research programs that are to provide basic information for the same goal.

The major emphasis of the presentation will be to explore the special problems met and qualifications required to successfully complete the objectives of the consultantships. The problems encountered involving cultural differences, economic conditions and financial constraints on vector control programs present insurmountable obstacles to some consultants whose training and experience place their technical competence at the highest level. Some of the more important of these problems will be discussed later.

Technical competence in terms of professional training and experience is, of course, a prerequisite for consideration as a consultant. Such competence is the most easily determined of the qualifications

are insensitivity to cultural and religious differences, a lack of understanding of social and economic constraints and an inability to adjust to poverty and different standards of sanitation. Experience in the field reduces these problems.

needed. Unfortunately, there are many well qualified individuals that can be consultants who are laboring in operational programs and are unknown to agencies employing consultants. Employing agencies are much more aware of people from academia who are obviously bright, well trained, articulate and publishing papers. Not all academicians, however, are qualified to deal with the complexities of operational programs.

In terms of technical competence, the best qualified consultant to advise an operational vector control program would be one who had experience in operations but who could also feel at home in an academic setting, be aware of research developments in vector control and could design and conduct research programs. Consultants to a program of basic research in vector control, for example, genetic control of mosquitoes, would not, at least in some parts of the research, need to be aware of the complexities of field control operations, but only be competent in the field of the research programs. The same is true for some parts of training programs in medical entomology. However, as soon as research or training comes to the point of practical application, some experience in field operations is necessary.

When the well qualified, technically competent consultant from an affluent nation arrives in one of the least developed countries, he or she encounters a series of problems, largely unanticipated, which can be grouped under a heading of cultural shock. If the consultant can stay

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in a hotel and eat at restaurants for tourists, much of this can be avoided, but usually that is not where the vector problem occurs. The vector problem is apt to be rural where accommodations and food are not only different but vastly different. If the problem is urban, filariasis and dengue being examples, the area of the city that has the problem is not likely to be the most appealing and sanitary part of the city. Permanent WHO staff have been known to take sales personnel and first time consultants to these areas and delight in their discomfort.

The well trained consultant will know that he or she will be in the midst of a number of diseases involving roundworms, protozoans, liver flukes and a variety of bacteria and viruses that were only textbook realities in their past. The consultant must learn to deal with this and entirely different concepts of sanitation with the same ease that the national staff does in order to gain their respect and work effectively with them. Nevertheless when a consultant, even an experienced one, takes lunch at a small rural village and is offered a small piece of pork, probably not adequately cooked, visions of *Taenia* or *Trichina* from old textbooks appear and the delicacy is accepted with much trepidation.

Adjustment to the cultural differences in a foreign land is also necessary because it helps to understand the problems; not only the problems that produce the vector but also the problems in controlling the vector. To gain some kind of understanding of the cultural differences requires that a respect for the people and their culture be developed. This kind of respect is difficult, if not impossible, to fake. A lack of respect for a country's culture and traditions is always noted and always resented by the national staff. All too often consultants or even permanent staff members in foreign countries concentrate on the negative and ignore the positive, i.e., concentrating on photos of poverty or beggars in India while ignoring all the monuments to past and present glories of that fascinating country.

There are many examples where technically competent consultants failed because they failed to adjust to the culture or the countries where they worked. One WHO consultant had a secretary of a Vector Control Program type his letter home which told of the filthy conditions in the city. He has, however, never again been a consultant. Even now, many years after the incident, the national staff still express their resentment and say he was so appalled by the unsanitary conditions that he could not properly do his work.

There are no easy ways for a consultant from the affluent West to adjust to the developing countries, but time helps, particularly if one is willing to study the country and try one's best to understand its complexities and appreciate the many good things that every country has. There are many great rewards in learning, with some elementary precautions, to enjoy many new and strange foods. There is also a great intellectual satisfaction in knowing at least a little about the history, culture, and customs of different areas and different peoples. However, before proceeding to the actual work of the consultant and the problems encountered after the necessary adjustments have been made to a foreign land, a word of warning is required. Once you have learned to adjust to a number of different countries the desire to go again and again becomes almost pathological. As Rudyard Kipling wrote:

Once you've heard the East a calling
you'll never heed nought else. No you'll
never need nothing else but those spicy
garlic smells and the sunshine and the
palm trees and the tinkling temple
bells."

In the actual work of the consultantship, the economic condition of the country and its political stability must be considered if meaningful progress is to be made. For the most part political instabilities, unless they are severe, usually do not extend down to vector control programs but they can. For example, there would be very few who would

want to be a consultant in El Salvador today. Yet Eugene Gerberg tells me that he has witnessed a number of revolutions while working in South and Central America and still was able to function effectively. Political instability among the hill tribes in Burma preclude consultants working in these areas for malaria control. Minor changes in government can affect vector control programs and consultants, if they are aware, can tailor their work to adjust to them.

General economic conditions in a country have great impact on vector control programs and sometimes in ways consultants would never anticipate and never become aware of unless they pursued economic conditions for a period of time. Some examples will demonstrate. In Burma, WHO designed an excellent vector control program for *Culex quinquefasciatus* and results were good for some time. The program eventually broke down because sprayers were paid so little they would sell the insecticide or would spray private homes for bedbugs or other insects. There were also some political problems that made supervision difficult. In Sri Lanka, the anti-filariasis campaign is in dire need of basic entomological studies but the entomologist in charge cannot obtain funds for fuel to drive from his headquarters near Colombo to less than 120 km to the south where the problem is located. Some idea of the economic conditions can be obtained from the way people live and the occupations they follow. If a woman finds it worthwhile to spend all day at hard work making twine from coconut husks that would retail in the United States for a few pennies then the economy is very poor. As part of the twine-making process, coconut husks are placed in pits of water for long periods of time causing severe mosquito problems. A solution to this problem has been suggested (a sprinkling system) based on what would be done in the West. However beneficial this suggestion might be, the cost to install it would far exceed any income derived from the coconut industry.

In dealing with the national staff most consultants have to remember that they receive respect and attention far in excess of what their accomplishments merit. A consultant who would have difficulty to obtain an appointment with a sanitarian in a local health department at home may find himself the guest of honor at a diplomatic dinner at the home of the Minister of Health. This can lead a consultant to think he is as good as his hosts think, or pretend to think he is.

Frequently the consultant will be working with a national staff member who is more intelligent and often better trained and has greater responsibilities. The consultant is well advised to remember he is a specialist who, if he remains humble and modest, and works hard may make some contribution.

To this point, only the general technical qualifications of the consultant and the basic problems of a very different environment have been mentioned. As the consultant approaches the problems he is to help solve, the environmental background must always be considered. In actual practice the consultant must acquire the background information and adjust to a greatly different environment while he is simultaneously working with vector control problems and searching for valuable advice that will help the program. Again time is essential. It is not realistic to expect a consultant in a very strange land to find practical solutions to their problems in a matter of a few weeks; often several months are required.

This does not mean that consultants are always provided enough time or even that consultants recognize that they need more time. Sometime ago I read a report from a very distinguished consultant regarding a vector control program that is well known to me. The report was technically correct. It pointed out many of the faults of the program and was highly critical of what had been done, what was being done and what was planned for the future. However, the report did not consider the financial constraints imposed on the program by general economic condi-

tions nor the cultural conditions relating to the qualifications of the staff. The changes proposed by the consultant would have resulted in an excellent program if they could have been implemented but they could not. The net result of the consultants' work was negative. The only thing left behind when the consultant left was a feeling of resentment from the national staff.

In terms of useful accomplishment there are times that the one who does the most is the one who proposes the least. The one who accurately determines what *should be done* notes it and then *recommends what can be done when all of the constraints are considered*. These constraints usually if not always preclude vector control as it is practiced in the United States. A consultant might hope and even recommend that certain constraints be removed or modified but this is not realistic.

Some examples provide illustration of this. In Rangoon, Burma improperly cleaned drains were the major source of the *Culex* vector of filariasis. Every consultant recommended cleaning of the drains and good garbage collection as a method of control since garbage tends to fall in and block drains. However trucks were not available to carry garbage away. A large rat population continued to block drains with their activities. Many residents were totally adjusted to this kind of environment and made no effort to properly dispose of garbage. The health officials were well trained, either in the United Kingdom or the United States and knew the problems. If these health officials could not or would not change these conditions, both economic and cultural, then the consultants must let it go and propose other solutions.

An urban vector control program in Africa was failing badly and the consultant who came to advise quickly and easily found why. Spraymen were given verbal instructions at the beginning of the day

but had no maps to follow, no written instructions on where to go, no forms to complete and no records to compile. There was little a supervisor could do to adequately follow what was being done. The recommendations made were to prepare maps so that more detailed specific routes could be followed and reports written of work done and progress made. Further study revealed that the supervisor and the spraymen were all illiterate and those recommendations were worthless.

Many more examples could be given and frequently are when consultants get together. However, there are many positive aspects that need to be stressed in spite of the many discouraging things that happen. The people in charge of vector control programs in developing countries are frequently intelligent, well trained (often in the West) and dedicated to their work. They are frustrated because of financial constraints and other factors including in some cases political considerations. A consultant from another area stimulates them to look carefully at their own program and they often find the appropriate action to take that might otherwise be missed. They lack communication with other workers in the field, the kind of communication, for example, that takes place at A.M.C.A. meetings. A consultant in a small way provides some of this and often one consultant can provide more in stimulation and information than he realizes. Communication is a two-way process and the consultant, when he leaves, may find that he has benefited more than those he was to advise.

Consultants, if they are sensitive, tend to feel frustrated and discouraged at times but when all factors are considered the exchange of information and the results of it, in balance, are beneficial. Less easy to determine is whether the consultant or the one he advises benefits more.