The Chimaltenango Development Program

Written in 1974, 1975 & 1982:

For the past nineteen years, I have lived and worked with the Kaqchikel of Guatemala – a proud, dignified, life-loving but impoverished people. Their cultural heritage stems from the Mayan civilization that lavished artistic, architectural and intellectual riches through the areas of Southern Mexico, Yucatan, Guatemala, Belize and Honduras many centuries before the Spanish conquest. I have gone to school with the Kaqchikel, letting them teach me – a North American doctor trained in the complex technology of modern medicine – the simplicities of what they believe is needed to live and prosper in the highlands of Guatemala. This is an area where nearly four million agrarian Maya now eke out a bare existence beneath the slumbering volcanoes that dominate this land of majestic beauty and sordid poverty.

I have learned more from my Mayan friends than they have learned from me, and I have come to believe that much of what I have absorbed here has application to the rural poor throughout the world. What I saw and heard in the course of surveys of mission hospitals in Africa and Asia confirmed my suspicion that basic problems in Guatemala re widely duplicated elsewhere. Despite important differences of culture, language and race, the rural poor of all continents share a commonality forged of poverty, exploitation, disease, malnutrition and land hunger.

As a result of my "student days" with the Kaqchikel and my travels among peoples facing similar problems, I have reached a number of conclusions concerning the great public health question of the day – how do they, how do we, how do they and we together break the back of disease among two billion rural poor in the less developed regions of the world? In 1962 when I arrived in Chimaltenango from a medical practice in Kansas, I would have said that curative medicine was the primary strategy. I have learned otherwise the hard way. The answer proved unrealistic both in terms of reaching by means of clinics and hospitals the ailing people in jungles, savannas and

mountains, and in terms of keeping them healed when they return to the conditions which can feel them again within months, often within days, of their treatment.

Today the answer seems at once more simple and more complex. Impossible as the problem appears to many, I am now convinced that a fruitful beginning can be made by people outside the health bureaucracies of the world. I am also convinced that, with careful nurturing and persistence, an impact can be made from humble and inexpensive beginnings. I think we have proved this in Guatemala, although we still have a long, long way to go. Let me describe the origin and evolution of our experiment in the Guatemalan highlands.

These highlands are like many other areas of the "developing" world when seen through the lens of economic and public health statistics. They are predominantly agricultural and poor in cumulative resources. The wealth that exists is concentrated in the hands of an elite class. While the gross national product is increasing, largely through farm exports, the great mass of the people do not share in the benefits. The economic condition of the Kaqchikel is reflected in their state of health. The infant mortality rate is one of the highest in the world. Respiratory infections, malnutrition and intestinal disorders are primary causes of death; and many other diseases, such as measles, tuberculosis, whooping cough and influenza – no longer considered threats in the industrialized countries – still stalk the ridges and valleys.

This is one of the few areas in Latin America where the pre-Columbian population is still predominant. Mayan descendants make up more than three-fourths of the inhabitants of the highlands. They have held tenaciously to their culture and preserved their communities with a high degree of success. This requires that work with them be done on their own terms. While they are adapters, they have little appetite to copy modern cultures.

HOW THE PROJECT BEGAN

I came to Chimaltenango, a hub of the Guatemalan highlands, two decades ago under sponsorship of a Lutheran church body. During the first weeks I did little more than walk around town, get acquainted with the people and play with the children. Gradually, I was invited into their homes to have coffee with them or sit down to a meal of tortillas and beans. This went on for three months until I became known and accepts in the town and until I felt confident that I could fulfill a need.

That moment arrived when I accompanied a man, who was carrying a child's casket (not the first he had carried) to his home. Intravenous feeding mercifully turned back a case of prolonged diarrhea and extreme dehydration in his infant child. During the days that followed I practiced in the square, accompanied by a nurse recruited from Guatemala City who helped train local women as aides. Then I rented a house for $25 a month and opened a clinic. The first day 125 patients came. I was in the business of curing.

It did not take long to realize that I was trying to empty an ocean of disease and malfunction with a medical teaspoon. While this is not the place to analyze my personal transformation, let me illustrate a fundamental change that took place in my thinking and attitudes by recounting what happened to Jorge.

I met Jorge about a year after coming to Chimaltenango. He was a handsome five-year-old boy but he was suffering that day he came to the clinic with his mother. He had puffy eyes, swollen feet, pigmentation blemishes on his arms and legs and stains the color of port wine. I found that he lived in the village of San Jacinto in the rugged mountain country near Chimaltenango. Since he was not the first child from San Jacinto to come with this problem, I decided to go to the town for a look at conditions there.

I drove by jeep to San Jacinto with two women helpers. Though the village is only five miles from Chimaltenango, the journey was a long one. There was no road at that time and our wheels often became mired in mud holes. At least we left the vehicle and walked the rest of the way. The trouble in San Jacinto was not hard to diagnose. Almost every child we saw was malnourished and diarrhea was common in both adults and children. A great deal of coughing could be heard. As we visited the thatch-roofed

huts we learned that the common diet included very little protein. The village lived almost exclusively on tortillas and greens.

Why? The people had no land to farm, only miserable little plots in areas where the soil was poor. San Jacinto was almost completely surrounded by large plantations operated for the benefit of absentee owners. The men of the village, seeking to earn a bare living, customarily packed up once a year and went to work on the big coffee fincas on the Pacific coast. Going from the cool highlands to the hot lowlands they fell victim to a variety of tropical ailments and many returned to the village with tuberculosis. When the two nurses from our clinic made a house-to-house survey, they found that 150 of the 450 residents had active tuberculosis.

We realized that, no matter how many times we treated Jorge and other youngsters from San Jacinto, they would never be health until basic changes were made in the village. We began in a simple, tentative way. A Peace Corps volunteer attached to the clinic made weekly visits to San Jacinto, gained the confidence of the men and began to teach better farming methods to a group who tilled their plots for survival. Later, we lent money from our initial operating funds to twenty-five families who wished to raise chickens and produce eggs. Soon the people began to eat more protein – "an egg a day" became a slogan in the village. The loan was repaid in full, the borrowers giving us a portion of their egg production in lieu of cash.

Gradually our work expanded in San Jacinto. A Kaqchikel health worker who was trained with us in Chimaltenango opened his own small clinic in the village and began treating the most common ailments on a fee-for-service basis. On request of the villagers, native extension workers of the Chimaltenango program taught health care, nutrition and farming methods. Ten families banded together and bought some land held by an absentee owner, borrowing from our operating fund and paying us back conscientiously as crops began to bring a dribble of cash to the town. Year by year, more land was purchased with the help of a revolving land-loan fund, which was set up with the aid of grants from international foundations. The women of the village organized a weaving

and marketing club which brought more income than the handful of coins they had formerly gained through individual efforts.

Today San Jacinto is a reasonably healthy, economically viable community. Malnutrition has all but disappeared and the dreaded tuberculosis has been controlled. You can walk through the village today without hearing much coughing. Jorge himself is a robust young man. While San Jacinto is still poor, it has a new vibrancy compounded of protein, cash, work, and hope.

True, San Jacinto is not the world, but a million San Jacintos might transform the world. As our program evolved, we came to see dozens of San Jacintos in the Guatemalan highlands and came to feel that we were on the right track. In brief, what started as curing the sick broadened into a general community program geared to activities that the residents want and need and that result in self-empowerment.

These experiences have hammered home a strategic truth. Institutionalized charity from outside accomplishes little beyond the cosseting of the egos of the helpers. The Kaqchikel receive no charity from us. They pay for the services they want, borrow at reasonable interest rates, and select the people who are to work with them. All of our health promoters are Maya, as are most of our nurses and extension workers. The clinical staff now includes two Guatemalan doctors, one of whom serves as the medical director. If we outsiders do not plan ways of doing ourselves out of a job we are probably not doing the job at all.

The Chimaltenango program never abandoned curative medicine. Indeed, without curing, our expanded program would have been difficult to initiative or to sustain. However, changes were required even in our medical practice. During the early years our work was subsidized by a Lutheran church body and we also had access to some free and discount medicines. If these arrangements were to continue indefinitely, however, the local people would become dependent on outside aid that is not entirely reliable. During our first years, moreover, we were able to deal with infectious diseases on an outpatient basis through antibiotics, electrolyte solutions and immunizations. But

as word spread, many more sick people began arriving. Some came from great distances, sometimes on the back of a porter, and were too ill to make the long, hard journey home. So we had both to intensify our curative services and to adjust familiar medical practices.

THE HOSPITAL

Conventional hospitals are a very expensive proposition. Poor rural areas cannot afford the hotel services and elaborate facilities of modern hospitals. Moreover, impressive buildings with sophisticated rules of procedure are almost certain to alienate people who are used to being cared for by family members.

Already in 1962, as demands grew in Chimaltenango, we decided to build a very modest hospital with a difference. Here families could stay with their patients and would be responsible for preparing food and providing basic care. This arrangement turned out to be not only far less expensive but also far more humane. Costs to the patient in our hospital, including all services and medicine, now work out to about three dollars per day. This payment does not cover all our expenses, but that is because we accept any and all patients regardless of their ability to pay and because unequal ancillary services like transport are funded from the general budget.

Though the hospital enabled us to treat more patients for longer periods of time, there were still many people living at great distances who could not afford to travel to Chimaltenango and many others who remained suspicious even of the modest "modern" services we offered. Here we faced a new set of problems. Having reformulated the concept of "hospital," we now challenged that of "doctor" as well.

HEALTH PROMOTERS

As a medical professional I was at first disposed to think of duplicating the functions of the medical physician in medically deficient communities by creating mini-doctors who would provide services patterned after those offered in Chimaltenango. I then discovered that this device of dispatching mini-doctors would not prove acceptable,

given the high suspicion that prevails on the part of the people with respect to impositions from outside their own community and culture. Moreover, such service delivery might diminish the multiple initiatives that are needed on the part of the people themselves. A new type of community worker had to be created, one that was not patterned after the doctor but was rather a product of the community itself.

During the first years of seeing 125 to 200 patients a day, we began to realize that a bright Kaqchikel, given a certain amount of inexpensive training, could treat the most common diseases just as well as a university-trained doctor. Not only would the investment of time and finance be far more modest, but the ability to work in accordance with the customs of the people could prove invaluable in pursuing community arrangements for health and in gaining acceptance of some unfamiliar medicines and procedures. From the mid-1960's we began training responsible young Maya to recognize and alleviate the most common health problems. This program grew to include more than seventy health promoters from fifty villages.

Although the formal education of our promoters had ended, on average, after the third grade of elementary school, they were for the most part alert, eager to learn and quite skillful at treating ailments within their competence. One day we took an American specialist in tropical medicine on a tour of the health promoters at work. He was skeptical that persons with little formal education could administer adequate medical care, but as the day wore on and he saw promoters dealing knowledgeably with one ailment after another, his skepticism abated. Finally, he thought he had caught one of the promoters giving an incorrect treatment. "You have the right disease, but the wrong remedy," he said to the promoter. "The specific indicated here I penicillin." The young Kaqchikel shook his head. "Yes," he replied, "but this person is allergic to penicillin."

The manner in which trainees came to be selected is of critical importance. At first we accepted those who were recommended to us by a local priest or a Peace Corps volunteer. In two cases local curanderos, who practiced traditional healing, elected to enlarge their service by becoming promoters in our program. Later our approach was to encourage each community to set up a local improvement council, which included a

health committee. Then the community health committee selected a person for training. The promoter thus represented his community and was also accountable to the community. In cases of discipline, the community could decide to retain him or recommend his dismissal.

As part of their training, health promoters are asked to come once a week to Chimaltenango and spend an entire day with us. Their day begins with hospital rounds in the company of a doctor or supervisor. They see patients, hear the interviews and observe the treatments, then give consideration to how those very problems could be handled – and prevented – in their home villages. We usually do not speak of diseases by name but rather talk of the patient's symptoms, since symptoms have meaning to the people while classifications do not. I wish to emphasize my belief that any program for training lay workers that does not include facilities for demonstration with patients cannot be effective. A living demonstration accomplishes as much as six hours of lectures. Films, books, pamphlets and seminars are adjuncts but no substitutes for this.

Our program of health promoter training is a continuing one. Before a promoter dispenses medicines or gives injections, he has attended observation and reflection sessions for at least a year. Nearly all promoters, even those who began their training more than ten years before, return on a regular basis to gain new insights and observe treatments. We conduct periodic reviews in which promoters are asked to describe what they see in a patient, how they would proceed with the patient, and what is to be done in the patient's home and village to prevent a recurrence in the future. Promoters are visited on the job by a supervisor, an experienced Mayan worker, who is in charge of the program.

Although they identify and treat most diseases in their communities and work with as many as a thousand patients a year, there are some medical tasks that are beyond the competence of the health promoters. They are trained to recognize these and to make referrals to the clinic in Chimaltenango or to another nearby health center. For example, an elderly man with swollen feet and shortness of breath probably has heart disease. The promoter is responsible for seeing that this sufferer receives professional help, even

if it means carrying him out of the village in a chair tied to a porter's back. Generally, on the basis of such understandings, the promoters do very well.

Promoters do not carry drugs with potentially serious side effects, such as corticosteroids and digitalis preparations. Given this limitation and firm agreements against overuse, the buying and selling of medicines is carried on in a businesslike way. Our clinic places the orders for common medicines in Guatemala City, since we can buy at reduced hospital prices. All supplies are then passed to a promoters' medicine cooperative at our price plus a 10 percent handling fee. The medicine cooperative, in turn, sells directly to the promoters at the co-op's purchase price plus 10 percent for its expenses. Thus, medicine is available to promoters and their patients at reduced prices, much below those quoted by the pharmacies.

Each local health committee receives a price list for medicines and the promoter is expected to charge accordingly. In addition, promoters may charge a fee of 50 cents for their call or services. The profit motive naturally affects their attitude toward their job, but they are not expected or encouraged to make a livelihood from their medical practice. They are, without exception, more secure financially than they were before training, while rendering a service never before performed in their village. No promoter receives any pay from the parent organization in Chimaltenango.

Since the promoters generally work with poverty-stricken people, some of whom cannot afford to pay cash, they have developed a system of credit that is both effective and reliable. The success of this system derives in part from the culture of the highland peoples. Responsibility, respect and honesty belong to the local tradition.

In addition to the curing aspects of their labors, health promoters become community catalysts and organizers. They educate with respect to family nutrition and foster community provisions for health. Immunizations, tuberculosis control and treatment, water projects, literacy programs, family planning, agricultural extension, introduction of fertilizers, new crops and better seeds, chicken projects, improved animal husbandry – all may come into the promoter's purview.

AGRICULTURAL EXTENSION SERVICE

A natural outgrowth of our work in health promotion was agricultural extension work, which we began in 1966. The people of the Guatemalan highlands are mostly farmers. By tradition the staples of their diet are corn and vegetables, particularly beans. A farmer must raise sufficient corn to supply his family with tortillas from one harvest to the next. If the harvest is poor, their livelihood is directly threatened.

But the typical farmer is land poor. Land holdings, already small, become further fractionated as the Mayan farmer, in accordance with tradition, divides his holdings equally among his sons. There are, however, a significant number of large estates that are left fallow by indifferent absentee owners, who maintain title only because of prestige or family tradition or as an investment. Some people live on these estates as tenant farmers.

Help is available to these farmers through extension agronomists who have received training in government-sponsored programs or from senior workers in our program. Our agricultural extension activities initially concentrated on obvious measures – use of fertilizers, better seeds, soil improvement, crop diversification including vegetables and cold-weather fruits, introduction and improvement of chickens, veterinary medicine and similar strategies that help the subsistence farmer produce more nourishing food for himself and his family. Many farmers have increased their yields two to three times, and in some cases, improvements have been even more dramatic.

Our program has remained tentative and flexible with respect to the use of manufactured agricultural accessories. Large mechanical implements, such as tractors, are less attractive here because of the rugged terrain and the cost of buying and maintaining machinery. We have, however, been strongly tempted by some chemical fertilizers. These have been introduced after analysis of soil samples and have definitely improved yields. Today, however, because of a worldwide shortage of manufactured fertilizers and a consequent rise in price, we are once again reminded of the hazards of relying on outside technology. Just as our medical approach must emphasize disease

prevention, thereby releasing people from dependence on manufactured pharmaceuticals, so must our agricultural efforts stress implements and resources that the people can supply themselves. Accordingly, our program has increased experimentation with composts and natural fertilizers that control the balance of elements in the soil.

The primary limitation on innovations is the poverty of the average small farmer, who does not have ready money to invest in experiments. He finds loans extremely difficult to obtain or available only from a private money-lender who charges an intolerable rate of interest. To meet this need, the program has set up a revolving fund to provide farmers with credit on easy terms for specific agricultural projects. Gradually this revolving loan fund is being replaced by a local agricultural savings and loan cooperative that is managed and controlled by the people themselves.

THE LAND LOAN PROGRAM (ULEU)

The most formidable obstacle to the success of our agricultural work has been the shortage or inequitable distribution of land. Indeed, land hunger is at the root of almost every major problem in these Guatemalan highlands. We have noted how farmers who own no land or only a piece too small to meet family needs are forced to migrate seasonally to the tropical coffee and cotton plantations of the Pacific slopes. There they receive low wages, live in squalid conditions, aggravate the primary health problems of infectious disease and malnutrition – and lose time they might otherwise spend improving crop yields in their own highland village.

Moreover, when farmers do not own a suitable piece of land in the highlands or share ini land ownership through a collective, they have scant incentive to improve the soil. Were they to introduce extensive conservation measures by building terraces and contour ditches or using fertilizers and a simpler plow, the yield and value of the land would rise and the owner would demand more rent – possibly pricing the farmers out of the very land they have improved. As a result, many farmers refuse to employ techniques they know would improve land yields.

Responding to this dilemma, we established in 1970 a program to make loans available to communities of Mayan farmers who wish to buy their own land. Loans are made only to groups, since large purchasers enjoy a better bargaining position and since this will reduce the cost of extension services. Our revolving loan fund program is called ULEU, a Kaqchikel word for "land," and is governed by a board of directors composed of extensionists and representatives of the cooperatives – all local people. The loans are long-term with low interest rates by Guatemalan standards. The farmers do their own negotiating with the owners or former landlords to determine a sale price and payment plan.

We my no means suggest that this is a sufficient approach to the historical and deep-seated issues of land reform. But it is a good option for a voluntary group that undertakes to discover what people can do if they have the opportunity and if they undertake to work together. We hope to show that land reform can prove very effective when it is taken up by a community and supported by a complex of skills and capacities. We also hope to demonstrate how closely land reform is tied to public health.

WOMEN'S PROGRAMS

When first established, our agricultural extension program was oriented toward men, since it is they who work in the fields. Many health problems, however, are associated with activities around the home. With this in mind, we began in 1972 to train experienced Kaqchikel women who would travel to various villages demonstrating and encouraging aspects of household health such as nutrition and hygiene, sewing, home gardens and chicken projects. Because these extensionists were Mayan women who spoke the Kaqchikel tongue and word the typical garb, they have been successful communicators.

Family planning is a part of this activity, though it is approached with sensitivity and respect for local traditions. The Mayan culture is dedicated to family, God and the earth; it does not take readily to limited life or distorting nature. The people are suspicious of outsiders who come with the suggestion that they should limit their numbers. We should remind ourselves in the industrialized countries that each new child in the

Guatemalan highlands will use during its lifetime only a tiny fraction of the irreplaceable natural resources (oil, iron, aluminum, etc.) that a child born in the United States will use. It requires 26 tons of ore to sustain the average citizen in the United States, compared with a fraction of a ton for the average Mayan resident of Guatemala.

Family planning sessions, offered exclusively by Kaqchikel women, do not bluntly raise the subject of birth control nor move quickly to showing what can be done with a particular apparatus, pill or injection. Rather, our workers sit down with a family and consider with them their own views of the situation. Any technicalities wait until the family is fully involved in the decision making on its own terms. Since the family makes the decision, the drop-out rate is low.

The people want positive results, not merely a limitation of offspring. They know that half their children now die of diseases linked with malnutrition. They want to know that those who follow them will have land and food. Thus, agricultural extension, nutrition advice and land reform programs all become integral parts of family planning.

WATER PROGRAMS

Lack of potable water has been a persistent health hazard in the highlands. In 1979, to combat this problem, we joined forces with the Guatemalan Ministry of Health and with Agua del Pueblo, an institution dedicated to improving sanitation and water resources. Together we formed SARUCH (Servicios de Agua Rural de Chimaltenango), an organization which works to increase supplies of pure water. The people receive loans to install not pumps but gravity-type systems, which are not subject to energy and mechanical problems.

It should be emphasized that these are more than "water projects," deposited on communities. They are, rather, a mobilization of people to address their most basic need and an excellent point of departure for dealing with the whole panorama of health-related problems. The people are themselves in charge of gaining participation, planning, forming objectives, managing the work and repaying loans.

This mobilizing dynamic becomes visible as children carry the pipes, men volunteer days away from their farming to dig the space for holding tanks and trenches for the kilometers of pipes which must be laid. On the great days of inauguration, entire villages rejoice in the gift of water and in the utility which they themselves have built.

PROGRAM EVALUATION

Having reviewed the course of our program to here, we might wish to ask: What in fact has been accomplished? What are the strengths of the program and what are its shortcomings? Unfortunately, few comprehensive studies have been made and baseline data, which might later have served for comparative purposes, were not always collected. Given limited resources, we used what we had to help people, not make measurements. Nonetheless, sever outside evaluations have been undertaken and their criticisms have been instructive.

According to one report, written by a Canadian nurse in 1978, we were falling short in our pursuit of a primary objective. "The chief flaw which I observed in the otherwise excellent program was the fact that Dr. Behrhorst was still personally treating all the outpatients that came to the hospital" (Bent 1978). This was a largely valid complaint and one that we have struggled to correct. If programs like ours do not take root in native soil under local direction, they will wither the moment the foreign helpers cease their aid. We have not taken the steps, both legal and organizational, to assure that the program will be governed by a local board and administered by local staff on their own terms. The program is licensed as a private agency under Guatemalan law, with all policy matters in the hands of a local board of directors.

Another criticism, despite our best intentions, is a lingering overuse of drugs. Like the medical system itself, we have tended to rely too heavily on pharmaceutical preparations in the healing process. We have taken several corrective steps: we are restricting drug use to a limited list, substituting explanation for medication whenever possible and making better use of local herbal remedies.

Our clinical efforts have been criticized for their lack of support services and controls. Treatments are administered on the basis of clinic practice and not always backed up by more sophisticated laboratory testing. There is some merit to this complaint, and we are improving our laboratory procedures and record-keeping. However, we remain convinced that the most important factor in the health process is the patient, not records documenting the condition.

The work of our health promoters has proved gratifying in many ways, but even here we have had some problems. There are risks involved in placing medical responsibilities and tools in human hands, whether in Boston or in Comalapa. At times promoters have overtreated or overcharged their patients or have not dedicated themselves to total community efforts. For the most part, however, careful supervision by senior staff has prevented excesses of this kind. If, moreover, a promoter does not maintain acceptable standards of treatment and care, the community can discipline him or the medicine cooperative can refuse to sell him medicines.

Some outside observers have called into question the "capitalistic" practice of charging patients on a fee-for-service basis, suggesting that the community at large should pay for health services, not the individual. This sounds attractive but it would not work at present in the Guatemalan highlands. The Kaqchikel are skilled traders with an acute business sense, who believe that anything worthwhile must be earned and paid for. Public sector charity programs have met with little success here. Given these considerations, direct payment by the patient to the healer seems the preferred system, with the special provision of a credit system and use of the Robin Hood principle –charging slightly higher fees to those who can afford to pay and considerably lower fees to the very poor.

Most observers have been impressed by the integral approach taken by our program (Glittenberg 1974, Heggenhougen 1976). In areas where our extension workers have been active there is direct evidence of crop improvement, more cash income, less malnutrition and infectious disease, improved hygiene and sanitation, cleaner and more available water, and a greater number of immunized children. The land and agricultural

loan programs have had the additional positive effects of freeing farmers from the need to migrate to the plantations of the south coast. What they require for their livelihood they are now producing on their own land.

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(Marily: I would keep these in English)

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