Health Policy Advisory Center
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Health Care and Revolution
Reports from
El Salvador
Grenada
Nicaragua

$5
Dear Medical Friends,

After three months of studying Spanish and working through the channels of the Ministry of Health, I’ve finally started working. I’ve been on the job for four days, and it’s given me food for thought which I’d like to share.

I’ve been working as an attending physician at Hospital Manolo Morales, one of the two internal medicine teaching hospitals in Managua. The teaching program for students and residents is rigorous. We start at seven a.m. with morning report, followed by attending rounds. There are subspecialty teaching rounds daily, clinical pathological conferences once a week and chief of service rounds. Unfortunately, there is a real dearth of literature. The most recent journals from 1979-80. Journals need to be paid for with dollars, which are not available.

The work is fascinating and horrifying. I’ve seen anthrax, Chagas disease, cor pulmonale (heart disease resulting from lung disease – ed.) secondary to advanced TB. I’ve seen patients die of pulmonary edema because we had no morphine, no oxygen, no EKG machine, no dopamine, and no respirator or intubation sets.

The lack of medication is appalling, particularly in light of the fact that we are one of the better supplied hospitals in Nicaragua. Rubber gloves are re-sterilized and used again and again until they tear. I’ve heard stories of operations postponed because of lack of suture material . . .

Today we were asked to discharge all but the sickest patients because of the emergency situation in the town of Corinto, Nicaragua’s Pacific coast port. Yesterday the storage tanks containing over one million gallons of fuel were attacked and today they are still burning. The danger of a new explosion and the heat created by the fire have forced the town to be evacuated. Last week there was a similar attack at Bluefields on the Atlantic coast, which means that Nicaragua is essentially without fuel. The hospital will send a medical brigade as well as maintain empty beds for the sick and injured among the refugees. All attendings are on 24 hour emergency call to the hospital.

As you can see the situation is difficult but far from hopeless. On every level—in the hospital, in my neighborhood, in the schools and factories—there is a pride and determination to defend the Revolution and the progress made in the past four years.

However the magnitude of the aggression has definitely increased recently and the period ahead is going to be difficult. All the evidence clearly points to U.S. government involvement—overtly through military aid to Honduras and “covertly” through aid to the counter-revolutionaries and the activities of the CIA.

I am writing to share my impressions and also to express my sense of urgency about the situation here. I’d like to urge you to act quickly, as citizens—through letter writing and phone calls to senators, continued on page 6
This may well be the most important issue the Health/PAC Bulletin has ever published; it is certainly the most urgent—quite literally a matter of life and death, the basic issue in health care.

All Americans who watch television news or read a newspaper are aware that our government has invaded Grenada, is supplying arms to the Salvadoran military, and virtually everything to Nicaraguan counter-revolutionaries.

What is less well known is what our troops and allies have wrought. If a society can be judged by the health care system it provides for its population, the sad, stark, and unmistakable truth is that we are supporting some of the more anti-social elements on the face of the earth today, human beings prepared not only to kill and torture and neglect human needs, but to dismantle or destroy the health care their poor, malnourished compatriots have won and worked for with such great effort.

The health care achievements described in the following pages of Grenada under Maurice Bishop, now shattered; of free Nicaragua; of the liberated zones in El Salvador are remarkable and, if you believe these descriptions, they should assuage any doubts about what a people—not a government, a people—can do when it shares the common purpose of serving the common good.

Certainly believing this is very hard for Americans, inculcated as we are with a cynicism about revolutionary change and human nature in general. If that is a problem for you, we can only urge that you go to free Nicaragua to see for yourself—any American with a valid passport is welcome, no visa necessary. That is, go see not the Nicaragua of the Intercontinental Hotel, the “Western diplomats” of the U.S. embassy, the archbishop, and the editor of La Prensa, so familiar to most American journalists and members of Congress who fly in and out, but the health centers, the Christian base communities, the schools, the farms, the factories, the block associations, the government and union offices. Talk to the people, as many as you can, and see what they have accomplished.

If you do, you will probably come back as many of us have, moved and inspired by a people creating a better society and absolutely prepared to die for it.

And die for it they do. One thousand Nicaraguans have been killed by the counterrevolutionaries in the past year, including 15 health workers—often the contras’ first targets.

Our government, of course, says that we are defending freedom against international communism. But another pattern is discernible here. If a Third World country attempts a revolution to improve the lot of its poor—the overwhelming majority of the population—by providing better health care, education, wages, and control over their communities and workplaces, the United States first arms the oppressors. If they are overthrown, our government then introduces economic sanctions and begins menacing military maneuvers. When the country seeks aid from Western Europe and multinational institutions we try to block it. When its leaders turn to the Soviet Union and its allies for economic assistance and arms for defense against our activities, we accuse them of becoming a Soviet satellite and a threat to their neighbors. Then, as in the case of Grenada, we put our long-prepared invasion plans in motion, using whatever pretexts seem most credible at the moment.

As anyone who has recently been to Nicaragua is aware, virtually the entire population over the age of 14 is armed. American firepower could bomb and shoot a million of the three million people and still not destroy the revolution. But who among us could say with complete confidence that the American government, which dropped more explosive tonnage on Vietnam than was expended in all of World War II, would not be capable once again of teaching the world that revolutions must not only pay in taking power, but pay heavily again afterwards? Who among us would bet that our government will not soon dispatch troops to El Salvador in an attempt to save the corrupt and brutal regime described in articles which follow?

The time may be very close. What is at stake is not only our tax dollars which could go for the health and welfare of our own people, but our own humanity.

What appears in these pages is a challenge to all of us. We could deny its truth, say it is only one side of a complex issue, and go about our business, good people, caring for those we see, those we love, those who are near at hand. Or we could learn from what these brave and dedicated people have done, do everything in our power to stop our government from destroying even more of their achievements, and send aid through the groups listed in this issue on page 53.

We hope you’ll take up this challenge, implicit in the articles that follow, and we hope that you will spread the word. We have devoted this double issue, one third of our annual space, to providing you with this information, and we’ve printed extra copies in the hope that our readers will want to distribute them to others. You can write in and order ten or more at a special reduced rate of $3.50 each, 50 or more at $3.

Whatever you can do, please do it soon, so the killing will stop, and the far greater killing looming just ahead can be averted.

Jon Steinberg

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**Vital Signs**

Opening Hospital Doors

Cost-cutting in health care usually means cutting the poor out, but Washington, D.C.'s city council recently passed a landmark measure which should brake cost increases and expand health care options, particularly for those in lower income groups.

The bill prohibits Washington hospitals from denying access and privileges to nurse-midwives, nurse-practitioners, nurse-anesthetists, psychologists, and podiatrists. If any professional in these groups is denied rights for specific reasons, he or she is entitled to a hearing with counsel.

Opposition to the legislation, believed to be the broadest of its kind in the country, was led by the powerful D.C. Medical Society. Its passage is a stunning victory for the professional associations of those covered and a new Consumer Health Care Coalition which includes the local branches of the AFL-CIO, all three hospital workers unions—District 1199, the Service Employees International Union (SEIU), and the United Food and Commercial Workers (UFCW)—the Urban League, the Gray Panthers, NOW, the Gay Activists Alliance, and the DC Rape Crisis Center.

The coalition sees the measure as both a mechanism for expanding the choice of quality service to include lower cost health care alternatives and, in the works of local AFL-CIO President Joslyn Williams, as a way to "open the doors to new economic resources for many qualified persons who have the skills, but are not now permitted the opportunity to fully pursue their careers."

Supporters of the bill hope that it will spur similar measures in other parts of the country. For more information, write Kathleen McKirchy, Legislative Coordinator, Metro Washington Council, AFL-CIO, 1411 K Street, N.W., Suite 1400, Washington, D.C. 20005.

**Depression**

**Depression**

Britain's social welfare system, including the free National Health Service, cushions the financial blow of unemployment better than the American "Throw them in the water and they'll learn how to swim" approach, but the psychological damage to Britons appears to be intense nonetheless.

Reviewing the data for male admissions to the regional poisoning treatment center in Edinburgh, Scotland, for the years 1968-82, sociologist S. Platt of the local Medical Research Council Epidemiology Unit discovered that the rate of suicide among the unemployed is far above that of the population as a whole. In 1982, jobless men in Edinburgh were 11 times as likely to attempt suicide as a man who was employed. Among those unemployed for more than a year, the danger jumped to 19 times.

The rate for unemployed women could not be definitively ascertained since local data on their unemployment levels is unreliable, but the threat to them appears to be comparable.

**Surplus Beds**

It may come as a surprise to health care administrators and others spending days and sleepless nights worrying about the effects of federal funding cuts to learn that the Reagan Administration has decided to lay out $450 million to build at least 15 new hospitals—in Britain.

This is not foreign aid; the British will not be permitted to use them. These new facilities, with 500 beds each, will stand vacant until the U.S. military needs them for "casualties which would be incurred in a European war."

This news should be a relief to all of us, since it indicates that the Reagan Administration believes the Soviet Union won't try to win a war in Europe. Here's why:

Current NATO policy is to use nuclear weapons if its armies are in danger of defeat by conventional Warsaw Pact forces. But the hospitals going up in Britain are clearly not designed for a nuclear war. They will have only 7500 beds in total, they are not being built underground (even a few shovels' worth) to survive nuclear attack, and they are not equipped with enough food to tide occupants over during a long "nuclear winter" which would kill most plant life.

The first of these hospitals already stands waiting, empty, at Little Rissington for this no-win war out of 1984. A second is under construction at Upwood.

**Sweet Victory**

Lovers of Nestle's Crunch and Taster's Choice Coffee can now ingest them in good conscience. The seven-year-long Nestle's boycott has been suspended (not as the Nestle's press release we received stated, ended) while the International Nestle's Boycott Committee monitors the corporation's compliance with the agreement between them.

Nestle's has accepted four points submitted by the Boycott Committee: a limit on supplies of free formula to hospitals, no personal gifts to health professionals, hazard warnings on labels, and no written materials to mothers and health care staff which omit the hazards of formula feeding and the benefits of breast feeding. In effect, this means Nestle's has agreed to implement the 1981 International Infant Formula Code of the World Health Organization.

Our congratulations to the Boycott Committee and INFAXT, which have saved countless infants' lives and proven that a persistent consumer boycott can compel one of the world's largest corporations to forgo highly lucrative, though reprehensible, practices.

**The Ultimate Pain Relief**

In the 1970's phenylbutazone (Butazolidin) and Oxyphenbutazone (Tandearil) were considered wonder drugs for pains.
from arthritis, rheumatism, thrombophlebitis, sprains and strains, and many other sources. In 1984, however, the wonder is that these drugs are still on the market: they kill people.

Public Citizen's Health Research Group estimates that these two Ciba-Geigy products have killed about 3000 Americans. Precise figures are impossible to determine, but the HRG's study puts the death rate at 120 per million users. This is 13 times the rate Ciba-Geigy has reported to the Food and Drug Administration, but company fatality estimates for the FDA are typically conservative—the common rule of thumb is that they are a tenth the real rate—and a Ciba-Geigy official told the West German publication Drug-Telegram that "he cannot rule out that the number of known deaths must be multiplied by a factor of 100."

The drugs' dangers have been known for years; prescriptions for them have dropped 75 percent since 1975. This still meant 2.3 million in 1983, points out Sidney Wolf, M.D., Director of the Health Research Group, and more than half of them "were for indications for which the drug is no longer approved or was never approved," in addition, 68 percent were written for people over 40, the age at which adverse reactions begin to climb steeply. Wolfe argues that this shows that even tighter labeling, the industry fallback position, would not be enough to prevent many deaths from these two drugs.

Norway has issued a ban on Butazolidin and Oxyphenbutazone beginning April 1. The January 27 issue of Drug and Therapeutics Bulletin, a publication received by all practicing physicians in Britain, calls for a ban, saying the two drugs "would have to have major advantages over the many other nonsteroidal anti-inflammatory drugs now available for their risk/benefit ratio to be acceptable. No such advantages exist. Ample data incriminate both drugs in fatal bone marrow depression and other serious hazards. Between them they have caused well over 1000 deaths in Britain."

The Health Research Group has petitioned the Food and Drug Administration for an imminent hazard ban on the two drugs, arguing that the normal FDA review process for drugs it has previously approved could take years and permit many more unnecessary fatalities.

continued from page 2

To the Editor:

I've really gotten a great deal of use out of your publication—especially the special edition on asbestos. I turned that issue over to a local teaching group to use as a means of prodding the local school board into action on exposed asbestos in area schools. Keep up the good work.

Mike Stagg

(Tony Bale's asbestos article, Breath of Death, will be reprinted in the Altern-Press Annual of Temple University's Contemporary Culture Collection. The Temple editors judged it one of their best selections of the year—ed.)

The Health/PAC Award Dinner

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"Because they are small and weak, the countries of Central America are proud, self-conscious, and have long memories." —Carlos Fuentes*

On the outskirts of Managua, just across the highway from the airport, stands a simple concrete memorial to Sebastian Segura, the muchacho who gave his life to overthrow Nicaragua's dictatorship and left his name to his barrio. Then hand-painted letters that once spelled his last name have been all but obscured by the most recent coat of red and black (the Sandinista colors) paint. The memorial—easily mistaken for a milestone—bears no other markings, just what is probably his Confirmation photograph. Here, where family and neighbors pass, more identifying details are unnecessary.

In this barrio about forty shacks line a narrow dirt "street" where children play baseball with a stick and a homemade ball or rolled socks. Pig, dogs, and an occasional chicken wander in and out of the street and the houses. Some of the shacks are made of coarse wooden slabs, some of corrugated tin roofing and corrugated cardboard walls, the original packaging ads still

*The quotations in this article from the distinguished Mexican Novelist Carlos Fuentes are taken from an open letter to Henry Kissinger and the National Bipartisan Commission on Central America published in Harper's, January 1984.

Hal Strelnick is a member of the Health/PAC Board who practices and teaches family medicine at Montefiore Medical Center in the Bronx.
visible. One house is built of adobe-like masonry and has a flower garden climbing a trellis outside the only glass window in the entire barrio. Its proud owner told us that he also owns the more typical wooden shack across the “street.” A ten year old boy peddled a modest selection of plantains, tubers, and produce in plastic buckets. A young girl about the same age swept the dirt street with a coarse broom, while her mother’s wood stove filled the humid, heavy air with smoke.

Barrio Sebastian Segura is too small to be on the map of Managua posted in the Hotel de las Mercedes just next door; a visit here was not on the busy itinerary of the 120 U.S. and Canadian health workers who had come to Managua for the first U.S.-Nicaraguan Health Colloquium during Thanksgiving Week, 1983, although they were staying at the Mercedes. It was here, however, that entirely by chance we saw most directly what the Nicaraguan Revolution has meant to the health of the people of this desperately poor, war-torn, Third World country.

Mayela Martinez, a radiant nine year old, first met us carrying a five gallon bucket from the barrio’s single source of potable water. She insisted that we take not only her photograph but also her mother’s, her older sister’s, and her young brother Silvio’s. When Mayela returned with Silvio, who was almost two, we were confronted with a smiling, naked boy whose protuberant abdomen and frail limbs were obvious features of protein-calorie malnutrition. Almost all the children of this barrio under three years old appeared to share these signs in varying degrees, although few bore the lethargic and withdrawn stigmata of more severe malnourishment.

Guillermo Palacio Zeladon, only ten months old, peered out at us from his mother’s arms with huge, sunken eyes. He was the most profoundly malnourished child we saw in the barrio. Yet his mother was very proud of him, posing for photographs and explaining that during the winter he had been hospitalized with bronchopneumonia and meningitis. She said that he had been treated well and had been doing well ever since his release, but she still took him at least once a month to the health center and a nurse visited him regularly at home. What without this memory might be perceived only as malnutrition she saw as a child struggling for life, a child that in an earlier time would have been doomed. Our frames of reference were as far apart as our two governments.

A man of around 30 called to us and inquired guardedly about who we were and where we were from, telling our entourage of curious children to remain quiet. Omar Joaquin Amadoro was a stevedore at the airport, loading and unloading luggage and freight. He was off-duty and a little drunk. When he learned we were U.S. citizens, Amadoro gave us a lecture on the desire of the Nicaraguan people for peace, while his friend vainly tried to restrain him. He asked us to tell our president, “All we want is peace.” We promised that we will do what we can, shook hands, and commented on our matching “CAT Diesel Power” baseball caps, one black-on-yellow and the other yellow-on-black.

Another two year old girl farther up the barrio’s “street” had a prominent scar on her scalp. Her grandfather, Alfonso Velasquez, explained that she was born with the bones of her skull fused. The openings that allow the brain to grow were closed. She had received an operation at the children’s hospital and was developing completely normally, “talking like a politician,” he told us proudly.

Before we could discuss what might have happened to his granddaughter before the Sandinista triumph our attention was diverted by a child who appeared to be about twelve carried like a gunnysack of rice over her grandmother’s shoulder. At first it appeared that she was napping, but when her grandmother laid her down on a small mat outside their shack we saw that she was profoundly retarded, perhaps a victim of severe cerebral palsy; she was having small, localized seizures that contorted her face and arms and left her legs limp and useless. Her grandmother showed signs of her own suffering—the swollen skin of her legs and feet appeared to have fallen down and collected around her ankles like worn-out knee socks at the end of a difficult journey, the marks of long neglected edema fluid collection, seen in the U.S. among the homeless.

Beyond the old woman’s home, near the lagoon where the older children washed themselves as well as the barrio’s clothing, dishes, pots, and pans, stands another red and black memorial. This one is surrounded by barbed wire, unadorned by name, photograph, or inscription, like a sentry for the freshly-dug air raid trenches behind it. For us it was a tiny Tomb of the Unknown Soldier. For the barrio, in combination with the trenches it marks its brutal and heroic past and its uncertain future.

* * * * *

When the guerrillas of the Sandinista National Liberation Front (Frente Sandinista de Liberacion Nacional—FSLN) marched triumphantly into Managua on July 19, 1979, they inherited a war-torn country with an empty national treasury and an almost completely devastated health system.
In four years the Sandinista-led government has made dramatic progress in addressing the health and medical needs of its people, reducing infant mortality by one-third; eradicating poliomyelitis completely; virtually eliminating measles, whooping cough, and diphtheria, all previously widespread; increasing access to primary care threefold; more than tripling the percentage of the national budget devoted to health; vaccinating more than 300,000 children; training more than 75,000 volunteer health workers; and reducing illiteracy from more than 50 percent to just 12 percent. Yet today many of these advances along with other scarce resources and personnel for efforts to reconstruct and rebuild the country are threatened by the diversion of the military mobilization underway to defend the revolution against U.S.-supported contras on both the northern and southern borders.

The Health Situation Under Somoza
At first glance the health status of the Nicaraguan people under the Somoza dictatorship, while extremely poor, was comparable to that of their Guatemalan and Honduran neighbors.

In the early 1970's life expectancy was 53 years. Infant mortality—an indicator of the general health status of the whole population—was estimated to be extremely high, between 120 and 149 deaths per 1,000 live births, although official figures reported a rate of only 43-46 per 1,000. Infectious diseases, diarrhea, and dehydration accounted for almost one third of all deaths and more than half of infant mortality. Two thirds of all children under five years of age were estimated to have some degree of malnutrition; studies were finding 25 to 45 percent suffering from advanced secondary and tertiary malnutrition.

However, in the decade before the Nicaraguan insurrection, a time when most Third World countries were making progress in feeding their people better, the situation was deteriorating in Nicaragua. From 1965 to 1976 malnutrition rose 105 percent among children under one four, the second highest increase in Central America. In 1977—the best economic year under Somoza—more than 90 percent of the deaths among children under one year (45 percent of all deaths that year) were related to malnutrition. Poor infants were five to six times more likely to die in their first year than middle and upper income infants.

Infectious diseases, such as malaria, tuberculosis, and parasites, were endemic; one third of the population contracted malaria at least once during their lives. Measles was a common killer of malnourished children, accompanied as it often is by encephalitis, hemorrhage, heart failure, and bacterial pneumonias. Preventable diseases such as tetanus (lockjaw), measles, bacterial diarrheas, whooping cough, and malaria were all among the top ten causes of childhood death. The Somoza government had such little regard for the health of its people that even the basic information available from birth and death certificates was collected for only about 25 percent of the population. According to the Sandinistas' first Minister of Health, Dr. Cesar Amador Kuhl, "It was in the interest of the Somoza government to obscure the true situation as it constituted an accusation, evidence of the injustices of the regime."

The Somoza health system's official statistics compared well with those of Central American neighbors. Some 50 hospitals and clinics with a total of 4,675 beds and 1,360 doctors served a population of 2.3 million in 1977—about two beds per 1,000 and 6 doctors per 10,000 people, better ratios than in Guatemala and Honduras and not far below Costa Rica's. Nicaragua spent more of its national budget (15 to 20 percent) and gross domestic product (two to four percent) on health than either Guatemala or Honduras.

However, the statistics—themselves highly questionable—hid the realities of an extremely inequitable and maldistributed health system. More than half of all doctors and medical beds and 70 percent of professional nurses were located in Managua, inhabited by only ten percent of all Nicaraguans. Less than one third of the health centers were in rural areas, and they were usually staffed by untrained auxiliary "empirical" nurses. Overall, the Sandinistas estimate, some 90 percent of the medical services were directed at only ten percent of the population. Almost the entire rural population and some 35 percent of the urban dwellers lacked access to potable water.

Before the overthrow of Somoza some 23 separate agencies (including 19 independent local health ministries) "administered" a health system that, like other aspects of Nicaraguan society, was characterized by fragmentation, corruption, nepotism, and despotism. Each public hospital had its own autonomous governing board, another autonomous agency was responsible for financing hospital construction through the national lottery, and yet another administered water and sewers, while the Ministry of Health took responsibility for preventive medicine and a few clinics. As in most other Latin American systems, the National Social Security Institute (INSS) provided a significant portion of the medical expenditures—37 percent of the total—but served only 8 percent of the population, largely the urban well-employed and civil servants. The infamous National Guard had its own medical system of hospitals and clinics. Private hospitals were run by physician specialists and by religious orders, providing care only to those who could pay. The upper class, including Somoza himself when he had a heart attack in August 1977, flew to Miami for medical care.

Health institutions, according to Dr. Amador, were used as a political football. Physicians regularly drew salaries for work in public hospitals and clinics while they were actually seeing patients in their private offices. One surgeon, a friend of the Somoza family, was being paid for 26 hours per day of public health service while he was earning more than $150,000 a year in his private practice. Somoza's wife, Doña Hope, headed the hospital sector within the Ministry of Health; Somoza's last Minister of Health was one of his personal physicians.

Despite the number of hospital beds, Nicaragua had only one fifth as many hospitalizations per 1,000 population as Honduras. Many of the health facilities were poorly kept, lacking necessary equipment and medication, and remarkably underutilized.

Like many aspects of Nicaraguan society, the health care system was profoundly shaken by the 1972 earthquake which struck the center of Managua. It destroyed every acute care bed in the city; these were barely restored when the war began. According to Concepcion Huete, the Chief of Nursing in the Ministry of Health, her experience after the earthquake radicalized her.

"I remember in particular an obese man, a Somocista
brought to our hospital," she said, "He was having a heart attack after the earthquake. He died for lack of adequate attention that day. I thought, if an affluent Somoza man is dying for lack of attention, how much worse must it be for the poor, the women, and the children of our country. . . . The people needed the hospitals, but the military took them over. We needed medicines, but they were diverted for other purposes."  

During the period of the general insurrection—from January 10, 1978, when La Prensa editor Pedro Joaquin Chamorro was assassinated, until July 19, 1979, when the Sandinistas entered Managua—the already ailing health system was allowed to deteriorate further and was finally attacked by Somoza's National Guard. Some 50,000 Nicaraguans lost their lives in the insurrection. (During the entire Vietnam War 58,000 Americans were killed, and our population is 80 times theirs.) Another 100,000 sustained crippling injuries, some 40,000 of them requiring surgery, rehabilitation, or continued care.

On top of this human devastation, the National Guard often turned its guns and mortars against hospitals and clinics, sewage plants, and water treatment and pumping stations before retreating from a town or city. Major hospitals in Rivas, Esteli, Matagalpa, and Leon were almost completely destroyed. Severe damage was reported at five other hospitals and 19 health centers. Four provinces, Esteli, Rivas, San Carlos, and Puerto Cabezas, reported 100 percent destruction of their medical equipment. The paralysis of the economy and diversion of resources to supply the National Guard nearly exhausted the reserves of medications, medical supplies, and laboratory reagents.

When they took power the Sandinistas found only $3.5 million in a looted National Treasury and inherited $1.6 billion in foreign debt, including $4.5 million in unpaid laboratory and pharmaceutical bills.  

Local and multinational pharmaceutical houses suspended production and/or sales, and the shortage of foreign exchange made importing drugs nearly impossible. The United Nations estimated that during the insurrection Nicaragua lost $700 million in capital flight, $200 million in unfulfilled cotton exports, and $500 million in physical destruction, including $5 million in damages to medical facilities.

Even so, the Sandinistas had already begun laying the foundation for a new health system. As early as 1969, the FSLN political platform promised to "extend the social security system to all workers and public employees to cover illness, physical disability, and retirement, to provide free medical assistance to the entire population throughout the country, and to undertake massive campaigns to eradicate endemic illnesses and prevent epidemics."  

During the insurrection the Federation of Medical Societies of Nicaragua (FESOMENIC) organized against Somoza. Its public opposition began in 1978 with pamphlets, letters to the editor, and participation in hospital strikes led by FESTALUD, the non-physician health workers' union, that rallied popular sentiment against Somoza. One nurse gave her life on a hunger strike in this struggle. FESOMENIC was weak compared with the Colegio de Medicos, the traditional doctors' association headed by one of Somoza's personal physicians, but it had influence through its association with the National University's medical school and its focus on corruption in the health system.

"During the insurrection—that is when the conscience of service was born," said Dr. Jose Luis Arguello, a retired surgeon and FESOMENIC’s president. Physicians, medical students, and other health workers joined the Sandinistas to care for the wounded, organize and run clandestine clinics, train para-professionals, and create cadres of health volunteers in each barrio and village as part of the barrio Civil Defense Committees. After the triumph these became the Sandinista Defense Committees (CDS) and served as the organizational foundation for future health campaigns.

Like the insurrection itself, many of these committees grew out of the Catholic grassroots communities (communidades de base), which are parish-based Bible study groups. Catholic base communities such as those in Leon took to heart what they learned from the Bible and the teachings of liberation theology and translated them into direct, often armed, action, joining the general insurrection against Somoza. From the health and medical necessities of the war the Sandinistas learned the importance of a popularly oriented and organized volunteer health system.

* * * * *

The people of Central America have never been asked to move, but to abide. In Nicaragua . . . a liberation from traditional sentiments has occurred; the people are participating in the myriad aspects of the national life from which they were historically excluded. . . . An irreversible momentum is thus gained, and its goal is greater freedom, even beyond the regime's expectations.

—Carlos Fuentes

The Evolving Health System in Nicaragua Libre

On August 8, 1979, within three weeks of the Sandinista victory, the new Government of National Reconstruction began fulfilling the promises of its “Historic Program” by unifying the old 23 health agencies into the National Unified Health System (SNUS) under the authority of the Ministry of Health. Health became the nation's fourth priority, after defense of the revolution, reconstruction of the economy, and education of the people.

Unification had first been proposed in 1976 as a liberal reform under Somoza, more organizational than revolutionary. The new definition and concept of health, summarized in the slogan, “La revolucion Sandinista es salud”—the Sandinista revolution is health care, was another matter:

We do not want to put patches on the old obsolete structure, but to create a new, qualitatively different structure.

Health stops being an abstract concept, and converts itself into a determined historical reality. This is the result of a new life among humans, a new way to relate to nature, to transform it and obtain the necessities of life. That is how health care comes to be considered as an essential part of the condition of life, indisolubly tied to the total development of the social, political, economic society of Nicaragua. . . .  

This credo was incorporated in the ten principles that were to guide the planning and development of the new health system:

1. Health is the right of every individual and a responsibility of the state;

2. Health services will be made available to the entire population, geographically, economically, and culturally;

3. Health services should function to integrate the physical, mental, and social dimensions of health and to address the conditions of work and residence as they affect health;
4. Health care ought to be delivered by an interdisciplinary team effort;
5. Health work is to be planned; and
6. The community ought to participate in all health activities;
7. Services should be organized, regionalization should be strengthened, and health areas should be consolidated;
8. Planning should be developed as a scientific instrument to guide the development of the SNUS;
9. Human resources should be trained as necessary, health workers should be retrained, and the sanitary awareness of the people should be raised;
10. The efficiency and productivity of existing health resources should be raised as much as possible to extend health coverage as effectively as possible.

In implementing this program, the new government faced the formidable tasks of reconstructing a health system from the ground up, establishing new offices and divisions, and defining procedures and responsibilities. In the process, it quickly learned that central planning with popular participation would be impossible without adequate information about the existing system and the population's needs. In an effort to tackle the most critical post-insurrection health problems,
many officials were transferred from position to position. Informal personal connections made during the war and through the FSLN served as an interim structure. A firm agenda emerged only after innumerable meetings employing a collective decision-making process.

Almost immediately after the war, the Ministry assessed the damage done to hospitals and health centers and the debts that the system had inherited. Repair of the most damaged structures began, aided by donations from West Germany, Sweden, and Switzerland. The Ministry also coordinated the 316 technicians, nurses and physicians who arrived from Cuba, Mexico, Honduras, Venezuela, Costa Rica, and elsewhere. Private practice was preserved to prevent an exodus of Nicaraguan physicians.

To treat the thousands of war casualties, three new rehabilitation centers were built; people were sent to Cuba, Spain, Costa Rica, and East Germany for special treatments; and teams of plastic surgeons visited from the United States.

Communities did not wait for the Ministry to reorganize the health system. With access barriers to health facilities swept away, the people flooded hospitals and clinics around the country, declaring they were "theirs," not Somoza's. Many communities took advantage of local resources—often the homes and goods of Somocistas who had abandoned them when they left the country—to provide hospital beds, medicine, office equipment, buildings for clinics, even refrigerators. This local activism generated demands upon the Ministry for more trained personnel (particularly physicians), medicines, and supplies for curative services.

Building upon the cadre of volunteer health workers who had been trained in emergency surgery and sanitation during the insurrection and the local Sandinista Defense Committees, the Ministry rapidly launched several grassroots public health initiatives. In August 1979, only months after the triumph, the Ministry in conjunction with the Popular Organizations established 250 oral rehydration units (ORU's) at hospitals and health centers across the country to provide infants and children with an effective and inexpensive mixture of salts, sugar, and water for the diarrheas that had been the nation's leading killer. UNICEF provided the materials and has since contributed $400,000 for equipment, training, popular education, and rehydration kits.

In September and October vaccination campaigns were carried out against polio and rabies. During the last three months of 1979 the new government distributed 4,200 latrines—almost twice the number distributed in the entire previous year. The success of these campaigns in coordinating national, regional, and local governmental bodies with popular organizations to work toward a common goal has proved an influential model for the development of the Ministry and the health planning process.

In 1980 a special division was created within the Ministry of Health to support these popular campaigns. It prepared 200,000 copies of "Health Lessons for Literary Workers," provided first aid instruction and medicines, and trained 12,325 brigadistas in malaria treatment and prevention. The literacy campaign succeeded in reducing illiteracy (defined as reading and writing below a third grade level) from 52 to 12 percent, as well as in laying the foundation for future health campaigns and participation in the local, regional, and national health planning process.

Along with the barrio-and-village-based Sandinista Defense Committees that developed out of the necessities of the insurrection, other "popular organizations" representing industrial and service workers (Confederation of Sandinista Workers—CTS), agricultural workers and campesinos (Association of Agricultural Workers—ATC), women (Association of Nicaraguan Women "Luisa Amanda Espinoza"—AMNLAE), youth (Sandinista Youth of July 19th—JS19J) have representation on the Popular Health Councils that serve as a forum for discussing and planning the health efforts as an equal partner with the Ministry. In many areas, such as Esteli, these organizations have grown out of activities of the Catholic base communities.

Representatives of these organizations interact with those working in the health system at the national, regional, departmental (municipal), and local (individual facilities) level (see Figure I). Many of those with health care training and experience under the conditions of war have become the Health Coordinators (Responsables de Salud) and brigadistas.

### TABLE 1

<table>
<thead>
<tr>
<th>Training for the 1981 Popular Health Campaigns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antipolio First (March)</td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>Workshops</td>
</tr>
<tr>
<td>Multipliers* trained</td>
</tr>
<tr>
<td>Brigadistas trained</td>
</tr>
</tbody>
</table>

(Adapted from Donahue, John A.)

*Multipliers are volunteer health workers who in turn train brigadistas.
TABLE 2

Immunizations

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>73,080</td>
<td>81,228</td>
<td>139,527</td>
<td>211,275</td>
<td>(362,111)</td>
<td>+495%</td>
</tr>
<tr>
<td>DPT</td>
<td>215,874</td>
<td>384,949</td>
<td>410,693</td>
<td>705,955</td>
<td>(453,713)</td>
<td>+210%</td>
</tr>
<tr>
<td>DT</td>
<td>156,411</td>
<td>155,229</td>
<td>401,192</td>
<td>(258,977)</td>
<td>+166%</td>
<td></td>
</tr>
<tr>
<td>TT</td>
<td>527,748</td>
<td>449,362</td>
<td>838,545</td>
<td>(845,361)</td>
<td>+160%</td>
<td></td>
</tr>
<tr>
<td>Polio</td>
<td>643,144</td>
<td>538,178</td>
<td>1,174,505</td>
<td>1,492,109</td>
<td>3,013,152</td>
<td>+469%</td>
</tr>
<tr>
<td>Measles</td>
<td>101,829</td>
<td>225,932</td>
<td>205,825</td>
<td>391,752</td>
<td>+385%</td>
<td></td>
</tr>
<tr>
<td>Rabies</td>
<td>22,305</td>
<td>32,590</td>
<td>89,185</td>
<td>N/A</td>
<td>+400%</td>
<td></td>
</tr>
</tbody>
</table>

Ministry of Health data per Richard Garfield
Plan de Salud 1983
Informe di Nicaragua la FAO
( ) projected for 1983

(barefoot doctors) in their local communities. The brigadistas have been chosen by their own communities to receive special health care training.

As in other Nicaraguan efforts to make the most of limited resources and personnel, much of this training is based on the model of "multipliers" (multiplicadoras): each individual is trained with the expectation that s/he will train ten others. At province level workshops 120 expert health educators each train ten "multipliers" who, in turn use accessible comic-book-like educational materials to train twenty brigadistas at the local level chosen and supported by their own organizations.

Brigadistas in South Zelaya, one of the special zones on the Atlantic Coast, for example, learn how to vaccinate, build latrines, perform first aid, improve nutrition and hygiene, and treat such health problems as malaria, diarrhea, parasites, and skin diseases. Their training also provides them with an opportunity to report special difficulties their community is facing and to secure help in solving them. One brigadista who completed a census in his village found that all families but one were infected with mountain leprosy; he was trained to carry out a special treatment campaign there. Health education and training was one of the last divisions developed within the Ministry of Health but it has rapidly become its largest and most important.

In 1981 popular health education was Nicaragu's number one priority in health, education, and social welfare; major campaigns were waged against polio, unsanitary environmental conditions, dengue fever, rabies, and malaria. These were followed up with a multiple immunization campaign in May (for polio, diphtheria-pertussis-tetanus, and measles); prophylaxis for dengue fever and malaria in June; and a maternal and child care blitz in November and December, in which 8,000 brigadistas were trained in primary care and first aid. (See Table 1). In each campaign UNICEF assisted in securing and distributing the vaccines and equipping the cold chain (refrigeration) network necessary to preserve them. An estimated 85 percent of all children under five years were vaccinated against polio by the end of the 1981 campaigns. By now almost 90 percent of children are immunized against measles. The combined impact of these popular campaigns and the expanded health care system is seen in the national immunization record (see Table 2).

This educational mission has been just as important for health workers. Before the revolution some 90 percent of nurse auxiliaries—known as "empirical" nurses—had no formal training at all; almost no technicians were trained; and no formal medical residencies existed in the country. Since 1979 some 3,391 new health workers have received training. A new polytechnical institute is educating students in nine different fields, including laboratory and x-ray technology. The number of professional nursing students has increased sixfold to 380; the number of trained nurse auxiliaries has tripled to 600. Medical students have increased in number fivefold; 146 graduates have entered 16 new residency programs.

Financial barriers to this education have largely been eliminated, and local communities have been given a voice in the selection of students, which encourages them to take a proprietary interest in their proteges' success and future plans. All health care workers have a two year social service requirement following graduation. (The growth of the health workforce is documented in Table 3.)

This extraordinary growth in the student population has been accompanied by a transformation of the content and structure of health education. "In my own training I had no clinical exposure until my internship," said Dr. Oscar Flores, dean of the new medical school in Managua, "Now, students are involved in a work-study program where they have exposure to the working conditions of a health center. They are expected to investigate and bring back information on the endemic diseases in their communities." Students also help in census taking, case finding, and community health education.

The Structure of the Current Health System

In keeping with the 1979 definition of health and principles for health care, Nicaragua has developed a regionalized, multi-tiered, mixed system. The country is divided into six regions, with three special zones on the Atlantic Coast that have been given special priority for development. These in turn ar...
TABLE 3
Health Personnel

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>1,319</td>
<td>1,356</td>
<td>1,541</td>
<td>1,951</td>
<td>(2,200)</td>
<td>+ 48%</td>
</tr>
<tr>
<td>Nurses</td>
<td>566</td>
<td>808</td>
<td>900</td>
<td>979</td>
<td>(1,100)</td>
<td>+ 73%</td>
</tr>
<tr>
<td>Nurse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auxiliaries</td>
<td>2,940</td>
<td>3,879</td>
<td>3,948</td>
<td>4,067</td>
<td>(4,500)</td>
<td>+ 38%</td>
</tr>
<tr>
<td>Technicians</td>
<td>557</td>
<td>1,057</td>
<td>1,653</td>
<td>1,691</td>
<td>N/A</td>
<td>+204%</td>
</tr>
</tbody>
</table>

Ministry of health data per Richard Garfield and Dr. Marie Alejandra Bosche, "Development of Primary Health Care in Nicaragua: Achievements and Difficulties." August 20, 1983.

...
American journalist, Bill Stewart, dedicated on the first anniversary of his murder by contras.

The next level of care is the health center (Centro de Salud). Some of these centers are outpatient polyclinics, with teams of nurses and physicians of various specialties, others are much smaller. Still other centers have beds for more extensive treatment, such as intravenous rehydration of infants and children with diarrhea. The health centers serve as the referral back-up for health posts and their staffs, as the health posts serve the brigadistas. Both have councils that coordinate the community's needs with the Ministry's planning and the staff's implementation and practice. Our delegation from the health Colloquium visited a center outside Managua in Ciudad Sandino—named for Augusto Cesar Sandino, the leader of the Nicaraguan rebels during the 1920's and 1930's whose name, silhouette, and face are ubiquitous symbols of the current revolution.

The barrio, built to house poor Nicaraguans displaced by the earthquake in "downtown" Managua, was originally called "Open 3"; it is still unpaved and without plumbing, but now has electricity. In a rundown building resembling many others we found a team of Cuban internationalist physicians working with considerable energy and enthusiasm. The coordinator of the barrio's Sandinista Defense Committee responded to the medical supplies our delegation had brought with the words that "this gift and what it means are worth more than all of the $24 million given by the U.S. government to support the contras."

The next level of care is the community hospital, which provides both inpatient and outpatient services and referrals. The community hospital corresponds to the regional organizational level.

The fourth region contains almost half a million people. According to Dr. Rommel Martinez, the regional health director, they are served by 228 physicians, six hospitals, 17 health centers, and 93 medical posts. Within it is the town of Masaya, about 30 kilometers northeast of Managua. A new hospital is under construction there, but until it is completed the Hospital Rafaela Padilla must suffice. This old facility has 90 beds divided among men's, women's, women's surgical, isolation, and pediatric wards, with 12 intravenous stations for pediatric rehydration. It has traditional Latin American architecture, with wards and clinics surrounding an open central courtyard. On the wall just inside the entrance is a mural based on a famous Susan Meiselas photograph of an FSLN guerrilla wearing a crucifix who is throwing a Molotov cocktail. On another wall was a small, typed memo, dated November 16, 1983, a reminder of the current mobilization: "All vacations and special absences are hereby cancelled until further notice."

Racks of surgical gloves were drying in the sun and in the darker sterilizing room awaiting re-sterilization and re-use, a cycle that will be followed until they literally fall apart. Two aides silently folded surgical sponges by hand. Broken-down autoclaves (a sterilization device), surgical lamps, incubators, oxygen regulators, even an ambulance, form equipment graveyards inside and behind the hospital. The smashed and charred ceiling of the eye clinic remains an unrepairable casualty of the insurrection's bombings.

In the hospital's classroom, where a picture of the Virgin Mary shares the front wall with a blackboard and x-ray view box, Dr. Luis Santiago Palacios, the hospital's director, answered the question, "What is your greatest single need?" with a smile: "Todas—everything!" He then elaborated that some of the equipment they do have is useless because an essential part is missing—"We have oxygen tanks and face masks but no humidifiers or plastic connecting tubes."

"Our greatest need," he admitted only when pressed, "is orthopedic surgical equipment and a new autoclave."

Dr. Humberto Roman, a young pediatrician who was making rounds during our visit, had been working at the Masaya hospital for 14 months but only recently had returned from service on the Costa Rican border. Beside the dozen intravenous lines, each hooked up to one of a row of dehydrated infants on a long table that looked like the folding area in a laundromat, Dr. Roman explained that his patients mainly suffer from asthma or are recovering from dehydration. Their parents appeared to be the primary nursing staff. Although it was Sunday and much of the hospital had been emptied in preparation for the casualties of a feared invasion, Dr. Roman's ward was overflowing. Yet he was delighted to be back making rounds.

The most tertiary care in the Nicaraguan health system is provided at the teaching hospitals in Leon and Managua. Specialty training did not exist in the country before the revolution, so Nicaraguan physicians studied abroad, particularly in the United States and Mexico. Managua now has specialty hospitals in pediatrics, internal medicine, maternity, and psychiatry.

In medicine the mixed economy thrives. "The Hospital of

### TABLE 4

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</thead>
<tbody>
<tr>
<td>Primary Care Units</td>
<td>172</td>
<td>355</td>
<td>360</td>
<td>439</td>
<td>446</td>
<td>+159%</td>
</tr>
<tr>
<td>Hospitals</td>
<td>37</td>
<td>48</td>
<td>47</td>
<td>45</td>
<td>46</td>
<td>+24%</td>
</tr>
<tr>
<td>Hospital Beds</td>
<td>4,313</td>
<td>4,677</td>
<td>4,729</td>
<td>4,765</td>
<td>4,809</td>
<td>+2%</td>
</tr>
</tbody>
</table>

Dr. Rene Darce, Vice Minister of Health, November 19, 1983.
CHART 1

Structure of Health System in Nicaragua

<table>
<thead>
<tr>
<th>Administrative Levels</th>
<th>Popular Participation</th>
<th>Health Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Health (MINSA)</td>
<td>National Popular Health Council</td>
<td>Teaching Hospital</td>
</tr>
<tr>
<td>6 Health Regions &amp; 3 Special Zones</td>
<td>Regional Popular Health Council</td>
<td>Community Hospitals</td>
</tr>
<tr>
<td>96 Health Areas</td>
<td>Departmental Popular Health Council</td>
<td>Health Centers &amp; Poly-clinics (14 w/beds), (82 w/o beds)</td>
</tr>
<tr>
<td>Health Sectors/Clinic Areas</td>
<td>Clinic Area Popular Health Council</td>
<td>Oral Rehydration Units (330)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Health Posts (365)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brigadistas</td>
</tr>
</tbody>
</table>

Specialties,” one of the private hospitals that advertise along the highways and streets of Managua, houses specialists who practice only in the private sector. About 35 percent of the doctors, primarily specialists who are concentrated in the larger cities, still provide only private services. A taxi driver who lives near the airport in Managua told me he used a private internist for visits for his weight, blood pressure, and arthritis, but used a public hospital for more serious problems. He did the same for the other members of his family.

Even in these cities the number of providers can be a misleading indicator of specialty services actually available. For example, the psychiatric hospital is the only inpatient mental facility in the country and is only half reconstructed from the insurrection. The pediatric hospital, Velez Paiz, was found to be a nest of embezzlement and graft when its books were examined in 1979. After five years of construction it was finally completed in 1980 with help from Sweden, but stood empty for lack of equipment and staff until 1983. At Hospital Manolo Morales, the internal medicine and surgical teaching hospital, a team of emergency medical specialists who were members of the U.S. delegation to the Health Colloquium was shocked to find a diabetic woman in a coma being breathed by hand with a mechanical respirator because the only modern one available had broken that morning and there were no spare parts. The team members returned to their hotel and brought back the respirator that had been donated as part of the delegation’s medical aid shipment. Though the patient was soon being ventilated by the donated respirator and her doctors were momentarily elated, she died a few days later. Such shortages, even in the best facilities, are all too commonplace (see Dr. Anne Lifflander’s letter in this issue).

An estimated 300 physicians and perhaps an equal number of nurses have emigrated, some 20 percent of the total, while perhaps 50 physicians have been able to return from exile since July 1979. More than 800 internationalist health workers have come from all over Western Europe and Latin America, especially Cuba, to compensate for this loss, and, in fact they have redistributed care to previously underserved, particularly rural, areas. However severe shortages remain in specialties such as anesthesiology, ophthalmology, and nephrology.

Tensions are evident between those advocating allocation of scarce resources for expanded popular and primary care and those who favor improving hospital-based care, even at the most basic level by U.S. standards. Some observers, noting a temporary moratorium on hospital construction and the replacement of the first Minister of Health, a highly respected neurosurgeon, by Lea Guido, a sociologist and leading member of the FSLN, believe the government is moving away from an institutionally-based health system.

Others who have worked within the Ministry argue that while Dr. Amador provided the needed prestige to begin the unification of the health system and to keep physicians in Nicaragua, he was not a good administrator. He now represents the professions on the Council of State. Lea Guido knew little about health care but is said to be the best administrator in the Sandinista government. In a typically Nicaraguan diplomatic comment Dr. Ivan Tercero, the Vice Minister for Medical Services and Public Health, said that the Ministry was seeking a “balance” between popular and institutional care.

The Sandinista Health Record
Despite shortages, blockades, boycotts, and armed attacks, the progress the Nicaraguans have made in health is a tribute to their unwavering commitment to the goals of their revolution. Even the hostile Kissinger Commission on Central America had to admit that Nicaragua “had made significant gains against illiteracy and disease…” In four short years—despite the major floods of May 1982 and the contra activity

### TABLE 5

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<tbody>
<tr>
<td>Infant Mortality (per 1000)</td>
<td>122.3</td>
<td>98.2</td>
<td>88.2</td>
<td>80.2</td>
<td>-34%</td>
<td></td>
</tr>
<tr>
<td>Measles</td>
<td>901</td>
<td>3,784</td>
<td>224</td>
<td>226</td>
<td>140*</td>
<td>-84%</td>
</tr>
<tr>
<td>Poliomyelitis</td>
<td>36</td>
<td>21</td>
<td>46</td>
<td>0</td>
<td>0*</td>
<td>-100%</td>
</tr>
<tr>
<td>Tetanus</td>
<td>18</td>
<td>89</td>
<td>132</td>
<td>109</td>
<td>68*</td>
<td>+278%</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>12*</td>
<td>+600%</td>
</tr>
<tr>
<td>Pertussis</td>
<td>791</td>
<td>2,469</td>
<td>1,935</td>
<td>395</td>
<td>80*</td>
<td>-90%</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>1,645</td>
<td>942</td>
<td>2,239</td>
<td>947</td>
<td>-</td>
<td>-42%</td>
</tr>
<tr>
<td>Malaria</td>
<td>12,016</td>
<td>25,465</td>
<td>17,434</td>
<td>15,601</td>
<td>-</td>
<td>-39%</td>
</tr>
</tbody>
</table>

Dr. Rene Darce, Vice Minister of Health, November 19, 1983.
MINSA, Plan de Salud, 1983
Informe de Nicaragua a la FAO, 1983.
*Annualized data based on first quarter data only.
Intensifying in 1983—the people of Nicaragua have made remarkable progress against infectious diseases and infant mortality (see Table 5). Health resources and personnel have been increased (with the exception of hospitals and hospital beds) and more equitably distributed throughout the country (see Tables 3 and 4). This has brought staggering rises in ambulatory, prenatal, and inpatient utilization, creating new and often inadequately met demands upon the health system (see Table 6).

Oral rehydration has been extended to almost half of the cases needing it, dropping diarrhea and dehydration from the nation's leading cause of death among children under 4 years to third place. In some regions the utilization of the ORU's has declined in the past year, suggesting that more mothers are treating diarrhea at home. In the first 21 months of the program some 92,000 children were treated, 18 percent with serious diarrhea (with 5-10 percent loss of body fluids) and 2 percent with grave diarrhea (more than 10 percent fluid loss). Only 2.6 percent of the children required intravenous therapy, and only 17 (0.02 percent) died. This was a major factor in the reduction of the infant mortality rate, since two thirds of the affected children are under one year of age. In 1982 UNICEF/WHO awarded Nicaragua its annual prize for the greatest achievements in health by a Third World nation.

Such successes, however, create additional mouths to feed and sustain. While the percentage of children suffering from malnourishment has remained stable since 1939—about two thirds of all children have mild symptoms, one-quarter moderate, and one in twenty severe—the statistics are actually worse than in the mid-1960's.

A Supplementary Feeding Program supported by the World Food Program was reaching about one half of pregnant women and one third of the affected children by the end of 1982. Efforts to promote breastfeeding are succeeding. One Managua hospital reported that 61 percent of women giving birth in the past year are breastfeeding for the first three months, double the rate in 1981. Although price controls and rationing have been imposed on the basic commodities—rice, beans, flour, and cooking oil—to ensure that the poor can obtain them, food shortages and malnutrition will remain while Nicaraguan agriculture makes the difficult transition from raising primarily cash crops for export—coffee, cotton, tobacco, and sugar—to greater self-sufficiency.

Health has also claimed a greater portion of Nicaragua's limited resources, growing from three to eleven percent of the national budget. In 1983 this represented approximately $56 million—at the official rate of exchange (10 cordobas = $1) that figure more than doubles to $119 million.

Before the deepening world recession, the escalation of the contra attacks, and the mobilization following the U.S. invasion of Grenada, health was slated to receive C$1,593 million, an even larger percentage of the 1983 national budget (see Table 7). The cut is only one price that the Nicaraguan people are paying to the war on their borders.

But the Nicaraguans' greatest success in health care is not to be found in the statistics but in the deeper transformation they represent—the way in which health issues have become an integral part of the revolutionary process and the "common knowledge of the people." In describing this at the end of a long interview, for the first time Vice Minister of Health Ivan Tercero became animated and smiled.

"Our success," he said, "is an achievement not of the health ministry, but of the people. The massive campaigns are done by the people. You can talk with any Nicaraguans and ask what they did in the campaign. They have given the immunizations, and they feel proud when they see the results of their work. They have gone to workshops after work and on weekends. It takes a lot of work sometimes. But that's one of our policies—to broaden popular knowledge of health and not to have it just as a privilege for the minority—a scientific minority. We have to try to convey this to the whole nation."28

Progress has not been made without internal conflicts, false starts, mistakes, and inflated expectations. Early plans for extensive occupational health facilities and a comprehensive primary health care network were scaled back; pressure from physicians curtailed plans for a barefoot doctor system.29 There have been splits in the health union and the physicians association; in 1980 there was a one day walkout by a small but influential group of physicians seeking less government regulation; in 1981 a splinter of the union

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### TABLE 6

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<tbody>
<tr>
<td>Medical Consultations</td>
<td>2,432,925</td>
<td>4,982,673</td>
<td>5,411,432</td>
<td>6,022,634</td>
<td>6,553,826*</td>
<td>+269%</td>
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<tr>
<td>Hospitalizations</td>
<td>120,952</td>
<td>178,017</td>
<td>190,577</td>
<td>197,214</td>
<td>(193,000)</td>
<td>+160%</td>
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<tr>
<td>Operations</td>
<td>36,052</td>
<td>54,457</td>
<td>54,335</td>
<td>54,831</td>
<td>51,452*</td>
<td>+143%</td>
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<tr>
<td>Oral Rehydration</td>
<td>71,576</td>
<td>97,684</td>
<td>155,794</td>
<td>169,654*</td>
<td>+237%</td>
<td></td>
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Plan de Salud 1983 and Ministry of Health data per Richard Garfield.
( ) projected for 1983.
*Annualized data based on first six months.
TABLE 7

Financial Resources

<table>
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<tbody>
<tr>
<td>Public Expenditures (C$) Millions of cordobas</td>
<td>202</td>
<td>702</td>
<td>962</td>
<td>1,148</td>
<td>1,190</td>
<td>1,593</td>
</tr>
<tr>
<td>Percent of National Budget</td>
<td>3</td>
<td>8</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>(15%)</td>
</tr>
<tr>
<td>Per Capita Health Costs (U.S.)</td>
<td>N/A</td>
<td>$28</td>
<td>$37</td>
<td>$40</td>
<td>$50</td>
<td>+179%</td>
</tr>
</tbody>
</table>

Dr. Ivan Tercero, Vice Minister of Health, APHA, November 16, 1983.
Dr. Rene Darce, Vice Minister of Health, November 19, 1983.

demonstrated outside the Ministry of Health for better wages. After an increase of more than 300 hospital beds in the first 18 months of the revolution, new hospital construction was curtailed, some hospitals were closed, and bed capacity was redistributed, largely as austerity measures. Efforts to promote institutionalized childbirth gave way to more modest and less expensive goals of supporting and improving the quality of care of the empirical lay midwives. Even a well-traveled Canadian businessman who deals extensively with the Sandinista government but has little sympathy for the revolution had to admit, "So far, the Nicaraguans seem to be able to learn from their mistakes."30

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* * * * *

* Revolutions in Latin America pose challenges to (the) American...imagination. —Carlos Fuentes

The first U.S.-Nicaraguan Health Colloquium began as a small, technical exchange project based in the San Francisco Bay Area's Committee for Health Rights in Central America and blossomed into the largest health delegation ever to visit Nicaragua, with 120 U.S. and Canadian health workers from 48 cities and the endorsements of the Pan-American Health Organization and the American Public Health Association. Although the size of the delegation taxed the resources of a poor country further strapped by a military mobilization, its membership was given full diplomatic attention. Sergio Ramirez, the civilian member of the governing Junta, welcomed the delegation at the Colloquium's opening by saying, "You are the kind of North Americans who can land in Nicaragua anytime you please and occupy our hospitals and health centers." Interior Minister Tomas Borge, the only surviving founder of the FSLN, closed the Colloquium by asking the empirical lay midwives to stand as "symbols of the birth of Nicaragua—the birth of revolution, of peace, and of new victories." In between delegates met with Commandante Victor Tirado, Foreign Minister Miguel D'Escoto, then-U.S. Ambassador Anthony Quainton, Junta Coordinator Daniel Ortega, and later with most of the government's ministers at a *Cara al Pueblo* (Face the People) public question and answer session in Via Venezuela, a Managua barrio.

The North American delegates joined 600 Nicaraguan physicians, nurses, midwives, psychologists, technicians, and *brigadistas* who had died in their home regions for the opportunity to come to Managua and share their experiences with each other and with us during their annual national health conference. Papers were presented by members of both delegations. Intensive workshops were offered in midwifery and emergency medicine, while panels were held on surgery, occupational health, pediatrics, rehabilitation, heart disease, and respiratory therapy.

The Nicaraguans presented their research on such problems as preserving breast milk without refrigeration, integrating psychiatric patients into the coffee harvest, preventing machete accidents among sugarcane cutters by adapting baseball catcher's shin guards as protective safety wear, and investigating the working conditions and related health hazards of telephone operators and bus drivers.

Between conference sessions delegates visited hospitals, health centers, and health posts; wandered through the market and the barrios; met with representatives of the medical schools, the health workers' union, and the women's organization; donated blood at the Red Cross; and talked late into the night about what they had seen or experienced each day and what needed to be done when the delegation returned home. The pace and ambitions of the trip were exhausting.

One painful irony was not lost on us: while our own government was taking funds for food and shelter away from our homeless to supply the *contras*, the Nicaraguans were generously drawing on their own scarce resources to feed and house us. Like the airport stevedore, the Nicaraguans clearly separated the American people from their government, however true that distinction might be. The delegation brought with it an estimated $60,000 worth of medical equipment, books, and journals.

We could not have arrived at a more critical time—the entire nation was mobilized in anticipation of an imminent invasion just weeks after the U.S. took over Grenada. On our first night in Managua, one of our hosts—a nurse from the
Atlantic Coast named Alice Thompson—was notified by a special messenger who stopped our tour bus to find her that she had been called to the border. The mobilization like the colloquium was democratic: where once only doctors attended such gatherings and only campesinos served in the national defense, a series of our meetings was postponed when Dr. Oscar Flores, the dean of the Managua medical school, was sent to the border, and empirical lay midwives attended our sessions.

Contra attacks along both the northern and southern borders have focused upon the most visible signs of progress since the revolution—health centers and health posts, agriculture collectives, and schools. After the Colloquium ended, the delegation traveled to the Pacific Coast port of Corinto where CIA-executed bombings of the country's primary oil storage tanks destroyed not only five tanks of diesel fuel but also 40 tons of medical supplies. Close to one thousand Nicaraguans lost their lives in 1983 to the contra attacks, including 15 health workers. FETSALUD, the health workers union, maintains a list of members who have fallen in the struggle. It begins in 1978 with the insurrection and includes two internationalist physicians, Pierre Grosjean of France and Albert Pflaum of the German Federal Republic, who were killed in the spring of 1983. In a speech to the American Public Health Association, Dr. Tercero reported that seven primary care units have been destroyed by the contras, construction on 22 has been interrupted, and 24 have been closed because they are in dangerous areas. These figures do not reflect the consequences of the diversion of resources to support the defense mobilization, but, as noted above, the percentage of the national budget devoted to health has fallen almost one third below projected levels. Physical damages to health facilities alone have been estimated to exceed $215,000. The consequences of the diversion into defense were visible in the health care observed by the delegation—the shortages of medications, operations cancelled for lack of suture materials, hospital rounds dominated by questions about which patient is well enough to go home if a bed is needed.

Each loss that the Nicaraguan people suffer, however, is etched in the collective and organized memory. The national women's organization, AMNLAE, is named for a woman martyred by Somoza. Its members comfort each other when...
children, brothers, and husbands fall in the struggle; they keep the highly personalized meaning of those losses alive in their revolution. The proud telling and retelling of stories of lives sacrificed sustains the healing process; the mourning of apolitical middleaged campesinas has taken the form of becoming revolutionaries.

Irna Cardinales Rivera, for example, is a nurse auxiliary at the Carlos Fonseca Hospital in Managua and a member of AMNLAE. Her son, Adolpho Noguera, died near Rio San Juan on Nicaragua's southern border on May 28, 1983. Twice becoming revolutionaries, children, brothers, and husbands fall in the struggle; they keep how “they would not let us bury him.” She added, “We are apolitical middleaged" Pastora attacked very hard. In May (contra leader Eden) the river. They never recovered his body.” From a plastic folder she carried she showed us a black and white photograph of her son.

Another brigadista, a housewife in AMNLAE, told her son’s story—how he was killed by the contra while picking coffee and how “they would not let us bury him.” She added, “We are an organized people struggling for peace. But with stone, machetes, anything we will defend ourselves. This revolution has been pure blood.” She then asked our delegation simply, “Why does Reagan hate us?”

Among all the speeches and commentary we heard, the words of Father Miguel D'Escoto, the Nicaraguan Foreign Minister, answered her question best: “The experts said there could not be a revolution in Latin America... Nicaraguans proved that it was possible not only to rebel but to defeat such a friend of the United States as Somoza... Nicaragua is responding to the deeply felt needs of its people. This ray of hope which is the Nicaraguan revolution... will break the shackles of fear and give inner freedom and spiritual strength to move on... to get the guts to do it. This example—this ray of hope—is why we are a threat... that must be squelched. We must be stopped so the ray of hope can become a sign of discouragement.”

The people of Nicaragua, from the airport stevedore and the proud grandfather in Barrio Sebastian Segura to the nurse auxiliary in Carlos Fonseca Hospital, know from personal experience what Americans have yet to learn, that the not-so-secret war is being waged against an infectious idea: “La revolucion Sandinista es salud”—the “Sandinista Revolution is health.”


9. La Salud en Nicaragua, op. cit.


14. Interview, Dr. Jose Luis Arguello, President, FESOMENIC, Managua, Nicaragua, November 24, 1983.


16. Ibid.


18. La Salud en Nicaragua, op. cit.


28. Ibid.

29. Interview, Dr. Ignacio Ivan Tercero, Vice Minister for Health Services and Public Health, Managua, Nicaragua, November 21, 1983.

30. Garfield and Taboada, op. cit.


33. Instituto Historico Centroamericanico, "The Health Situation in Revolutionary Nicaragua,” envio/in focus, 1-9, 1983.


This article would not have been possible without the help and support of Roberto Belmar, Judy Fawcett, Richard Garfield, Janet Goldmark, Harris Huberman, Barbara Johnston, and the dedicated U.S. organizers of the first U.S.- Nicaragua Health Colloquium.
Medical Brigades for Nicaragua

Progressive health care workers are needed to help build the new Nicaragua. Prerequisites include a commitment of two to four months and ability to communicate with patients and co-workers in Spanish.

For details, contact Committee for Health Rights in Central America, PO Box 1405, 2000 Center St., Berkeley, CA 94704, Tel. (415) 821-6471/864-2428; in New York, Richard Garfield at (212) 694-3944.

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Family Notes

Our congratulations to Board Member Barbara Ehrenreich on her election as co-chairperson of Democratic Socialists of America.

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Since the post office doesn't ordinarily forward magazines, be sure and let us know at least six weeks ahead so you will get your Bulletin. Please include your old address, with zip code. We regret that we can't replace issues not received if you haven't notified us in time. Mail any changes or corrections to Circulation Department, Change Division, Health/PAC, 17 Murray St., New York, NY 10007.
Birth of a Nation
Maternal and Child Health in Nicaragua
by Lauren Poole

"Nicaragua," declared Comandante Tomas Borge, "is a nation of births." As is typical of Borge, one of Nicaragua's top leaders and a poet, this comment in his closing address to the First United States-Nicaragua Health Colloquium was both metaphorical and very concrete.

His country, he was telling us, is giving birth to a new society; new ideas are being born. But at the same time it is a country with an extraordinarily high birth rate, where one third of the population is under five. And twice in this speech he paid tribute to the lay midwives present, underscoring the tremendous emphasis the revolutionary government places on maternal-child health, and their contribution to it.

For the midwives, there is no question that the past four years have been revolutionary. Before the Sandinista triumph, the vast majority of rural women received no formal obstetrical care. If they were attended during labor and delivery at all, it was by a lay midwife—who often knew little more than they did.

"It was really another midwife who was attending at the first birth I saw," Dona Haydee Cruz from the town of Esteli told our workshop of Nicaraguan and North American nurses and midwives earlier on the day of the Borges address, "I went to help because it was a difficult birth. But it went very successfully, and that's how I began this mission, which I've carried on until this very moment."

As she spoke, movingly, eloquently, there was no doubt that she did regard her work as a mission, political and social, as well as a health care profession. "We've lived in two eras," she continued, "the era of Somoza and the present era, that of the Frente Sandinista. In the old era, I became an empirical midwife, without anyone teaching me anything. Everything I knew came from my own experience. In other words, in those days we lived abandoned, a life in which nobody mentioned us and nobody paid us any attention. When the Frente Sandinista appeared among us, we began to cooperate with them."

In her case, this meant offering her home as a meeting place for the revolutionaries and encouraging the involvement of her husband and children in the Frente. All of this at the time was at great risk of death. She continued to attend births.

After El Triunfo, as the victory of the Sandinistas is known, Dona Cruz was asked to be the health responsable for her community, a position which entails coordination of popular health campaigns. In 1983 she became one of the first lay midwives to receive further training under an important new program initiated by the revolutionary government.

Large numbers of lay midwives are currently upgrading their medical skills in government programs. The focus is on aseptic technique and risk assessment of the prenatal, intrapartum,
and postpartum patient. Midwives are now part of the primary care system, referring high risk patients to health centers and delivering lower risk patients at home.

Upon completing the course, the midwives receive a certificate and a delivery kit. The demand for their services is growing rapidly as the value of their training becomes more widely known. The term for them, *partera popular*, people's midwife, declares their relationship to and commitment to the community. One of their responsibilities is to help persuade traditional midwives who have remained outside the new system to sign up for the training program.

Midwife training is only one segment of a campaign to reduce maternal and infant morbidity and mortality which would be impressive in a much wealthier country—not to say one which was not caught up in a debilitating war against U.S.-sponsored counterrevolutionary forces. Other aspects include provision of well-baby and prenatal care in hundreds of health facilities built since 1979; provision of family planning services; massive promotion of breast-feeding, coupled with a ban on pro-formula advertising; more equitable distribution of foods, and food supplementation programs for pregnant and lactating women and young children; construction of oral rehydration centers to treat diarrheal disease; massive immunization campaigns; and assignment of pediatricians and obstetricians to work with generalists in primary care outposts.

To learn about these programs firsthand, a small group of colloquium delegates from the U.S. went 50 miles from Managua. Before the revolution, this distance would have taken us to another world in health care—actually one where it was virtually nonexistent—as well as in other services. Now the Julio Buitrego Urroz rural health center is a major facility for the surrounding area, with an emergency room, consultation and exam rooms, a small laboratory, and seven hospital beds.

During our conversation there with Maria Cecilia Paz, a Columbian nurse who had been working in Nicaragua for two years, and Matilde Mendez, a Nicaraguan physician in her second year of post-graduate social service, we quickly learned that the center's seven beds are most commonly occupied by recovering postpartum patients. Even so, Maria Cecilia told us, the vast majority of rural women prefer to be attended by a midwife. The expectant mother, she explained, prefers to rely on a woman from the community whom she has probably known for years and could ask to stay if needed to help manage the household in the first postpartum days.

So far 20 midwives from the area have gone through the training program; according to Matilde they seem to be more aware of their limitations as a result, and refer patients they feel they cannot cope with. Proper care of the umbilicus has proved to be one of the most difficult aspects of delivery to teach the lay midwives, Maria Cecilia noted: "They were used to using a substance called caniba and to packing the umbilicus after cutting the cord; this caused many infections. Now they have scissors to be used only for cutting the cord and know how to treat the area with alcohol and methylene blue exclusively." She added proudly that there had not been one case of neonatal tetanus among newborns delivered by the local people's midwives.

Besides delivering most of the local babies, the midwives have been helpful in referring women to the health center for family planning services. "Before El Triunfo," explained Maria Cecilia, "the midwives were recruited by the private demographic associations to distribute birth control methods. Now that the Ministry of Health is taking responsibility for these services, the midwives provide basic information but refer women to the clinic to obtain family planning methods and follow-up."

Family planning is a controversial and complex subject in Nicaragua. Most people are Catholic, and the belief that each pregnancy is a blessing and the will of God is quite prevalent. Family planning services also have a bad name because in prerevolutionary days they were almost entirely provided by the international population control agencies, which, in the words of Maria Cecilia, "always had a policy of fewer births so there would be fewer guerrillas."

Complicating the issue still further are two prevailing political positions. One is that women should control their reproduction. The other is that women should bear many children to provide the human resources for reconstruction and development.

Immediately after the insurrection the government adopted a strongly pronatalist position. With a boost from the postwar baby boom experienced in most countries, this pushed the rate of population increase up 50 percent to 4.5 percent a year, one of the highest in the world. Since then the government has become more reticent on the subject, and at present doesn't appear to have a formal policy. Mass organizations are playing a more important role in raising the issue; AMNLAE (the Nicaraguan women's association) and the youth organization have produced and distributed information on anatomy, sexuality, and family planning.

Maria Cecilia and Matilde told us that the number of women asking for family planning services is growing rapidly in their area. Currently oral contraceptives and IUD's are the only methods available at their clinic, "and both methods have met with resistance from some of the men," according to Maria Cecilia, who added, "When they feel the IUD strings they send the women back to the clinic to have it taken out. They won't let her plan her family. They think if she's protected she'll go out with someone else. So the women come and get the pill and take it secretly."

Occasionally, she said, the center supplies cream, foam, and vaginal suppositories, but currently none were available. "In rural areas the diaphragm would be very difficult for us," she noted, "The cost is high, but even more it would be a problem of education for us." As long as the cost of cream or jelly remains beyond the means of most rural women and their availability is sporadic at best, it seems unlikely that the required effort will be undertaken, particularly when the clinic staff has all the work it can handle already.

One of the most striking images we carried away from the clinic was the disposable IUD applicators soaking in antiseptic solution to prepare them for reuse. This was one of many painful examples of supply shortages in Nicaragua, partially caused by, and clearly exacerbated by, the economic and military depredations inflicted by the U.S. government.

Contraceptive choice in Nicaragua may be influenced by these shortages. A presiding obstetrician-gynecologist at the colloquium stated that in 1983 22.1 percent of women between the ages of 15 and 49 were using contraception. Three quarters of these were using the pill, 15 percent the IUD, and ten percent other methods.

These statistics probably include only those women using
1980 AÑO DE LA ALFABETIZACION

adelante mujer con tu participación

ASOCIACION DE MUJERES NICARAGUENSES
LUISA AMANDA ESPINOZA
government family planning services, and almost half of family planning is still in the private sector and not under government control. Although Depo-Provera, a controversial long-lasting injectable contraceptive, has apparently been banned by the government, reports that it is still in use are credible—particularly since international population control agencies active in Nicaragua have used it widely in the Third World.

The rate of self-induced abortion has been high historically, and with it a high incidence of septic abortion. This is common in countries such as Nicaragua where abortion is illegal and contraception far from universal. So far the government has taken no steps to legalize abortion, but women who come into a hospital with an incomplete abortion are no longer detained and questioned as they were before the Sandinista victory. Septic abortions have decreased, perhaps partly for this reason.

It was clear that attitudes are changing, old values are being challenged, and Nicaragua is remarkably open to new ideas on these issues. At the colloquium the lectures on family planning and septic abortions were among the most widely attended, and women's health in general was one of the most popular topics of discussion.

The readiness to accept new approaches is at least partly due to the extraordinary progress which the Nicaraguans have made in the health of mothers and babies in the four years since Somoza was thrown out. Infant mortality has plunged from 121 to 88 per thousand—still very high, but further drops appear certain. Polio has been virtually eliminated through mass vaccinations. Many other childhood diseases have been reduced to a fraction of their former levels.

Certainly serious problems remain. As in other areas of health and the society in general, probably the most serious obstacle to progress is U.S. military and economic intervention. Already scarce resources must be diverted increasingly to national defense, including food supplements for high-risk mothers and infants. Health stations are one of the primary targets of the contras, and many in the border areas have been compelled to close. In 1982 alone 12 physicians were killed. During our visit, the most visible popular health campaign was teaching first aid for war casualties. Preparations for war were evident at all the health facilities we visited—at an oral rehydration unit, one of the many which have reduced gastroenterities from the number one killer of children to number three, there was a makeshift sign indicating that it had been designated as a triage area for war victims in the event of an invasion.

Equally visible throughout the country was the Nicaraguans' desire for peace and a chance to reconstruct their war-devastated country. The commitment to these goals on the part of both the leadership and the people, as well as to enlarging upon already substantial achievements in health care, deeply impressed and moved the U.S. delegates to the colloquium. We came home with new knowledge and understanding, and renewed determination to end our government's covert and overt war against a revolution and a people.
Killing Them Softly

by Jon Steinberg

This February a brigade of 130 Americans helping the Nicaraguans pick their cotton crop suddenly saw a pesticide spraying plane swoop overhead and then felt an ominous moisture fall over them.

"They might not know this stuff is dangerous," said one, "but we do; after all, it must have been manufactured in the U.S.—and it's probably banned there."

"It probably won't hurt us much," added another, "but what about the people here, particularly the kids, who get it all the time over by those houses."

They quickly left the field and marched off to the administration office, where they were assured that the chemical was perfectly safe—a herbicide, not an insecticide. The plantation, which until nine months earlier had been owned by a corporation led by Alfonso Robelo, now a prominent counter-revolutionary leader, had always used such chemicals.

The Americans replied that all pesticides, be they herbicides or insecticides, are dangerous, and asked to see what the plane had sprayed. It turned out to be parathion, made in U.S.A.

The Nicaraguans were genuinely distressed when the effects of paraquat were explained to them and wanted to know more. "Don't go back to that field," they said, even though the spray there had actually only been "drift," from the plane's leaky tanks—which can't be replaced because of the U.S. economic blockade.

A forester from Oregon on the brigade choked a sob and swallowed before he could comment on what he had witnessed. "I've been working in the environmental movement for ten years," he got out at last, "just trying to get people in management to listen to us the way these people did today."

***

Just before he left office, President Carter took several actions of great significance to Central Americans. One was to increase military aid to the Salvadoran junta. Another, more positive, was to sign an executive order requiring written approval of foreign governments in at least some cases before a pesticide unregistered in the U.S. could be exported to their country. President Reagan, as we know, greatly expanded the arms shipments. In his first month in office he also rescinded the minimal Carter restrictions on pesticide exports.

Like the death and destruction wrought by the weapons, the suffering caused by these pesticides is both substantial and impossible to calculate with precision. Central American pesticide consumption is the highest in the world. In 1974 it amounted to 4.4 pounds per person, and there is every reason to believe it is significantly higher today.

For many years, Central American landowners used DDT and other chlorinated hydrocarbons almost exclusively. Their supporters claimed that these poisons not only improved crop yields, they fought malaria. Dieldrin and DDT did, in truth, nearly eradicate the anopheles mosquito in the 1950s; however the heavy use of these pesticides in agriculture, particularly cotton-growing, stimulated the rapid development of resistant mosquitoes. Malaria soon afflicted more people than ever.

Other pests also became resistant, or spread and multiplied because the pesticides destroyed their natural enemies. The response was to use more and deadlier pesticides. Many landowners switched to parathion and other organophosphates, which are 60 times more lethal to humans than DDT is.

In an overcrowded country such as El Salvador, where land is expensive and lives are cheap, housing for peasants is generally hard up against the fields—usually within 350 feet if they are cotton workers. Children play around the flimsy shacks while the spray planes fly over, spewing pesticides which are most deadly to the young and the old.

Parathion attacks the central nervous system. Low levels can cause dizziness, vomiting, tremors, and diarrhea. Higher doses may bring convulsions, paralysis, and death.

Even if they escape direct spray, these people cannot avoid dangerous doses. Such poisons do not break down; they accumulate in the last body to eat them. Corn is grown between the rows of cotton. Cattle graze on the stalks after the harvest. Planes frequently dump leftover pesticide in nearby bodies of water, contaminating the fish; live fish are eaten by peasants, dead ones washed up on the banks are devoured by pigs. Central Americans, who lie at the end of this food chain, now average 11 times as much DDT in their cells as North Americans do.

But the chickens are coming home to roost. The General Accounting Office in Washington estimated some years ago that 14 percent of all U.S. meat and half of all imported green coffee beans are contaminated with illegal residues. According to the Food and Drug Administration, ten percent of all imported foods contain pesticides illegal in the U.S.—and the FDA checks for only about 30 percent of the known carcinogenic pesticides.

The Sandinista government in Nicaragua has made considerable strides in educating peasants about the dangers of
A bath with soap and water is essential after work to avoid contamination of your family.

pesticides and how to minimize them (see the previous Bulletin). The safest approach, of course, is to stop using the pesticides, or at least to drastically reduce the spraying.

This is more feasible than was once realized. Two United Nations agencies, the Food and Agricultural Administration (FAO) and the Environment Programme, have developed a system known as Integrated Pest Management, which relies on techniques such as propagating natural enemies of pests and concentrating pesticides on "trap crops" planted early to attract hungry boll weevils. With careful planning and conscientious effort, IPM can bring in higher yields at lower cost while breaking the pesticide cycle demanding more and stronger poisons each year.

Nicaragua began an IPM program long before the revolution, in 1967, with help from the U.S. Department of Agriculture. After initial surveys were completed, funding from the FAO allowed the Nicaraguans to establish an experimental program for cotton. The growers quickly discovered that the promises of increased profitability were good; by 1972 they had reduced their pesticide consumption by one third - at a time when El Salvador and Guatemala, neither of which had a similar program, were increasing their pesticide use.

Unfortunately, in subsequent years overextension of essential technical personnel (who were paid according to the acreage they supervised) and heavy promotions by the pesticide manufacturers tore gaping holes in the program. Spraying once again began to climb sharply.

The Sandinistas are now reviving and extending the IMP program through a National Committee on Integrated Control. The Committee has recommended thresholds for key cotton pests for an entire area and specific pesticides to control them. This facilitates a systematic attack in an agricultural system in which 80 percent of the cotton is grown on land farmed either independently or cooperatively and only 20 percent comes from state farms.

The Committee has also successfully petitioned the state enterprise responsible for importation of all pesticides to eliminate three quarters of them from its approved list. In addition, the Department of Labor has banned some of the most dangerous pesticides from use in agriculture - DDT, lindane, phosvel, and DBCP. All four were already outlawed by the U.S. government.

These measures by the Nicaraguans would benefit our own health if the U.S. government and U.S. corporations weren't choking off imports from them. Of course, President Reagan would probably prefer that we eat Honduran bananas coated with U.S.-made poisons: "Better dead than Red."

(Information for this article came from Sierra magazine, September/October 1981; Science for the People, November/December 1983; and Circle of Poison: Pesticides and People in a Hungry World, by David Weir and Mark Shapiro.)
Health and Human Rights in El Salvador

(The following is an abridged version of the report of the Second Public Health Commission to El Salvador published in July 1983. The Commission was sponsored/endorsed by the American Medical Student Association; the American Orthopsychiatric Association; the American Public Health Association; Committee of Interns and Residents; DC 37 of the American Federation of State, County and Municipal Employees; the Massachusetts Nurses Association; the National Association of Social Workers; and Physicians' Forum. The members of the 1983 Commission were Carola Eisenberg, M.D.; David C. Halperin, M.D.; Anne Hargreaves, R.N., M.S.; Frances Hubbard, B.S.; Jim Mittelberger, M.P.H., M.D.; Joanne Palmisano, M.D.; and John Stanbury, M.D.)

Health Care and Politics, 1979-1982

On October 15, 1979, a bloodless coup d'état led by reform-minded military officers overthrew the government of General Carlos Humberto Romero. The Romero government was one of a succession of military dictatorships in partnership with a small landed oligarchy.
that has controlled most of the nation's wealth since independence from Spain in 1821. In 1932, an uprising of peasants and workers challenged this control but was suppressed by military and paramilitary forces, who killed approximately 20,000 people.

The roots of the country's present strife trace back many decades. In this markedly stratified society, two percent of the population owns 60 percent of the land, while 80 percent of the population earns less than the minimum needed to buy the necessities of life. Salvadorans, living in the most densely populated country in the Western hemisphere, have the lowest per capita caloric intake in Latin America. It has been reported that in the countryside, 73 percent of children suffer from malnutrition; 60 of every 1,000 infants die; more than 250,000 families (39 percent of the rural population) live in one-room dwellings; and only 37 percent of families have access to potable water.

The 1979 coup marked the first time in El Salvador's history that civilians were asked to join with military officers in the governing junta. The coup also brought many public health-oriented physicians into government service for the first time. However, the traditional power groups that have always dominated Salvadoran society—the land-owning oligarchy, its military supporters, and paramilitary forces—retained political control. Attempts to institute basic public health measures were resisted, as were reforms in land distribution, housing and community development.

In January 1980, two of the three civilian junta members resigned, along with most of the cabinet and many officials, accusing the junta's two military members and Defense Minister Jose Guillermo Garcia of sabotaging the democratic process. In swift succession, the military replaced these departed civilians with others content to compromise with the military and the oligarchy it protected. Repression and assassination soon reached unprecedented levels, according to the Human Rights Commission of El Salvador, Amnesty International, and other groups, and more than 25,000 people were killed by the junta's security forces and allied paramilitary death squads between January 1980 and June 1981.

Throughout the early months of 1980, the health care sector also became a target for selective repression. The Regional Health Director for the Eastern Zone of El Salvador, Dr. Hector Silva (an obstetrician-gynecologist trained in the U.S.), undertook the routine public health activity of testing for cervical cancer in women. His request to the central Ministry of Health to follow up on positive cases was rebuffed; he was told that he was “creating a social problem by finding all of this cancer.” He was unwilling to comply with the order to suspend cancer screening. Soon afterward, his name appeared on a death list. He had to flee the country and remains in exile.

Armed incursions into medical centers were conducted by right-wing groups. Patients suspected of being subversive were either murdered on the spot or kidnapped for torture and assassination.

Doctors, nurses, and medical students who persisted in their efforts to provide quality health services and to build a health care system to meet the needs of the majority of Salvadorans were branded as subversive, threatened, and harassed. Those who were fortunate had time to flee the country; the others were assassinated at work or at home, or were “disappeared.”

These repeated violations of medical neutrality prompted 8,500 Salvadoran health workers to form the National Committee for the Defense of Patients, Workers and Health Institutions. But organizing a national group to protest the violence against the health sector could not stop the bloodshed. On May 15, 1980, while performing an operation, Drs. Miguel Angel Garcia and Carlos Ernesto Alfaro Rodrigues were kidnapped from the social service hospital in Cojutepeque. When found, one doctor was dead and the other never regained consciousness before dying; both had been tortured.

In response to those assassinations, the National Committee called a work stoppage on May 21, 1980 to demand guarantees for: the physical and moral integrity of patients and all health workers; the right and obligation of health workers to render professional aid to all people on demand; the inviolability of medical establishments; and an end to the militarization of hospitals.

However, the repression deepened. One month later, the Salvadoran Army entered the National University campus—which includes the nation's only medical school—opened fire on students, occupied the buildings, and ransacked equipment, libraries and records. To this date, the National University and its medical school remain occupied by government security forces, thus preventing the training of new physicians or other health professionals. Since most rural health care was provided by medical students in their final, or social service, year, the government's action effectively cuts off health services to the countryside, where most Salvadorans live. In addition, medical school graduates were the major source of interns and residents to staff the country's hospitals.

Health Care Facilities

The hopes raised by the October 1979 coup for social improvements, including public health throughout the country, were short-lived. While the country's health care has long been inadequate, in the two years since the first Public Health Commission's visit overall health conditions have deteriorated markedly.

1. Urban Areas. A severe crisis exists in El Salvador's hospitals. Although the government ordered all hospital directors on June 15, 1982 to refrain from making statements about health to the media, the director of San Rafael Hospital in Santa Tecla nevertheless told journalists that "the situation has reached alarming proportions." In announcing his resignation, Dr. Corbilio Tomasino reported that at his hospital, "we even lack funds to feed our patients." Subsequently, the Minister of Health and Social Welfare, Col. Fernando Berrios Escobar, acknowledged that the case of San Rafael Hospital was not unique.

At the Maternity Hospital we observed about 20 women in various stages of labor. Two or three women occupied each bed. Women in labor sat together on a hard bench until shortly before delivery, when they walked up a steep flight of stairs to the delivery room. If they could not pay the fee for admission to the hospital and for medications, they were sent home immediately after they had delivered.

The poor general health and nutritional status of Salvadoran women, as well as the lack of prenatal care, account for the high incidence of premature births and other neonatal problems. Nonetheless, only six primitive incubators in poor working condition were available. The death rate of infants admit-
tended to the sick newborn nursery approaches a staggering 80 percent.

Staff was emphatic about the lack of anesthesia, basic medications and equipment.

At Rosales Hospital food and medicinals were in limited supply. Pharmacists told us that supplies of antibiotics, analgesics, insulin and vitamins were especially short. The outpatient hospital pharmacy had no drugs to fill prescriptions. When available, medications—even those distributed by the Ministry of Health—were exorbitantly priced, relative to the limited income of the Salvadorans.

Shortages of supplies and personnel also handicapped the laboratory which could usually run only the most elementary and necessary tests. It would have been considered primitive even by 1910 standards. Nurses and physicians in the operating and recovery rooms noted shortages of anesthesia, oxygen, antibiotics, sutures, and blood.

2. Rural Areas. While the Ministry of Health had formerly supplied 85 mobile health units to those areas of the countryside under the government's military control, only a handful of the units were operating at the time of our visit. Because the Medical School of the National University has not been reopened, there will be no medical students in their final social service year to staff the rural clinics.

Representatives of the refugee relief service of the Lutheran Synod of El Salvador informed us that in a rural area served by one of their clinics, infant mortality now reaches 60 percent, and that 40 percent of newborns are below the internationally accepted birth weight limit of 2.5 kg (5.5 lbs.). One third of their patient population has clinically apparent anemia.

While some of this may be due to parasitic disease endemic to rural communities in developing countries, most is doubtless due to protein and iron deficiencies associated with inadequate caloric and protein intake.

Salvadoran government forces, operating with U.S. military advisers, are destroying crops and livestock and displacing or killing the peasants who work the land. The abandonment of farms contributes to the deteriorating nutritional state of the population and the attendant rise in disease rates. We anticipate that as malnutrition worsens, the child population will become increasingly vulnerable to the lethal effects of even the common communicable diseases. In addition, this military tactic is creating a mass of displaced persons and refugees now approaching 15 percent of the nation's population.

Repression of Health Workers

Health workers said that any criticism of the government carries the risk of being labeled an insurgent or a supporter of the opposition. This label in turn can lead to loss of one's job or reprisal by government or paramilitary forces. Even engaging in health planning, such as the collection of statistics on the incidence of disease, renders health workers liable to reprisal.

1. Exiled Salvadoran Physicians. Twelve physicians living in exile met with us in Mexico City just prior to our visit to San Salvador. They are very well educated, talented, and socially committed physicians who would be of value to any health care system. Most had advanced or highly specialized training and some had held post-doctoral training positions in the United States. Many had been professors in the Medical School and former officials in the Ministry of Health.

They estimated that 30 to 40 percent of El Salvador's physicians have left the country since the government closed the National University and Medical School in June 1980. Every one of these 12 physicians had received death threats prior to leaving, but no one knew what his "crime" had been.

2. Nurses. Representatives of the El Salvador Nurses (ANES), which is affiliated with the World Health Organization's International Council of Nurses, told us of their growing fears of attacks by the government. The Association responded to a wave of kidnappings of nurses by placing an advertisement in El Diario de Hoy, a newspaper in San Salvador, on September 24, 1982:

Deeply concerned by the kidnappings that have been going on for some time against members of the Nurses Association, we urge those responsible for these acts to respect the physical and moral integrity of the missing persons and at the same time consider the valuable service that they have been giving to the health of the Salvadoran people.

3. Religious Workers. The Catholic Church operates clinic and refugee centers in urban and rural areas, although government restriction and harassment has forced curtailment of services in the countryside. At an urban clinic we visited, five physicians see 150 to 200 patients per day. Religious women who are nurses make house calls for the very ill. Because this clinic services poor people, its workers are branded as communists and abused. Nuns also reported that large groups of armed soldiers had invaded and ransacked the clinic several times. Bullet holes scarred the walls.

Workers at another clinic reported that patients had to pass
through a government security post. As the patients passed machine guns, the soldiers harass them on the pretext that the clinic secretly treats guerrillas. People in the surrounding community have been kidnapped and killed, and many residents are afraid to use the clinic.

Physicians Available
The number of physicians per unit of population in El Salvador had been far below the average for Latin American nations even before the exodus of physicians due to intimidation. The Pan American Health Organization reports El Salvador had only 2.9 doctors per 10,000 population in 1980. At the very time when the civil war accentuated the need for medical services, the training of physicians ceased. *(See following report by Mervyn Susser for further details—ed.)*

Filling the vacuum left by the closing of the National University are 27 private or commercial institutions, four of which define themselves as medical schools. Because they accept only students who can pay their exorbitant fees, these schools exclude from their classes many of the people most concerned about El Salvador's health problems. These so-called medical schools are new facilities with neither laboratories nor libraries; they give no final examinations. We had no way of ascertaining the quality of their education. However, once the Ministry of Health certifies the adequacy of a school, graduation is considered sufficient evidence of competence; no certifying examination is required to begin practice.

Refugees
Salvadoran refugees now number 800,000—almost 20 percent of the population—within the country and in exile.

The Santa Tecla camp is one of several refugee centers within the environs of San Salvador. Located about 12 miles from the center of the capital, the camp is an old playground about three acres in area. Shelter for the refugees is provided by one-room tin-roof sheds or canvas structures. There was no evidence of sanitary facilities.

About 1,200 to 1,500 people were living at the camp at the time of our visit.

Under the Emergency Feeding Program of the U.S. Agency for International Development (AID), $6.8 million in food is being shipped to El Salvador, $3.9 million of this in fiscal 1982. We were informed by AID officials that the program provides soy flour, corn meal, rice, powdered milk, and cooking oil for refugees. However, we saw none of this food aid at Santa Tecla; neither the Green Cross worker nor the refugees had ever heard of the AID food. This absence may be due to the anomalous distribution system: an AID official told us that, in his experience, El Salvador is the only nation in which food aid is distributed by the military.

The camp population was mostly women and children, with very few adult males. A number of the infants appeared to be extremely ill. Indeed, one of us who has had more than 30 years' experience observing nutritional problems in Latin America and Central America had never seen children so sick in famine areas, except in hospitals. Most of the children had head lice. Many had scabies, fungus infections, and impetigo. Most had the rough, hyperkeratotic skin typical of vitamin A deficiency, a well-documented problem of El Salvador's rural population for many years. Dental caries was severe, attributable to the common practice of chewing sugar cane.

Many refugees were clinically anemic, and most displayed the apathetic behavior characteristic of the malnourished. Although there were swings and see-saws remaining from the old playground where the camp was situated, there was little or none of the play one expects of youngsters on a pleasant sunny afternoon. There was no schooling.

The children were so sensorily deprived that they reached out to touch our clothes. Most were in various forms of undress. They all appeared apathetic, lethargic, and malnourished. Babies tried to suckle dry breasts. Adolescent girls often appeared to be only eight or nine years old.

We conducted a brief nutritional survey of about 85 infants and children. The data indicate that for both males and females, malnutrition affects the great majority of refugees. Several parameters of nutrition were used. Height-for-age measurements indicate that 98 percent of the children were malnourished, 29.4 percent of them severely so by World Health Organizations standards. Our weight-for-age measurements also indicate malnutrition in 85 percent of the children.

Political Prisoners
Our own physical examination of inmates confirmed specific instances of torture. Though some of the political prisoners had been held for nearly two years, none had been convicted or sentenced for any crime. None knew how long incarceration would last. Relatives of prisoners were threatened after visits, while others had been abducted and murdered. We found children in prison, contrary to Salvadoran law. The medical treatment afforded prisoners is at best inadequate, and psychiatric care is unavailable.

Because the prisons are administered by the Ministry of Justice, the Commission first requested to meet with the Attorney General of El Salvador to ask about treatment of political prisoners. However, he denied having any jurisdiction over prisoners, and stated that they were under the direct control of the National Police and other security forces operating under the authority of the Ministry of Defense. Yet, when we met with the chief of National Police, Col. Lopez Nuila, he insisted that the prisons are indeed under the Ministry of Justice and that he, as chief of National Police, had charge only of the interrogation centers. He cited inspection visits by the International Committee of the Red Cross (ICRC) to the centers as evidence of an open and aboveboard police operation, and categorically denied that men under his command tortured political prisoners. Two hours after this meeting, we examined a woman at Ilopango Prison who bore physical evidence of recent torture. Notwithstanding Col. Nuila's assurances, she told us that she had been interrogated at the National Police headquarters by Col. Nuila himself, who then turned her over to guards for torture when she refused to answer questions.

We find it ironic and unacceptable that Col. Nuila is a member of the Salvadoran government's Commission of Human Rights. This agency, whose members are appointed by the government, was formed in late 1982, reportedly under pressure from the Reagan administration, to demonstrate the Salvadoran government's interest in human rights. However, since the National Police is part of the Ministry of Defense, military influence now extends even to the agency responsible for recording and documenting the human rights of
Salvadoran society that escapes control of the military. The legal and judicial safeguards that guarantee an accused person certain rights of due process simply do not exist in El Salvador; the military has suspended them.

Although conditions at the prisons are far from comfortable, the worst maltreatment does not occur there. It is during interrogation—several days to three weeks—at the National Police headquarters or at special centers of other security forces that torture takes place. Most political prisoners do not survive this initial period; their mutilated bodies are later found along the country's roadsides.

All the prisoners we interviewed were convinced that they were going to be killed during interrogation. Many told of being subjected to the capucha, a rubber hood that induces asphyxiation. All had experienced mock executions.

The women described what appears to be a uniform pattern of capture and torture that included the following elements: sudden, violent abduction; immediate blindfolding; being left for long periods in cold dirty spaces while deprived of food and sleep; beatings and electric shock; sexual abuse including repeated rape; and mock executions.

A breakdown of the women prisoners' occupations reveals:

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Businesswoman</td>
<td>4</td>
</tr>
<tr>
<td>Social worker</td>
<td>1</td>
</tr>
<tr>
<td>Seamstress</td>
<td>5</td>
</tr>
<tr>
<td>Professor</td>
<td>10</td>
</tr>
<tr>
<td>Cosmetologist</td>
<td>2</td>
</tr>
<tr>
<td>Executive secretary</td>
<td>1</td>
</tr>
<tr>
<td>Journalist</td>
<td>1</td>
</tr>
<tr>
<td>Domestic</td>
<td>15</td>
</tr>
<tr>
<td>Student</td>
<td>21</td>
</tr>
<tr>
<td>Laborer</td>
<td>3</td>
</tr>
<tr>
<td>Public employee</td>
<td>2</td>
</tr>
<tr>
<td>Lawyer</td>
<td>1</td>
</tr>
<tr>
<td>Tailor</td>
<td>1</td>
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<tr>
<td>Bach. Arts</td>
<td>1</td>
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<tr>
<td>Bach. Commerce</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>17</td>
</tr>
</tbody>
</table>

We were struck by the intelligence of the women and their dedication to public service in their communities and workplaces. It was apparently for this service that they found themselves at Ilopango.

Copies of the complete report can be obtained for $2 each plus $1.50 per order for postage and handling from the Committee for Health Rights in El Salvador, 66 West 87th St., New York, NY 10024.
So many valuable new publications have come to our attention that we only have space for a brief listing of them.

**Women's Health**—*Childbirth Choices* gives information on various alternatives and pointers on how to compare hospitals, birth centers, and other health care providers. Copies are $4.95 from CHOICE, 1501 Cherry St., Philadelphia, PA 19102.

*Safe Natural Remedies for the Discomforts of Pregnancy.* The average pregnant woman in the U.S. takes four to six over the counter drugs. This 30 page illustrated booklet suggests ways to avoid using them. Available from the Coalition for the Medical Rights of Women, 1638 B Haight St., San Francisco, CA 94117 for $2 plus $0.75 postage.

*A Mother's Handbook: Combining Breastfeeding with Work or School* has just been published in conjunction with a campaign to promote breast feeding among low-income women. Single copies are $4.50 plus postage from the Wisconsin Nutrition Project, 1045 E. Dayton St., Room 204, Madison, WI 53703.

**Occupational Health and Safety**—*How to Inspect Your Plant and Hazards in the Metal and Electrical Industries,* just out, are excellent, very readable pamphlets written for workers. The basic message is use the law, but rely on yourselves and your union with the help of the information these pamphlets provide. *How To Inspect* is $1 and *Hazards* is $1.50, postage included, from the United Electrical, Radio and Machine Workers of America, 11 E. 51st St., New York, NY 10022.

*Our Jobs, Our Health: A Woman's Guide to Occupational Health and Safety* is a brand-new, much expanded version of the chapter on the subject in *Our Bodies, Ourselves.* Produced by the Boston Women's Health Book Collective and the Massachusetts Coalition for Occupational Safety and Health (MassCOSH). Single copies are $6 for institutions and professionals, $4 to unions, non-profit organizations, and laypersons plus $1 postage per book from BWHBC Dept. OH, Box 192, West Somerville, MA 02144.

*VDT News* is a for-profit newsletter, the only one on the subject, published for the first time in January 1984 in 32 pages by the company that puts out *Microwave News.* Subscriptions for the bimonthly are $18 for individuals and $75 for institutions (all orders must be prepaid) from PO Box 1799, Grand Central Station, New York, NY 10016.

*Hazardous Exports: Here, There and Everywhere* is a packet of article reprints and resources concerned with the export of hazardous substances and the use of low-paid women to perform debilitating work in Southeast Asia by American corporations, a list of organizations working on this problem and their activities, and a bibliography for further reading. Copies are $5 for postage and handling (make checks out to the Coordinating Committee on Toxics and Drugs) from Learning Resources in International Studies/CCTD, 777 UN Plaza—Suite 9A, New York, NY 10017.

*Pill-fering the Poor: Drugs and the Third World,* just out from the Interfaith Center on Corporate Responsibility, explains that although multinational pharmaceutical firms have made important contributions to health, many of their practices in the Third World leave much to be desired. Among them: high prices, peddling dangerous drugs banned in the country where the profits go, and little interest in research on needed remedies. Copies of this "Information/Action Pack* are available for $4 plus $1.50 postage from ICCR's International Health Program, 475 Riverside Drive, Room 566, New York, NY 10015.

**Mental Health**—The Wisconsin Clearinghouse publishes many inexpensive pamphlets on various aspects of mental health, from *Depressive Disorders: Causes and Treatment to What You Can Do: A Citizen's Guide to Community Organizing for the Prevention of Alcohol, Other Drug, Mental Health, and Youth Problems.* For a free list, write them at Box 601, 1954 East Washington Ave., Madison WI 53704-5291.

*The Self-Help Group Sourcebook,* 1983 lists over 1000 contacts for self-help groups in New Jersey for everyone from recent widows to parents of children with PKU. Copies of this 140 page book are $15 from the New Jersey Self-Help Clearinghouse, Attn: Sourcebook, St. Clare's Hospital CMHC, Pocono Road, Denville, NJ 07834. Checks should be made out to St. Clare's Hospital.

**Sex**—*a book about sexually transmitted diseases* was written for Canadians, but the bulk of this pamphlet by this non-profit 15 year old women's health collective is of interest to men and women everywhere. Copies are $2, including postage and handling, from Montreal Health Press, Inc., P.O. Box 1000, Station La Cite, Montreal, Quebec, Canada, H2W 2N1.

Democratic Socialists of America will be holding a *Socialist Scholars Conference* April 19-21 at Borough continued on page 42
The University
The University has been closed and occupied by the Armed Forces for three years. It was a national university with very low tuition, a program of open admissions, and the traditional autonomy that had been accorded to universities in Latin America ever since the signing of the Treaty of Cordoba in 1918 in Argentina. That treaty accorded autonomy to the universities of Argentina, and the concept gradually took hold right across Latin America and was given concrete form in laws and constitutions. The concept was extended to encompass the freedom of university administrations to determine their curricula, to manage their budgets, to appoint their faculty, to admit their students, to manage their extracurricular affairs, and, finally, to have control over the physical environment of the university. This autonomy is far greater than anything North American universities are accustomed to or familiar with.

As a result, the Latin American university has become a kind of sanctuary. Under many of the dictatorial regimes across the continent, the university campus was the only place where a pluralistic dialogue could occur. Not unnaturally, in the face of severe repression, there was often a high revolutionary content in the ideologies expressed, the arguments presented, and the political organizations developed on university campuses. This has usually been tolerated up to a point, when military intervention by the dictatorships has brought the whole process to a stop—as for instance in Chile after the Pinochet coup, or in Mexico before the 1972 Olympics, and indeed, in El Salvador in 1979.

When the National Guard occupied the University campus, 30 or 40 people were killed. The University was evacuated, and the faculty and students departed. The military has remained in occupation ever since. Gradually the books and equipment have been looted, plumbing ripped out and stolen, and sometimes wanton destruction pursued. The dental school is like a Dali landscape: in one large hall there were three rows comprising about 60 dental chairs. These have been ripped out, some of them partially decapitated, some of them entirely removed.

Of course the destruction was not merely wanton. Much of the equipment is believed to have been sold to some of the 26 private universities that have opened to replace the National University. In the libraries bookshelves were pulled out and the books left piled on the floor. Windowpanes were then also looted. In these buildings the rained poured in through the unglazed windows and flooded the books. Hence there is great loss to the libraries. The surviving Anatomy and Biochemistry libraries housed off campus have a total of some 300 volumes, a small fraction of what was previously available.

The University continues its functions as best it can off campus. A substantial number of the faculty have disappeared, abducted and arrested or killed. In the Department of Preventive Medicine, four of 12 faculty members have suffered one of these fates. Another more subtle depletion of the faculty has resulted from offers of teaching positions at the private universities. Although these professors continue to draw salary from the National University, they teach in the private university.

It is obvious that a great deal of dedication and devotion on the part of the core administration and faculty has been required to keep the University alive. This is done in a sort of University of the Diaspora. The University has rented some 12 or more separate sites across San Salvador. Students are still enrolled and the rents are paid from collections organized by the students. The Medical School, for instance, is dispersed in 4 separate buildings. Anatomy and Biochemistry occupy the 2 floors of an old parking garage. They now own 12 microscopes of a previous total of some 4-500 at the medical school. The preparation room for specimens and for cadavers for dissection is a small nook virtually devoid of equipment.

Even now in El Salvador virtually no one (excepting the Association for Private Enterprise) challenges university autonomy in principle. It is only the operation of this particular university in these particular circumstances which is under question. It seems as though, among the higher classes, the principle of university autonomy is so well established that it would be like challenging, let's say, the principle of democracy in the United States. So the challenge is seldom raised openly.

In January of this year, the Constituent Assembly elected in March, 1982 voted to set up a commission to open the University. However, since that time there has been much backing and filling.

We gathered an interesting range of opinions about this situation from everyone in authority; from the President through the Minister of Defense (General Vidas Casanova), ANEP (the national association for private enterprise), and officials of the U.S. Embassy. The general argument runs that the University was a center of subversion; that it was a cache for

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arms; that training and recruitment of guerrillas took place there; that guerrilla leaders were seen on the campus with armed body guards.

President Magana has stalled the Commission and he gives as his explanation the following: that as a university man himself for 12 years, he supports the University; he wants to see it open, he supports the idea of autonomy. However, since the University was a center of subversion, one must anticipate that it may become so again. In fact, there is evidence that the guerrillas, having failed in the field and in battle, are moving back into the cities to try and generate support from mass organizations, and that one of the main channels they propose to use is the University. In this situation, he feels that he cannot go to the ministers of Defence and the Armed Forces—although they will obey him if he gives the order—and tell them that they must restore the campus to the University, without first obtaining guarantees from the University that there will be no more subversion. His proposal is for the University authorities to undertake that for a period of 6 months there will be no activity but in the classroom, except perhaps for sport. After that a gradual evolution to full autonomy may be possible. Mind, he says, this was no more than a suggestion, not an invitation. However, he cannot give hostages to fortune by risking the outbreak of subversive activity on the campus, in view of the likelihood of a military reaction to such subversion. So why won't the University authorities be sensible? When the military was threatening to take over the campus of the University of Central America because that too was subversive, the President managed to stop that by calling an assembly of the bishops of El Salvador (UCA is a Jesuit Catholic university, and the only remaining institution with respectable status in the country that is devoted to social justice and that is working legally and in the open to attain it. This activity is no longer possible for any other institution but the Catholic Church. Even they carry out their mission in extreme jeopardy. You will know of the assassination of Archbishop Romero—universally attributed to Roberto d'Aubuisson, and of the killing of four American nuns, and of several priests, the first in 1976.

The Archdiocese maintains an office for the care and protection of refugees, and it also maintains an office for the protection of legal rights, which goes under the name of Tutela Legal. This body, under the direction of a woman, Maria Julia Hernandez, takes detailed depositions from every victim or victimized family which reaches them, and records in detail the facts of the abduction, murder or arrest. They then follow through and try and confirm information, and in the case of abduction, try to discover where the individual might be, whether dead or alive.

They also compile statistics of killings, abductions, torture and arrests. One should know that this is extremely difficult because the judicial system is more or less suspended in the case of suspected subversion. Decree 507 permits the arbitrary arrest of individuals without charge, and their maintenance in prison for at least 180 days, which is renewable.

They are aided by an unofficial committee for human rights which has quarters in the Archdiocese. This committee published the names of persons who had disappeared in the past three years. It is from these two organizations that we have heard of the assassination of Archbishop Romero—universally attributed to Roberto d'Aubuisson, and of the killing of four American nuns, and of several priests, the first in 1976.

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The Human Rights Commissions

Human rights is another touchstone or litmus paper issue in El Salvadoran society. This issue bears closely upon the Church, the one remaining institution in El Salvadoran society that is devoted to social justice and that is working legally and in the open to attain it. This activity is no longer possible for any other institution but the Catholic Church. Even they carry out their mission in extreme jeopardy. You will know of the assassination of Archbishop Romero—universally attributed to Roberto d'Aubuisson, and of the killing of four American nuns, and of several priests, the first in 1976.

The Archdiocese maintains an office for the care and protection of refugees, and it also maintains an office for the protection of legal rights, which goes under the name of Tutela Legal. This body, under the direction of a woman, Maria Julia Hernandez, takes detailed depositions from every victim or victimized family which reaches them, and records in detail the facts of the abduction, murder or arrest. They then follow through and try and confirm information, and in the case of abduction, try to discover where the individual might be, whether dead or alive.

They also compile statistics of killings, abductions, torture and arrests. One should know that this is extremely difficult because the judicial system is more or less suspended in the case of suspected subversion. Decree 507 permits the arbitrary arrest of individuals without charge, and their maintenance in prison for at least 180 days, which is renewable.

They are aided by an unofficial committee for human rights which has quarters in the Archdiocese. This committee published the names of persons who had disappeared in the past three years. It is from these two organizations that we have heard of the assassination of Archbishop Romero—universally attributed to Roberto d'Aubuisson, and of the killing of four American nuns, and of several priests, the first in 1976.
mission was very revealing. In introducing their function, they
gave us a small homily on the question of violence and brutality, and emphasized that the phenomenon was a cultural one.
Violence occurred right across the world, and the nature of
the violence was intimately related with the cultural level of
the country. We should be aware that the cultural level in El
Salvador was very low and that this was the central problem
that they had to deal with.

The whole presentation and the question and answer pro-
cedure that followed seemed to me to be no more than an at-
tempt to interpret and explain away the statistics that had been
produced by Tutela Legal. In fact, the Human Rights Com-
mission relied virtually entirely for its statistics on Tutela Legal
and apparently did little to collect its own statistics. (One ex-
cuse is that its budget is very slender.) But when HRC dealt
with the statistics—for instance in their attempt to explain the
25,000 deaths that had occurred in the first 6 months of this
year owing to violations of human rights—the procedure was
directed toward explaining the potential weaknesses and er-
rors in the data (Delgado said: “well, one must allow a 20% error in any of these data”), and towards reinterpreting some
of them, for instance, by attributing errors of classification to
Tutela Legal. TL allegedly had assigned deaths occurring in
combat to violence by the Armed Forces. Tutela Legal pointed
out that the Armed Forces seldom produced the bodies, ex-
cept for some occasions when pressed, and they turn out to
be women and children.

The central revelation about the Human Rights Commission
came when one asked of the more than 500 cases on their books, how many had been properly investigated and pursued? First, Commission members pointed out that they had no right to actually pursue a case; once they had investigated it, they referred it to the courts. Second, they did not actually solicit these depositions about human rights, and they did not seek out cases for themselves. The upshot was, after some questions, that in all they had taken up in investigation of seven cases up to the time that we met them, that is, less than one a month. Meanwhile, there are 4000-5000 deaths and disappearances per month.

Refugee Camps

I want now to return to the question of the low cultural level attributed to the people of El Salvador by Human Rights Commissioners, the Minister of Defense, and others. We visited three refugee camps. But we spent sufficient time to talk in only two, and in one we failed, I believe, to get any meaningful information. This was in San Vicente and the reason there was that we were accompanied and escorted by the Military. The result was that no one was going to risk his or her neck by speaking out, although conditions were obviously pitiful, food was scarce, and jobs were not available. We saw a group of people with the morale to be expected of those confined in hovels away from their own homes, often for three or more years.

In another refugee camp, however, we had a remarkable experience. This is the Church of San Rocce, where more than 400 people are confined in space that I estimate to be less than 5,000 square feet. When they put their mattresses down at night there is nowhere to walk and the babies are slung up in hammocks. These people have lived in that confined space for up to three years, and seldom leave the place except for very special occasions and under escort.

These are refugees who have come to seek the help of the church. Indeed they seem to get it. They clearly have a strong and trusting relationship with church officials and others who come to help them. Their social relationships seem excellent; the children are better cared for and do not show the signs of malnutrition to be seen in other refugee camps; and morale, generally, seems to be quite remarkable.

Because we were in the company of church people whom they trusted, these people opened up to us in a way that no other peasant did. Their tales were horrifying; they had fled, they told us, because of the way in which the Army razed any area that it entered, mutilating women and children, killing everything in sight, destroying houses and animals. They, too, told us that their numbers were still growing from people who were fleeing the Army. They were quite specific in specifying the Army; the guerrillas were the ones, they said, who protected them.

One of the most instructive passages in our exchange with these people came when they were asked what would be the solution. Would it be good if the Army won? No, that would only continue the death and destruction intensified by the supply of U.S. aid to the Military. Would it be good if the guerrillas won? No, the conflict could only continue. For peace, it was absolutely essential to have dialogue. The final comment was that of an illiterate old peasant who said, "If we could have peace, we could forgive everything. We could even forgive President Reagan." So much for low cultural level.

Medical Care

There are regional hospitals in each of the 14 departments which provide so-called secondary care. Tertiary care is provided at the center in one hospital in San Salvador. Radiating out from the regional hospitals is a system of health centers, supposedly 190 or more, staffed by doctors and nurses; and then radiating from these health centers are health posts, staffed by auxiliary nurses with one year's training. According to AID, the great majority of these, 85 percent, are in operation—we had exactly the converse number from the Military in San Vicente for that department, and also from other sources, who told us that the rural people have virtually no access to medical care nor to hospitals.

I visited the regional hospital in San Vicente, courtesy of the military. The director was away, and I was escorted around by a major, trained in general surgery and thoracic surgery in Philadelphia, who had been assigned to the hospital that week. He was eager to show me that there were virtually no supplies of pharmaceuticals in the hospital. He had gotten three cases of meningitis in children just that week, and there had been no penicillin to treat them. A supply he brought from the Army was saving their lives. My visit to the dispensary showed that there was indeed an extreme paucity of drugs for a hospital with some 120 or more beds.

I was also looking for prisoners of war—as I had been throughout the trip, without discovering any. I believe the Salvadoran Army has taken no prisoners in the past. It was said there were two guerrillas in the hospital. I was shown one empty bed; this guerrilla was said to be somewhere else. Then I was shown another patient, paraplegic with severe contractures and decubitis ulcers, in a terrible state resulting from past neglect. It turned out that he had indeed been abandoned by the guerrillas, but he was in fact not a guerrilla but a prisoner taken by the guerrillas who had finally abandoned him when they could no longer look after him.

To me, the most remarkable thing about this hospital, which I don't believe I've seen anywhere else in the dozens of hospitals I have visited in Third World countries, was the fact that it was markedly underoccupied. Many mattresses were turned back and some wards were half empty. The surgeon pointed out that for lack of resources they never undertook elective surgery—with bad results, because cases such as gall bladders, became infected and much more complicated and difficult. If one wanted elective surgery, one was sent on to the city of San Salvador. But there was no good explanation for the emptiness of the hospital beyond the lack of resources. I don't think it is a problem of medical staffing because aside from the Military, there are 12 residents assigned to the hospital. Is it simply a matter of resources? Or are people afraid to use any facility which is ultimately in the charge of or connected with the Military?
Doctor Behind the Lines

(Charlie Clements is highly improbable in description but totally believable in person. A graduate of the U.S. Air Force Academy, he went to Vietnam as a pilot. After returning, he attended medical school at the University of Washington, graduating in 1980, and served as president of the American Medical Students Association. Below are his more recent experiences, described to Sally Guttman and Barbara Caress for Health/PAC.)

As part of my work while president of AMSA, I had been speaking out about abuses of medical neutrality in El Salvador—the military had closed and occupied the country’s only medical school, among other things. Later, as a family medicine resident in Salinas, California, I began to see Salvadoran refugees in my practice. Many of them still bore physical and psychological marks of torture which, for me, transformed abstractions of repression into something very human.

When the Reagan Administration came into office, there were calls for a “quick military victory” to “re-establish U.S. credibility.” Military advisors and helicopters were dispatched. The rationale, “If we don’t stop them in El Salvador, we’ll have to stop them at the Rio Grande,” was an echo of what I had heard and responded to as a young man, and a Vietnam-like war seemed a real possibility.

When I left the war in Vietnam, my revulsion against all that had happened and how insensitized people become in the midst of war led me to make a commitment to non-violence. Many years later I became a Quaker.

Within my commitment, I wanted to do something for the people of El Salvador. Aid groups ruled out service to refugees within El Salvador, pointing out the plight of health workers oriented toward the poor and displaced there.

Would I consider working in a guerrilla-controlled area? Was it a contradiction to have a commitment to non-violence in the midst of violence? Was it hypocritical to demand of others what I wouldn’t do—defend myself? Would working with the guerrillas romanticize what I already knew to be the horrors of war, or aggrandize violence as a means of social change? In the end I realized that these were intellectual questions that couldn’t be answered in the abstract and, regardless of other implications, as a Quaker and a physician I had a role bearing witness and healing.

The negotiations with the Revolutionary Democratic Front (the political coalition ranging from left Christian Democrats to Marxist-Leninists allied with the guerrillas—ed.) took place in Mexico City. Their natural suspicion of a North American—a former military man at that—were eventually resolved. My work with farm workers in California related to their need to provide health care for a very large underserved campesino population in El Salvador. Three conditions were agreed upon: 1) as a Quaker I didn’t care to bear arms; 2) I preferred to work with civilians; 3) I expected my medical neutrality to be respected. A fourth condition, that I could communicate to the American public in an uncensored manner, couldn’t be guaranteed for security reasons, but it was understood that this would be accommodated when possible.

I didn’t know if I would be going to an area in El Salvador that had a partially equipped hospital or none at all, so I spent about a month preparing what I considered a field hospital that could be carried on my back—about 75 pounds of surgical and medical equipment.

It turned out that I was assigned to the Guazapa Front, an area about 25 miles north of the capital, San Salvador, roughly 15 miles on a side—225 square miles in all. Within it were 15 villages and 10,000 civilians—40 percent of whom were below 12 years of age.

The Guazapa Front is one of seven “controlled zones” in the country. That is, an area protected from the entry of government soldiers and death squads. Because it is surrounded by government forces there is virtually no communication with government or commerce on the other side. Medicine, seed stocks, or any other commodity not produced within the front have to be smuggled in, and one of the many difficulties in providing health care is the acute shortage of supplies.

I stepped into a situation where there had been a functioning health system for a year and a half. There was a hospital, one fully qualified physician, and other experienced medical students and health workers functioning in the capacity of physicians. The medical students had come to the Front when the national university was closed and they were continuing their medical education in a practical sense.

The physician, who had been in charge of both the civilian and the military sectors, was tremendously overburdened. I was given responsibility for health care of the civilian population and she retained responsibility for the military.

My task was to further establish and define health care. Health was conceived in the broadest sense, so in addition to being the responsibility of the medical collectives in each village, it came within the domain of the education and agricultural production centers. The cooperation of the “popular committees,” or town councils, was also essential, since a public health campaign was a multifaceted endeavor.

One example is our efforts to reduce diarrheal disease. This was the greatest cause of morbidity and mortality—we estimated that fully ten percent of the agricultural production was consumed by intestinal parasites. To fight it, improved sanitation was a key concern.

The health workers promoted and taught construction of latrines in the homes and schools of each village; within weeks compliance had reached 90 percent. We also designed a personal hygiene curriculum for the more than 30 elementary
schools. The health workers helped create games for teaching children the importance of basics such as washing fruit. The children came to understand that the soil was contaminated by years of accumulation of parasite eggs. As they began to appreciate the role of flies and contaminated water in causing their own illness, they reinforced the use of latrines.

At the same time, the health workers were teaching mothers the basic techniques of rehydration through the women's associations—boiling a liter of water, adding eight teaspoons of whatever kind of sweetener was available (molasses, crude brown sugar, or honey) and a teaspoon of salt, and giving this solution to their children in copious quantities.

As a result of these measures, mortality due to diarrheal disease diminished rapidly. Even very ill children arrived at the clinics well hydrated. Still, changing habits is not an easy process—after all, a latrine is a small, often smelly place, with lots of flies and no vista comparable to what the great outdoors offers.

It fell upon the health collectives to encourage and cajole recalcitrants by helping them understand the price for the free health in the clinics and hospitals was their willingness to take responsibility for their own health. This was not limited to problems of sanitation. The diet in Guazapa was often almost totally lacking in fresh vegetables. However leaves of the yucca, the papaya, and the radish, as well as herbs such as mora, all traditionally not eaten, are rich in nutrients. Initially there were a lot of jokes about the gringo doctor encouraging people to eat rabbit food, but people were won over.
Other problems of medical care were not untypical of Third World countries in general. There were, for example, physicians and pharmacies in a town within sight; most of the peasants had never been able to afford the former and had had too many encounters with the latter. In many well-child clinics mothers would ask for a product unknown to me for their children. I learned that it was a steroid preparation widely advertised and promoted as an appetite stimulant and sold over the counter.

One of the first patients I encountered with chronic arthritis spurned my offer of aspirin. Didn't I have an injection of butazoladina, which is what the pharmacist used to recommend that my patient's wife purchase? Eventually he learned to boil the bark or leaves of a willow tree and drink the tea three times a day. However his 14 year old nephew became frustrated with the man's pain and went off to the capital, visible in the distance, to purchase aspirin. On his way back he was stopped at a roadblock and killed by government soldiers for possessing a bottle of two hundred aspirin.

We compensated for the acute shortage of medicine by an emphasis on preventive medicine, patient education, and natural medicines. People constantly sought tranquilizers, which they used to buy over the counter, to help them sleep; we taught them to make a tea from the leaves of the mock orange or the flower of the pita, natural remedies with some sedative properties. The level of stress led to a high incidence of peptic ulcer disease and there were no antacids; we used the fine ash of the cooking fires as a substitute. For malaria, we recommended a primitive chloroquin they could make from the bark of a tree, much as the Mayans and Aztecs had centuries before.

Some of the remedies I had learned in other developing countries. Some we discovered by asking the elderly what their parents had used. Although there were no longer traditional healers, there was a lot of folk wisdom. We tried to investigate and evaluate these remedies to reinforce positive health habits.

Anemia was a widespread problem in the Front because of intestinal parasites and malaria, poor diet, chronic anemia of childhood, and, of course, wounds that caused blood loss. There were no iron supplements available, so we taught people to soak large rusty construction nails in a glass of water, clean them with a piece of lemon every 24 hours, and drink the "nail cocktail." Upon my return to the U.S. I was informed by a professor of pharmacology that iron ascorbate will soon be marketed here—the vitamin C helps keep the iron in the ferrous state!

Sadly, there were no natural remedies for the horrible wounds caused by white phosphorous or napalm. Gauzapa is considered a "free-fire zone," by the Salvadoran Air Force, which means anyone in it is considered a legitimate target. There wasn't a day in the last six months of my year there that the Front wasn't either bombed by U.S.-supplied A-37's, strafed by U.S.-supplied helicopters, or rocketed by U.S.-supplied observation craft. The health sector supervised the building of trenches and bomb shelters within feet of every home, school, or clinic. A disproportionate number of the elderly and very young were wounded and killed because they couldn't respond within the few seconds they had after the scream of an aircraft or whistle of a mortar became audible.

The elderly and the very young are also most vulnerable during invasions. Government soldiers generally kill anyone caught during such "search and destroy" operations, which necessitates total evacuation. When possible the civilians flee into the mountains at night to avoid observation by aircraft. Many times they have been cordoned off by the advancing government troops. Since the cry of an infant could give away everyone's position, the children have to be drugged into unconsciousness. An underdose by the medic can result in the child waking and being smothered by its frightened mother—an overdose can result in suffocation.

There is always a delicate balance in the lives of those who live by subsistence farming. In many prenatal clinics I would hear of how a child died in the year of too much or too little rain. Traditionally, families had to pay up to 50 percent of their crop yield to the landlords or lenders. In a bad year that meant either feeding the children another year and watching their land repossessed or watching another child go hungry. Before the violent phase of this struggle started, 25 percent of all children died before age five. Campesinos watched as their land, land that had grown corn, beans, and sorghum — what they eat three times a day—was repossessed to become part of a hacienda raising coffee, sugar cane, cotton, or cattle for foreign markets.

Now close to 40 percent of the children never reach their fifth birthday. There is still a delicate balance in campesino lives, but it is caused by the destruction of crops and livestock by government troops during invasions. A normal meal is two tortillas and a half cup of beans; at times last year that dwindled to one tortilla and a few beans; then to a single tortilla right up to the harvest, when food was again relatively abundant. The cycle repeats itself, but the people come back to rebuild and replant because they are building a new society.

The dairy collective, which keeps its few head of cattle under the cover of trees to avoid strafing by helicopters, distributes its milk daily through the well child clinics. There isn't much, but it is allocated to the most malnourished children. This requires tremendous social organization since the front is an eight hour hike from end to end, but children in all 15 scattered villages get their half a glass every day.

It is this hope and experience of a new society that creates such determination to secure it. More than any ideology, it was the message of liberation theology that first inspired the peasants and workers in El Salvador. That message in its simplest form was that their misery wasn't the result of God's will but rather the result of a few men's greed.

The Federation of Christian Campesinos as well as the cooperatives they formed in response to this message became targets of repression by death squads. The spiral of violence gradually led to the armed conflict as we know it today.

In one of the base Christian communities I was asked once why I didn't carry a weapon. As I tried to explain something about Quakerism and non-violence, it became obvious that I
was in a world of ideas amongst people whose lives are very concrete.

"You gringos are very concerned about violence done with machetes and machine guns," one of them said, "We have experience another kind as well. I worked on the hacienda and my job was to take care of the dogs. I used to place a bowl of milk or meat before them when none of us could put that on our own tables. I would take them to the veterinarian in Suchitoto or San Salvador when they were ill, but some of my children died for lack of medical care with only a nod of sympathy from the landlord. Until you understand the violence to

the spirit that comes from watching your children die slowly of malnutrition, you will never fully understand violence or non-violence."

It is a strong message for all of us. According to UNICEF, 46,000 children die daily around the world from malnutrition-related causes, 17 million a year. As long as this continues, we will see struggles of the kind occurring in Central America today. The Salvadorans in areas like Guazapa feel their hopes for a new society depend in large part on the response of the American people.

How will we respond?

continued from page 34

of Manhattan Community College, Chambers and West streets. Among the panelists will be David Rosner of the Health/PAC Board.

For further information or advance registration ($15), contact the Sociology Department, CUNY Graduate Center, 33 W. 42nd St., New York, NY 10036. (Write Att: SSC on the envelope.)

Conference Calls

The First Annual Summer Institute on Women, Health and Healing will be held July 8-21 in Berkeley, CA. Organized by faculty of the University of California, San Francisco, including Ellen Lewin, Virginia Olesen, and Sheryl Russek, it will offer programs by specialists in a variety of disciplines. Applications must be received by April 15. For further information, write Patricia Anderson, Project Coordinator, Women, Health and Healing Project, Department of Social and Behavioral Sciences, School of Nursing, University of California, San Francisco, CA 94143.

The Fifth Annual "Health by Choice" Conference organized by the North American Nutrition and Preventive Medicine Association will be held April 27-29 in Atlanta, GA. Topics will include new findings in vitamin and mineral therapy, medical self-care, and stress. Among the speakers: Dr. Jeffrey Bland, Dr. Tom Ferguson, and Dr. C. Orian Truss. For further information, write Bonnie Jarrett, North American Nutrition & Preventive Medicine Association, Inc., P.O. Box 592—Colony Square Station, Atlanta, GA 30361.

Exploring Frontiers of Rural Health, the eighth annual institute of the American Rural Health Association, will be held at Epcot Center, Orlando, FL, June 5-8. Topics will include international models of rural health care and stress/mental health in rural areas. For additional information, contact Dr. L.E. Moody, College of Nursing, U. of Florida, JHMHC, Box J-187, Gainesville, FL 32610.

Institutional Review Boards in the 80's, March 26-27 at the Harvard School of Public Health in Boston, MA, and the Second Annual Meeting on Drugs and Devices in Philadelphia, PA, are two conferences organized by Public Responsibility in Medicine and Research, a non-profit group concerned with protecting human subjects in biomedical and behavioral research. For further information, write PRIM&R, 132 Boylston St., Boston, MA 02116.

Getting Involved

Nurses' Alliance for the Prevention of Nuclear War, a nationwide organization, now has a New York City chapter. For further information, contact Jennifer Tichenor, RN, 333 W. 20th St., #3, New York, NY 10011.

An epilepsy study designed to test the efficacy of nutritional supplement in treatment to be run by the nutritional research group of Old Dominion University is seeking volunteers. The supplement will be the same as that described in a report in the January 1981 Proceedings of the National Academy of Science, which noted that none of the four epilepsy-prone subjects in a broader study suffered seizures while taking the supplement. There will be no charge to volunteers other than transportation. For more details, write Ruth F. Harrell, Ph.D., 801 W. 46th St., Norfolk, VA 23508.

The Citizen's Clearinghouse for Hazardous Wastes, founded by Lois Gibbs of Love Canal fame, published an Action Bulletin to apprise local community organizations of crisis situations in the environment. For information, write P.O. Box 7097, Arlington, VA 22207.

A candidates issues chart produced by Network, a Catholic Social Justice lobby, and Jobs with Peace '84, provides an easy to read poster-size comparison of statements and votes of the eight major Democratic candidates and Ronald Reagan on the major foreign and domestic issues. Copies are available from Network, 806 Rhode Island Ave., NE, Washington, DC 200018.
Last November an independent fact-finding commission sponsored by the American Medical Student Association, the Black Psychiatrists of America, the Manhattan chapter of the National Medical Association, the Physicians' Forum, and the Committee for Health Rights in Central America and the Caribbean visited Grenada to investigate health conditions in the wake of the October 25th American-led invasion.

The commission consisted of nine experts in health care and an attorney. One member was Grenadian by birth and two others knew the country well from previous visits. All ten spent at least a week on the island and some were there as long as two weeks, visiting hospitals, health centers and stations, and the bombed mental hospital as well as interviewing Grenadian officials, U.S. civilian and military officials, representatives of the International Red Cross and Planned Parenthood, numerous health care workers, and other Grenadian citizens.

These two reports, each written by several members of the commission, describe health care under the Provisional Revolutionary Government led by Prime Minister Maurice Bishop and the situation immediately after the invasion.

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**SMALLEST NATION IN THE HEMISPHERE**

**ISLE OF SPICE**

1498
**Discovery by Columbus**

1651
Native Carib population chose to leap from the cliffs at Sauteur rather than surrender to the French

1974
Independence from Britain

1795
A French-provoked peasant revolt annihilated most of the British residents. Reprisals eliminated most of the insurgents

1783
Island ceded to Britain

1983
**American Invasion**

1979
Maurice Bishop, with popular support, overthrew the eccentric dictatorship of Sir Eric Gairy

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**Map of Grenada**

- St. George's
- Point Salines (Ronald Reagan International Airport)
- Victoria
- Woodford
- Calvigny
- Mt. Sinai
- Grenville
- Sauteur
- Grand Anse Bay
- bouquet of bananas, nutmeg, cocoa, cinnamon, vanilla, ginger
- Discovery by Columbus 1498
- Native Carib population chose to leap from the cliffs at Sauteur rather than surrender to the French 1651
- Independence from Britain 1794

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Kenneth Grant/Coalition Close-Up

Bob Gale/The Progressive

Health/PAC Bulletin 43
Health Care Before the Invasion

The New Jewel Movement took power as the Peoples' Revolutionary Government on March 31, 1979, when it overthrew the Gairy dictatorship. The PRG quickly declared several national priorities, including improved health care for all of the island nation's 119,000 citizens.

"We have acknowledged that it is our duty to provide the population with a health care system which is available, accessible, affordable, and of high quality," Prime Minister Maurice Bishop stated in his opening remarks to a meeting of Caribbean health ministers in July, 1980. Health care was also considered a prerequisite to national development—"Health is Production Too" was a common PRG slogan.

Even before taking power, the new leaders were aware that Grenada's health care system labored under typical vestiges of colonialism and underdevelopment, including a deficiency of many types of health care workers as well as maldistribution and inequities in the provision of services. Among the workers in short supply were physicians, environmental specialists, laboratory technicians, and administrative personnel; those the island did have were often poorly trained. Qualified health workers often emigrated to North America during the Gairy years rather than deal with the substandard conditions at home. In 1979 specialized medical care such as pediatrics, ophthalmology, and orthopedics was virtually nonexistent. Dental care was scarce, and inadequate when available—toothing extraction was the norm, rather than repair.

Data and other health information were inadequate, rendering health needs assessment difficult. During the Gairy regime, three quarters of the health care budget went for hospitals, leaving little for outpatient and rural facilities. Those government facilities which did exist were dilapidated, often lacking running water, incinerators, equipment, and supplies—including medications used to treat common diseases.

There was a heavy emphasis on curative medicine in the Gairy years while preventable illnesses such as measles, rubella, and malnutrition remained rampant, thronging on an outdated and overburdened infrastructure—poor water supplies, inadequate sanitation for liquid waste disposal, lack of a national program for controlling insect and other disease carriers, no public transport system, and roads in desperate need of repair.

Like education, health care was a privilege not a right under Gairy. Richer Grenadians often travelled abroad for comprehensive care. The majority got substandard care, if any—resources and personnel were concentrated in the urban areas, inaccessible to rural Grenadians, and what little the government provided in funding and facilities was often commandeered by the private sector.

The PRG developed both short and long term responses to these daunting problems. In the short term, the country's limited national resources, already bled by Gairy's drain on the national treasury, made international assistance imperative. Numerous appeals were sent. Cuba responded most generously, with a team of health specialists including internists, orthopedic specialists, pediatricians, ophthalmologists, psychiatrists, dentists, and a health planner. They were provided on two year terms of duty, paid by the Cuban government; housing, food, and transportation were the responsibility of Grenada.

The Cubans' arrival immediately increased the number of physicians from 23 to 40. This permitted an overall expansion of the free medical care system introduced by the PRG and made it possible to decentralize services to outlying medical stations on the island of Grenada itself and its smaller sister islands, Petit-Martinique and Cariacou. Health personnel, including physicians, laboratory technicians, and consultants, were also recruited from other Caribbean countries, Europe, and North America.

At the same time, in an effort to meet needs over the long term government health scholarships were increased dramatically. Hundreds of students were sent to the University of the West Indies, Cuba, and Eastern Europe to study medicine and allied health subjects.

Financial and material aid to expand and improve health care facilities were also solicited. Among those who provided assistance were the governments of Canada, West Germany, and Venezuela, and the European Development Bank, the Swedish Save the Children Foundation, and the Pan American Health Organization (PAHO).

The PRG adopted the World Health Organization goal of "Health for all by the year 2000." Its strategy for achieve this included decentralization of the administrative and planning process and involving the community as a whole as well as health care recipients and health workers.

Education assumed a pivotal role. The main thrust was to encourage individuals to assume greater responsibility for their own health and the health of their family and community. Campaigns promoting programs such as national immunization drives, prenatal care for all pregnant women, and active family planning by husbands and wives emphasized the importance of preventive health.

The scope of this effort was extraordinary. Planning and implementation involved resource groups from voluntary agencies and the private sector, the National Women's Organization and the National Youth Organization, as well as government agencies such as the ministries of health and agriculture and the Grenada Food and Nutrition Council. Along with efforts to reach individuals already in health facilities, an extensive outreach program was initiated to inform the entire population through their schools, worksites, organizations, and neighborhood associations. Health educa-
tion was routinely incorporated into programs on the island's radio station, Radio Free Grenada, and into articles in the newspaper, *The Free West Indian*.

While these programs were underway, the PRG was improving the collection of data and statistics to provide a basis for expert analysis and rational planning. The first step was an examination of existing health services. Among the problem areas identified were geriatric and mental health, where services were primitive and little rehabilitation or home care was available. The second step was community assessment of health needs. This revealed that over 60 percent of the population was under 25; that there was significant malnutrition; that the teenage pregnancy rate was rising; and that there was a high rate of infectious diseases such as measles, dengue fever, gastroenteritis, and rubella.

Based on the needs assessment, the PRG defined its priority health areas as maternal and child care, health education and promotion, prevention of infectious diseases through immunization and environmental health programs, improved sanitation and water, development of community geriatric and mental health programs, intensive training and retraining of health personnel, diversification of the food supply coupled with education about nutritional preparation of indigenous foods, and community participation on a grassroots level. Special emphasis was placed on prevention.

The proposals for meeting these goals were elaborated in the Three Year Health Plan 1983-85. This was completed in 1982 after several revisions benefiting from the suggestions of international consultants, local experts, and the community at large.

The major focus of the plan was decentralization and expansion of primary health services. The structure envisioned for 1985 was a central health center in each of the six main island parishes plus a seventh for Cariacou and Petit-Martinique. Each would also have a district health team consisting of community health assistants, a public health nurse, nurse midwives, public health specialists, a physician who also functioned as the district medical officer, a family nurse practitioner, a nutritionist, dentists, pediatricians, internists, family planning nurses, a driver, and an environmental specialist. This team would service outlying health stations.

Together with other itinerant specialists the teams would also provide free medical care, including home, school, and workplace visits; take charge of immunization campaigns and health education; and run prenatal and well child care clinics as well as special ones for common medical problems such as diabetes and hypertension. All team leaders would meet regularly at the Ministry of Health to facilitate coordination and planning.

In 1981 a model health center with a complete district health team was opened in the parish of St. David's to serve its 11,000 people. Other parishes and the sister islands were allotted ample staff to provide comprehensive primary care, but some lacked the full complement of team members envisioned—in 1983 several still had no environmental specialist or nutritionist and needed drivers and/or vehicles to transport the sick.
Despite these deficiencies, the PRG’s commitment to providing health care as a basic right had come much closer to realization. National investment in health care increased from 12.6 percent of the budget in 1978 to 14.7 percent of a larger budget in 1981. A bigger share was going to the outpatient, rural clinics. A new health complex had been built in Sauterns, six medical stations had been rebuilt, and three centers had been refurbished. By 1983 no Grenadian lived more than three miles from a health station. Some of the clinics had vehicles to transport the sick.

In the model St. David’s district, team members had dramatically increased the number of home visits, dressing changes, immunizations, and health education workshops given at schools and workplaces. Other parishes enjoyed free access to pediatricians, dentists, psychiatrists, internists, and ophthalmologists. Many of the 33 health centers and stations provided specialty clinics for hypertensives, diabetics, and well-child care; a good number offered dental care, including repair and even root canal work.

By 1983 over half the nation’s youth had been immunized against measles, diphtheria, tetanus, and polio. While malnutrition remained a problem, the infant mortality rate per thousand had declined from 28.96 in 1978 to 13.88 in 1983—a rate lower than in some areas of the United States. This improvement is even more significant when one considers that the official rates before 1979 probably grossly underestimated the real numbers since data collection was irregular before the revolution.

Under the PRG, health information was collected on all patients treated by the clinic nurse midwives; they kept meticulous records of all births, deaths, home visits, inoculations, dressing changes, infectious diseases, malnutrition cases and chronic illnesses, and submitted reports to the Ministry of Health by phone or in writing on a weekly basis. Follow-up of problem cases was routine and reinforced by a network of community health assistants and aided by appropriate mass organizations such as the National Youth Organization and the National Women’s Organization.

Community-based health education had become a critical and vibrant part of the health care system. Two health educators provided printed materials to health centers and community organizations and broadcast on Radio Free Grenada twice weekly. The National Youth Organization participated with other community groups to eliminate dengue fever through a national mobilization to unclog drains, clear refuse, and otherwise destroy mosquito breeding grounds. The Grenada Food and Nutrition Council gave training to improve utilization and preparation of local foods, provided hot school lunches, and supplemented efforts to eradicate malnutrition. The National Women’s Organization encouraged breast feeding, prenatal care and nutritional food preparation. Breast feeding became the norm in Grenada. A Pan American Health Organization-sponsored program was established to train community mental health workers to provide improved outpatient follow-up and counselling of patients with mental disorders.

This brief summary documents the expansion of health care under the leadership of the PRG in the years following the Gairy regime. In 1983, Grenada’s health care system still had many flaws and deficiencies, but what had already been accomplished and the course outlined in the Three Year Plan 1983–85 demonstrate that the PRG had the vision and the determination to overcome them. Despite the limited national resources available, comprehensive primary care, available to all Grenadians free of charge, was a primary goal:

...the PRG maintains as its health policy, that the health of the people of this nation is a basic human right, and that the citizens making use of the health services should not be seen as “those people”, but “our people”, our “extended family.”

1. Maurice Bishop, “Health for All—A Right of Caribbean Masses” Feature address at the Sixth Meeting of CARICOM Conference of Health Ministers in St. George’s, July, 1980.
3. ibid.
The number of Grenadian casualties resulting from the U.S. invasion on October 25, 1983 remains undetermined. Many of the wounded were afraid to go to the hospital; others were treated locally in people's homes; and still others were shipped out to Puerto Rico, Barbados, the U.S.S. Guam, Kings County Hospital in Brooklyn, N.Y., and other facilities for treatment. According to statistics provided by the General Hospital, St. George's, on and after October 25, 203 patients were seen at the casualty unit and 64 admitted. The report states that gunshot wounds were the type of injury in over 90 percent of the cases treated and admitted. Although the numbers of Grenadian casualties from October 25th and immediately following may vary, they are significantly higher than figures reported in the U.S. press. It appears to us that there is a conscious effort on the part of the U.S. to withhold information on the extent of Grenadian casualties. The numbers of Grenadian dead are still unknown. In addition to the 17 persons killed in the bombing of the mental hospital, press reports indicate that 18 bodies of Grenadians were shipped to Cuba and subsequently returned.

Health Personnel

One striking consequence of the invasion was the forced evacuation of the Cuban, European and Caribbean health workers, including doctors and dentists working in the expanded primary care health system developed under the Bishop regime. The ranking U.S. A.I.D. official on the island informed us that approximately 25 of Grenada's total of 45 doctors and dentists were asked to leave Grenada following the U.S. invasion. Most of them worked full-time in the public sector, providing free medical and dental care. The 20 physicians still in the country devoted most of their energies to the provision of private medical care, working only half-time in the public sector at most. Our team was informed that a typical private physician visit costs about $20 Grenadian dollars; a typical weekly income is $50 Grenadian dollars.

The consequences of this deportation of more than half of the doctors and dentists are severe. At the time of our visit, there was neither a single pediatrician (60 percent of Grenada's population is under age 25), nor any psychiatrist to care for the 180 patients in the Richmond Hill Mental Hospital or deliver follow-up care to discharged mental patients. There is now no orthopedic specialist, only one ob-gynecologist and one dentist for the entire population.

During our travels to many of the country's health centers and stations, nursing personnel verified the impact of this abrupt drain.

The Happy Hill Health Station, which serves 3400 patients in the parish of St. George's, has no doctors or dentists. Dr. Regina Fuchs, a specialist in hypertension and diabetes from the German Democratic Republic, disappeared after questioning by the new authorities shortly after the U.S.-led invasion. She had played a primary role in establishing Grenada's diabetic association, run by and for those who suffered from this disorder, and held specialized clinics for hypertensives and diabetics at the St. George's Health Center. Since her departure, the public health nurse at the St. George's Health Center admitted that she is sorely missed.

Patients have been referred from the St. George's Health Clinic to the St. George's Hospital because there are no physicians available to care for them at the clinic. At the Victoria Station, in the largely rural parish of St. Marks, the nurse midwife in charge told us that a pediatrician, gynecologists and dentist were needed to replace the team of Cuban health workers who had visited this clinic every Tuesday for the past two years. A Cuban pediatrician and surgeon serving 6000-7000 people on Carriacou were forced to leave.

Of the 25 physicians and dentists expelled, 12-15 were Cuban. It was the opinion of the U.S. A.I.D. official in Grenada that, "the Cubans probably made care affordable, accessible and available." We corroborated that opinion in our interviews with Grenadian health workers. At the Victoria Health Station, we were told that the Cuban dentist, psychiatrists, and gynecologist delivered reliable quality care and quickly overcame their language barrier. They came every Tuesday for two years, filling a void in those specialties.

At the Ministry of Health, a public health nurse said that the Cuban dentists repaired teeth, a service previously unavailable to Grenadians. She also commented that they adapted quickly to Grenadian culture and were generally respected and utilized throughout the country. Other nurses and matrons noted that Grenadians preferred indigenous physicians and psychiatrists when they had a choice but added that this preference was based more on cultural affinity than the qualifications or professional standards of these Cubans.

The availability of other health personnel besides doctors, dentists and psychiatrists, was also adversely affected by the invasion. Due to the shortage of physicians to care for patients in the urban health centers and hospitals, public health nurses have found it necessary to curtail their visits to the many outlying substations and health clinics as well as their home visits and outreach activities. A nurse working in the Grand Anse Health Center had not been able to travel to her substation at Caliste, located behind the U.S-occupied Point Salines airport, for three weeks. A pass issued by the military is required to travel to this area; this quite likely inhibits some of the patients from using the health facility.

Laboratory technicians, health educators, and an environmental specialist from other nations left Grenada following the U.S. intervention. In some cases, they were asked to leave; in others they chose to.

The National Women's Organization and the National Youth
Organization had been an integral part of the health system. Members assisted in health education (promoting breastfeeding, for example), immunization campaigns, and insect and other disease-carrier control at the grassroots level, maximizing community outreach and participation in these important public health areas. These organizations were disbanded shortly after the U.S. led invasion. The St. Paul's Health Clinic, housed in a community center built by the New Jewel Movement, was closed following the invasion.

U.S. Medical Aid

In the period following the invasion, the U.S. military provided an orthopedic surgeon and a nurse anesthetist to the St. George's Hospital, the largest hospital on the island. The U.S. A.I.D. official stated that the U.S. military had sent in preventive medical specialists and physicians assistants to assess the health needs of the hospitals and clinics. The intervention of the U.S. military health professionals appears to have been transient and spotty. They delivered health care at Happy Hill station from November 7 to November 18. The nurse midwife in charge of this health station was told that they would return within a week, but had not seen them again at the time of our visit in late November. At Victoria Health Center, the nurse midwife interviewed stated that she had only seen a military physician once; this physician did not deliver medical care. On the island of Cariacou, which had previously received routine medical care from a Cuban team, a military team of physician's assistants, medics, and one physician visited the hospital for the first time on November 23, accompanied by several members of our team. Members of the military were told that they would be staying there for only three to five days. Some clinics along the western side of Grenada had not even been visited by a physician since the invasion.

Since October 19, two physicians provided by the St. George's Medical School, organized and funded by U.S. investors, had been working part time at the St. George's Hospital in the casualty area. However, the school is a two year, preclinical institution with minimal involvement of its faculty or students in actual health care delivery in Grenada.

The only indication of U.S. intentions to ameliorate the health personnel losses was a statement by the U.S. A.I.D. official that his agency was willing to pay competitive salaries to U.S. physicians for up to five months; however, after May 1984 the Grenadian Ministry of Health would have to rely on its own resources to recruit and pay physicians. In the light of declarations by Ministry of Health officials that they can only afford to pay physicians the equivalent of $8,000 U.S. per year, we doubt that many Western Europeans or U.S. physicians will serve beyond the A.I.D. subsidized 5 month period, or be recruited after that time. Even more disturbing was our follow-up interview with this same A.I.D. official one week later. He revealed that it was even a question whether Congress would release money for the short-term subsidy of physicians or other health personnel salaries.
The Losses May Be Longterm

We were informed that Grenadian students were currently abroad studying health sciences, including medicine and dentistry, and some were due to graduate this spring. When we asked Ministry of Health officials if Grenadians now studying in Cuba and Eastern European medical schools would be permitted to return to practice, we were told the issue was "under study." We believe that these young health workers are a natural source for the dentists, internists, pediatricians, gynecologists and psychiatrists so direly needed in Grenada at this time. They would bring essential skills in public health, preventive medicine, and tropical/rural medicine. Moreover, they were sent abroad by the Bishop government just for this purpose.

The loss of health personnel following the U.S.-led invasion of Grenada may bring back the ill health of the pre-revolutionary period. Health care will certainly be less accessible, less comprehensive, and less affordable to Grenadians, who had enjoyed a decentralized, free, more comprehensive primary care model for the past three years. We have grave concerns about the longterm impact of this immediate drain of health care providers. How will the infant mortality rate rise in the next year on an island which now has only one obstetrician-gynecologist and no pediatrician? What will be the mortality from hypertensive complications and diabetic complications in the St. George's parish without the intensive follow-up of a professional like Dr. Fuchs? What will be the outcome of mental hospitalization for Grenadians without a psychiatrist? How many more public health or nurse midwife activities will be curtailed by a continued deficit of physicians?

Equipment and Supplies

Grenada's health centers, health stations, hospitals, dispensaries and its Ministry of Health are desperate for basic, relatively inexpensive, equipment and supplies. Autoclaves are needed to sterilize instruments. Gas cylinders are needed to operate stoves during the frequent electrical outages. The respirator in St. George's Hospital is outdated. Dispensaries lack spatulas. A Maternity Center in Sainteux lacks "dipsticks" to test urine, sufficient linen and sterile gauze pads, maternity kits for home deliveries, and an extra pair of forceps. The hospitals need transformers and better dietary equipment. The Central Water Commission, Leroy Neckles, several water pumps to deep wells in the southern portion of Grenada were damaged by the U.S. bombing. At the end of our visit these pumps had not been repaired or replaced.

The U.S. Military health assessment team, the U.S. A.I.D. official, and the Ministry of Health officials we interviewed highlighted distribution as a major problem facing the Grenadian health care system. The U.S. military occupation forces appeared to have enormous transportation resources such as helicopters, jeeps, and trucks throughout the island. We feel that these could have been used to distribute basic supplies and equipment to health centers and stations around the island. Road repair is essential. Lack of adequate numbers of ambulances and vehicles to transport the sick and injured was cited as a major problem. The transport of women in labor and the sick is seriously impeded by the poor condition of the roads. At the time of our visit to Grenada, telephones generally worked some of the time but communication was nil in the Grand Anse area, where telephone wires had been damaged by the U.S. bombing. Consequently, Ministry of Health officials had to travel to clinics there to communicate with the public health nurses.

While many of the deficiencies in infrastructure and basic medical supplies likely existed before the U.S. intervention, our team saw evidence that new roads and health centers had been built or refurbished by the Bishop government, that some of these supplies were previously available and had just run out. We certainly did not see evidence of repair of those things damaged by the U.S. bombing or any longterm commitment by the U.S. A.I.D. to provide supplies, equipment, or improved communication.

While some road workers were paid by the U.S. in one area of Grenada, the U.S. A.I.D. official was uncertain of subsequent funds to continue work on roads, sanitation, water supply or medical supply deficits. The future in these areas was just as hazy as the prognosis for replacing health personnel in Grenada. The undeniable reality is that prior to the U.S. intervention, Grenada was in a state of growth and expansion. The evidence on our visit certainly indicates we must question the integrity of these plans and, consequently, the future health of Grenadians.

The Psychiatric Institution

The Richmond Hill psychiatric institution suffered serious damage from U.S. bombing on the first day of the invasion. Those in charge of the institution informed us that 17 patients and one staff person were killed and 30 persons were hospitalized with injuries. An additional 68 patients were unaccounted for at first, most of them having escaped. These patients subsequently returned to the hospital or remained home with their families. The building that was demolished by the bombs was called the infirmary and contained 80 beds. It housed the older and weaker patients, as well as those considered more cooperative.

No assistance was made available to the hospital by the U.S. until six days after the bombing, when a stand-by electric generator, food, clothing, beds, and mattresses were provided on an emergency basis. When we visited the institution almost a month after the destruction, there was still an unsightly pile of rubble in which hospital administrative records were strewn about. The U.S. played a supervisory role in the repair work and contracted it out to a local firm.

The Director of Matrons (chief administrative nurse) of the mental hospital recommended that a new facility be built at another, more accessible, location. This recommendation was seconded by Dr. George Mahy, a Grenadian psychiatrist living in Barbados whose consulting work in the field of psychiatry is known and respected throughout the Caribbean. According to a U.S. A.I.D. official there are no U.S. plans to build a new mental hospital. We recommend that all necessary funds for the building of a mental hospital on a new site be provided by the U.S., and that Grenadians determine the character of this new institution.

We observed the training of a new category of health worker in Grenada, the community mental health officer. The training was being carried out by a Pan-American Health Organization consultant, Dr. Johnathan Bernard, through the Ministry
of Health. The community mental health officers will prepare families for the return of patients from the mental hospital, do follow-up care of discharged patients, and institute preventive, community-oriented programs. We believe this is a sound program which ought to be supported.

Richmond Hill Prison

The power structure in the Richmond Hill Prison was brought home to us by our experience in gaining permission to enter. A phone call to Sir Paul Scoon elicited his suggestion that we obtain entry through the Grenadian Police Commissioners, Mr. Pat MacLeish. Mr. MacLeish readily gave us permission over the phone and told us to meet him at the prison at 10 a.m. the next day. He did not show up. Ultimately we learned that Jamaican Colonel Ormsby of the Caribbean “Peacekeeping” Force, and only Colonel Ormsby, could grant permission to see the security detainees.

Since the U.S. invasion, there are two categories of prisoners at Richmond Hill prison: the security detainees and common detainees—persons imprisoned for the perpetration of a crime. Health and sanitary conditions in the section of the prison where the security detainees are incarcerated are primitive.

A local physician was reportedly scheduled to visit the prison three mornings a week. The infirmary area in the prison had been taken over for other purposes because of overcrowding. The physician in charge of the Casualty Department at St. George’s Hospital reported that he had examined at least two patients brought from the prison, indicating that there is no access to the hospital’s facilities. The men had been asked for medical attention following alleged beatings. A hematoma was found on the right thigh of one of these men. The cells of the security detainees are about 10 x 8 feet in area. A covered bucket serves as the toilet. The men are taken out of their cells to shower and use a more conventional toilet each morning. At first blankets were not provided although it is chilly at night in Grenada; they are now.

A U.S. officer and the ranking officer of the Caribbean “Peacekeeping” Force who is in charge of the security detainees, Major Prescod, stated that they are permitted from 30 minutes to 1 hour of exercise each day in a narrow yard in groups of seven. However, the security detainees whom we interviewed in private stated that each prisoner is given only 15 minutes of exercise daily alone, and sometimes only every other day; therefore the prisoners are kept in their cells for 23 and three-quarters hours a day. When we brought this account back to Major Prescod following our visit to the prison, he explained that he could not permit more than one of the detainees to exercise at a time (which would increase the time available for exercise for any single prisoner) because he did not want them to converse, and because guns were used to guard the security detainees.

Major Prescod recognized that the presence of guns within a penal institution presents a serious risk, however the Caribbean “Peacekeeping” Force does not fully trust the Grenadian prison’s warders (guards) and therefore keeps its own armed men stationed there. This situation obviously precludes the possibility of several security detainees exercising together. The incarceration of the security detainees may be in violation of international standards for the detention of political prisoners. The common prisoners, in a different section of the prison, are permitted to congregate freely.

Three members of the team were permitted to speak with Mr. Bernard Coard, one of the security detainees, in private in his cell. He alleged that three other security detainees who had been taken from the prison to Fort Rupert had been interrogated and beaten there, and then returned to the prison: Mr. Abdullah, who was beaten 2-3 weeks before our visit on November 24th; Lt. Layne, who was beaten on November 14th and 15th; and a third detainee who was beaten a day or two before our visit and forced to sign a confession which included a statement that the confession was being signed without coercion.

One of us spoke briefly to Mr. Abdullah and Lt. Layne, both of whom affirmed that they had been beaten. We did not have the opportunity to speak to the third detainee. Mr. Coard said he was threatened with the prospect of a beating by an officer of the forces assigned to the prison. The International Red Cross had a team of investigators on the island while we were there and some members of our commission spoke with them.

The International Red Cross physician visited the security detainees daily, without witness, in their cells. Detainees expressed concern that after the IRC’s scheduled departure in late November beatings would likely increase, particularly since there was no access to attorneys. The International Red Cross official stated that they planned to return to Grenada in early January.

The U.S. Psychological Operations (PSYOPS)

The U.S. Psychological Operations (PSYOPS) battalion under Colonel Ashworth, part of the “non-combatant” forces still on the island, played a significant role in the invasion and occupation. According to the head of the U.S. Civilian-Military Operations Command (of which PSYOPS is a division), within 24 hours of the invasion PSYOPS took over Radio Free Grenada, the major source of mass communication on the island, replacing it with “Spice Island Radio.” Colonel Ashworth acknowledged that before the press was allowed on the island PSYOPS implemented a poster and radio propaganda campaign which denounced the New Jewel Movement governmental leaders as criminals and promoted the notion that Grenada had become a puppet of Cuban and external military interests. Placards and banners that had reinforced the people’s aspirations of the Grenadian people manifested under the Peoples’ Revolutionary Government over the past four years have been pasted over with these PSYOPS posters. Some of the NJM banners have simply been removed from downtown St. George’s. Leaflets have been dropped by helicopter over the countryside. (In response to a question about PSYOPS propaganda work elsewhere, Colonel Ashworth told the Commission members that a team was currently working in Nicaragua, but he could not elaborate because this was a sensitive issue.)

All records, minutes, and transactions of the NJM-Peoples Revolutionary Government over the past four years have been confiscated by the U.S. According to one military person, these records reportedly show that the Grenadian government under Maurice Bishop had plans to exterminate all Grenadians over age 60 years. Grenadians interviewed have heard rumors that bombs are found “every Tuesday,”—neutron bombs and missiles in Grenada right under their noses. The intent of this campaign appears to be the reinterpretation and manipulation of the aspirations of the Grenadian people manifested under the Peoples’ Revolutionary Government.
The Psychological Impact of the Political and Military Events

The series of events last October, coming in swift succession, contributed to a general state of shock and numbness, bewilderment, disillusion, and depression observed by members of our team. On "Bloody Wednesday," October 19th, the extremely popular head of state, Prime Minister Maurice Bishop, was executed along with cabinet members and political leaders and many other citizens of Grenada. The guns which the people had been assured were intended solely for their protection were instead turned against them. Children were killed. Many in the crowd jumped over the fort's high walls seeking safety from the murderous gunfire. Americans can perhaps best appreciate the emotional impact of these executions by recalling our own reactions to the assassinations of Martin Luther King, President Kennedy, Robert Kennedy, and Malcolm X.

A 24 hour curfew was immediately imposed by the Revolu-
tionary Military Council. Radio messages warned that anyone venturing from homes would be shot on sight; a freedom-loving people was kept under house arrest. These shocks generated a welter of feelings—fear, helplessness, outrage, loss, confusion, uncertainty.

The U.S.-led invasion of October 25th relieved the uncertainty but imposed new stresses. First, there was the bloodshed and destruction of the military conflict itself, accompanied by the noise of bombs, gunfire, and helicopters. In the immediate aftermath bloated and decomposing corpses were permitted to lie in and around the radio station, where fierce fighting had taken place. The staff of the bombed mental hospital and other civilians had to dig bodies out of its rubble with simple tools.

The occupation, with its heavily armed soldiers on foot and in jeeps patrolling the streets; the recurrent roar of helicopters taking off and returning from search missions; the hoops of barbed wire surrounding beachfront hotels occupied by the military; guns pointed menacingly from in front of the Ross Point Inn, which now houses the U.S. Embassy; the searches of cars and checks on identification papers; the sight of cars and trucks which crashed as a consequence of the heavy vehicular traffic and because Americans are not used to driving on the lefthand side of the road, have created a bittersweet sense of relief coupled with feelings of resentment, powerlessness, loss of dignity, and humiliation.

When Grenadian men apprehended by U.S. soldiers are forced to spread their legs and bend forward; have guns poked into their ears and mouth; are handcuffed with their hands behind their backs, blindfolded, and exposed to the noonday sun or rain; are stripped to the waist in public or photographed in that state of undress; are interrogated in small wooden crates; and dragged through the gravel while being called epithets such as "nigger"—the ugly specter of racism and colonialism is patent.

Social deterioration was already apparent. Juvenile prostitution, which had not been seen during the period of the People’s Revolutionary Government, was observed by people we interviewed and the three members of our delegation who knew Grenada well. We suspect that this may contribute to a rise of venereal disease in a now health-underserved country.

We saw and heard evidence of increased alcoholism and drug use by Grenadians. U.S. military personnel were observed smoking marijuana in the open—a practice unheard of in pre-invasion Grenada, where marijuana was illegal. Some estimate as many as 5,000 men and women lost their jobs because of measures in the wake of the U.S.-led invasion, including the dissolution of institutions such as the National Women’s Organization and the National Youth Organization, and a halt in the construction of the new airport. We know that unemployment is associated with depression and helplessness, family conflict, and increased morbidity and mortality.

As experts in public health, we anticipate that these conditions, especially the military occupation, will create problems and jeopardize the physical and mental health of the people of Grenada in the long run. The disruption of social systems and unemployment are both highly correlated with breakdowns in mental health. Furthermore, the techniques of humiliation and intimidation will certainly contribute to loss of self esteem among a proud people. The shortage of physicians which we documented earlier in this report, including the total absence of pediatricians and psychiatrists, means that those Grenadians who succumb to these multiple stresses with physiological or mental symptoms will have less access to treatment.

Because we anticipate a worsening of the health and mental health of the people of Grenada, we call for the careful monitoring of key health indices: rate of premature births, of infant mortality, of malnutrition in the pediatric age-range, of admission to the mental hospital, of teenage pregnancy and venereal disease, and of hospital admissions for diabetics and hypertensives whose disorders are out of control.

Conclusion

The on-site observations contained in this report have led us to the conclusion that the U.S.-led invasion and occupation are contrary to the long-term health and social interests of the people of Grenada. They reinforce our position that the invasion is to be condemned and that all aspects of the occupation should be terminated swiftly.

The Commission members were Haywood Burns, Esq.; Blanche Grant; Theresa Horvath, Physician Assistant; Diane Lacey; Beth Lyons; Eli Messinger, M.D.; Marlene Price, M.D.; Steven Robinson, M.D.; Professor Margarita Samad-Matias.

For a copy of the complete Grenada Commission Report when it is available, contact Beth Lyons c/o CIR, 386 Park Ave. S., New York, N.Y. 10016
Resources

(The following list contains some of the best readings on El Salvador, Nicaragua, and Grenada for those who wish to examine the subject intensively.)


Barry, Tom, Wood, Beth, and Preusch, Deb, Dollars and Dictators: A Guide to Central America (The Resource Center, P.O. Box 4726, Albuquerque, NM 87106)


Ecumenical Program for Inter-American Communication and Action, Grenada: The Peacemaking Revolution ($4.50) and Grenada: End of a Revolution ($3.50), from EPICA, 1470 Irving St., NW, Washington, DC 20010. Tel. (202) 332-0292.


Policy Alternatives for the Caribbean and Central America (PACCA), Changing Course: Blueprint for Peace in Central America and the Caribbean (Washington, DC, 1984—Available from the Institute for Policy Studies, 1901 Q St., N.W., Washington, DC 20009)


Audiovisuals

“Health Care in Nicaragua: Revolucion es Salud,” a 23 minute slide show with tape, available from Medical Aid to Nicaragua, PO Box 796, Astor Station, Boston, MA 02123.


Guide to Films on Central America describes 40 films, videotapes, and slide shows. Copies are $2 plus 50 cents postage from Media Network, 208 W. 13th St., New York, NY 10011, tel. (212) 620-0877.

Where You Can Offer Support

California
Bay Area Committee for Health Rights in Central America
1827 Haight St., Box 5
San Francisco, CA 94117
Salvadoran Medical Relief Fund
PO Box 1194
Salinas, CA 93902

Florida
Medical Aid to El Salvador
1518 N.W. 7th Ave.
Gainesville, FL 32603

Iowa
Medical Aid to El Salvador
PO Box 384
New York, NY 10024

Massachusetts
Boston Committee for Health Rights in Central America
1151 Massachusetts Ave.
Cambridge, MA 02138
(617) 492-4169

New York
Nicaragua Medical/Material Aid Campaign
19 W. 21st St., 2nd Fl.
New York, NY 10011
(212) 885-1231
Committee for Medical Aid to El Salvador
PO Box 384
New York, NY 10024

North Carolina
Committee for Medical Aid to El Salvador
PO Box 22670
Seattle, WA 98122
(206) 523-1060

Washington State
Seattle Committee for Health Rights in Central America
PO Box 22670
Seattle, WA 98122
(206) 523-1060

Wisconsin
Coalition to Aid Nicaragua
2524 Cypress St.
Vancouver, BC V6J 3N2

Reading Silent Knife is a little like watching a dike spring a new leak when your finger is jammed into the first one. Women's health advocates have been effectively challenging medical intervention in childbirth—forceps, anesthesia, and the like—but, at the same time, surgical intervention has been growing phenomenally. In 1970 5.5 percent of all U.S. births were done by cesarean section; since then the proportion has more than tripled.

Most physicians see no cause for alarm in this dramatic rise; in fact, through a perverse logic many view birth by major abdominal surgery as a mark of an advanced society. The popular book Having a Cesarean Baby calls the procedure among the "safest of major operations," valuable not only in "life threatening situations but as a preventive measure." Vaginal birth—the method preferred by billions of women for millenia—has become, it seems, the risky, old-fashioned way to have a baby.

The authors of Silent Knife accept none of this. Cohen and Estner say that except in life threatening situations a cesarean section is more dangerous for both mother and child. Their documentation is more than ample.

The maternal mortality rate, for example, is about four times as high for cesarean deliveries as for vaginal births. The risk of a premature infant, with all the attendant complications, is three times as high. Given such risks, it is a scandal that most c-sections are performed on healthy mothers and thriving fetuses.

The high rate of repeat cesareans—98 percent in 1980—is a damning testament to this policy. For a variety of non-medical reasons—among them fear of malpractice suits, convenience, and greed—physicians cling to the outdated shibboleth, "once a cesarean, always a cesarean." Medically, as Cohen and Estner show, this is simply untrue: although the danger of an internal explosion is the usual justification for a repeat cesarean, old incisions rarely rupture during labor.

The issue of medically questionable cesarean sections is only a part of the Silent Knife argument. Physicians, insist Cohen and Estner, actively create the need for surgical deliveries. The technical term for this is iatrogenia, or physician-induced, but their notion of a "cascade of intervention" is more graphic.

To illustrate this charge, the authors offer scenarios such as the following: Many obstetricians are impatient with the progress of a normal labor, which may be prolonged or irregular. Consequently, they speed up the process with synthetic hormones such as pitocin. Subsequent contractions are sudden and sharp—rather than gradually building up—and the pain for the laboring mother can be extreme. Drugs are often given to alleviate the pain, but they do much more than that. They interfere with uterine contractions. With her body numb and her mind in a state of reverie, the next impulse to intervene was checked many c-sections could be prevented.

The medical model of birth, Cohen and Estner argue, treats women (and men) as passive spectators in their own act of creation. The alternative they offer is "purebirth." This is not natural birth—which they predict may soon mean anything short of cesarean section—but birth "completely free of medical intervention...self-determined, self-assured, and self-sufficient."

In some respects, their reverence for these qualities has to be applauded. Unfortunately, however, their purebirth philosophy can be as inflexible as the system it hopes to replace. The prescriptions sound, to this ear, like a morality tale or religious tract: "always let the mother's smile be the biggest in the (labor) room;" the "right" way to deal with discomfort is to eschew breathing exercises and "say yes to your pain;" "formula, cow's milk, is for calves."

One might simply label the authors opinionated and leave it at that were it not for their repeated suggestion that to deviate from purebirth is to fail—as a parent, as a woman, as a man. A father they interviewed blames himself for not stopping the obstetrician from doing a cesarean. A mother accuses herself of having caused the cesarean by her insecurities about her own body. The authors make no effort to stop this sort of self-flagellation.

Cohen and Estner don't acknowledge the very real limits on the power of mothers and fathers to control the births of their children. They ignore restraints on medical choices, both economic and psychological (at what is, after all, an extremely vulnerable time in parents' lives). Most fundamentally, they underestimate the collective power of the members of the medical establishment to deliver babies their way. It is fine rhetoric to recommend that the way to avoid an episiotomy is not to allow one, but most people would probably find this useless advice in practice.

In general, the authors do not see that their absolute insistence on the purebirth philosophy constrains the choices available to women. Wasn't asserting the right to choice where the women's health debate began more than a decade ago?

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Sleep and Its Discontents
by
Arthur A. Levin

For millions of Americans, Hamlet's famous lines on sleep would apply quite accurately if altered slightly to read, “To lie down: perchance to sleep. Ay, there's the rub.”

Their problems, of course, rarely involve murders and pacing up and down ramps. More commonly they can be characterized as insomnia (a general term which includes frequent wakings, early morning wakings, and problems falling asleep); hypersomnia (excessive awaking); and sleep apnea (intermittent stoppage of breath while asleep). Several disorders such as night-terror and enuresis (bedwetting) occur most frequently in children. Some, most notably somnambulism (sleepwalking) are found roughly equally in children and adults.

Many sleep problems seem to relate to disturbances of the body's circadian rhythm, our biological clock. This may be hereditary; many experts argue that it is environmentally determined. Whichever is correct (it may be some combination), all of us probably know both nightowls, who prefer to go to bed early in the morning and sleep till noon, and Ben Franklins, who may think their son's sex can be significant in sleep: studies reveal that more women than men seek help for insomnia—though whether this means more women suffer from it or simply that they more readily seek help for such problems has not been determined. It does appear that women's sleep requirements begin to decline at an earlier age than men's, and that they awaken more easily.

Many people suffering from sleep disorders have sought relief in sleeping pills, and many physicians have been only too happy to oblige them with prescriptions for very large bottles. This is generally bad medicine.

A 1979 report from a panel of experts convened by the National Academy of Sciences entitled “Sleeping Pills, Insomnia, and Medical Practice” confirmed what sleep specialists had been saying for years: sleeping pills are not only potentially dangerous, they are largely ineffective. More often than not, the panel found, pills actually aggravate the problem. In fact, there was persuasive evidence that when insomniacs who have taken sleeping pills for some time are slowly withdrawn, they actually sleep better.

Even if sleeping pills can help, studies show their effectiveness is usually limited to a few days, or at most a few weeks. Yet doctors still write millions of prescriptions for several months or longer.

The elderly may be most victimized by this practice. Although they need less sleep, they are more likely to have psychiatric or physical problems that interfere with the few hours they do require. All too commonly, the first response has been sleeping pills—almost 40 percent of all prescriptions for them go to those 65 and older. Not only are most of these prescriptions inappropriate, they frequently deflect attention from the cause of the sleeplessness, leaving it untreated.

The Chemical Dangers

Sleeping pills fall into two major categories: barbiturates (seconal, nembutal, etc.) and benzodiazepines (Valium, Librium, Dalmane, etc.). Prior to the 1979 National Academy of Sciences report, drug abuse experts such as Dr. Peter Bourne in the Carter Administration advocated a ban on the use of barbiturates in treating sleep disorders, since they are strongly addictive and lethal in overdose (they are commonly involved in suicides and other drug-related deaths). Benzodiazepines, they argued, do the job and are safer.

The NAS panel did agree that barbiturates are risky, but it found that benzodiazepines are just as bad or worse. The benzodiazepine most commonly used to treat insomnia is flurazepam, which is sold under the brand name Dalmane. It accounts for over one half of all prescriptions written for sleeping pills. While patients develop tolerance for drugs of this type more slowly than for barbiturates, they also are addictive. Metabolized Dalmane can remain in the body for over 24 hours—far longer than the metabolite of barbiturates. If it is used on successive nights, the amount lingering in the body can shoot up to six times what it was on the first.

Drugged to this state, a person's faculties such as eye-hand coordination and alertness deteriorate noticeably. Since older people metabolize drugs more slowly than the young, the cumulative effects of Dalmane are even more damaging to their system. It is very depressing to contemplate how many diagnoses of confusion, frailty, and dementia in the elderly result from symptoms caused by overprescription of Dalmane and similar drugs.
ment for these non-existent problems is often more drugs, which can combine with benzodiazepines in disastrous ways).

Not only have the risks of benzodiazepines been found to rival those of barbiturates, the claimed benefits for Dalmane, by far the most popular, are also open to question.

Roche, the manufacturer, vigorously promotes its product with ads prominently featuring data from a controlled trial indicating that Dalmane can be effective for up to 28 days. This study, however, was done with only ten subjects.

Many researchers would argue that in the best of circumstances this is hardly an adequate sample to substantiate Roche claims. And this was not the best of circumstances. The National Academy of Sciences panel found that the study's subjects were chosen by screening hundreds of insomniacs to find those with the most severe problems. Considering that millions of people receive prescriptions for Dalmane and their problems cover a broad spectrum in type and severity, the NAS judged reliance on this single study inappropriate.

Much more rigorous studies have shown that most physicians are dependent on drug promotional material and detail personnel for much of their drug information (see Vital Signs, Bulletin, November-December 1982). It is they who have made Dalmane the bestselling sleeping pill, aided by ads proclaiming evidence most scientists would find unacceptable.

The NAS panel was also critical of claims that Dalmane and other benzodiazepines were preferable to barbiturates because they did not suppress Rapid Eye Movement (REM) sleep to the same degree. At that time some experts believed the suppression of REM sleep was harmful to both physical and mental health, but the NAS report noted that "it now appears that the overall effects of REM sleep deprivation . . . are, at most, slight and subtle." It went on to say that while it is logical to choose the pill that disturbs sleep the least, that may not be Dalmane, since it disrupts other stages that could be as important as REM sleep.

Finally, the panel pointed out that even the touted safety advantage of flurazepam (Dalmane) is questionable. It found that an increasing number of drug-related deaths also involve alcohol, which can be lethal in combination with both barbiturates and flurazepam.

The use of prescription drugs to treat sleep problems is fraught with questions. In general, the evidence suggests that sleeping pills are potentially unsafe and not very efficacious or effective. If needed, they should be used only for extremely limited periods of time, and then only in response to unusual circumstances such as a personal loss or jet-lag.

Our next column will discuss other sleep problems and non-drug responses to insomnia. In the meantime, sleep well.

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