BOB-04
PART (I)

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Feb-March, 1993.

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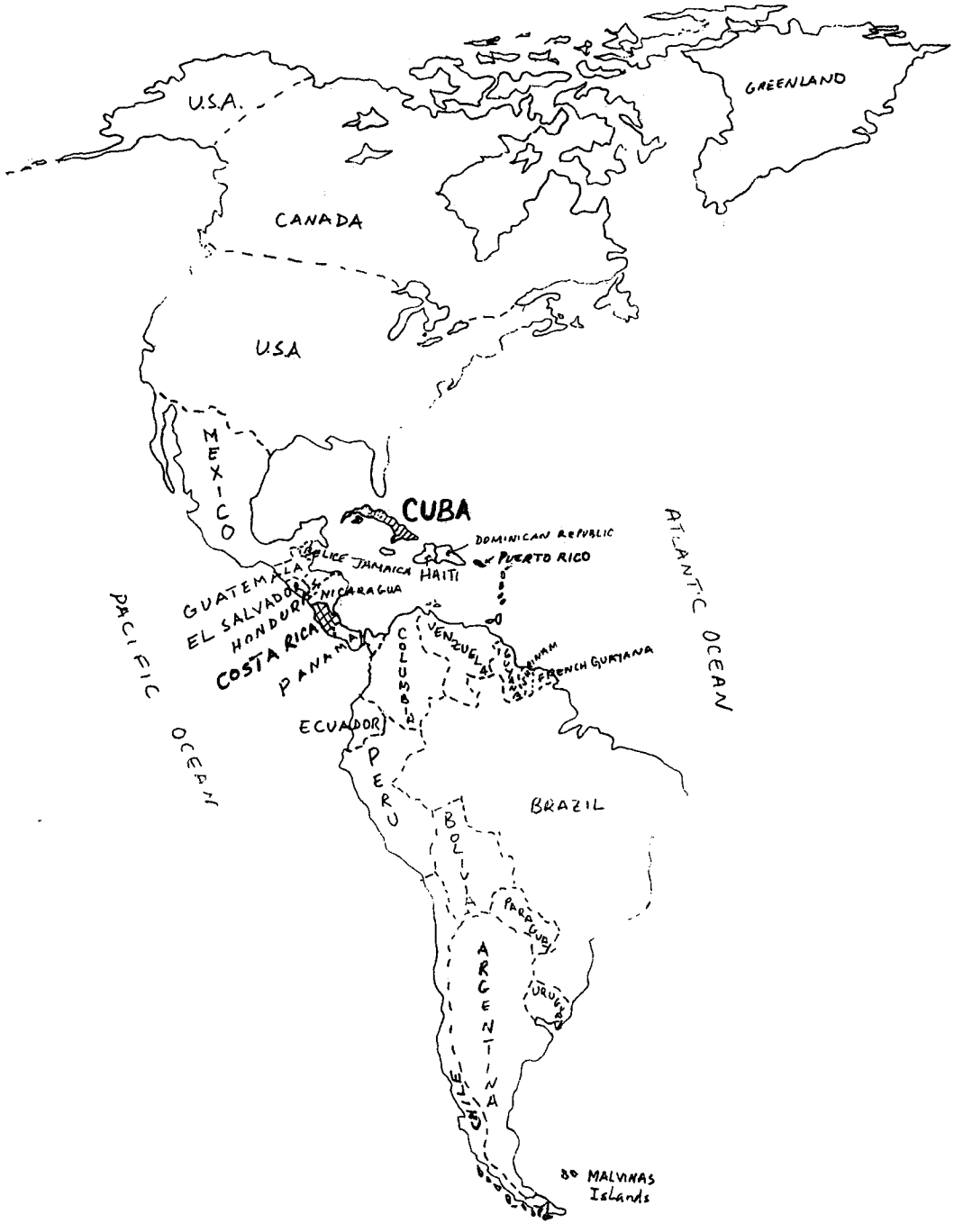
Dear Peter,

RURAL HEALTH SERVICE
THE CUBAN FAMILY DOCTOR IN THE SIERRA MAESTRA MOUNTAINS

Did you know that almost 60% of world population live in rural areas (1)? Nearly, 2,961,935,000 human beings! And did you know that the majority of these people live and work in developing countries (2). Would it surprise you if I told you that the health needs of the majority of these rural people and poor urban communities remain unmet (3)?

In Cuba, about 20% of population (or 2,157,160 people) live in rural and mountain areas. In this letter, we shall see how Cubans provide health care to this population. The letter is a report from the Sierra Maestra Mountains in Santiago de Cuba province, some 1000 km east of Havana. For twelve days (Feb. 23rd-Mar.6th) I worked closely with Cuban doctors visiting primary care physicians (family doctors) at their work places in mountain and rural areas, in Seka Teka, Chivirico, Boniato, and El Cobre (see map). But first, a bit of history of rural health in Cuba.

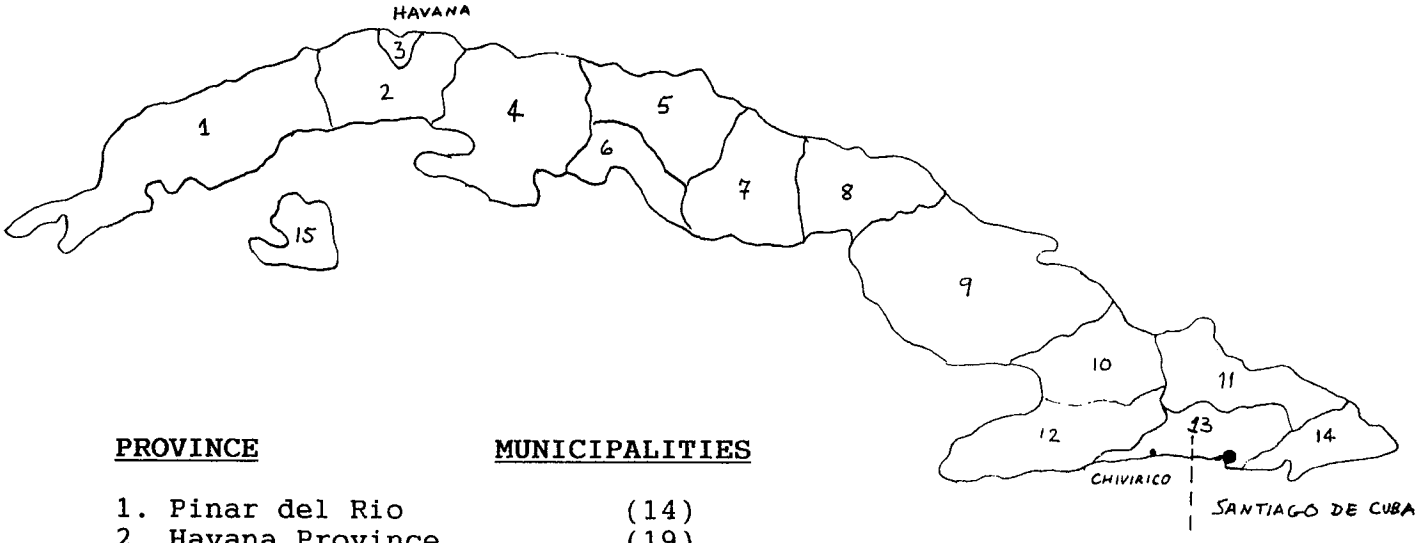
Bacete Bwogo is an ICWA fellow studying primary health care delivery in Cuba, Costa Rica, Kerala State(in India) and the USA.



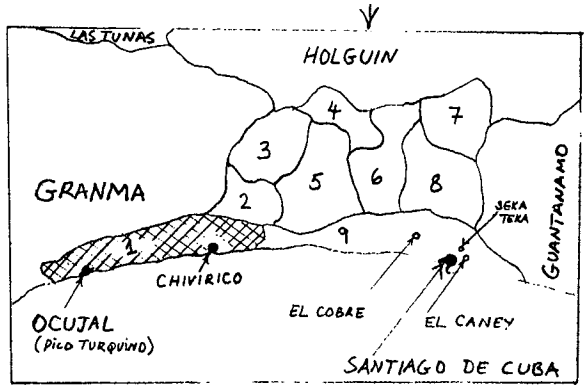
CUBA IN THE AMERICAS

CUBA: POLITICAL AND ADMINSTRATIVE DIVISION

The territory of the Republic of Cuba is divided into 14 provinces and 169 municipalities. The total population is 10,785 000. The Island of Cuban is 1,250 km long, and it has an area of 105,007 square km.



PROVINCE	MUNICIPALITIES	
1. Pinar del Rio	(14)	
2. Havana Province	(19)	
3. Havana City	(15)	
4. Matanzas	(14)	
5. Villa Clara	(13)	
6. Cienfuegos	(8)	
7. Sancti Spiritus	(8)	
8. Ciego de Avila	(8)	
9. Camaguey	(9)	
10. Las Tunas	(10)	
11. Holguin	(11)	
12. Granma	(12)	
13. Santiago de Cuba	(13)	1992
14. Guantanamo	(14)	
15. Isla de La Juventud	(1)	



SANTIAGO DE CUBA, main municipalities (in 1985):

1. Guama (Chivirico)
2. Tercer Frente (Cruce de Los Banos)
3. Contramaestre
4. Mella
5. Palma Soriano
6. San Luis
7. Segundo Frente (Mayari arriba)
8. Songo-La Maya
9. Santiago de Cuba

POPULATION (1992)

990,000

POPULATION DENSITY (1990)

160.0 per Km2

HEALTH CARE IN THE PAST

It is quite surprising to realize that there was no rural medical service for 49% of rural population in Cuba in 1958. Statistics showed 'zero' "posta medica rural' (or rural medical post) in rural areas. Only 20% of births took place in hospital. And there was not any immunization programme against infectious diseases. This meant that about 3,467,823 rural people did not have access to any kind of state run health services which existed in the country then (4). They were exposed to parasitic diseases, malaria, typhoid, gastroenteritis, malnutrition, aneamia, polio, whooping cough and respiratory diseases. A peasant born and raised in the Escambray mountains of central Cuba talks about the past:

"He who was seriously sick was stuck. To be treated one had to go to Cienfuegos, which in the spring, took 15 hours. One traveled by horse or on foot along a terrible path toward Gavilanes, then the boat to Guanaroca lagoon, and from there to the bay of Cienfuegos. We saw many people die on the road. Today one makes the trip by highway, direct, in less than an hour.

We 'guajiros' of the Escambray did not have the right to be born and not even the right to die decently. The women gave birth naturally, without any help, just like the cows in the pastures. Today the rural women have all their treatment guaranteed from the first moment to the birth, and even our cows now have veterinary doctors. If our women in those days had even the attention that our cattle do now, it would have saved the lives of many children and pregnant women (5)".

Before the revolution, in January 1959 Cuba had approximately 6,000 doctors. About 65% of these were concentrated in Havana, which had 21% of the national population, leaving about 35% to serve the remaining 79% of the people (6). Of the 6,300 doctors, in 1958 there were 1,125 employed in all the programmes in the Ministry of Health and Welfare, so that it is evident that the vast majority over 80% were mainly in private medical practice.

Allied health personnel, for example, graduate nurses numbered 2,876 before the revolution (7).

In short, the mal-distribution of health resources in the country affected the poorest sectors of the Cuban population mainly the 'trabajadores agricolas' or agriculture workers who did not own land of their own and deprived urban communities. The agriculture workers were estimated at 350,000- the number rises to 2,100,000 when their families are included, which represent 34% of population. In 1957 a survey of rural Cuba carried out by the Agrupacion Catolica Universitaria revealed the following results:

"daily food intake of less than 2 300 calories per head, only 4% consumed meat, 13% suffered from malaria, more than 30% had typhoid fever, 36% were infested with parasites, 43% could not read nor write, only about 8% received public medical assistance and 4% paid by employer (8)."

The health problems of rural and poor Cuba are among other social problems expressed by Fidel Castro in 1953 during his defense after the attack on the Moncada garrison in Santiago in 1953:

" el 90% de los niños del campo están devorados por parásitos que se les filtran desde la tierra por las uñas de los descalzos. La sociedad se conmueve ante la noticia del secuestro o asesinato de una criatura, pero permanece criminalmente indiferente ante el asesinato en masa que se comete con tantos miles y miles de niños que se mueren todos los años por falta de recursos médicos. El acceso a los hospitales del estado, siempre repletos, sólo es posible mediante la recomendación de un magnate político que le exigirá al desdichado su voto y el de toda su familia, para que Cuba siga siempre igual o peor (9)".

This brief history show that health of the people was an important ingredient of the Cuban revolution and this may explain its commitment to health and extension of health services throughout the country after its triumph. Thus, the immediate

strategy of the Cuban health services was to make medical care accessible to all people, no matter where they live. Priority was given to improving health services in rural areas (10). The plan of rural services emphasized the periphery of services: working in reverse; instead of carrying health from the center to the periphery, the intention is to begin with the periphery, establishing modern services of health. Rapid construction of rural facilities indicated the strength of government commitment and this had impact on physicians who were drawn to rural service. In 1960, medical doctors were obligated by law to spend one year in rural service and by 1963, 1,500 physicians and 50 dentists were estimated to have experienced rural service. By 1963, 122 rural centers and 42 rural hospitals with combined total of 1,155 beds were stablished, employing in 1963 some 322 physicians and 49 dentists. The principle plan of rural health service was to integrate prevention and cure, medicine and sanitation, physician and health team, and professional and lay participation in health work (11).

HEALTH CARE TODAY: So much has changed since 1959. The health service statistics of 1992 show the Cuba now has a total of 46,860 doctors (of these 18,503 are family doctors), 74,035 nursing personnel (of these 5,474 are graduate nurses), and 8,057 dentists. The total number of all health workers under the 'Sistema Nacional de Salud'(SNS) or National Health Service is 310,800. There are 270 hospitals, 423 polyclinics, 166 dental clinics, 175 rural medical posts and 11 research institutes.

In 1992 there were a total of 79,949 hospital beds, that is, 7.4 beds per 1000 of population. The family doctor programme has extended health coverage of the population as shown below:

Year	No. of family doctors.	No. of family doctors working directly in communities.	% of country population served by family doctor
1986	2,472	2,344	16.1
1989	8,965	7,046	46.9
1992	18,503	12,181	78.8

Source: 'Salud para Todos' 1993, Havana.

In 1990, the total number of family doctors working in rural and mountain areas was 1,320 and 994 respectively. I do not have the figures for 1992/93. However, the expected rural population to be served by family doctors is estimated to be 2,157,160 (or 20% of 10,785,000 country population).

SANTIAGO DE CUBA: In 1990 it had a population of 990,000 (of these 73.0% or 723,100 people were served by family doctors). 379 and 192 doctors (or 571) work in the mountain and rural areas respectively. Assuming that one doctor serves an average of 650 persons then the number of rural population served can be calculated to be around 371,150. But the population is dispersed and the number of people attended by doctor may vary between 600 and 900. And so the rural population served may rise to 428,250 i.e. 43.2% of provincial population. Of these 284,250 people

(or 66.3% of rural population) live and work in the mountains and they are served by approximately 379 family doctors and an equivalent number of nurses. The number of doctors working in the mountains may have increased in 1992. Already there were 455 medical students in the final year of the academic year 1990/91 in the Faculty of Medicine in Santiago.

In 1990 infant mortality rate in Santiago province was 11.4 per 1000 live birth (compared to 10.7 per for whole country). Birth rate was 19.2 per thousand of population. Maternal mortality was 3.6 per 10,000 live birth. 99.5% of live birth took place in health institutions (compared to 99.8% for whole country). Average life span was 74.2 years (71.9 for males and 76.7 for females).

Here are some health resource indicators:

A. Family doctors according to place of work in Santiago Province

Total	Urban	Rural	Mountains	Agriculture co-ops	Schools	Work centers	child care centers	others
1442	460	192	379	2	54	48	33	274

Source: Informe anual 1990, MINSAP.

B. Nursing personnel in Santiago province

Graduate nurses	Technicians	Auxiliary nurses	Total	Nurses per 10,000 population
357	5364	57	5,778	58.4

Source: Informe anual 1990, MINSAP.

C. Health institutions
27 Hospitals
34 Polyclinics
11 Dental clinics

D. Academic institutes
2 Faculties of Medicine
1 Faculty of dentistry
1 Nursing institute

Source: Informe anual 1990, MINSAP.

Well Peter, I hope the information above has facilitated some understanding about rural health in the past before 1958 and the changes that occurred thereafter which bring us into the present time.

Keeping in mind the improvement in health resources, I now move on to the next stage (and I hope interesting part) of the newsletter. That is, about Cuban family doctors. How are they posted to work in the mountain/rural areas? What are their job descriptions and how do they go about fulfilling their assignments? How do they face the new life situation and new work in a new environment? How do they relate to the rural communities among whom they work? What health and social role do they play in community live and what co-operation do they get from the community to support their health work? To whom are they accountable? And how are they transferred?

I guess these are already too many questions, for which reason I have decided to use pictures to describe to you my field work experiences with primary health care delivery in the Sierra Maestra. It's about people, work places and interesting things.

SEKA TEKA, MARCH 4, 1993.

Our medical team consisted of two medical doctors, Dra. Eva and Dra. Teresita, (both teachers of 'Medicina General Integral' or general medicine at the faculty of medicine in Santiago), the director of polyclinic Caney, the driver and myself.

The village of Seka Teka is about 12 km north-east of Santiago city. To get there, first we had to travel to El Caney, a small town not far to the east of Santiago City, to obtain permission from the director of Polyclinic Caney. All the family doctors working in the mountains in the Caney area are under the administration of this polyclinic. Because it was a rainy day and access could be a bit difficult, it was decided that we visit the clinic of a family doctor in Seka Teka, a small village in the mountains north of El Caney.

Not very far from El caney we branched off the main road and took the dirt road to begin our journey to Seka Teka. We had to drive slowly in our Lada car which was not a four-wheel drive. The road got more difficult and slippier because of increasing mud. It was becoming clear that we would not make it by car all the way to Seka Teka. So we decided to park the car and continued the rest of the journey on foot (see pages(18-21)for photos 1-8). We had almost done two-third the distance already and we just could not turn back because of the mud. So, we decided to walk on foot the rest of the way up to Seka Teka. We crossed two narrow water streams before we finally arrived to Seka Teka.

On arrival we met with Dr Martha, the family doctor in Seka teka. She is a young woman in her mid-twenties, married and lives with her family in Seka Teka. She is housed in an apartment on the second floor of the family doctor clinic. I interviewed her about her work in Seka Teka. She mention that she has been working in Seka Teka for one year and a half since her graduation from the medical school in 1991. In Cuba, all doctors must do two years of rural service after their graduation from medical school. This is referred to as the **'familiarization period'**, where young doctors practice social medicine in rural communities.

Dr Martha is responsible for 92 families, a total of 796 inhabitants. And because the population is quite dispersed, the standard 120-140 families per family doctor has been difficult to achieve. Most people here are **campesinos** or peasants. They do agriculture work for a living. Mango is the principle crop grown here for export and, of course, for local consumption as well. Besides, the campesinos grow vegetable crops too.
According to Dr Martha, parasitic infections are the main health problems in this rural community. Infection by giardia, amoeba, trichuris trichiura are common. These parasites are causes of diarrhoeal diseases in children. Infection with these parasites is acquired by drinking unboiled water from the river. Before the 'Periodo Especial', tankers used to bring 'agua potable' or drinking water to Seka Teka for distribution to the public. Now this is not possible because of fuel shortages and so campesinos must get their water directly from the river. However, steps have

been taken to reduce the incidence of these infections in the population. Wood is plenty in Seka Teka and so the people are educated to boil water before it is consumed. I understand that certain plants can be used as filter to clean the water before it is safe for use. Although parasitic infections are common, chronic diseases like hypertension, heart disease, diabetes etc. do occur in old people. Changing life-styles and avoiding harmful habits like cigarette smoking, alcohol consumption and sedentary life are stressed in health promotion activities.

Dra. Martha paid special attention to pregnant women and young children. She regularly checks children in her clinic or visit them in their homes to make sure that they are getting their full vaccinations and monitors their growth and development. Newborn babies are seen every two weeks for the first three months and then monthly for one year. Mothers are encouraged to suckle their babies for the first six months. Working mothers on maternity leave are paid their full salaries. Pregnancy in women is closely watched. The importance of good nutrition, personal hygiene and the dangers (to the baby) of cigarette smoking and alcohol consumption during pregnancy are explained to them. Women with any complications during pregnancy are sent for specialist consultation in Polyclinic Caney. Dra. Martha and nurse visit patients in their homes too. And to visit patients who live far away from the clinic, they ride horse or mule to reach them. The horse or mule is the means of transportation for doctor and nurse in mountain areas. They are not afraid to ride horses and they are happy to use them to do their health care mission. Sometimes

they have to walk to visit people if the horse is sick. Some families live as far as 6 Km away from the clinic. If an emergency happens, the sick person is transported by horse to the nearest road then by lorry to Polyclinic Caney or hospital is Santiago city. If there are no means at all for transport, the doctor and patient walk slowly to Polyclinic Caney. This may take one hour and a half. Most of the emergencies here are due to traumatic accidents in the work place, for example, cut wounds caused by machetes used by farmers in the field.

In the clinic, Dra. Martha keeps a stock of essential medicines which she keeps for treating her patients. This include oral re-hydration salts (for treating diarrhoea in children), asprin, medicines for asthma and for other important medical emergencies. Medicinal plants (medicina verde or green medicine) are used in treatment of some parasitic diseases too. Most doctors working in the mountain areas grow and use green medicines to supplement shortages of essential medicines.

The health care work of the family doctor and nurse is carried out in the community and it is necessary that the community co-operate and participate actively in health promotion actions. The **'Consejo popular del vecino'** or neighborhood committee meet every 6 months to discuss the health problems in the community. This exercise is known as **'Diagnostico de Situacion de Salud'(DSS) en la communidad** (or diagnosis of health situation in the community). The family doctor and family nurse are part of this neighborhood committee whose members represent the mass and

social organizations, e.g. CDR (Committee for the Defense of the Revolution), FMC (Cuban Women Association), ANAP (Association for Small Farmers), social clubs (grandparents, adolescents) etc. Discussions focus on health problems in the community and efforts are directed to seeking solutions to them. The importance of hygiene and sanitation is emphasized. Preventive health activities are given priority in the Cuban health system and the campesinos seem to have understood the importance of that well.

I visited one campesino family and talked to the head of the family who was an old man of 74 years. I was surprised by his use of medical terminology when he was describing some of the illnesses he has had in the past. He talked about the role of community in health promotion and the need to help their medical doctor in health promotion activities and in vaccinations campaigns. He and his family are happy with Dra Martha's work in Seka Teka, and if it were possible, they would prefer that she remained in Seka Teka to serve the community.

Dra Martha is interested to specialize in '**Medicina General Integral**' (a residency course of 3 years) to become a primary care specialist. She said that she has already spent one and a half years in Seka Teka, and is accustomed to living and working in this community. So, she hopes the health care authorities will keep her posted in Seka Teka when she begins her specialization course after completing rural service. In that case, she will be affiliated to teaching Polyclinic-Caney & hospitals in Santiago.

When we left Seka Teka that afternoon, I remembered my former teacher at the London school of Economics, Dr Brain Abel-Smith, Professor of Social Administration. He wrote:

" one of the most formidable problems which face virtually every country is to ensure that trained personnel-particularly doctors-are available where they are needed. In some countries, a variety of financial inducements have been provided to try and attract doctors to work in less popular areas-particularly rural and in deprived urban communities and this has had limited effect... Financial inducements do not deal with the problems at its root, of why doctors and other health personnel do not want to work in rural areas...the roots of the problems are in- the unsuitability of the education provided, the inappropriateness of the place of training and the selection of the students on criteria which favour those from the more prosperous section of the community ...In many countries the health service manpower which has been trained partly determines what health services are provided. Surgery is practised in the U.S. than in Britain, partly because there are more surgeons per head. Some parts of the country have good health services and others poor, partly because health professionals want to practice in some parts and not others. Primary care is underdeveloped because most doctors want to practise as specialists and have been trained as specialists. Standards of public health are poor because until recently few doctors have this specialty (12)."

The professor goes on:

"All over the world students tend to absorb the attitudes and values of their principle teachers. In the case of medical students it is usually the clinical teachers who exercise the most influence. If these teachers are only interested in unusual cases, this will rub off on the students. If they are engaged in private practise and their main orientation is towards this, this will also be conveyed to the students. If they denigrate general practise, psychiatry, social medicine, medical administration, this will also be communicated to the students. If they emphasize cure and give little attention to prevention and care their students will be become oriented accordingly. Thus the introduction of new well-endowed departments of social or community medicine into the traditional medical school may have little impact on the orientation of its medical graduates. Only if the influential teachers favour this subjects and stress their importance are they likely to influence the orientation and interests of the students. If the medical teachers are dedicated to meet the main health needs of the country among the poorer rural population, medical students will become oriented accordingly. Values and sense of commitment can not be taught: they are learnt by observing the behavior of those who win respect."

For Dra Martha, she has cast her lot for primary care. That is her future. It is not by accident that Cuba has trained and is training many primary care doctors. It is the national health policy here to train more family doctors in order to meet the health care needs of the country's population. The medical curriculum emphasize, social medicine, prevention of disease and promotion of health, health care administration, medical care and research work (13). The aim is to produce physicians capable of understanding, integrating, coordinating , and administering of each patient's health needs, as well as the health needs of the family and of the community at large (14 & 15).

Well, Peter, I have almost finished telling you my story for this letter. I hope you will find time to see the rest of the pictures of family doctors in Chivirico, Boniato and El Cobre in Santiago de Cuba.

Hasta la promixo carta, muchas gracias.

B. O. Bwogo

Bacete Othwonh Bwogo

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VISITING FAMILY DOCTORS IN SEKA TEKA AND BONIATO

Santiago de Cuba

Photo 1. **El Campo** (or the countryside).
A trip to the rural village of **Seka Teka** (12 km N.E. of Santiago) in the hills of the Sierra Maestra.

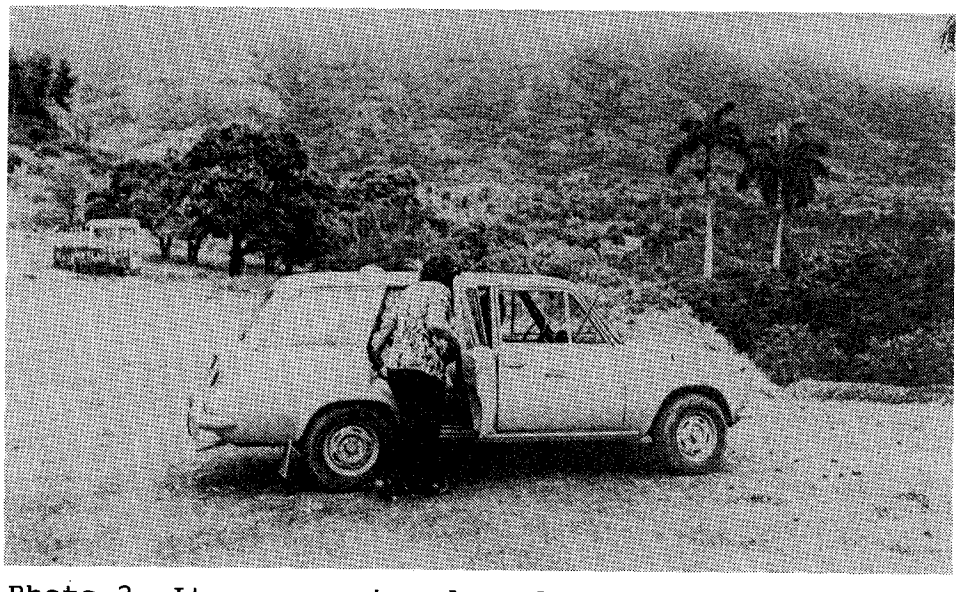

Photo 2. It was a rainy day. So, we left the car and walked down the muddy road to **Seka Teka**.

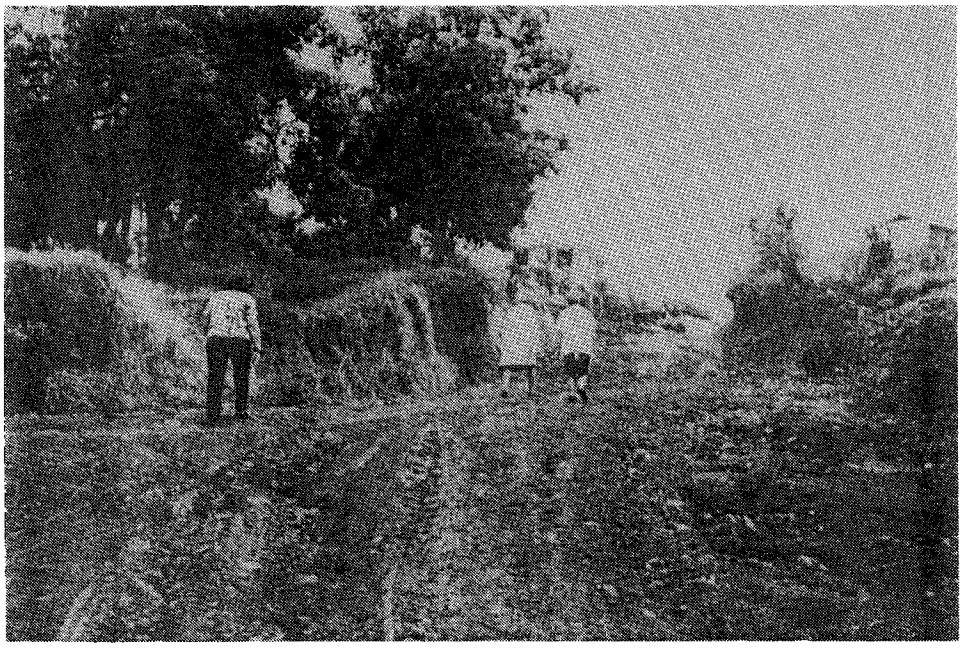

Photo 3. Entering Seka Teka from the west side. The white structure visible on the left is the family doctor clinic. Our team of three doctors can be seen walking towards the village.

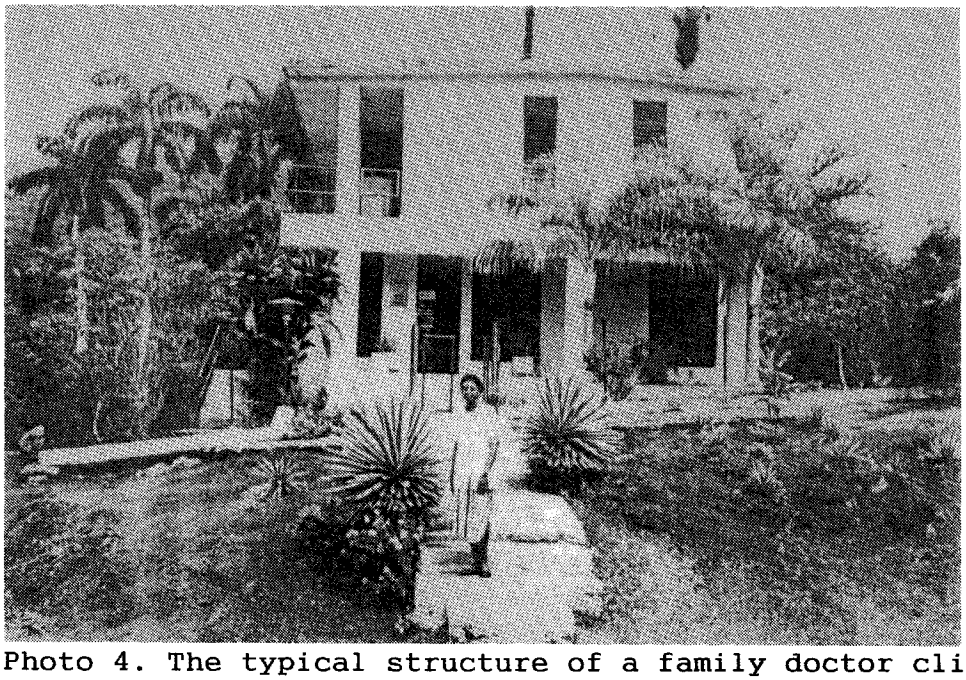

Photo 4. The typical structure of a family doctor clinic in the mountain areas. Standing is Dra Martha.

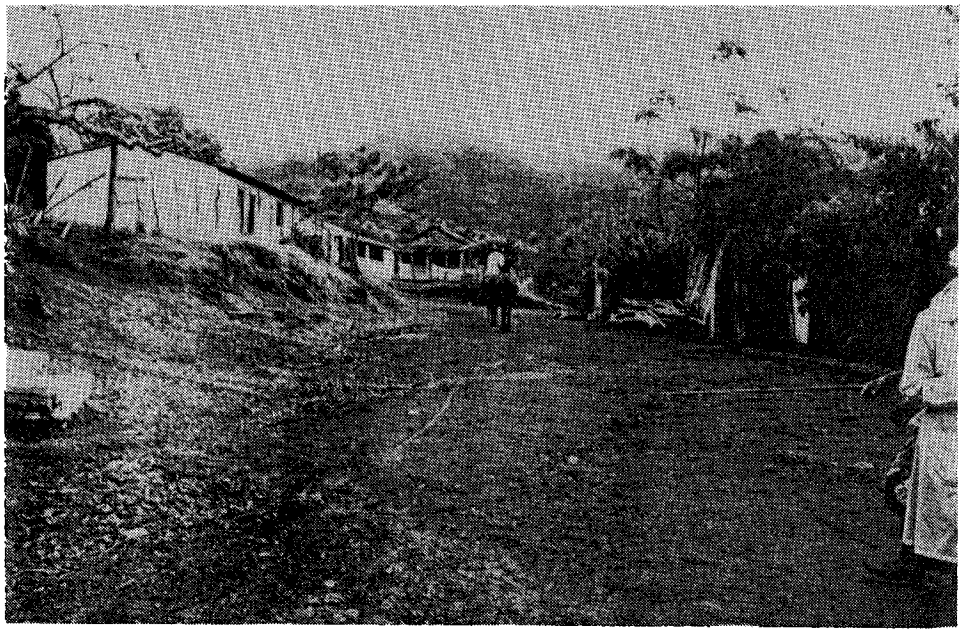

Photo 5. **Seka Teka**. The population is mainly campesino (peasant). The area of El Caney including Seka Teka grow the best mangoes in Cuba. Horses and mules are the means of transportation (in the picture, a campesino riding a horse).

Photo 6. Receiving a gift of fruits (mangoes) from a campesino family I interviewed. They are nice people.

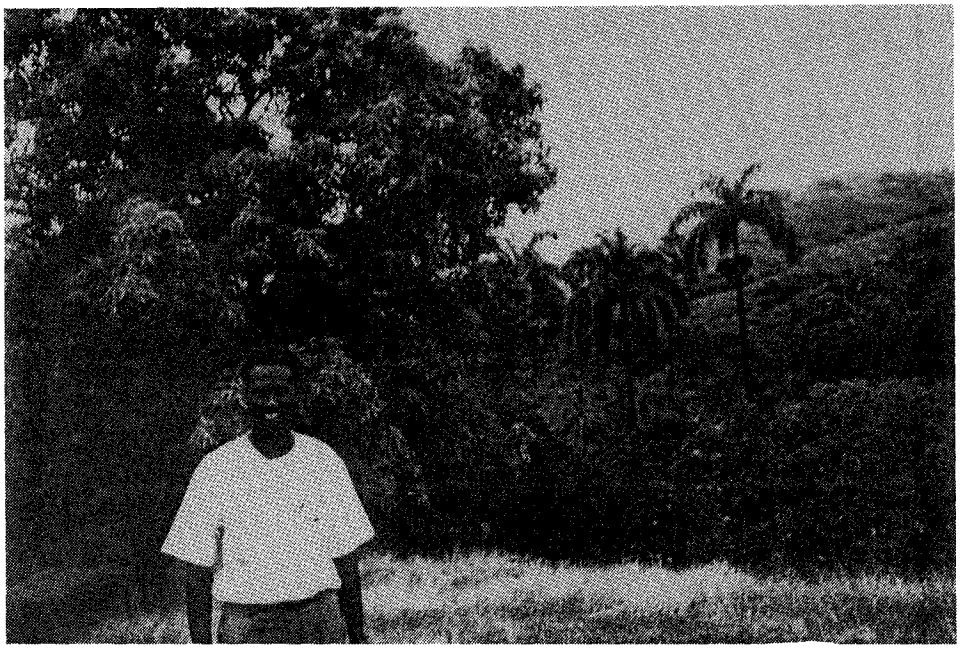

Photo 7. The writer in Seka Teka

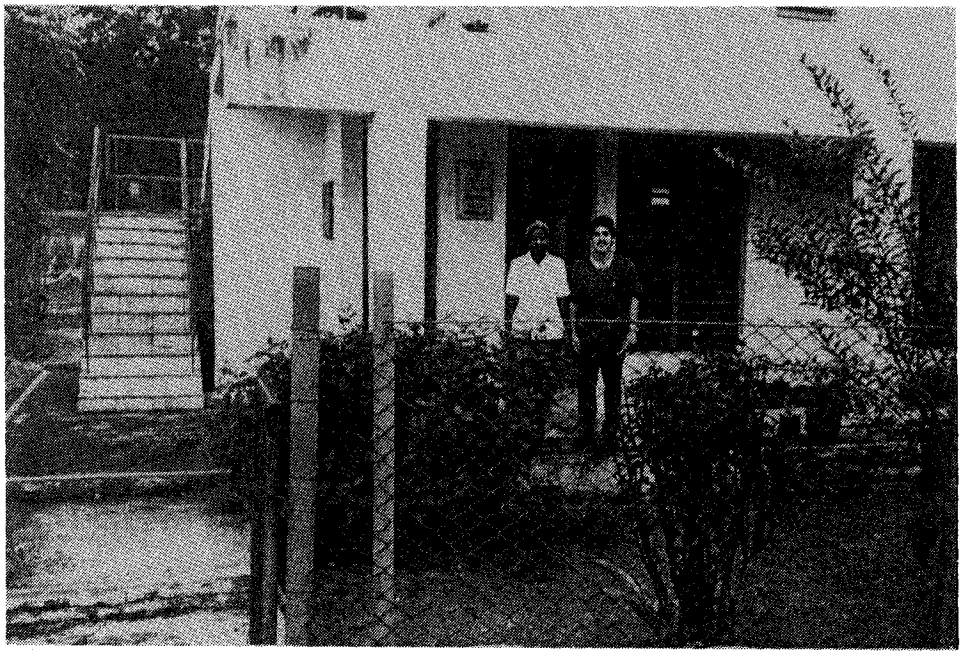

Photo 8. Family doctor and nurse in Boniato. Most of the doctors I met are young people in their twenties.

VISITING FAMILY DOCTORS IN EL COBRE AND POLYCLINIC-FRANK PAIS

Santiago de Cuba

Photo 1. Santuario Nacional de La Virgen del Cobre (the Patron Saint of Cuba). Built in the spanish colonial era, the cathedral attracts many visitors (Cubans & foreigners) each year. It is the most prominent structure in El Cobre.

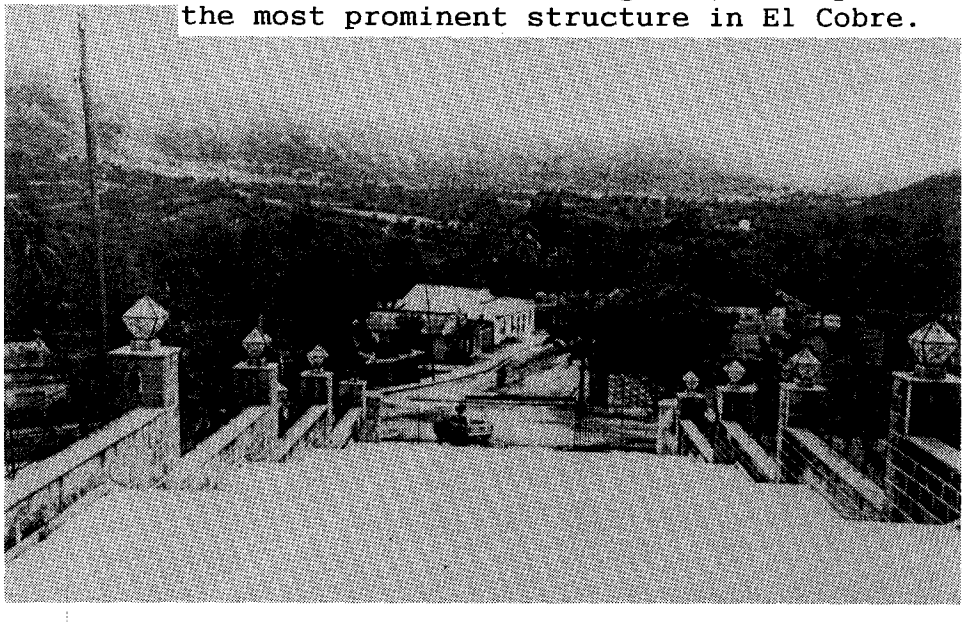

Photo 2. A view of the mining town of El Cobre. Picture taken from the steps of the Cathedral.

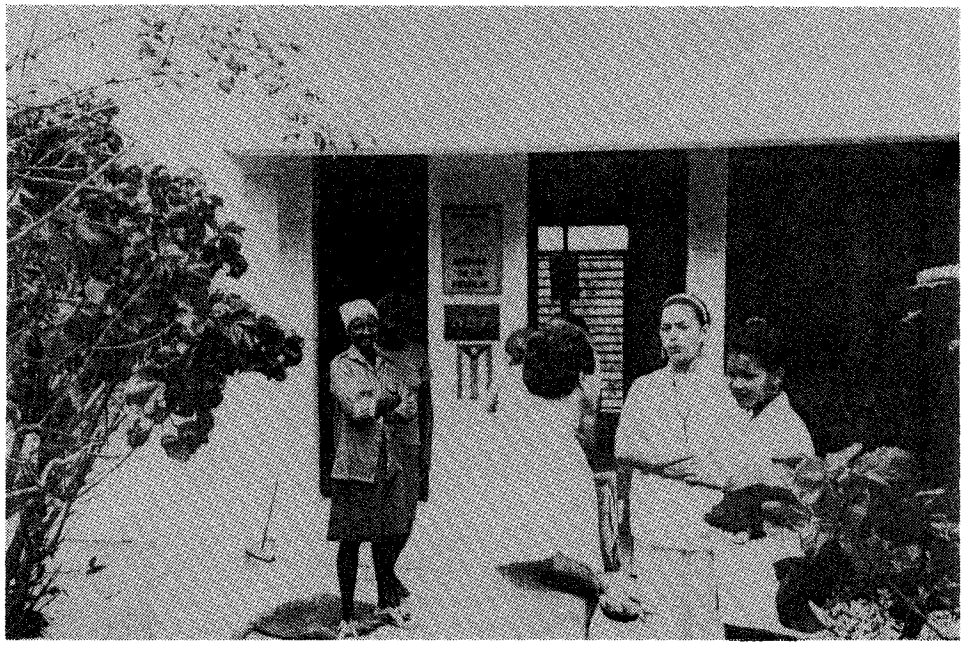

Photo 3. **El Cobre.** Family doctor & nurse with community health workers.

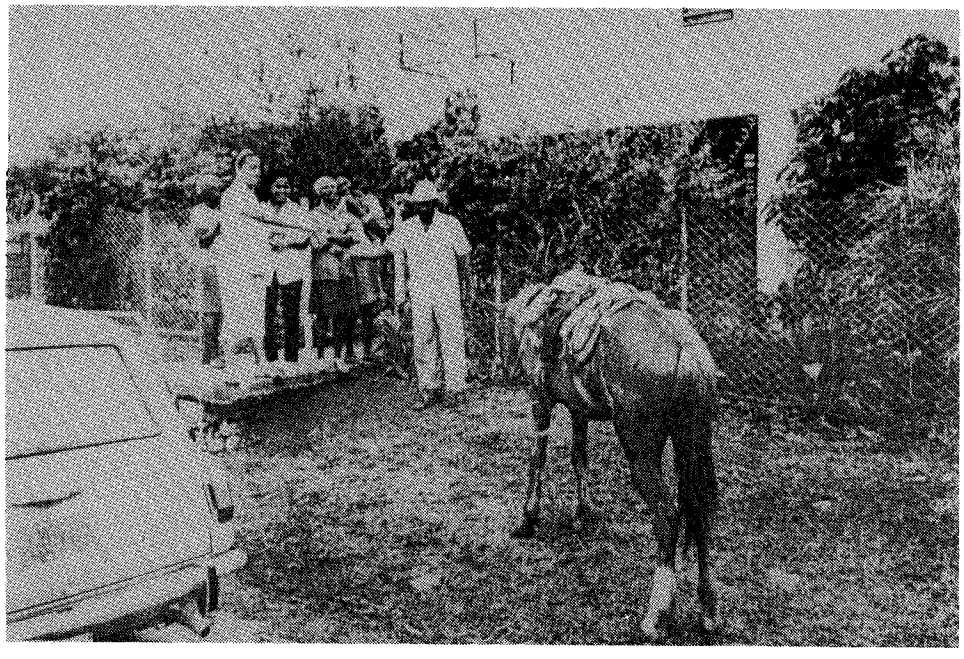

Photo 4. **El Mensajero** (messanger) uses a horse to bring information from polyclinic to family doctor in rural Cobre.

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Photo 5. A garden of medicinal plants in the backyard of a family doctor clinic. In almost all the clinics I visited, family doctors practice medicina verde (or green medicine).

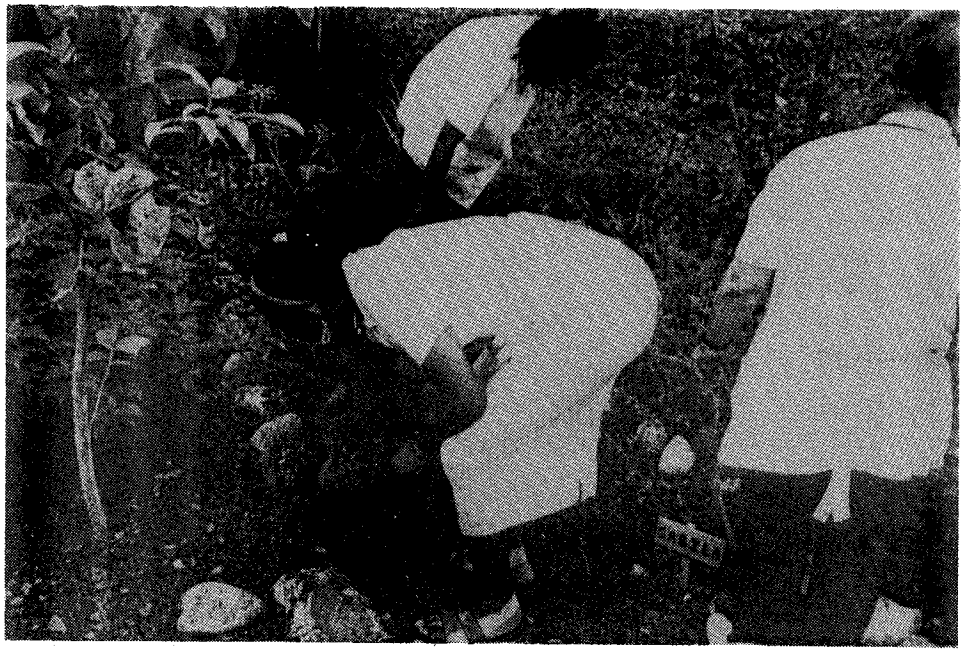

Photo 6. Medicina Verde: doctor & Nurse working in the garden.

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Photo 7. **Frank Pais**- Community polyclinic. Santiago de Cuba.

Photo 8. **Weekly seminars.** Family doctors attend meetings in the in the polyclinic to discuss health problems in the community.

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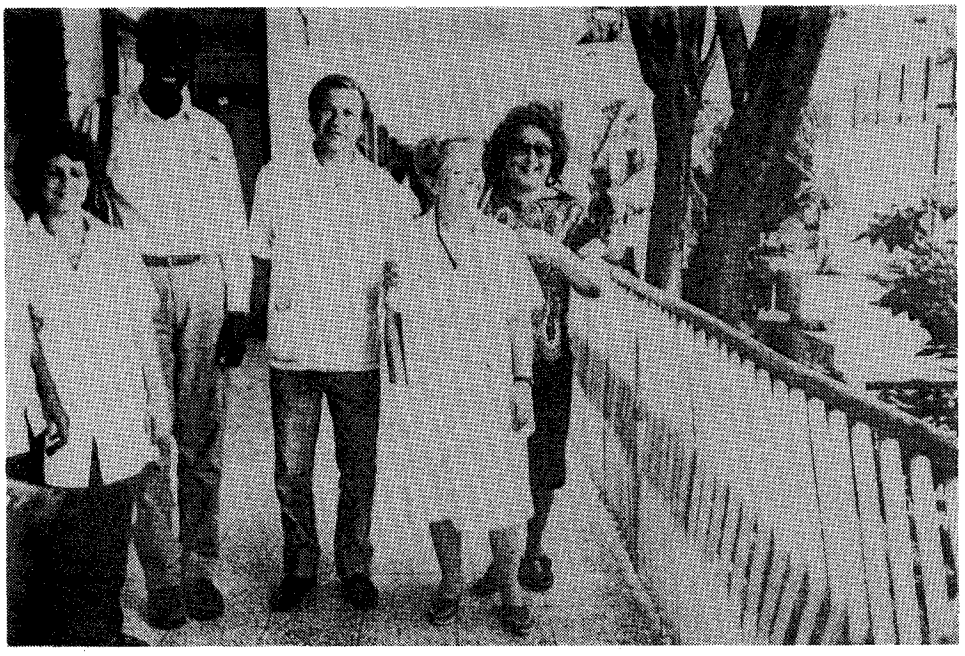

Photo 9. Making a tour of the Polyclinic.

Photo 10. With the Academic staff at the Polyclinic F.Pais.

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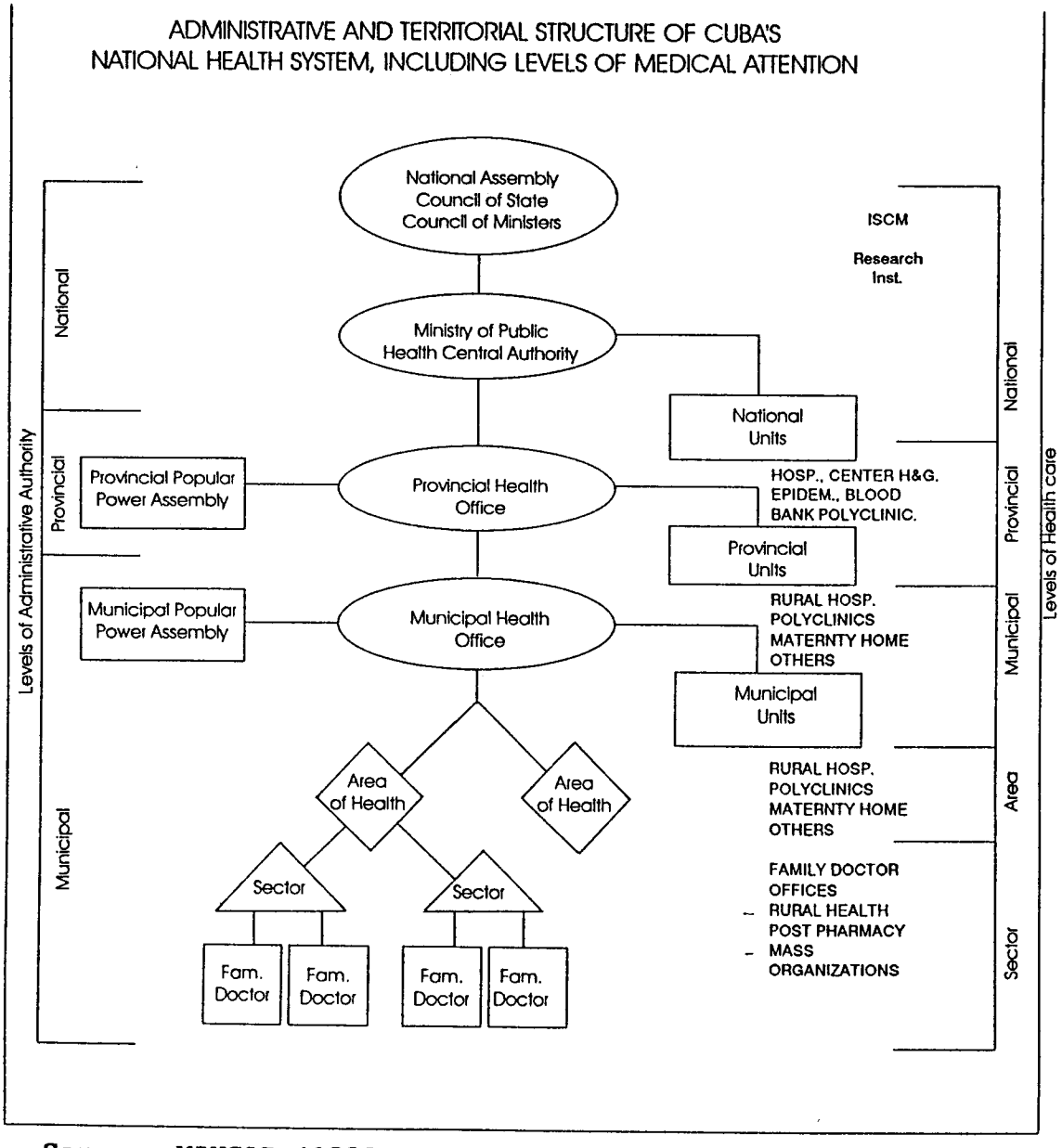

Source: MINSAP (1990), Cuba's family doctor programme.

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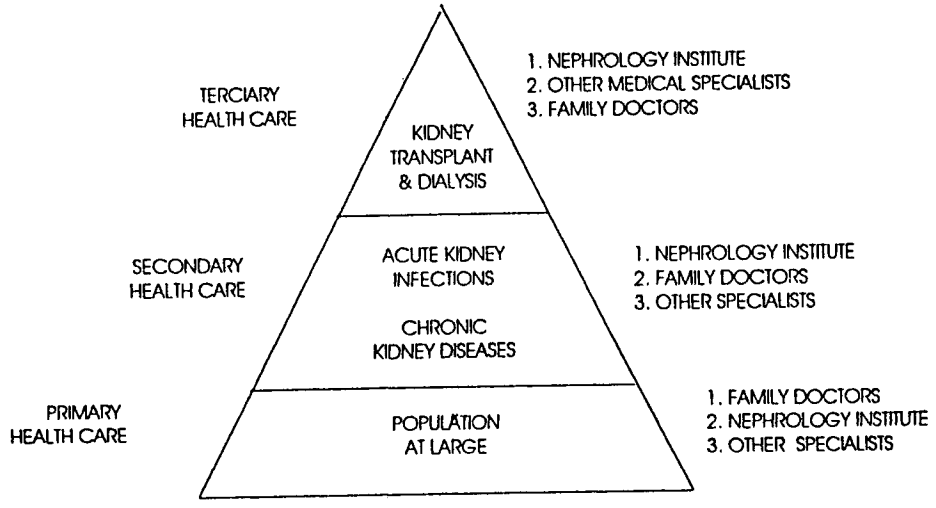
CUBA: TIES BETWEEN FAMILY DOCTORS
AND HIGHER LEVELS OF HEALTH CARE*



* This example corresponds to the care of chronic kidney disease.

Source: MINSAP (1990), Cuba's family doctor programme.

Cuba: Basic operating costs of a typical Family Doctor Office, 1989

	US $
I. Investment cost	45,400
Building costs	35,000
Equipment costs	10,400
II. Operating costos	6,528
III. Total cost for a new Family Doctor Office, constructed at the beginning of the year, after the first year in operation	45,400

[5] For all practical purposes one Cuban peso is equivalent to one US dollar.

Source: MINSAP (1990), Cuba's family doctor programme.

STATISTICS

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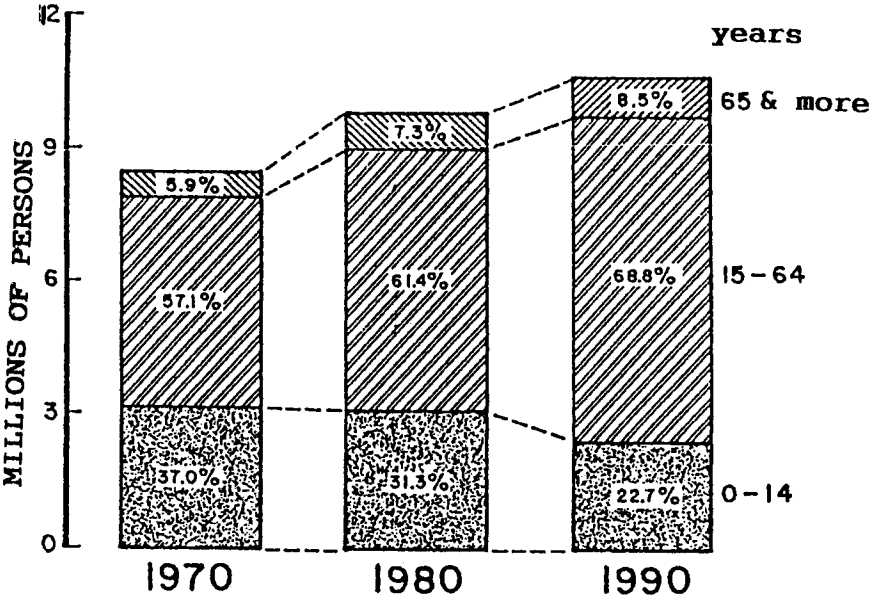
Population estimated June 30, 1990 & density of population by provinces.

Provinces	- 1 yr.	1-4 yrs.	5-14 yrs.	15-49 yrs.	50-64 yrs.	65 & >	Total	Density of population. persons/km2
Pinar del Río	11900	45100	104100	401900	77300	51500	691800	64
La Habana	10200	39100	85400	363700	81300	66300	646000	114
Ciudad Habana	32700	121800	250100	1177800	305500	221100	2109000	2901
Matanzas	9500	35300	81700	347800	76900	59900	611100	52
Villa Clara	12500	46700	101600	455700	104500	86200	807200	102
Cienfuegos	5800	22400	49700	207300	44100	34500	363800	87
Sancti Spíritus	6600	25000	57200	243800	54100	41600	428300	64
Ciego de Avila	6400	23800	54100	204900	44200	32600	366000	58
Camagüey	13200	49100	112100	424900	86800	59500	745600	53
Las Tunas	9300	35400	80200	288700	49700	32600	495900	75
Holguín	18800	68800	151700	578700	104700	70500	993200	107
Granma	16700	63100	130200	452400	76800	49700	788900	94
Santiago de Cuba	20200	77500	162100	565300	101200	63700	990000	160
Guantánamo	10400	40600	88600	276500	45900	29500	491500	79
Isla de la Juv.	1600	5800	11800	46800	5800	3100	74900	34
TOTAL	185800	699500	1520600	6036200	1258800	902300	10603200	96

Fuente: La población proyectada para el período 1988-2005. Cuba y provincias. Comité Estatal de Estadísticas.

STRUCTURE OF THE POPULATION BY AGE.
1970, 1980 & 1990



Source: MINSAP, Informe anual 1990.

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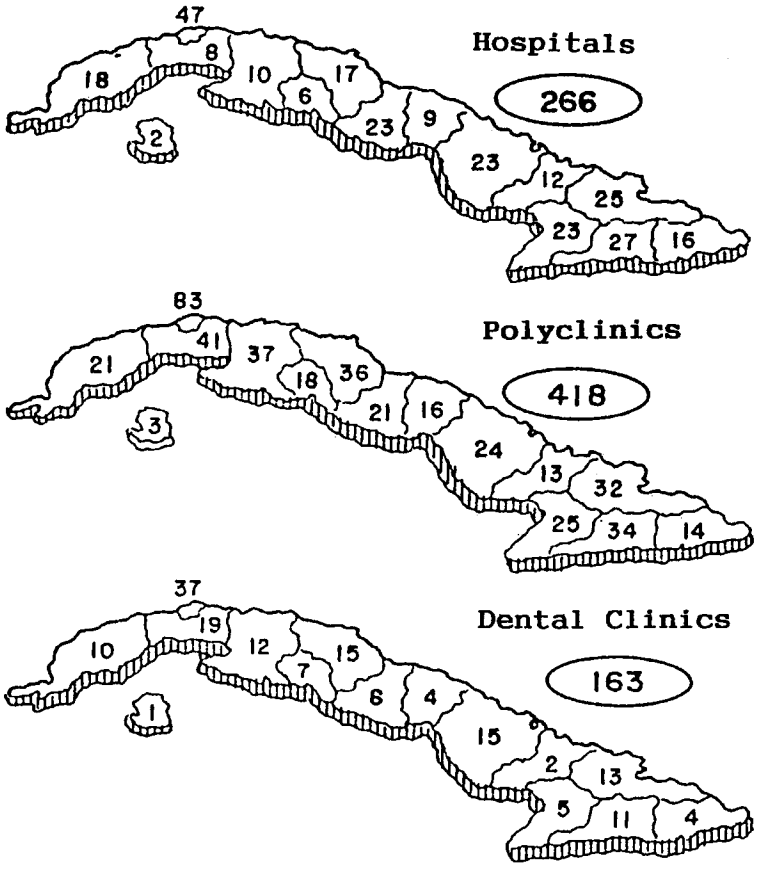
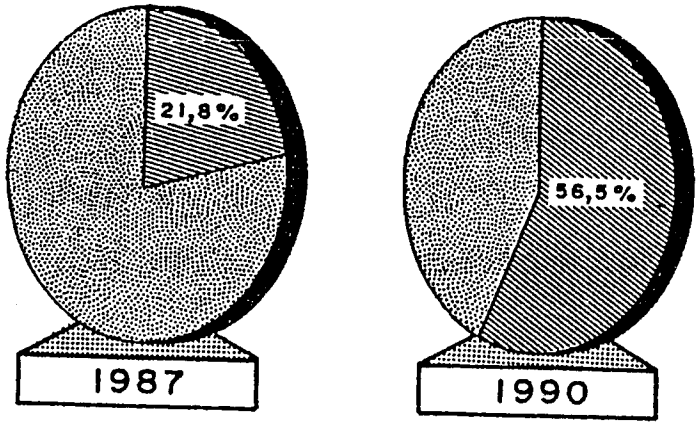
SELECTED UNITS



Source: MINSAP, Informe anual 1990.

Percentage of population served by family doctors. 1987 & 1989



Source: MINSAP, Informe anual 1990.

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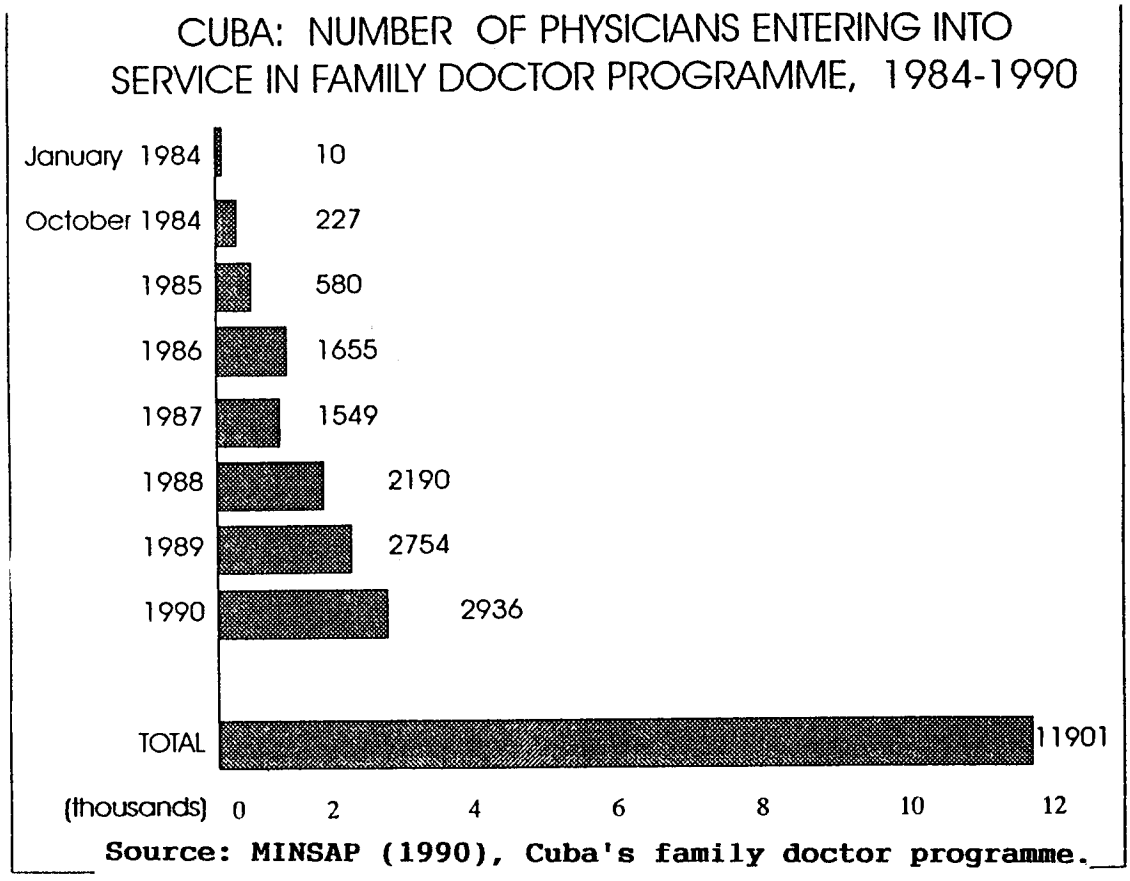
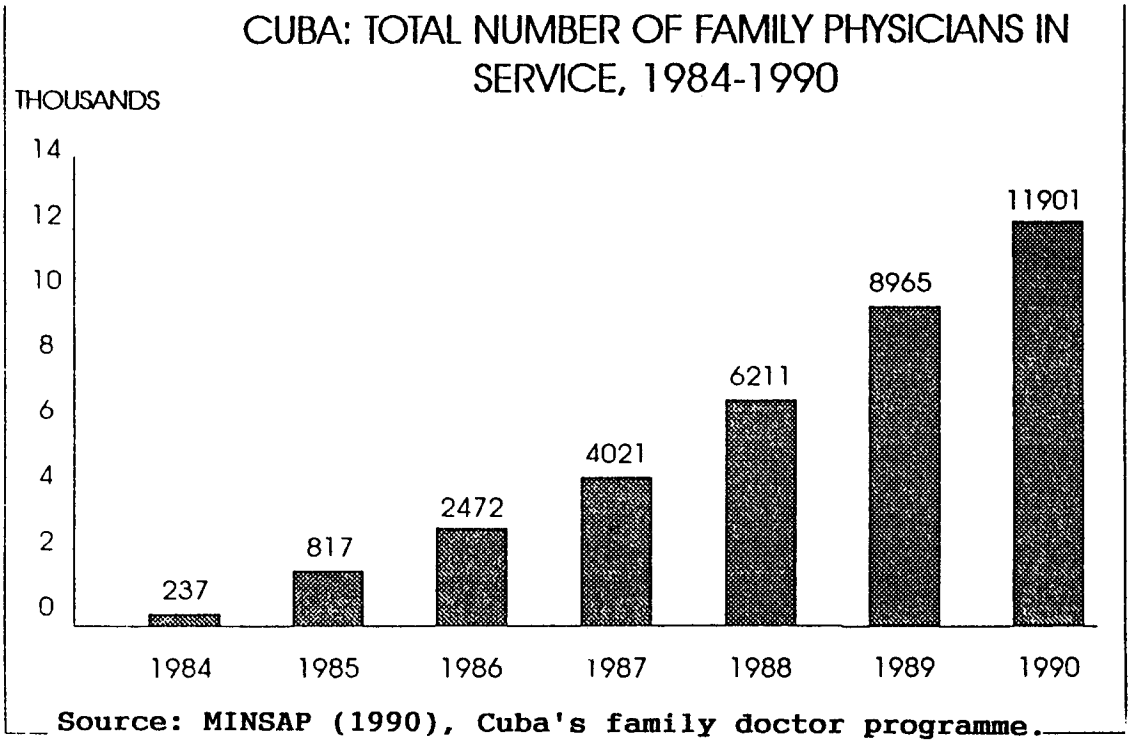

CUBA: NUMBER OF PHYSICIANS ENTERING INTO SERVICE IN FAMILY DOCTOR PROGRAMME, 1984-1990
January 1984
10
October 1984
227
1985
580
1986
1655
1987
1549
1988
2190
1989
2754
1990
2936
TOTAL
11901
(thousands)
0
2
4
6
8
10
12
Source: MINSAP (1990), Cuba's family doctor programme.


CUBA: TOTAL NUMBER OF FAMILY PHYSICIANS IN SERVICE, 1984-1990
THOUSANDS
14
12
10
8
6
4
2
0
237
817
2472
4021
6211
8965
11901
1984
1985
1986
1987
1988
1989
1990
Source: MINSAP (1990), Cuba's family doctor programme.

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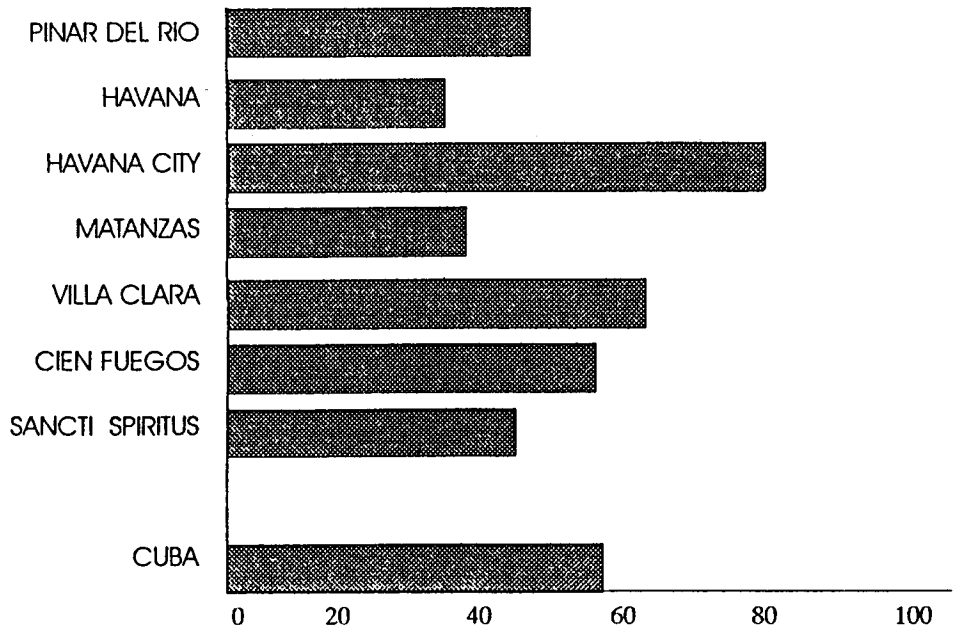
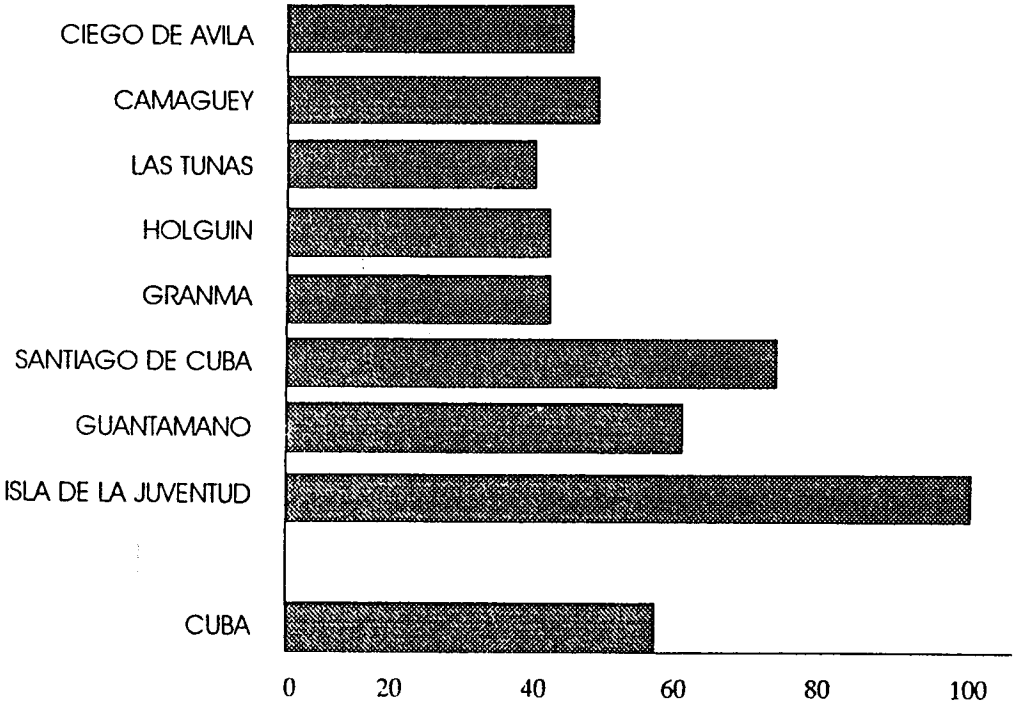
CUBA. SHARE OF TOTAL POPULATION SERVED BY FAMILY DOCTOR PROGRAME, BY PROVINCE, 1990



PINAR.- SANCTI SPIRITUS

Source: MINSAP (1990), Cuba's family doctor programme.

CUBA: SHARE OF TOTAL POPULATION SERVED BY FAMILY DOCTOR PROGRAMME, BY PROVINCE, 1990



PROVINCIAS CIEGO DE AVILA-ISLA JUV.

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SELECTED INDICATORS FOR CUBA'S FAMILY DOCTOR PROGRAMME, BY PROVINCE, SEPTEMBER 1990

	N. Total	P. del Rio	Hav.P	Hav. C.	Mat.	Cfgos	Villacl	S. Stus	C. Avil	Camg	L. Tun	Holgu	Granm	S. Cub	Gtmo	I. Juv
No of Polyclinics w/FDP	305	19	15	71	18	12	20	10	11	24	9	21	19	32	16	3
No of "Stable"*Polyclinics	164	2	3	61	8	8	15	2	8	6	5	4	3	10	3	3
Total No.of family Doctors	11,901	737	485	3,381	557	385	1056	357	297	742	364	761	663	1442	499	175
In urban areas	6,143	370	306	2,399	261	244	547	159	115	342	116	326	230	460	168	100
In rural areas	1,320	46	21	-	75	17	153	65	115	165	164	179	99	192	29	-
In mountain region	994	59	-	-	-	17	19	50	-	-	-	87	156	379	227	-
In agricultural co-cops	84	15	3	-	3	10	4	14	8	11	-	10	1	2	2	1
Family doctors in communities:	8,541	490	330	2,399	339	288	723	288	238	518	280	602	486	1033	426	101
In workplaces	570	27	42	170	31	32	85	13	7	43	13	23	28	38	16	2
In work brigades	93	4	10	24	10	2	1	2	5	3	5	6	6	8	6	1
In fishing fleet	24	-	-	20										2		2
In Manbisa	26	-	-	26												
In agricultural encampments	16	-		16												
Fam. doctors in work centers:	729	31	52	256	41	34	86	15	12	46	18	29	34	48	22	5
In schools	638	71	34	80	86	17	67	8	13	54	20	26	43	54	12	53
In day care centers	317	20	5	125	15	11	28	4	4	23	14	8	16	33	10	1
In Pioneer Childre's Cites	22			22												
Fam. doctors for in health inst.	977	91	39	227	101	28	95	12	17	77	34	34	59	87	22	54
In homes for the elderly	33	2	1	7	4	-	3	2	1	5	-	6	2	-	-	-
In emergency services	39													39		
In gymnassiums	4							4								
Fam doctors in health inst.	76	2	1	7	4			6	1	5		6	2	39		
In armed forces	352	13		174	20	9	3 33	7	11	16	6	22	4	30	7	
In Ministry of Interior	73	7	8	12	6	4	4	1	3	7	1	9	3	6	2	
Family doctors in military inst.	425	20	8	186	26	13	37	8	14	23	7	31	7	36	9	
Family doctors, internacional ser.	142	13	2	22	4	3	13	5	1	16		7	8	44	4	
Family doctors in reserve force**	1011	90	53	284	42	19	99	23	14	57	25	52	67	155	16	15

FDP FAMILIY DOCTOR PROGRAMME
"STABLE" Polyclinics are those with strict polices of not increasing or decreasing their staffs of physicians.
Family physicians in the "reserve force" are those who substitute for physicians on leave.

Source: MINSAP (1990), Cuba's family doctor programme.

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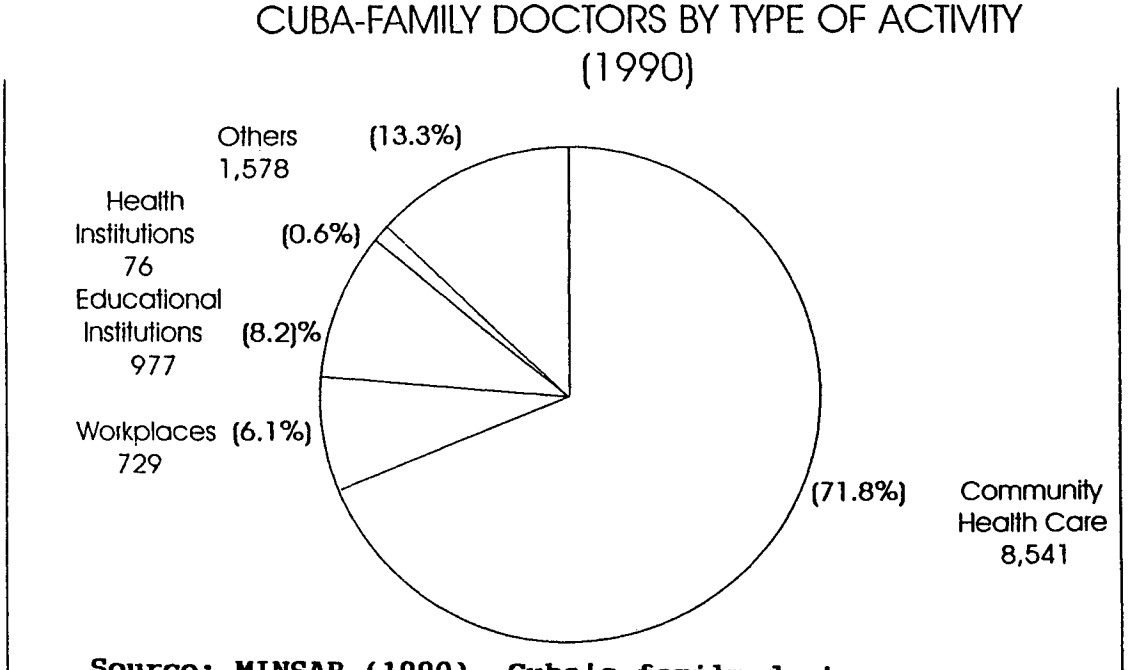
Source: MINSAP (1990), Cuba's family doctor programme.

Cuba: Number of inhabitannts served by the Family Doctor Programme, and share of total population, by province, September 1990

Province	Total population	No. Family * Physicians	No. Inhabitans served	% total population served by served Doctor Prog.
P. del Rio	691,800	490	343,000	49,58
Havana	646,000	330	231,000	33,75
Havana City	2,109,000	2399	1,679,300	79,62
Matanzas	611,100	339	237,300	38,83
Cienfuegos	363,800	288	201,600	55,41
Villaclara	807,200	723	506,100	62,69
S. Spiritus	428,300	288	201,600	47,06
C. Avila	366,000	238	166,600	45,51
Camaguey	745,600	518	362,600	48,63
Las Tunas	495,900	280	196,000	39,52
Holguin	993,200	602	421,400	42,42
Granma	788,900	486	340,200	43,12
S. de Cuba	990,000	1033	723,100	73,04
Guantanamo	491,500	426	298,200	60,70
I. Juventud	74,900	101	74,900	100,00
Cuba	10.603,200	8,541	5,978,700	56,70

* Working directly in communities.



Source: MINSAP (1990), Cuba's family doctor programme.

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CUBA: RATE OF DETECTION* OF HYPERTENSION AMONGST THE POPULATON AT LARGE AND THAT PORTION SERVED BY THE FAMILY DOCTOR PROGRAMME, 1988

Provinces	Amongst general population	Population served by Family Doctor Prog.
Pinar del Río	23.0	55.0
Havana	36.6	77.5
Havana City	59.9	74.7
Matanzas	68.7	71.0
Villa Clara	30.0	57.4
Cienfuegos	36.0	69.0
Sancti Spiritus	23.9	33.9
Ciego de Avila	14.0	70.9
Camagüey	20.8	50.4
Las Tunas	17.2	43.2
Holguin	34.0	71.1
Granma	12.1	22.4
Santiago de Cuba	29.7	35.6
Guantanamo	25.2	46.1
Isla de la Juventud	19.7	93.3
TOTAL	37.0	60.0

* Per 1000 inhabitants

Source: MINSAP (1990), Cuba's family doctor programme.

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CUBA: RATE OF DETECTION* OF DIABETES AMONGST THE POPULATION AT LARGE AND THAT PORTION SERVED BY THE FAMILY DOCTOR PROGRAMME, 1988

Provinces	Amongst general population	Population served by Family Doctor Prog.
Pinar del Río	11.8	22.0
Havana	18.0	27.4
Havana City	21.8	23.7
Matanzas	26.3	17.2
Villa Clara	15.7	17.0
Cienfuegos	11.8	17.6
Sancti Spiritus	10.4	10.1
Ciego de Avila	8.7	20.8
Camagüey	8.2	14.9
Las Tunas	6.9	7.7
Holguin	15.7	31.4
Granma	5.2	5.8
Santiago de Cuba	12.5	8.6
Guantanamo	8.6	8.7
Isla de la Juventud	5.8	27.3
TOTAL	15.1	18.8

* Per 1000 inhabitants.

Source: MINSAP (1990), Cuba's family doctor programme.

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CUBA: RARE OF DETECTION* OF ASTHMA AMONGST THE POPULATION AT LARGE AND THAT PORTION SERVED BY THE FAMILY DOCTOR PROGRAMMME, 1988

Provinces	Amongst general population	Population served by Family Doctor Prog.
Pinar del Río	13.4	40.4
Havana	24.6	62.6
Havana City	33.3	50.7
Matanzas	13.7	40.3
Villa Clara	15.2	24.3
Cienfuegos	16.2	29.3
Sancti Spiritus	11.5	24.2
Ciego de Avila	13.4	55.5
Camagüey	12.4	40.1
Las Tunas	12:8	39.2
Holguin	21.6	51.9
Granma	8.1.	16.8
Santiago de Cuba	20.6	31.7
Guantanamo	12.3	39.1
Isla de la Juventud	14.3	80.4
TOTAL	20.5	41.1

* Per 1000 inhabitants.

Source: MINSAP (1990), Cuba's family doctor programme.