

## SOUTH AMERICAN INDIANS BETWEEN TRADITIONAL AND MODERN HEALTH SERVICES IN RURAL ECUADOR<sup>1</sup>

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*A survey of Ecuadorean Indian attitudes toward traditional and modern health services (aside from self-treatment) showed a marked preference for modern services, but also a marked tendency toward multiple use of different healing systems and lack of confidence in existing services. The main reason cited for not using modern services was lack of cultural, financial, or geographic access to those services.*

### Introduction

"Health services should be related to the health needs of the population." This simple and often-repeated statement is only meaningful if the concepts of health need and health service are well-defined, as is usually not the case. That is, there seems to be a general agreement that health need "is the difference between the measured situation and what is seen as the 'normal' or acceptable health level" (1). However, what is the normal or acceptable level tends to be assessed quite differently by different people.

Health professionals, for example, tend to base their assessment of unmet needs on one or more of the following:

- a desired population-manpower ratio (2);
- a list of desirable health achievements, such as reduction of morbidity or adequate development of children under five (3);
- morbidity and mortality figures (4,5);
- laboratory tests and psychological examinations (6);
- the judgment of a panel of physicians (7-9).

In contrast to these "professionally-based" need assessments, other researchers have de-

veloped "consumer-based" need assessments that measure people's perceptions of need vis-a-vis their health status and compare those perceptions with actual use of health services (10-13).

However, a review of the relevant literature reveals that very few community-based or service-based studies have been undertaken. (Those known to have occurred in Latin America are listed in Table 1.) Thus, it seems doubtful that much health planning is based upon—or even considers—the served communities' felt needs, a circumstance suggested by two past meetings of the Ministers of Health of the Americas (21,22). And while it is true that no small effort can resolve this problem, it would seem worthwhile to examine people's actual use of traditional and modern health services in terms of their opinions and attitudes regarding those services. For this reason, the study reported here was undertaken.

### Study Design

A household interview survey was conducted among four Ecuadorean Indian populations. Two of these populations (the Quichua of Nabón Parish and the Quichua of Saraguro) resided in the Andean Highlands, and two indigenous to the Napo River region (the Quijos and the Achuar, a subgroup of the Shuar) lived in eastern rain-forest areas (see Figure 1). The entire reference population consisted of approximately 41,000 people living in 7,400 households. Those actually inter-

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Shuar Indians of the Achuar subgroup (above) and Quichuas of Nabón Province (below). The former inhabit remote parts of the Ecuadorian and Peruvian rain forest, while the latter (the photograph shows a family outside its residence) live in the Andean highlands.



Table 1. Local interview-based studies on the use of health care services in Latin America.<sup>a</sup>

Author(s) and source	Area and year of study	Period for respondents' recall of symptoms	Sample size	Study design <sup>b</sup>	% of subjects using different types of health care				Comments
					Traditional healers	Modern services	Drugstores	Self-help or no treatment	
Teller (14)	Urban Honduras, 1970-1971	2 weeks	621 households	Cross-sectional area sample	4.1%	31.4%	not considered	64.5%	Utilization pattern found associated with severity of illness, socioeconomic status, and (to a lesser extent) migratory status.
Woods and Graves (15)	A rural Guatemala town, 1966	1 week	40 Indian and 15 Mestizo households	Longitudinal (6 months)	19.0%	51.3%	29.7%	(73% of the study subjects used self-treatment)	A shift to major medical services is more likely where symptoms persist or become more severe. Changes in beliefs are clearly lagging behind changes in medical practices.
Fromm and MacCoby (16)	Rural Mexico	Unlimited	408 adults	Cross-sectional	10% <sup>c</sup>	54% <sup>c</sup>	not considered	not considered	Formal education was found to turn villagers away from traditional customs.
DeWalt (17)	Rural Mexico 1973	12 months	61 families	Cross-sectional random sample	32.5% <sup>d</sup>	61.0% <sup>d</sup>	not considered	not considered	Virtually every family had consulted a physician on some occasion. Use of traditional medicine was found to be negatively correlated with education.
Fábrega (18)	Urban Mexico	2 weeks	174 housewives	Longitudinal	28% <sup>e</sup> 70% <sup>f</sup>	74% <sup>e</sup> 21% <sup>f</sup>	67% <sup>e</sup> 42% <sup>f</sup>	not considered not considered	Mestizos reported more psychological symptoms during illness than did the Indians. Among the Mestizos an association was observed between economic hardship and the rate of reported illness.

Young (19)	Mexican Indian town	2 weeks	62 households	Longitudinal (6 months)	14.1%	32.9%	not considered <sup>g</sup>	49.3%	Four criteria for choosing the type of care selected were analyzed, these being the seriousness of the illness, the patient's concept of the class of illness involved, the chooser's confidence that the patient would be cured, and the cost of treatment. The last two criteria were found to be the most important.
Selwyn (13)	Cali, Colombia	4 weeks	741 households	Cross-sectional random sample	0.3% <sup>h</sup>	47.1% <sup>h</sup>	6.4% <sup>h</sup>	59.7% <sup>h</sup>	This study was designed to determine the appropriateness of the services provided.
Kroeger (23)	Ecuador, <sup>i</sup> 1978	2 weeks	727 households	Cross-sectional, using list of 31 "tracer conditions"	10.2% 21.7% <sup>j</sup>	26.8% 51.6% <sup>j</sup>	12.9% 26.7% <sup>j</sup>	50.1% —	It was found that the use distribution figures concealed a marked tendency to change healers, a circumstance pointing to patient-healer conflict.

<sup>a</sup>Only community-based studies are listed, and studies where the study design was not reported (e.g., Erasmus—20) have also been excluded. National studies (in Chile, Colombia, and Puerto Rico) and urban studies (in Rio de Janeiro, Brazil; Rosario, Argentina; and Santiago, Chile) are not mentioned.

<sup>b</sup>None of the studies listed (except Kroeger, 1981) made use of a list of "tracer conditions" (see text footnote 3).

<sup>c</sup>The remaining 36% of the sample used both traditional healers and modern services.

<sup>d</sup>Proportion of families in which at least one member went to either source.

<sup>e</sup>Mestizo population sampled (some respondents reported using more than one type of care).

<sup>f</sup>Indian population sampled (some respondents reported using more than one type of care).

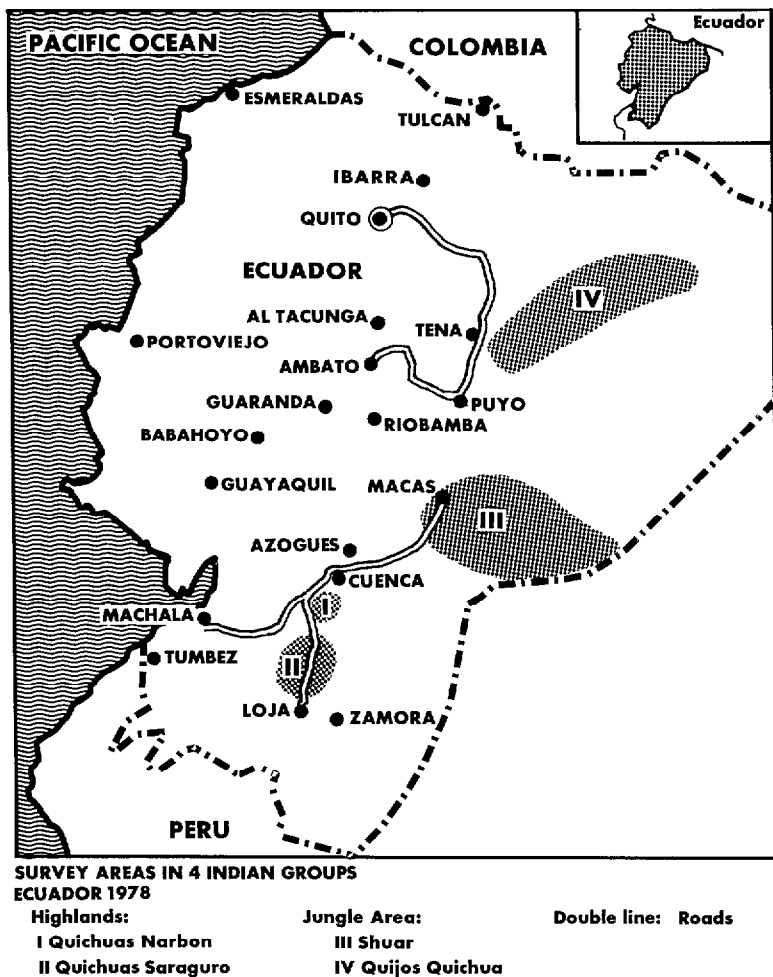
<sup>g</sup>3.7% reported using "another source" of health care.

<sup>h</sup>13.5% reported using more than one type of health care.

<sup>i</sup>Another study in Ecuador of mothers and young children (31) adopted such a different approach that the results could not be recalculated so as to fit into this table.

<sup>j</sup>These percentages exclude those who used self-treatment.

Figure 1. A map of Ecuador showing the areas inhabited by the four Indian populations studied and the main roads serving those areas.



viewed (by 52 trained and supervised indigenous interviewers) were 727 heads of households whose residences contained 4,170 people. Because of deficient census data, the interview sample could not be selected on a purely random basis. However, it was generally possible to exclude arbitrary selection and self-selection of the respondents (23). Efforts were also made to foresee and prevent various kinds of potential interviewer and respondent errors as much as possible. Cultural barriers were minimized through the author's extensive field experience in the areas under study and by use of indigenous interviewers from a

socioeconomic group similar to the respondents'.

The core of the interview questionnaire consisted of questions about the perceived morbidity of the population and what people did in case of disease. Guided by a list of 30 tracer conditions<sup>3</sup> (including a miscellaneous

<sup>3</sup>This list (which included popular expressions and culture-specific illness classifications for certain diseases) reminded respondents of even minor complaints, forced the interviewers to use it strictly, avoided dependence on the respondent's ability to verbalize his opinion, overcame the problem of variations in defining illness, and improved the respondents' willingness to speak about their complaints.

category), respondents were asked what conditions of ill health, if any, they had experienced during the two weeks preceding the interview, what they had done about them after the onset of symptoms, and how they had proceeded if the first treatment was unsuccessful. (There was no requirement for the onset of symptoms to have occurred within the last two weeks if the person was still experiencing symptoms within that period.) The respondents were also asked what type of "healer" they would prefer, given a free choice and access to all healers.

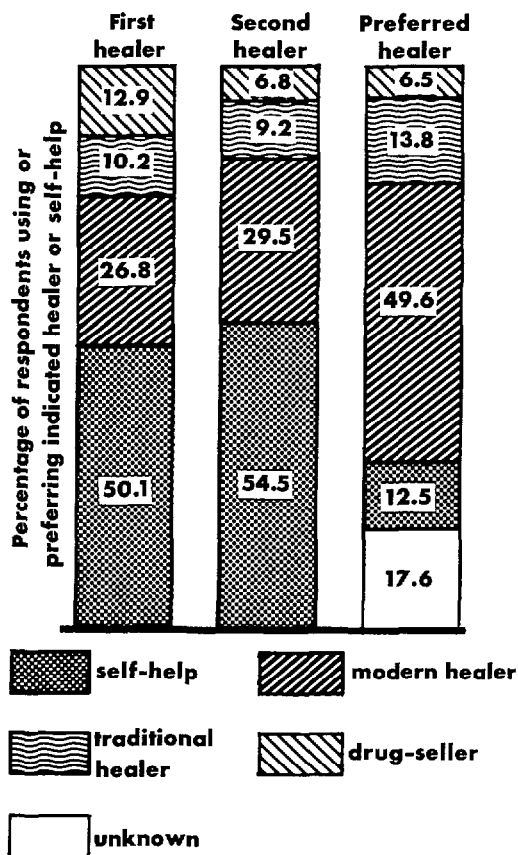
## Results

Figure 2 shows the frequency with which different types of health services were used or preferred by the four study populations. Clearly, self-treatment at home (without use of either modern or traditional health services) was the most frequent type of care provided. Modern health services (physicians, nurses, medical auxiliaries, or health promoters) constituted the second most frequent source of care, while other sources (drug-sellers and traditional healers) were used considerably less often. The distribution of healers sought if the first treatment proved unsuccessful was fairly similar, except that drug-sellers were used even less frequently the second time.

Both Figure 3 and the "preferred healer" column in Figure 2 indicate that most people, given a free choice, preferred modern health services and (to a more limited extent) traditional healers, at the expense of self-treatment and drug-sellers.

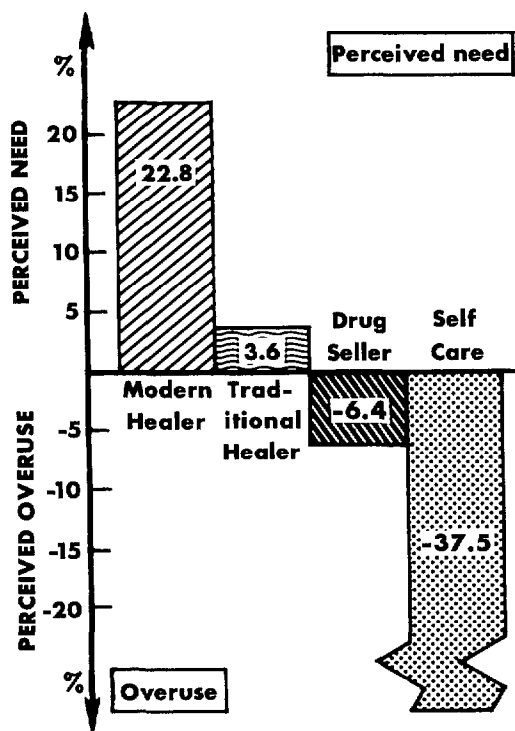
On the basis of these data, health planners would feel inclined to continue with their conventional ways of allocating resources—so as to extend the coverage provided by existing modern health facilities. However, these very static data on people's use and choice of health services conceal very important features of their health-seeking behavior. Figure 4, for instance, suggests the bewildering network of multiple uses of health facilities found in our

Figure 2. Percentages of 3,670 symptoms of ill health reported by survey subjects using different types of health care initially and secondarily (if the first treatment failed), and the types of care they said they would prefer to use.



four study populations. The information presented was obtained from 410 people who had experienced a self-diagnosed illness with the symptom "headache" during the two weeks before the interview. Of these, 68 went to traditional healers with their complaints. Thereafter, 10 of the 68 did not need or use further treatment; 24 went back to a traditional healer (not necessarily the same one); 15 saw a physician or health auxiliary; 7 went to a drugstore; and 12 treated themselves at home. In general, the change of healer was particularly frequent when the first healer was a drug-seller, less frequent when he was a traditional healer,

Figure 3. The difference between the percentages of subjects saying they initially used a given type of care and the percentages saying they preferred that type of care (see Figure 2).



and least frequent when he was a modern healer or when self-treatment was employed.

The numbers on the vertical arrows in Figure 4 indicate the consistency with which a particular type of healer was used and may be taken as an indication of the study population's confidence in the kind of health service

involved. They thus provide an important insight into the population's behavior in seeking health care.

In general, it was found that people reported to be suffering from "infectious diseases" and "painful conditions" consistently preferred to use modern health services, whereas people with "psychosomatic conditions" or "folk diseases" resorted more consistently to traditional healers or home treatment. Two examples of this relative consistency are shown in Table 2. It can be seen that in the case of "chronic cough," self-treatment and modern health services were used with the highest degree of consistency, whereas in the case of "weakness or dizziness," the most consistently utilized forms of care were self-treatment and traditional healers.

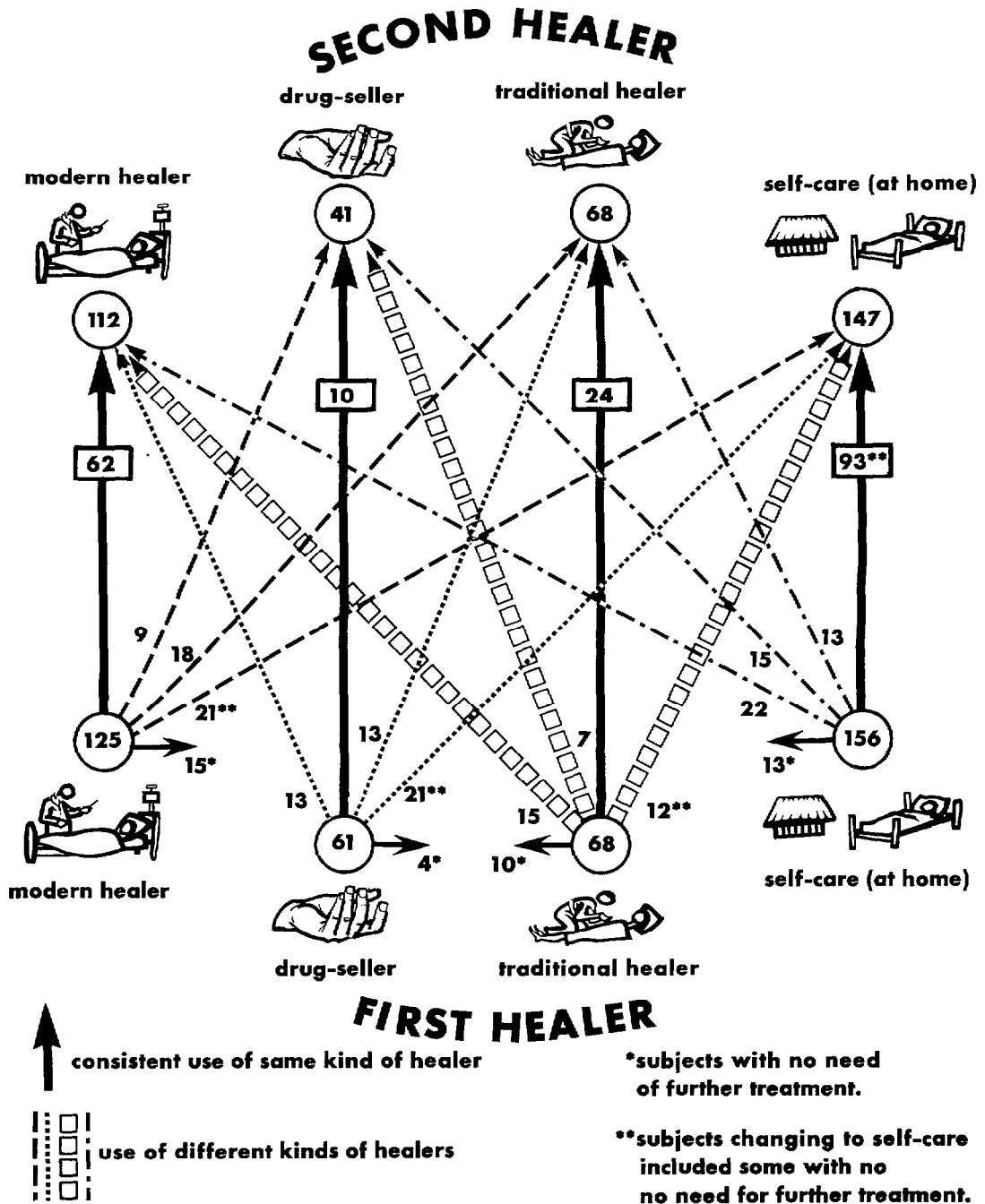
Regarding a number of possible variables, our results indicate that the patient's age, sex, primary school education, and material assets were not consistently associated with the use of either traditional or modern health services, whereas secondary education and the accessibility of modern services were directly correlated with the use of modern services.

The results also show that, despite the appearance of stable health service use depicted in Figure 2, in actuality there was a strong tendency to "shop around" for healers. The underlying doubts responsible for this vacillation can be seen more clearly in the attitudes expressed toward both modern and traditional healers. All the respondents were asked which of six statements (thought to indicate confidence or lack of it) applied to traditional and

Table 2. Consistency with which different types of healing procedures were used by 221 subjects with chronic cough and 245 subjects with weakness or dizziness.

Type of care used	% of chronic cough patients initially using a given type of care who continued to use that type consistently	% of patients with weakness or dizziness initially using a given type of care who continued to use that type consistently
Traditional healer	27%	39%
Modern healer	61%	24%
Drug-seller	12%	24%
Self-help	64%	51%
Average	51%	42%

Figure 4. A diagram of the healers (or self-care) used initially and subsequently by 410 patients reporting headache symptoms, showing the marked tendency to change from one type of care to another.



modern healers. These were "his treatment is effective," "his knowledge of us is good (or moderate)," "he cures all diseases," "he cures some diseases," "he visits us," and "he has our confidence." The results, in terms of a positive or negative attitude indicated by the combined answers to these questions, are shown in Figure 5. As may be seen, only a minority of the 697 heads of households answering these questions were found to have a consistently positive attitude toward either traditional or modern healers.

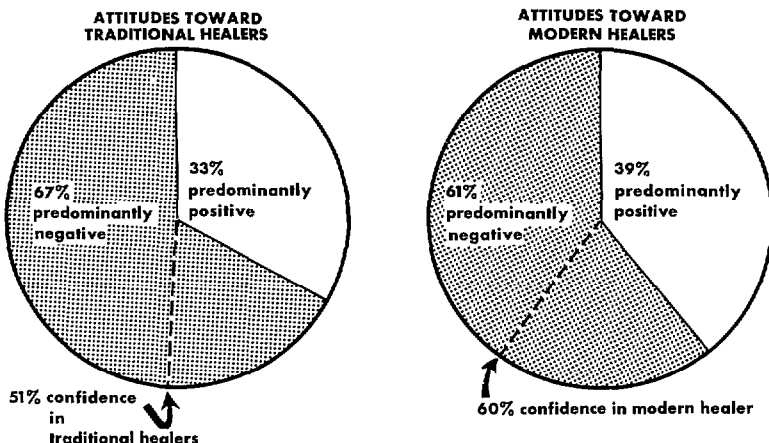
In order to trace people's reasons for choosing one type of care and rejecting another, we used the "paired comparison interview" technique (10,19). Indian patients who had gone to traditional healers were asked why they had used these rather than modern healers, and the reverse was asked of those who had used modern services. In each case, nine possible reasons for not using the healers in question were listed. Table 3 shows the three answers most often selected in both cases. These answers indicate that cultural barriers (healer too "elevated"), geographic barriers (healer

too far away) and financial barriers (healer too expensive) were major reasons for not using modern healers. On the other hand, traditional healers' limited competence, as perceived by the respondents, was a major reason for not using traditional healers.

Regarding possible future measures, the 646 household heads who responded to these questions tended to strongly favor the training of indigenous health personnel, better health education for the general public, and the incorporation of traditional medicine into the modern healer's knowledge (Table 4).

Some mention should also be made of differences in the results obtained from the four Indian groups surveyed, and of underlying factors that could help to explain those differences. In the first place, one group (the Quichuas of Nabón Parish) had a very high rate of perceived morbidity (2.2 complaints per person per two-week period, as compared to 0.7 for the Shuar and Quijos and 0.6 for the Quichuas of Saraguro). Because the Nabón Quichuas were also the most deprived and marginalized group in terms of education, fre-

Figure 5. Attitudes toward traditional and modern healers expressed by 697 heads of households. Each person was asked six questions about each kind of healer (see text) and his or her attitude was determined by whether the answers to the questions, on balance, were positive or negative. Regarding the question on confidence, 60 per cent of the respondents said they had confidence in modern healers and 51 per cent said they had confidence in traditional healers.



**Table 3. Reasons given by 233 users of traditional healers for not using modern services, and by 394 users of modern services for not using traditional healers. The reasons listed are the three most frequently selected by each group from the following nine reasons: (1) bad experiences, (2) no confidence, (3) healer too far away, (4) disease problem was minor, (5) other healer cures better, (6) no money, (7) healer unfamiliar with this type of disease, (8) healer too "elevated," (9) healer has no time.**

Reasons for not using service	Users of traditional healers: % citing reason for not using modern healers	Users of modern healers: % citing reason for not using traditional healers
Modern healer "too elevated"	60%	
Modern healer too far away	58%	
No money for modern healer	52%	
Traditional healer cures less well than modern healer		76%
Bad experiences with traditional healer		63%
Traditional healer unfamiliar with this type of disease		47%

**Table 4. Respondents' opinions about the importance of possible future measures promoting health.<sup>a</sup>**

	% expressing indicated opinion of measure		
	Very important	Moderately important	Unimportant
Health education ("We should all know more about diseases.")	89	9	2
"Our traditional healers need further training in curing diseases."	54	31	15
"The modern healers need to know more about traditional medicine."	87	10	3
"It is most important to train one of us."	91	7	2
"It is most important to have a nurse from outside."	36	48	16

<sup>a</sup>The average response rate to these questions by the 727 heads of households was 88.9 per cent.

quency of public employment, possession of landed property, and other material assets, it appears that this high level of perceived morbidity could be the result of emotional disturbances due to social stress. (For works relating to this general subject, see references 24-27.)

Second, the strongest felt need for more modern health services was expressed by the Quichuas of Saraguro, the same group that had already received the best coverage from these services. This could have been due to their advanced cultural adaptation to Mestizo

society, and also to the fact that their "modern services" were provided almost exclusively by Indian health auxiliaries.

Finally, respondents living in remote areas, especially the Shuar/Achuar, expressed relatively greater confidence in modern health services they rarely or never used, and relatively slight confidence in the traditional healers upon whom they depended. The reverse was true for people living close to modern services, who tended to regard traditional healers more highly than modern ones. A pos-

sible explanation is that those surveyed tended to prefer one or another of the healers living at some distance, or else that respondents tended to be dissatisfied with the actual healers people were depending upon. It may be that high expectations regarding modern medicine, as expressed in remote areas, have been slowly disappointed following increased contact with these services.

## Conclusions

The preference for self-care (including traditional home treatment) and for modern health services (over traditional healers and drug-sellers) was conspicuous. This finding agrees with what has been found in other countries (see Figure 6). However, in assessing people's perceived needs for health services, the mere description of actual use and demand is not enough; it is also necessary to consider the dynamics involved in choosing health services. In this vein, it is particularly important to consider the consistency with which individual subjects use specific services, because this provides important insights into the independent variables capable of explaining why different kinds of care are sought.

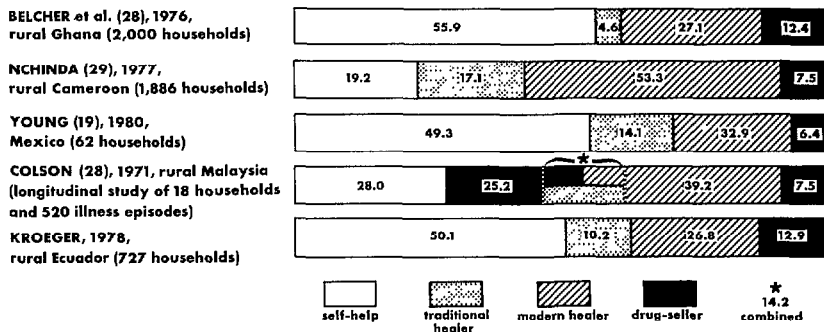
By and large, our survey found that provision of actual health services was not in accord with people's expectations. Although there

was a general demand for more modern health services (particularly among the Indian group with the highest degree of cultural adaptation, whose modern health services made the most extensive use of indigenous health personnel), a more equitable geographic distribution of health services would most likely increase the tendency to shop around. This theory is supported by the finding that people who lived close to modern services had higher esteem for traditional healers, while those living in remote areas and depending on traditional healers had higher esteem for modern services.

The apparent association between socioeconomic deprivation and the extent of perceived illness suggests that a change in socioeconomic conditions would probably have a stronger impact on perceived morbidity than a change in health services.

Major reasons given for not using modern health facilities were their lack of cultural, geographic, and financial accessibility. This implies not only that more modern services are needed, but also that those services need to be ecologically adapted to local conditions. What is needed is not "health packages" or "cosmopolitan medicine" but rather "micro-plans" and health services geared to the specific cultural and environmental features of the populations served.

Figure 6. Proportions of survey subjects (Belcher, Nchida, and Young) or illness episodes (Colson and Kroeger) involving different types of healers or self-care in five countries (data from the present study are shown at the bottom).



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the Folklore Group in Saraguro; the Federation of Shuar Centers; the Indian Federation of the Napo River; and the Union of Natives of the Ecuadorean Amazon for the support they provided to this survey in hopes of contributing to an improvement of the existing health services.

## SUMMARY

A survey designed to examine indigenous people's attitudes toward traditional and modern health services was performed in rural Ecuador in 1978. The study population included four Indian groups, two in the Andes and two in eastern rain-forest areas. In all, interviews were conducted with 727 heads of households.

The findings showed a marked preference for modern health services and self-care (including traditional home treatments) over traditional healers and drug-sellers. However, they also showed a marked tendency to "shop around" for health care and a marked failure of the existing

health services to live up to people's expectations. Among other things, the survey showed that respondents living close to modern services had higher esteem for traditional healers, while those dependent on traditional healers had higher esteem for modern services.

Overall, however, the main reasons cited for not using modern health services were their lack of cultural, geographic, and financial accessibility. This implies not only that more such services are needed, but that those services should be specifically adapted to the cultural and environmental conditions of the populations served.

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