

Feasibility of community-based health insurance in rural tropical Ecuador

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ABSTRACT

Objective. *The main objective of this study was to assess people's willingness to join a community-based health insurance (CHI) model in El Páramo, a rural area in Ecuador, and to determine factors influencing this willingness. A second objective was to identify people's understanding and attitudes toward the presented CHI model.*

Methods. *A cross-sectional survey was carried out using a structured questionnaire. Of an estimated 829 households, 210 were randomly selected by two-stage cluster sampling. Attitudes toward the scheme were assessed. Information on factors possibly influencing willingness to join was collected and related to the willingness to join. To gain an insight into a respondent's possible ability to pay, health care expenditure on the last illness episode was assessed. Feasibility was defined as at least 50% of household heads willing to join the scheme.*

Results. *Willingness to join the CHI model for US\$30 per year was 69.3%. With affiliation, 92.2% of interviewees stated that they would visit the local health facility more often. Willingness to join was found to be negatively associated with education. Other variables showed no significant association with willingness to join. The study showed a positive attitude toward the CHI scheme. Substantial health care expenditures on the last illness episode were documented.*

Conclusions. *The investigation concludes that CHI in the study region is feasible. However, enrollments are likely to be lower than the stated willingness to join. Still, a CHI scheme should present an interesting financing alternative in rural areas where services are scarce and difficult to sustain.*

Key words

Health insurance; feasibility studies; primary health care; Ecuador.

Many people in low- and middle-income countries face financial difficulties when they fall sick (1). Payments to (formal or informal) health care provid-

ers are usually paid by individuals or families from their own earnings [out-of-pocket (OOP) expenditure] to the provider of care. Financial pressure on the household is aggravated by the fact that a patient or the caretaker has limited possibilities to generate income at the time of the illness (2). In communities that depend on agriculture for their earnings, cash availability may vary in poor households during the year depending on when crops are sold.

To solve the financial problems of health care for the poor, community-

based health insurance (CHI) has been proposed. It has been suggested that such insurance schemes represent the most effective way to protect poor people from the costs of health care and that they lead to greater financing fairness (3). Those schemes "can be implemented in areas where institutional capacity is too weak to organize mandatory, nationwide risk-pooling" (4).

Some countries have started to provide or promote nationwide risk-pooling. In Ghana, a national health insurance scheme has been developed (5), and Thai-

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land has established a scheme that provides universal coverage (6). Both schemes were launched in 2001. Yet, most governments in low- and middle-income countries have not tried to implement nationwide risk-pooling for the poor.

The term “community-based health insurance,” as used in this article, refers to the pooling of revenue by the community to share financial risks related to possible health problems in the future and the (co)administration of this tool by the community. Examples of the feasibility, success, and failure of such schemes are increasingly found in the literature. In a paper on the health insurance scheme for hospital care in the Bwamanda district in former Zaire, Criel and Kegels (7) found it “overwhelming and beyond most expectations” that 28% of the district population joined the scheme in the first 4 weeks. Desmet et al. (8), examining the two largest rural health insurance schemes in Bangladesh, found subscription rates of 27.5% and 41%. They described the schemes as “well functioning.” In Burkina Faso, researchers found that with a 50% enrollment rate the CHI for the Nouna district would be feasible (9). Asfaw and von Braun (10), looking at the prospect of CHI schemes in rural areas of Ethiopia and the revenue that could be generated even assumed universal coverage. The number of CHI schemes is constantly on the rise. An overview of CHI in Francophone western Africa reveals an increase from 76 schemes in 1997 to 626 in 2006. However, enrollment rates are often low (11, 12). The reason for this low enrollment and ways the situation may be improved are currently discussed at an academic and managerial level. Still, studies on CHI from Latin America are remarkably scarce. The Ecuadorian Seguro Social Campesino (SSC), though not a CHI but an insurance scheme for health care for farmers, was of special interest in relation to this study. DeRoeck et al. (13) reported enrollment rates between 43% and 81% with an average of 60% in the different areas where they studied the scheme. A recent study on public health insurance in other Latin American countries shows low coverage rates, with numbers below 50% in Uruguay and the Dominican Republic and just slightly above 60% in Chile and Colombia (14). It furthermore suggests the exclusion of poorer households in the latter two countries. This finding is

supported by De Vos et al. (15) in the case of Colombia.

Before establishing a CHI scheme, the issue of feasibility is central. Feasibility describes the scheme’s acceptance within the community and its sustainability—that is, the ability of the community to maintain the scheme financially and administratively over time. Sustainability is determined by the design of the scheme, while acceptability must be tested in community surveys or in pilots.

The health sector in Ecuador is heterogeneous, with public and private for-profit and nonprofit institutions with little institutional coordination (16). In the beginning of the new millennium, 30% of the country’s population lacked regular access to health services and sufficient resources to pay for health care. At the time of the study in 2006, all services except a free malaria program and free maternity and care for children less than 5 years old had to be paid OOP (16). The new Ecuadorian constitution, approved on 29 September 2008, guarantees free health care services for everyone (17). Official fees for government health institutions have been removed. Essential drugs and materials are usually available. Provision of other services, such as emergency transport, certain treatments, laboratory, and imaging techniques, is insufficient. The two dominating providers of care are the Ministry of Public Health (MoH) and the Ecuadorian Social Security Institute (IESS). The MoH is organized in health areas that usually correspond to the existing political-administrative areas. In each health area, there are district hospitals, health centers, subcenters, and health posts. The IESS has a regional administrative structure and a network of its own and outsourced services with primary health care (PHC) centers and provincial and regional hospitals. The IESS offers two types of public insurance: most workers in the formal sector of the country’s economy are covered by the general health insurance. The rural population, which lives mainly from farming, can voluntarily enroll in the SSC, which offers mainly maternity, dentistry, and preventive services that are reported to be of low quality (13). Official enrollment data from January 2010 show approximately 6.5% of the population affiliated with the SSC (18).

The main objective of this study was to assess people’s willingness to join a pre-

sented CHI model in El Páramo, a rural area in Ecuador, and to determine factors influencing this willingness. A second objective was to identify people’s understanding and attitudes toward the presented CHI model.

MATERIALS AND METHODS

Study site

The study was carried out in a rural rainforest region known as El Páramo, located in the northwestern lowlands of Ecuador. It consists of 29 villages with an estimated 829 households. Official census data are lacking, but a population count conducted by a nongovernmental organization in 2003 showed 3 509 inhabitants, most likely an underestimation. The real number is estimated to be around 5 000.⁵ The region lacks official governance and basic infrastructure. Traveling is done mostly by foot or mule. Most inhabitants live from subsistence farming; some income is generated by cocoa production. In some villages, land ownership is unclear and a high suspicion exists toward data collection. On the brim of the study region, a PHC center from the SSC is operating, staffed with an auxiliary nurse and a doctor who visits twice per week. Services are limited and provided only to SSC affiliates. Until the end of 2001, the closest PHC center for the general population was located in the district capital Quinindé, 45 km from the center of the region. In 2001, a PHC center was built with community efforts following MoH standards. The center is owned by the local communities and run as a joint venture between a local health committee, the MoH, and an Ecuadorian nongovernmental organization. At the time of the study, the center operated with OOP payments and still depended on external funding.

Data collection

A cross-sectional survey with on-the-spot household interviews was carried out, using a structured questionnaire. The questionnaire was based on the objectives described above, dimensions introduced in the following paragraph, and developed around a CHI scheme model,

⁵ Unpublished data. El Páramo census. A household survey. Technical report. Quito: MeHiPro/Foundation Human Nature Ecuador; 2003.

based on the “community-based health insurance scenario” used by Dong et al. (9) in a willingness-to-pay study for CHI in Burkina Faso. The model was adapted to local conditions and is outlined below. The contingent valuation method, using the take-it-or-leave-it method, was used to assess willingness to pay (19).

In this study, “feasible” is defined as “more than 50% of household heads willing to join the presented CHI scheme.” Around this central point of interest, the study focused on three dimensions: economic, social, and technical (20).

The technical dimension focuses primarily on the perceived quality of care. The economic dimension assesses the socioeconomic status (SES) of the household and the health care expenditure of the last illness episode. A standard set of variables for SES assessment could not be obtained from national authorities. SES was measured by using variables for assessing the condition of housing, assets, labor and occupational situation, family integrity, and years of schooling. In the social dimension, trust indices were developed. They were based on trust in neighbors and community (horizontal trust) and trust in leaders and health providers (vertical trust) according to the approach developed by Zhang et al. (21). Those dimensions as well as background variables were examined in relation to people’s willingness to join the given CHI scenario. Regarding the second objective, respondents’ attitudes toward the concept of solidarity and CHI were assessed by presenting an easily understood description of the solidarity concept and asking for their opinion. The CHI model was described and people’s understanding of the model was assessed. To reduce possible bias, it was further assessed by asking a control question about how they thought their household situation would change with CHI affiliation.

Health care expenditure on the last illness episode was used to gain a first insight into a respondent’s possible ability to pay.

The questionnaire was translated into Spanish by a bilingual speaker. It was pretested in two focus group discussions with community health workers of the El Páramo region and adjusted accordingly. In one focus group discussion, the premium for the hypothetical benefit package was set. After the benefit package was presented to participants, they

were asked to note the price they were willing to pay for the package per household per year. The amounts were between US\$5 and US\$150; the average and median were close to US\$30. According to the participants, most households in the region should be able to pay that amount. To put this relative value into perspective, the reader should know that the average household income is around US\$500 per year. As a price example, a return ticket on public transport to the district capital costs US\$3 per person. The premium for the hypothetical benefit package was set at US\$30, and the household was chosen as the enrollment unit.

Ethical approval was obtained from the Ecuadorian Society for Bioethics; the Charité Medical School in Berlin, Germany; and the “farmers’ health committee for the El Páramo region.” Written consent was obtained from each interviewee before the interview.

This study included 29 villages with an estimated 829 households. A two-stage cluster sampling technique with 30 clusters and 7 study units per cluster was chosen (22, 23), meaning that more than a quarter of all households were included. The interviewee was the household head. Community health workers from villages other than those surveyed were trained and employed as surveyors. The cross-sectional survey was carried out between August and October 2006.

CHI scheme model

The following CHI scheme model was presented to the interviewees. It has been shortened from the original to fit the length of this paper.

Sickness needs to be treated immediately. If you do not have the money available, precious time for the patient might get wasted, the condition might become more severe or even life threatening. A health insurance for the El Páramo region could be a solution. Joining this insurance by paying an annual premium, your household would be protected against these problems. This is just an idea and the following example is just one possible option.

The insurance would cover the costs of the following services at the local health center: laboratory tests, all pre-

scribed medicines from the health center’s stock, all materials needed for treatment, patient stay for up to 15 days per year and household. If a sufficient treatment in life threatening emergencies cannot be given at the health center, the doctor or nurse would send the patient to a public hospital. The costs related to this emergency would get paid up to US\$30 per household and year. In normal cases and absence of a doctor at the health center, the nurse would send the patient to the closest hospital. The insurance would cover these costs up to US\$30 per household and year, provided that you bring the receipts. At the moment, a medical consultation costs US\$1.25 and a consultation with the dentist costs US\$2.00. A member of the insurance would pay only US\$0.50 for these consultations.

The insurance would be managed by a committee of representatives from the villages of El Páramo. A local specially trained person would do the daily administration, supervised by the committee. The premium would be put in a bank account and the insurance performance checked annually. Every August you would have to make a payment in order for your whole household to be part of the insurance. Each insured person would receive an ID card. As soon as you have paid you would benefit from the services. If you would not wish to join the insurance, the payment system for your household would remain as it is today.

Data analysis

The data were entered and analyzed in the free Epi Info software (24). Data were analyzed primarily by a chi-square test (with Yates’ continuity correction if 2×2 tables were analyzed). When it was not possible to use a chi-square test (e.g., false approximations), a Fisher test was applied. The level of statistical significance was set at $P < 0.05$.

RESULTS

Of 210 sampled households, 153 participated in the study, which yields a response rate of 72.9%. The mean number of household members was 5.4, ranging from 1 to 16. The average age of household members from all 153 households

was 22 years, ranging from 0 to 87 years. Thirty-four households from three entire villages (with the exception of one household) chose not to participate. The primary reason in one village was uncertainty about landownership. The village leader also stated that data in a previous survey had not been handled with confidentiality. The reason for refusal in the second village was not clear. In the third village, six of seven households, all belonging to one large family, did not respond because they were engaged in a quarrel with other communities. Fifteen household heads in other villages were not willing to participate for various reasons, and eight households were excluded because their heads were not at home for two consecutive days.

Of 153 interviewees, 106 (69.3%) were willing to join the CHI model for US\$30 per household per year. With affiliation to the hypothetical CHI scheme, 92.2% of interviewees responded that they would use the local health facility more frequently. Less formal education was significantly associated with a higher willingness to join (Table 1).

No other background variables—such as household size, age, sex or occupation of the interviewee, travel distance to the PHC center, and self-perceived health status—showed a statistically significant relation to the willingness to join.

In the technical dimension, it was found that 69.9% of all interviewees had used the local health facility before (for purposes other than vaccinations); 75.7% considered the services at the facility to be “very good” or “good.”

In the social dimension, vertical and horizontal trust indexes did not show a significant association with willingness

to join the presented CHI scheme, nor did SES.

The amounts spent on the most recent illness episode are shown in Figure 1. The data in Figure 1 do not include indirect costs related to the last illness episode, such as accommodation, transport, and food.

Table 1 relates total average health care expenditure to willingness to join. There was no statistically verified association between health expenditure on the last illness episode and willingness to join.

Figure 2 shows that higher utilization of the local health facility was related to higher willingness to join. Those households with a larger number of patient-provider contacts in the past 6 months were also more willing to join the CHI. Yet the pattern was not strong enough to generate statistical significance.

A very diverse health-care-seeking behavior was found with contacts to local and distant public, private, and informal providers. Looking closer at the past illness episode, it was observed that the local health facility was used in 29.1% of cases; 38.6% of all interviewees had thought of seeking care at the local PHC center but abstained from doing so because the doctor or the essential drugs were unlikely to be available, money was lacking in the household, or weather conditions were unfavorable for traveling.

The CHI model was fully understood by 58.2%, and 85.6% of interviewees believed their household situation would improve if they took part in the presented CHI scheme. The attitude toward the general idea of solidarity with regard to the presented CHI model was overwhelmingly positive (97.3%). Forty-five

households (29.4%) that had health insurance (SSC in all cases) had slightly lower willingness to join than the rest of the household heads interviewed, although the difference was not statistically significant.

DISCUSSION

This study showed that implementation of a CHI scheme in a rural area in Ecuador is feasible, given that 69.3% of all interviewees were willing to join the presented CHI scheme. This percentage could reflect the initial enrollment rate and is rather high compared with many existing CHI schemes. However, actual enrollment and contributions could be lower. A study from India on a medical savings account for rural women compared willingness to pay and the actual contribution to the account: “Actual contribution . . . fell short of the willingness to pay by 53.7%” (25). Transferring this scenario to the El Páramo region, the final enrollment rate would be about 35%. Yet, willingness to join, willingness to pay, affordability, attitudes toward CHI, enrollment, and actual contribution are influenced by many factors and may differ substantially from one context to another, as further discussed below. The decision-making process to finally enroll in and contribute to an insurance scheme is more complex than the chosen dimensions and variables in this study may suggest.

Of all interviewees, 92.2% stated they would go more often to the local health facility if they were covered by a CHI scheme. A higher utilization rate with CHI affiliation is in line with CHI study results from Mali (26), Burkina Faso (27), and India (28). One purpose of a CHI is to increase access to and use of health services. Still, the possible risk that people, once they have joined the CHI, overuse services that are free—so-called moral hazard—needs to be kept in mind. Often, service charges at the time of the visit to health services need to be considered to reduce frivolous use of care, as outlined in the CHI scheme model used in this study.

Less formal education (less than 6 years of schooling) was significantly related to a greater willingness to join. This is in contrast to experiences from other study sites, where a greater willingness to pay was reported for interviewees with more formal education (29, 30). The

TABLE 1. Influence on willingness to join (WTJ) by level of education and by total average health care expenditure on last illness among households in El Páramo region, Ecuador, 2006

Parameter	WTJ		No WTJ		Total
	No.	%	No.	%	
Schooling (years)					
0–6	96	72.7	36	27.3	132
> 6	10	47.6	11	52.4	21
Total	106		47		153
Health care expenditure (US\$)					
0	7	50.0	7	50.0	14
0.01–30.00	44	73.3	16	26.7	60
30.01–60.00	36	78.3	10	21.7	46
60.01–90.00	4	57.1	3	42.9	7
≥ 90.01	2	66.7	1	33.3	3
Total	93		37		130

Note: $P = 0.039$ for schooling, Pearson's chi-square test with Yates' continuity correction. $P = 0.23$ for health care expenditure, Fisher's test.

FIGURE 1. Amounts spent on medical care for most recent illness episode in the household, El Páramo region, Ecuador, 2006

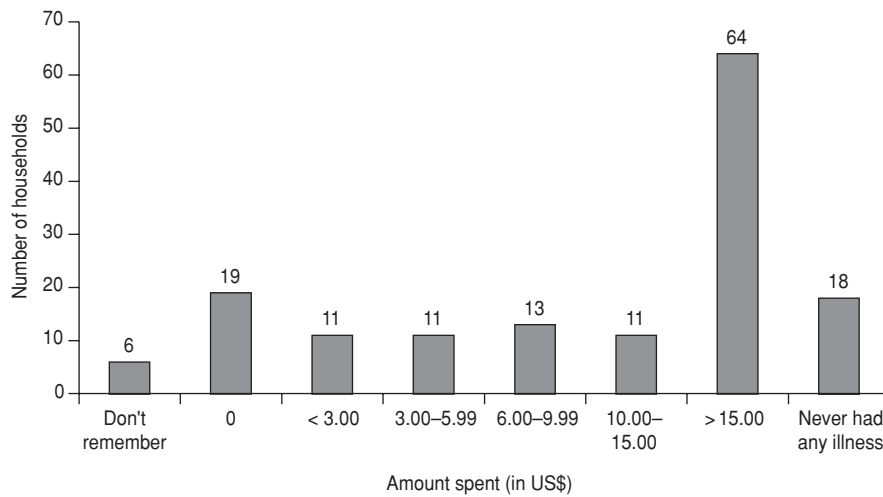
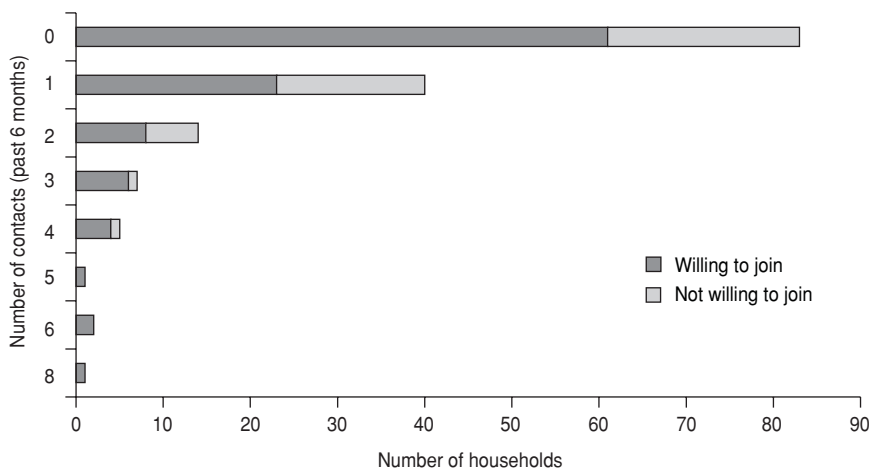


FIGURE 2. Utilization of local health facility in relation to willingness to join, El Páramo region, Ecuador, 2006



Note: $P = 0.4653$. Fisher's test.

findings in both instances may well be correct and compatible as households and communities will react differently to CHI proposals, depending on their cultural, social, and economic characteristics and the context in which they live. It is possible that even less educated and poorer households in the Ecuador study area had sufficient purchasing power to consider prepayments for services that they thought they lacked at the time of the interview.

Several other background variables showed an association with the willingness to join but not sufficiently to be considered statistically significant. This could be due to small numbers in analysis of the subgroups or to the homogeneity of the study population.

The technical dimension measured as the perceived quality of care did not influence the willingness to join. Studies by Criel and Waelkens (31) and others (32) have suggested such a correlation. In this study, the small numbers, with only 2 household heads classifying the quality of care as “bad” and 24 as “average”, most likely prevented any verification of a possible correlation between this quality measurement and the willingness-to-join variable.

The main point of interest in the economic dimension is certainly the risk of excluding the poorest people from CHI. This study suggests that the proposed scheme would be financially accessible to most households in the area, including those in lower socioeconomic groups.

This is desirable as illness is more common in poorer households. It is partly in line with findings from a study in Mali where only the highest income group was more likely to enroll, but all other income groups were equal in terms of enrollment (26). DeRoeck et al. (13), examining the Ecuadorian SSC, reported a higher likelihood of low-income households to belong to the insurance. This was also partly found in an assessment of the “self-employed women’s associations” CHI scheme in India (33), as well in the Grameen Health Plan (8) and the Gonosasthya Kendra in Bangladesh (34). If a CHI scheme were to be implemented in the study region, close monitoring would be needed to ensure that the poor would be included in the scheme.

About one-third of all interviewees who reported a past illness episode in the household had sought care at the local health facility. All others had rather diverse health care seeking, extending from local informal to distant public or private formal providers. Low utilization of health care could be an obstacle to a CHI scheme that is closely linked to the local health service. Almost 40% of interviewees reported that they abstained from seeking care at the local health facility, an important finding that highlights the importance of a broad approach and illustrates well that a CHI scheme of the type proposed in this study needs to be complemented with other health financing and delivery strategies. These findings are in line with those from the qualitative approach by Ordoñez in the study region (35). They suggest that barriers to accessing the local PHC center are not only monetary but also cultural and social. Further, the availability of dedicated and friendly staff and essential drugs is important for people’s readiness to seek care. DeRoeck et al. (13) reported the same findings from their investigation of the SSC health services. The local health service should be improved by clearly identifying and removing key barriers to seeking care. This would make the service more attractive, which could positively influence factors like willingness to pay, willingness to join, attitudes toward CHI, and actual enrollment. Close collaboration with the local communities is essential. Still, the two main reasons for abstaining from seeking care—lack of money and lack of staff or drugs in the services—could be overcome with the

establishment of a CHI scheme that on the one hand would remove financial barriers to seeking care and on the other hand would generate substantially more revenue to contribute to staff salaries and the purchase of essential drugs.

Understanding the main idea of insurance is an important prerequisite for the success of a CHI scheme. Questioning the interviewees' comprehension revealed that the majority understood the main insurance idea. Around 85% believed that a CHI would improve the situation in the household and almost 100% were positive with regard to the general idea of solidarity. These facts give an important first insight into people's attitudes toward CHI and solidarity and are a reason for optimism with regard to the feasibility of a CHI scheme in the area.

During data collection, it was realized that the information would not allow a full assessment of the ability to pay for CHI. The health care expenditure of the last illness episode was used to gain a first insight into the possible ability to pay. The relevant question to be answered, as stated by Criel et al. (20), was "is there a sufficient level of purchasing power for people to pay a financial contribution to CHI?" (20). Looking at the expenditure on health care, more than one-third of all interviewees had already spent half of the proposed annual CHI premium on only one illness episode. This shows a substantial expenditure on health care, which could have been used to pay for a CHI premium in order to get primary care protection for the entire household for 12 months. Assuming more than one illness episode per household per year, the OOP health expenditure could climb to amounts in the area of the proposed CHI premium of US\$30 or more. Looking at the total average expenditure on the last illness episode, including indirect costs, even higher expenditures were found. Some of them would be avoidable with a functioning CHI and an improved local PHC. Even with the most conservative estimates, 43.1% of interviewees who reported a past illness episode had a total average health care expenditure for the past illness episode of more than US\$30. This number suggests a substantial ability to pay for health care in the study region. It is in line with a study by Ordoñez (35) in the same region, in which the total costs for one illness episode to be treated in

the district capital were calculated to fall between US\$35 and US\$80. With a CHI in place, OOP expenditure would certainly not go down to zero, but it would be substantially reduced. Affiliation with the Ecuadorian SSC has reduced OOP expenditure for health care by two-thirds compared with uninsured people (13). However, as stated by Russell (36), understanding the ability to pay fully is more complicated than this study's limited approach.

Regarding the approach to contingent valuation, the easiest procedure in the form of the take-it-or-leave-it method was chosen. More sophisticated approaches like the bidding game technique could have been used. On the economic side of CHI feasibility, costs for the proposed CHI scheme could have been calculated. The political and managerial dimension proposed by Criel et al. (20) was left out. Assessing the first could have revealed whether CHI really is of political concern and would be supported locally. The second could have provided insights concerning whether there are enough local skills and organizational space for CHI (20). Those dimensions and methods were left out of the study because of limited financial resources and time.

The study has some limitations. The premium of the CHI was set in collaboration with the community health workers and is not based on an economic calculation. It is possible that a premium of US\$30 might not generate sufficient revenue for a CHI scheme to be self-reliant. A standard set of values for SES could not be obtained from national authorities, limiting comparability of the data with other regions of the country. Answers about the attitude toward solidarity and the CHI concept might have been biased. This study tried to limit bias by asking a control question concerning the latter. A third intended objective, assessment of the ability to pay for CHI, could not be met fully. The results for actual expenditures were used to gain a first insight into the possible ability to pay, but further research to determine the ability to pay is needed. Last, a larger sample size would have allowed for a more detailed analysis of subgroups in the community.

Even more than 24 months after the above-mentioned constitutional reform with free public health care services provided by the MoH system, the local

health service faces many uncertainties. Funds and certain materials are sometimes unavailable and the new system does not provide all crucial services, such as certain laboratory and imaging diagnostics and transport in emergency situations, which impedes equal services at all levels for the poor. Those services still require OOP spending. Public health insurance through the IESS has not been abandoned and still works in its parallel health care system. Thus, the doors for CHI in the region and throughout the country are not closed as long as the government health system with its free services is respected. Careful implementation of CHI is a possible and desirable option to cover basic services not covered by the state. This complementary approach has also been proposed by researchers studying the Ugandan health sector after the abolition of user fees (37). The authors see CHI as a viable option even for other regions of Ecuador, especially if local communities are involved in the design, implementation, and monitoring of a CHI scheme. Other Latin American countries should consider CHI as a possible financing alternative for improving basic health services for the poor.

Conclusions

This study shows that CHI in the El Páramo region is feasible. Almost 70% of respondents are willing to join such a scheme for US\$30 per household per year. The population is found to be quite homogeneous with regard to factors that could possibly influence their willingness to join. The majority understands the presented CHI scheme and has a generally positive attitude toward the idea of solidarity and CHI. There is considerable willingness to pay for CHI, though final conclusions about the ability to pay cannot be drawn without further research. Because of a change in the political framework, circumstances have changed, but the implementation of a CHI scheme for services that are not covered by the new government system is still a desirable and possible option. The results of this study can provide guidance in establishing a local health insurance scheme.

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Factibilidad de un seguro de enfermedad comunitario en una zona rural tropical de Ecuador**RESUMEN**

Objetivo. El objetivo principal de este estudio fue evaluar la voluntad de los habitantes de El Páramo, una zona rural en el Ecuador, de participar en un seguro de salud comunitario y determinar los factores que influían en dicha voluntad. Otro objetivo fue identificar la comprensión y las actitudes de la población hacia el modelo presentado.

Métodos. Se llevó a cabo una encuesta transversal usando un cuestionario estructurado. De unos 829 hogares, 210 se escogieron aleatoriamente mediante un muestreo por conglomerados en dos etapas. Se analizaron las actitudes hacia un esquema de seguro de enfermedad, se recopiló información sobre los factores que posiblemente influían en la voluntad de participar y se correlacionaron con esta última. Para comprender la posible capacidad de pago de un entrevistado, se evaluó el gasto en atención de la salud en el último episodio de enfermedad. Se definió "factibilidad" como la existencia de voluntad de participar en el esquema de seguro de enfermedad en al menos 50% de los jefes de hogar.

Resultados. La voluntad de participar en un modelo de seguro de enfermedad por un costo de US\$ 30 por año fue de 69,3%. El 92,2% de los entrevistados declararon que, en el caso de adherirse al programa, concurrirían al establecimiento de salud local más a menudo. El nivel educativo presentó una correlación negativa con la voluntad de participar, pero otras variables no mostraron ninguna asociación significativa con ella. El estudio reveló una actitud positiva hacia el esquema del seguro de enfermedad. Se documentaron gastos de atención de salud importantes en el último episodio de enfermedad.

Conclusiones. La puesta en marcha de un seguro de enfermedad en la zona de estudio es factible. Sin embargo, es probable que la participación real sea inferior a la voluntad de participar declarada. Aun así, un esquema de seguro de enfermedad podría representar una opción financiera interesante en las zonas rurales donde los servicios son escasos y difíciles de mantener.

Palabras clave

Seguro de salud; estudios de factibilidad; atención primaria de salud; Ecuador.