Feature

Health Sector Disparities in Peru¹

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T his article summarizes some of the major findings of a comprehensive study, known as the Health Sector Analysis of Peru (HSAP), that was carried out in 1985-1986 by a team of Peruvian and international researchers (1-9, see Acknowledgments). The HSAP was designed to test the premise-shared by Peruvian health sector authorities and others-that patterns of resource allocation in the country's health sector were inappropriate for implementation of the Peruvian Government's major health sector policy goal: To make primary health care (PHC) and essential hospital services geographically and financially accessible to all Peruvians within the fiveyear term of the Government elected in 1985. The HSAP also examined the impact of previous reduction in the Government's financial commitment to health care in response to Peru's serious economic recession of 1982-1983-a reduc-

tion that came at a time when the need for health services was greater than ever before and when foreign donors were attempting to provide assistance for expanding PHC coverage.

In examining the disparity between the health sector's resource allocation and its policy mandate, it became clear to HSAP researchers that virtually no information existed on the organization, expenditures, and coverage of the private health sector in Peru, or on its interaction with the public sector. Thus, agreements were reached to undertake the extensive datagathering efforts required for a comprehensive health sector analysis.

Health sector expenditures and health services coverage were analyzed for all three major components of the health sector: the Ministry of Health, the Peruvian Institute of Social Security, and private health care organizations. In contrast to most previous health sector studies, which have focused on ministries of health (partly because of data limitations in the other two components of the sector and partly because most public international aid is channeled through health ministries), the HSAP was designed to be carried out primarily for the direct benefit of Peruvian health sector policymakers with the full participation

¹This work has been published in Spanish in the *Boletin de la Oficina Sanitaria Panamericana*, Vol. 106, No. 2, 1989, and will also appear as a chapter in K. Lee and A. Mills (eds.), *Health Economics Research in Developing Countries*, Oxford University Press, London and New York (forthcoming).

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of Peruvian health sector institutions and professionals. The study was planned jointly by the State University of New York at Stony Brook and the Pan American Health Organization (PAHO), which together provided technical assistance and administered the study's funds; the study's design and implementation were approved by the Peruvian Ministry of Health and Institute of Social Security. Professionals who participated in the study were drawn primarily from these four organizations, two Peruvian institutions of higher education, and a U.S. consulting firm (see Acknowledgments).

The design of the HSAP draws upon several health care financing guides (10) and reflects the implementation of current recommendations for health care financing analysis recently drawn up by the World Bank (11). The HSAP's concern for the impact of economic recession on health sector expenditures was foreshadowed by PAHO research on this issue (12); the in-depth studies of social security and private sector financing and coverage drew upon the author's work (13) and a report prepared by the Group Health Association of America (14).

As a study of organization and resource allocation, rather than merely a financing study, the HSAP was more broadly conceived than even these references might suggest. Its function was to compare the expenditures and coverage of the health sector's three main components with the allocation of physical, human, and pharmaceutical resources among them, and also to relate financial and real resource allocation to the geographic distribution of the Peruvian population. In addition to these supply-side elements of the study that are summarized in this article, the HSAP also produced in-depth studies of the population's health status (2) and of household (3) and community (4) demand for health services.

To procure the necessary information, the project undertook an exhaustive inventory and review of Peruvian and international primary databases and reference materials (these are now available in a computerized documentation base at PAHO's offices in Lima). All primary data sets used in the HSAP were created from raw data made accessible by Peruvian health sector institutions and the country's national statistical institute.

AGGREGATE HEALTH SECTOR SPENDING

1984, Peruvian health care— In including all public and private sector services-accounted for 4.5% of GDP. Between 1981 and 1984, a period of steadily worsening economic conditions in Peru, the country's aggregate health sector expenditures remained stable in relative terms but declined in absolute terms from US\$813 million to \$732 million, a 10% reduction over four years (Table 1). During the same period, the per capita income of Peruvians declined 16%. While the health sector as a whole inevitably suffered the consequences of the country's economic recession, in general it appears to have maintained its standing relative to other sectors of the economy.

The decline in aggregate health expenditures would have been more precipitous had it not been for an increase in spending for private health services as the Peruvian population, increasingly disenchanted with public health care, turned in greater numbers to the private sector. The expenditures of the Health Ministry and Social Security Institute declined 16% and 26%, respectively, for an overall decline in public spending of 20%; but this was offset by a 12% increase in expenditures for private care. The effect of these 1981-1984 trends was a reduction in public expenditures from 73% to 66% of the health sector total, and a

	1981		1982		1983		1984		
	Amount (US\$ millions)	%							
Public sector: Health Ministry	595	73	566	72	475	67	487	66	
(MOH) Social Security	238	29	213	27	201	28	201	27	
Institute (IPSS)	304	37	301	38	229	32	240	33	
Other	53	7	52	7	45	7	46	6	
Private sector: Health sector	218	27	227	28	236	33	245	34	
total	813	100	793	100	711	100	732	100	

 Table 1. Sectoral composition of health expenditures, 1981–1984.

corresponding increase in the private share from 27% to 34%.

The long-run tendency in Peru, dating back to the mid-1970s, has been for public sector health expenditures to decline relative to overall Central Government expenditures, suggesting that public health has declined in importance among Government priorities-most sharply during the recent economic crisis. Health Ministry expenditures fell from 4.9% to 4.2% of the total between 1981 and 1984, and had not recovered by 1985. Social Security Institute spending declined from 6.3% to 5.0% of Central Government expenditures (Table 2), but may have increased later during an improvement in the economy. The somewhat offsetting increase in private health care spending thus suggests that popular demand was stronger than the Government's commitment.

Foreign assistance accounted for only about 2% of all Peruvian health sector expenditures in 1984. However, it accounted for one-third of the Health Ministry's total financial commitment to primary health care, which was estimated at US\$50 million for 1984. Between 1980 and 1985, World Bank, U.S. Agency for International Development (USAID), and the Federal Republic of Germany's Technical Assistance Agency have contributed a total of about US\$40 million in loans and grants for health care in Peru. Although most of the World Bank loan and some USAID funds remained unexpended by mid-1985, foreign donor support increased in four years from almost nothing to about 5% of total annual Health Ministry revenues. At the same time, Health Ministry transfer payments to private sector voluntary organizations declined from 12% to only 1% of the

 Table 2. Health Ministry and Social Security Institute expenditures on health care, 1981–1984, as percentages of Central Government expenditures.

Year	Expenditures by:					
	Health Ministry	Social Security Institute	Health Ministry and Social Security Institute			
1981	4.95	6.34	11.29			
1982	4.58	6.47	11.05			
1983	4.46	5.09	9.55			
1984	4.19	5.02	9.21			

Health Ministry's annual budget. Private voluntary organizations, which operated many primary health care facilities in Peru, were typically affiliated with—and supported by—international churchrelated charities. The reduction in Health Ministry transfer payments thus demonstrated that the balance of primary health care financing in Peru had shifted from the private to the public sector.

HEALTH MINISTRY EXPENDITURES

During the period studied, a large share of Peru's population, roughly 11 million out of 19 million inhabitants, were unable to pay for anything beyond the most basic necessities of life. The Ministry of Health was responsible for providing health care to these people, for exercising regulatory control over and providing policy guidance for the health sector as a whole, for promoting preventive health care, and for constructing potable water and basic sanitation facilities in rural areas. The lion's share of its resources, however, were allocated to delivering curative medical care in urban hospitals.

The Ministry of Health accounted for about 27% of all Peruvian health sector expenditures (Table 1), a proportion that declined only modestly over the 1981-1984 period. In absolute terms, however, the Ministry had only about US\$201 million to spend in 1984, compared with some US\$238 million in 1981. Moreover, while the Ministry's financial resources were shrinking, Peru's population was increasing. Average per capita expenditures for the Ministry's target population thus dropped from about US\$24 in 1981 to US\$20 in 1984. Health Ministry services, however, were accessible to less than half of the country's medically needy, which meant that the actual per capita expenditure for the five million

people the Ministry reached was twice this average, or about US\$40.

Nevertheless, because of the financial burden that the Ministry's hospital services placed upon it, only about a fourth of its total expenditures were used to provide primary health care outside of hospitals. This meant that the Ministry actually spent only about US\$10 *per capita* to provide primary health care to the estimated five million urban and rural poor it served. To compound the problem, much of this care was of poor quality because many Health Ministry health centers and posts were poorly maintained, understaffed, and undersupplied.

In 1984, in an attempt to alleviate this problem, the Ministry created a new budget category earmarking close to 10% of its total expenditures for medicines, training, and transportation in support of primary health care. This new category of expenditures, much of it financed with foreign support, buffered what might otherwise have been a much greater decline in Health Ministry outlays.

In addition to eliminating transfer payments to private voluntary organizations, the Ministry reduced its expenditures for physical facilities investment and supplies—including expenditures on essential medicines, whose availability in the public health services declined sharply. In absolute terms, Health Ministry investment in physical facilities shrank by 56% and expenditures for medical supplies by 83% between 1981 and 1984.

Spending on wages and pensions, on the other hand, increased over the period in both relative and absolute terms. Considering both national expenditures and those for 16 health regions covering 25 departments, the share taken up by wages increased from 58% to 70% of recurrent expenditures, and pension payments rose from 4% to almost 9%. In absolute terms, these increases represented a rise of nearly 9% in wage payments and a near-doubling of pension disbursements—during a time when the overall availability of financial resources was declining.

Regional-level expenditures accounted for more than 80% of the Ministry's total recurrent spending in 1984, as compared to 75% in 1981. At the regional level, the wage share rose from 70% to 79% of expenditures, while the supplies share declined from 19% to 15% and the services share (including items such as maintenance) remained at a very low percentage.

The regional distribution of the Health Ministry's expenditures reflected the heavy concentration of public hospital facilities and medical personnel in Peru's major urban departments. The departments of Lima, Callao, Ica, and Arequipa, with 39% of the population, accounted for 59% of the Ministry's regional expenditures in 1984. The rest of the country, with 61% of the population, received the remaining 41%. The major urban areas also received a disproportionate 63% of the Ministry's total expenditures on medicines.

SOCIAL SECURITY INSTITUTE EXPENDITURES

The Social Security Institute, which provided health care for about 18% of the Peruvian population (3.5 million people), spent considerably more than the Health Ministry—US\$240 million in 1984, or US\$68 *per capita*. However, annual expenditures exceeded the revenues of the Institute's medical care fund during 1977-1984, resulting in deficits that were financed by fiscally unsound internal transfers from the Institute's pension and disability funds.

The roots of these annual deficits lay in two ongoing problems: The Government's past failure, as an employer, to pay the full contribution for Government employees covered by the Institute's medical care program, and extensive evasion of social security payments by private sector employers. However, the Government subsequently increased its contributions, and the Institute also improved its private sector collections. In 1985, for the first time in a decade, the Institute's medical care program had an annual surplus.

In terms of expense and efficiency, the Institute's medical care program compares poorly with other programs of its kind in Latin America. The Institute's internal debt may never be repaid; nor is it likely that the hard-pressed Government will make good on the contributions it owes as an employer. The result is that pensioners and invalids may suffer reductions in the compensation they receive from the funds to which they have contributed. Moreover, the Institute's medical coverage is quite restrictive; until recently, dependents of workers were provided only with maternal and infant care. Legally mandated coverage now extends to all dependent children through age 14, but very few dependent children are actually enrolled in the program and hold the identity cards required to obtain medical services. Spouses' benefits are still limited to maternal care.

The coverage provided by the Institute is focused upon urban wage earners with stable employment. Fully 58% of its beneficiaries live in Lima/Callao, and the capital region accounts for 64% of the Institute's total medical care expenditures.

The composition of the Institute's spending is similar to that of the Health Ministry in that wages represent about three-fourths of the total, although supplies (including medicines) account for about 20%, a higher share than the Health Ministry spends for supplies. Institute expenditure data reveal almost no capital outlays; construction and equipment purchases are financed with longterm, low-interest loans from the pension and disability funds, but these are not shown in the Institute's medical program accounts.

Among the reasons why the Institute spends considerably more *per capita* on medical care than the Health Ministry are its even greater reliance on hospitalbased care, its very high administrative costs, and its wages, which are substantially higher than those paid by the Health Ministry to employees with comparable qualifications.

PRIVATE HEALTH CARE FINANCING

Expenditures for private health care in Peru, estimated separately by the HSAP for medical services and pharmaceuticals, totaled approximately US\$245 million in 1984, or about one-third of total health sector expenditures. Only four million Peruvians obtained most of their medical services from private providers, but most Peruvians purchased the bulk of their pharmaceuticals directly from private pharmacies. Although the private sector operated only 18% of all hospital beds and fewer than 5% of all primary health care centers and posts, it employed over half of all the physicians in the country and accounted for 72% of all pharmaceutical sales.

Of the four million Peruvians who relied primarily on private health services, about 500,000 paid for them directly. Another 400,000 were covered by various risk-sharing mechanisms, 900,000 belonged to cooperatives, and 2.2 million were beneficiaries of private voluntary organizations. While these estimates were derived from supply-side information, they were substantiated on the demand side: In 1984, the private health sector accounted for 37% of all ambulatory visits in Lima and for 62% of all visits in the urban areas of the mountain departments (3).

Private health insurance did not exist in Peru until the mid-1970s, and prepaid health care managed by employers or providers is an even more recent development. The emergence and evolution of these private risk-sharing mechanisms is intricately bound up with the country's economic situation and that situation's impact on publicly financed health services provided through the Health Ministry and Social Security Institute. Private risk-sharing mechanisms are attractive to a small minority of the population whose real income is relatively high, and also to a somewhat larger number of middleclass Peruvians whose real incomes have probably declined over the past 10 years-but for whom the uncertain quality of public sector services makes these no longer acceptable as the primary source of their ambulatory health care.

The risk-sharing market was developed and is still dominated by insurance companies and brokers working with major employers, but since 1982 prepaid plans offered by several large clinics have emerged as an important new private financing alternative. As of 1985, four clinics in Lima were offering prepaid family plans that had an estimated total of 40,000 members. The subscription fees and services provided under these plans suggested that they catered primarily to middle-income families. The principal source of revenue for the clinics, however, remained user fees, which were paid directly by individuals or by insurance companies to cover their enrollees.

Cooperatives and private voluntary organizations together provided medical services for some 3.1 million Peruvians, equivalent to about 24% of the population receiving modern health care coverage. They were therefore a major element in the Peruvian effort to provide basic health services at reasonable cost, but their economic viability may have been undermined by the country's economic setbacks.

Of 2,000 cooperatives identified in a 1981 census, only 172 reported providing some form of health services to their members. In the urban areas, savings and loan associations appeared most likely to offer such services, while a number of agricultural cooperatives provided some health services in rural zones. Urban cooperatives offering such services were primarily benefiting middle-income residents who belonged to savings and loan associations—especially workers' dependents, since household heads were typically covered through the Social Security Institute.

Agricultural cooperatives, which accounted for over half of all cooperatives providing health services in 1982 (91 of 172), had smaller memberships, on the average, than the savings and loan associations. Their financial resources, largely derived from levies on sales of members' products, have always been very limited. Under these conditions, rural cooperatives' health services were restricted to some ambulatory health care and purchases of medicines for their members. The only exceptions were several sugar cooperatives that provided hospital services.

While cooperatives were indigenous entities receiving almost no external support, most private voluntary organizations providing health care were organized by international religious and other charitable groups. Moreover, while cooperatives charged members little or nothing in user fees, most private voluntary organizations charged patients substantial user fees.

In 1982, 270 private voluntary organizations were providing health services to Peruvians—most of them in cooperation with the Ministry of Health. It should be recalled that in 1982 the Ministry was still providing substantial subsidies to these organizations, and that such transfers only started their precipitous decline in 1983. The extent to which the private voluntary organizations were able to offset the decline in Health Ministry support for their operations, either from increased international donations or through increased user fee revenues, is not known.

In 1982, when the private voluntary organizations served an estimated 2.2 million beneficiaries, close to 60% of their expenditures and coverage were concentrated in the coastal cities. It is likely that they did not primarily serve the medically indigent in the cities, since the user fees they charged required at least a lower middle class income. It is therefore safe to conclude that most such organizations were operating on the borderline between the public and private health sectors in the coastal urban areas, and that they had average per capita expenditures similar to those estimated for primary health care provided by the Health Ministry (i.e., approximately US\$10 per year). Judging from field observations, however, the quality of their services may have been generally better than that of most primary health care provided at Health Ministry facilities.

In sum, the combined expenditures on modern medical care by householdsboth directly and indirectly through various prepaid plans, cooperatives, and private voluntary organizations-totaled an estimated US\$100 million in 1984, including household expenditures for traditional health care by six million very poor Peruvians who were beyond the reach of Health Ministry services, these latter expenditures being estimated at US\$34 million. Finally, private sector pharmaceutical purchases totaled US\$145 million in 1984, bringing the private health sector expenditure total to US\$245 million, as shown in Table 1.

THE SUPPLY OF HEALTH SERVICES

Complementing its analysis of health care financing, the HSAP analyzed the supply of health services. This was done separately for physical facilities, medical personnel, and pharmaceuticals, and emphasis was placed on the distribution of real and financial resources relative to the population's distribution. In the case of pharmaceuticals, no comparable distribution data were available. The HSAP therefore examined why the Government's efforts to promote the use of lowcost essential medicines in the public sector had been largely unsuccessful.

Distribution of physical facilities. Comparison of the sector-wide distribution of health facilities in 1984 with the population distribution by department revealed a pronounced imbalance. The heavily urbanized departments, with some 39% of the population, accounted for 65% of all hospital beds; and while these departments' share of health centers equalled their population share, they had only 18% of all the health posts in the country (Table 3). Conversely, the rest of the country had a less than proportional share of hospital beds but a disproportionately large share of health posts.

In accordance with its strong policy orientation toward primary health care expansion, between 1975 and 1984 Peru significantly expanded the number of its health centers and posts. Without a corresponding superstructure of hospital facilities, however, the referral of patients from lower levels of care tended to confront insurmountable obstacles. And conversely, because there were few health posts in the major urban areas, urban residents were all but required to use hospitals as a source of primary care.

Any analysis of the adequacy of health care facilities should also include data on the facilities' equipment inventories as well as the physical condition of their buildings, utility systems, and equipment. Since such information was very scarce, the HSAP undertook a survey of all Health Ministry hospitals, health centers, and posts in the two largely rural departments of Cuzco and Cajamarca. The results revealed that only about half of all the utilities and equipment at those facilities were operative, the rest being in a state of disrepair.

Regarding Health Ministry facilities, these play a major health care role, accounting for some 34% of all hospitals, 54% of all hospital beds (the Ministry's hospitals tend to be relatively large), 78% of all health centers, and 89% of all health posts. However, like health facilities generally, the distribution of these facilities is uneven, most hospitals being in the Lima/Callao area while most health posts are in the disadvantaged rural states, making referrals to hospitals difficult.

The number of Health Ministry hospital beds decreased somewhat between 1975 and 1984 as some of the oldest facilities were taken out of service, while the

Table 3. Population and health facility distribution in Peru, 1984.

	Population		Health						
	No. (in		Hospital beds		centers		Health posts		
Departments	thousands)	%	No.	%	No.	%	No.	%	
Urbanized departments ^a	7,566	39	19,448	65	304	39	336	18	
Rest of country ^b	12,132	61	10,536	35	481	61	1,589	82	
Total	19,698	100	29,984	100	785	100	1,925	100	

^aThe departments of Arequipa, Ica, and Lima (including Callao).

^bTwenty-two other departments.

number and distribution of health centers and posts improved greatly. At the same time, the state of repair of most facilities seems to have worsened.

While there was an excess supply of hospital beds in Lima/Callao, it appeared that more hospitals might have to be built in the predominantly rural states. However, the health centers and posts in these states—still insufficient in number—were in such bad repair that the need for their renovation and reequipping, together with establishment of a well-organized maintenance program, may have been of higher priority than construction of new facilities.

Distribution of medical personnel. Human resources are the most important element in health care delivery. According to the 1981 census, Peru had 52,350 trained medical personnel serving a population of 17 million. This total included 12,500 doctors, 10,200 nurses, 27,000 paramedics, and 2,650 pharmacists.

In order to estimate health service accessibility, the HSAP determined the ratio of medical personnel to population by department and province, and related these ratios to the presence or absence of medical schools or hospitals in departmental and provincial capitals (Table 4). This comparison showed that medical personnel tended to congregate where hospital facilities were located, leaving a large share of the Peruvian population beyond the normal reach of both medical personnel and hospital facilities. Not only did the major urban areas (particularly Lima/Callao) enjoy the highest ratios of doctors, nurses, and pharmacists to population, but they also had the highest concentrations of paramedical personnel (mostly auxiliary nurses and health promoters), who were theoretically the principal staff members of primary health care delivery facilities in smaller towns and rural areas.

While health sector analyses in developing countries often focus on auxiliary nurses and health promoters because of their importance to primary health care, the HSAP focused on physicians. These latter accounted for over half of Peru's recurrent health care expenditures, provided close to four-fifths of all medical care consultations, and were the main decision makers in the health sector, directly or indirectly affecting all levels of health care delivery.

In 1984, the distribution of physicians by subsector was uneven: 43% worked in the public sector and 57% worked in the private sector. (Many "public sector" Health Ministry and Social Security Institute physicians also worked in the private sector, but the data do not reflect this information.) The physicians' geographic

	National	Number per 10,000 inhabitants of:					
	population distribution (%)	Physicians	Nurses	Paramedical personnel	Pharmacists		
Lima/Callao metropolitan area	27.1	17.0	10.7	27.8	3.3		
Departmental capitals with medical							
schools ^a	7.1	11.2	10.5	20.3	2.7		
Departmental capitals without							
medical schools ^a	18.9	4.0	5.5	15.4	1.0		
Provincial capitals with hospitals ^a	30.9	2.1	2.4	10.7	0.6		
Provincial capitals without hospitals ^a	16.0	0.5	0.8	3.7	0.1		
National total or average	100.0	6.9	5.6	15.8	1.5		

Table 4. Medical personnel distribution data showing the numbers of physicians, nurses, paramedical personnel, and pharmacists per 10,000 inhabitants according to the 1981 census.

alncluding the province within which the capital is located.

distribution was also strongly skewed toward the cities. Sixty-seven percent of all physicians (and 71% of the Health Ministry physicians) were concentrated in Lima/Callao alone. If one added the other state capitals with medical schools, the overall number of doctors in these centers climbed to 80% of all physicians. Only about a third of the Peruvian population had access to these physicians.

Efforts to analyze why doctors chose to practice where they did were constrained by a lack of information on compensation (an important determinant of doctor location). Among the variables for which data were available, birthplace and place of professional training turned out to be significant determinants of where doctors practiced. While the same type of analysis was not pursued for the other three categories of personnel for which comparable data were available, the descriptive evidence shown in Table 4 suggests that nurses, paramedical personnel, and pharmacists also preferred to locate in the major urban areas, even though training institutions for these occupations tended to be more widely distributed in Peru than medical schools.

The pharmaceuticals market. Appropriate medication, in adequate quantities and at affordable prices, is the third critical resource in delivering effective health care. Peru has tried for over 25 years to develop an essential medicines program in the public sector using generic drugs, so far with little success. Medicines are usually in short supply within the Health Ministry and Social Security health care programs. Indeed, these organizations, which together provide health care for close to half the Peruvian population, account for less than 20% of total pharmaceutical expenditures-and less than half of their pharmaceutical expenditures are for generic drugs.

Unlike other Latin American countries,

Peru has relied heavily upon the private sector to supply essential medicines for the public sector, rather than producing them through state enterprises. But the social objectives of the public sector have been in conflict with the economic motives of the private sector ever since the Government began to experiment with essential medicines programs in the early 1960s, a period that coincided with the emergence and relatively rapid expansion of domestic pharmaceutical production and distribution in the private sector.

In 1985, because of Government price controls on pharmaceutical sales through private pharmacies, the prices of many ethical brand-name and over-the-counter pharmaceutical products were not much higher than those of generic products sold to the public sector. But the most significant result of price controls, especially since these coincided with a notable decline in purchasing power, was a sharp reduction in the volume of pharmaceutical production and importation in Peru since 1980. Hence, the share of total sales represented by essential medicines, in terms of both volume and expenditure, remained small. Moreover, the essential medicines programs were directed by the Health Ministry, but the main users of the available supplies were the Social Security Institute, the armed forces, and the police. In Health Ministry facilities, essential medicines and other materials were usually in very short supply, because the Ministry's budget allocated only about 5% of its revenue to pharmaceuticals.

The result has been a policy contradiction. Health care for most Peruvians has been a public sector responsibility, but pharmaceutical production and distribution has been largely a private sector activity subject to severely inhibiting Government control—a situation that significantly diminished the effectiveness of Peruvian public sector health care. In a similar vein, while distribution data for medicines were lacking, it was quite apparent that the Health Ministry was seriously short of medicines for its primary health care program. The population outside the major urban centers may have had access to private pharmacies, but without access to physicians for prescriptions or even to qualified pharmacist advice, many Peruvians were being left without appropriate guidance for buying medicines.

CONCLUSIONS AND RECOMMENDATIONS

The HSAP reached three principal conclusions reflecting the aforementioned disparities between health sector resource allocation and the population's distribution. These are as follows:

- 1. The Health Ministry, which accounted for 27% of all health sector expenditures in 1984, may have superficially appeared adequately financed relative to its population coverage of 26%. However, threefourths of the Ministry's resources were spent on urban hospital services, while a third of the population had no access whatever to modern health care.
- 2. The Social Security Institute's medical care expenditures were much higher *per capita* (the Institute spent 34% of the health sector total to cover 18% of the population) than those of the Health Ministry. The difference was due primarily to the Institute's higher wage rates, better equipment, and larger supply of medicines; but it is by no means clear that these things resulted in more satisfactory services. In this connection, an increase in private insurance coverage suggested grow-

ing dissatisfaction with the Institute's services.

3. The private health sector, which was providing ambulatory services for between one-third and two-thirds of the urban population, accounted for one-third of total health sector expenditure. A serious imbalance was indicated by the fact that the private sector administered only 18% of all hospital beds but accounted for over half of all physicians. Since physicians tend to practice near hospitals, it is likely that many of them were providing ambulatory care privately but resorting to the public sector when hospitalization was needed, thus contributing to the public sector's financial burden.

These conclusions suggested the following recommendations:

1. Both the Health Ministry and Social Security Institute showed evidence of needing to improve the quality of care offered by all of their existing services before greatly expanding their health care coverage. Public sector financial resources were not sufficient for achievement of both objectives in the short run. Under these circumstances, the appropriateness of a Government decision to pursue expansion of coverage through the construction of more primary health care facilities (apparently without increasing the Ministry's budget for operating them) appeared open to question. Among other things, this approach seemed unlikely to increase public confidence in the health services, while low public confidence in the services seemed likely to render any major effort to expand coverage ineffective.

- 2. More specifically, it appeared that the Health Ministry needed to improve the quality of its primary health care. Such an improvement, which would require reallocating some expenditures from hospitals to health centers and posts, could be accomplished in a number of ways: by deactivating more of its most antiquated hospitals; by improving the maintenance of buildings and equipment at the remaining hospitals and primary health care facilities; by turning over the operation of some hospitals to private sector health care providers (including private voluntary organizations); by reassigning medical personnel from public hospitals to primary health care facilities; and by providing all public health services with adequate quantities of essential medicines. At the time the HSAP was completed, there was no indication that such possible actions were receiving priority attention, although public hospital investments in the completion of several facilities under construction were being limited.
- 3. The Social Security Institute's medical care program should pursue its mandate to provide health care to covered workers' children-an estimated 2.5 million of them. Such coverage would significantly reduce pressure on Health Ministry services in urban areas. The Institute's efforts to reduce evasion of payments by employers, together with an arrangement designed to ensure that the Government as employer pays its required contribution in full, should make this expansion of coverage possible. The Institute should also proceed with its intended expansion of coverage in rural areas, under an agreement with

rural cooperatives. Policy statements made by the Institute's president in 1985 indicated that all of these measures were to be implemented.

- 4. The potential for expanding the small private health insurance industry in Peru should not be overlooked in sector-wide health planning. In particular, those who can afford to pay for private health care should be excluded from publicly funded services, or public services should be made available to those who can afford to pay at fees equivalent to those charged by private health care providers. Either alternative would help stimulate demand for private health insurance and other types of prepayment arrangements.
- 5. To promote better coordination between public and private health services, major private sector institutions (such as insurance companies, the health funds of large employers, urban and rural cooperatives, and private voluntary organizations) should be invited to join the Health Ministry and Social Security Institute in comprehensive health sector planning. The more affluent segments of the population should have their Social Security coverage coordinated with supplemental private insurance and employer health funds, while the middle and lower income segments, whose employment may not provide Social Security coverage, should have their right of access to Health Ministry hospital services depend on referrals from facilities providing ambulatory care-including those operated by cooperatives or private voluntary organizations.

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The HSAP differed from other health sector analyses in two major ways. First, its extensive host country participation not only facilitated access to information but also guaranteed that the study would be accepted as an indigenous effort rather than rejected as a foreign one. This equal participation of host country and international institutions and professionals might profitably be emulated in other health sector analyses. Second, the HSAP's focus on three relationshipsbetween health sector performance and the country's general economic situation, between financial and real resources, and between resource allocation and the population's distribution-resulted in a much more comprehensive analysis than a study focused mainly on financing could have provided. Because of the success achieved with this approach, it is strongly recommended that future analyses enlarge their focus from health care financing alone to cover these three important relationships.

Acknowledgments. The Health Sector Analysis of Peru, directed jointly by the author and a Peruvian study coordinator (initially Dr. Julio Castaneda and subsequently Dr. Walter Torres), was carried out under a grant from the United States Agency for International Development. Cooperating institutions included the State University of New York at Stony Brook; the Pan American Health Organization; the International Resources Group, Ltd., of Stony Brook, New York; and the Universidad Peruana Cayetano Heredia and Escuela de Administración de Negocios para Graduados, both of Lima, Peru. These five institutions provided the services of 70 professionals-47 Peruvians and 23 others-who jointly carried out the research for the study.

The author is indebted to all these participants for a magnificent collaborative effort, but absolves them from any responsibility for the contents of this article.

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