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Economic transition should come with a health warning: the case of Vietnam

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Study objectives: To assess the affordability of health care to poor rural households in Vietnam under conditions of transition from a planned to a market economy and, in light of other transitional experience, inform policy on increasing access of the poor to affordable care of acceptable quality.

Design: Observational study by cross sectional socioeconomic survey, longitudinal healthcare seeking survey, and qualitative semi-structured interviews and focus group discussions; qualitative follow up over six years.

Setting: Four rural communes in north of Vietnam between 1992 and 1998.

Survey participants: 656 households (2995 people) selected by systematic random sampling.

Main results: Compared with non-poor households, poor households had significantly lower average per capita rates of healthcare consultation and expenditure ($p < 0.01$ in both cases). Poor households delayed and minimised healthcare seeking, especially of expensive hospital services. Two thirds of average healthcare spending by poor households was on relatively inexpensive but frequent acts of local ambulatory care. The poor restrained their healthcare seeking but not in proportion to income: for households reporting illness, the average proportion of income devoted to health care was 21.9% for the poor compared with 8.2% for the non-poor ($p < 0.01$). To meet healthcare costs, many poor households reduced essential consumption, sold assets and incurred debt, threatening their future livelihood.

Conclusions: In the short-term the poor need exemption from public sector user fees in both primary and hospital care. In the longer run the government budget and prepayment schemes should replace direct user charges in healthcare finance. Transitional economies like Vietnam should preserve the public health services built up under the planned economy. Market reforms that stimulate growth in the economy appear inappropriate to reform of social sectors.

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ECONOMIC TRANSITION AND HEALTH

In the past 20 years a number of countries have been undergoing a transition from a socialist planned economy to a market economy. These countries are spread across the globe and vary enormously in their levels of development, from the relatively advanced industrialised countries of central Europe, through the former Soviet Union to the mainly rural countries of east and south east Asia. The economic transition in Europe and the former Soviet Union has been associated with political change, while political continuity has been mostly the case in east Asia.

In socialist countries under the planned economy, health services were financed and provided mainly by the public sector. The services were not well resourced and quality and efficiency were often low. But coverage of the population with essential services was effectively universal at little or no direct cost to households. Preventive care was relatively well developed, at least for the control of communicable diseases. The health systems of developing socialist countries like China and Cuba came to influence the formulation of the international policy of primary healthcare.^{1,2} Population health was also positively influenced by widespread basic education, high employment levels, and social protection systems. Incomes were low but the income distribution was compressed, and absolute poverty and marginalisation were rare. As a result of all these factors, while the level of economic development was still low, socialist countries made impressive health gains relative to most market economies at corresponding economic levels.^{3–7}

There are two broad categories of transitional experience. In the industrialised economies of Europe and Russia, and the related former Soviet republics of central Asia, transition resulted in major economic and fiscal contraction.⁸ In most of

these countries unemployment rose, income inequalities increased, general living standards fell and many people were thrown into poverty, while welfare provision deteriorated.^{9,10} In many countries public health expenditure fell, public health services deteriorated, and health status declined dramatically.^{7,8,11,12} Health sector reforms included decentralisation, marketisation, privatisation, a shift from budget finance to social health insurance, and the introduction of user charges, especially for drugs, in the public services.^{9,13–16} These charges, together with an increasing requirement to pay health workers informally,^{17,18} mean that health care has become costly and less accessible to poor households.^{15,19}

By contrast, reform in east Asian planned economies brought strong economic growth and most people have enjoyed rising incomes.⁵ But income inequality has increased and a sizeable minority of the population has been left in poverty, while safety nets have weakened. With economic growth public health expenditure increased, but the decollectivisation of agriculture resulted in the loss of cooperative rural healthcare finance and this undermined rural health services. Health sector reforms involved privatisation and the introduction or increase of user fees in public services. Household health expenditure has sky rocketed, especially for the purchase of drugs and the making of informal payments.^{20–23} The poor in these countries thus also find health care less accessible and affordable.

Whatever the advantages are of liberalisation over socialist planning, the health of large sections of the population is evidently not among them. A new poor has arisen in the transitional economies with much less social sector support. A comparable situation can be seen in many low income market economies, where increasing numbers²⁴ of poor people face

Table 1 Outline of research strategy

Issue to be investigated	Main methods used
Technical healthcare quantity and quality	Technical evaluation ³⁷
Household healthcare acts and costs	Longitudinal household illness survey + qualitative interviews and focus groups
Potential determinants of healthcare acts: type and severity of illness patient characteristics household characteristics perceived provider characteristics	Longitudinal household illness survey Longitudinal household illness survey Cross sectional household survey Qualitative
Affordability of health care	Analysis of above + qualitative
Interventions	Participant observation + qualitative

higher public sector user fees under policies of macroeconomic adjustment and health sector reform.²⁵⁻²⁷

TRANSITION AND THE HEALTH SECTOR IN VIETNAM

Vietnam has a well developed public health service with extensive rural coverage.²⁰ The system was built up in the north after partition in 1954²⁸ and was extended to the south after reunification in 1975. Most communes have a health station staffed usually by three year trained cadres at the assistant doctor level, although doctors are increasingly deployed to communes. The health stations are the vehicle for the delivery of public primary preventive and curative care. Under the planned economy health care was provided virtually free of charge. Patients paid only for drugs at highly subsidised prices. During this period Vietnam made impressive health gains. Infant mortality plummeted from 160 deaths per 1000 live births in 1960 to under 50 in the 1980s.^{5, 6}

Following economic difficulties in the post-reunification period,^{29, 30} the reform process was launched in 1986. Agricultural reforms resulted in increases in food production and from 1989 the economy grew strongly. Inflation was controlled and government expenditures, having fallen, were restored.^{30, 31} Incomes of most households increased and the prevalence of poverty declined,^{30, 32} but a growing divide opened up between the rich and poor.

In 1989 the Ministry of Health introduced major reforms to the health sector. Service and drug fees were applied in the public service. Facilities sold drugs to the public at market prices with a mark up of up to 15%. Preventive services and treatment under national programmes continued to be free of charge. Private medical practice and the retail sale of drugs were legalised and became widespread, mainly in the form of small clinics and drug outlets. Households had a wider choice in healthcare, but this came with a new burden of cost.

In the early years of reform commune health stations, previously financed out of collective production, deteriorated with the loss of cooperative finance. In 1987 the government started to subsidise commune health worker salaries, until in 1993 it took a number (depending on population size) of health workers per commune into state employment. This measure, which bucked the privatisation trend, stabilised the rural health service. In 1993 the government also introduced compulsory health insurance for formal sector employees.³³ Both public and private health expenditure increased rapidly in the 1990s.⁶

OUR STUDY

We investigated how, in the context of economic reform, households in Vietnam have responded to changes in the health sector and how the rural poor are coping with the higher costs of care. We assessed the affordability of health care on two criteria: whether cost requires households to

reduce their utilisation of health care and/or whether healthcare expense inflicts damage on household economy and welfare. Our purpose was to inform policy on how to increase the access of the poor to affordable health services of acceptable quality and responsiveness.

Relatively few healthcare seeking studies have been carried out in transitional economies using both quantitative and qualitative methods, and none to our knowledge has evaluated the quality of care to which the households have access.^{34, 35} We conducted baseline and intervention studies from 1992 to 1998 in four lowland rural communes in Quang Ninh, a lower-middle income province in the north of Vietnam. We studied both the demand and supply sides of health care using complementary quantitative and qualitative methods, and observed changes over time. Our research strategy is summarised in table 1 and our study instruments have been published.³⁶ We have also published full research reports.^{20, 37, 38} In this paper we focus on the affordability of health care for the poor.

METHODS

Commune selection was purposive to include a variety of economic circumstance and health station quality. In each commune baseline household surveys were conducted in two villages, one near to and one far from the health station. Around 80 households were selected per village by systematic random sampling. A cross sectional survey was carried out to determine the household demographic and socioeconomic characteristics. Interviews were conducted by local school teachers.

A longitudinal survey of the same households was then made to record the occurrence of acute illness episodes and resulting healthcare seeking. Accidents and acute exacerbations of chronic conditions were considered as acute episodes. The survey was conducted over a 16 week period beginning August 1992: August and September were post-harvest months of relative plenty, while October to December were pre-harvest months of relative shortage. The households notified the local teacher when a member fell ill and the teacher helped the family fill out an illness record. Data on the patient, the illness, and healthcare responses were recorded. Unlike the usual two to four week recall method for recording household illness, the longitudinal record documented events as they occurred. It generated detailed data of great internal consistency.³⁹ It also permitted the measurement of illness incidence, which is more appropriate than prevalence in communities like our study communes where the disease burden is mainly of an acute kind. We documented all formal and informal costs of treatment and other direct costs of care (like transport, food, and accommodation), but we did not attempt to quantify indirect economic costs of illness. We show both average and median costs, as the former were skewed upwards by relatively small numbers of higher expenditures. Rates have been annualised.

Table 2 Illness episodes by duration and household income group

Income group	Duration		Total
	1–7 days	>7 days	
<i>Poor</i>			
number of episodes	343	467	810
mean/person/year (95% CI)	0.49* (0.43 to 0.55)	0.67 (0.61 to 0.73)	1.17† (1.09 to 1.25)
<i>Non-poor</i>			
number of episodes	156	201	357
mean/person/year (95% CI)	0.61* (0.53 to 0.69)	0.78 (0.64 to 0.92)	1.39† (1.19 to 1.59)
<i>Total</i>			
number of episodes	499	668	1167
mean/person/year (95% CI)	0.53 (0.49 to 0.57)	0.70 (0.62 to 0.78)	1.23 (1.11 to 1.35)

*Significantly different ($p < 0.05$). †Significantly different ($p < 0.05$).

Poor households were defined as those with an average monthly per capita income of less than 50 000 dong.⁴⁰ (At the time US\$1 = 14 000 dong.) In addition to cross tabulations of average rates by household income group, we carried out multivariate analyses of individual illness episodes using multiple linear regression and multinomial logit models.⁴¹ Details of the models have been published.⁴⁰

Qualitative semi-structured interviews and focus group discussions were held with poor and non-poor householders after the baseline surveys and during the intervention phase.

Reported illness showed little variation across the eight study villages and the pattern of healthcare response was also similar, varying mainly by distance from healthcare services. The findings broken down by village and commune have been reported.³⁷ Here we combine the data from the whole sample and report on the 656 households (out of a total of 664 surveyed) for which we have income data.

RESULTS AND DISCUSSION

The study communes varied in size from 3000 to 8500 people and the main occupation was rice cultivation. Of our study households, 438 (2185 people) were poor and 218 (810 people) were non-poor. The average per capita income of non-poor households was nearly five times that of poor households. All the communes had a health station, with most households located not more than 4 km away. The health stations had benefited from donor assistance and were in a better state than many in Vietnam. Other available healthcare options are footnoted in table 3.

Illness episodes (table 2)

We documented a total of 1167 illness episodes during the record period, resulting in an average reported illness incidence of 1.23 per person per year. This figure is within the range of self perceived illness rates reported for various developing countries.^{42–44}

Non-poor households reported a significantly higher average rate of illness per person than poor households ($p < 0.05$), the difference being more marked in the case of shorter (presumed less severe) episodes. A higher rate of illness reporting by better off people has been documented in a wide range of developing countries.^{43–49} As morbidity tends to be greater among the poor, a plausible explanation is that poorer people have “less time” to be sick and tend to ignore illness if they possibly can.⁵⁰ This explanation is supported by our observation that the difference in non-poor/poor reporting rates was greater for shorter (milder) illnesses, when households would have more discretion in judging sickness.

Household healthcare acts (tables 3 and 4)

We recorded a total of 1825 acts of ambulatory health care and 35 hospital admissions during the illness record period. Most households reported one to two healthcare acts per illness episode, a simple pattern of healthcare behaviour found in the rural areas of other developing countries.^{42–50}

Table 3 shows that 60% of ambulatory acts involved self treatment (home remedies or drug purchases), a finding similar to that reported for rural households elsewhere in Vietnam^{51–52} and in other developing countries.^{42–53} We found that, with shorter (milder) illnesses in which households would have greater discretion in healthcare choice, there was a significant difference (χ^2 $p < 0.05$) in the pattern of healthcare seeking between poor and non-poor households, with the poor opting more for drug purchases and less for consultations. With longer illness, both poor and non-poor households made proportionately less use of drug purchases and more use of consultations (with private practitioners and hospitals) so that for longer illnesses the pattern of choice of the two income groups was virtually identical. This pattern of change with longer illness has been observed in Laos²² and generally greater use of formal health care with more severe illness has been reported in rural China²¹ and Indonesia.⁴² As illness becomes more serious, the discretion of (poor) households to choose cheaper options is reduced.

The average annual rate of ambulatory consultation was 0.76 per person (table 4). Rural consultation rates are quite low in Vietnam by some international standards.^{21–42–54–55} Non-poor households had a significantly greater average consultation rate than poor households ($p < 0.01$). Higher rates of formal healthcare consultation with increasing household income have been observed widely in developing countries.^{42–45–55–57}

Average annual consultation rates per person were 0.45 with commune public services, 0.22 with private practitioners, and 0.10 with state hospitals (table 4). The non-poor made more use than the poor of both types of public provider, the bigger difference being with hospital services ($p < 0.01$). A greater differential in non-poor/poor use of (expensive) higher level services, compared to (cheaper) lower level care, has also been found in Vietnam nationally⁵⁶ and in other countries.^{45–55–58} In our study only private practitioners were consulted virtually as much by the poor as the non-poor. This was because these practitioners provided a responsive service much needed by the poor: they were readily available for out of hours care and home visits and were prepared to wait for payment. The poor incurred extra expense to obtain these benefits. This opting of the poor for expensive but responsive private care has been found elsewhere in Vietnam³² and in other developing countries.³⁴

Table 3 Types of ambulatory healthcare act by duration of illness and household income group: % (number of acts)

Income group	Duration		Total
	1–7 days*	>7 days	
<i>Poor</i>			
home remedies	23 (109)	23 (176)	23 (285)
over the counter drugs	45 (213)	33 (255)	38 (468)
consultations (total)	32 (147)	43 (329)	38 (476)
commune public	24 (110)	22 (171)	23 (281)
commune private	7 (34)	14 (106)	11 (140)
state hospital	1 (3)	7 (52)	4 (55)
<i>Non-poor</i>			
home remedies	28 (71)	24 (80)	25 (151)
over the counter drugs	35 (90)	32 (107)	33 (197)
consultations (total)	37 (97)	44 (150)	42 (247)
commune public	26 (68)	22 (75)	24 (142)
commune private	9 (24)	12 (40)	11 (64)
state hospital	2 (6)	10 (35)	7 (41)
<i>Total</i>			
home remedies†	25 (180)	23 (256)	24 (436)
over the counter drugs‡	42 (303)	33 (362)	36 (665)
consultations (total)	33 (244)	43 (479)	39 (723)
commune public§	24 (178)	22 (246)	23 (423)
commune private	8 (58)	13 (146)	11 (204)
state hospital¶	1 (9)	8 (87)	5 (96)

*Difference between poor and non-poor for the three main types of act χ^2 $p < 0.05$. †Herbal remedies prepared at home, often with purchased ingredients. ‡Finished drugs purchased from retail outlets or informal vendors. §Consultations at the commune health station or with village health workers. || Consultations with commune private practitioners, mostly retired public health workers at the assistant doctor level or traditional practitioners. ¶Consultations at the local hospital or its outlying polyclinic.

Multinomial regression of individual illness episodes confirmed these findings and showed significant relations between the likelihood of a healthcare consultation and membership of a non-poor household ($p < 0.05$) and longer illness ($p < 0.01$).²⁰ Members of non-poor households were significantly more likely than the poor to consult commune public and hospital services ($p < 0.05$ and $p < 0.01$ respectively), but not private practitioners.

The average annual hospital admission rate in our study was 0.04 per person, similar to rates found in rural China.^{21–24} Non-poor households had on average more admissions per

person than poor households, with a non-poor/poor differential similar to that found nationally in Vietnam⁵⁶ and in poor rural counties of China.⁴⁵

Household healthcare expenditure (tables 5–7)

Home remedies were by far the cheapest healthcare option, with the average cost to households rising progressively through drug purchases, commune public consultations, and private consultations to hospital consultations (table 5). Excluding home remedies (which were used mainly as a complement to “modern” health care), the average frequency with

Table 4 Healthcare consultations by type of provider and household income group

Income group	Type of provider			
	Commune public	Commune private	State hospital	Total
<i>Poor</i>				
number of consultations	282	140	55	477
mean/person/year	0.41*	0.20	0.08†	0.69§
(95% CI)	(0.36 to 0.46)	(0.16 to 0.24)	(0.05 to 0.11)	(0.62 to 0.76)
mean/person reporting illness/year	1.17	0.58	0.23‡	1.98
(95% CI)	(1.03 to 1.31)	(0.46 to 0.69)	(0.15 to 0.31)	(1.80 to 2.16)
<i>Non-poor</i>				
number of consultations	142	64	41	247
mean/person/year	0.56*	0.25	0.16†	0.96§
(95% CI)	(0.45 to 0.67)	(0.18 to 0.32)	(0.11 to 0.21)	(0.82 to 1.10)
mean/person reporting illness/year	1.34	0.60	0.39‡	2.32
(95% CI)	(1.22 to 1.46)	(0.52 to 0.68)	(0.26 to 0.52)	(2.06 to 2.58)
<i>Total</i>				
number of consultations	424	204	96	724
mean/person/year	0.45	0.22	0.10	0.76
(95% CI)	(0.40 to 0.45)	(0.19 to 0.25)	(0.08 to 0.12)	(0.69 to 0.83)
mean/person reporting illness/year	1.22	0.59	0.28	2.09
(95% CI)	(1.10 to 1.34)	(0.50 to 0.68)	(0.21 to 0.35)	(1.94 to 2.24)

*Significantly different ($p < 0.05$). †Significantly different ($p < 0.01$). ‡Significantly different ($p < 0.05$). §Significantly different ($p < 0.01$). || Significantly different ($p < 0.05$).

Table 5 Household expenditure per healthcare act by type of act and household income group (dong '000)

Income group	Home remedies*	Over the counter drugs*	Consultation			
			Commune public*	Commune private*	State hospital*†	State hospital admission†
<i>Poor</i>						
number of acts	285	444	281	137	48	21
mean/act	2.6	11.8	13.4	29.6	40.4	230.7‡
(95% CI)	(1.8 to 3.4)	(10.0 to 13.6)	(11.2 to 15.6)	(22.2 to 37.0)	(26.9 to 53.8)	(95.7 to 365.8)
median/act	0.0	6.0	8.0	12.0	23.0	102.8
<i>Non-poor</i>						
number of acts	151	183	139	64	26	14
mean/act	1.6	16.9	18.1	29.2	78.0	588.9‡
(95% CI)	(0.8 to 2.4)	(11.9 to 21.9)	(11.9 to 24.3)	(19.2 to 39.2)	(26.0 to 130.0)	(336.1 to 841.7)
median/act	0.0	8.0	7.0	10.0	36.0	538.7
<i>Total</i>						
number of acts	436	627	420	201	74	35
mean/act	2.3	13.3	15.0	29.5	53.6	373.5
(95% CI)	(1.7 to 2.9)	(11.3 to 15.3)	(12.4 to 17.6)	(23.3 to 35.7)	(33.2 to 74.0)	(232.9 to 514.1)
median/act	0.0	6.5	8.0	11.7	25.0	233.7

*One way analysis of variance shows that the mean cost differences between the various types of ambulatory healthcare act are significant at the 5% level or less for each income group, except between over the counter drug purchases and commune public consultations and, in the case of non-poor households, between commune public and private consultations. †The hospital cost analysis excludes zero priced acts resulting from fee exemption. ‡Significantly different ($p < 0.05$ Student's t test).

which households chose ambulatory options (tables 3 and 4) was in inverse ranking to their average cost. Hospital admission was in an expense class of its own. Non-poor households spent on average much more per admission than the poor ($p < 0.05$). Even so, while for the non-poor the average admission cost represented 150% of average monthly income, for poor households their lower costs represented over 200% of monthly income. A hospital admission can be a catastrophic economic event in the life of households and the poor may forgo inpatient treatment because of the expense.^{38 45}

Table 6 shows that on average non-poor households spent nearly half as much again per illness episode as poor households ($p < 0.05$). The relation of income to spending was confirmed in multiple linear regression of individual episodes, in which per capita household income was related significantly to ambulatory care expenditure per episode ($p < 0.01$).²⁰

During pre-harvest lean seasons of the year, household rice stocks are run down and families may go into debt. Table 6 shows that average ambulatory care expenditure per episode was significantly less in the lean season than in the

post-harvest plentiful season ($p < 0.05$). However, non-poor households scarcely reduced their spending in the lean season, while poor household expenditure decreased by nearly a half compared to that in the plentiful season ($p < 0.01$). In fact, most of the overall difference between poor and non-poor households in average expenditure per episode is explained by the nearly twofold difference in spending in the lean season ($p < 0.05$). Thus a seasonal lack of funds, unimportant in the case of non-poor households, critically constrained the healthcare spending of the poor. A tendency to avoid consultations and reduce healthcare spending at lean times of the year has been described in poor rural communities of Africa.^{50 53}

Table 7 shows that total annual per capita healthcare expenditure by non-poor households averaged 2.4 times that of poor households ($p < 0.01$). More health spending with higher household income has also been found nationally in Vietnam,⁵¹ in poor rural counties of China⁴⁵ and in rural districts of Sierra Leone.⁵³ While the non-poor in our study spent on average per person more than half as much again on ambulatory care as the poor ($p < 0.01$), they spent more than

Table 6 Household expenditure on ambulatory health care per episode by season and household income group (dong '000)

Income group	Plentiful season	Lean season	Total
<i>Poor</i>			
number of episodes	532	278	810
mean/episode	22.6*	13.4*‡	19.5§
(95% CI)	(19.4 to 25.8)	(11.0 to 15.8)	(17.3 to 21.7)
median/episode	10.0	7.4	10.0
<i>Non-poor</i>			
number of episodes	195	162	357
mean/episode	28.6	25.7‡	27.3§
(95% CI)	(20.8 to 36.4)	(15.7 to 35.7)	(21.1 to 33.5)
median/episode	15.0	7.0	10.6
<i>Total</i>			
number of episodes	727	440	1167
mean/episode	24.3†	18.0†	21.9
(95% CI)	(21.1 to 27.5)	(14.0 to 22.0)	(19.5 to 24.3)
median/episode	11.0	7.0	10.0

*Significantly different ($p < 0.01$). †Significantly different ($p < 0.05$). ‡Significantly different ($p < 0.05$). §Significantly different ($p < 0.05$).

Table 7 Annual household healthcare expenditure by type of healthcare act and household income group (dong '000)

Income group	Consultation										Total health care	
	Home remedies	Over the counter drugs	Commune public	Commune private	State hospital	Total ambulatory health care	State hospital admission	Total health care				
Poor												
number of acts	285	468	281	140	55	1229	22	1251				
mean/person/year	1.1	7.6*	5.4†	5.8	2.8	22.7‡	7.1	29.8**				
(95% CI)	(0.7 to 1.5)	(6.2 to 9.0)	(4.2 to 6.6)	(4.0 to 7.6)	(1.4 to 4.2)	(19.7 to 25.7)	(1.9 to 12.2)	(23.8 to 35.8)				
mean/person reporting illness/year	3.1	21.8	15.7	16.8	8.1	65.6§	20.4¶	85.9††				
(95% CI)	(2.1 to 4.1)	(18.1 to 25.5)	(12.7 to 18.7)	(11.2 to 22.4)	(4.3 to 11.9)	(57.8 to 73.4)	(5.6 to 35.1)	(69.2 to 102.6)				
median/person reporting illness/year	0.0	6.3	0.0	0.0	0.0	31.5	0.0	31.5				
Non-poor												
number of acts	151	197	143	64	41	596	14	610				
mean/person/year	0.9	12.0*	9.8†	7.3	7.9	37.9‡	32.2	70.1**				
(95% CI)	(0.3 to 1.5)	(8.2 to 15.8)	(6.0 to 13.6)	(4.1 to 10.5)	(2.1 to 13.7)	(28.7 to 47.1)	(8.9 to 55.6)	(43.6 to 96.8)				
mean/person reporting illness/year	2.3	29.0	23.7	17.5	19.1	91.6§	77.8¶	169.4††				
(95% CI)	(1.1 to 3.5)	(20.0 to 38.0)	(14.5 to 32.9)	(9.9 to 25.1)	(4.9 to 33.3)	(70.6 to 112.6)	(21.8 to 133.8)	(106.8 to 231.9)				
median/person reporting illness/year	0.0	6.3	0.0	0.0	0.0	37.8	0.0	37.9				
Total												
number of acts	436	665	424	204	96	1825	36	1861				
mean/person/year	1.1	8.8	6.6	6.2	4.2	26.9	13.9	40.7				
(95% CI)	(0.7 to 1.5)	(7.4 to 10.2)	(5.2 to 8.0)	(4.6 to 7.8)	(2.4 to 6.0)	(23.5 to 30.3)	(6.5 to 21.2)	(32.3 to 49.2)				
mean/person reporting illness/year	2.9	24.0	18.0	17.0	11.5	73.6	38.0	111.5				
(95% CI)	(2.1 to 3.7)	(20.2 to 27.8)	(14.4 to 21.6)	(12.4 to 21.6)	(6.3 to 16.7)	(65.2 to 82.0)	(17.9 to 58.0)	(89.0 to 134.0)				
median/person reporting illness/year	0.0	6.3	0.0	0.0	0.0	31.5	0.0	31.5				

*Significantly different (p<0.05). †Significantly different (p<0.01). ‡Significantly different (p<0.05). §Significantly different (p<0.05). ||Significantly different (p<0.05). **Significantly different (p<0.01). ††Significantly different (p<0.01).

four times as much on inpatient treatment (p<0.05). Hospital admissions, expensive but rare events, accounted for nearly a half of total healthcare spending by non-poor households, but less than a quarter of spending by poor households.

Thus the poor made considerably less use of expensive hospital treatment, both inpatient and outpatient, and two thirds of total healthcare spending by poor households was on relatively inexpensive ambulatory care at the commune level. The high unit costs of hospital treatment are very visible and can divert attention from the greater cumulative burden on the poor of relatively low cost, but more frequent, acts of ambulatory care. The predominance of ambulatory care in health expenditure of the poor has also been found in poor rural counties of China.⁴⁵

Healthcare expenditure as proportion of household income (table 8)

Households spent on average 13.2% of their income on health care. A range of 3.3%–10.0% of household income devoted to health care has been found in other rural districts of Vietnam.⁵⁹ Average health expenditures of 2%–7% of incomes have been found in a variety of developing countries^{53 54 60 61} and spending on health care seems to be relatively high in Vietnam.

Although compared with the non-poor, poor households consulted healthcare providers less often (table 4) and spent less money on health care (table 7), the burden of healthcare expense was much greater for them. For poor households, healthcare expenditure averaged 13.4% of income for ambulatory care and 16.8% of income for all care, compared with 3.2% and 5.6% respectively for non-poor households (p<0.01 in both cases). Percentage health spending by lower income groups of 1.4–10.5 times that of higher income groups has been found in several developing countries⁵³ and average healthcare spending of over 20% of household income or expenditure of the lowest income groups has been found in a variety of country settings.^{15 53 62 63} Poor households reporting illness in our study spent as much as 21.9% of income on health care, compared with 8.2% for non-poor households (p<0.01).

The poor/non-poor differentials were greater for the proportion of income devoted to health care than for any of the other indicators of healthcare seeking that we investigated. Thus although the poor restrained their healthcare seeking, they did not do so in proportion to income. This relative inelasticity of healthcare demand by the poor, especially for ambulatory care, has been seen elsewhere in rural Vietnam,⁵⁹ in rural China⁴⁵ and in other developing countries.^{53 60} In the face of family illness, the poor stretch their resources to obtain health care and put their household economies under strain.

Willingness and ability to pay for health care

Real incomes in the study commune rose over the years of our research and the number of poor households fell. Real per capita incomes of households below the poverty line also showed some increase, in line with a national trend.³⁰ Nevertheless, debt remained pervasive among poor households.³⁸ These households were vulnerable to economic shocks of all kinds including serious illness. The direct costs and production losses associated with family sickness are in fact a common cause of debt and impoverishment in Vietnam,^{32 52 64} China,⁶⁵ and other low income countries.^{60 66 67}

In our study many poor households delayed and minimised healthcare seeking and needed to defer fee

Table 8 Household healthcare expenditure as percentage of household expenditure by household income group*

Income group	Ambulatory healthcare expenditure		Total health care	
	All households	Households reporting illness	All households	Households reporting illness
<i>Poor</i>				
number of households	438	335	438	335
mean	13.4	17.4	16.8	21.9
(95% CI)	(10.8 to 16.0)	(14.2 to 20.6)	(12.6 to 21.0)	(16.7 to 27.1)
median	4.7	9.0	5.3	10.0
<i>Non-poor</i>				
number of households	218	158	218	158
mean	3.2	4.5	5.6	8.2
(95% CI)	(2.4 to 4.0)	(3.3 to 5.7)	(2.8 to 8.4)	(4.4 to 12.0)
median	1.1	2.5	1.3	2.7
<i>Total</i>				
number of households	656	493	656	493
mean	10.0	13.3	13.2	17.5
(95% CI)	(8.2 to 11.8)	(11.1 to 15.50)	(10.2 to 16.2)	(13.7 to 21.3)
median	2.6	5.0	2.8	6.3

*Mean percentages of poor and non-poor households significantly different in all four cases ($p < 0.01$).

Key points

- In transitional economies like Vietnam health care has become unaffordable and less accessible to many poor households.
- In the short-term the poor need exemption from public sector user fees in both primary and hospital care.
- In the longer run the government budget and prepayment schemes should replace direct user charges in healthcare finance.
- Transitional economies should preserve the public health services built up under the planned economy.
- Market reforms that stimulate growth in the economy appear inappropriate to reform of the social sectors.

payments. To meet costs, poor households regularly had to sell assets (like rice reserves or livestock) and/or borrow money and they might have to reduce essential consumption (notably of food) and/or withdraw children from school (to put them to work). This process of impoverishment threatened the livelihood—and future health—of households. A similar pattern of coping by poor households has been described in other provinces of Vietnam,^{32–35} in other transitional economies,^{15, 62} and in countries of Africa and Asia.⁶⁰

Thus in our study health care was unaffordable to the poor on both our criteria: cost required many households to reduce their utilisation of health care and healthcare expense frequently inflicted damage on their household economy and welfare. Our findings give powerful support to the contention that the “willingness” of the poor to pay for health care cannot be taken to mean that they are “able” to pay.^{60, 67}

Exemption of the poor from public healthcare fees

User fees have been introduced or increased in the public health services of many developing countries since the 1980s under the influence of neoliberal economic and health sector reforms.^{25–26} They are currently a fact of life in transitional economies, especially those of east Asia. It is recognised that a user fee policy should include provision for exemption of the poor, but the implementation of exemption systems is fraught with problems, including in identifying the eligible poor and administrative incapacity.⁶⁸ In Vietnam, as in other developing countries, social assistance and fee exemptions are not well targeted at those most in need.⁶⁹ In recent years a poverty alleviation programme has provided for the subsidisation of hos-

pital costs of the poor,⁶⁴ but the application procedure is difficult to negotiate and the subsidy has covered only some costs. In 1999 official co-payments by subsidised patients were abolished and the hospital subsidisation scheme could be made to work.

There is, however, no clear exemption policy for the cost of commune health care, which is currently much the greater problem for the poor, and exemptions are rare at commune health stations. Attempts by poor households to minimise costs by avoiding primary care treatment may be detrimental to the health of the patient and result in the need for expensive hospital care. Financial barriers to primary health care are both bad medicine and bad economics. Drugs are the main healthcare expense of households and in our communes over-medication with essential and non-essential drugs was common with all the healthcare options.³⁷ Most illnesses in the communes are relatively minor and we estimated a benchmark cost of providing poor households with essential drugs free of charge at commune health stations at an average rate of one medicine per consultation. This exemption policy would add some 15% to the public subsidy of health station recurrent costs.³⁸ This additional subsidy, although not trivial, could be financed from a number of sources: poverty alleviation funds, commune revenue (by adding less than 1% to local taxes), and/or the provincial health budget. Fee exemption schemes should be linked to essential drugs policies.

Conclusions

User fees are unlikely to raise much finance without deterring necessary healthcare utilisation.^{67–70} Important as exemption schemes may be in the short run, in the longer term alternatives to direct user charges are needed. It is to the credit of the Vietnamese government that, in its health strategy for the years 2001–2010, the need for both fee exemptions and the gradual replacement of direct charges by types of health insurance are recognised; the government budget and health insurance schemes are to be the main sources of public healthcare finance.⁷¹ For rural areas local prepayments systems are under consideration along the lines of the cooperative medical schemes of China, although such schemes have proved difficult to maintain in a market economy.²¹ The schemes will need public subsidies and these are planned. Nevertheless in a country like Vietnam showing strong

economic growth, government tax revenue is likely to remain the most realistic source of finance for rural public health services.

Despite the development of private medicine in Vietnam, the public health service is still the provider of ultimate recourse for the poor and is the normal port of call for formal health care of many others. The commune health stations remain the backbone of the government's strategy for delivering integrated primary health care. In our study commune public services were the option most frequently utilised by households, poor and non-poor, for a consultation. Many health stations in Vietnam have not benefited from the rehabilitation that took place in our study facilities and they are in need of technical improvement. This calls not only for additional finance, but crucially for better management of public health resources, with more prioritisation of primary and district health services and greater efficiency in resource use. The need for such reforms is acknowledged in the 10 year health strategy.⁷¹ But lack of responsiveness to user needs is the real Achilles heel of public services in Vietnam, as it is in so many other countries. This calls for a special programme to improve the user friendliness of public health services.⁷²

Transitional economies have a precious legacy in the health services developed under socialist planning. In a liberalising climate policy can readily be fixated on privatising reforms. But it is necessary to distinguish between economic and social sectors: the market reforms that stimulate growth in the economy are not necessarily appropriate to reform of social sectors, where the principle of solidarity should remain the cornerstone as it does in the capitalist economies in western Europe. It would be a historic loss if the health services bequeathed to transitional economies were not protected and developed under conditions of reform. A comparable conclusion can be drawn for many low income market economies, where the health services built up after decolonisation need salvaging from the deteriorated state in which economic crisis, debt, and adjustment have left them.⁷²

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