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ADMINISTRATIVE MEDICINE

Part I Examination

Friday 6 June 2025

14:30 – 16:00 (1½ hours)

Paper IIB

Candidates must answer all parts of these questions

Style, clear grammatical English and legibility will be taken into consideration by the Examiners. Answers should be written in a form appropriate to the audience specified in the question.

The weighting of marks for each part of the question is shown in parentheses.

**DO NOT OPEN THE PAPER UNTIL THE
INVIGILATOR INSTRUCTS YOU TO BEGIN**

Public healthcare fees and charges reform

Service		Current fee	Fees effective from January 1, 2026
Inpatient (Acute bed)	Admission fee	\$75	To cancel
	Maintenance fee (per day)	\$120	\$300
Inpatient (convalescent / rehabilitation, infirmary and psychiatric beds) Maintenance fee (per day)		\$100	\$200
Day procedure and treatment	Admission fee	\$75	To cancel
	Maintenance fee (per day)	\$120	\$250
Day hospital (Geriatric, rehabilitation)		\$60 / \$55	\$100
Community nursing service, Community allied health service		\$80	\$100
Community psychiatric nursing service		Free	Free
Psychiatric day hospital		\$60	Free
Accident and emergency		\$180	\$400 (Fee exempted for Category I, II)
Specialist outpatient clinic (SOPC) (Include allied health clinic)	1st attendance	\$135	\$250
	Subsequent	\$80	
	Drug	\$15 per unit, 16 weeks maximum	\$20 per unit, up to 4 weeks
Pathology testing service (applicable for SOPC)	Basic	No additional charges	Free
	Intermediate		\$50
	Advanced		\$200
Non-emergency radiology imaging service	Basic	No additional charges	Free
	Intermediate		\$250
	Advanced		\$500
Family medicine outpatient service	Consultation	Family medicine outpatient service \$135 for the 1st attendance	\$150
		\$80 per subsequent attendance	
		\$50 for general outpatient	
	Drug	Family medicine outpatient service \$15 per unit, 16 weeks maximum	\$5 per unit, up to 4 weeks
No additional charge for general outpatient			

Strengthening Healthcare Protection

(A) Enhanced Medical Fee Waiving Mechanism

1. Relax the income and asset limit

Income Limit	Relax income limit from the current 75% of Median Monthly Domestic Household Income (MMDHI) ¹ to: 2-person household or larger: MMDHI 1-person household: 150% of MMDHI <i>(to better assist 1-person household with lack of social support)</i>
Asset Limit	Relax to asset limit for Public Rental Housing application

¹ MMDHI based on the General Household Survey conducted by the Census and Statistics Department. Upon enhancement, MMDHI (excluding foreign domestic helpers) will be adopted.

2. Extend the scope of coverage and validity period of waiver

- Extend the scope of coverage for period waiver for those below 65 of age, to include general outpatient clinic (GOPC) services for episodic appointments²
- The longest validity period of medical fee waiver will be extended from 12 months to 18 months
- Within a maximum of 18 months, there is no need to submit financial documents for financial assessment for applying medical fee waiver

² Currently, if patient below 65 of age with period waiver needs to attend GOPC services for episodic appointments, s/he is required to approach (medical) social worker to apply for one-off medical fee waiver. For those patients age 65 or above, there is no need for them to apply for waiver additionally.

3. Refine the definition of “household”

- Relax the definition of “household” to that for applying assistance from safety net* for self-financed drugs or medical devices

Patient type	"Household" and Core Family Member Definition
Dependent patient ³	The patient, his/her parents/legal guardians, and dependent siblings living together
Non-dependent patient	<u>If married</u> – the patient, his/her spouse, and dependent children (but not parents/legal guardians or siblings) living together <u>If unmarried</u> – the patient would be treated as a single person household (irrespective of whether parents/legal guardians or siblings are living together)

³ A dependent is defined as a person who is unmarried AND either (i) under 18 years old; or (ii) 18-25 years old receiving full-time education. A patient who does not fulfill the above requirements is classified as a non-dependent patient.

*Including Samaritan Fund

(B) Introduction of Inpatient and Outpatient Cap of Annual Spending

1. Cap of annual spending of HK\$10,000 per patient for all fee items (excluding self-financed drugs and medical devices)
2. Eligible for all Hong Kong residents

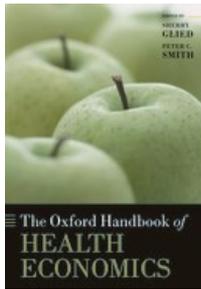
(C) Enhanced Safety Net* for Self-financed drugs and medical devices

Accelerated introduction of innovative drugs and devices to (1) HA Drug Formulary; (2) Safety Net; and (3) Special Drug Categories. Relaxed eligibility criteria:

1. Relax the calculation of income for “annual disposable financial resources”
(applicable to applications for drugs and non-one-off non-drug items)
 - Only 80% and 60% of the income will be used for assessment of new applicants and recurrent applicants respectively
2. Widen the sliding scale for calculating the amount of patient contribution
(applicable to applications for drugs and non-one-off non-drug items)
 - By making reference to the sliding scale of Legal Aid Schemes, to widen the sliding scale for calculating the amount of patient contribution, reducing the amount of patient contribution for existing patients and providing a higher amount of subsidy, and support patients who are currently NOT eligible for subsidy due to relatively higher annual disposable financial resources
3. Relax the income limit
(applicable to applications for one-off non-drug items)
 - Relax the income limit for 1-person household to 1.5 times of the current income limit for consistency of the enhancement measures on medical fee waiver

*Including Samaritan Fund

Source of information: [Press release](#) issued by the Government of the Hong Kong Special Administrative Region on 25 March 2025



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CHAPTER

15 User Charges

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Abstract

This article considers the use of user charges or co-payments in both developed and developing countries. It discusses a fundamental tension between controlling moral hazard and assuring access to needed services, especially amongst the very poor. This article focuses on public systems and only refers to empirical results for private insurers. It gives a brief overview of the importance of out-of-pocket payments in the world and discusses the allocative effects of user charges, their implementation as a revenue-raising mechanism, and their effects on equity. It also discusses the quantitative information derived from various surveys. Finally, there is a deviation on two related phenomena: informal (even illegal) payments to providers and extra (or balance) billing, i.e. charging additional fees on top of the official fee schedule that is used for reimbursement. These raise same issues as user charges in general.

Keywords: [user charges](#), [public systems](#), [co-payments](#), [extra billing](#), [informal payments](#)

Subject: [Health, Education, and Welfare](#), [Public Economics](#), [Economics](#)

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15.1 Introduction

WE define “user charges” or “user fees” for health care as official payments charged by the providers to the patients at the point of delivery. From the economic point of view, they can simply be seen as consumer prices. The term “user charges” is mainly (but not exclusively) used in tax-financed systems. To denote the cost-sharing by patients in systems of (private or social) health insurance, one speaks about co-payments (a fixed amount per service), co-insurance (when patients have to pay a fixed percentage of the cost) and deductibles (where patients only are reimbursed above a certain minimum cost ceiling). The economic effects of these forms of cost sharing are very similar to those of user charges, because they can also be interpreted as

consumer prices.¹ From an analytical point of view, it therefore makes sense to treat the two together. We will do so in this chapter. We will mainly focus on public systems, however, and only refer to empirical results for private insurers, when they give insights about patient or provider behavior that are also relevant to the public systems. We will use the term “co-payments” to indicate cost-sharing in health insurance systems and the term “user charges” for the official payments in tax-financed systems. We will also use the term “user charges” if we want to encompass both situations.

p. 330 Both user charges and co-payments refer to *official* payments for health care items that are provided by the public sector or are covered by the prevailing system of health insurance. In some countries, providers are allowed to raise excess fees on top of the official fees, or patients cannot avoid unofficial payments if they want to get treated. Moreover, patients obviously have to pay themselves for health care items that are not covered by the public system nor by health insurance. To indicate the sum of all the own payments of the patients, we will use the term “out-of-pocket payments.” This is the most relevant concept from an equity point of view.

There is a large literature both on moral hazard and co-payments in insurance and on the effects of user charges in low- and middle-income countries (further LMICs), but these two streams of literature are hardly integrated. More integration could improve both. The literature on moral hazard in developed insurance systems is analytically rigorous and has implemented sophisticated econometric techniques to correct e.g. for self-selection (Zweifel and Manning 2000). It sometimes is rather casual about the influence of the broader institutional context, however. The literature on LMICs has convincingly shown that this broader context does matter: professional ethics and patterns of decision-making by providers, the availability of alternatives (such as OTC-medicines or supplemental insurance) for the patients, the pre-existing socioeconomic inequalities, the working of intermediate organizations all have an influence on the effects of user charges. There is no reason why such features would be less important in developed countries than in LMICs. On the other hand, the literature on LMICs is not always analytically rigorous, with a focus on simple case studies (see, e.g., the critical evaluation in Palmer et al. 2004) and with sometimes a hidden presupposition that the traditional behavioral models of economics do not work well in a setting with huge transaction costs and underdeveloped markets and political institutions. There are no good reasons to accept this presupposition, however.

A partial explanation for the differences in emphasis is that the literature on LMICs is often more policy-oriented and tends to evaluate a whole policy package, of which user fees are only a part (Gilson and Mills 1995). The latter may have desirable effects in one situation, and may be detrimental in another situation, e.g. depending on who is deciding about what to do with the proceeds. From an analytical point of view, however, it is essential to distinguish carefully the effects of the different components of the package. To give an example: even if user fees can go together (or not) with an increase in the quality of the services delivered, it is important to try to distinguish carefully the price effect and the quality effect from each other.

In the second section, we first give a brief overview of the importance of out-of-pocket payments in the world. In the following sections, we discuss the allocative effects of user charges, their implementation as a revenue-raising mechanism, and their effects on equity. We will spend relatively little attention on case studies or on studies based on interviews, and focus on the quantitative information derived from surveys. We then go briefly into a few theoretical papers on optimal user charges. Finally, we have a digression on two related phenomena: informal (even illegal) payments to providers and extra (or balance) billing, i.e. charging additional fees on top of the official fee schedule that is used for reimbursement. We will show that these raise the same issues as user charges in general.

15.2 The Importance of Out-of-pocket Payments in the World

Table 15.1 gives an overview of the importance of out-of-pocket payments in different regions of the world (source: World Health Statistics 2008). Table 15.2 shows the countries where the share of out-of-pocket payments in total expenditures on health was more than 60 percent in 2005. Out-of-pocket payments play a dominant role in LMICs where they cover about 50 percent of health care expenditures. They are also important in some transition economies and former republics of the Soviet Union, where the collapse of the existing state-driven system led to huge financing problems (Balabanova et al. 2004).

Out-of-pocket expenditures are less important in the high-income countries where health care financing is based on taxes and/or social insurance. Yet even in these countries, they are far from negligible. According to the same WHO source (World Health Statistics 2008), in 2005 they covered 22.5 percent of total health expenditures in a social insurance country like Belgium, 20.3 percent and 20.9 percent in NHS-type countries like Italy and Spain respectively and even 30.5 percent in a private insurance country like Switzerland. Moreover, there seems to be a tendency toward an increase of patient cost-sharing in countries where it traditionally has played a minor role, such as the UK or the Netherlands. This is not only explained by a concern to fight moral hazard and overconsumption, but it also reflects the increasing pressure on the public financing part of the system.

Table 15.1 Out-of-pocket Payments in Different Regions of the World

	Total expenditure on health as % of GDP		Per capita total expenditure on health (PPP international \$)		General government expenditure on health as % of total expenditure on health		Out-of-pocket expenditure as % of total expenditure in health		2005
	2000	2005	2000	2005	2000	2005	2000	2005	
African region	5.8	5.9	88	112	43.7	45.3	29.1	26.5	
Region of the Americas	11.3	12.7	1 961	2 675	45.8	46.8	18.4	16.3	
South-East Asia region	3.5	4.0	63	100	30.1	29.0	61.4	64.2	
European region	8.0	8.6	1 215	1 649	73.4	74.3	18.2	17.6	
Eastern Mediterranean region	4.5	4.9	168	242	44.8	51.4	48.7	42.7	

Western Pacific region	5.7	5.8	359	529	59.6	56.8	35.6	35.8
Low income	4.2	4.6	56	84	28.0	25.9	65.0	67.4
Lower middle income	4.6	4.8	183	295	43.4	44.9	51.7	46.8
Upper middle income	6.2	6.6	505	705	52.5	53.2	32.9	30.2
High income	10.0	11.2	2 744	3 712	59.7	60.1	15.7	14.4
Global	8.0	8.6	579	790	56.0	56.0	23.3	22.5

Source: WHO, World Health Statistics 2008.

Table 15.2 Countries with Out-of-Pocket Expenditures > 60% of Total Health Expenditures in 2005

Myanmar	88.9	Dem. Rep. Congo	65.4
Guinea	87.7	Vietnam	64.0
Pakistan	80.9	Singapore	63.9
Afghanistan	77.9	Azerbaijan	63.6
Georgia	77.0	Togo	63.1
India	76.1	Bangladesh	62.6
Tajikistan	74.6	Nepal	62.6
Laos	73.6	Nigeria	62.5
Burund	71.4	Senegal	61.7
Ivory Coast	68.9	Sudan	61.3
Cameroon	68.1	Cambodia	60.1

Source: WHO, World Health Statistics 2008.

Similar arguments have been used to advocate user charges in LMICs. While they have always existed in these countries, their use was strongly stimulated by the World Bank in the 1980s. It has been said that two “models” of user charges were applied in Africa (Gilson and Mills 1995): the “World Bank” model with national user fees (mainly present in Anglophone countries), and the “Bamako Initiative” model of community financing (mainly in Francophone countries). The revenue and quality effects of the user charges were less positive than hoped, however, and the distributional effects turned out to be worse. More recently, therefore, the World Bank changed its position and the WHO also argued strongly against user charges. Countries like Uganda and South Africa introduced a policy of removing user fees again.

15.3 User Charges and Efficiency: The Price Effect

p. 333 From an economic point of view, the rationale of user charges is to improve allocative efficiency. Assume a world without uncertainty and without externalities and in which the government can redistribute incomes in a lump sum way. In such a first-best world, \hookrightarrow prices of private goods optimally should be set equal to their marginal cost. In the health sector, externalities or merit good considerations offer arguments for subsidizing prices. More importantly, the pervasive uncertainty creates a need for insurance, and hence for the (partial) reimbursement of health care costs. All this does not imply, however, that optimal consumer prices are zero. In the insurance setting, the moral hazard problem suggests that some cost sharing is optimal. There is a trade-off between better insurance on the one hand and the welfare losses due to the price distortions on the other hand— yet, if the price elasticity of health care demand is not zero, the optimal level of cost sharing is not zero either. A similar logic can be applied to the design of a system of tax-financing (Jack 1999). Taxes paid are similar to the premiums in an insurance system and price subsidies mimic the reimbursement of costs. User charges are then the equivalent of the cost-sharing arrangements in health insurance, and a priori, they should *not* be zero.

The traditional welfare approach evaluates outcomes on the basis of subjective consumer preferences. This is not generally accepted in all societies, and even among health economists there is a deep ideological divide between those who accept the traditional approach and those who argue that willingness-to-pay as revealed by market demand has no obvious welfare meaning in a situation with poorly informed patients. We will sidestep this issue and focus on the empirical results as such. The first question then is whether user charges have an effect on health care consumption. If there is a price effect, this raises a second issue: is it true that zero prices induce less efficient (“frivolous”) consumption, and that the introduction of positive user charges leads mainly to a cut of these less efficient treatments?

The literature gives an unambiguous answer to the first question. User charges do have a negative effect on health care consumption. The evidence is overwhelming for co-payments in the developed insurance systems. The authoritative Rand-experiment revealed that in the United States the price elasticity of health care demand was significantly different from zero, although small in absolute terms. Estimates were between $-.15$ and $-.20$ (Manning et al. 1987). Similar findings have been reported in a large number of papers using non-experimental techniques (Cutler and Zeckhauser 2000; Zweifel and Manning 2000). The evidence is almost equally strong for the effects of user charges in LMICs. Introducing or increasing user fees has almost always and everywhere led to a decrease of utilization (Gertler and Hammer 1997; Sepehri and Chernomas 2001; Palmer et al. 2004; James et al. 2006). Particularly interesting is the finding that the recent abolition of user fees led to a significant increase in utilization in South Africa and Uganda (Gilson and McIntyre 2005).

p. 334 In this respect, one should not be misled by the fact that some case studies found a positive effect on utilization after the introduction of user fees.² This positive result \hookrightarrow reflects the effect of other variables that changed simultaneously, most often that of a quality improvement. To evaluate the overall policy, it is of course necessary to consider the net effect of all these simultaneous changes, but from an analytical point of view it is essential to distinguish carefully the different variables, e.g. to get good estimates of the magnitude of the (negative) price effect on the one hand and the (positive) quality effect on the other hand. It is not surprising that different case studies yield conflicting results if they do not sufficiently control for these confounding factors. Sepehri and Chernomas 2001 and Palmer et al. 2004 rightly emphasize the importance of methodological refinements in the analysis of utilization data for LMIC.

The answer to our second question (does the decrease in utilization mainly affect inefficient and “frivolous” treatment?) is less clear-cut. Still, both in developed health insurance systems and in LMICs, the evidence suggests that the decrease in utilization may have negative effects on the quality of care and hence even on the health situation of the patients. Since it is not easy to draw the boundary line between “efficient and necessary” and “frivolous or unnecessary” health care, the most interesting insights are obtained when looking at specific interventions.

The use of prescription drugs in the US offers an interesting example (Gibson et al. 2005; Goldman et al. 2007; Wagner et al. 2008; Austvoll-Dahlgren et al. 2008). Most studies find that cost sharing leads to a decrease in the utilization of essential medication, defined as medication that is necessary to maintain or improve health. Often adherence to a regimen of maintenance medication goes down with patients skipping doses or stretching out refills. With a few exceptions (Pilote et al. 2002), higher cost-sharing for, and therefore lower utilization of, prescription drugs, has led to greater use of inpatient and emergency medical services by chronically ill patients (patients with congestive heart failure, lipid disorders, diabetes, and schizophrenia).

Given the importance of non-financial costs in many LMIC, it would be highly surprising if there were much frivolous health care use there. Simply mentioning some specific empirical results may illustrate what is at stake. A fee increase in Swaziland led to reduced utilization among the users of essential services for the management of diarrheal diseases, sexually transmitted diseases, acute respiratory infections, and infant immunizations rather than among patients suffering from less important conditions (Yoder 1989). Borghi et al. (2006) argue that the removal of user fees might be a crucial step to improve maternal health in LMICs. Souteyrand et al. (2008) review the literature on AIDS and conclude that user fees are currently the main barrier to adherence to antiretroviral therapy and that their abolition would be associated with increased survival rates. Finally, combining the available evidence in a simulation study, James et al. (2005) calculate that the elimination of user fees could prevent between 150,000 and 300,000 deaths annually among children aged under 5 in twenty African countries.

p. 335 Although until now we focused on the own price effect, i.e. the effect of an increase in user charges for a given item on the utilization of that same item, cross-price effects are also significant. Again, the evidence for the developed countries and the LMICs goes in the same direction. Two- or three-tier plans for prescription drugs in the US, introducing differentiated cost sharing for different categories of drugs, have clear effects on the pattern of drug consumption. Preferred brand-name drugs are substituted for non-preferred drugs if the level of cost sharing is different and there is also some (albeit weaker) evidence for a switch from brand-name to generic drugs (Gibson et al. 2005). The switch from drugs or outpatient doctor visits to inpatient and emergency care (without cost sharing) can also be seen as a cross-price effect (Gaynor et al. 2006; Chandra et al. 2007). These offset effects are concentrated in the most ill populations, particularly those who had a chronic illness or who had high previous medical spending.

There is less formal evidence on cross-price effects for LMICs, but it goes in the same direction. In general, there has been a shift from services with user charges to services that are free of charge (Gilson and Mills 1995; Sepehri and Chernomas 2001). An interesting case is that of direct conditional cash transfers, which can be interpreted as direct price subsidies, i.e. as negative prices. In Mexico, Honduras, and Brazil, their introduction had a positive effect on the use of preventive health services and on the coverage of prenatal care and health checkups for children (Palmer et al. 2004).

These findings on cross-price effects are particularly relevant. Some of the described shifts are undesirable from the point of view of health or welfare, but others go clearly in the “right” direction. A cleverly designed system of differentiated user charges (and subsidies) should then no longer be seen as a blunt instrument to raise revenue and to cut frivolous expenditures, but may become an important tool for influencing behavior (both of patients and of providers) and for increasing micro-efficiency. We will come back to this issue later in this chapter.

A final word of caution. It is obvious that health care providers exert a large influence on final utilization. The effects of introducing user charges are therefore the result of a combination of behavioral changes at both the demand and the supply side. A short-run decrease in utilization because of the introduction of co-payments may be counteracted in the long run by providers aiming at protecting their incomes (see, e.g., the evidence for Belgium during the 1990s in Van de Voorde et al. 2001). And also for designing a differentiated system, e.g. for prescription drugs, it is important to know whether and to what extent providers will change their prescribing behavior. It is very possible that providers adjust their behavior, more specifically their fees, to the economic power or the degree of illness of their patients. The interaction between patient and provider decisions is a crucial topic for further research.

15.4 User Charges as a Revenue-raising Mechanism

p. 336

While allocative efficiency is the main issue from the point of view of economic theory, the move to user charges has been driven in many LMICs by the need to increase the revenue available for health care. With limited finance (and limited supply of services) available, the introduction of health care free of charge leads to excess demand \hookrightarrow and to the necessity of non-price rationing mechanisms. These non-price rationing mechanisms are often highly inefficient with many individuals denied health care for which they are willing and able to pay. It has even been argued that non-price rationing would mainly harm the poor and weak groups in society: if personal connections and/or informal payments start playing an important role, this is most probably to the advantage of the relatively rich and powerful. We will return to these equity issues in the next section.

The basic point on revenue constraints can be made in a traditional economic model, without even introducing any insurance issues. Consider Figure 15.1 (Thobani 1984). Suppose externalities or merit good considerations drive a wedge between private demand for health care D_p and social demand D_s . Suppose also for simplicity that the marginal cost (MC) is constant. The optimum amount would then be given by OV . Suppose we start now in a situation without user charges and with health care free of charge. The government has resources $OP_{mc}AF$ to finance the subsidies. The amount of health care demanded would then be OZ —and there would be excess demand FZ . Hence the need for non-price rationing with the resulting inefficiencies (Griffin 1992). In the “best” scenario where this non-price rationing allocates the health care to the individuals with the largest willingness to pay, the social surplus would be given by $P_{mc}KLA$. The optimal situation (with utilization OV) could in principle be obtained by a subsidy P_sP_{mc} , leaving a “user charge” OP_s . However, in that situation total subsidies would be $P_{mc}BCP_s$. This is more than the fixed budget $OP_{mc}AF$ available for the government. Therefore, this optimal situation cannot be reached. The points that can be reached are given by the iso-subsidy curve FS (a rectangular hyper-bola). More specifically it is possible to reach E , with an amount consumed of OU , a subsidy per unit P_uP_{mc} , a user charge OP_u and total subsidies equal to $P_{mc}WEP_u$, by construction equal to $OP_{mc}AF$. The welfare gain in moving from OF to OU is given by the trapezoid $LGWA$. Introducing positive user charges is welfare improving compared to a situation in which the services are provided free of charge. More strikingly, in this situation the user charge OP_u is larger than the “optimal” user charge OP_s . In a situation with fixed government resources, this lower user charge OP_s would induce excess demand TV , a lower utilization level OT and a welfare loss $HGWR$.

Uncertainty and insurance aspects are neglected in the figure. However, if we reinterpret the figure so that P_s becomes the “optimal” co-payment (evidently lower than the marginal cost because of the welfare increase due to the reduction of the financial risk), it still is true that in a situation with fixed government resources, raising user charges above P_s would be better than having health care free of charge. Another way to extend the interpretation of Figure 15.1 is by introducing quality considerations. Until now we assumed that the limitation on government resources puts a constraint on the quantity of services provided. It is also possible that this limitation leads to a deterioration of the quality of the services—in which case FZ reflects the excess demand for good quality services. The move from OF to OU can then be reinterpreted as reflecting an increase in the quality of the services provided.

Once we have a better insight into these political questions, we can return to the optimality issue. How to finance health care given the distortions caused by different financing sources, and given what we have learnt about the way decisions are taken? Some decentralization is desirable if the rules set by the central government must be implemented at the local level by individuals who may have their own objectives. If the latter are better placed to take decisions which are in line with local needs, decentralization could lead to an increase in trust among the citizens and to an increase in their tax compliance—or, more generally, their willingness to pay. On the other hand, while offering “richer” people the opportunity to supplement the subsidized system with their own private payments of course increases the available revenue, it may at the same time increase feelings of inequity and decrease trust in the system among poorer groups of the population.

The revenue argument for user charges has been put forward mainly for LMICs. Yet, also in the developed countries, the move towards larger user charges has partly been driven by revenue considerations in a situation of increasing pressure on the public budget. There is a growing feeling that a larger part of the financial burden should be borne by the patients themselves in order to cope with the expected rapid increase in health care costs (Murphy and Topel 2006; Hall and Jones 2007). However, transaction costs considerations related to under-developed markets and administrative systems play a minor role in the richer countries. The focus is rather on priority setting, i.e. on the choice of treatments to take up in the collective financing arrangements. There is a continuum here: from provision free of charge, over various cost-sharing arrangements, to fully private financing, where the latter implies that those services are not taken up in the collective system. While there is a need for non-price rationing within the collective system, outside that system, the price mechanism will work. This raises obvious equity issues. In many countries, there is a socioeconomic bias in the take-up of supplemental insurance covering the treatments, which are not covered in the collective system (Colombo and Tapay 2004). Moreover, in a globalizing world with international markets, the rich and well-educated have growing possibilities to escape the non-price rationing in the collective system. Expensive medicines can be bought on the Internet. From an equity point of view then, private markets are perhaps working too well.

15.5 User Charges and Equity

Equity issues have popped up already a couple of times in the previous sections. They are essential for a full evaluation of user charges. Equity comes in different forms and can be interpreted in many different ways. We will not go into this philosophical discussion and mainly focus on two aspects: first equity in finance, then equity in delivery and equality of access. Finally, we discuss the working of social exemption mechanisms. Overall, in the context of equity, the focus is less on user charges as such and more on total out-of-pocket expenses.

15.5.1 User Charges and Equity in Finance

In most societies there is a widespread conviction that health care is not a commodity like other commodities, because health care expenditures are largely imposed on individuals, rather than freely chosen. It follows that the financial burden should not disproportionately rest on those who suffer from illness, i.e. that it should be largely independent of the health risks. User charges, i.e. prices paid at the point of service, by definition go against this basic ethical intuition. In fact, this explains why so many are opposed to them on the basis of principle.

A more demanding (and less generally accepted) requirement is that the financing of health care should be according to ability to pay. A financing structure is then called progressive if health care expenditures take a larger part of income for the rich than for the poor. If the absolute level of health care expenditures is about the same for the poor and the rich (which seems a conservative assumption, given the available evidence on socioeconomic inequalities in health), then by construction these expenditures will take up a larger fraction of income for the poorer households. User charges can only be “progressive” if the rich consume disproportionately more health care, or if there is a system of exemptions for poor households.

The empirical evidence is in line with these a priori predictions. The most interesting insights are obtained from comparative studies based on large-scale household surveys. It turns out that user charges are a strongly regressive component in the health care financing structure of developed countries (van Doorslaer et al. 1999; De Graeve and Van Ourti 2003). The same finding of regressivity is reported by Cissé et al. (2007) who analyze 1998–1999 household surveys for the capitals (Abidjan, Bamako, Conakry, and Dakar) of four francophone West-African countries that have increased the importance of user charges at the end of the eighties. The results for thirteen Asian territories in O’ Donnell et al. 2008 show that care is needed. They find that out-of-pocket payments for health care are regressive only in Japan and Taiwan, that they are proportional to ability to pay in China, Hong Kong, Korea, Kyrgyz, and the Punjab, and that they are even progressive in Bangladesh, Indonesia, Nepal, the Philippines, Sri Lanka, and Thailand. However, this mainly reflects that the poor in the so-called “progressive” countries receive less health care since they simply cannot afford to pay and therefore forgo treatment.

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A more revealing approach is to focus explicitly on the income consequences of health care financing for the poor. Two possible approaches and the main empirical results are reviewed in Wagstaff 2008. A first approach is to look at so-called “catastrophic expenditures,” defined as health spending that exceeds a predefined share of the household’s income or expenditures. In their country comparisons Xu et al. 2003, 2007 define catastrophic health care expenditures to be more than 40 percent of household’s non-subsistence spending, which is total spending minus the food spending of the household having the median food share in total household spending in the country. They estimate (based on surveys in eighty-nine countries covering 89 percent of the world population) that 150 million people globally suffer financial catastrophe according to that definition. The relative importance of user charges in total health care financing is the most important explanatory factor for the inter-country differences. In their study for Asia, van Doorslaer et al. 2007 define catastrophic payments in terms of the share of OOP-payments in total household expenditure and in non-food expenditure—and they show results for a range of “threshold” values. More than 5 percent of the households have a share of health care expenses larger than 10 percent of total household expenditures in Hong Kong, Kyrgyz Republic, Nepal, Taiwan—and more than 10 percent of the households have catastrophic expenditures in Bangladesh, China, India, Korea, and Vietnam. Again, unsurprisingly, the relative importance of user charges is the main explanation for the inter-country differences. The number of households with catastrophic expenditures is much smaller in the richer countries, even if co-payments are relatively important (like in France and Belgium). This is an almost mechanical consequence of the larger average household incomes, but it is also partly due to the existence of relatively effective exemption systems.

A second approach defines households as having catastrophic health expenditures if they fall below the poverty line when health care expenditures are taken into account but would not be poor without them—the so-called “medical poverty trap.” Case studies show that, even if one considers only direct health care expenditures—and not the productive time losses due to illness—user charges may push large number of households into poverty (Whitehead et al. 2001). A convincing set of results is reported in van Doorslaer et al. 2006 for eleven Asian countries. They calculated that an additional 2.7 percent of the population under study (not less than seventy-eight million people) ended up below the \$1-a-day poverty line due to their health care expenditures. Again, the problem is similar, but quantitatively much less important in the richer countries that have user charges or a large degree of cost sharing.

Let us make two final remarks. First, most studies assume that health care expenditures are paid out of current income or out of current non-medical expenditures. Households may also resort to other coping strategies such as borrowing or selling a part of their stock of financial and physical assets (McIntyre et al. 2006; Wagstaff 2008). Taking these strategies into account may seriously change the poverty picture ↪ (Flores et al. 2008). However, a complete evaluation would then require the use of a full intertemporal model that also takes into account the long-run consequences of the depletion of assets.

Second, simple generalizations should be avoided. In their detailed study of Uganda, Xu et al. (2006) conclude that the incidence of catastrophic expenditures among the poor did not fall significantly after the removal of the user fees. They suggest that the unavailability of drugs may have forced patients to purchase drugs from the private sector—and that informal payments may have returned or increased to compensate the providers for the revenue lost from user fees. This again illustrates the importance of distinguishing carefully between user charges on the one hand and total out-of-pocket expenses on the other hand.

15.5.2 User Charges and Equality of Access

Certainly for the LMICs, the position has been defended that introducing user charges would at the end benefit rather than harm the poor, despite the financial consequences described before. The argument is based on the idea that in many situations the only alternative to user charges is a huge under-supply of good-quality services, leading to a black market with informal payments and the implementation of non-price rationing mechanisms, which would be “exploited” more efficiently by the rich and powerful. For an overall evaluation, it is then necessary to take into account both supply and demand effects.

The empirical results do not support this theoretical argumentation. A large majority of studies suggest that user charges lead to a stronger reduction in utilization among the poor than among the rich (James et al. 2006). As an example, Schneider and Hanson 2006 find that health spending had a small impact on the socioeconomic situation of uninsured and insured households in Rwanda. However, this is at the expense of inequity in utilization of care, since those who have to pay user fees report significantly lower visit rates.

The evidence is overwhelming in the studies that focus on the price effect per se. Standard economic theory predicts that an increase in health care prices should lead to a larger reduction in consumption for those households, which spend a larger part of their income on health care. These are most probably the poor (and the chronically ill). The empirical evidence for LMICs strongly supports this theoretical hypothesis (Septhri and Chernomas 2001).³ The evidence for the richer countries goes in the same direction. Thomson et al. (2003) summarize a long list of case studies for many European countries suggesting that the weaker groups in society are more responsive to price changes and that the poor in some cases postpone necessary health care consumption. ↪ Lexchin and Grootendorst 2004 review the literature on the effects of cost sharing for prescription drugs in North America. With the necessary caveats about the quality of some of the studies, they conclude that virtually every article they reviewed supports the view that cost sharing decreases the use of prescription drugs by the poor and the chronically ill, i.e. the prediction that the larger the share of income spent on drugs, the higher the price sensitivity. Similar results about the effects of user charges on the use of prescription medicines have been reported for Sweden (Lundberg et al. 1998).

These results suggest that user charges may threaten equality of access. Can exemption mechanisms help to alleviate the problem?

15.5.3 Exemption Mechanisms

In the developed health care systems, exemption mechanisms have been introduced to mitigate the social consequences of user charges (Thomson et al. 2003). The very diverse arrangements (sometimes differentiated for different categories of health care) broadly fall into two categories. First, for some groups (either the chronically ill or the economically weak or both), user charges can be lowered (for some or all health care services)—or households from these groups can even be totally exempted. Second, for some or all households, a possibly income-related ceiling can be introduced, limiting the total amount of user charges to be paid. Both arrangements can be justified theoretically. The former exploits the difference in price elasticities between different social groups. The latter is in line with Arrow's basic "theorem of the deductible," suggesting that an optimal policy involves full insurance above a deductible (Arrow 1970; Gollier and Schlesinger 1996). We will come back to these theoretical issues in the next section.

The effectiveness of these exemption mechanisms can only be evaluated with the specific institutional features of the country concerned in mind. Moreover, it is not easy to estimate their behavioral effects, given that they may lead to highly non-linear budget constraints. A complete evaluation requires the use of micro-simulation techniques. Although there are only a few such studies available, it seems fair to say that in the richer countries the exemption mechanisms have been relatively successful in protecting the poor. This hypothesis is to some extent confirmed by the low percentage of households with catastrophic health care expenditures in these economies (Xu et al. 2003).

Even sophisticated exemption mechanisms cannot fully solve the problem of catastrophic expenditures, however. For the very poor, third-payer arrangements are necessary, as the simple fact of having to advance the user charges may be sufficient reason to postpone perhaps necessary health care. The chronically ill raise special problems. Directly defining a list of chronic illnesses giving right to a complete exemption from user charges is to some extent arbitrary, and such a list may also create moral hazard and coding effects. The alternative approach of introducing a differentiated ceiling for the chronically ill can only be efficient if it takes into account that (by definition) their expenditures are highly correlated over time. This is not easily implementable within common procedures like, e.g., a yearly ceiling, and requires the collection of rich information at the individual level. Moreover, there is a trade-off between protecting the chronically ill and protecting the poor. Chronically ill patients can also be found among the very rich—while among the weaker socioeconomic groups some households may not need much protection.

As the experience in the developed economies shows that the implementation of social exemption mechanisms requires administrative sophistication, it is not surprising that in the LMICs the experience with such mechanisms has been disappointing. Who is to grant the exemptions (and possibly perform the necessary means testing) in a situation with weak governments and weak intermediate social structures? Often the exemption criteria are only vaguely defined—or the necessary information, e.g. about incomes, is missing and extremely hard to collect. Available evidence suggests that in actual practice numerous exemptions are unrelated to income or to morbidity, but go to e.g. civil servants, police and students (Willis and Leighton 1995).⁴ There are also some positive experiences. In an experimental setting in Sudan, exemptions from user fees for malaria treatment were granted to a high risk group of pregnant women and children under 5 years (Abdu et al. 2004). The criteria were well-defined and the targeted group was specific and easily identifiable, and as a result utilization increased significantly. In Zambia, the introduction of discount cards, i.e. a set of coupons to cover episodes of care at a discount, facilitated access for lower income groups (Kondo and McPake 2007).⁵ In their study about Asia, van Doorslaer et al. 2007 point to the relative efficiency of the social protection mechanisms in Indonesia and Thailand, where a system of health cards for the poor has been introduced. Exemption mechanisms can work, if the political and administrative obstacles for their implementation can be overcome.

15.6 Towards a Theory of Optimal User Charges?

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Many considerations play a role in setting “optimal” user charges. First, there is the trade-off between insurance against financial risk versus fighting moral hazard. Second, a system of differential user charges can be designed to influence the behavior of patients and providers in a “better” direction. Third, there is a danger that the poor are hit more severely by the user charges. This may require differential treatment of different individuals through the design of social exemption mechanisms. Fourth, in some situations user charges may be seen as a necessary instrument for the government to raise additional revenue. We are then facing the problem of priority setting.

An integrated model capturing all these considerations is not yet available in the literature—and most probably would not be very informative either. The existing papers focus on various aspects of the overall problem. Not surprisingly, the same basic variables appear in most of them. Reformulating the previous ideas in theoretical terms, the optimal structure of reimbursements (or of user charges) will depend on (a) the degree of risk aversion of the agents; (b) the price elasticity of health care demand; (c) the specification of the social welfare function and the distribution of health care expenses over the population; (d) the possible constraints on the government budget. The optimal user charges (or the optimal structure of cost sharing) will reflect the trade-offs between these different effects.

In the insurance context, the trade-off between insurance and fighting moral hazard has been analyzed extensively (Pauly 1968; Arrow 1970; Zeckhauser 1970). This literature is covered in other chapters in this volume. A part of it is relevant for the specific issue of social exemption mechanisms. Indeed, economic theory suggests that an optimal insurance plan should have a stop-loss of some sort. However, using data from the Rand Health Insurance Experiment, Manning and Marquis (1996) conclude that the optimal stop-loss would be extremely high and that plans with a combination of first dollar cost sharing and stop-loss perform much better than pure stop-loss plans. Yet, as they emphasize themselves, their results crucially depend on their assumptions of a low risk aversion parameter and of a constant price elasticity. If the price elasticity of demand were to fall toward zero at the upper end of the distribution, the conclusions would definitely be different.

Things get more complicated when we introduce the possibility of differentiating the degree of cost sharing for different health care items. In a seminal paper, Besley (1988) applied the theory of Ramsey taxation to the optimal structure of health insurance reimbursements. Again, the same basic variables appear. In a setting with a single individual, the crucial determinants are (1) the covariance between the marginal utility of income in different health states and the expenditures on the health good, i.e. the insurance effect; and (2) the expected distortions from an out-of-pocket price less than the market price. In general, the optimal rate of insurance coverage is a decreasing function of the compensated price elasticity of demand. In a more realistic setting with heterogeneous individuals, it becomes important to check whether consumers of a particular medical service have high or low distributional weights. In a similar but simpler model, Hoel (2005) shows that introducing equity considerations does not necessarily lead to lower co-payments. Suppose severity is rather homogeneous in the population, but incomes vary. Suppose also that the initial user charges are such that some individuals choose to be treated while others choose not to be treated. Then an increased concern for equity *increases* the optimal user charge provided a sufficiently large number of persons who choose treatment get reduced welfare weights.

p. 345 Besley (1988) emphasized that in evaluating the risk-sharing and distortive effects of health care reimbursements for different health commodities, it is important to take into account the whole structure of cross-price effects. Recently, this idea has been taken up again in the literature, partly because of the empirical findings on the cross-price effects of the increased (and differentiated) co-payments for prescription drugs (Goldman and Philipson 2007). Suppose that the price elasticity for drug demand is large and that the financial risks are small. Then a single-good approach would advocate a high co-payment for this drug. Let us now add the information that this increased co-payment leads to larger hospital spending in the future. In that case it may even be optimal to raise no or a very low co-payment for that drug. Designing an optimal system of co-payments or user charges requires a careful consideration of the substitution patterns between the different commodities.

Going one step further, one could ask whether it is not worthwhile to design the system of user charges so as to stimulate the “best” treatments from a health point of view. As we have seen, there is much evidence suggesting that a linear increase in user charges does not only lead to a cut in “frivolous” expenditures, but also to a cut in medically necessary health care. Given this evidence, it may seem advisable, e.g., to lower user charges for medically valuable services, or to grant exemptions for specific treatments to patients with selected clinical diagnoses. Instead of focusing on the price elasticity of demand, one then focuses on the benefit-cost ratio of the various treatments. At first sight, this so-called “value based insurance design” (Chernew et al. 2007) requires so much information that it is difficult to implement in the health care systems of LMICs. Nevertheless, this view is too pessimistic. Partial steps can easily be taken. Conditional cash transfers to households who use preventive health services are a (perhaps primitive) example of value-based design. To give another example, Holloway et al. (2001) show that in rural Nepal a clever design of user fees led to a marked reduction in the number of unnecessary drug items prescribed per patient.

The idea of “value-based design” confronts us again with the discussion about the basic welfare foundations of health care policy. Should we accept consumer sovereignty or not? Pauly and Blavin 2008 show that the traditional welfare approach leads to the same conclusions as the value-based approach if patient demands are based on correct information about benefits and costs. Is it then better to improve the information of the patients—or to restructure the system of financial incentives?

The paper that is most explicitly directed to the optimality of user charges in LMICs is very much in this spirit (Smith 2005). Smith takes the position of a benevolent decision-maker seeking to maximize health gains (and not utilities) subject to a fixed budget constraint. This decision-maker has to decide for each technology about the proportion of the full market price to be subsidized. User charges are then a way of augmenting the available budget. His conclusions are striking. Other things equal, government subsidies should be directed at interventions that have high benefit-cost ratios, have high price elasticities of demand, particularly among the poor, and have relatively high incidence among the poor. The first conclusion is perfectly in line with the idea of “value-based insurance design.” The second conclusion is opposite to the conclusion that is derived within the traditional welfare framework. The intuition in Smith’s paper is that one should avoid raising user charges when these at the margin deter a significant number of (mainly poor) patients from seeking necessary care. Maximizing health gains clearly leads to different conclusions than maximizing a welfarist social welfare function.

Until now, the theoretical literature kept to the assumption of a benevolent decision-maker. In reality, decisions are taken through a complex political process by often poorly informed decision-makers that are confronted with all kinds of pressure groups. The experience with user charges (and with exemptions) shows that policy measures, introduced with the best of intentions, can have unexpected and undesirable side effects. Introducing public choice considerations into the normative analysis therefore remains a difficult but important challenge.

15.7 Official and Unofficial User Charges

If we see official user charges as prices, they are closely related to two other phenomena: informal payments and balance (or extra) billing. Sometimes it is even difficult to distinguish sharply between them. In any case, evaluating user charges (and social exemption mechanisms) requires careful consideration of the possible interactions between these different “prices.”

15.7.1 Informal Payments

Although it is understandably difficult to get reliable data about the importance of unofficial payments, they are certainly not negligible in many health care systems, mainly in LMICs and transition economies. Balabanova et al. (2004) estimate that in the former Soviet Union 36.7 percent of the patients make use of personal connections to get treated and 28.5 percent informally offer money to health professionals. In some cases, these informal payments are necessary to cover the cost of care in a situation of regulated (non-equilibrium) quantities and prices; in other cases, they simply reflect abuse of power by quasi-monopolistic providers. The effects on equity and on quality will obviously differ depending on the specific circumstances of the country concerned, and so will the adequate regulatory response (Ensor 2004).

The most detailed information about the distributional effects of informal payments is available for those countries where relatively large surveys have been organized. It turns out that the equity effects differ from country to country. In Hungary (Szende and Culyer 2006) and in Greece (Liaropoulos et al. 2008), all income groups pay about the same amount of informal payments, which of course implies that they are highly regressive. In other countries, such as Bulgaria (Balabanova and McKee 2002), the providers seem to treat high and low-income patients differently: wealthier, younger, and better-educated patients pay relatively more. This latter finding is less positive than it may seem at first sight, however, since the quality, or even the sheer availability of care, may depend on paying informally. Moreover, informal payments are much less transparent than official user fees, for patients as well as for regulators and researchers. This lack of transparency adds to the uncertainty and possibly the vulnerability of patients. It also complicates the task of devising adequate social exemption mechanisms.

It has been suggested that the introduction of official user charges may be one way to reduce the importance of informal payments. A shift from unofficial to official user fees is more than a simple substitution of one price for another. Official user fees are less uncertain for the patients and there is a better chance that their revenues will go to the hospitals rather than to the private doctors. There is evidence that in Cambodia the introduction of user fees led to a significant improvement in the quality of the hospital services, also for low-income users (Akashi et al. 2004). Yet this does not always work in practice. In Bulgaria, the official (formal) user charges seem to have come simply on top of the informal payments (Balabanova and McKee 2002). And in their detailed analysis of different health centers in Uganda, McPake et al. 1999 sketch a differentiated picture. In some facilities, formal charges replaced the formerly existing informal charges, in other facilities there were no informal user charges so that the introduction of formal charges led to a direct price increase, in still other facilities formal charges did not change the ability of health workers to charge informally. Evaluating the effects of introducing official user charges requires a detailed investigation of the microeconomic incentives and of the social norms and structures of political decision-making that are in place.

15.7.2 Extra Billing

In some insurance systems the providers can ask fees on top of the official fees that are agreed upon in the official reimbursement scheme, i.e. on top of the sum of reimbursed fees and official co-payments. This practice is called balance billing in the US terminology, while in other countries one talks about “extra billing” or about “supplementary fees.” Contrary to the informal payments discussed before, extra billing is not illegal. Yet its effects are very similar. Extra billing may reflect a need to cover costs, if, e.g., official hospital budgets are not sufficient—or it may simply follow from the use of market power. It often leads to a less transparent pricing structure for the patients, and it increases the uncertainty about out-of-pocket payments. Although there sometimes is some protective regulation (e.g. in the form of restrictions on supplementary fees for patients in common rooms), in general the extra costs are not included in the social exemption mechanisms. Therefore, the working of these mechanisms may be to some extent undermined.

p. 348 The theoretical arguments formulated in favor of extra billing are remarkably similar to the arguments put forward in favor of user charges. This is especially clear in the debate about the restrictions on balance billing for Medicare beneficiaries in the US, introduced from the late 1980s onwards. There were concerns that restricting balance billing would lower the quality of care provided. In a theoretical model with monopolistically competitive physicians, Glazer and McGuire 1993 derive the conclusion that with balance billing (a form of price discrimination), quality is set at a higher level both for patients paying the supplemental price and for those not paying that price. They recommend the introduction of a fee policy in which physicians would be paid a higher (official) fee for patients for which they do not raise a supplement, i.e. agree to accept the official fee as the full payment. However, Glazer and McGuire are careful to point out that this efficiency result must be weighed against distributional considerations.

The empirical evidence on the effects of the balance billing restrictions is limited. In her interesting study, McKnight 2007 finds that balance billing restrictions led to a 9 percent reduction in overall spending on medical services among elderly households. Higher income households benefited more than lower income households, suggesting that physicians were more inclined to balance bill higher income households. She also shows that the restrictions had few, if any, consequences for the quality of care received by Medicare beneficiaries. The number of doctor visits did not change and there was no significant impact on the duration of the visits or on the likelihood of certain tests. The only negative impact was on the likelihood of planning a follow-up telephone call. She therefore concludes that the primary impact of the restrictions on balance billing was simply a transfer from physicians to the elderly patients. The absence of strong quality effects is in line with the results on user charges, as described before.

15.8 Conclusion

Different arguments have been put forward in favor of or against user charges in health care. The available research yields some robust insights on the empirical relevancy of these arguments, and there is a reassuring convergence in the findings for different health care systems. User charges may be useful to fight moral hazard and overconsumption—yet it turns out that not only frivolous overconsumption will be cut, but also medically necessary care. They may help to raise sufficient revenue for financing an adequate package of good quality health care in a context of large unmet needs or rapid technological progress—yet a health care system with user charges as the dominating financing mechanism will put a heavy burden on the poor and the sick. While insurance and equity considerations therefore point to the crucial importance of risk sharing mechanisms, either through a system of health insurance or through tax financing, user charges may still have a role to play within such a broader system.

A clever design of the system of user charges may help a lot to soften the trade-offs that policymakers have to face. Differentiated user charges can induce the choice of a more efficient health care package. Social exemption mechanisms may help mitigating the distributional issues. Yet, to fine-tune the system detailed information about the behavior of providers and of patients from different socioeconomic groups is necessary. Moreover, introducing a sophisticated system of user charges requires well-developed administrative institutions. This leads to a paradox. User charges are better acceptable in developed health care systems, in which they can be designed in a more efficient and equitable way. The financing problem is less acute in these systems, however. Because in many LMICs it is difficult to set up an adequate system of insurance or of tax financing, user charges will have to play a more important role. At the same time, there is a good chance that they will not be designed in a sophisticated way, or that the social exemption mechanisms will not work. User charges are then the most problematic where they are most needed.

At the end, the trade-offs between less insurance and more overconsumption, less revenue and a less equitable financing structure, less patient sovereignty and a less efficient pattern of health care consumption, reflect ethical choices. Where to draw the boundary between individual and social responsibility? The issue of the optimal level and structure of user charges therefore confronts us with the broader issues of social justice and of priority setting in a public health care system.

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Notes

- 1 A deductible is then interpreted as a non-linear pricing scheme in which patients have to pay the full cost below the deductible and a zero price above the deductible.
- 2 Among others, positive effects on utilization after the introduction of user fees have been reported for Benin and Guinea (Soucat et al. 1997), Cameroon (Litvack and Bodart 1993), India (Rao and Peters 2007), Mali (Mariko 2003), Mauritania (Audibert and Mathonnat 2000), Niger (Chawla and Ellis 2000) and the Philippines (Hotchkiss 1998).
- 3 Different price elasticities for the poor and the rich have been reported by, among others, Kim et al. (2005) for South Korea, Asfaw et al. (2004) for Ethiopia, Hotchkiss 1998 and Ching 1995 for the Philippines, and Sauerborn et al. (1994) for Burkina Faso.
- 4 Detailed case studies show that exemption systems did not work in China (Meng et al. 2002), Ghana (Nyonator and Kutzin 1999), Kenya (Mbugua et al. 1995), Niger (Meeuwissen 1992), Sierra Leone (Fabricant et al. 1999) and Zaire (Haddad and Fournier 1995).
- 5 The discount cards were less efficient than a prepayment scheme, however, and the authors emphasize the importance of finding solutions for the implementation problems related to such schemes.

Introduction

The Hong Kong SAR Health Bureau announced reforms of the subsidisation structure of public health services on March 25th, 2025. The aim is to guide the public make optimal use of healthcare resources, reduce wastage and abuse and enhance healthcare protection for “poor, acute, serious, critical” patients on all fronts, thereby enhancing the sustainability of the healthcare system and strengthening the public healthcare system to cope with the challenges posed by an ageing population, inflation of healthcare costs, and serve as a safety net for all.

The reforms cover 3 major areas:

- (1) **Reforming the subsidisation structure:** Reforming the subsidisation structure from a systemic perspective by setting the levels of government subsidization and the proportion of co-payments by members of the public for various public healthcare services to rationalise the relative demands for in-patient, accident and emergency, as well as different tiers of out-patient services.
- (2) **Reducing waste and abuse:** Introducing a co-payment model for non-urgent diagnostic radiology and pathology services, adjusting the charges for and quantities of standard drugs, making use of the fees and charges to drive changes to the public’s behaviour in seeking medical treatment to guide the optimal use of resources.
- (3) **Enhancing healthcare protection:** Strengthening protection for “poor, serious, critical” patients on all fronts by enhancing the fee waiver mechanism, introducing an annual cap on fees and charges at \$10,000, and increasing subsidies on drugs and medical devices for the critically ill, with a view to preventing “patients with serious conditions falling into poverty”.

QUESTION CONTINUES

The details of the changes in public health fees and charges are in **appendix 1** and the mechanisms to strengthen healthcare protection are in **appendix 2**.

The new structure of fees and charges will be implemented in January 2026 by which time the overall subsidy rate would be reduced from 97% to 94%. The government also disclosed the intention to review the fees and structure every 2 years with a view of achieving the reform objectives in 5 years, by which time the public subsidisation ratio would be reduced to 90%.

Knowledge base and evidence on effect and impact of user charges.

Please read the excerpt of the main body of a Review Paper by Eric Schokkaert (2012) (**appendix 3: sections 15.3, 15.4, and 15.5**) users charges based on the published research and international experience on:

- i) User Charges and Efficiency: The Price Effect
- ii) User Charges as a Revenue-raising Mechanism
- iii) User Charges and Equity in Finance, and Equally of Access
- iv) Exemption Mechanisms

Please answer the following:

1. Describe the main findings of the effect and impact of user charges in area of the above (i – iv) covered in the review. **(20 marks)**

In addition to the knowledge base in the preceding review paper,

- i) in a study by Chandra A et. al. (2010), of medicare beneficiaries in the U.S., raising patient cost-sharing for physician visits and prescription drugs had a significant “offset effect” (cross-price effect in the paper by Eric Schokkaert (2012)) in terms of increased

QUESTION CONTINUES

hospital utilisation and likely to operate more strongly overtime. In addition these effects were concentrated in the most-ill patients. They further analysed the effect of hospital spending on patients with chronic disease as measured by the Charlson index. They found that hospital spending effect is enormous for the unhealthiest by this measure. Medicare's hospital spending increased by over \$6 for every \$1 saved on physician spending.

ii) in a study of Emergency Department use after the increase in user charges in June 2017 in Hong Kong, Yushan Wu et. al. (2023) found that the fee increase was associated with 8% immediate reduction in Emergency Department visits and were reduced for both urgent and non-urgent patients (semi-urgent and on-urgent combined) across all income groups.

2. Discuss how effective the reform of subsidisation structure of fees and charges is likely to have on the aims: **(25 marks)**

- (a) to optimise use of healthcare resources,
- (b) reduce waste and abuse,
- (c) enhance healthcare protection for the “poor, acute, serious, critical”, and
- (d) sustainability of public healthcare systems to cope with the challenges posed by an ageing population and inflation of healthcare costs

3. What impact could the changes in the structure of fees and charges on equitable access to needed healthcare and health outcomes and how may this effect be mitigated?

(20 marks)

QUESTION CONTINUES

4. Describe 3 important implementation barriers which need to be considered for the reform.

(15 marks)

5. As the Subject Director, you are asked to prepare a policy paper for discussion by the Hospital Authority Board on the Reform on Fee Structure for Public Healthcare. The background of the paper will comprise the introductory given above Introduction and you do not need to repeat this.

You are required to add a concise description of the current state of knowledge of the effect and impact of user charges described, how effective the reform will have on the aims, the impact of the reforms on equitable access on needed care and health outcomes and how these maybe mitigated and the key implementation barriers which need to be considered.

(20 marks)

END OF PAPER