

**Results from the IPS/Harvard
Public Opinion Poll on User Fees**

Ravi P. Rannan-Eliya

1996

**Institute of Policy Studies of Sri Lanka
Health Policy Programme**



ABOUT THE IPS HPP OCCASIONAL PAPER SERIES

Papers in this series are not formal publications of the Institute of Policy Studies. They are used primarily as a channel to promote timely dissemination of work in progress, or final dissemination of research results which may not warrant formal publication as IPS Working Papers. They may be preliminary and unpolished results of analysis, and have not necessarily been edited or reviewed as thoroughly as formal IPS Working Papers. In certain instances, IPS HPP Occasional Papers are duplicates of papers published elsewhere, but based on IPS HPP work. These papers are intended for free distribution to encourage discussion and comment, and to inform a wider audience of ongoing IPS research. Citation and use of such a paper should take into account its potentially provisional nature.

The findings, interpretations, and conclusions expressed in these papers are entirely those of the author(s), and do not necessarily represent those of the Institute of Policy Studies or of the Institute of Policy Studies Health Policy Programme.

IPS HPP Occasional Papers are made available free, but only as downloads as Acrobat PDF files from the IPS website (www.ips.lk/health). For further information, please contact the Health Policy Programme, Institute of Policy Studies, 99, St. Michael's Road, Colombo 3, Tel: +94-1-431-368, Fax: +94-1-431-395, Email: health@ips.lk, or visit the IPS website at www.ips.lk.

Recommended Citation

Ravi. P. Rannan-Eliya, 1996. *Results from the IPS/Harvard Public Opinion Poll on User Fees*. Health Policy Programme Occasional Paper 02. Colombo: Institute of Policy Studies.

Document information

This paper is a report of results extracted from a public opinion poll carried out by IPS as background research for Harvard University.

CONTENTS

<i>Introduction</i>	3
<i>Description of survey methodology</i>	3
<i>Data analysis</i>	5
<i>Results</i>	5
Use of services	5
Satisfaction with services	5
Attitudes to user fees	6
<i>Discussion</i>	9
Satisfaction	9
Opposition to user fees	9
Inpatient versus primary care	10
Social values	11

TABLES

Table C.1: Health providers generally used by respondents	5
Table C.2: Satisfaction with services available at different providers	5
Table C.3: Public approval for user fees at government health facilities	6
Table C.4: Support for user fees by income group	6
Table C.5: Support for user fees by age group	6
Table C.6: Support for user fees by level of education.....	7
Table C.7: Support for user fees by predominant type of provider generally used for care ...	7
Table C.8: Support for user fees by ethnicity	7
Table C.9: Support for user fees by religion.....	8
Table C.10: Support for user fees amongst Indian Tamils in comparison.....	8

Introduction

This paper reports the results of a public opinion poll carried out in Sri Lanka, which was conducted as background research for a Harvard University-commissioned study of resource mobilisation experience in Sri Lanka.

The major consideration that is likely to influence introduction of any policy of charging user fees for routine services provided by the Ministry of Health is political. Such a policy may be potentially unpopular with the electorate, and thus carry significant political costs for policy makers. However, there has never been any evaluation of actual public opinion. As part of this study, IPS contracted with Research International (Pvt.) Ltd.¹ to insert three sets of questions into their regular national opinion poll survey to inquire about public opinion on this matter.

Description of survey methodology

The survey was carried on a national basis (excluding Northern Province) during the month of August 1995.² Eastern Province was only partially sampled, as the security situation did not permit data collection from Batticaloa district; however, a sample of 120 subjects was taken in to the sample from some Sinhala speaking areas in the Ampara and Trincomalee districts. Sampling consisted of a three stage combined stratified-quota sample of 2,310 Sri Lankans over 18 years of age in 230 sampling points throughout Sri Lanka. Opinion and exit poll surveys often use quota-sampling methods to select sample subjects. The sample size was selected to obtain estimates at the district level with reasonable margins of error. In comparison with random sampling, quota sampling has higher error rates, but a higher overall response rate.

The sampling method consisted of three stages, with proportionate stratified sampling used in the first two, and quota sampling in the third. In the first stage, all districts that were covered became the strata, and hence a sample was selected from each one of these districts proportionate to the population size. In the third and final stage, ten households were selected from each town or DS division to satisfy the following quotas, which were designed to control for ethnic group, gender, age and income group. Ethnic group quotas were selected for each district, while the other quotas were selected to represent the country's population as a whole as follows:

¹ Research International is a private research firm, which has pioneered the conducting of national opinion polls in Sri Lanka in collaboration with Mitofsky International of New York.

² It was not possible to conduct field work in most areas of the Northern Province owing to the disturbed conditions prevailing as a result of the insurgency being waged by the LTTE. Large areas of Northern Province at the time were under the *de facto* rule of the LTTE, an environment which is not conducive to the holding of public opinion polls of any nature. The LTTE as an organization does not tolerate freedom of expression and permit the exercise of basic democratic and political rights by the people under its control (US Department of State, 1996).

Gender:	Male 50%	Female 50%
Age:	18 - 29 years	40%
	30 - 49 years	40%
	Above 49 years	10%
Income Groups:	Lower income class	60%
	Middle income class	30%
	Upper income class	10%

Data collection was through personal interviews using a questionnaire prepared in Sinhala, Tamil and English. Each field investigator was assigned a DS division or a town/village and asked to collect data from a cluster of households that would include all income classes. The field investigators were all A-Level qualified youths well experienced in conducting opinion polls. They were trained to follow the questionnaire in training sessions held in several locations. Supervisors were appointed to verify the quality of work of the field investigators.

The questionnaire used was based on the one regularly used by Research International in its previous national opinion polls, which were designed to identify people's opinions about the general economic situation in the country, various political and development issues. Three sets of questions on the issue of user charges were included in the questionnaire. The questions and allowed responses were as follows:

Q21. When your family is ill, do you generally use any of the following? (More than one reply is allowed)

- (1) Government Health Facilities
- (2) Private Clinics
- (3) Private Hospitals
- (4) Pharmacies

Q23. Are you satisfied with the services available at the following? (Responses allowed: Very satisfied, Satisfied, Not satisfied and No experience.)

- (1) Government Health Facilities
- (2) Private Clinics
- (3) Private Hospitals
- (4) Pharmacies

Q24. If the Ministry of Health was to introduce charges for the following in order to improve the quality and availability, would you approve? (Responses allowed: Yes, No.)

- (1) Charging for medicines
- (2) Charging for doctors consultations
- (3) Charging for inpatient treatment

Data analysis

Data analysis was carried out jointly at IPS and Harvard University using Stata. The percentages shown in the tables are rounded to the nearest whole percentage point. They may on occasion not sum to 100%, because of rounding and missing or incorrect responses. In general, the number of non-responses was low for all questions, and less than 2%.

Results

Use of services

Respondents were allowed to name up to two different types of provider that their families generally used when ill. Three quarters of the respondents admit to using MOH facilities generally. Use of private facilities is much less, although many of those using MOH facilities also use at least one other private provider (Table C.1). The use of pharmacies is probably underestimated because only two responses were allowed, and most pharmacy users use them as supplements to taking care from both government and private facilities.

Table C.1: Health providers generally used by respondents

<i>Health service provider</i>	<i>Percentage generally using (%)</i>	<i>N</i>
Government health facilities	76.5	2,312
Private clinics	28.8	2,312
Private hospitals	13.3	2,312
Pharmacies	2.9	2,312

Notes: Respondents were allowed to name up to two types of provider. Percentages reported are for of all respondents, including those did not answer question.

Use of government facilities and private clinics and hospitals shows clear socioeconomic gradients. Poorer and less-educated Sri Lankans rely on government facilities more, and better-educated and richer Sri Lankans rely more on private clinics and hospitals (Figure C.1 and C.2).

Satisfaction with services

Sri Lankans are generally satisfied with the services available from most providers. Satisfaction with MOH facilities is higher than for other facilities amongst those who had actual experience of use. User dissatisfaction was greatest for those who used private providers (Table C.2).

Table C.2: Satisfaction with services available at different providers

<i>Health service provider</i>	<i>Percentages of respondents</i>				<i>N</i>
	<i>Very satisfied</i>	<i>Satisfied</i>	<i>Not satisfied</i>	<i>No experience</i>	
Government health facilities	18	54	27	1	2,273
Private clinics	11	54	26	9	2,223
Private hospitals	12	44	26	17	2,210
Pharmacies	9	47	30	15	2,071

Notes: Total number of people interviewed was 2,312.

Dissatisfaction with MOH facilities increases from 16% amongst those with no education to 41% amongst those who have an incomplete university education. The richest Sri Lankans (38%) have higher levels of dissatisfaction than the very poor (21%), but satisfaction with private facilities displays the opposite pattern, with poorer and less educated people being more dissatisfied than average. When only those who use private clinics and hospitals are examined, there are no major differences by education and income level. This suggests that dissatisfaction with private facilities amongst poorer Sri Lankans may be related to problems of access and cost.

Attitudes to user fees

There was high public disapproval for any policy of charging user fees at government health facilities (Table C.3). Public approval for user fees ranged from 12 to 20% depending on what the fees were to be charged for. Public disapproval of fees was greatest in the case of inpatient treatment, and least for medicines. The association between approval of user fees and the background characteristics of the respondents was also examined (Tables C.3 to C.10).

Table C.3: Public approval for user fees at government health facilities

<i>User fee options</i>	<i>Percentage of respondents (%)</i>		<i>N</i>
	<i>Approve</i>	<i>Disapprove</i>	
Fees for medicine	19.9	79.8	2,250
Fees for doctor's consultation	15.5	84.4	2,247
Fees for inpatient treatment	11.7	87.4	2,244

Notes: Survey conducted in August 1996. Percentages may not sum to 100% because of rounding, , and incorrect or miscoded responses. Total number of people interviewed was 2,312.

Table C.4: Support for user fees by income group

<i>Income group</i>	<i>Percentage (%) of respondents approving user fees for</i>			<i>N</i>
	<i>Medicines</i>	<i>Consultations</i>	<i>Inpatient care</i>	
Very poor	16	13	9	629
Poor	14	12	7	356
Average	22	17	13	989
Rich	29	20	19	280

Note: Income refers to total monthly income of family. 'Very poor': < Rs. 700; 'Poor': Rs. 701-1,500; 'Average': Rs. 1,501-5,000; 'Rich': > Rs. 5,000.

Table C.5: Support for user fees by age group

<i>Age group</i>	<i>Percentage (%) of respondents approving user fees for</i>			<i>N</i>
	<i>Medicines</i>	<i>Consultations</i>	<i>Inpatient care</i>	
Under 21 years	11	15	11	183
21 - 30 years	27	14	9	772
31 - 40 years	22	15	11	536
41 - 50 years	21	19	14	401
51 - 60 years	12	16	16	285
Over 60 years	20	18	11	135

Note: Total number of people interviewed was 2,312.

Table C.6: Support for user fees by level of education

<i>Highest level of education</i>	<i>Percentage (%) of respondents approving user fees for</i>			<i>N</i>
	<i>Medicines</i>	<i>Consultations</i>	<i>Inpatient care</i>	
None	11	14	8	69
Grade 5	16	14	9	327
Grade 9	22	16	14	532
O-Level	20	16	12	818
A-Level	21	15	11	471
Entered university	6	17	6	19
Graduate	37	23	13	42

Note: Total number of people interviewed was 2,312.

Table C.7: Support for user fees by predominant type of provider generally used for care

<i>Provider generally used</i>	<i>Percentage (%) of respondents approving user fees for</i>			<i>N</i>
	<i>Medicines</i>	<i>Consultations</i>	<i>Inpatient care</i>	
MOH facilities	17	13	9	1,769
Private clinics	26	21	15	543
Private hospitals	25	21	21	308
Pharmacies	33	23	15	66

Note: Total number of people interviewed was 2,312.

Support for user fees at MOH facilities increases with income and education, and is greater amongst those who use other private facilities. Since use of private facilities is correlated with increasing income and education, logistic regression analysis was carried out in order to determine whether it was income and education or lack of use of government facilities which determined support for user fees. The analysis showed that each of these factors is significant and independent determinants by themselves, indicating that decreased reliance on government facilities may in itself lead to increased support for user fees at government facilities. However, it is important to note that even amongst those who did not generally use government facilities three quarters disapproved of user fees at government facilities (70%, 75% and 79% disapproval of fees for medicines, doctors' consultations and inpatient care respectively).

Table C.8: Support for user fees by ethnicity

	<i>Percentage (%) of respondents approving user fees for</i>			<i>N</i>
	<i>Medicines</i>	<i>Consultations</i>	<i>Inpatient care</i>	
Sinhala	18	14	10	1,973
Sri Lankan Tamil	30	24	18	129
Indian Tamil	72	76	52	32
Moor	31	17	17	149

Note: Total number of people interviewed was 2,312.

Table C.9: Support for user fees by religion

<i>Religion</i>	<i>Percentage (%) of respondents approving user fees for</i>			<i>N</i>
	<i>Medicines</i>	<i>Consultations</i>	<i>Inpatient care</i>	
Buddhist	17	14	10	1,810
Hindu	36	35	26	127
Muslim	30	16	17	156
Christian	28	20	16	190

Note: Total number of people interviewed was 2,312.

There are differences in the level of support for user fees by ethnic group and religion. In general, Sinhala and Buddhist Sri Lankans disapprove of user fees the most. Logistic regression analysis reveals that the differences between Sinhala and non-Sinhala and Buddhist and non-Buddhist Sri Lankans are statistically significant. In general, if a Sri Lankan is Sinhalese or Buddhist, they are only approximately 60% as likely to support user fees as those who are not.³

Differences between the other ethnic and religious groups are not great, except for Indian Tamils. Indian Tamils are the only group that can be identified in the survey sample, in which a majority approve of user fees at government facilities. Because of the quota sampling procedure used, only a small number of Indian Tamils were interviewed, and only in the districts of Colombo (N=10) and Nuwara Eliya (N=22). When these two sub-samples are examined, high approval levels for user fees are found only amongst the Indian Tamils living in Nuwara Eliya (Table C.10). Chi-squared tests indicate that the high support for user fees amongst Indian Tamils is not only significantly different from other respondents in that district ($p < 0.001$), but significantly different from those Indian Tamils interviewed in Colombo ($p < 0.05$). This large difference between Indian Tamils living in Colombo and those living in Nuwara Eliya is not surprising. Respondents in Nuwara Eliya almost certainly belonged to the tea plantation workforce, while Indian Tamils in Colombo would have been amongst those who have left the plantations and have integrated into the indigenous population. Contrasted with the high support for user fees, the Indian Tamils in Nuwara Eliya, somewhat surprisingly, also express a high level of satisfaction with government facilities - much higher than in any other group (21 out of 22 were 'very satisfied' compared with 17% of the other respondents). This latter difference was highly significant in a chi-squared test ($p < 0.001$).⁴

Table C.10: Support for user fees amongst Indian Tamils in comparison

<i>Group of respondents</i>	<i>Percentage (%) approving user fees for</i>			<i>N</i>
	<i>Medicines</i>	<i>Consultations</i>	<i>Inpatient care</i>	
Indian Tamils in Nuwara Eliya	85	90	65	22
Other Nuwara Eliya residents	25	21	16	57
Indian Tamils in Colombo	20	20	22	10
All non-Indian Tamils	19	15	11	2,290

Note: Total number of people interviewed was 2,312. The sample sizes, N, given in the last column refer to the total number in each group interviewed. However, the percentages reported are the percentages giving a particular response out of those who answered, excluding non-responses.

³ Logistic regression models are not influenced by disproportionate sampling procedures, and so these results are valid, without any need to weight the data because of quota sampling (Maddala, 1988).

⁴ The non-technical reader should note that the levels of statistical significance reported take into account the small size of the samples.

Discussion

There are few published reports in the international literature about public opinion about health services and health financing policy in developing countries. So it is difficult to compare these findings with countries other than those in the OECD. However, it must be noted that in two respects relevant to the making of social policy, Sri Lanka resembles OECD countries more than it does most developing countries: (i) it has been governed on the basis of multiparty universal franchise since 1931 - longer than most OECD members, and (ii) there has been a public commitment by the state to universal health care provision for a similar period of time.

Satisfaction

The survey indicates high public satisfaction with the publicly financed health care system. This is consistent with another poll in March 1995 by Research International which asked about satisfaction with the provision of public services. This found that satisfaction with doctors and other health services ranked below that with the police and electricity, but above levels of satisfaction with roads, credit facilities, agricultural subsidies, garbage collection and other municipal services (Research International, 1995). This is in contrast to the perception in many developing countries of general dissatisfaction with publicly-financed and publicly-provided health services (Frenk, 1995), (Shaw and Griffin, 1995).

The 72% of Sri Lankans admitting satisfaction with the public system is comparable with the high levels of satisfaction reported from the West European welfare states, and is significantly higher than that reported from the USA and Mexico (Blendon, Donelan, Jovell, Pellise, and Lombardia, 1991) (Pescosolido, Boyer, and Tsui, 1985) (Hsiao, 1992; Frenk, 1995). Pescosolido et al. (1985) suggest that differences in levels of public evaluation are related to the length of time that states have taken responsibility for providing services through the public sector. This might explain the higher levels of public satisfaction in Sri Lanka in comparison with, for example, USA and Spain. The greater dissatisfaction with government health services amongst those of higher education and income is also comparable with patterns of public opinion reported from West European countries. In the case of European countries this social gradient in attitudes is thought to be related to increasing expectations of quality with higher income and education (Abel and van der Zee, 1995), (Pescosolido, Boyer, and Tsui, 1985).

Opposition to user fees

There was high disapproval across all social classes of the policy of introducing user fees. Variation on this issue is similar to OECD societies. In those countries, public support for increased private financing is greater amongst those of higher education and income level (Harvey, 1993), and in Germany and the Netherlands is also greater amongst those who rely on private financing for their own care (Abel and van der Zee, 1995). That finding parallels the increased support for user fees amongst Sri Lankans who do not use publicly financed facilities. The results confirm the belief of politicians and most observers in Sri Lanka that user fees would be highly unpopular with the electorate. The high support for user fees found only amongst Estate Tamils is unlikely to be a countervailing factor, as this section of the electorate has tended to vote as a single vote bloc on the basis of other issues. Median voters would be expected to have the greatest weight in a two party competitive system such as Sri Lanka. Since approval for user fees is minimal and skewed at the upper

end of the income and educational range, neither of the two main political parties is likely to gain votes by proposing user fees as a policy.

A survey by Research International in June 1995 reported high levels of disapproval of privatization of state institutions amongst Sri Lankan voters (Research International, 1995). However, the actual level was slightly lower than for health service user fees (78% disapproval amongst those who answered compared with 80 - 87% disapproval for the different user fee options). In contrast to health service user fees, opposition to privatization of state institutions appeared to increase with education and higher socioeconomic status. The higher level of approval for privatization than for "privatization" of health services resembles poll findings in the UK in the 1980s, where a smaller majority disapproved of privatization than of changing the public nature of health service financing. British public opinion also resembles Sri Lankan public opinion in one other manner. While most Britons opposed government policies that would directly encourage growth of private medicine or expand pay beds in government hospitals, the large majority (88%) supported the availability of private medical treatment in private hospitals (Blendon and Donelan, 1989). This parallels the apparent contradiction amongst Sri Lankans, the majority of whom appear to simultaneously pay for private medical care for themselves, but oppose a policy of paying for public services. Blendon et al. (1989) concluded, from the British data, that the British public view health differently from other areas of the economy, and that even where there is public support for economic reform through privatization, this support does not imply a similar public mandate for significant market reforms in the publicly-financed health system. Nevertheless, while the public can oppose direct state support of private financing, it does not oppose greater private sector expansion. This does not represent a contradiction, if the Sri Lankan and British public believe that privately-financed and publicly-financed health services meet different social objectives.

British polling experience illustrates one other cautionary feature about the use of such poll findings. Whilst UK opinion polls showed majority disapproval of privatization, the British government was able to implement the most radical program of public sector privatization carried out in a West European country, and still retain electoral support. However, more limited market reforms of the publicly-financed health system not only were unpopular with the electorate, but contributed to significant losses in electoral support by the government. The Sri Lankan findings suggest that the Sri Lankan public might also treat health services differently to state enterprises, and thus react differently to the introduction of user fees than they might to the privatization of state institutions.

Inpatient versus primary care

When asked about what user fees should be charged for, opposition to user fees was greater for inpatient care than for doctors' consultations which was in turn greater than for medicines. Approval of user fees for inpatient care is only half that for medicines, and this is consistent across educational, income and cultural groups. Sri Lankan public attitudes run strikingly counter to the conventional wisdom of international health economists, most of whom believe that there is a stronger rationale for charging user fees for individual hospitalization than for outpatient medical consultations (Griffin, 1992; Shaw and Griffin, 1995). It would be easy to label the Sri Lankan public's views as irrational, but this might be unwise. First, it is clear that Sri Lankan public opinion is consistent with the actual pattern of resource mobilization in what is the most effective health care system in a low-income developing country, where inpatient care is almost exclusively financed from public sources, while primary care is predominantly financed from private sources (see Tables C.1

to C.10). Second, there are valid arguments, rooted in welfare economics and related to the lack of properly functioning insurance markets and the importance of social goals other than health maximization, which would place greater priority on the public financing of inpatient care than the public financing of most types of primary care (Hammer, 1993; Hammer and Berman, 1995).

As noted in this study, the Sri Lankan health ministry has historically allocated relatively high proportions of its funds to hospital care - higher than in other Asian countries. Although it is not known whether public attitudes in other Asian countries differ from those in Sri Lanka, these findings do suggest that the budgetary allocations of the health ministry may be concordant with social opinion at least in Sri Lanka. Studies of public opinion in other Asian and developing countries would be useful to determine whether Sri Lankan public opinion with regard to private financing of hospital care is also distinct. Nevertheless, outside the developing country context, Sri Lankan public opinion is consistent with social values in the OECD countries, where public protection of individuals from financially catastrophic hospital expenditures is as important a health system goal as efficiency and equity (Hurst, 1991).

Social values

Public opinion reflects not only the analysis of individuals when faced with a policy issue, but also underlying social and cultural beliefs. As this study has noted, the very early development of publicly financed health services in Sri Lanka was linked to Buddhist attitudes towards the role of the state and the desirability of certain social objectives. The finding of greater opposition to user fees amongst Buddhists than amongst other religious groups, even when controlling for income and education, confirms that contemporary Sri Lankan attitudes towards user fees continue to be shaped by this Buddhist value system.

While approval of user fees is greater amongst non-Buddhists, the difference is not substantial. This is not surprising, as there has always been a process of the different religious groups in Sri Lanka absorbing and exchanging social values. However, the difference between the Estate Tamils and other Sri Lankans, including Tamils, is great. A partial explanation for this might be the relatively short time that the Estate Tamils have lived on the island, and their segregation from the surrounding population. A more significant explanation might lie in the importance of a social principle accepted in continental European democracies - namely that of "solidarity". Social policy with regards to health policy in these countries is based on the premise that everyone has an obligation to support the access to health care of those who would otherwise be least able to (Kirkman-Liff, 1991), (Abel and van der Zee, 1995). An important objective, from the time of Bismarck's social insurance reforms, has been to promote social cohesion in class-divided industrialized societies through improved social welfare. Evidence for the existence of solidarity values in Sri Lanka is provided for by the fact that the majority of even those who did not use public facilities were opposed to user fees. The Estate Tamils are unusual because until the mid-1980s they were disenfranchised and not considered to be part of the national population. They did not enjoy the access to publicly-financed health services that was considered the right of all Sri Lankan citizens. The apparent high support for user fees amongst this group might therefore reflect the lack of social solidarity values in this group, engendered by their very exclusion historically from general-revenue funded health services and other aspects of citizenship, as well as the poor quality of plantation services that they have had access to.

IPS HPP Occasional Paper Series

<i>Number</i>	<i>Title</i>
1	Results of Private Health Insurance Study. <i>Ravi P. Rannan-Eliya and Nishan de Mel. 1996</i>
2	Results from the IPS/Harvard Public Opinion Poll on User Fees. <i>Ravi P. Rannan-Eliya 1996</i>
3	Analysis of Private Health Insurance in Sri Lanka: Findings and Policy Implications. <i>Ravi. P. Rannan-Eliya 1997</i>
4	Responses to Population Ageing: A Review of International Experience. <i>Ravi. P. Rannan-Eliya, Nishan de Mel, Easha Ramachandran and Danajanee Senagama 1997</i>
5	Ageing and Pensions. <i>Ravi. P. Rannan-Eliya, Nishan de Mel, Easha Ramachandran and Danajanee Senagama. 1998</i>
6	Unit Cost Analysis of Public and Private Health Facilities in Sri Lanka in 1992. <i>Aparnaa Somanathan 1998</i>
7	Framework for Developing Sri Lanka Health Expenditure Estimates using Health Accounting Approach. 1998 (Revised May 2000)
8	Review of international NHA approaches and proposed conceptual framework for Sri Lanka National Health Accounts. 1998 (Revised May 2000)
9	Provisional Functional Classification System for Domestic Health Accounts of Hong Kong SAR, People's Republic of China. 1998
10	Estimates of Domestic Health Expenditures 1989/90 to 1996/97, Hong Kong SAR, People's Republic of China. 1998.
11	Economic impacts of demographic ageing: with special emphasis on Sri Lanka and old-age income security. <i>Ravi P. Rannan-Eliya 1999</i>
12	Bangladesh Health Facility Efficiency Study Report. <i>Ravi P. Rannan-Eliya and Aparnaa Somanathan. 1999</i>
13	Expenditures for Reproductive Health Services in Egypt and Sri Lanka. <i>Ravi. P. Rannan-Eliya, Peter Berman, Eltigani E. Eltigani, Indralal de Silva, Aparnaa Somanathan, Varuni Sumathiratne 2000</i>
14	Estimation of Confidence Intervals for Estimates of National Health Expenditures derived from Health Accounting Studies. <i>Ravi. P. Rannan-Eliya and Aparnaa Somanathan, 1999</i>
15	WHO Fairness in Financing Study. Estimates for Sri Lanka 1995/96 using WHO Methodology. <i>Tamara Dorabawila, Suharshini De Silva, Jehan Mendis and Ravi P. Rannan-Eliya. 2001</i>