The Impact of Out-of-Pocket Expenditures on Families and Barriers to Use of Maternal and Child Health Services in Timor-Leste

Evidence from the Timor-Leste Surveys of Living Standards 2001 and 2007

COUNTRY BRIEF

Australian AID

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Summary

- As a young nation, Timor-Leste has made considerable advances in rebuilding its health system, but overall utilization of health services remains low by regional standards.
- Large disparities exist in use of critical maternal and child health services between rich and poor, and across districts, and these correlate with maternal and child health outcomes.
- Expanding the use of facility-based maternal and child health services is critical to improving maternal and child health outcomes in Timor-Leste. Expanding access to inpatient services is also critical to improve rates of skilled birth attendance.
- In most countries, the main barriers to use of maternal and child health services are financial costs of treatment and physical access. In Timor-Leste, the main problem is the lack of physical access due to the large distances that many people have to travel to access medical care. This barrier is greatest in rural areas and certain districts, such as Bobonaro and Lautem.
- Out-of-pocket spending on healthcare is low in Timor-Leste, and so few households experience financially catastrophic burdens. Catastrophic and impoverishing expenditures for health are much lower than in most countries in the region, and so should not be the main focus for improving equity.
- Public sector facilities are, in practice, free to most patients, and informal payments are rare unlike in other countries, such as Indonesia. This strength of the healthcare system should be safeguarded.
- The low level of spending does not mean that the healthcare system ensures good coverage. It is more a reflection of the fact that most families, especially those in rural areas, lack access to any medical facilities, so they do not even have the option of making payments at private providers.
- To improve access and outcomes in Timor-Leste, the first priority should be to focus on expanding the service delivery network in rural areas so that more lower- and mid-level healthcare facilities, including those with inpatient services, are closer to families.
- The second priority should be to strengthen the system of free care services by improving the supply and availability of medicines in government facilities. A frequent shortage of medicines is the one area where families do experience some financial burdens in obtaining care, and this is most common in the case of inpatient care.

Background

Despite substantial improvements in health conditions since its independence in 2002, the Timor-Leste population continues to face a heavy burden regarding maternal and child health. One woman in 16 dies during pregnancy, and one in 10 dies from pregnancy or related causes (Ministry of Health 2007), which is among the highest rates in Asia. In addition, one in 20 children still die before their fifth birthday (UNICEF 2011).

The Government of Timor-Leste is committed to reaching the Millennium Development Goals and to improving the access of its people to adequate healthcare services. The National Health Sector Strategic Plan prioritizes the improvement of quality and coverage of preventive and curative health services for women and children to accelerate progress toward the health Millennium Development Goals. Key development partners, such as the Asian Development Bank, Australian Agency for International Development, and World Bank, support this focus on improving access to basic maternal and child health services and on reducing barriers to access.

The government, with financial support from its development partners, is the primary funder of the Timor-Leste health system. According to World Health Organization estimates, overall health spending in Timor-Leste has been high in comparison with comparable countries in the region: 9.1% of gross domestic product in 2010, compared with 2.6% in Indonesia, and 3.6% in Papua New Guinea. Of this, 44% is contributed by private financing. In per capita terms, total spending was almost $58 per capita in 2007 and $57 in 2010. Undeniably, spending has been declining in recent years, with a reduction in external assistance for the health sector. During 2007–2010, it declined from 15.4% to 9.0% of gross domestic product. As a percentage of government spending, health is on a declining trend from 19.0% of government expenditures in 2007 to only 4.7% in 2010.

Healthcare services are mostly provided by government facilities, consisting of health posts, community health centers, and regional and national hospitals, supplemented since 2008 by SISCa (Sistema Integradu Saude Communitaria) mobile clinics. There is very limited private provision in contrast to other Asian countries, and this is mostly traditional providers, in rural areas, and a small number of church, nongovernment organization, and private doctor clinics mostly in urban areas.

Overall levels of healthcare utilization are low by regional standards (OECD 2010), equivalent to only two outpatient visits per capita per year to medical providers, and two inpatient admissions per 100 capita. These low levels of use are reflected in low, though increasing, levels of skilled birth attendance and use of available maternal and child health services (NSD 2010).

Data Sources

This brief presents findings from analysis of the Timor-Leste Surveys of Living Standards (TLSLS) 2001 and 2007, which were undertaken by the Government of Timor-Leste (National Statistics Directorate 2001 and 2007). These surveys permit examination of how inequalities in healthcare utilization changed during a 6-year period marked by many changes in the country.

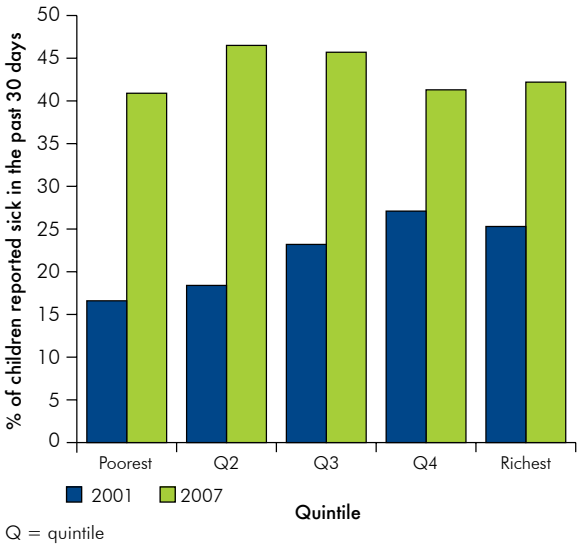
The TLSLS 2001 is a nationally representative household survey of 1,800 households (9,117 individuals), with fieldwork taking place from August to November 2001. The TLSLS 2007 is a survey of 4,477 households (25,000 individuals) that was originally scheduled for 2006, with actual fieldwork taking place from January 2007 to December 2008. Both surveys collected information on household consumption and included a healthcare module that asks about healthcare utilization and expenditures. Some differences in the question design of the health modules, particularly relating to healthcare utilization, mean that some comparisons from the two surveys are not reliable. Detailed information in each survey on household consumption was used to categorize the population into equal, ranked quintiles, using consumption per adult-equivalent as the measure of relative living standards.

Perception of Illness and Treatment Seeking

Both TLSLS surveys asked individuals whether they had been ill in the past 30 days. This is a standard question in many surveys but is not a reliable measure of the level of illness, since the reporting of sickness depends on the tolerance of people to symptoms and awareness of what might constitute illness. In most countries, the poor and less educated are less likely to report that they are sick when they are ill, but this improves as people become more health aware, with frequently more people reporting they are sick.

The proportions of individuals who reported that they were sick in the past 30 days changed little between the TLSLS rounds 2001 and 2007, but the proportions of children (i.e., less than age 5 years) reported as sick increased substantially from 22% to 43% in the same period. Some part of this probably reflects increasing health awareness, as other data indicate improving child health outcomes (NSD 2010). The poor in 2001 were far less likely to report having been sick in the past 30 days than the nonpoor (concentration index significant at 1%), but this difference had been eliminated by 2007. The same pattern is seen both in adults and in children (Figure 1). This suggests that the poor are less responsive to sickness than the nonpoor, but that responsiveness and health awareness improved faster in the poor than the nonpoor between the surveys.

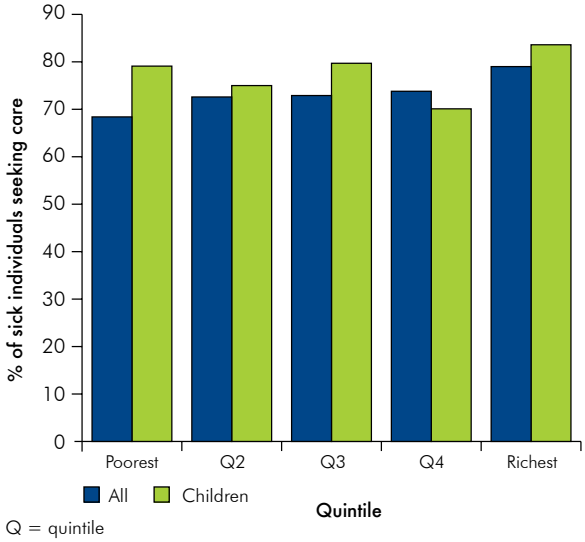
Figure 1: Illness Reporting of Children in Timor-Leste, by Socioeconomic Status, 2001 and 2007



Q = quintile
Sources: Authors' analysis of TLSLS 2001 and 2007 data sets.

Being sick does not automatically lead to seeking medical treatment. In many countries, the poor, when sick, are less likely to obtain treatment than the rich. In Timor-Leste, however, this disparity is not seen. The likelihood of a sick person seeking medical care increased substantially from 51% in 2001 to 74% in 2007. Increases occurred at all income levels, and in adults and children, with little evidence of significant disparities by income level. In general, children were more likely to be taken for care than adults when sick (Figure 2). However, in both surveys, sick adults and children were significantly less likely to be taken for treatment in rural than urban areas (Figure 3).

Figure 2: Treatment Seeking When Sick in Timor-Leste, by Socioeconomic Status, 2007

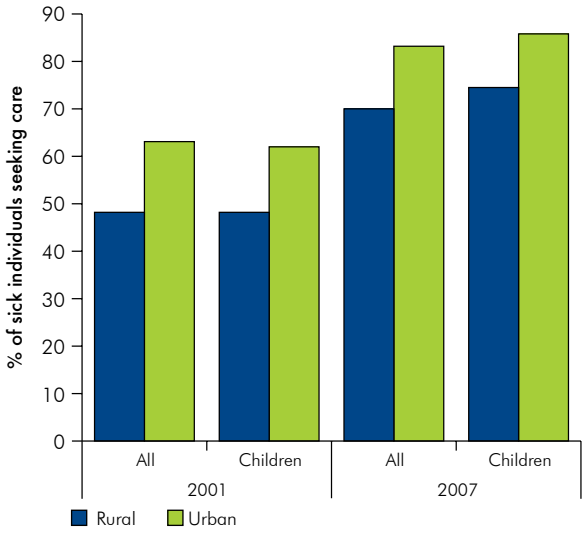


Q = quintile
Source: Authors' analysis of TLSLS 2007 data set.

Excluding the cases where the illness was not considered serious enough, the overwhelming reason why sick persons do not seek treatment in both surveys is that health facilities are too distant (68% overall and 46% for children in 2007).

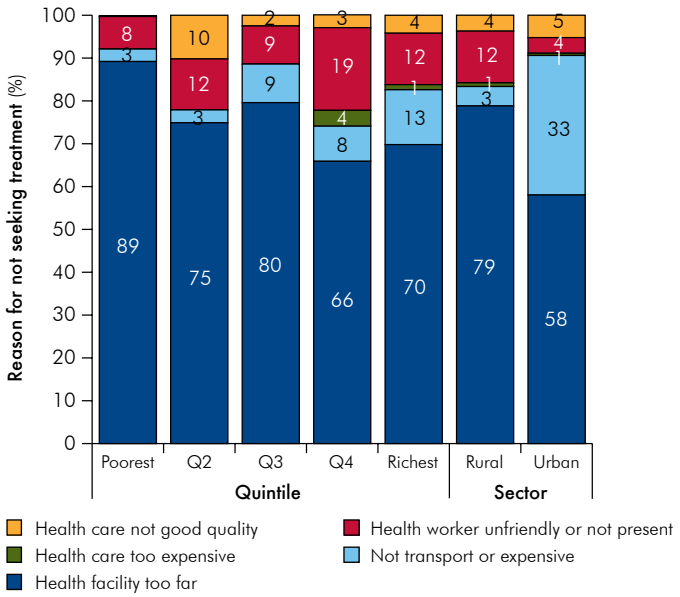
Distance as the explanation for nonuse of treatment is significantly more important for the poor and those living in rural areas. This pattern remained unchanged between the two surveys, with the only real change being that distance became somewhat less important for the richest quintile during the period (Figure 4).

Figure 3: Treatment Seeking When Sick in Timor-Leste, by Sector, 2001 and 2007



Sources: Authors' analysis of TLSLS 2001 and 2007 data sets.

Figure 4: Barriers to Treatment of Illness in Timor-Leste, 2007



Q = quintile
Source: Authors' analysis of TLSLS 2007 data set.

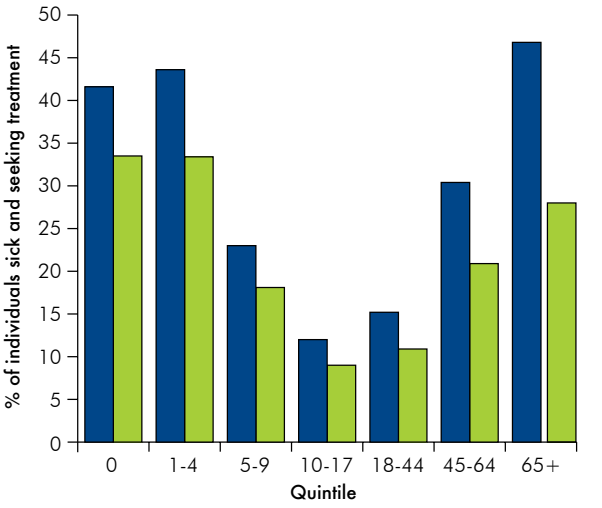
Other factors related to quality, including availability of health workers and their attitude, are not important barriers, except marginally for the nonpoor. Coupled with the evidence that rural families are less likely to take their sick children for treatment, these suggest that the immediate priority should be to improve physical access to facilities by expanding the facility network in rural areas, rather than improving quality of services, if increased service use is the goal.

Utilization of Outpatient and Inpatient Treatment

Overall utilization of outpatient medical care is higher in richer families than in poor families, as a result of the combination of higher rates of perception of illness and the slightly higher likelihood of seeking treatment when feeling sick. Utilization is also slightly higher in the central and more urbanized districts of Dili and Liqica than in other districts, while utilization is lowest in the districts of Bobonaro and Lautem.

Utilization also varies by age, being higher in infants and young children than in young adults, and increasing in older adults (Figure 5). In 2007, infants accounted for 5.3% and children 22.4% of outpatient use. Separate estimates for maternal healthcare use were not possible, owing to lack of detail in the survey questionnaires.

Figure 5: Illness Reporting and Use of Outpatient Medical Care in Timor-Leste by Age Group, 2007

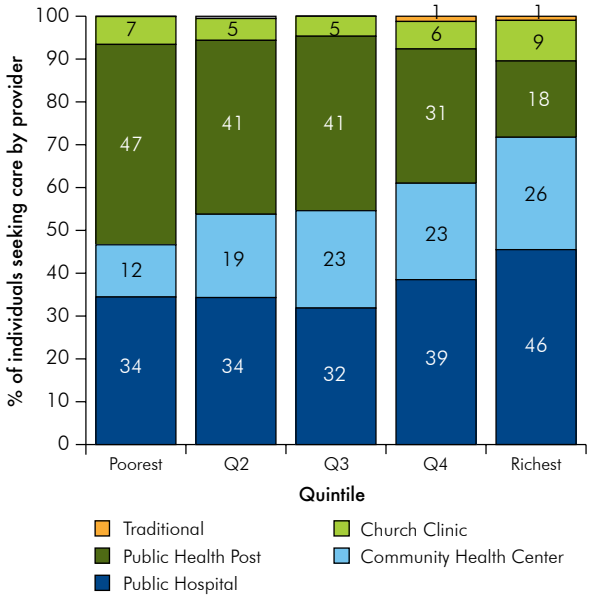


Q = quintile
Source: Authors' analysis of TLSLS 2007 data set.

When individuals seek outpatient medical care, it is mostly from public providers (Figure 6). Public hospitals and community health centers account for over one-half of outpatient provision, with 96.3% of child visits at public facilities. However, the poor rely more on health posts, while the richest quintile obtain much of their care from public hospitals. Private, church, and traditional providers also account for a small share of overall provision.

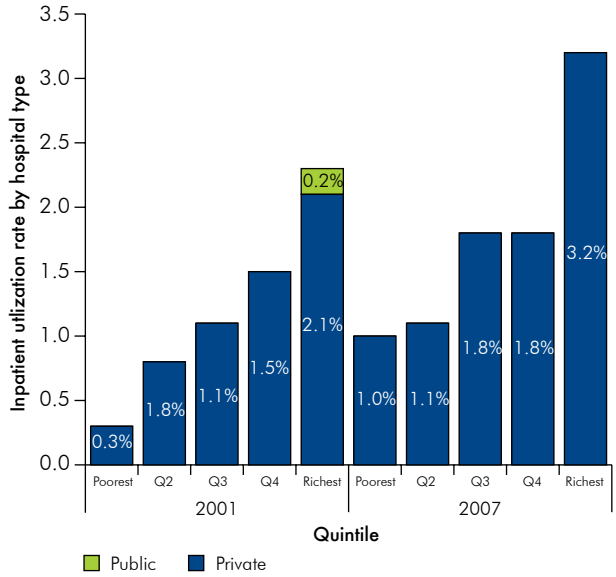
In contrast to outpatient care, use of inpatient care is unequal, with the richest quintile 3 times more likely to use such care than the poorest quintile, and urban individuals 1.3 times more likely than those in rural areas (Figure 7). However, there was an overall increase in inpatient care use between the two surveys, and income-related inequalities in use by income fell to some

Figure 6: Use of Outpatient Medical Care in Timor-Leste by Socioeconomic Status, 2007



Q = quintile
Source: Authors' analysis of TLSLS 2007 data set.

Figure 7: Use of Inpatient Medical Care by Socioeconomic Status in Timor-Leste, 2001 and 2007

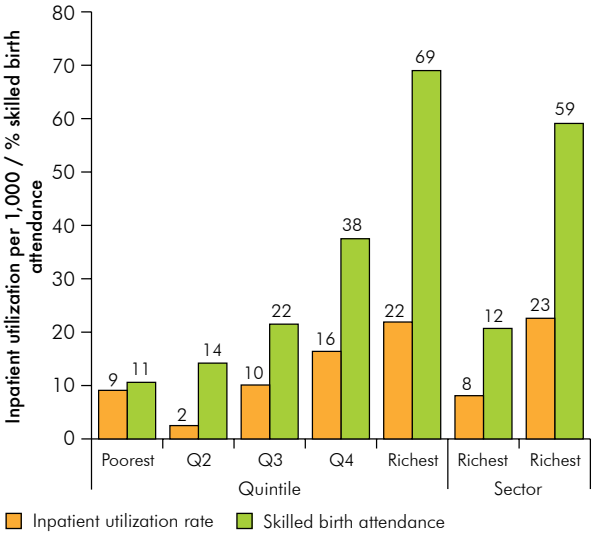


Q = quintile
Sources: Authors' analysis of TLSLS 2001 and 2007 data sets.

extent. This pattern points again to problems of physical access to government facilities being the major driver of access to medical care, with access to inpatient services even more restricted in rural areas than outpatient services. Use of private hospital services is extremely limited, indicating the importance of addressing barriers in access to government hospitals.

Females are 1.1 times as likely to be hospitalized as males, but in the 18–44 year age group when most give birth (NSD 2010), women are 2.2 times as likely to be hospitalized. Childbirth probably accounts for one-half of the female hospital admissions in this age group. The overall income-related disparity in admissions in this group closely matches the disparity in the use of skilled birth attendants, and this indicates how barriers to access to maternity care are interlinked with those preventing access to inpatient care in general (Figure 8). In contrast, education is not a significant determinant of inpatient care use by this group of women, indicating that the observed inequality is due to economic factors and not knowledge.[1]

Figure 8: Women's Use of Inpatient Medical Care in Timor-Leste, by Socioeconomic Status and Sector, 2007



Q = quintile
Note: Inpatient utilization rate given as per 1,000 per capita per year.
Sources: Authors' analysis of TLSLS 2007 data set, skilled birth attendance estimates from NSD 2010.

Costs of Healthcare Visits

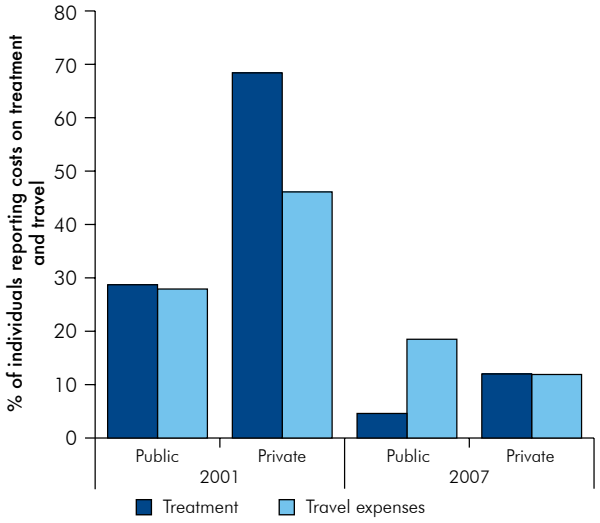
Both surveys asked how much medical treatment was, including any travel expenses. In contrast to many other countries, only a small proportion of visits (22% in 2007) to public facilities resulted in costs for households, and the percentage of visits to public facilities that were associated with any treatment expenses or travel costs fell between the surveys (Figure 9). On the other hand, visits to church, traditional, and other private providers were more likely to result in out-of-pocket costs.

Not only are costs associated with public sector outpatient visits infrequent, but poor patients are less likely to incur such costs (Figure 10). Consequently, travel costs are a far more important financial barrier to obtaining outpatient care costs for the poor than the rich, who are more likely to spend on private treatment or medicines (Figure 11).

In contrast, inpatient visits, which are almost exclusively in the public sector, are more likely to be associated with costs, with over 40% of such visits in both surveys associated with treatment costs and over 70% with travel costs. Unlike outpatient visits, the poor are not protected against treatment costs, with 26% of the poorest quintile facing out-of-pocket costs for inpatient treatment at public facilities in 2007 (Figure 12).

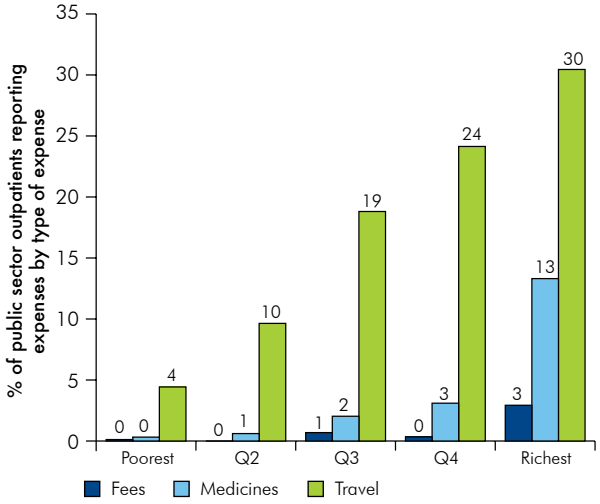
[1] Results of logistic regression analysis of inpatient use controlling for income, education level, and urban–rural residence.

Figure 9: Cost of Outpatient Medical Care in Timor-Leste, 2001 and 2007



Sources: Authors' analysis of TLSLS 2001 and 2007 data sets.

Figure 10: Expense Reporting for Public Sector Outpatient Medical Care in Timor-Leste, by Socioeconomic Status, 2007



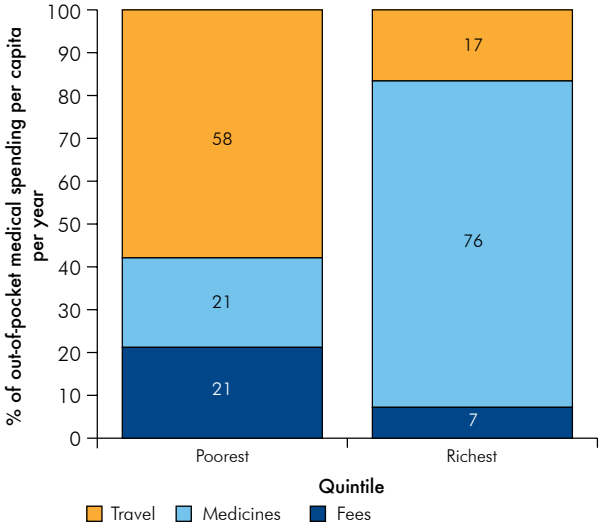
Q = quintile
Source: Authors' analysis of TLSLS 2007 data set.

The Ministry of Health is clearly effective in ensuring that public outpatient services are free to most patients and has become more successful in this over time, but it is less effective in preventing out-of-pocket costs for inpatient care. This is probably due to the known problem of medicines shortages in public facilities, particularly for inpatient treatment. In addition, the limited availability of hospitals in rural areas means that travel costs are experienced by many who need inpatient care, which by implication also includes most women seeking facility-based childbirth.

Out-of-Pocket Health Expenditure and Its Impact on Households

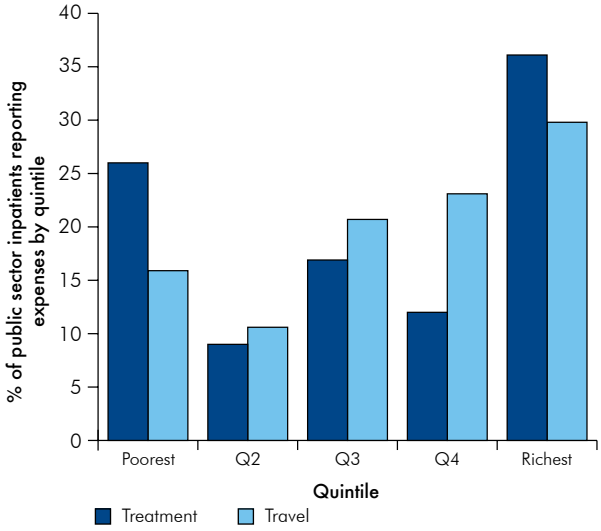
Out-of-pocket payments deter households from seeking care and can cause considerable hardship and financial impoverishment, especially among the poor. There is global consensus (WHO 2010, Reich and

Figure 11: Out-of-Pocket Medical Spending in Poorest and Richest quintiles in Timor-Leste, by Type of Expense, 2007



Source: Authors' analysis of TLSLS 2007 data set.

Figure 12: Out-of-Pocket Spending for Public Sector Inpatient Medical Care in Timor-Leste, by Socioeconomic Status, 2007



Q = quintile
Source: Authors' analysis of TLSLS 2007 data set.

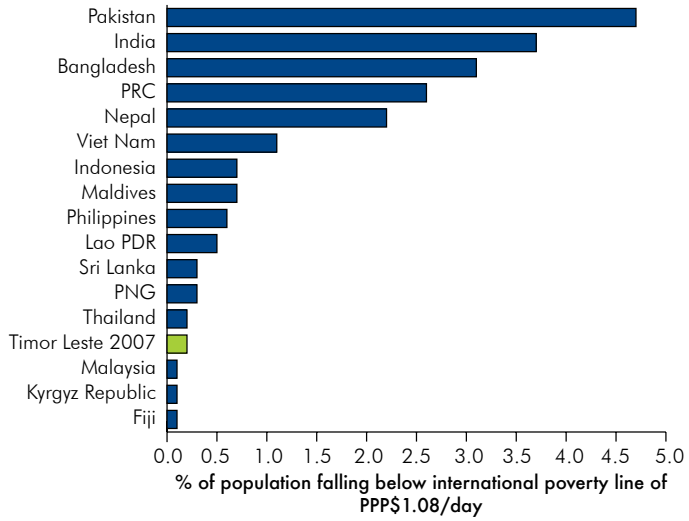
Takemi 2009) and recognition by the Government of Timor-Leste that reliance on out-of-pocket financing for healthcare financing should be minimized to improve equity and financial risk protection.

Financial impoverishment in Timor-Leste due to out-of-pocket medical spending are low. Only 0.2% of households in Timor-Leste are pushed below the $1 international poverty line[2] (0.2% at the $2 line) in any given month as a result of their medical spending, which is one of the lowest shares in the region (Figure 13).

Correspondingly, the frequency of catastrophic health expenditures is very low, regardless of definition (Figure 14). The reason for this low frequency of medical impoverishment is that out-of-pocket healthcare spending as a share of household spending (0.4%) is very low in regional comparison (Figure 15).

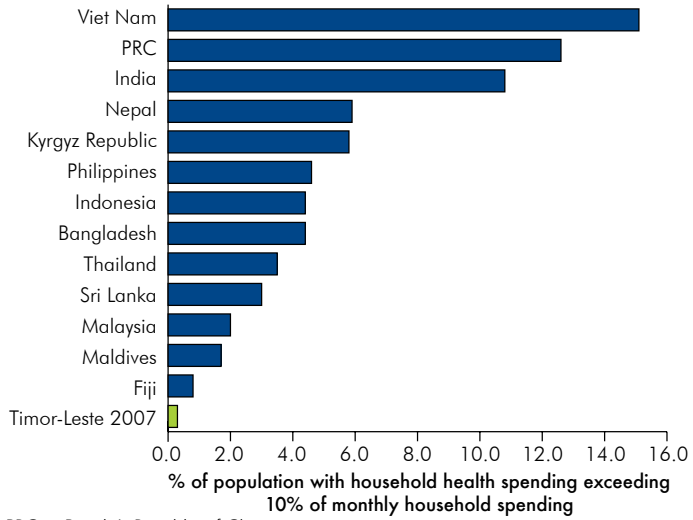
[2] The 'international one dollar poverty line' is equivalent to a consumption level of 1.08 international (1993 PPP) dollars per day, or $ 0.68/day in 2007.

Figure 13: Impoverishment Effect of Out-of-Pocket Medical Spending in Household Budgets in the Region, Recent Years



Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PPP power purchase parity, PRC = People's Republic of China
Sources: Authors' analysis of TLSLS 2007 data set, van Doorslaer et al. (2007), analyses of Asian Development Bank technical assistance project, and unpublished estimates from the Equitap research network.

Figure 14: Incidence of Catastrophic Out-of-Pocket Medical Spending in the Region, Recent Years

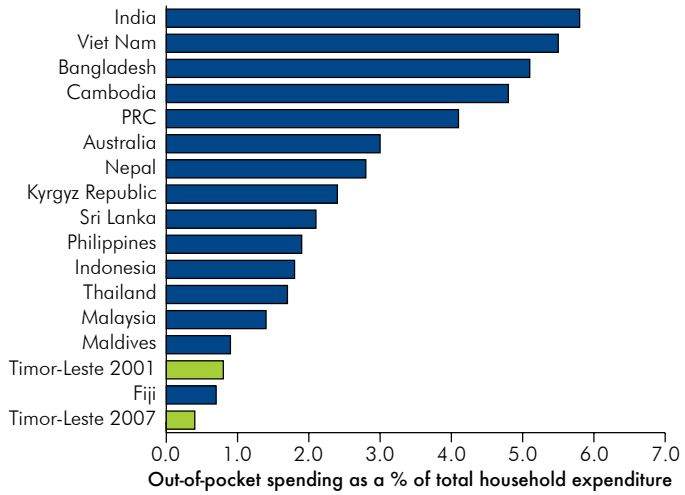


PRC = People's Republic of China
Sources: Authors' analysis of TLSLS 2007 data set, van Doorslaer et al. (2007), analyses of Asian Development Bank technical assistance project, and unpublished estimates from the Equitap research network.

The two surveys indicate that the household burden of out-of-pocket healthcare spending has been falling, from 0.8% of average household budgets in 2001 to 0.4% in 2007. The overall distribution of such spending is relatively equal by income level (Figure 16). However, in relation to discretionary nonfood expenditures, poorer households incur a higher burden than richer households (Figure 17).

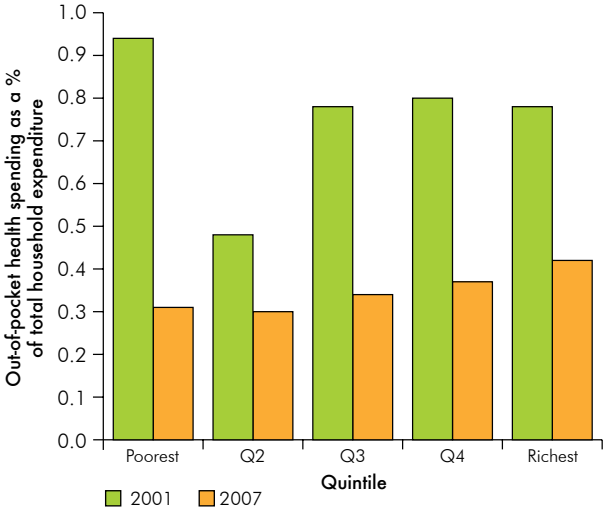
As the overall incidence of catastrophic and impoverishing expenditures is extremely low in Timor-Leste, such outcomes must also rarely occur when mothers and children are sick. However, limitations in the survey design did not permit more detailed analysis of this question.

Figure 15: Out-of-Pocket Health Spending in the Region, Recent Years



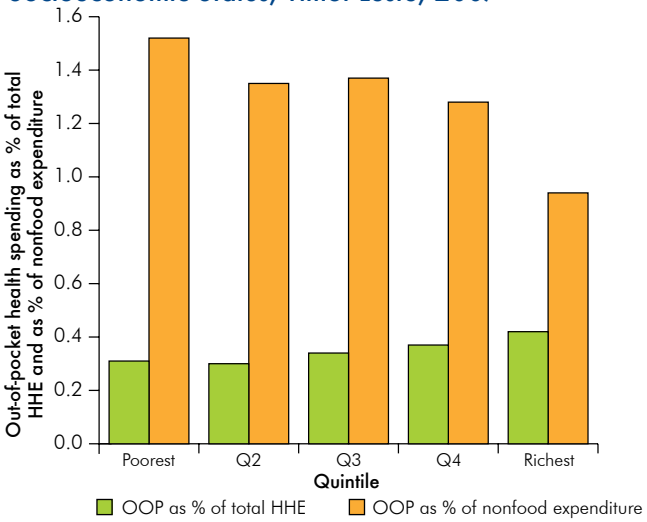
PRC = People's Republic of China
Sources: Authors' analysis of TLSLS 2001 and 2007 data sets, van Doorslaer et al. (2007), analyses of Asian Development Bank technical assistance project, and unpublished estimates from the Equitap research network.

Figure 16: Out-of-Pocket Health Spending by Socioeconomic Status in Timor-Leste, 2001 and 2007



Q = quintile
Sources: Authors' analysis of TLSLS 2001 and 2007 data sets.

Figure 17: Share of Out-of-Pocket Medical Spending by Socioeconomic Status, Timor-Leste, 2007



Q = quintile
Sources: Authors' analysis of TLSLS 2007 data set.

Conclusions

Analysis of the TLSLSs 2001 and 2007 reveals that overall utilization of health services in Timor-Leste remains low, despite significant increases in recent years, and that large disparities exist in the use of critical maternal and child health services between the rich and the poor, and between Dili and other districts. This is mainly due to the large distances that many people have to travel to access needed medical care.

Levels of out-of-pocket spending on healthcare are low in Timor-Leste, so few households experience financially catastrophic burdens. However, the finding of limited financial impact of out-of-pocket spending does not mean that the there is good healthcare coverage. The low level of spending is largely because most families, especially those in rural areas, lack access to any medical facilities, so they do not even have the option of making payments. At the same time, a positive feature is that outpatient visits to public sector facilities are, in practice, free to most patients.

Improving access and outcomes in Timor-Leste must focus on expanding the service delivery network in rural areas to bring healthcare facilities closer to most families. This would mean expanding the network of lower- and mid-level facilities in rural areas. At the same time, this needs to be done in such a way that the commendable success of the Ministry of Health in ensuring that its services are genuinely free is maintained, while strengthening this aspect by improving the supply and availability of medicines in government facilities. Expanding access to inpatient services will be critical to improving rates of skilled birth attendance in accordance with national priorities.

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ADB RETA 6515 Country Brief Series

Poor maternal, neonatal, and child health adversely affects women, families, and economies across the Asia and Pacific region. This burden of illness must be reduced if the Millennium Development Goals (particularly 4 [reduce child mortality] and 5 [improve maternal health]) are to be achieved and improvements made in the health and economic well-being of households and nations. Progress in this regard will require an increased supply of effective healthcare services, as well as demand for such services. This series of country briefs provides evidence from national household surveys on the financial burdens imposed on the poor by private expenditures on public and private healthcare services. Countries can use this information in building awareness within health systems and policy bodies of financial constraints on healthcare, and in designing demand-side interventions to increase the use of maternal, neonatal, and child health services. Summaries of the analysis of household data from Bangladesh, Cambodia, the Lao People's Democratic Republic, Pakistan, Papua New Guinea, and Timor-Leste, and a summary overview, are included in the series.

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Australia is taking a leading role in global and regional action to address maternal and child health. A key part of this is to strengthen the evidence for increased financial support and the most effective investments that governments and donors can make to meet Millennium Development Goals 4 and 5. Australia supported this technical assistance project as a part of this commitment.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two-thirds of the world's poor: 1.7 billion people who live on less than $2 a day, with 828 million struggling on less than $1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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