CHAPTER 11

Private Primary Care Practitioners in Sri Lanka

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Abstract

Policy recommendations are frequently made in recognition of the predominant role that private providers play in health care in developing countries. Yet it is hard to obtain either empirical or regulatory data on their actual organization and potential. The major difficulty is in collecting data from providers, and Sri Lanka is typical. Despite this, a nationally representative survey of private family practitioners was successfully implemented in 2000. The study found that there are between 600 and 650 private practices in Sri Lanka employing about 1,200 physicians and providing 11 million to 12 million consultations per year, or 15 percent of the national total. Of the private practices, 76 percent are solo practices, and 95 percent dispense medicines. The typical practitioner sees 13,600 patients a year, works 45 to 50 hours a week, and averages 5.5 minutes per consultation.
The average fee is Rs. 80 (US$0.83). Comparison with previous studies indicates that the workforce of providers is aging but is becoming more professional, with 54 percent having at least one postgraduate qualification relevant to family practice. Seventy-eight percent of visits are by patients previously seen by the practitioner, and 31 percent of visits are repeat visits for the same condition. Most patients present with acute, self-limiting conditions; visits to obtain preventive services are only a small minority. Only 5 percent of visits result in referrals to other providers. There are 25 million prescriptions each year, 3 percent of these being injectables. A mean of 2.6 items (and a median of 3) are prescribed per visit. Sixty percent of items prescribed are generic, which is high by international standards. The mean cost per prescription at retail prices is Rs. 72. Certain medications, such as paracetamol and vitamins, are prescribed frequently. Private practitioners in Sri Lanka provide a substantial volume of relatively high-quality clinical care, reducing the burden on government services. Major concerns of practitioners are a lack of vocational training, a lack of referral mechanisms between the public and private sectors, and a lack of financing methods to ensure that future doctors will have incentives to go into private practice.

**Introduction**

In most developing countries, private practitioners provide a substantial proportion of medical services (Berman and Rose 1996). In the majority of countries, the private sector's contribution is greatest in providing ambulatory care, or what might be described as primary care. South Asia is no exception; private practitioners provide the bulk of primary care delivery in all countries except Sri Lanka and Maldives. However, even in Sri Lanka, the private sector provides 45 percent of outpatient care (Hsiao and IPS 2001).
Because private providers play this major role in the delivery of primary care, many analysts have called for the private sector to become more involved in the provision of all kinds of health care (Bennett, McPake, and Mills 1997). However, the organization and dynamics of private primary care markets are poorly understood, and in most countries very few reliable empirical data are available on the sector (Bhat 1999; Brugha and Zwi 1998). Therefore, those who call for expanding the role of the private sector usually base their argument on an assumption of public sector failure, with an inadequate understanding of the potential for private market failure. This has led to an increased interest in developing better methods for understanding the private sector’s role in providing health care. However, as admitted in most of the literature on developing country health policy, it has been very difficult to obtain reliable data on the private health sector, especially in the case of ambulatory care. In particular, there have been problems in collecting representative data from unregulated private providers, in ensuring respondents’ cooperation, and in assessing quality beyond simple measures of the structural quality of facilities (Preker and Harding 2002).

Nonetheless, collecting and analyzing data from the private primary care sector in member countries of the Organisation for Economic Co-operation and Development (OECD) is both feasible and appropriate for routine statistical information systems. Examples of such surveys include the annual National Ambulatory Medical Care Survey (NAMCS) in the United States and the Bettering the Evaluation and Care of Health (BEACH) survey in Australia (Australian Institute of Health and Welfare 2001). Unfortunately, there is no equivalent of such systems in any developing country. In addition, while the family medicine literature, written mostly by clinical researchers for clinical researchers, pays considerable attention to the quality of clinical management in the primary care sector, this literature is rarely mentioned in the international health policy and economics literature. In general, it appears that practical difficulties in engaging in research of the private primary care sector have prevented a comparable strand of research and routine data collection in developing countries.
Setting

Sri Lanka’s health system consists of parallel public and private sectors. The public sector is predominantly hospital based, providing both free outpatient and inpatient services. Government doctors have the right to have a private practice, and private care is provided both by these government doctors working in their free time and by full-time private practitioners. The private sector contributes most at the primary care level, with only a limited role in the provision of inpatient services. The public and private sectors provide both modern and traditional medical services, although the proportion of traditional care has been gradually declining since the 1950s and now accounts for less than 10 percent of all doctor-patient contacts. Private services are funded by out-of-pocket fees; the role of health insurance is small, except in the case of private hospital financing in urban areas. Generally, richer households are more likely to use private outpatient care. The public sector accounts for more than two-thirds of the primary care sought by those in the poorest quintile but for less than one-third of the contacts in the richest decile (Data International Ltd., Nepal Health Economics Association, and IPS 2001; Hsiao and IPS 2001).

Overall, the health system in Sri Lanka performs well. Despite its low per capita gross domestic product (GDP) (US$837 in 2001), Sri Lanka’s health indicators were similar to those of several European countries. Life expectancy at birth was 73 years in 2000, and the infant mortality rate was 15.4 per 1,000 live births in 1998. These good health indicators were associated with levels and distribution of utilization of modern medical services similar to those in OECD nations and much higher than those in comparable low- and low-middle-income economies. The number of contacts that patients have with qualified physicians averages four to five per annum, and the rate of inpatient admission is approximately 20 to 21 for every 100 people. Given that almost half of all outpatient contacts occur in the private sector and that public sector doctors working in their private time provide the bulk of private medical care, a better understanding of the dynamics and contribution of
this kind of provision is crucial for developing effective health policies. In the Sri Lankan context, the most relevant questions that need to be examined include the extent to which private provision can contribute to improving health care in the future, what problems there are in the quality and coverage of private primary care, and what options exist for managing the interaction between the public and private sectors.

The government of Sri Lanka has encouraged private medical practice since 1977, largely by permitting government medical officers to provide private medical services outside their official hours of duty and by taking a laissez-faire attitude toward the private primary care sector. There is no effective monitoring of or intervention in the private primary care sector by the government, no attempt to collect routine statistics even on the number of private physicians, and no official efforts to affect quality in the private sector. There is also no official system for making referrals between the public and private sectors. What official interest there is in the private sector has largely been concentrated on supporting the private provision of hospital services through tax subsidies and occasionally relying on the private sector to employ new medical graduates whom the state cannot afford to employ. It is fair to say that the private primary care sector, despite its substantial role in providing outpatient care in particular, has been of little interest to either national policymakers or Sri Lanka’s international partners, including the World Bank—in contrast to their attitude toward private hospital provision. An illustration of this is the 2001 Poverty Reduction Strategy Paper (PRSP) for Sri Lanka. Even though private hospital services remain largely the preserve of the wealthiest households, the PRSP sees expansion of private hospital services as a main plank in the country’s poverty-reducing health strategy but presents no policy for supporting the private primary care sector, which is used by the majority of Sri Lankans. One factor behind this not-unusual neglect may be that primary care doctors have less political influence within the medical profession and in the wider political system than hospital-based specialists and private hospital investors. Another contributory cause may be the lack of systematic data on the amorphous private primary
care sector, which would make more difficult any policy debate on options related to this sector.

**Research Questions**

The Institute of Policy Studies Private Clinic Study 2000 (IPS PCS 2000) had the following objectives:

- To obtain reliable, nationally representative, descriptive data on the private general practitioner market and on medical practices in Sri Lanka
- To identify emerging policy issues in the area of the private provision of primary care
- To demonstrate the feasibility of using international best-practice methods in assessing private provision of primary care in Sri Lanka

These research questions were selected because answering them would expand the base of evidence on which to develop health policy in Sri Lanka. They were also selected in the belief on the part of the investigators that collecting more information on the private primary care sector might encourage policymakers to think of the private sector as a key provider of primary care, not just of hospital-based care.

**Methodology**

**Sampling and Fieldwork**

The primary way in which data were collected in the IPS PCS 2000 study was through a nationally representative survey of (a) clinics run by wholly private sector medical practitioners registered under the Medical Ordinance and (b) visits made by patients to such clinics. This method deliberately excluded clinics run by gov-
ernment doctors engaged in private practice, those run by full-time medical specialists, and those run by unregistered or traditional providers. The category of unregistered and traditional providers accounts for only a small share of overall outpatient visits (less than 9 percent) in Sri Lanka. Clinics run by government medical officers engaged in private practice were excluded only because of budgetary constraints—including them would have required developing a second sampling frame.

The major challenge in conducting a nationally representative survey of this type of clinic population involves developing an appropriate sampling frame and ensuring that a substantial percentage of respondents cooperate. The government does not give annual licenses to private clinics and does not keep records on their number or location. In addition, the decentralization of responsibility for private sector regulation to Sri Lanka’s provinces in the late 1980s further weakened what little regulatory capacity did exist (Russell and Attanayake 1997). In the absence of a national listing of such clinics, the survey team developed a multiphase sampling procedure based on the method used earlier by Aloysius and others (1987). A master list of private clinics in Sri Lanka was compiled by merging information from the marketing department of a pharmaceutical firm (Glaxo Wellcome Ceylon Ltd.), the membership lists of the College of General Practitioners of Sri Lanka (CGPSL) and the Independent Medical Practitioners Association (IMPA), and the names of clinics from public telephone directories and published medical directories.

The fieldwork was conducted in two phases between February and November 2000. In the first phase, a multistage probability sample design was used to select 110 practices, with administrative districts being the primary sampling unit (PSU) and a fixed quota of practices being recruited within each PSU. Clinics were replaced if they did not meet the eligibility criteria for the survey or if the doctor concerned could not be located at the indicated address, had migrated, had retired, or was dead. All respondents were physicians with authority to answer for their respective practices. In the first phase, a respondent at each surveyed practice was
shown the list of clinics that were identified in the master list as operating in their district or town and asked to update the list with the names and addresses of any omitted practices. Any new practices identified in this way were added to the master list. In the second phase, a second sample of 40 clinics was drawn in a similar manner, except that the probabilities of selection were weighted to ensure that both the original clinics and the newly identified clinics would have an equal probability of being selected in both phases.

If a clinic was judged to be eligible to participate, then the survey team mailed it a practice questionnaire in advance, accompanied by signed letters of endorsement from the heads of the CGPSL and IMPA in order to encourage respondents to cooperate. A field team then visited each practice and completed the questionnaire on-site. The field teams consisted of recently qualified medical graduates in order to make the survey more acceptable to the respondents. An honorarium of Rs. 1,000 (US$10.40 in 2001) was offered to each participating practice, with the option to donate it to a charity of its choice. The field teams sampled patient visits to these clinics by observing all visits that occurred during one half-day session at each practice. If the number of patients in a session was expected to be more than 30, data were collected only on a systematic sample of such visits. The teams recorded the data on these sampled visits using a patient encounter record (PER) form. The PERs were completed either by the physician or by a member of the field team sitting in as an observer during the consultations.

The efforts to encourage respondent cooperation were successful, with 98 percent of eligible clinics agreeing to participate. From the total sample of 153 clinic practices, 145 practice questionnaires and 2,100 PERs were completed, containing information on 5,100 prescribed items. Only one practice completed only the general practitioner (GP) record and returned no PERs, and eight practices provided PERs but no GP record. The survey covered practices in all provinces and districts of Sri Lanka except the three districts of the Northern Province. No clinics were included from the latter province because no practices could be identified when the original master list was being compiled. Continuous insurgency
since the early 1980s and the hostility of the Liberation Tigers of Tamil Eelam to private medical services threatened the development of private practices in these areas.

**Research Instruments**

Two types of structured questionnaires were used in the survey. One was the practice questionnaire, or GP record, which collected information about the physicians, and the other was a PER, which collected data on patients who visited the physician.

**Practice Questionnaire.** The practice questionnaire included questions about the physician’s qualifications, the practice’s workload, its costs and revenues, its referral patterns, and the doctor’s opinions on selected policy issues. So that respondents were likely to cooperate, questions relating to the income of the practice were clearly marked as being optional, as these questions were expected to be sensitive. In addition, full confidentiality was guaranteed, with individual practices being identified in the survey only by a code number known to the research team.

**Patient Encounter Record.** The PER collected information on the demographic characteristics of the patient, on the symptom or reason that brought the patient to the clinic, on the physician’s diagnosis and actions including making referrals and ordering tests, and on the drugs prescribed and dispensed. A maximum of three reasons for encounter, three physician diagnoses, and six prescribed medicines could be recorded on each PER. Following a review of the PERs used in the Australian BEACH study and in the U.S. NAMCS, the survey team developed the PER to facilitate comparisons with research in Australia, the United States, and other countries using similar methods. A literature review revealed no other standardized PER forms that had been used in developing country settings to collect systematically classified and internationally comparable data on the nature of presenting complaints, physician diagnoses, and clinical actions.
Data Entry and Analysis

The survey team coded “reasons for encounter” and the diagnoses using the latest version of the International Classification of Primary Care, ICPC-2E, which is designed to facilitate electronic coding in primary care (ICPC 2 PLUS). ICPC is a biaxial classification with 17 chapters on one axis and 7 components on the other. Chapters are based on body (organ) systems. Each chapter is divided into seven components. Thus terms in primary care are classified as rubrics under the relevant chapter in the relevant component (Okkes and others 2000; WONCA 1998).

IMS-Health Sri Lanka, a specialized pharmaceutical market research firm, entered the data on prescribed items, adding the retail price and generic name for each prescribed item and coding each item using the World Health Organization (WHO) Anatomic, Therapeutic, Chemical (ATC) classification. Finally, the data were analyzed using Stata 7.0.

Through preliminary analysis of the data in the practice questionnaires and the original and final master lists of practices, the survey team was able to estimate the numbers of private practices in each district of the country and the numbers of visits made to each practice in 2000. Using this information, they generated appropriate sampling weights for both the practice questionnaires and the PERs in order to provide representative estimates applicable at the national level.

For those practices that participated, overall response rates per item were high—95 percent or more. The only questionnaire items for which response rates were significantly lower were those relating to income and expenditures of practices, where response rates were typically 30 to 35 percent.

Findings

The survey data permit analysis from a number of different perspectives. National findings on the broad level and analyses of the clinics and practices, physician characteristics, patient characteris-
tics, patients’ visit characteristics, prescribing patterns, and clinical management are summarized here.

**National Findings**

There were an estimated 600 to 650 private primary care practices in Sri Lanka in 2000, operated by 700 to 750 partners and with a total medical practitioner workforce of 1,150 to 1,200 physicians. This compares with an estimate of 550 general practitioners in 1984/85 (Aloysius and others 1987) and 362 general practitioners in 1972 (Sivagnanasundram and Samawickrama 1977). These practices provided an estimated 10 to 11 million outpatient consultations in 2000, or about 58 visits per 100 people.

The geographical distribution of private GPs is quite skewed. Forty-six percent work in the Colombo district and 68 percent in the Western Province, where Colombo is located. Comparing these figures with data in Aloysius and others (1987) suggests that, while the number of private GPs has increased slightly, this increase has been associated with more, rather than less, geographical concentration (see table 11.1). The only province in which there has been a net reduction in overall numbers is the Northern Province, as a consequence of the difficult conditions created by violence there over the past two decades.

<table>
<thead>
<tr>
<th>Province</th>
<th>Number of GPS</th>
<th>Percentage of National Total</th>
<th>Private GPs per 100,000 Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>36</td>
<td>59</td>
<td>9.0</td>
</tr>
<tr>
<td>Eastern</td>
<td>16</td>
<td>30</td>
<td>4.0</td>
</tr>
<tr>
<td>North-Central</td>
<td>7</td>
<td>17</td>
<td>1.8</td>
</tr>
<tr>
<td>Northern</td>
<td>25</td>
<td>0</td>
<td>6.3</td>
</tr>
<tr>
<td>North-Western</td>
<td>33</td>
<td>54</td>
<td>8.3</td>
</tr>
<tr>
<td>Sabaragamuwa</td>
<td>14</td>
<td>16</td>
<td>3.5</td>
</tr>
<tr>
<td>Southern</td>
<td>35</td>
<td>34</td>
<td>8.8</td>
</tr>
<tr>
<td>Uva</td>
<td>7</td>
<td>12</td>
<td>1.8</td>
</tr>
<tr>
<td>Western</td>
<td>227</td>
<td>472</td>
<td>56.8</td>
</tr>
</tbody>
</table>
Practice Characteristics

Seventy-six percent of private primary care practices in Sri Lanka are run by a single partner, some of whom contract with one or more practitioners as employees. The remaining group practices are more likely to hire employee practitioners. Employee practitioners are usually government medical officers engaged in private practice, but the survey did not collect any information to confirm this. Thirty-five percent of practices operate from premises located within the physician's own home.

Practices are typically open for two to three sessions per day, six or seven days a week, for a mean total of 64 hours per week. (The individual practitioners work a mean of 45 hours per week.) The mean workload per practice is 321 visits per week, supplemented by an additional 15 other consultations consisting mainly of home visits and night calls. Comparing these figures with data in Aloysius and others (1987) indicates that a declining number of GPs make home visits (43 percent, down from 60 percent), which is also the trend in OECD countries. The average number of patients seen by a private GP is 13,600 per year, which is substantially higher than in countries such as the United States, the United Kingdom, and Australia, but is similar to the number seen by clinic doctors in several places with good health indicators, such as Japan; Hong Kong, China; and Malaysia.

Most Sri Lankan private practices (95 percent) dispense drugs, and 90 percent charge a single combined fee that includes the cost of the consultation and the medicines dispensed. The average consultation fee is Rs. 80 (US$0.83). Most practices charge supplementary fees for special tests or procedures.

The response rates for direct questions relating to practice income in the questionnaire were less than 35 percent. However, it was possible to make an indirect estimate of the overall revenues of practices by multiplying the average fee charged times the estimated annual number of consultations. Comparing both the direct and indirect estimates provides some evidence of the underreporting of overall incomes in the direct questions. Self-declared mean
practice revenues are Rs. 65,000 to 70,000 per month, compared with indirect estimates of Rs. 95,000 to 110,000 per month.

The mean operating costs for practices are Rs. 1 million per year. Approximately one-third are accounted for by purchases of drugs and supplies; one-third by salaries; and one-third by utilities, taxes, rent, and capital formation.

**Physicians’ Characteristics**

Private general practitioners are predominantly male (85 percent), and they tend to be relatively old (median age 52 years). Comparison with previous studies indicates that the private GP workforce is becoming older, with fewer than 10 percent of partners under 40 years of age in 2000 (see figure 11.1).

**Figure 11.1** Age Distribution of Private General Practitioners, 1972–2000
By virtue of the eligibility criteria for the respondents, all of the respondents are qualified medical graduates. A significant proportion hold postgraduate qualifications relevant to family medicine—54 percent in 2000 compared with 29 percent reported in 1984. Such qualifications include the Member of the College of General Practitioners of Sri Lanka (MCGP), Diploma in Family Medicine (DFM), Diploma in Child Health (DCH), and Fellow of the College of General Practitioners of Sri Lanka (FCGP). Most private GPs have some prior government work experience, with a median of 9.2 years.

Patients’ Characteristics

The demographics of the patient population are consistent with those of primary care patients worldwide, with a slight predominance of females (52.4 percent). In comparison with the national age distribution, the private practice patient population tends to have relatively fewer older patients (see table 11.2). Given that older people generally have higher medical utilization rates, this suggests that the older population is more likely to use public outpatient services than private GPs.

Visit Characteristics

Seventy-eight percent of visits are by patients who had previously been seen by the practitioner, while 31 percent of visits are repeat

| Table 11.2 Age and Sex Distribution of Private Practice Patients, 2000 |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
| AGE GROUP | PROPORTION OF NATIONAL POPULATION (%) | PROPORTION OF PRIVATE PRACTICE PATIENTS (%) |
|           | FEMALE | MALE | FEMALE | MALE |
| 0–5       | 4.8    | 5.0  | 7.7    | 8.4  |
| 6–10      | 4.1    | 4.2  | 3.8    | 6.3  |
| 11–20     | 9.1    | 9.1  | 7.1    | 7.4  |
| 21–45     | 20.0   | 19.6 | 21.1   | 16.9 |
| 46–60     | 7.6    | 7.2  | 8.4    | 5.1  |
| 61–70     | 2.8    | 2.7  | 3.3    | 2.5  |
| 71 +      | 2.0    | 1.9  | 1.2    | 1.1  |
| Total     | 50.3   | 49.7 | 52.4   | 47.6 |
visits for the same condition. This indicates significant continuity of care in private general practice. This contrasts with the public sector, where patients in general outpatient department clinics are not assigned to any specific physician and must see whoever is available on a given day. The mean length of a patient consultation is 5.5 minutes, and in 43 percent of visits, the GP makes no written record of the consultation. This reflects the relatively high turnover of patients in these clinics and the lack of time for physicians to maintain a record system.

Most patients present with acute, self-limiting conditions; only a small minority come for preventive services. The average number of “reasons for encounter” per visit is 1.6. Fifty-two percent of encounters are associated with one reason, 34 percent with two reasons, and 14 percent with three or more. The most common reasons for encounter fall into the following ICPC chapter categories: respiratory (24 percent), general and unspecified (23 percent), and digestive (14 percent). By individual ICPC rubric, the top five reasons for encounter are fever (16 percent), cough (13 percent), headache (4 percent), runny nose (4 percent), and abdominal pain (4 percent). The five most frequently diagnosed problems by ICPC rubric are viral fever (13 percent), asthma (6 percent), upper respiratory tract infection (5 percent), hypertension (4 percent), and respiratory infection (4 percent).

Only 5 percent of visits result in the practitioner referring the patient to other providers. This is substantially lower than the referral rates in the outpatient departments of government hospitals in Sri Lanka (Varnam 1987), indicating that GPs contribute to reducing pressure on inpatient and specialist services. Ninety percent of referrals by private GPs are for outpatient consultations (75 percent in the public sector), and 30 percent are for inpatient admissions (98 percent in the public sector). Referrals for outpatient consultations and inpatient admissions do not add up to 100 percent because some patients are referred both to a specialist (whether government or private) and for admission to a hospital (whether government or private).
Prescribing Patterns

Virtually all Sri Lanka GPs dispense drugs from their own practices. In Western medical cultures, dispensing by physicians is often considered unethical; but in many Asian cultures (including China; Brunei Darussalam; Hong Kong, China; Japan; Korea; Malaysia; and Thailand; and as well as Sri Lanka), especially those influenced historically by Buddhism or Ayurvedic traditions, dispensing is considered normal.

In the literature on health policy and the rational use of drugs, the presumption is that dispensing practices have an incentive to overprescribe in terms both of numbers of items and overall cost. The Sri Lankan results confirm that a high number of items are prescribed in a typical patient consultation in Sri Lanka, although the costs are not comparatively high. The mean number of items prescribed per doctor-patient encounter in 2000 is 2.7, compared with 0.9 in Australia and 1.3 in the United States. Only 14 percent of encounters in Sri Lanka result in no medications being prescribed, compared with 40 percent in Australia and 34 percent in the United States. This confirms the assumption of polypharmacy in Sri Lankan private practices. This finding holds even when we consider the demographic structure and composition of conditions in presenting patients. For equivalent patients presenting with comparable reasons for encounter and conditions, Sri Lanka physicians in this sample prescribe more items than U.S. and Australian physicians.

However, the overall cost of prescriptions is relatively low. The mean retail price per prescription in 2000 is Rs. 72. Sri Lankan GPs prescribe a very high rate of generic drugs; in fact, 61 percent of all prescriptions are for generics, which is higher than the rate in primary care in the United States and in most European nations. The high generic prescribing rate is partly a consequence of the incentives created by the Sri Lankan market. Private GPs generally charge fixed consultation and dispensation fees, so the incentive is to reduce the cost of prescribed medicines by using generics and eschewing brand-name products. Moreover, there tends to be equal pressure to prescribe generic drugs when the physicians themselves are not dispensing the medications. The generic prescribing rate for
nondispensed items (60.7 percent) is not significantly different from that for dispensed items (60.4 percent), and the overall price difference is not significant either (Rs. 71 versus Rs. 74).

Table 11.3 presents data on the most frequently prescribed medications in Sri Lanka in 2000, compared with survey data from Australia and the United States for the same year. Two points are to be noted. First, the top four prescribed items in Sri Lanka consist of very cheap and relatively nontoxic medications or vitamins: paracetamol, chlorpheniramine, ascorbic acid (vitamin C), and a vitamin B mixture. They account for a total of 39 percent of all prescribed items in Sri Lanka and are prescribed at significantly higher rates than in the other two countries. Second, when other items lower in the list are examined, no significant evidence of overprescribing can be detected in comparison with prescribing patterns in Australia and the United States once national idiosyncrasies are taken into account. For example, amoxicillin and related combinations are prescribed in relatively similar rates in all three countries. As might be expected, U.S. physicians are more likely to prescribe lifestyle drugs such as lipid-lowering compounds, while both Australian and U.S. physicians are more likely to prescribe second- and third-generation cephalosporins. Sri Lankan primary

<table>
<thead>
<tr>
<th></th>
<th>SRI LANKA</th>
<th>AUSTRALIA</th>
<th>UNITED STATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paracetamol</td>
<td>16.4</td>
<td>4.2</td>
<td>Acetaminophen 3.2</td>
</tr>
<tr>
<td>Chlorpheniramine</td>
<td>10.3</td>
<td>3.5</td>
<td>Amoxicillin 2.6</td>
</tr>
<tr>
<td>Ascorbic acid</td>
<td>7.2</td>
<td>2.4</td>
<td>Hydrochlorothiazide 1.8</td>
</tr>
<tr>
<td>Vit. B mixture</td>
<td>5.1</td>
<td>2.4</td>
<td>Estrogens 1.7</td>
</tr>
<tr>
<td>Salbutamol</td>
<td>4.7</td>
<td>2.3</td>
<td>Levothyroxine 1.6</td>
</tr>
<tr>
<td>Amoxicillin</td>
<td>3.7</td>
<td>2.3</td>
<td>Albuterol 1.5</td>
</tr>
<tr>
<td>Ibuprofen</td>
<td>2.8</td>
<td>1.8</td>
<td>Ibuprofen 1.4</td>
</tr>
<tr>
<td>Diazepam</td>
<td>2.4</td>
<td>1.8</td>
<td>Loratidine 1.4</td>
</tr>
<tr>
<td>Prednisolone</td>
<td>2.1</td>
<td>1.7</td>
<td>Atorvastatin calcium 1.3</td>
</tr>
<tr>
<td>Diclofenac sodium</td>
<td>1.7</td>
<td>1.6</td>
<td>Guanifenesin 1.2</td>
</tr>
</tbody>
</table>

care physicians prescribe more items per encounter than Australian and U.S. physicians, but the larger number is almost wholly accounted for by a small number of relatively noniatrogenic compounds to most patients, regardless of their presenting condition.

These two findings suggest a relatively benign interpretation for the apparent polypharmacy in Sri Lankan primary care, and one that is consistent with the general opinion of practicing physicians in Sri Lanka. Culturally, Sri Lankan patients expect to receive medications when consulting a physician, and polypharmacy is essentially a response to this expectation. These norms probably can be linked to the earlier influence of Ayurvedic medicine, in which the prescribing of substances was central. That financial incentives are not the main explanation is further supported by the fact that government outpatient doctors also prescribe a relatively high number of items per encounter, despite having no financial incentive to do so (Varnam 1987). However, the potentially negative consequences of this are low, as the typical Sri Lankan physician prescribes mostly harmless and cheap compounds, essentially as placebos, because in most cases drugs are not indicated by the presenting condition. Once these “placebo” medications are taken into account, Sri Lankan physicians may be no more likely to engage in polypharmacy than doctors in countries where dispensing is not the norm.

The Quality of Clinical Management

The methods used in this study lend themselves to evaluating clinical quality. For several health conditions that occurred with high frequency, such as asthma and hypertension, it was possible to assess the quality of actions taken by physicians and to compare them with the behavior of Australian doctors as reported in BEACH. For example, the pattern and appropriateness of drugs prescribed, the type and number of interventions, and the overall level of referrals can be assessed with these data, although we do not report on any specific examples here. Nevertheless, the data do suggest that clinical quality is relatively high in private practice
clinics in Sri Lanka, comparable to that in Australian clinics. For example, in patients presenting with asthma, the frequency of prescribing steroids or other appropriate medications is comparable in both countries.

One other significant finding is that very few injectables are prescribed in Sri Lankan primary care. Unlike in India and the rest of South Asia, where the literature reports that injectables are prescribed in 20 to 80 percent of all primary care encounters with physicians (Bhatia and Cleland 2001), less than 3 percent of encounters in Sri Lanka result in the physician giving any injections.

Policy Relevance

The findings from IPS PCS 2000 have three broad sets of policy implications. The first is its implications for increasing the understanding of private sector medical provision, the second relates to policy issues in Sri Lanka, and the third relates to wider regional and global implications.

Implications for Policy Research

Although there are continuing calls to enhance or optimize the role of private sector provision in the health care systems of developing countries, the development of appropriate policies and policy tools has been handicapped by the absence of a sophisticated analysis of the dynamics and organization of the private sector. Researchers and policymakers simply lack reliable empirical data on the effectiveness, clinical quality, and magnitude of private services in most developing countries. These problems are most severe in the case of ambulatory services, which are usually only lightly regulated and tend to be diverse in organizational structure and performance. Yet, it is precisely in the ambulatory sector (where a lack of functioning insurance markets means a corresponding lack of constraints) where the private sector has its greatest impact in developing countries.
From a methodological perspective, the IPS PCS 2000 successfully demonstrates the feasibility of:

- Conducting high-quality, nationally representative surveys of private primary medical practitioners and their patients without the existence of a prior sampling frame
- Using best-practice methods developed in OECD economies to monitor primary care in low- and lower-middle-income countries, such as Sri Lanka
- Using internationally comparable instruments and data classification systems (ICPC-2E) to make comparative assessments of clinical management and outpatient morbidity
- Using survey-based methods to assess the quality of clinical care in the unregulated private sector

In the case of Sri Lanka, the IPS PCS 2000 demonstrates that with adequate care an appropriate process can be developed that would ensure sufficient levels of cooperation from private practitioners to establish primary care monitoring systems similar to BEACH in Australia or NAMCS in the United States. Sixty percent of respondents in the practice survey indicated that they would be willing to participate in a national panel survey. A permanent system might involve annual surveys of physicians’ practices and a systematic sample of their encounters with patients. There are no technical reasons why such a system could not be extended to cover the private practices of government medical officers and the outpatient departments of government hospitals. Such a system, collecting more data than this first study, would provide nationally representative and comprehensive data on outpatient morbidity trends in the country and would make it possible, as in Australia, to monitor trends in primary care management. Including the other segments of the ambulatory care market would also make it possible to do an empirical analysis of any differences in quality and process among the various sectors.
Implications for Sri Lankan Health Policy

The private family practitioners of Sri Lanka deliver 11 million to 12 million outpatient consultations a year, or approximately 15 percent of total outpatient volume in the country. The rest consists of services delivered by government medical officers in government hospitals, outpatient facilities, and their private practices. Although the fully private practitioner sector is essentially unregulated, the limited data suggest that it provides care of a comparable quality. The quality of services may be comparable not with the rest of South Asia but with primary care practices in OECD economies. This is supported by the prescribing and clinical management behavior of private GPs in Sri Lanka, which is similar to that of Australian doctors; by high rates of prescribing generic drugs; and by widespread provision of services such as prenatal and postnatal care, immunizations, and health education.

This study does not provide the necessary information to explain this high quality. However, there are several likely explanations. There is a strong trend toward the professionalization of family medicine in Sri Lanka, indicated by the existence of the CGPSL and by the increasing proportion of private physicians who have postgraduate qualifications in family medicine. Virtually all Sri Lankan private practitioners received their initial medical training, as well as a significant number of years of postinternship practical experience, in the public sector. A high standard of clinical care and an emphasis on generic prescribing is likely to have been inculcated in them during their public sector apprenticeships. Although dispensing is often frowned upon in health policy circles, in the Sri Lankan context it may create financial incentives for doctors to reduce the cost of prescriptions to patients and to increase generic prescribing.

The fact that we can only speculate about the factors behind the quality of private primary health services indicates the need for public policymakers in Sri Lanka to provide more effective and organized training for private family practice, which currently is not provided by the public sector. This is particularly important
because under current policy trends, it is likely that large numbers of recent medical graduates may be encouraged to enter private practice in the coming decade, but without the formal training in family medicine and long experience in the public sector that characterize the current cohort of private physicians. It also indicates the importance of exploring the symbiotic relationship between the public and private sectors, as the public sector may have an important role to play in ensuring high-quality care in the private sector other than through direct regulation.

Although the quality of service in the private sector appears to be high, there are reasons to be concerned about the future supply of such services. The private practitioner workforce is aging, and very few physicians appear to have entered private practice in recent years. Part of the reason for this may be the relatively low income of private practitioners—a mean gross revenue of Rs. 100,000 per month before subtracting the expenses of the practice. This suggests that full-time private practitioners generally earn less than government specialists who also have a private practice. Any future expansion of private general practice in Sri Lanka may critically depend on increasing the financial attractiveness of such a career, and this may not be possible without introducing methods of financing other than the current system of household out-of-pocket fees for service.

**Implications for International Health Policy**

The finding that private primary care in Sri Lanka is of relatively high quality adds another detail to the explanation of why countries with good health indicators such as Sri Lanka have been able to achieve positive health outcomes at low cost. Private providers in Sri Lanka account for a significant share of overall primary care provision, and it is likely that that they have played a significant role in contributing to the country’s satisfactory health outcomes.

Sri Lanka’s private sector is essentially unregulated, and there is a total absence of public financing of private primary care. Yet Sri Lanka’s private primary care sector provides good-quality care at
relatively low cost. This suggests that policymakers need to consider whether the public sector has an indirect role to play in the early training and the professionalization of private physicians. The various tools that have been suggested in South Asia for regulating the private sector, such as consumer protection legislation, public financing of private services, and more effective regulation by the government, require high levels of state administrative capacity. Sri Lanka, like most developing countries, lacks the capacity to be the direct regulator of the private sector (Russell and Attanayake 1997). For the public sector to manage and regulate the private sector first requires a commitment to build public sector capabilities, or the government must rethink how the public sector can best influence private practice.

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