Dual Practice by Health Workers in South and East Asia

IMPACTS AND POLICY OPTIONS
POLICY BRIEF

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Authorship and Acknowledgement

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Executive Summary

What is the problem?
Health professionals, especially doctors, often undertake private work while employed by government. Such “dual practice” is found in both high-income countries and low- and middle-income countries (LMIC) around the world, with varying degrees of tolerance. If regulation of dual practice is weak it can negatively affect health service access, quality, efficiency and equity, as the doctors involved tend to pursue a balance of public and private work that maximizes their own income and other benefits. However, appropriately regulated dual practice can improve health service access, the range of services offered, and doctors’ work satisfaction and retention in the public sector. Dual practice is most likely to have negative consequences in LMIC, where regulation of doctors’ activities is often weaker. Many nations in South and East Asia are currently introducing social health insurance, improving access to registered providers in both the public and private sectors. As uptake of health services rises, the scale of dual practice is likely to increase. Governments in the region are rightfully asking for guidance on the impact of dual practice on health services and on options for its regulation.

What do we know (and not know) about viable options to address the problem?
Several comprehensive reviews, one systematic review and a Cochrane review on dual practice have been published, but no papers compare or formally recommend approaches to regulating dual practice by doctors. Information is particularly lacking from LMIC. The reviews agree that poor salaries and weak regulation of doctors’ activities by public hospitals and other government employers are the foundation of doctors’ neglect of public sector responsibilities. They also agree that nations must develop their own strategies on this issue, according to widely varying local influences.
Modelling the impacts and cost of dual practice with different regulatory options provides guidance for related policy and regulation in LMIC, but must account for local capacity. One recent model suggests that where the private sector offers much higher income, the costs of limiting or banning dual practice are high. By contrast, where the attraction of private practice is low, it may be cost effective for the health authority to induce doctors to work exclusively in the public sector.

This brief proposes a framework for policy and regulation options that is based on the literature and modelling. It provides options for policy or regulatory action depending on the extent of private practice and of pooled purchasing opportunities. Any policy or regulatory decision needs to take account of differences in local institutional frameworks and public service values pertaining to the health sector and providers. Three broad options are available:

1. **TAKING NO ACTION**

   This is equivalent to allowing unregulated dual practice and is likely to allow proliferation of the negative outcomes and abuses of both public and private practice that have been noted in the literature. It is not recommended.

2. **BANNING OR LIMITING DUAL PRACTICE**

   Both the regulatory literature and modelling suggest that banning dual practice is difficult to enforce and may be more costly to government for a given level of service provision. However, if feasible, limitation of dual practice (income, location or time spent) is an option for consideration.

3. **ALLOWING DUAL PRACTICE WITH REGULATION OF BEHAVIOUR IN THE PUBLIC AND PRIVATE SPHERES, AS APPROPRIATE TO THE SITUATION AND LOCAL CAPACITY TO ENFORCE.**

   This requires a consideration of local context, which varies widely depending on the location (demands and opportunities for private practice vary), local regulatory capacity and the category of practitioner (demands and income opportunities vary for different types of practitioner).
The environment for dual practice in South and East Asia is changing rapidly. Governments are democratizing and decentralizing, health markets are evolving, and the public is becoming more informed, engaged and connected. These changes offer new options for, but also new challenges to, improved regulation of doctors in ways that allow them to work privately but also fulfil their commitment to public service. In the context of universal health coverage, the experience of Thailand provides an example of health insurance agencies playing a role in this regulation through financial mechanisms.

Taking into account the available literature on dual practice and recent health market developments, the following principles on regulation of dual practice may be recommended:

1. In each country seeking to better regulate dual practice, an assessment of its impact must be undertaken and its regulation should be tailored to local circumstances. Many factors, including the balance of health service supply and demand, doctors’ geographic distribution, the voice of civil society, the level of cooperation of doctors’ professional associations, the role of insurers and local capacity to regulate doctors’ behaviour in decentralized settings should be taken into account.

2. Acknowledge the potential benefits of dual practice instead of prohibiting it altogether. In most contexts, prohibition of dual practice is impractical and not cost effective. However, consider limiting dual practice through limits on private practice activity (locations or time) or income (by limiting insurance reimbursements) depending on local enforcement capacity. Where private income is a small proportion of total practitioner income, consider incentives to encourage doctors to work exclusively in the public sector. Similarly, where the public sector provides a small proportion of total practitioner income, consider contracting private practitioners to provide public sector services.

3. Strengthen the incentives and motivation for providers to deliver quality services in public facilities, and strengthen related sanctions. This might involve access to professional development opportunities and career pathways, salary incentives and performance incentives, and extra allowances for willingness to provide services in locations where private practice is not feasible (poor communities or remote locations). Engage professional associations to provide support and encouragement to members taking up public service careers.

4. Implement new forms of health sector regulation; strengthen and broaden the institutions involved in oversight and regulatory control of private practice. Regulatory mechanisms could include purchasing agreements with insurance providers to ensure appropriateness and quality of care.
in private facilities and the engagement of professional associations, licensing authorities and civil society in monitoring norms of professional behaviour in relation to private practice and in supervising, reporting and taking action on non-compliers.

**What implementation considerations need to be borne in mind?**

Regulation of dual practice ultimately involves changing the behaviour of practitioners and will require their active engagement in the process. Functioning professional associations that represent health-care providers and that are willing to engage with government authorities in regulation of their members will significantly assist in implementing regulations. A second consideration is the willingness and capacity of state health authorities to take on regulation of both the public and private sectors, using a range of regulatory mechanisms, rather than focusing on “command-and-control” direction of the public sector. Finally, the underlying driver for dual practice, under-investment in the state health sector, must be addressed. Governments must be willing and have the capacity to increase funding for state services to provide the facilities and employment packages/incentives needed to make public sector employment attractive for health-care providers.
Introduction

Dual practice usually refers to government-employed workers providing the same or similar services in the private sector. The private work may be undertaken in a regulated environment or may be uncontrolled. Dual practice is not isolated to the health sector, but with the high profile of donor-funded and publicly funded efforts to improve individual and population health outcomes in recent years, more attention has been paid to dual practice by public sector health workers, doctors in particular.

Dual practice is common all over the world and is found in countries whose development and economic status, political system, and demographic and health situations vary widely. The United States of America (where it is rare) and Canada (where it is officially not permitted) are two exceptions. But even in nations or states where it is officially banned, overt or covert dual practice is common. There is a wide range of frequency of dual practice in the health sector; in some nations, a majority of public sector doctors also work privately either within and/or outside their government-funded workplace, while in others only senior doctors or specialists do so.

Accounts of health workforce practices in many South and East Asian nations confirm dual practice by doctors in this region (1, 2, 3) (see Table 1), but there is less evidence on its impact. Concerns centre on the risk of a negative impact on health service access, quality and efficiency, but there are both theoretical and practical reasons why dual practice might in fact be of overall benefit, particularly for access.

This working paper provides the background for a policy brief on dual practice by doctors in South and East Asian nations. It draws on several recent summaries of the available evidence, theoretical perspectives on dual practice and its regulation, original research where this is beneficial, and the extensive experience of the authors in this region. It contextualizes dual practice in the evolution of the health systems and political economies of many South and East Asian nations and low- and middle-income countries.
(LMIC) elsewhere, and also considers possible developments in the context of rapidly changing health markets and efforts to achieve universal health coverage (UHC) in such nations.

As there is no consensus on the overall impact of dual practice, the purpose of this document is first to summarize for policy-makers, finance and health authorities, and health regulators the related evidence in South and East Asian nations. Second, this paper reviews and builds on the suggested options for regulation of dual practice in the health sector, drawing on recent perspectives on the role of civil society and modern communications in tandem with governments, professional associations and health insurers.
The definition and origin of, and influences on dual practice by doctors

Definition

Dual practice is the widespread phenomenon of full-time, government-employed service providers undertaking additional related work for additional payment, usually in the private sector. In the health sector it usually refers to clinical work, which may be undertaken physically within or outside public facilities and within or outside providers’ contracted hours of public sector employment. However, instead of it being part of the worker’s salaried employment, it is conducted either entirely for personal profit or as part of a profit-sharing arrangement with the relevant government authority. Providers’ acceptance of gratuities for services provided in public facilities, over and above the scheduled fees charged by those facilities, can also be considered another form of dual practice, but this is not the focus of this policy brief. Dual practice is not restricted to the health professions; teachers (who may additionally offer private tuition or accept gratuities), academics (who may consult privately), public security staff (4) and conceivably any salaried professional or other public service-provider may undertake work in addition to their government job. However, dual practice in the health sector attracts the most interest because it has the potential to impact negatively on the quality of care provided, a concern to all individuals (5).

The origin of and influences on dual practice

Although the purchase of health care has historically been a private affair between doctors and their patients, concerns about the distraction from public responsibility created by private practice have existed for at least 200 years (6, 7). The evolution of dual practice varies from country to country, but government doctors in nations as diverse as the United Kingdom of Great Britain and Northern Ireland (8) and Bangladesh (9) give similar reasons for taking on additional, usually private, work. However, the balance of these reasons probably differs between doctors in developed and developing nations (10).
High-income nations

In most developed nations, the health sector is highly socialized, with governments playing a major role in ensuring public provision of basic and advanced health services, and the private sector providing an alternative environment with different personnel or treatment approaches, or sometimes differing degrees of care. Occasionally, certain procedures or treatment options are only available in the private sector, and waiting lists are frequently shorter for those who can pay for private care.

Most developed nations have a liberal approach to dual practice, as reviewed in 2011 (2,11). Although its regulation varies widely (11), doctors in most continental European nations, the United Kingdom of Great Britain and Northern Ireland, Australia, New Zealand and Japan are permitted to work privately either within or outside their public sector workplace and either outside or within their scheduled public sector hours of work (2). In the latter case, doctors’ private patients are nested within public facilities (2).

First-hand evidence on the factors motivating doctors to take on extra work in high-income nations is scant. Suggested reasons range from simple income enhancement to expanded or complementary use of professional skills, clinical autonomy, increased contacts within the profession and peer approval, access to facilities and equipment, prestige or reputation-building, relief from the high pressure of and low appreciation received in the public sector environment and the greater flexibility of private practice (2, 8, 12).

Low- and middle-income countries

Again, traditional medicine practices in LMIC have historically been private affairs. The current pluralistic health systems of many developing countries have been linked to the failure of systems emulating the socialized (expensive) health sectors of former colonial powers. In such countries it is widely acknowledged that the risks of dual practice are “embedded in the larger setting of sub-optimal government strategies for health care governance, financing and provision” (3). Bloom and colleagues (5) place dual practice in LMIC in the context of increasingly “high levels of unorganised health markets …, [porous] boundaries between public and private health sectors and lack of state regulatory capacity” (5). Systemic failures resulting from the various crises—economic, political, security and structural—have affected many developing nations since the 1960s, weakening their public sectors and leaving a void in which non-state providers re-established the dominant role they had before socialized health care and in which many state-employed providers took up private work in parallel to their public role. While in some
countries dual practice is more common among senior staff (9), in others it is junior doctors who are more likely to take on additional private work (12). In the context of burgeoning economic activity and weak regulation, mixed health systems that include dual practice and private health care have grown rapidly in many South and East Asian nations (13, 14).

Evidence on the factors influencing dual practice in LMIC is again scant. Research in South and East Asian nations (9, 15, 16, 17, 18) emphasizes low or unreliable public salaries as the main incentive, as also documented in Africa (1, 19). But where the perspectives of providers have been sought first-hand, other sources of motivation (for example, professional satisfaction, public responsibility, better physical conditions, communication, training opportunities, prestige, etc.) also underpin LMIC doctors’ decisions on the balance of public and private work (1, 9, 18, 20), as observed for those interviewed in relatively high-income settings (8, 12).
The scope of dual practice in South and East Asian nations

Information on dual practice in South and East Asian nations is limited, with most related data at least a decade old. No reports provide more than a glimpse based on local surveys, but it is apparent from high-quality reviews and from the authors’ experiences in many nations in the region that dual practice is widespread and takes many different forms (1, 2, 3). A summary of the available information is provided in Table 1.

Table 1: Evidence for dual practice in South and East Asian nations

<table>
<thead>
<tr>
<th>Country name</th>
<th>Available evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Among 4571 specialist physicians surveyed in 2003, 79% of the 87% with patient care in public hospitals also had private practice (21).</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>Widely cited but unreferenced data from 2002 suggest that “80% of the government doctors engage in private practice” (9).</td>
</tr>
<tr>
<td>Cambodia</td>
<td>Without providing figures, two reports suggest that dual practice in Cambodia is “deep-rooted”, “widespread” (15) and “ubiquitous” (1). 90% of the income of dual practitioners is said to come from private work (22).</td>
</tr>
<tr>
<td>China</td>
<td>Dual practice is theoretically legal but heavily restricted (23). Many public sector doctors collect informal gratuities from their patients, often with the approval of their employer (23-25).</td>
</tr>
<tr>
<td>India</td>
<td>Dual practice is widely believed to be common (3, 26), and in one study is inferred from high rates of absenteeism in 32 500 government clinic visits (27).</td>
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</tbody>
</table>
Table 1: Evidence for dual practice in South and East Asian nations (cont.)

<table>
<thead>
<tr>
<th>Country name</th>
<th>Available evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>Dual practice is widely believed to be common (3). A rate of 80% was reported in one survey in 1993 (28). More recent data suggest that virtually all public sector specialists engage in dual practice (29). A very recent overview of Indonesia's health sector cites research estimating that 70% of publicly employed puskesmas physicians and 93% of midwives undertake legally permitted private practice (30).</td>
</tr>
<tr>
<td>Nepal</td>
<td>One report suggests that up to 75% of doctors and 50% of nurses in the public sector also maintain a private practice [cited in (31)].</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Among 2626 specialists reporting the public sector as their primary place of work, 38% reported secondary private employment; and among 781 private specialists 40% reported also working in a public hospital (32).</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>Dual practice is legal and considered to be widespread, but is poorly monitored. There is no information on the proportion of government doctors engaged in private practice (34).</td>
</tr>
<tr>
<td>Thailand</td>
<td>A 2001 survey of 1808 government doctors revealed that 69% engaged in dual practice and that most of the 2000 private clinics in Bangkok are run by public sector doctors (2, 35). A 2011 report states that public sector doctors run most private clinics (36). Medical tourism may be dragging urban public sector specialists away from the public sector (37).</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>The majority of rural doctors (84% of public health staff) are reported to take on private work due to poor conditions of employment (16). As in Cambodia and elsewhere, many doctors open private pharmacies to increase their income (personal observations).</td>
</tr>
</tbody>
</table>

The report that more than 80% of government doctors in Bangladesh undertake dual practice, particularly those in secondary and tertiary hospitals, also states that on average this doubles the income of those involved (9). In India, as in Bangladesh, public sector doctors may also be engaged in
both private western (26), allopathic and other forms of medicine, but some states have banned this entirely (3) and there are no detailed studies of dual practice there.

In Viet Nam, although a 2001 Health Sector Review estimated that only 10% of private physicians were also working for the government (38), another report stated that most rural doctors (84% of public health staff) were forced to take on private work due to their poor conditions of employment (16). A review of health service contracting to non-government providers in Cambodia describes the problem of widespread and deep-rooted informal private work by government health workers (15), and a review of dual practice (1) cites a report that describes dual practice in Cambodia as “ubiquitous”. The same review (1) cites secondary data to conclude that in Indonesia and Viet Nam “most doctors have dual practices” or “complement public sector work” with private practice, although the document source of these statements could not be found. The authors’ extensive, recent experience in these three nations concurs with this description, with most public sector health staff also engaged in private practice and acknowledgement of this at the senior level. In many LMIC, the private work includes doctors opening private pharmacies to sell drugs. Unlicensed pharmacies are a major part of the unregulated health market in LMIC (39).

In China, both formal and informal private practice by physicians in public facilities is common (18, 23). Outside private practice has theoretically been allowed for decades (23, 24), but within such unattractive limits that most doctors are unaware of the existence of related regulations (18). More recently, the Medical Practitioners Law of 1998 prohibits “doctors in general from utilising their professional positions to solicit funds and/or goods from patients and receive illegal funds and/or goods from patients” (23). However, as the official fees for health services are set artificially low (40, 41), many doctors are engaged in formal and/or informal collection of payment directly from patients (23, 24, 25). Informal payments (“red packets”) remain very common in China and are even defended by consumers (23). However, tolerance for doctors’ opportunism and poor practice standards (24) in China appears to be waning (42, 43), but regulating hospital financing and doctors’ incomes in particular is proving difficult (44).

Although evidence is lacking, it is almost certainly true that the scale of dual practice elsewhere in South and East Asia is increasing. Total health spending is increasing rapidly in most nations in this region, while health systems are increasingly characterized by mixed public and private service provision (13, 14, 45, 46). Moreover, governments in several nations in the region have committed to increasing health sector spending and social
health insurance coverage/benefits (47, 48, 49, 50), reflecting the global commitment to universal health coverage (UHC) (51). It is only possible to speculate on the outcome of this effort in relation to dual practice. More funding and broader insurance coverage may increase uptake of public sector health care, but also private services among those who can afford it and seek a better experience. The balance and hence the impact on levels of dual practice will probably vary according to patients’ and insurers’ willingness to pay for private health services.

Moreover, notwithstanding the commitment to UHC, it is not certain that health financing by local authorities in decentralized environments will increase, or that regulation and governance of health providers will improve (52). In such circumstances, it is likely that the trend that sees public providers undertaking more parallel private practice with minimal regulation will continue (39, 53). In this context, identifying and funding feasible options for regulation of dual practice are increasingly imperative. These options are reviewed below.
Outcomes of dual practice

A recent comprehensive review analysed the impact of dual practice on health service access and equity, quality of care and efficiency of use of health resources (2). Table 2 summarizes its conclusions. However, the authors noted that all of the listed benefits and costs will not be relevant in all countries, as priorities will be different. This was alluded to in an earlier analysis (3). The balance between countries’ desires to improve access and equity, efficiency and quality of care will vary widely according to income level and many cultural, political and other factors. In addition, institutions or influences such as professional bodies, regulatory frameworks, opportunities for public feedback and health bureaucracies will influence dual practitioners’ behaviour (2). “The implications of dual practice that are important to one country are not necessarily important to others; likewise, the response of each country to dual practice should be individually tailored” (2).

Overall, it seems that in market economies with limited public sector capacity, well-regulated dual practice probably improves health service access and possibly its efficiency. Much depends on how similar are the services offered by the public and private sectors (54), the level of incentive for public sector workers to also work privately (or the disincentives to commit to the public sector), the cost of private health care to consumers and the ability of government to regulate the behaviour of dual practitioners (2, 3).
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Potential negative impacts</th>
<th>Potential benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health service access and equity</td>
<td>Absenteeism and &quot;shirking&quot; during official work hours. Patients forced into the private sector by dual practitioners preferring private work.</td>
<td>Provides incentives for doctors to stay in the public sector.</td>
</tr>
<tr>
<td></td>
<td>Patient diversion from the public to private sector to increase income.</td>
<td>Reduces the incentive for doctors to request informal payments.</td>
</tr>
<tr>
<td>Health service access and equity</td>
<td>Manipulation of quality of care or waiting times to encourage private care.</td>
<td>Some types of private work involve public sector doctors working in poor rural areas lacking even public facilities.</td>
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<td></td>
<td>“Cream-skimming”: doctors refer healthier or wealthier patients to the private sector, leaving the poor with less access to better care.</td>
<td>Uptake of private services by the wealthy may reduce pressure on the public system; more effective public sector services to ensure their appeal to the poor(^5).</td>
</tr>
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<td></td>
<td>Decreased service access in rural areas, as dual practitioners are incentivized to live in urban areas.</td>
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</tr>
<tr>
<td>Technical and cost efficiency in use of public resources</td>
<td>“Free-riding” or outright theft of supplies from public facilities (drugs, dressings, etc.), or use of public administration or nursing staff or equipment for private patients.</td>
<td>Allowing dual practice provides incentives for doctors to stay in the public sector, avoiding staff shortages and non-use of public sector service capacity.</td>
</tr>
<tr>
<td></td>
<td>Treating private patients in public wards.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Absenteeism or shirking.</td>
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</tbody>
</table>
Table 2: The impact of dual practice on health service access and equity, quality and efficiency (cont.)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Potential negative impacts</th>
<th>Potential benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of care (technical, interpersonal and amenity)</td>
<td>For a given level of ability, doctors provide better care in the private sector; this assumes doctors do not overwork and provide poor care in both sectors.</td>
<td>Allowing dual practice provides incentives for good doctors to stay in the public sector, however, adequate incentives are needed to ensure good service.</td>
</tr>
<tr>
<td></td>
<td>Doctors may provide poorer care in the public sector to incentivize patients to seek private care.</td>
<td>Dual practitioners may provide better care in the public sector so patients will self-refer to their private practice.</td>
</tr>
<tr>
<td></td>
<td>Absenteeism of senior doctors working in private leaves public patients to be managed by junior staff.</td>
<td>Provides a health service alternative to poor public facilities with old or absent equipment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enables doctors to learn from a broader range of practice experience and colleagues.</td>
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</table>
Evidence on the outcomes of dual practice in South and East Asia

It is very difficult to write with confidence about the impact of dual practice among nations in South and East Asia, not only because of the lack of information from studies at the country level and the tendency of reviews to rely on secondary data, but also because the situation on the ground is changing rapidly.

Nonetheless, studies of dual practice and practitioners in nations of this region imply that the impacts identified in Table 2 are highly relevant. In Bangladesh, tolerance of dual practice was believed to expand services in terms of hours of availability and provision of health care in rural areas, where it is difficult to attract doctors to work in the public sector. It also enabled workers to minimize the opportunity costs and economic losses associated with public employment (9). However, also in Bangladesh, in several states in India and in Indonesia, rates of absenteeism were high among public sector health staff (35%), especially doctors and especially those known to have a private practice, impacting access to public care and the efficiency of resource use. To a much smaller degree, the same applied to teachers (19%). There was a strong and direct inverse relationship between rates of absenteeism and income, although this was stronger for teachers than health workers (27).

A study in Cambodia [reported in (17)] found that dual practice enhanced the professional reputation and prestige, job security, training opportunities and career progression of public health workers, as well as increasing their income, which is extremely low in the public sector. The authors’ recent experience there also suggests that dual practitioners can take advantage of parallel supply chains that provide patient access to essential and other drugs at times unavailable in public clinics.

Dual practice can also lead to more equitable access to appropriate care through the “sorting” of patients into those who can only afford public care and those who can pay for private care (30, 56). In this case, dual practice
is tolerated to the extent that the care of public patients is not obviously compromised, assuming adequate monitoring thereof.

China's laissez-faire approach to regulating public sector doctors is a difficult problem, as public dissatisfaction with the health sector grows (42, 57). Full-time public sector doctors' acceptance of personal gratuities to augment their meagre government salary almost certainly influences the standard of care provided. Moreover, high out-of-pocket costs due to doctors billing patients for drugs, investigations, procedures and services not covered by the government fee schedule (24, 40, 41, 58, 59), are an outcome of the prevailing mixed public–private nature of health care and has resulted in a high level of inequity (60, 61). Recent reforms aimed at improving equity (62), controlling drug profits (63, 64) and price control (44) do not avoid the need for China to regulate and pay its doctors appropriately (18, 59). This may be increasingly important as China is now encouraging the establishment of private facilities (48), many of whose doctors and patients may have links to the public sector.

To further describe the influences on and outcomes of dual practice in this region, the situations in Thailand and Indonesia were compared (see Annex 1). These two large nations differ widely in two critical influences on dual practice: health financing and provider regulation, with major implications for access to services and possibly health outcomes.

In summary, Thailand spends much more public funding on health than Indonesia, and the public/private balance of health expenditure there is biased towards public spending. This enables financing of a wide range of free services, with a focus on local-level primary care. Although dual practice is permitted in both nations, various means of price control and mass purchasing of services by the national insurer in Thailand, based on capitation and case mix, as well as public engagement, have incentivized its public sector doctors and limited their ability to profit from private practice in rural areas. These initiatives, along with more advanced patient registration systems, stronger regulation of doctors’ access to the private sector and an effective public complaint mechanism differentiate Thailand from Indonesia.

Concerns that Thailand's system of health financing may be unaffordable in the longer term (36) may necessitate “sorting” of patients, as described above. In this case, given the dominance of public sector employment of doctors, especially in rural areas, a role for dual practice seems likely. However, as observed elsewhere, the problem of moral hazard, gratuity payments and neglect of the public sector has been observed among dual practitioners in Thailand (56). Moreover, Thailand, Malaysia, India and other nations are encouraging medical tourism among wealthy patients from abroad. There
is concern that dual-practising specialists may prioritize high-paying foreign patients over their public sector work, at least in Bangkok (37).

Indonesia is the subject of the most recent evidence on dual practice in this region, from a comprehensive World Bank review of health services there (30). While recommending further study, the conclusion of this review on dual practice is positive, particularly on the improvement of access to health services at the community level: “Indonesia’s impressive gains in access to health services are explained, in part, by dual practice. Coupled with removal of financial barriers, dual practice has increased the use both of services at public facilities, puskesmas and pustu, and of services provided privately by physicians, midwives, and nurses ... [However, studies] ... did not address other important dimensions of the quality of services, such as effort and time spent with patients. Analysis of both physicians’ knowledge and their use of time in public and private practice would provide a more complete picture of whether dual practice opportunities have a negative impact on the quality of care at the puskesmas....”.

Moreover, although again citing the lack of good-quality information, the review is also cautiously positive on the issue of efficiency there: “More understanding is needed about the impact of the so-called sorting of patients in which the poor make more use of public services while the more affluent seek care at private facilities. The initial indication is that the existence of dual practice has contributed to... sorting... [and] may have a positive effect on efficiency, as long as the non-poor continue to support the public system”, use of which has declined. However, as in Thailand, the review speculates that legalized dual practice may influence doctors to work in urban areas where opportunities for private work are greater, as identified by other researchers (45).

The available information on doctors’ attempts to circumvent regulation and shirk their public sector responsibilities in favour of more lucrative private work is insufficient from either nation. Nonetheless, it is widely held that this is a major problem in nations where doctors’ behaviour is poorly regulated, and regulation or incentivizing doctors, discussed next, is the most critical element of the control of dual practice in LMIC.
Context and options for regulating dual practice

Context

The context for regulation of dual practice in many LMIC may be summarized as follows: “Since the early 1980s, economic and structural crises have exposed the weak institutional capacity of the public sector in many countries. In health ... growing demands and structural reform policies have left the State overworked and underfunded. The result has been the rapid growth of non-State provision to fill gaps in supply.... In addition, public sector providers have emerged to sell their services in an unorganised market. The balance between State and market has undergone a radical shift with interpenetration between market-type transactions and State institutions, operating to a large extent through informal arrangements.” (5)

Indeed, concern about the regulation of dual practice is so great that it was recently rated second among priorities for research into human resources for health in LMIC, behind the issue of how to encourage health workers to stay in rural areas (65). Regulation of practitioners does indeed constitute the major problem with dual practice in LMIC because the capacity of governments, health authorities and professional bodies to undertake regulation in such locations is generally weak (2, 53). This is particularly true in the context of the rapidly developing mixed health systems in this region (13, 14, 39, 45, 46). As a result, there is a high risk in LMIC for the negative aspects of dual practice to predominate (1) (see Table 2).

In this context, regulation of dual practice itself needs to be defined, and its agencies clarified. The literature usually refers to regulation of doctors’ behaviour as state-centred action with a social focus and emphasizes regulatory instruments and statutory authority. The objectives are usually equity-centred social protection and benefit. Another form of regulation, also state-centred, has an economic focus and assumes that state manipulation of service price, quantity and quality can influence the behaviour of market actors66. However, monitoring the effectiveness of both these forms of
regulation depends heavily on data that is often not available in LMIC. Accordingly, new approaches to regulation of doctors’ behaviour that involve other actors are now promoted, as discussed below.

In addition to recent reviews of the literature on health-care regulation in LMIC (66, 67) and the development of a related policy research tool that compares the expected and actual activities of various regulatory bodies (67), several reviews of dual practice have also focused specifically on its regulation (2, 11, 68). These reviews have noted major differences in the approaches and obstacles to regulation of dual practice between developed and other nations. However, as was noted earlier there is little evidence to recommend any particular strategy for such regulation. Indeed a Cochrane review found not one comparison of the relative benefit of different approaches to regulation of dual practice in LMIC (69).

**Options described in the literature**

The options described in the literature are summarized in Table 3 below, divided into those that reward providers or place limits on them. An early review of dual practice included the following key summary of the authors’ perspectives on its regulation: “The real issue is what types of private practice should be allowed in order to minimize conflicts of interest, and what forms of regulatory mechanisms can be introduced to isolate [behaviours] associated mostly with lack of regulation rather than just with low income…. Efforts should be undertaken to ensure multiple and independent channels of accountability, by means of penalties for not satisfying contractual obligations, through channels of accountability to professional councils and associations and to the public” (1).

**Table 3: Options described for the regulation of dual practice**

<table>
<thead>
<tr>
<th>Regulatory option</th>
<th>Global experience</th>
<th>Commentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banning dual practice</td>
<td>Canada, USA, Greece, certain states in India and for certain practitioners in some other nations (2, 3, 11).</td>
<td>Only feasible where government or professional regulation is effective. This does not apply in many LMIC or in some wealthy nations where bans were attempted. Banning may also lead to “brain drain” as doctors leave the public sector for more lucrative private work, limiting public access to their services; or it may encourage informal payments to public physicians (68).</td>
</tr>
</tbody>
</table>
Regulatory option | Global experience | Commentary
---|---|---
Restricting doctors’ private activities or earnings | Several European nations including UK, France, Austria and Italy \(^{(2)}\). | The government restricts the maximum amount of private services doctors can provide or private income they can earn. This demands a high level of accountability and effective regulation, including of hours worked and services provided. No experience with this has been reported from LMIC. \(^{(2, 68)}\)

Self-regulation by the profession and regulation by peers and by the public | In developed countries, professional associations, peer pressure, accreditation and other means of certifying performance can impact public sector activity and doctors’ engagement in dual practice. | In LMIC, especially in South and East Asia, unregulated growth of the private sector has not been matched by improved regulation \(^{(9, 67, 70)}\), and professional associations have been unhelpful \(^{(13, 45, 53)}\). Laws to regulate marketized health sectors are weakly implemented \(^{(18, 23, 71)}\), and there is a high risk of regulatory capture \(^{(53)}\). However, moves to improve accreditation in LMIC are being introduced \(^{(68, 72)}\). Peer review and pressure from civil society can be effective in regulating provider behaviour and standards in developed countries \(^{(1)}\), but again rely on independent review and also on the availability of effective channels for complaint \(^{(39)}\).

Incentivizing doctors to work exclusively or more in the public sector | Reported in European nations, India, Thailand and Cambodia, involving financial or non-financial incentives \(^{(2, 68, 73)}\); now being piloted in Indonesia. | These schemes are reported difficult to implement and to have resulted in negotiations between provider associations and government that either favoured or were simply ignored by doctors \(^{(68)}\). They also require well-functioning and transparent health financing \(^{(1)}\), and so are not usually reported from LMIC. However, where salaries are very low and incentives are weak, they may be effective \(^{(15, 73)}\).
Allowing doctors to work privately in public facilities

Common in Australia and some European countries (2). Piloted in Malaysia (46) and known in some places in Africa (unpublished). Legal for some doctors in Indonesia. Gratuities from patients are a form of this.

Apart from doctors’ acceptance of gratuities, this has the advantage of being convenient and easy to monitor, but may result in conflict of interest and competition between public and private patients for doctors’ time and hospital resources. Transparent supervision is required and reports from LMIC are lacking (68) although examples exist in Africa (unpublished), and Malaysia (46). Experience in Indonesia suggests it improves access (30).

Raising public sector salaries

In two surveys, doctors said they would drop dual practice for more salary (9, 68); a model suggests the same thing (54).

Intuitively effective, particularly if non-financial incentives are provided in parallel. The Greek experience reported in one review (68) failed because the salary incentive was insufficient. Estimates of the costs of “buying off” dual practitioners have been calculated in some LMIC (including Cambodia) (15, 68) but were prohibitive. The impact of this approach is unproven, but one brief report suggests it was effective (73).

The regulation of dual practice is only one example of the broader issue of regulation and stewardship of physicians in LMIC. Despite their evident weak capacity to do so, governments in LMIC often overestimate their ability to regulate the behaviour of physicians and other providers, particularly in decentralized settings. Setting policy and developing guidelines are very different from implementing them (52). There are many examples of weak regulation of physicians in South and East Asian nations (53, 74), with major implications for population health and even demography (75). Moreover, the engagement of public sector doctors in regulation of their profession...
is usually lacking in LMIC, and self-regulation or regulation by professional bodies may be captured by individual or collective self-interest (53, 74, 76). Notwithstanding recent moves by Indonesia (77) and national authorities in other countries to improve the behaviour of physicians’ professional associations; this situation suggests that calls for a greater role of such bodies in LMIC (78), while ultimately desirable, may be premature.

**New opportunities for regulation of dual practice in LMIC**

Factors that may improve opportunities for physician regulation include increasing press freedom, democratization, education and literacy rates; exploding options for social discourse and the rise of civil society; and formal models not dominated by professionals, such as lay members on related regulatory agencies or associations, etc. These factors are likely to have a major impact on the ability of the public to judge and inform others about the behaviour of individual practitioners and also the agencies representing them and the facilities where they work. Engagement of the public was a major strength of Thailand’s health reforms (79), and patient advocacy organizations elsewhere have influenced rights-based approaches to health service provision (see www.patientsorganizations.org/). It is too early to measure the influence of these changes in South and East Asia, and in poor rural areas communities may still lack both provider choice and the ability to communicate. However, recent incidents in China (42, 43) and the rise of medical lawsuits (53, 74) imply that expectations of physician behaviour may be rising with population knowledge of what constitutes appropriate quality of care, fair payment and professional behaviour.

Indeed, an increasing role for the public and other groups in regulating the behaviour of physicians and public agencies has been recommended in several commentaries (1, 2, 5, 53, 78, 80) and by two eminent researchers/commentators on health and society: “Bringing order to unregulated health markets will take broad coalitions that go beyond governments and health professionals. They should include citizen groups, pharmaceutical companies, information-technology and telecommunications companies, and associations of informal health-care providers. Such coalitions might coordinate disease-surveillance systems, information networks for pricing and sourcing quality drugs, and patient-referral mechanisms” (39). However, this does not absolve governments and professional bodies from establishing accreditation systems, another form of regulation, examples of which are emerging in a number of LMIC, including in South and East Asia (2, 53, 68, 72).
Regulation in the context of evolving markets

Opportunities for regulation of physicians may evolve as new, market-influenced options open up for government or for those involved in provider stewardship. These alternatives may take into account the distribution of human resources for health and the availability of health infrastructure, both of which vary widely across and within nations; consumer demand and ability to pay; and the availability of new sanctions or incentives related to UHC and social insurance. The literature has not yet considered dual practice in this global, market context, but this is imperative given the health sector’s rapid evolution, compared to governments’ capacity to ensure public sector physicians attend to their public responsibilities.

For example, the introduction of social health insurance or subsidies such as conditional cash transfers are likely to encourage patients back into the public sector and increase the use of private providers (81), as occurred in Thailand. In these circumstances, the managers of insurance funds can take on an important regulatory role by providing a mix of incentives for good-quality practice (including in underserved locations) and sanctions for poor-quality care or absenteeism. As demand increases, the right mix of good performance or promotion incentives, as well as eligibility for insurance payments and reputation-building opportunities, might be enough to counter doctors’ preference for urban private practice. Insurance payment mechanisms, such as through capitation or case mix, can contribute to control of over-servicing and excessive fees, as in Thailand and Singapore (79).

Thailand and also Singapore provide examples of universal health coverage at an affordable cost through strong regulation involving financial mechanisms (79). In China, while social health insurance has improved financial access and service uptake, it has not improved financial protection. Total health expenditure there is increasing at an average of 17% per year (44, 62), and government-subsidized insurance and programme subsidies have not reduced opportunistic behaviour by physicians. Similarly, in Indonesia, while government support for the health sector is increasing, public sector providers are increasingly servicing the private sector (45, 46).

Regulatory options

A considerable amount of theoretical modelling and policy, practice and economic analysis in relation to dual practice in both wealthy nations and LMIC has been undertaken, and experts have explored its implications and the options for regulation (3, 4, 11, 28, 54, 82, 83). Various models have been applied in desktop research and surveys to determine whether dual practice may benefit the quality or efficiency of health services or place
population health outcomes at risk (3, 4, 82, 84, 85). They include models based on various theories relating to labour supply, employment satisfaction, bureaucracy, work–leisure incentives, the health-care market, principal–agent relationships, rational profit maximization and others. However the models are highly dependent on a range of assumptions on the operating context, such as the levels of public–private market segmentation and the levels of regulation (2, 3, 11).

A recent paper provides a model that analyses regulatory options in the context of varying levels of private-source income and includes consideration of both developed and developing economy contexts (60). The authors modelled costs to a health authority of three policy approaches to dual practice: banning it, providing incentives to providers for exclusive contracts to work in the public sector, and limiting dual practice income or activity. The model suggests that banning dual practice is not economically worthwhile, as savings on public salaries for dual practitioners theoretically enables the authority to purchase additional services. Equally offering exclusive contracts is not as financially effective as limiting dual practice. Finally, limiting dual practice activities is more effective than limiting income, as the income limitation impacts mainly high-earning practitioners, while activity limits impact on all.

In a developing economy context, the results of the model depend heavily on the relative appeal of work in the private sector. Where the private sector is very attractive (offers much higher income), the costs of limiting or banning dual practice for the health authority will be high. But where the appeal of private practice is low, it is more cost effective for the health authority to induce practitioners to operate exclusively in the public sector. While the model focuses on economic outcomes, such as minimizing the cost of production for the health authority, it provides a basis for the consideration of the selection of policy and regulatory options in the LMIC context.

A framework for regulatory and policy options may be drawn from the literature and our analysis. However, it should be acknowledged, and is evident from the range of options and their differential use, that even among high-income nations there is definitely no one-size-fits-all approach. Differences in local institutional frameworks and public service values pertaining to the health sector and providers need to be considered in selection.
Three broad options are available:

1. **Taking no action.** This is equivalent to allowing unregulated dual practice and is likely to allow proliferation of the negative outcomes and abuses of both public and private practice that have been noted in the literature. It is not recommended.

2. **Banning or limiting dual practice.** Both the regulatory literature and modelling (86) suggest that banning of dual practice is difficult to enforce and may be more costly to government for a given level of service provision. However, if feasible, limitation of dual practice (income, location or time spent) is an option for consideration.

3. **Allowing dual practice with regulation of behaviour in the public and private spheres, as appropriate to the situation and local capacity to enforce.** This requires a consideration of local context, which varies widely, depending on the location (demands and opportunities for private practice vary), local regulatory capacity and category of practitioner (demands and income opportunities vary for different types of practitioner).

In Table 4, two measures are used to categorize different contexts for dual practice. The first adapts the concept of “attractiveness” of private practice, a key determinant in the most recent modelling exercise (86) and uses the proportion of private sector income as an indicator of attractiveness. Higher proportions of private sector income indicate higher opportunities for private practice and higher demand for the particular practitioner type. Data from Indonesia (29) and elsewhere indicate that the proportion of doctors’ income from private practice can exceed 75% of the total. The second key factor is the proportion of private sector income from insurance payments. While this is still low in most Asian LMIC, it is likely to increase with gradual introduction of UHC, providing new opportunities for regulatory control.
Table 4: A guide to policy and regulatory options for dual practice in LMIC

<table>
<thead>
<tr>
<th>Proportion of private income for provider category*</th>
<th>Proportion of private payment via insurance schemes</th>
<th>Regulatory options</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 25%</td>
<td>High</td>
<td>Restrict amount/category of insurance payments to public practitioners working in private practice.</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>Increase public salary/incentives to create a fully public category of providers. Provide supervised environment for public providers to undertake private practice within public facilities.</td>
</tr>
<tr>
<td>25%–75%</td>
<td>High</td>
<td>Restrict amount/category of insurance payments to public practitioners working in private practice.</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>Provide guidelines for professional conduct of dual practitioners in private practice, with enforcement through professional associations, licensing and complaints. Improve supervision and monitoring of professional conduct by dual practitioners in public facilities, with salary linked to performance and actual hours worked.</td>
</tr>
<tr>
<td>&gt; 75%</td>
<td>High</td>
<td>As above, plus impose conditions on private facilities that want to receive insurance payments that require them to monitor and report on abuse of dual practice.</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>As above, plus consider shift to contracting of private providers to provide services in public facilities rather than salaried arrangements.</td>
</tr>
</tbody>
</table>

LMIC = low- and middle-income countries

* Note that the proportions of private salary will vary by location within a country and by practitioner type.
Selection, monitoring and evaluation of regulatory mechanisms

LMIC introducing new regulation of dual practice, in South and East Asia and elsewhere, require information to help them select the most appropriate approaches and the best indicators of progress and success. The following characteristics should assist decisions on which regulatory mechanisms to pursue or which elements to improve:

- The balance of health service supply and demand, including influences (such as the attractiveness of private practice) on the distribution of doctors across urban and rural areas.
- The capacity of patients to pay, and the coverage and benefit of social health insurance for those who cannot afford public sector fees or private care.
- The capacity of social health insurers to play a role in financial mechanisms of regulation (their independence, negotiating power, funding and solvency, etc.).
- The role and character of professional associations in country and the possibility of them collaborating effectively in, and not capturing, regulatory processes.
- The engagement of the public and the possibility of civil society being effectively involved in regulation of health providers and facilities.
- The existence of independent regulatory agencies, representing government and with authority to recommend or implement sanctions, if appropriate.
- The availability or possible creation of private services within public health facilities, and agreements with doctors on their financing and management.
- The availability of legal leverage over hospitals or doctors, through mechanisms such as periodic accreditation, maintenance of professional standards, sanctions, etc.
- The decentralization of power and financing in the health sector and local capacity.
Once the balance of restrictions and incentives has been selected and funding is assured, a feasible system of supervision, monitoring and evaluation is also needed. Human resource management and administrative reporting in LMIC are typically weak, so it is likely that improvement of this will involve mixed qualitative and quantitative methods and will be part of a general strengthening of health sector oversight. These methods might include:

- Periodic reports by the various regulatory agencies assigned by government to monitor and evaluate doctors’ behaviour.
- The establishment and reporting of a functioning complaint service for patients.
- Independent community surveys using inexpensive methods such as citizens’ scorecards (87) or social audits.
- Occasional key informant interviews or focus group discussions on doctors’ behaviour, or requests for community input/comment using new media.
- Quantitative monitoring of doctors’ case-load and case mix, workplace, income and fees, hospital revenue and charges, insurance payments, etc.
- Monitoring of absenteeism, opportunistic referral of public patients to the private sector or private use of public facilities by dual practitioners.
- Occasional surveys of household access to health services, including by specialists.
Recommendations

Dual practice is widespread among LMIC in South and East Asia and is likely to increase with economic growth and demand for medical treatment. While it provides some benefits to public service provision through retaining doctors at public facilities, it is also associated with a range of negative outcomes. These include neglect of duties, weaker service quality in the public sector, use of public facilities for private gain, and unfair advantage through excessive fees and over-servicing in the private sector.

The literature review and theoretical modelling agree on the need for a policy strategy and regulation of dual practice in order to protect the public. However, both theoretical and practical considerations suggest that outright banning of private practice for public employees is unlikely to be a cost-effective or feasible option. Alternative policy and regulatory options must be tailored to the circumstances of each individual country, and even within countries may need to vary by region and category of health practitioner.

New approaches to dual practice in LMIC would benefit from the following:

1. In each country seeking to better regulate dual practice, an assessment of its impact needs to be undertaken and its regulation should be tailored to local circumstances. Many factors, including the balance of health service supply and demand, the geographic distribution of doctors, the voice of civil society, the level of cooperation of doctors’ professional associations, the role of insurers, and local capacity to regulate doctors’ behaviour in decentralized settings should be taken into account.

2. Acknowledging the potential benefits of dual practice instead of prohibiting it altogether. In most circumstances, prohibition of dual practice is impractical and not cost effective. However, consider limiting dual practice through limits on private practice activity (locations or time) or income (by limiting insurance reimbursements) depending on local enforcement capacity. Where private income is a small proportion
of total practitioner income, consider incentives to encourage doctors to work exclusively in the public sector. Similarly, where the public sector provides a small proportion of total practitioner income, consider contracting private practitioners to provide public sector services.

3. Strengthening the incentives and motivation for providers to deliver quality services in public facilities and strengthen related sanctions. This might involve access to professional development opportunities and career pathways, salary incentives and performance incentives, and extra allowances for willingness to provide services in locations where private practice is not feasible (poor communities or remote locations). Engage professional associations to provide support and encouragement to members taking up public service careers.

4. Implementing new forms of health sector regulation, and strengthen and broaden the institutions involved in oversight and regulatory control of private practice. Regulatory mechanisms could include purchasing agreements with insurance providers to ensure appropriateness and quality of care in private facilities and the engagement of professional associations, licensing authorities and civil society in monitoring norms of professional behaviour in relation to private practice and in supervising, reporting and taking action on non-compliers.
1. Thailand

a. Health system characteristics

i. Financing and insurance

In 2001, Thailand implemented a tax-financed universal coverage scheme (UCS) and claimed success in 2002 (88). Thailand achieved universal coverage through targeted and pro-poor increases in public financing for health after 25 years of experimenting with health financing (89). Its approach had three main features: tax-financed funding of a comprehensive package of free services, purchased by the National Health Security Office; capitation, capped provider payments, case-based funding and disincentives for self-referral and specialist services; and a focus on preventive and primary care (46).

Health expenditure per capita was 327 (constant 2005) international dollars purchasing power parity in 2010; private health expenditure was 1.1% of gross domestic product (GDP) and public health expenditure 3.1% in 2010. Overall, public expenditure on health was 13.3% of government expenditure and 74.6% of total health expenditure in 2010 (90).

ii. Health service delivery

Health services in Thailand are provided by a mix of private and public health facilities, with a focus on primary care. Rural services rely on nurses and public health workers (91). The package under the nation’s UCS covers inpatient and outpatient treatment at registered public and private facilities (88). Primary providers act as gatekeepers for referrals to higher services (46). In 2005, around 4.4% of UCS beneficiaries were registered with a private health facility, 4.2% with a facility run by a ministry other than the Ministry of Public Health (MoPH), and the remaining 91.4% with MoPH facilities (88). Despite the introduction of UCS, however, services received vary according to the scheme in which patients are enrolled (92).
iii. Workforce distribution

In 2010 the number of doctors/1000 people ranged from 1.15/1000 in Bangkok to 0.14/1000 in the north-east, indicating unequal distribution with rural shortages (92). Most (64%–82%) of rural doctors are civil servants, but in Bangkok 42.5% work for another ministry and 33.5% are in the private sector (36). The proportion of doctors in the public sector decreased from 93.2% in 1971 to 82.9% in 2009 (92). The geographical distribution of doctors is the responsibility of the MoPH, but professional organizations control the number of specialist training positions. One strategy to address shortfalls in rural areas was to increase the medical student intake (92). Compulsory rural service of three years for graduate doctors was introduced in 1967 and remains in place. Medical students have also been recruited, trained and placed in rural areas to better ensure care in underserved areas. For example, one project recruits students from the district level after which they are bonded for 12 years (92).

b. Dual practice

Thailand permits dual practice but incentivizes doctors to work in the public sector (11). However, while data are scant, dual practice seems to be common: private clinics are mostly run by physicians from public facilities after work (93) and “internal brain drain” from public to private practice is a problem (36). A study of public health workers in 2001 found that 69% of doctors practised at private facilities, mostly for financial reasons (94). In 2009 56.7% of public sector doctors worked also part time in the private sector, up from 50.1% in 2003. The Government struggles with a net loss of doctors to the private sector; from 2005 to 2009 the annual loss was 600–800 doctors (92). Additionally, medical tourism contributes to a shift of doctors to the private sector. Concerns that the public sector cannot afford current services imply a bigger role for the private sector (36). However, there is a risk of moral hazard, involving over-servicing, among private doctors (56).

c. Incentives and regulation

Major regulatory bodies in Thailand include the Medical Registration Division at the Thai MoPH and the Thai Medical Council. However, professional organizations have been criticized for “reacting passively to consumer complaints or reports of misconduct” (74). Doctors must renew their registration annually and pass an examination. Financial incentives, such as rural hardship allowances, non-private practice allowances or on-duty payments are part of the Government's approach to dual practice. Non-financial incentives include career advancement options for rural doctors,
rural service as a gateway to specialist training (albeit often avoided) and an increased number of medical graduates (92). Regulation under the UCS involved tougher accreditation, an extensive public information campaign on service prices and benefits, a no-fault compensation scheme and a patient complaint service. These changes benefited from established public health infrastructure and administration capacity, a computerized civil registration system, and a cross-sectoral commitment to self-evaluation and improvement (91), which was critical to counter initial opposition to change, particularly regarding control of publicly employed doctors (46). The UCS increased demand for care in public facilities and resulted in higher workloads for doctors. In recent years, a high proportion of young doctors sought specialization and breached their rural service contracts (95). A variety of uncoordinated strategies has been tried to encourage providers to stay in rural areas, but the strong economic incentives in the urban private sector remain (96).

d. Risk
There is some concern about the long-term affordability of the Thai scheme (36), and the attractions of unregulated urban private work are difficult to overcome.

2. Indonesia

a. Health system characteristics

i. Financing and Insurance
In 2004, Indonesia announced the implementation of a mandatory public health insurance scheme, striving for universal coverage (97). In 2005, a new scheme for the informal sector and the poor was introduced, financed by taxes and covering roughly the poorest 40%. Currently, there are four social security schemes providing health benefits for private and public sector employees, the informal sector and the poor, and the armed forces and police. There are plans for further expansion of insurance to ensure UHC.

Health expenditure per capita in 2010 was 100 (constant 2005) international dollars purchasing power parity; private and public expenditure on health were 1.3% and 1.1% of GDP, respectively. Public expenditure on health was 6.8% of total government expenditure and 49.1% of THE in 2010 (90).

ii. Health service delivery
Indonesia’s health system has a focus on primary care and is based on a principal of universal access to public primary care. Primary care services
are delivered through community health centres (puskesmas) that focus on prevention and environmental health. In 2001, the health system underwent a process of decentralization that assigned responsibility for delivery of services to districts, resulting in major discrepancies between local budgets. In parallel, the private sector experienced significant growth (98).

iii. Workforce distribution

In 2010 Indonesia had 0.288 physicians/1000 people, but only 20% were serving the 70% of the population that reside in rural areas (29). The distribution of specialists shows an unequal geographic distribution; ≥50% of obstetricians and 40% of anaesthetists work in Jakarta and other major cities (99).

b. Dual practice

Dual practice is permitted and widely observed in Indonesia, with up to 70% of doctors (and 93% of midwives) engaged (30, 100). It is closely linked with inequitable distribution of doctors. Most specialists are employed by the state, but dual practice in state and private facilities is widespread (29). Specialists often work in multiple practices, spend only a few hours a day working in public facilities and only a small proportion of their total income comes from government; the proportion of private income in one study ranged from 66%–81% (29). The time spent by dual practitioners in their respective places of work is unknown, and the outcome of dual practice in Indonesia has not been studied in detail.

c. Incentives and regulation

Indonesia’s health-care market is largely unregulated with competition between private and public hospitals “to secure and retain the specialist doctors needed to provide services” (29). Moreover, 44% of hospitals with 37% of beds are private (30). “Government has lost most of its ability to influence and oversee the private sector; [and] the quality and provision of its services ....” (30).

The Ministry of Health (MoH) as well as some provincial and district governments have introduced financial incentives to attract doctors to remote and rural areas, typically US$ 500–US$ 750/month from the MOH and US$ 500–US$ 2500 from the provincial government (29). In the past, all graduates were automatically recruited as civil servants, and were required to serve two to five years in puskesmas. As a result, almost all doctors were employed by a dominant public sector. However, mandatory rural service was abolished in 2007. Currently, six months of rural service and financial
and non-financial incentives (preferred recruitment into civil service) are offered under a new policy to promote increased interest in rural practice among graduates (30). General regulations require civil servants to spend eight hours per day, five days per week, in their state employment. A licence issued by the Provincial or District Health Office is required for each health facility and restricts to two the number of private practices for doctors working in public facilities (29).

d. Risk

The goal of achieving UHC by 2014 might be threatened by the negative impact of an unregulated market on access to care (29).


48. Ministry of Health. China’s State Council announcement on deepening medical and health system planning and implementation of the program during the 12th Five Year Plan. Journal [serial on the Internet]. 2012 Date: Available from: Available at: http://www.wpro.who.int/health_services/china_nationalhealthplan.pdf (last viewed 15Apr13)


81. Triyana M. Do health care providers respond to demand-side incentives? Evidence from Indonesia: University of Chicago Harris School of Public Policy; 2012.


The Asia Pacific Observatory on Health Systems and Policies is a collaborative partnership which supports and promotes evidence-based health policy making in the Asia Pacific Region. Based in WHO’s Regional Office for the Western Pacific, it brings together governments, international agencies, foundations, civil society and the research community with the aim of linking systematic and scientific analysis of health systems in the Asia Pacific Region with the decision-makers who shape policy and practice.

Dual Practice by Health Workers in South and East Asia

IMPACTS AND POLICY OPTIONS