

The phenomenon of government-employed health care providers concurrently working as service providers outside of their government employment is widely observed in developing countries.

This review examines the systemic and individual causes of multiple jobholding and evidence on its prevalence through an analysis of country-level conditions.

It proposes more action in terms of research, innovative implementation and evaluation, and the participation of health workers in a varied strategy of policy development and implementation, in order to identify feasible ways forward.



Multiple public-private jobholding of health care providers in developing countries

an exploration of theory and
evidence

Peter Berman, Dexter Cuizon

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The DFID Health Systems Resource Centre (HSRC) provides technical assistance and information to the British Government's Department for International Development (DFID) and its partners in support of pro-poor health policies, financing and services. The HSRC is based at IHSD's London offices and managed by an international Consortium of seven organisations: Aga Khan Health Services Community Health Department, Kenya; CREDES-International, France; Curatio International Foundation, Georgia; IDS (Institute of Development Studies, University of Sussex, UK); IHSD Limited, UK); IHSG (International Health Systems Group, Harvard School of Public Health, USA); and the Institute of Policy Studies, Sri Lanka.

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Title: Multiple public-private jobholding of health care providers in developing countries: an exploration of theory and evidence

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1 Executive summary

The phenomenon of government-employed health care providers, physicians and others, concurrently working as service providers outside of their government employment is widely observed in developing countries. In some countries such multiple public-private jobholding is prohibited, but still may be found. In many other countries, governments regulate or restrict multiple jobholding (MJH)¹ by physicians and other health care professionals.

This review examines the systemic and individual causes of MJH and evidence on its prevalence. MJH should be seen as resulting initially from underlying system-related causes. These include overly ambitious efforts by governments to develop and staff extensive delivery systems with insufficient resources. Governments have tried to use a combination of low wages, incentives, exhortations to public service, and regulation to develop these systems. In many countries, these strategies are not sufficient to outweigh the motivations of and incentives faced by individual health workers in mixed public-private labour markets. MJH results, both with and without official permission.

The review of country-level conditions suggests four useful conclusions: MJH is very widespread; governments have a wide range of responses to it based mostly on assumption, anecdote, and, in some cases, hostility to the notion that public servants should engage in private employment; governments' efforts to modify or regulate MJH are often not enforced or implemented effectively; and there is little quantitative national evidence on the extent or characteristics of MJH. In addition, there is also almost no evidence on the impact of government policies to affect multiple jobholding.

In response to the opportunities they face, health care providers engage in MJH for a variety of reasons. Increasing income is likely to be the main reason, but institutional and professional factors are probably also important. And even the hypotheses about increasing income do not give unambiguous conclusions that this would automatically lead to abuses or denial of care to the poor. Government providers holding additional private sector jobs may treat these jobs as competitive with their government work, complementary to it, or some of both. Implications for quantity, quality, and equity differ significantly depending on how this relationship plays out.

This review concludes that despite the lack of evidence more action is needed. In light of the importance of human resources, access to care, attention to the poor, and quality issues in improving the impact of priority health programmes, this topic deserves to receive more attention in terms of research, innovative implementation, and evaluation. But efforts to address MJH should not ignore its underlying causes, nor should they focus on mainly legalistic and regulatory approaches, which have had little effect. Rather, a



more varied strategy of policy development and implementation is proposed, with significant participation of health workers to identify feasible and acceptable ways forward.

Notes

1 Multiple jobholding is also referred to as dual jobholding and “moonlighting”.



2 Introduction

The phenomenon of government-employed health care providers, physicians and others, concurrently providing services outside of their government employment is widely observed in developing countries. In some countries such multiple public-private jobholding is prohibited, but still may be found. In many other countries, governments regulate or restrict MJH by physicians and other health care professionals.

There is a widespread perception that holding multiple practice jobs can have significant negative effects. In contradiction, there are also serious arguments in support of multiple practices.

Arguments against include:

- Practice in government services usually requires providing treatment at low cost and should favour access by the poor. When providers concurrently offer the same services in their private practices, they face strong incentives to seek rents from patients by providing poor services in the public setting and referring them to their private practice. This has negative effects on quality of care, patient amenities, financial burden on patients, and could worsen equity in public services. It de-emphasises priority public health services, for which consumer demand may be weaker, and creates incentives for curative and treatment services, for which consumer demand may be stronger.
- Governments have limited ability to monitor physicians' work, especially in rural areas. Having private practice options increases absenteeism and corruption, reducing the quantity of public services.
- Private practice undermines the ethos of public service by emphasising fee for service financial incentives, leading to provider-induced demand, lack of cost consciousness, and higher costs.

Arguments for include:

- Augmenting low public salaries with private earning opportunities increases the supply of providers willing to work in the public sector and willing to work in rural and more remote locations. This increases access and the quantity of public services and may especially increase quantity in hard-to-serve areas.
- Government providers enhance their technical knowledge and skills through exposure to multiple practice settings, including non-government settings where

they may be more likely to learn about new technologies and techniques. This could improve the quality of care in public services.

- Government providers having private practices face incentives to perform better in their public practice in order to gain a better reputation and attract patients to their private practices. This would improve the quality of care in public services.
- Multiple jobholding provides incentives for classic “price discrimination” in limited rural markets, increasing the quantity of services for both the poor and non-poor.

What should one make of this discourse? Is multiple public-private jobholding the cause of serious performance problems in health services or is it a potential solution to problems? Is it something to be encouraged or prohibited and restricted?

Unfortunately, definitive answers to these questions are not available at this time, neither from theory nor from empirical investigation. Falling short of this goal, this paper tries for a more modest achievement – investigating (and hopefully clarifying) the theoretical and empirical bases for the different arguments about the causes and the likely impacts of MJH.

In Section 3, MJH is placed in the context of health systems and government policies in middle and lower income countries. It is argued that while MJH can be a contributing cause of poor performance, it is better viewed as the result of more fundamental underlying causes than an independent variable in itself. MJH has systemic causes, while the type and extent of MJH in specific settings is caused by the interaction of individual behaviour, the market, and the policy and regulatory environment. Section 4 of the paper summarises relevant theories explaining individual health worker behaviour derived from economics and sociology, including theories of professionalism and bureaucracy.

Section 5 of the paper summarises some recent evidence on the extent of the phenomenon in several countries and the policy and regulatory response. In Section 6, we return to the health system perspective, to provide some guidance on how policy makers might better delineate and navigate the conflicting negative and positive views of MJH, with an eye to developing strategies which could improve health system outcomes.

The paper concludes with a call for better evidence-based answers to the questions raised as well as much more effort to demonstrate feasible and successful strategies for government action to get more out of human resources to improve the health and well-being of the poor.



3 Multiple jobholding: a health systems perspective

The place to begin an examination of MJH is not with the phenomenon itself, but with the underlying objectives and actions of governments that lead to this phenomenon. We then see MJH as one of several relevant results of these objectives and actions. The government assessment of and response to MJH should be seen in the context of what government wants to accomplish.

In most developing countries, government actions in health have largely focused on setting up publicly-financed and government-operated health service delivery programmes to provide a basket of health care services to the population as a whole. Two major approaches have been followed. First, setting up a geographically organised pyramid of health care facilities in a vertical hierarchy, with health sub-centres and health centres at the lower levels and several levels of hospitals above them. A more basic set of ambulatory care services is provided at the lower level facilities, with increasingly specialised services provided moving up the pyramid. Second, organising distinct health service programmes to address specific diseases or health problems as well as fertility control, through outreach activities emanating from the fixed facilities coupled with more focused efforts at the facilities.

Governments face many challenges in implementing these strategies. They must obtain a supply of essential inputs, especially human resources like physicians, nurses, and other health personnel. They must be able to employ and retain these staff and motivate them to do the work. And they must assure the quality of the work and protect the clients from the potential negative effects of the principal-agent relationship between client and provider and government and provider.

Governments must meet these challenges in the context of the markets that exist for health care inputs and for the health care services. That is, their actions to meet their goals do not exist in isolation. They are affected by and also affect the behaviour of other actors in the markets for doctors and nurses (for example) and for the services they provide.

Most governments in developing countries have employed a narrow range of instruments to achieve their goals – general revenue financing and external aid, centralised planning



and control, hierarchical bureaucratic approaches to organisation and management. In recent years there have been widespread efforts to decentralise some of these functions, but usually this is within the same governmental structures (see World Bank 2003, especially Chapter 10, for a more thorough discussion of these issues).

Unfortunately, in most countries the financial resources available to the government for meeting its objectives are often not sufficient. In response to this situation, governments usually choose not to either increase resources or scale-back on their objectives. Rather, they try to get by using other means. These means include:

- Interventions in the production of the supply of human resources, including subsidies to medical and paramedical education and training and associated regulations and rules to assure a supply of human resources in government service (such as service requirements for licensure and specialisation).
- Below market rate wages for health personnel, sometimes accompanied by other non-pecuniary benefits such as preferential access to specialisation training, subsidised housing and transport, etc. in order to retain health workers at lower wages.
- Regulations and rules to limit market activities of government personnel such as outside practice, charging of fees, etc.
- Exhortations to public service, patriotism, etc.

But these alternative strategies have often not been successful, perhaps because governments lack the means or the will to implement them successfully or because they are not sufficient to outweigh the imbalance between what the market offers and what the government is able to do.

MJH should be seen as one result of this imbalance and not the only one. For example:

- Subsidised medical education and training is disproportionately captured by those who are less interested in public service and more able to use informal means to evade or reduce their service to the government. Governments have difficulty enforcing their rules on service requirements, especially in terms of posting physicians to rural areas.
- Health personnel have many opportunities, both legal and illegal, to increase their wages above those offered by the government. These include MJH, informal and unofficial charges, and corruption and theft. At best, governments can only enforce some limitations on these opportunities. Weak enforcement is sometimes exacerbated by client attitudes that may legitimise some of this behaviour (as when clients feel that informal charges are appropriate given low wages of providers).

Clients may also lack the power in the client-provider relationship to change these behaviours even when they object.

- Health professionals motivated to improve their skills and experience may find that their government jobs offer little opportunity to do so, when these jobs are either mainly routine low level services or dominated by administrative and management tasks in which they have little interest. They seek out opportunities to use or enhance their advanced training.
- In many countries there is a sharp disconnect between idealistic notions of public service and the realities many health personnel observe. Where government work is seen mainly as self-serving, in reality official efforts to limit such behaviour are not seen as legitimate and are often not enforced down the line.

Thus, MJH as a phenomenon is embedded in the larger setting of sub-optimal government strategies for health care governance, financing, and provision. It is linked to policies for human resources and the capacity of the government to regulate its own organisations as well as those outside the government. It represents the response of individuals, motivated in ways predicted by relevant theories of worker and professional behaviour, to the opportunities and constraints they face in the market and the limited success of governments to mould these opportunities and constraints.

The preceding discussion suggests that MJH should really be analysed at two levels – that of individual behaviour and that of the health care system. The former helps us understand the forces driving MJH given the opportunities and constraints in the health care system and labour market and might illuminate strategies for changes in MJH at the margin without changing the overall environment. The latter may highlight conditions in the environment that, if changed, might enhance the government's ability to meet its broader objectives, for which changes in MJH may or may not be important as points of focus.

The following section reviews theory at the individual level. The section thereafter offers some thoughts on the health system strategies.



4 Review of behavioural theory relevant to multiple jobholding

Theory relevant to individual behaviour linked to MJH draws from the economic theories of labour supply and sociological theories relating to the professions and bureaucracy. Labour supply theories emphasise the utility that people derive from work, both in terms of the direct effects of income/earnings as well as indirect effects such as buffering the risk of earnings uncertainty or the economic benefits of complementarities between jobs. Theories relating to the professions focus on the non-pecuniary aspects, such as the service mission, agency role, and enhancing scientific knowledge and practice. Theories related to bureaucracy focus on the role of hierarchical organisation on individuals' motivations, tasks and performance. Each of these theoretical frameworks can be applied to thinking specifically about the health and medical professions.

4.1 Economic theory

Economic theories of labour supply derive the causes of MJH from the basic work-leisure choice theory. In this theory, individuals have an endowment of time and choose to allocate this resource to maximise their utility. There is a fixed amount of time available, which can be allocated to either a) time in the market, or work, that yields income and satisfaction, or b) time at home, or leisure, which does not yield income but produces satisfaction also.

Several key assumptions are important:

- a. Individuals have a given set of choice preferences

The individual is assumed to have a given set of choice preferences between income and leisure, and such preferences could be characterised by well-behaved indifference curves. The premise is that both income and leisure are 'goods' that an individual prefers to have more of, and that there is an optimal combination of such goods for an individual, subject to a budget constraint (the maximum combinations achievable).

Moses (1962) divides individuals² into two broad groups: those who prefer leisure and those who prefer income. Individuals who have the predisposition to refuse additional work beyond the standard number of work hours, also known as overtime, could be classified as preferring leisure. Individuals who tend to accept employment in a second

line where the wage rate could either be less than or equal to the wage rate in the primary line could be classified as preferring income. Note that it is assumed that a secondary or additional job would pay wages less than or equal to the primary job, since otherwise why would the individual not choose the secondary job as the primary job?

b. Individuals are utility-maximisers

Individuals are also assumed to be utility-maximisers, with indifference curves furthest from the origin of the standard income-leisure axes corresponding to the highest levels of utility. Utility is based on the premise that an individual is concerned with income gain and the time (leisure) loss associated with taking a job. Maximising the individual's utility means working the number of hours that equals the reservation price of time with the offered wage (i.e. the wage rate corresponds to the marginal rate of substitution of leisure for income), and by default, an individual will choose the single job paying the highest wage.

c. Supply of work opportunities is elastic

It is also assumed that there is sufficient supply of work available in the market. Individuals can choose to work and to take on additional work. The individual has the freedom to choose how many hours to work, given his endowment of time, to satisfy his preferences.

d. The individual does not determine the market

The individual does not change the overall market opportunities by their behaviour, they simply respond to the opportunities and wages on offer.

If these assumptions were all valid, the optimal labour supply choice for an individual would be to work in the job with the highest net wage as much as they wanted. MJH would not be observed. However, typically there are constraints on the number of hours that an individual could work in the optimal job. Individuals cannot choose their hours of work freely. Wage rates may not be the same for every hour worked. Other factors may matter. The decision to engage in a second job is observed and explained in the theory.

Standard model of MJH - hours constraints

The standard model for explaining the MJH phenomenon is based on the idea that the number of hours available to an individual in their preferred job are limited. Moses (1962) and Perlman (1966) were among the first to talk about the phenomenon in the light of hours constraints. Moses, in particular, describes having more than one job as overtime work. Overtime work is a way for individuals to overcome the adverse effects brought about by restrictions in full time employment. He notes that MJH may differ from the basic notion of overtime work when the MJH wage bears no relation to the wage received in



the primary job and an individual may engage in the additional work without having reached the hours limitation in the primary employment.

Perlman analysed the phenomenon using indifference curves. He described two kinds of individuals – the over-employed individual who would prefer a shorter than standard work period for a given wage, and the under-employed individual who at a given wage would prefer longer than standard hours. Perlman also discussed the tendency of the under-employed worker to “moonlight” growing stronger with a rise in the primary wage if the individual’s labour supply curve is forward sloping and weakens if the curve is negatively sloped. He continued that the crucial determinant of the slope of the individual’s supply schedule is the basis of his desire for extra income. Individuals may want to work at higher wages to reduce the number of hours they work (backward sloping) or to increase their income with additional hours worked (forward sloping).

While Moses and Perlman discussed MJH in the light of increasing the number of hours to work, the seminal empirical work testing the theory of MJH from an hours constraint model is attributed to Shishko and Rostker (1976). They showed that an individual who wants to maximise his utility under certain assumptions, but who cannot extend his hours in the primary job, has the tendency to supply labour in a second job. This is conditional on the fact that the secondary job wage must be sufficiently high enough.

Shishko and Rostker find that the secondary job hours increase with the secondary job wage rate and decrease with the primary job earnings, supporting the idea of an income effect. Furthermore, increases in primary job earnings and primary job hours have a negative effect on the secondary job hours. Also, increasing family size, which is a proxy for consumption, is positively related to secondary job hours.

Another empirical work that investigates the MJH phenomenon, but this time from the perspective of a household rather than that of an individual, is attributed to Krishnan (1990). She investigates the relationship between moonlighting by an individual (assumed to be the husband) and the wife’s labour supply decisions.

Krishnan argues that the individual’s (husband’s) decision to moonlight is related to the wife’s decision to either work or not. Assumption is further made that the primary job hours are fixed and that such hours are not enough to guarantee an optimal level of income. She then finds that the increased participation of wives, longer primary job hours, and higher primary job income deter moonlighting, again supporting the income effect hypothesis.

The hours constraint model is relevant to employment compensated with a salary-type payment method, but is clearly modelled on the notion of an hourly wage, with a limit on the number of hours each individual can be paid for in the job. While this may be the model of employment in public sector jobs in developing countries, in practice there may be little monitoring of hours worked nor a connection between work hours and payment. In such cases, the notion of an hours constraint has only limited relevance.

Beyond hours constraints: job complementarity and risk management

More recent research and empirical work on MJH has explicitly recognised other factors that may lead to MJH, aside from the usual hours constraint model.

Paxson and Sicherman (1994) explore the idea that while MJH is a mechanism by which individuals adjust their hours of work, there are also other important factors that influence the desire to have multiple jobs. One idea is that two jobs complement each other, with one job being the primary source of income and the second one providing training, contacts, and prestige. Another is that the two jobs could be viewed from a portfolio perspective, where one job provides steady but low income, and the second has wages that are high on average but are more variable. Both of these ideas are very relevant to MJH by health care workers in developing countries. Note that the basis of the *economic* rationale for these arguments still emphasises their economic rationale or pecuniary value to individuals.

Conway and Kimmel (1998) explore and argue that MJH might occur when jobs are heterogeneous and not perfect substitutes. This is in addition to the notion of constraints in the primary job hours. They propose that labour supply is more elastic than usually assumed, once moonlighting is acknowledged in the labour supply behaviour, and that there is presence of multiple motives for dual jobholding, even though findings show that hours constraints is still the most common motive. This is consistent with their findings in a previous work (Kimmel and Conway 1995) where they find the idea of multiple motives to moonlighting apart from the usual hours constraint motive, using a duration model of moonlighting behaviour where the length of moonlighting episodes is observed.

Averett (2001) explores the incidence and reasons for moonlighting behaviour with a focus on gender differences. She finds that there is no substantive difference in the factors that lead males and females to moonlight. Furthermore, findings also show that there is little connection between an individual's human capital and the moonlighting wage and that a substantial portion of males (41 per cent) and females (35 per cent) take second jobs due to non-monetary reasons.

Heineck (2003), using data from the United Kingdom, finds evidence for the two most prominent motives for moonlighting. One is the usual hours constraint where individuals who would like to work more hours or are not satisfied with the total pay of their primary occupation are more likely to take a second job. Another is the heterogeneous jobs motive where individuals may hold to their primary job for the sake of stability and security, and take a second job that provides monetary benefits, complementarities to the primary job, and additional skills outside those in the current job.



4.2 Sociological theories related to the professions and bureaucracy

Economic theories explaining MJH focus on the individual as worker and emphasise pecuniary determinants of action. But there are other relevant paradigms for explaining health worker behaviour that do not give primacy to financial motivation.

Many categories of health workers – physicians, nurses, midwives, and others – consider themselves to be “professionals”. The term professional is used to distinguish groups of individuals who possess specialised knowledge and lay claim to a distinct set of privileges in society in response to certain benefits and responsibilities they provide. As a result of their training and adherence to a distinct set of values, professionals are expected to act altruistically, engage in systematic self-improvement, and engage in self-supervision and peer review (Southon and Braithwaite 1998; Blumenthal 1994). These values and patterns of behaviour are claimed to be more important than pecuniary interests.

In the health area, it is worth noting that the special claims of professionalism are invoked by both the health professional as well as their employer, for example, the government. That is, health professionals may be expected to work for lower pay, longer (and sometimes flexible) hours, and accept poorer working conditions because they are expected to provide a high degree of altruism in social service. Conversely, the professional may claim entitlement to skill enhancing training and experience, self-regulation and peer review, and opportunities for longer-term professional development.

The concept of bureaucratic work stands in sharp contrast to that of the professional, and this contrast is significant where professionals are employed in bureaucratic organisations and intended to behave in the ways expected by such organisations. Bureaucratic organisations employ individuals to carry out specific technical tasks, reduce individual autonomy, and embed individual workers in a disciplined vertical hierarchy (Weber 1947). Workers are typically paid a salary in exchange for performing specified tasks and responsibilities and are free to conduct themselves freely outside of the domain of the job. The work may be more routine and often doesn't emphasise individual creativity and self-development. This type of work is typical for lower level health workers, but also characterises much of what is expected from even more highly trained health professionals in primary health care or vertical disease control programmes.

Corruption ('the use of public office for private gain', Gray and Kaufmann 1998) can be seen as a specific example of the breakdown of the bureaucratic work model and also of the professional work model where that overlaps with public service. It is the intrusion of pecuniary or venal motives into settings where the norms are supposed to be altruism and organisational dedication. Whether MJH should primarily be seen as corruption is a question of legal status, accepted practice, and motivation.

4.3 Applying the theories and research to the medical profession and health personnel

Each of the theoretical frameworks examined in the preceding section has specific applications relevant to the medical profession and health personnel.

Physician income and earnings

Several studies emphasise that medical professionals often take multiple jobs to increase earnings. Culler and Bazzoli (1985) talk about how physicians, in financing their medical and pre-medical education, typically incur large debts. Since higher debt implies larger loan repayments, increases in indebtedness exert an income effect that increases the likelihood of moonlighting. As such, they find empirical results that support the idea that resident physicians are influenced by economic factors when making moonlighting decisions, and that resident salary, hours of work, and educational debt all have significant, and in many cases highly elastic effects, on moonlighting choices.

McGuire and Pauly (1991) explore two patterns of physician behaviour; maximising net income or profits and seeking a “target income”, beyond which additional work is not desired as an alternative to leisure. This is also discussed by Eisenberg (1986). McGuire and Pauly propose that the target income hypothesis not be seen as a stark alternative to profit maximisation, but rather that research should examine the magnitude of income effects under physician compensation regimes, where neither alternative behavioural model is either completely dominant or completely absent.

Thornton and Eakin (1997) also support the notion of the income effect from the point of view of a utility-maximising physician. They find that practitioners respond to increases in marginal hourly earnings and non-practice income by allocating less time to medical practice activities, the usual income effect. They also continue that a physician’s number of hours worked increases in the very early stages of his career and then diminishes over the duration.

On the other hand, Saether (2003) reported a lack of support for the notion of income effects in the research he undertook using Norwegian data. By estimating the effect of increased wages on the physician’s total working hours and the combination of work hours between the main and the secondary job, he finds that wage increases for hospital physicians result in increased hours worked in the hospital, with a corresponding reduction in the extra private practice. Likewise, an increase in private fees is related to increased hours in the private practice and reduction in hospital hours. Thus, there is a change in sector mix in response to the wages, though there is negligible wage elasticity for physicians, and the idea of income effects is not supported.



Job complementarity

Several papers show that there are reasons that drive MJH among medical professionals that go beyond the classic economic factors.

Chawla (n.d.) develops a model of dual jobholding by physicians in developing countries that goes beyond the usual hours constraint model. He extends the model to include the concept of complementarity which maintains the idea that doctors working in both hospitals (the primary job) and private clinics (the secondary job) use the former to provide a significant source of patients in the other job. Thus, the labour supply decisions in any one job influence the labour supply decisions in the other. This theoretical framework suggests that physicians with dual jobs may face an incentive to perform well in both jobs.

In his work, Chawla uses micro-economic modelling to show that a change in the hospital wage has a direct and indirect effect on the hours worked in the hospital. The direct effect is the usual income effect that shows the negative relationship between the hospital wage and the hours worked. The indirect effect cannot be determined with certainty and depends on the extent to which demand in the secondary job, or the private clinic, responds to changes in the hours worked in the primary sector, or the hospital.

He further continues that a change in the salary in the hospital job has two effects on the fee charged in the private clinic: a positive direct effect, where the fees in the private clinic are positively related to the physician salary in the hospital, and an uncertain indirect effect, where the fees depend on the elasticity of demand for physician services in the private clinic.

Gonzalez (2002) focuses on the possibility of a physician taking dual jobs because of his goal of improving his professional prestige. Specifically, she posits that a physician uses his work in the public sector to improve his prestige and then increase his private revenue. This suggests that the value to the physician of the public sector job is not fully captured in the wage, which may help explain in part why doctors in developing countries retain their public sector jobs despite low wages.

She uses a principal agent model based on incentives, where the health authority is the principal and the physician is the agent, to analyse how the behaviour of a physician in the public sector is affected by his activities in the private sector. There is a tendency of physicians to over-provide health services in the interest of curing patients and gaining prestige, and that dual jobholding could either be welfare improving or reducing, subject to the treatment policy that the health authority, or the principal, wants to implement.

Professional and institutional factors

In addition to economic and personal factors motivating physicians, there are professional and institutional conditions that lead to physicians taking dual jobs. Underlying the observation of the effects of these conditions are the theories of individual

and worker motivation that determine individuals' demand for and response to non-pecuniary aspects of health work (Bennett and Franco 1999).

Eisenberg (1986) explains that the desire to interact among professionals in the practice site, to secure approval from peers, and to influence fellow professionals are some of the other things that a physician considers and which institutions such as public hospitals provide the opportunity of doing. Bennett, Dakpallah, Garner, Gilson, Nittayaramphong, Zurita and Zwi (1994) continue that institutions provide the environment conducive for peer review. Private for-profit providers often work in isolated conditions without peer review, both formal and informal, of their work. Such isolation may contribute to a degeneration of medical skills and endanger professional ethics.

Bennett *et al* (1994) also explain that governments have played roles to affect dual jobholding among physicians. To counteract the problem of 'brain drain', governments may use mechanisms such as mandatory period of public sector service imposed on doctors, nurses, and paramedics who are trained at the expense of the state. Various incentives, either financial or non-financial, are also used to retain public sector staff. Financial incentives may be in the form of extra payments for doctors according to the number of patients seen, while non-financial incentives include training prospects and promotion structures, and opportunities for MJH.

Physicians are also professionals acting as agents serving their principals, who could either be the patients or the state. They value opportunities to increase their knowledge and skills for their own sake, rather than simply as an instrument to increase earnings.

Eisenberg (1986) presents the idea that physicians are also decision makers who act on behalf of the patient's interest and/or in the interest of society as a whole. He continues that the physician who takes the role as the patient's agent has six components, namely: defending his patient's economic well-being, centralising the role as healer in the doctor-patient relationship, championing the preferences of the patient in medical care, practising defensive medicine especially in the light of malpractice suits, focusing on patient characteristics, and taking into consideration patient convenience. As an agent of society, the physician could also be a guarantor of social good, although he explains that doctors tend to be less comfortable contemplating the impact of their decisions on the rest of society vis-à-vis that on the particular patient.

These arguments are also developed in Pauly (1992), which discusses three modes of physician behaviour: profit maximisation, sophisticated target income, and patient agency. Focusing on patient agency and drawing on Eisenberg's work, it is argued that physicians seek primarily to serve as their patients' agents, focusing on decisions that represent the best interest of the patient. He presents several models of patient agency behaviour:

- altruistic agent – implies that the doctor would provide beneficial services at prices well below cost to patients who feel they could not afford them;



- market agent – focuses on setting prices at a market given that patients are fully informed, but with less than perfect competition because of the monopolistic nature of the physician market;
- competitive agent – sets prices at cost, including both the cost of inputs and the opportunity cost of his time;
- social agent – acts to uphold the best level for society as a whole and not just the patient;
- clinical agent – derives utility out of the patient's health, which overrides the concern for financial welfare of either physician or patients;
- economic agent – acts out of concern for the patient's financial status and responds to the cost of care to their patients.

Thus, he continues that the desire to serve the social good is a non-economic behavioural motivation that needs to be considered in predicting and understanding the behaviour of physicians.

Macq, Ferrinho, De Brouwere, Van Lerberghe, (2001) takes the case of public health services managers and their reasons behind multiple jobholding. Aside from the obvious factor of generating additional income, involvement in public-private work shows concern for other factors such as social responsibility, self-realisation, and professional satisfaction. He points out though that the notion of a full time civil servant exclusively dedicated to the public sector is disappearing, as the gap between public and private income makes it unavoidable for medical professionals to seize the opportunity of working both in the public and private sectors.

Notes

2 In the paper, Moses referred to individuals as workers, but for the sake of consistency we will maintain the use of the term individuals.



5 Case studies from low and middle income countries

The following section summarises data available on MJH among physicians and health care professionals in some selected developing countries³. Although the phenomenon is widespread and some countries have significant studies that have touched on this topic, most lack substantial evidence that would shed light on the phenomenon for their particular localities⁴. The results of this review are summarised in Table 1 on page 34.

5.1 Zambia

Current employment rules and regulations of the Ministry of Health (MoH) restrict the role of government-employed medical personnel in the private sector, an idea that predates back to the colonial era and is based on British public sector regulations. While senior public physicians are allowed to do part-time private practice in addition to their government work, junior doctors below the level of senior registrar and lecturer are not permitted to engage in such practices, even during their off-duty hours. The restriction also holds for other paramedical professionals such as nurses and clinical officers, with the exception of being employed as staff by more senior doctors.

Anecdotal evidence suggests that the restrictions are often violated by junior doctors who moonlight to provide labour for private clinics and for other paramedical personnel who practice during their off-duty hours. This has led the government to study and consider amending the law to declare private practice by junior physicians illegal.

On the other hand, however, the private health care market in Zambia at present may not generate enough demand for full-time physicians and professionals to focus solely on private practice. Thus, most private and industrial clinics depend on off-duty MoH staff to service their needs, and it makes sense for junior doctors and paramedical personnel to provide these forms of service. Allowing the said doctors to work part-time in the private sector may also reduce the risk of them eventually engaging in full-time practice.

5.2 Indonesia

The MoH in Indonesia has allowed government physicians to conduct private practice, but on the condition that such practice be conducted after the close of the official public work day. Given the relative low pay of civil servants, including government-employed



physicians, allowing private practice for government doctors is thought to enable them to augment their civil service earnings, thereby making it easier to attract people to rural areas and ensuring the stability and sustainability of the government health care system.

Surveys conducted by the Indonesian Medical Association (IDI) have shown high prevalence of private practice among government health professionals. Most doctors conducted private practice in addition to their respective positions with the government; specifically about 80 per cent of general practitioners (GPs), 90 per cent of specialists, 84 per cent of health centre personnel, 80 per cent of hospital workers, and 93 per cent of administrative personnel. The IDI also came up with the finding that in Indonesia, additional involvement in private practice increased gradually with age: 75 per cent for those who are under 30 years of age to 77 per cent for those in the 30-39 range, and over 86 per cent for those in the 40-60 range. Furthermore, 85 per cent of those who had retired from civil service continued to see private patients.

The supply side component of the health care sector has also started to be subjected to a lot of changes and new developments. In 1974, there were fewer than 50,000 health workers employed in government health institutions. After a decade, by 1983, this figure had grown to 84,000. Another decade still, by 1992, the figure ballooned to 178,000. The rapidly growing health care workforce has put a serious dent on fiscal manageability, and as a result, since 1992 the MoH has relied on quasi-contractual arrangements to mobilise physicians for service in lieu of the historical practice of automatically hiring newly graduated GPs as civil servants. In this sense, many government physicians are now in fact private contractors to the government.

While there have been changes in the employment of physicians, the government's mandate on conscription for public service has still continued. After the completion of their medical studies, physicians are required to serve public institutions for at least three years, with the license to practice being granted upon completion. Furthermore, this compulsory assignment is handled through a non-renewable appointment as non-permanent employees.

However, the practice of compulsory public service has been undermined by the demand of government for physicians not keeping up with the supply of new graduates. The difficulty of absorbing the annual outflow of medical graduates has resulted in many new graduates not being able to practice the profession, as they had to wait for their turn for compulsory service to commence. This dilemma has resulted in resentment and resistance among physicians for the obligatory service, which has also led to the re-evaluation of the compulsory scheme by the MoH. At the same time, the MoH has also started to provide financial and non-financial incentives such as monetary allowances, flexibility in the selection of assignment areas and favourable treatment of specialist applications to induce and encourage doctors to serve less developed areas of the country.

5.3 Egypt

The private sector's role in health care delivery in Egypt is dichotomised, with government institutions providing most in-patient care and private providers most ambulatory care. The government, through the Ministry of Health and Population (MOHP), is the largest employer of physicians in the country, where some 39,900 physicians were working as of 1996, with about 40 per cent in primary health care and the remaining 60 percent in the hospital sector. Historically, all graduating physicians are guaranteed employment by the government in public institutions. These institutions include those of the MOHP, other ministries such as Education and Defence, and a wide range of other public sector institutions including those of social health insurance, an autonomous teaching hospital organisation and others. Physicians working in government employment have no medical practice restrictions and are allowed to serve private clients and organisations.

MJH appears to be a pervasive practice among medical and paramedical professionals in Egypt. Anecdotal evidence suggests that many physicians in Egypt have their own private clinic practice in addition to holding salaried jobs in other medical facilities and institutions. Physicians working for the government are typically salaried employees, where their corresponding salaries are based on years of employment and qualifications.

The survey conducted by the Data for Decision Making (DDM) project of Harvard University has determined that more than four-fifths of privately practising physicians have some form of government or public sector job, with many having more than two jobs. The average number of jobs held was between two and three. Holding more than one government or public sector job is also common. Almost 89 per cent of the physicians that were surveyed in the project reported having multiple jobs, with a corresponding 11 per cent reporting that they worked exclusively in private clinics.

Multiple employment is apparently common with other medical professionals. The DDM survey shows that about 73 per cent of dentists have two jobs, 6 per cent have three jobs, and 1 per cent have four. Most of the MJH dentists are employed by the government, where 61 per cent of those with two jobs are MOHP employees. Other health care providers show a propensity for MJH, except for pharmacists, the vast majority of whom (91 per cent) apparently have only one job, usually in the private sector.

There are also a couple of interesting findings on physician practice in Egypt. One is that physicians who work in both the public and the private sector apparently work longer hours than their counterparts who work only in public facilities and institutions. Also, evidence shows that physicians in private practice work long hours to see relatively few patients. This second finding shows a reflection of Egypt's large stock of physicians, in comparison with other countries at similar levels of income. In fact, the DDM survey has put the physician-to-population ratio at 1.8 physicians per 1,000 population, the highest among countries in the Middle East and North Africa region. The data show that private practice, especially for younger physicians, is not so lucrative and that there are



significant barriers to entry in the private practice market. To date, the government has not tried systematically to analyse how it could take better advantage of Egypt's large cohort of physicians through alternative strategies to manage MJH.

5.4 Bangladesh

In the supply side of the health care market, particularly in ambulatory care, joint public and private practice is a common phenomenon in Bangladesh. MJH by government doctors is prevalent; particularly in the ambulatory care market where government employed physicians also do private practice. While little is known about the specific organisational and economic aspects of such health care arrangements, it is believed that more than 80 per cent of government physicians engage in private practice.

The government has a permissive attitude to joint public and private practice, since they see it as a way to further mobilise resources and to retain qualified staff in the service of the public sector. Financial incentives such as non-private-practice allowances are used to attract and mobilise doctors to rural areas, and it has been the case that this has been more accepted by physicians who are in the early stages of their medical careers. The government has also attempted to regulate provider fees in the early 1980s, although such rules have never actually been enforced.

One of the most pressing concerns regarding allowing MJH has been the questionable practice of diverting patients to private practice who could have benefited equally from government services. This has been an issue raised by a number of respondents in a commissioned study in Bangladesh, where staff in public facilities apparently have behaved inappropriately and patients are not well informed of their rights and options.

5.5 India

India's health care system is complex, with state governments having different conditions and policies. Physicians in the public sector are employed by their respective state governments, and it is anecdotally reported that public sector physicians may see patients on an informal basis after duty hours or even during official hours.

Very little has been written on the topic of MJH among public doctors who engage in private practice in India. This is partly due to the sensitive nature of such practice, and because of the difficulty in collecting valid and reliable data. Anecdotal evidence and a few studies report that many doctors employed in the public sector practice privately, though no specific estimates are at hand to accurately characterise its prevalence.

There have been various issues and concerns raised about public physicians conducting private practice. Observers argue that the practice skews the benefits of health care to those who can better afford it as anecdotal evidence suggests that most physicians

provide more time and better care to their private clients at the expense of their public patients. Another issue is the diversion of potentially paying public clients into private practice, thus hurting the income of public health services.

These negative assumptions have led to a number of state governments banning private practice by government doctors. However, this has been met with varying degrees of success, due to the opposition from individuals and physicians' groups. In state governments where the practice has been disallowed, weak enforcement and inadequate mechanisms to check the practice have undermined the effectiveness of such initiatives. In some states, non-practice allowances are paid to government doctors.

In the state of Kerala, public doctors are free to see patients outside their government work time on a private fee-for-service basis. Also, while they could see patients outside their public hours, they are, in theory, not allowed to be employed by private sector facilities because of conflicts of interest. In other states, for example Andhra Pradesh, the state authorities have tried to engage private physicians by contract to work in public facilities. This has had limited success, due to the low compensation offered in those contracts.

5.6 Poland

Prior to the introduction of health care reforms that resulted from the transition to a more open market economy, there was very little evidence of private practice among health care personnel as almost all of them were state employees and were paid on a salary basis. Only the very senior health care professionals such as directors of hospitals and department heads had private practices alongside their government responsibilities.

With health and broader economic reforms in the 1990s, the supply side situation of the health care market in Poland has changed. While many physicians are still state employees, their employment has evolved into one where MJH has become a fairly common practice. At present, most physicians now work in a number of different facilities for a variety of employers, and part time employment has become more widespread.

Poland implemented several reforms related to the ownership of public hospitals and clinics and the development of social health insurance. Provinces and municipalities have had some autonomy regarding employment of health personnel and MJH. In some cases, government physicians and other health personnel have essentially become private contractors to local governments, although the terms of these arrangements vary widely across the country. There is little hard evidence on the pervasiveness of the MJH phenomenon in Poland and the discussion is complicated by uncertain interpretation of legal and property rights.

As state employees, physicians share the benefits that accompany such type of jobs, such as job security, professional stability and a respected stature in society. However,



they are also compensated on a salary basis, and the salaries they receive have been significantly lower compared to the average in Poland. Private providers, on the other hand, present opportunities of higher earnings vis-à-vis that of the public sector, although they lack the stability and job security that are available in public service.

In addition to the benefits of working in the public and private sectors presented above, most physicians have also been attracted by access to superior equipment and advanced medical technology that are offered by the opportunity to share work between an ambulatory and a hospital ward.

One detailed study of ambulatory care (Chawla, Berman, and Kulis 1999) in Krakow, Poland reported that, by the mid-1990s more than one third of all physician effort in ambulatory care was being done in private practice and that many physicians were engaged in MJH.

5.7 Kenya

The Government of Kenya does not prohibit private medical practice by government physicians. As long as physicians can satisfy the minimum requirements set out by the Medical Practitioners and Dentists Act, they can enter private practice. Specifically, these requirements are that the doctor: a) be registered with the Medical Practitioners and Dentists Board (MPDB), which has a corresponding prerequisite of having a medical degree from an accredited institution and having completed a one-year internship programme; b) have worked in a salaried position under supervision for at least three years; and c) obtained a private practice licence from the MPDB.

However, in the case of government-employed physicians, the privilege of being able to practise privately alongside their government duties is not extended to junior doctors in public service. Government physicians working privately are supposed to declare the hours they intend to work in their public sector position in order to ensure that they maintain the terms of their contract with the government.

The MJH practice among physicians in Kenya has its own share of issues and concerns. For one, controls on the contractual obligations are weak, and the absence of adequate monitoring of these obligations makes it likely that the public is not getting its full output from public physicians. Another is that there have been cases where government physicians admit their private clients in government hospitals and use their facilities at the government's expense, something that has been a persistent problem across developing countries.

During the period of economic crisis in the 1980s/90s, Kenya also experienced a significant exodus of health personnel from public employment to the private sector. This included not only physicians but also medical assistants and other paramedical personnel, who move largely or wholly into private practice.

5.8 Mexico

In the Mexican labour market, as in many other developing countries, the dual pattern of public and private employment has traditionally been considered to be desirable as it allows the physician to combine the prestige of a position in a public hospital with the economic incentives of a private practice.

For instance, recent medical school graduates in Mexico have a mandatory one-year requirement of serving in public hospitals, after which they are considered GPs prior to their continuing to specialisation. Anecdotal evidence suggests that most of them usually moonlight in private clinics and laboratories to augment their salaries from the government.

The health care system in Mexico, like in most other Latin American countries, is divided into three segments: private services for the relatively better-off urban populations, social security institutes for those employed in the formal sector of the economy, and public assistance for the rural and urban poor. This segmentation not only reflects the unequal distribution of resources in the country but also tends to reproduce and solidify social inequalities in the Mexican society.

A similar segmentation pervades among health care professionals in the country, which is an offshoot of the rapid growth of physician supply during the 1970s and the early 1980s.

There is the conventional segment of physicians who have a stable job, which in itself is further subdivided into those physicians working only for the government, those working exclusively in the private practice, and those who combine both public and private practices. The productivity of those practising multiple employment could be seen in the amount of patients they see per week, which is roughly about 84 and is a lot higher than the average of 66 among all other doctors in patient care.

There is also evidence of an oversupply of physicians in Mexico and under-employment among physicians, where some physicians work outside medicine in jobs that demand lower levels of training, and others still see patients but with very low productivity and/or income. It is interesting to contrast this particular supply side condition of health care professionals in Mexico with the fact that approximately 11 per cent of the total population of Mexico have no access to permanent health services. The expanded supply of physicians has not improved in terms of geographical distribution as most physicians prefer to be under-employed but nearer the major urban areas rather than be assigned to the remote areas of the country where health care is lacking.

Notes

3 This review is based on published materials. We have not verified if these are all up-to-date with the current situation in each country.

4 The London School of Hygiene and Tropical Medicine has been doing several field studies on this issue which should be available soon, but were not included in this synthesis.



6 Exploring options for multiple jobholding in the context of health systems

Section 4 reviewed what theory has to say about *why* individual health care providers would engage in MJH behaviour. The main reasons include:

- increased earnings;
- complementarities between the main (e.g. government) job and another (government or non-government) job in terms of work content or earnings variability;
- professional motivation for increasing service to clients;
- opportunities for skill and knowledge enhancement.

In other words, given the opportunity to engage in MJH, individuals could be expected to take up such opportunities in order to obtain these individual benefits.

Section 3 of the paper discussed how the health system conditions, determined by both government behaviour and the operation of private markets, create the opportunities for individuals to pursue these benefits. Given this situation, from the perspective of the government, MJH raises the prospect of both negative and positive effects. For example, the negative effects include:

- absenteeism and job-shirking, as health personnel reduce their work hours in government service to pursue private work;
- exploitation of patients where providers in multiple practice now have incentives to refer patients from public treatment to private treatment, where providers can earn fees;
- incentives for corruption and theft, for example diverting government supplies to private use.

On the positive side, MJH may also be significant, for example:

- MJH can enable government to recruit and retain health personnel at below market level wages, improving access;
- MJH can provide opportunities for job complementarity and for professional and other non-pecuniary benefits to public employees to whom these may be lacking in their government jobs; this may also improve access and quality;
- MJH may provide incentives for health personnel to improve the quality of their work in government service in order to gain reputation to enhance for non-government earnings;
- health personnel in multiple jobs may increase their knowledge and experience, improving quality and efficiency in their work.

Two important questions can be raised. First, since both negatives and positives may be present, which effects are dominant or most important? And second, does the impact of MJH on access and quality differentially affect things the government values (or should value) more, either positively or negatively?

In terms of the first question, the reality of MJH in developing countries may simultaneously result in both negative and positive effects. For example, allowing MJH may increase the access to qualified providers in rural areas but it may be difficult to fully control exploitative behaviour by those providers. An appropriate policy question might be whether the market equilibrium resulting from permitting MJH is better or worse than not permitting it.

The second question introduces distributional goals and values into the appraisal of alternative outcomes. For example, where MJH leads to exploitative and corrupt behaviour, does this have a worse impact on the poor, who are least able to purchase services outside government provision, as well as on services with larger market failures, which are less likely to be provided in the non-government provision roles of health care personnel? Similarly, do possible positive effects differentially benefit the poor? For example, where MJH creates access to public services where, in its absence, such access would be lacking or lower, is it likely this access will benefit the poor more than the non-poor? The answers to these questions depend on how 'pro-poor' the public sector health services are to begin with, rather than on MJH per se.

Thus, we have outlined a setting of government financing and provision, private markets, and the *demand* for MJH among health workers. Given these conditions, what should governments do? There are three sets of options:

1. Remove the conditions creating the demand for MJH among health workers.
2. Increase the benefits and reduce the costs (negative effects) in relation to



government objectives through the best possible design of incentives and regulations to affect the behaviour of health care workers given their demand for MJH.

3. Use coercive measures to ban MJH.

Let us examine options (1) and (3) first.

(1) Remove the conditions creating the demand for MJH among health workers.

To remove the conditions creating the demand for MJH among health workers, governments could appeal to or try to increase the public service motivation of providers, so that they would choose not to seek out the benefits of MJH. This strategy has been successfully followed in societies with a high degree of political motivation for public service or some type of revolutionary fervour. But it is unlikely to be viable in most lower income countries.

Alternatively, governments could increase the compensation of providers in public service in ways which would make MJH less attractive or ultimately unattractive. Simply increasing salaries without being able to enforce bans on MJH (see below) is not likely to work. This is reflected in country experience with paying 'non-practice allowances' which, in the absence of enforcement, simply becomes extra salary. But paying health workers in relation to the volume of their work, so that they become indifferent to public or private employment, may be effective if this is sufficient to outweigh other non-pecuniary benefits of MJH. However, this would significantly increase the government's wage bill, which would require either larger spending on health, or fewer health workers.

Another approach to this strategy is the increasing use of employing contract personnel in government services. In such cases, if the contracts are enforceable, the MJH problem is no longer the government's concern as the providers are no longer government personnel. However, if the contracts are not very enforceable, the same problems arise as in MJH and the other strategies must be considered.

In short, we feel that option (1) will rarely be viable.

(3) Use coercive measures to ban MJH.

This strategy has been followed by a number of countries, using regulations to forbid MJH by government health workers. As shown in the case studies just presented, this has generally not been effective. International experience suggests that most governments lack the capacity to enforce such regulations. Indeed, these regulations are often not seen as legitimate by the health workers (who feel underpaid), their supervisors (who are often engaged in MJH themselves), and the general population (who want and – some of whom – are willing to pay for more convenient and better quality services and who may

feel health workers are entitled to higher earnings), so that enforcement would be very difficult.

We feel that banning MJH is not really a feasible and effective strategy in most countries. One implication of this view is that the distinction often made between legal and illegal MJH (with the latter being identified with corruption) should not be given a lot of weight. It may not do much to advance government objectives to take a legalistic approach to breaches of unenforced and unenforceable regulations that are widely perceived as lacking legitimacy.

Thus, we conclude that most attention should be focused on the second option.

(2) Increase the benefits and reduce the costs (negative effects) in relation to government objectives through the best possible design of incentives and regulations to affect the behaviour of health care workers given their demand for MJH.

Pursuing this option accepts as given certain widespread conditions: that health workers seek the benefits of MJH and that they have the opportunity to obtain these benefits, and that governments will not or cannot eliminate their demand for MJH under current employment and market conditions. It sets as a goal establishing contracts with government health workers that provide government value for money and that support the government's health sector objectives.

To expand on the design and implementation of these contracts is beyond the scope of this paper and should in any case be done in the context of specific national conditions. But some starting principles can be proposed. These are:

a) Government should define clearly and prioritise its objectives in terms of access and quality of services and health system goals for public provision including health priorities, financial protection, and consumer satisfaction. It is unlikely that government can achieve all desired goals equally without significant increases in resources. Not all MJH everywhere in the system is of equal importance to health outcomes, benefits for the poor, etc. What aspects should be given the greatest weight? How will the needs of the poor be prioritised?

b) Government should engage health workers in the process of negotiating the terms of new contracts so that the various stakeholders accept the objectives and agree to support them. Constructive dialogue with workers may lead to creative solutions, such as multiple incentive packages combining both financial and other incentives, opportunities for worker choice etc. Given governments' weak regulatory capacity, an antagonistic process between administrators and union and health professional organisations will not be helpful.

c) Evidence should be assembled on the prevalence and effects of MJH for health



workers, government services, private services, and consumers. This evidence is lacking in most countries. This is essential to support a process of joint problem solving based on facts and not on anecdotes or mistrust. Work is currently underway by the Health Economics and Financing Programme at the London School of Hygiene and Tropical Medicine to synthesise the results of recent studies on MJH in China, Thailand, Peru, and Zimbabwe (January 2003) which could provide valuable new evidence as well as experience in methods that could be used in other countries.

d) A mix of financial and non-financial incentives as well as restricting rules and regulations will be needed.

e) MJH should be viewed in the context of several larger environments: the development of health care markets; human resource policies in the health sector; and improving the quality of government and governance. Strategies to address this issue must be compatible with movement in these larger environments.



7 Synthesis: is multiple jobholding a problem, should something be done, and if so, what?

The preceding review has simply summarised key findings from the theoretical literature on MJH and descriptive information on the phenomenon in a range of middle and lower income countries. Based on this review, a summary answer to the questions titling this section would be – there is insufficient evidence.

On the ‘is it a problem’ question, there are certainly widespread anecdotal reports that MJH can cause problems in terms of the quantity, quality, and equity of public sector health care delivery. But this review concludes that MJH is not the underlying problem or cause of the problems often ascribed to it. Rather, MJH should first be seen as an individual and market response to weaknesses in government policy and implementation. That is, governments try to achieve overly ambitious manpower and service-delivery goals without sufficient resources and capacity. The result is a mix of insufficient financial incentives, other incentives, and weak ability to monitor and regulate worker behaviour that cannot outweigh the incentives individual health workers face in mixed public-private labour markets. MJH emerges from these conditions.

There is limited evidence that MJH can produce both negative and positive outcomes and insufficient evidence to conclude that it is overall positive or negative in terms of its net effects. Indeed there is a lack of good quality evaluative evidence overall. Where data exists, it is mainly descriptive of the causes, scale, and scope of MJH, and anecdotal as to its effects. The theoretical review also does not provide a strong basis to predict wholly negative or positive effects. There are significant reasons why MJH could have both negative and/or positive effects on the quantity, quality, and equity of health services overall and on government provided health services. Some key points are:

- Health care providers could engage in multiple jobholding for a variety of reasons. Increasing income is likely to be the main reason, but institutional and professional factors are probably also important. Even the hypotheses about increasing income do not give unambiguous conclusions that this would automatically lead to abuses or denial of care to the poor.
- Government providers holding additional private sector jobs may treat these jobs



as competitive with their government work, complementary to it, or both. Implications for quantity, quality, and equity differ significantly depending on how this relationship plays out.

The review of country-level conditions suggests four useful conclusions:

- MJH is very widespread;
- governments have a wide range of responses to it based mostly on assumption, anecdote, and, in some cases, hostility to the notion that public servants should engage in private employment;
- governments' efforts to modify or regulate multiple jobholding are often not enforced or implemented effectively;
- there is little quantitative evidence on the extent or characteristics of multiple jobholding on a national scale. Recent work by the London School of Hygiene and Tropical Medicine may address this in several countries. There is also almost no evidence on the impact of government policies on MJH.

The answer to the question, "should something be done?" is almost certainly yes. Unfortunately, there is little basis for specific recommendations about what should be done. Given the perception of MJH as a serious problem and increased attention to human resources and the public-private mix overall, there is strong justification for more research and innovative implementation around this topic in many countries.

In terms of what should be done, this paper offers some suggestions about how governments could approach this question. Efforts to address MJH should consider what could be done about *both* the systemic causes of MJH and its programme and worker-specific manifestations. All MJH is not of equal importance for health outcomes and making services work for the poor. Governments should set priorities carefully, understand causes and effects, and engage in collaborative process with health workers to find solutions which are both acceptable to them and improve system outcomes.

The poor functioning of public sector providers in many lower income countries is widely reported. It is often attributed to the lack of qualified staff, lack of motivation of available staff, lack of skills and complementary inputs, and inability of governments to enforce their own rules and regulations regarding the physical presence of staff and their work responsibilities. Similar diagnoses are applied to different priority health programmes such as child survival, reproductive health, and infectious disease control. MJH is sometimes blamed for some of these problems, but it is also sometimes proposed as a solution to them. It may be both. It may also be a valuable entry point for addressing more fundamental problems related to health care systems and human resources with innovative strategies to improve results.

Table 1: Summary of country case studies

Country	MJH legal?	Prevalence	Government regulations	Restrictions	Incentives	Issues/concerns
Zambia	Not sure	<ul style="list-style-type: none"> Mostly common among senior doctors, although cases of moonlighting by restricted junior doctors and paramedical personnel have been reported 		<ul style="list-style-type: none"> Current employment rules of the MoH restrict supply of medical personnel to the private sector Only senior doctors are allowed part-time private practice Junior physicians and paramedical personnel not allowed to practice even during their off-duty hours 		<ul style="list-style-type: none"> Cases of violation by junior physicians of restrictions on dual practice Supply of part time medical personnel is critical for the private sector, as demand is still too low to support many doctors in full-time private practice
Indonesia	Yes	<ul style="list-style-type: none"> >80% of public doctors involved in some form of private practice 	<ul style="list-style-type: none"> Compulsory 3-year conscription as a requirement for obtaining a licence to practice. Compulsory assignment is handled through as non-renewable 3-year appointment as non-permanent government employees Government doctors are allowed to conduct private practice after the close of the official workday 	<ul style="list-style-type: none"> Medical graduates who were not immediately "drafted" by the government had to wait before their compulsory service could commence, and were not authorised to practice 	<ul style="list-style-type: none"> Allowances and favourable treatment of specialist applications to encourage doctors to go to less developed areas Flexibility in assignment areas for compulsory service 	<ul style="list-style-type: none"> Increased lengthy waiting periods prior to compulsory work has caused resentment and resistance among doctors for the obligatory service



Country	MJH legal?	Prevalence	Government regulations	Restrictions	Incentives	Issues/concerns
Egypt	Yes	<ul style="list-style-type: none"> Based on the DDM survey, more than four-fifths of private physicians have some type of government or public sector job, showcasing MJH as a normal widespread phenomenon 		<ul style="list-style-type: none"> No medical practice restrictions 	<ul style="list-style-type: none"> Guaranteed employment by the government for graduating physicians Physicians working for the government are allowed private practice 	<ul style="list-style-type: none"> Physicians in private practice work long hours to see relatively few patients, reflecting the country's large stock of physicians
Bangladesh	Yes	<ul style="list-style-type: none"> A widely common phenomenon, where it is believed that more than 80% of government doctors are engaged in private practice 	<ul style="list-style-type: none"> Attempts to regulate fees have been in place since the early 1980s, but are in actuality seldom enforced 		<ul style="list-style-type: none"> Financial incentives such as non-private practice allowances to attract doctors to rural areas are more likely to be appreciated by those in the early stages of their careers. 	<ul style="list-style-type: none"> The questionable practice of diverting patients to private practice is a major cause of concern
India	Depends on the state government	<ul style="list-style-type: none"> Widely believed to be a common practice, even if some state governments restrict it 		<ul style="list-style-type: none"> Public physicians can see private clients, but are not allowed to work for private facilities Restrictions in place on amount of time physicians must provide to the care of patients in public facilities 	<ul style="list-style-type: none"> Public doctors are free to see patients outside the public sector time on a private fee-for-service basis 	<ul style="list-style-type: none"> Practice of physicians serving private patients in the public office, leading to overcrowding of patients among public health care providers Diversion of potentially paying public clients into the private practice

Country	MJH legal?	Prevalence	Government regulations	Restrictions	Incentives	Issues/concerns
Poland	Yes	<ul style="list-style-type: none"> MJH among health care providers is a fairly common practice 			<ul style="list-style-type: none"> Most physicians have the opportunity to share work between an ambulatory and hospital ward, thereby receiving access to better technology and equipment 	
Kenya	Yes		<ul style="list-style-type: none"> Public physicians working privately are supposed to declare the hours they work in the public sector Physicians desiring to enter private practice need to satisfy minimum requirements set by government in the Medical Practitioners and Dentists Act 	<ul style="list-style-type: none"> No medical practice restrictions The privilege of public-private practice is not extended to junior doctors in public service 	<ul style="list-style-type: none"> Government physicians are permitted to practice privately alongside their government duties 	<ul style="list-style-type: none"> Absence of adequate contractual monitoring results in the public not getting best output from public physicians Cases of government doctors admitting private clients in government facilities
Mexico	Yes	<ul style="list-style-type: none"> Practised by many physicians, particularly young GPs who need to augment their income 	<ul style="list-style-type: none"> Mandatory one-year requirement to serve public hospitals prior to obtaining GP status 			<ul style="list-style-type: none"> Substantial proportion of medical graduates are either not practising the profession or are under-employed, even though there is demand in less desirable areas



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