Research Article

To Ban or Not to Ban? Regulating Dual Practice in Palestine

Jumana Alaref1, Jawad Awwad2, Edson Araujo1, Christophe Lemiere1, Samira Ahmed Hillis3 and Emre Özaltin1,*

1World Bank Group, Washington, DC, USA
2Ministry of Health, State of Palestine, Ramallah
3World Bank Group, Jerusalem, Palestinian Territories

INTRODUCTION

Dual practice, also referred to as moonlighting, locum work, dual employment, or multiple job holding, refers to the practice of holding more than one job by a health worker, typically simultaneous engagement in clinical practice or other health-related activities. The aim of this article is to provide
new evidence on potential implications of banning dual practice in Palestine.

Dual practice is highly prevalent in both developing and developed countries. Among physicians, it is as high as 80% in Bangladesh and Indonesia, 50% in Chad, 47% in Jamaica, 42% in Sri Lanka, 41% in Zimbabwe, 29% in Cote d’Ivoire, and 21% in Mozambique and is common in Mexico, Egypt, Australia, New Zealand, Japan, and Vietnam. Whereas in low-income countries it is often reported as a coping mechanism to compensate for low wages in the public sector, in high-income countries practitioners tend to view dual practice as an opportunity to achieve clinical autonomy and realize professional aspirations. Dual practice may furthermore be motivated by opportunity to have better contact with patients in the private sector, to treat fewer patients with more time and attention, to offer services unavailable in the public sector, and to gain experience more quickly relative to exclusive public practice.

Dual practice is emerging as an important challenge to health policy makers in developing countries because it may have direct implications for health workers’ labor supply, and for the quantity and quality of care provided. Its opponents argue that it induces undesirable behavior in health workers, such as supplier-induced demand and cream skimming. Increased absenteeism of physicians from public hospitals to focus their time and attention in private practice, from which they generate more income, is featured widely in the literature. Other cited unethical behaviors to promote private practice at the cost of public services include physicians giving their best performance at their private practice while keeping a minimal level of effort at the public hospitals, referring public facility patients to their private practice, and intentionally altering the quality of treatment, increasing waiting times, and reducing communication with patients in the public hospitals to divert patients to their private practice. Without mechanisms to control such behavior, the cost of dual practice can surpass the benefits.

Countries have adopted a range of different policies to deal with dual practice: though some governments fully prohibit it, others regulate or restrict dual practice with different intensities and regulatory instruments (Table 1). Policies on dual practice vary markedly between low- and high-income countries and mostly focus on avoiding its adverse effects, rather than encouraging its positive impacts. Discussion on the impact and implications of different policy and regulatory options in response to dual practice remains to a large extent unexplored in the literature and is limited to general terms because information in this area tends to be influenced by highly specific contextual factors.

THE HEALTH SECTOR CONTEXT, DUAL PRACTICE, AND PROPOSED REGULATION IN PALESTINE

The Palestinian health sector context has two distinguishing characteristics: it operates in an environment of political instability and conflict under Israeli control, undermining effective governance system, and its financial viability is severely constrained by its dependence on donor funding, which is subject to fluctuations related to political considerations.

In Palestine, the health system’s public sector, composed of the Ministry of Health (MOH) and the Palestinian Military Medical Services, is the main service provider and financier of health services (Figure 1). The MOH has a network of 460 primary health care centers (PHCCs) across West Bank and Gaza. The Palestinian Military Medical Services focuses largely on primary health care services through 23 PHCCs (16 in the West Bank and seven in Gaza) and provides secondary and tertiary care services in three hospitals located in Gaza. In 2012, public health expenditure represented 38.7% of total health expenditures. Public funds for health are generated through general taxes raised by the Ministry of Finance (MOF) and the Government Health Insurance contributory scheme.

Nongovernmental organizations (NGOs) have historically played an important role in financing and in service delivery, especially in providing tertiary, ambulatory, and rehabilitative care services. In 2012, NGOs operated 206 PHCCs (140 in the West Bank and 66 in Gaza) and 33 hospitals (19 in the West Bank and 14 in Gaza). The United Nations Relief and Works Agency (UNRWA) plays a critical role in providing services to registered refugee populations, mainly through primary health care clinics. UNRWA operates 61 PHCCs (41 in the West Bank and 20 in Gaza) and one hospital in the West Bank. In 2012, 18.3% of total health spending was mobilized by NGOs. Finally, there are 17 private hospitals, all located in the West Bank. Overall, the private sector in Palestine is limited and mainly provides maternal and child health services. In 2012, private insurance enterprises accounted for 2.3% of total health spending.

Private spending of Palestinian households on health constitutes the bulk of expenditure; in 2012, households’ out-of-pocket (OOP) spending accounted for 39.8% of total health expenditure, higher than many countries in the Middle East and North Africa region (MENA) and the overall MENA average of 35.5%. High OOP spending poses a significant barrier to access to care, particularly for the poorest, and indicates that Palestinians are not protected from financial shocks due to health events.
The Palestinian health workforce has seen an increase in recent years. The availability of health inputs including physicians, nurses, midwives, pharmacists, and dentists, can provide insight on the availability of services and the ability of the system to respond to the needs of the people. In 2012, Palestine had 20.2 physicians (West Bank: 22.9, Gaza: 15.9), 19.7 nurses and midwives (West Bank: 22.4, Gaza: 15.4), 6.1 dentists (West Bank: 8.3, Gaza: 2.5), and 11.5 pharmacists (West Bank: 10.7 and Gaza: 12.8) per 10,000 population.15

In aggregate, the availability of health workers in Palestine surpasses many countries with similar income levels and countries in the East Mediterranean region (Figure 2).16 However, regional disparities in health personnel are increasing between West Bank and Gaza. For instance, the density of physicians per 10,000 in Gaza declined from 17.5 in 2009 to 15.9 in 2012, whereas it increased in the West Bank from

| Dual Practice Policy | Country Examples | Rationale | Challenges |
|----------------------|------------------|-----------|------------|
| Complete ban         | China, Greece (1983–2002), Portugal (before 1993), some states in India, Saudi Arabia, and Turkey (with the exception of university hospitals) | Avoids adverse effects of dual practice | Difficult to enforce |
|                      |                   |           | Increase in informal payments to health workers in public hospitals |
|                      |                   |           | Brain drain of qualified/senior physicians to the private sector or other countries |
|                      |                   |           | Extra cost to monitor activities |
|                      |                   |           | Increase in waiting time for treatment |
|                      |                   |           | Difficult to monitor |
|                      |                   |           | Violation of policy |
| Licensure restrictions | Kenya, some states in India, Indonesia, Zambia, Zimbabwe | Reduces profit maximization intention of physicians | Only practical in countries with efficient systems to monitor private sector activity |
| Restrictions on physicians’ earnings | France, United Kingdom | || Physicians might quit public practice if private sector revenue is very high |
| Exclusive contracts and perks in public sector | Spain, Portugal, Italy, Thailand, some Indian states | Discourage physicians from private practice | Only works when dual practice is for financial purpose and if the increase compensates for revenue loss from non-practice in private sector |
| Increased public sector salaries | Studies in Norway and Bangladesh | | Governments in low income countries cannot offer wages that compensate for loss of private sector earning |
| | | | Offering such contracts only to physicians creates resentment across other health workers |
| Private practice allowed in public hospitals | France, Germany, Ireland, Austria | Efficient regulation and monitoring of private health provision | Appropriate policies must exist to avoid misuse of public resources and determine the types of private practice interventions to be allowed |
| | Experimented in Spain, Portugal, Ethiopia | Synergies between public and private sector | Conflict of interest for physicians is a possibility |
| | Bahrain, Nepal, Ghana | Adds revenue to the public sector | The difference in price and possibly treatment options in the same hospital can be seen as socially discriminatory |
| Limitations on types of services offered in private sector | Canada | Discourage people from using the private sector for services available in public hospitals | Only works in countries with universal health coverage and efficient financial monitoring systems |
| Self-regulation | United Kingdom | Ensure high quality of care and discourage ill effects of dual practice | Does not work in developing countries with low salary, low morale, and weak or absent monitoring systems and not as empowered professional bodies and civil society |

**TABLE 1. Policy to Manage Dual Practice—Practice, Rationale, and Challenges**
17.4 in 2009 to 22.9 in 2012. Moreover, the composition of health workforce is characterized by imbalances in skill mix, with administrative staff accounting for majority of employees and acute shortages of doctors with sub-specialties and significant brain drain, particularly to Gulf Countries.

There are variations in access, responsiveness, and quality of care, which are related to the security situation, particularly in Gaza. Though the Government Health Insurance Scheme with its noncontributory scheme covers the most vulnerable segments of the population free of charge, access to health care services is impeded by Israeli checkpoints, restrictions on movement, delays in Israeli-issued permits to access health facilities outside of Palestine (PT), and shortages in medical supplies. Quality of services in the public sector is generally perceived to be low, particularly in Gaza. Though responsiveness and structural quality are perceived to be better in the private sector, as suggested by the high OOP spending, little is known about process or clinical quality of care. Partially driven by the blockade, there has been a steady degradation of the health system and deterioration of the quality of care provided in Gaza. Health workers are unable to access continuous education, maintenance of medical equipment is severely hampered by restrictions on importing spare parts, drug availability is acutely low, and electricity cuts make operations difficult and impact negatively on the functioning of health facilities. Moreover, evidence indicates that interaction time between patients and health workers at PHCCs is limited, which has implications for the quality of care. Based on the annual average visits to PHCCs in the West Bank in 2012, it is estimated that a patient spends, on average, nine minutes with a health professional. This indicates that the health workers have limited time to inquire about the patients’ medical history and symptoms; offer a diagnosis and, if necessary, refer patients to secondary or tertiary care providers; and properly complete the required documentation.

Surveys between 2005 and 2011 covering perceptions of public service provision in West Bank and Gaza reveal that drug availability and distance to hospitals and public health centers were cited as a source of dissatisfaction, particularly in refugee camps. In Gaza, UNRWA was selected as the best source of health services whereas in the West Bank, private services were the top choice.

There are no recent studies examining the issue of dual practice in Palestine. The latest data indicate that three quarters of government employees in the health sector also worked in private or NGO sectors and anecdotally that the prevalence of dual practice in the health sector is close to 100% for physicians. There appears to be little differentiation in the level of activity between the different cadres of health workforce or by specialty, seniority, etc. Dual practice predominantly takes the form of working in private hospitals or in one’s own private clinic after the end of official working hours at 3 p.m. In 2013, there were 156 physicians licensed to practice privately and eight licensed private hospitals, 30 private medical centers, and 61 clinics in the West Bank. During that time, a prevalent perception in the sector was that dual practice was having a negative impact on quality of services in the public sector and was creating potential conflicts of interest, particularly related to referrals.

Based on these perceptions, in 2014 the MOH was considering a complete ban on dual practice. The ban would uphold Article 67 of the 2005 civil service law prohibiting all civil servants, including doctors, from holding public and private sector jobs simultaneously. The policy would entail (1) increasing health workers’ salaries, (2) closing all current private clinics and refusing clinic licenses for public sector physicians; and (3) issuing a decree banning private hospitals from hiring public sector employees. However, because the perceptions on the impact of dual practice were not under-
pinned by rigorous analysis, the Ministry of Health, at the time it was considering enforcing the policy, requested that the World Bank conduct an analysis of the potential impacts of the proposed reforms. This article summarizes the results of this assessment and provides recommendations on how to manage dual practice in the health sector. It contributes to the broader literature on dual practice by utilizing theoretical evidence and international experience, together with context-specific primary and secondary data, to assess the enforceability, implications, and sustainability of one potential policy response in the Palestinian context.

MATERIALS AND METHODS

The analysis took a four-pronged approach to assess legislation’s enforceability, potential impact and implications, and sustainability in the Palestinian context.

First, we collected context-specific qualitative data by conducting focus group discussions and semistructured interviews with various stakeholders, including MOH and MOF officials, facility directors and managers, practitioners (general physicians, specialists, nurses), doctor’s unions and representatives from civil society, NGOs, and development partners. Key questions included key characteristics of the Palestinian health system; the prevalence of dual practice; its impact on quality of care; and reactions to different policies and incentives. The interviewees constituted a purposive sample of respondents of care; and perceptions of dual practice and its impacts may well be different among different groups; for example, between doctors and nurses or between generalists and surgeons. Finally, though every effort was made to communicate that responses were anonymous and to create a safe space for the interviews, the hospital environment and hierarchical nature of public service increased the risk that data collected may not always fully reflect the perceptions of the respondent.

Second, we conducted a detailed analysis of the financial implications of proposed reforms under several scenarios and assumptions. To estimate the financial yearly costs of the proposed incentivization scheme, we take into account the following factors:

1. The costs of the basic point system to general physicians, resident physicians, and specialists, who have each been assigned basic monthly points (each point is worth 35 Israeli Sheqel [NIS]). Our estimates assume that the average physician does not qualify for additional points that they may accrue from holding advanced academic degrees and more years of accredited training and calculates the yearly costs assuming that they work all year long.
2. The costs of the proposed additional incentive point system to physicians who work overtime and in rural areas, among other challenging conditions.
3. The costs of additional compensatory mechanisms for nurses and paramedical staff, which were not accounted for in the government’s proposed incentivization scheme. We assume that they will receive an increase equivalent to one fourth of the total increase in physicians’ salaries.
4. Monitoring costs for upholding and enforcing the ban.

Third, we drew on existing empirical and theoretical evidence on dual practice, along with economic theory related to labor market dynamics and health worker motivation, to understand the determinants and underlying causes of dual practice in Palestine, how to design policy to maximize health worker motivation and adherence to rules under these conditions, and what consequences of these policies can be expected.

Fourth we utilized the experience of countries around the world in regulating dual practices as a valuable source to guide Palestinian policy makers, while adopting lessons to the local context, including labor markets in general and specific to the health sector; the prevalence, distribution, and impact of dual practice; the motivations behind dual practice; and the tradeoffs that health workers are willing to make.

The methodology has several limitations. First, the focus groups and semistructured interviews are drawn from convenience samples and generalizability to the universe of health workers in Palestine may be limited. Sample sizes are relatively small and do not provide opportunity for stratification by type of health worker, whereas perceptions of dual practice and its impacts may well be different among different groups; for example, between doctors and nurses or between generalists and surgeons. Finally, though every effort was made to communicate that responses were anonymous and to create a safe space for the interviews, the hospital environment and hierarchical nature of public service increased the risk that data collected may not always fully reflect the perceptions of the respondent.

RESULTS

This section summarizes the key implications of a complete ban on dual practice on the Palestinian health sector along
three dimensions: (1) health human resources; (2) access to and quality of services; and (3) health systems financing.

**Human Resources Implications**

The majority of interviewed physicians reported that dual practice in Palestine is principally a coping mechanism to compensate for low salaries in the public sector. Often, public sector physicians do not receive their salaries on time. In other instances, the current financial crisis afflicting the Palestinian Authority (PA) may mean that salaries are only partially paid. These factors increase the financial and economic hardships on many physicians who resort to private practice as a way of supplementing and diversifying their income and supporting their livelihoods.

A complete ban on dual practice risks having a strong impact on health worker motivation in the public sector. Almost all non-director-level staff interviewed indicated that not being allowed to engage in dual practice would have a demotivating effect on their work. Moreover, the doctor’s union is opposed to the policy of a complete ban and has indicated that it will call a nationwide strike if it is to go into effect.

A key risk in banning dual practice is losing health workers to the private sector. However, for a majority of health workers, we find that this is unlikely to happen in Palestine in a way that will impact service delivery, because a weak and fragmented private sector will likely mean that most health workers will stay in the public sector. Many Palestinian health workers view employment in the public sector as a source of more stable income and one that offers other benefits, such as health insurance coverage and retirement plans. The lack of dynamism in the private sector is evident by the fact that the public sector employs a substantial proportion of the workforce. In 2012, 59% of all health human resources in Palestine were employed by the MOH. More specifically, 34% of general practitioners and 37% of specialist physicians were employed by the MOH in 2012.21

Nonetheless, a potential brain drain of rare specialists to the private sector or neighboring Gulf is a significant risk. Rare specialists in Palestine benefit the most from dual practice and the majority is anecdotally involved in it, as they benefit from higher earnings in the private sector or abroad where working conditions are much better and provision of equipment necessary for their work is more enhanced. This is especially alarming because Palestine already suffers from an acute shortage in doctors with sub-specialties (Table 2). For instance, there are only six cardiologists and only five neurosurgeon specialists distributed across West Bank hospitals and even losing one or two can pose a serious threat to the ability of MOH hospitals to provide adequate treatment to their patients.

**Implications for Access, Service Provision, and Quality of Care**

With aging infrastructure and chronic shortages of drugs and materials and qualified staff, the relative negative impact of dual practice on structural quality is perceived to be low. In 2014, nearly 50% of Gaza’s medical equipment was outdated, the average wait time for spare parts was six months, and 25.7% of medicines on the essential drug list were near or at zero stock at MOH facilities.22 In this regard, the dimensions of quality gap in public facilities that are associated with shortages in supplies and equipment are unlikely to change by banning dual practice.

However, we find that per stakeholders’ perceptions, dual practice is negatively affecting process and outcome quality in the public sector. For example, though dual practice does not, in most cases, result in absenteeism during the public practice hours, both process and outcome quality are reported to suffer nonetheless because dual physicians concentrate their effort on their private practice. Key cited factors affecting quality are (1) giving better service at private facilities rather at public facilities for the same disease condition and (2) working long hours at night privately, resulting in exhaustion and poor performance in the public sector. Though international evidence indicates that in some instances dual practice may not have an impact on working hours or quality,23 there is an indication that in Palestine, private hours worked are additional to public hours, which end at three o’clock in the afternoon, and that the effect of dual practice on quality may be more pronounced because the public sector is overburdened compared to a setting where there is considerable lax. For example, a physician in public facilities in Gaza can see up to 50–70 patients daily, which means that a physician can have roughly 18,000 consultations yearly, a number that is much higher than the Organisation for Economic Co-operation and Development (OECD) average of 2,357 consultations per doctor per year.24

It was reported that that banning dual practice has the potential of enhancing process and outcome quality by extending working hours beyond three o’clock in the afternoon and the amount of time doctors can spend with their patients. On the other hand, if health workers are demotivated, they may reduce the quality of services at public hospitals or misuse public resources. Any policy on dual practice should be accompanied by appropriate measures to ensure improved work environment and adequate accountability structures in public hospitals.
| Position                              | Jenin | Toul Karm | Kal Kilyah | Rafidy | Watani | Jericho | Salfeet | Beit-Jala | Bethlehem | Hebron | Yata | Total |
|--------------------------------------|-------|-----------|------------|--------|--------|---------|---------|-----------|-----------|--------|------|-------|
| Anesthesiologist                     | 1     | 1         |            |        |        |         |         |           |           |        |      | 10    |
| Cardiologist                         | 1     | 1         |            |        |        |         |         |           |           |        |      | 6     |
| Facial and mandibular surgery specialist | 1     | 2         |            |        |        |         |         |           |           |        |      | 2     |
| General surgery specialist           | 1     | 1         |            |        |        | 1       | 2       |           |           | 2      | 1    | 9     |
| Hematologist                         | 1     | 1         |            |        |        | 1       |         | 1         |           | 1      |      | 5     |
| Internal medicine specialist         | 1     | 2         |            | 1      | 2      | 3       | 2       | 1         | 1         | 1      |      | 13    |
| Nephrologist                         | 1     | 1         |            | 1      | 1      | 1       |         | 2         |           | 1      |      | 6     |
| Nephrology urinary tract surgery specialist | 1     | 1         |            |        |        |         |         | 1         |           | 1      |      | 3     |
| Neurosurgery specialist               | 2     | 1         |            |        |        |         |         |           |           | 2      |      | 5     |
| Obstetrics and gynecology specialist | 2     | 1         |            | 1      | 2      | 2       | 1       | 2         |           | 2      | 1    | 12    |
| Oncologist                           | 1     | 1         |            | 1      |        |         | 2       |           |           | 1      |      | 6     |
| Ophthalmologist                      | 1     | 1         |            |        |        |         |         |           |           | 1      |      | 5     |
| Optometrist                           | 1     | 1         |            |        |        |         |         |           |           |        |      | 0     |
| Optometrist Assistant                | 1     | 1         |            |        |        |         |         |           |           |        |      | 1     |
| Osteoporosis surgery specialist       | 1     | 1         |            |        |        |         | 1       |           |           | 2      | 1    | 5     |
| Otolaryngologist                     | 1     | 1         |            |        |        |         |         |           |           | 1      |      | 3     |
| Pediatric surgery specialist         | 1     | 1         |            |        |        |         |         |           |           | 2      | 1    | 6     |
| Pediatrician                          | 1     | 1         |            |        |        | 2       | 1       |           |           |        |      | 6     |
| Physiotherapy                         | 1     | 1         |            |        |        |         |         |           |           | 1      |      | 2     |
| Plastic/cosmetic surgeon              | 1     | 1         |            |        |        |         |         |           |           | 1      |      | 2     |
| Psychiatrist                          | 1     | 1         |            |        |        |         |         |           |           | 1      |      | 2     |
| Pulmonologist                         | 1     | 1         |            |        |        |         |         |           |           | 1      |      | 2     |
| Radiodiagnostic specialist            | 1     | 1         |            | 1      | 1      | 1       | 1       | 1         |           | 2      | 1    | 9     |
| Skin and venereal disease specialist  | 1     | 1         |            |        |        |         |         |           |           | 1      |      | 1     |
| Tissue specialist                     | 1     | 1         |            |        |        |         |         | 1         |           | 1      |      | 2     |
| Vascular surgeon                      | 1     | 1         |            |        |        |         |         |           |           | 1      |      | 4     |

Source: Data files obtained from the Ministry of Health.

**TABLE 2.** Breakdown of Sub-Specialty by Hospital in the West Bank, Ministry of Health, 2011
Respondents also indicate that dual practice may be leading to potential conflict of interest for some physicians and contributing to the overall high costs of referrals by increasing the rates of self-referrals; that is, situations when physicians refer patients with conditions that could be treated in public hospitals to the private hospitals or clinics where they work in order to increase their private revenue. The costs of outside medical referrals represent over 40% of the PA’s public health budget. Between 2000 and 2011, these costs grew more than tenfold (by 36% in 2011 alone). In 2012, households’ OOP expenditure accounted for 39.7% of total health expenditure with about one half of OOP in the private sector.14,25

Finally, there is an indication that the private sector may be alleviating some of the pressure on a public health system strained for resources. The public system lacks the capacity/infrastructure to absorb all full-time workers. Eliminating dual practice risks diverting these patients to a public system that remains the main service provider for primary, secondary, and tertiary care and where shortages in beds, operating rooms, equipment, and drugs are acute. The average bed occupancy rate in Palestine is over 88%,15 with many hospitals above the international benchmark average of 78% across OECD countries.28 Furthermore, raising workers’ salaries to compensate for loss of private income without ensuring an improved work environment in public hospitals and performance-linked incentives may leave the health system weaker than before the ban.

Overall, interpreting the results on the implications of dual practice on quality of care requires some caution. The lack of data on dual practice in Palestine prevents us from disentangling the effects of dual practice from the multiple factors associated with low quality of care. For instance, there is strong evidence indicating that, in low- and middle-income countries, the lack of service standards, poor organizational and management practices, and absence of monitoring and accountability systems hamper workers’ motivation and overall performance irrespective of dual practice.11,27 In Palestine, evidence-based protocols and guidelines for quality management are not widely institutionalized, despite some efforts underway by donors and the MOH, and quality improvement interventions, such as clinical practice guidelines and quality-based financial incentives, are lacking.28

**Fiscal and Financial Implications**

The proposed regulation aims to pay for the salary increases through increased insurance premiums and user fees; however, these schemes have yet to be elaborated. Furthermore, the implications of user fee increases have not been ascertained; there is evidence that even small increases in user fees can result in people not seeking needed care, a situation that disproportionately affects the poor.29,30 Overall, a key limitation uncovered by our analysis is that the funding required to support dual practice reform has not been budgeted in 2014 or future fiscal years by the MOF.

Another key limitation is that the policy, as conceptualized, does not include compensation plans for nurses and paramedical staff. Physicians, incentivized to work second shifts and longer hours, will require support from staff; point allocation to other cadres of the health workforce when they work overtime in night clinics or in operation rooms has not been determined. Finally, the proposal has not accounted for the cost of additional measures needed for enforcement. Although the Inspection and Monitoring Unit of the MOH reported that they would stop issuing licenses for public sector physicians to practice in private hospitals and open their own clinics as an enforcement mechanism, monitoring compliance still requires staff and additional monetary resources. The unit currently lacks sufficient manpower, equipment, and technical training to set up a proper monitoring system that would enable it to oversee the private sector activity and ensure closure of all illegal private clinics and full compliance with the ban by private hospitals.

Our estimates indicate that the total yearly costs of the proposed incentivization scheme amount to about NIS 186 million (53 million USD).31 This is a lower-bound estimate based on the proposed incentivization scheme (Table 3) and includes salary increases for physicians only, not including the additional costs of monitoring physicians and private sector activities. Accounting for additional compensatory mechanisms for nurses and paramedical staff in addition for monitoring costs raise the total yearly costs to about NIS 240 million (69 million USD; Table 4).

The additional yearly costs will likely put extra pressure on an already strained health budget. Unpublished data files received from the MOF on the wage bill in 2014 show that the approved budget for the MOH in 2013 was NIS 1,443,477,000, out of which expenditures on salaries were NIS 637,125,000. Revenues in relative terms decreased from a peak of 28% of gross domestic product (GDP) in 2008 to 20% in 2012. Donor aid peaked in 2008 at 32% of GDP but dropped drastically to 9% in 2012 and is projected to decline further to 8.6% of GDP between 2014 and 2018.31 Additionally, the PA has been accumulating substantial arrears to the private sector and public pension funds, and arrears accumulated by municipalities and public utilities to Israel also represent a significant contingent liability.
| Physician Type                  | Parameters Considered | Total Costs (NIS) | Assumptions                                                                 |
|--------------------------------|-----------------------|-------------------|-----------------------------------------------------------------------------|
| Physician                      |                       |                   |                                                                             |
|                                 | Number of physicians  | 2,134             | Number of points 30 Value of each point (NIS) 35 Number of months a year 12 | 26,888,400 | The physician is not a holder of any academic degree in public health |
|                               | Number of points      |                   |                                                                             |
|                               | Value of each point   |                   |                                                                             |
|                               | Number of months a year |                 |                                                                             |
| Specialist                     |                       |                   |                                                                             |
|                                 | Number of specialists | 936               | Number of points 75 Value of each point (NIS) 35 Number of months a year 12 | 29,484,000 | The average number of years of experience for a specialist is 10 years; the specialist does not have another accredited specialty; the specialist has not received training |
|                               | Number of points      |                   |                                                                             |
|                               | Value of each point   |                   |                                                                             |
|                               | Number of months a year |                 |                                                                             |
| Qualified resident physician   |                       |                   |                                                                             |
|                                 | Number of residents in WB | 445             | Number of points 35 Value of each point (NIS) 35 Number of months a year 12 | 6,541,500 | Number of residents was roughly estimated based on HR data from MOH, 2012 |
| Total                          |                       |                   |                                                                             |
| Primary health care clinics operating overtime | Number of clinics | 460 | Number of points (per patient) 1.5 Value of each point (NIS) 35 Number of working days a year 228 | 22,024,800 | On average, a physician works four hours of overtime; one general physician will be working overtime and will receive four patients in one day during overtime hours |
| Operation rooms working overtime | Number of hospitals  | 25 | Median number of operation rooms per hospital 4 Number of points per operation room daily 100 Value of each point (NIS) 35 Number of working days a year 228 | 79,800,000 | The median number of operation rooms per hospital is four; one surgeon will only perform one operation during his overtime working hours; the surgeon will work overtime only once a week |
| Specialized outpatient clinics working overtime | Number of hospitals | 25 | Median number of specialties Number of points per specialty Value of each point (NIS) 35 Number of working days a year 228 | 9,975,000 | The median number of specialty per hospital is 10; every clinic is projected to have 25 patients daily (MOH, 2013) |
| Rare specialists               | Number of rare specialists | 25             | Number of points per month 10 Value of each point (NIS) 5 Number of months a year 228 | 1,050,000 | Rare specialists are only accounted for the ones in West Bank |

**TABLE 3.** Cost of the Proposed Basic and Additional Incentive Point Systems (Continued)
| Physician Type                  | Parameters Considered | Total Costs (NIS) | Assumptions                                                                 |
|--------------------------------|-----------------------|-------------------|----------------------------------------------------------------------------|
|                                |                       |                   |                                                                             |
| Serving in rural areas         | Number of physicians  | 1,327,200         | It is assumed that one third of the total workforce working in primary health care in Palestine (948) serve in rural areas |
|                                | serving in rural areas|                   |                                                                             |
|                                | Number of points per  |                   |                                                                             |
|                                | month                 | 316               |                                                                             |
|                                | Value of each point   | 10                |                                                                             |
|                                | (NIS)                 | 35                |                                                                             |
|                                | Number of months a    | 12                |                                                                             |
|                                | year                  |                   |                                                                             |
| Working in hospitals           | Number of general     | 8,639,400         |                                                                             |
|                                | physicians working in |                   |                                                                             |
|                                | hospitals             | 2,057             |                                                                             |
|                                | Number of points per  |                   |                                                                             |
|                                | month                 | 10                |                                                                             |
|                                | Value of each point   | 35                |                                                                             |
|                                | (NIS)                 |                   |                                                                             |
|                                | Number of months a    | 12                |                                                                             |
|                                | year                  |                   |                                                                             |
| Working in emergency rooms     | Number of general     | 98,700            | Number of general physicians working in emergency rooms roughly estimated based on HR data from MOH, 2012 |
|                                | physicians            |                   |                                                                             |
|                                | Number of points per  |                   |                                                                             |
|                                | month                 | 5                 |                                                                             |
|                                | Value of each point   | 35                |                                                                             |
|                                | (NIS)                 |                   |                                                                             |
|                                | Number of months a    | 12                |                                                                             |
|                                | year                  |                   |                                                                             |
| Working in emergency rooms     | Number of specialists | 4,200             |                                                                             |
|                                | Number of points per  |                   |                                                                             |
|                                | month                 | 11                |                                                                             |
|                                | Value of each point   | 0                 |                                                                             |
|                                | (NIS)                 | 3                  |                                                                             |
|                                | Number of months a    | 12                |                                                                             |
|                                | year                  |                   |                                                                             |
| Total                          |                       | 122,919,300        |                                                                             |
| Total cost of the incentive    |                       | NIS 185,833,200    |                                                                             |
| package                        |                       |                   |                                                                             |

Source: Number of physicians, specialists, and residents is based on Ministry of Health 2012 estimates. Data obtained from: Dr. Jawad Bitar; Epidemiologist; Director of Palestinian Health Information Center (PHIC); National Focal Person for Health Information & Statistics; Ministry of Health State of Palestine; March 2015. Partially based on material gathered from an unpublished draft by the Palestinian Institute for Research and Development Studies gathered during semistructured interviews conducted with the institute in March 2014; short analytical draft on the dual practice incentive scheme proposed by the Ministry of Health obtained during semistructured interviews conducted with key stakeholders at the Ministry in March 2014; and authors’ calculation.

**TABLE 3.** Cost of the Proposed Basic and Additional Incentive Point Systems
DISCUSSION

There is no clear consensus on the net effects of dual practice and no one optimal policy to regulate it, as reflected by the global cross-country heterogeneity in governments’ responses to it. The success of the various policies is dependent on the institutional context, resources, and government’s ability to enforce regulations. The present review does not allow us to propose a definite policy direction on how to regulate dual practice in Palestine or globally, and the need for further empirical evidence in this regard remains.

Nevertheless, the results of the present analysis indicate that, despite evidence of undesirable effects of dual practice on the health sector, an outright ban as currently formulated is unlikely to be the optimal policy to reduce the financial burden on patients and enhance their access to quality services in the public sector in Palestine. Because monitoring systems in Palestine remain weak with limited capacity, it is difficult to enforce the ban, which often exists on a large scale despite the law and risks leading to higher informal payments. The Greek experience with banning dual practice in a similarly weak monitoring environment in the 1980s demonstrated that the ban did not result in a reduction in informal payments, nor did it eliminate dual practice, which continued outside the regulatory jurisdiction of government. 

A second key issue relates to the retention of rare specialists. One possibility that has been tried in some middle- and high-income countries (e.g., Spain and Portugal) to avoid the loss of highly skilled physicians is to contract them on part-time basis with the public sector. Though there have been previous difficulties in the Palestinian context in retaining highly skilled staff, appropriate contracting may be a possible solution.

Overall, the analysis indicated, and the MOH agreed, that a revised policy should (1) be based on evidence from well-designed studies; (2) be sequenced gradually over time; (3) be piloted and carefully monitored, while retaining flexibility over its design; (4) be executed in the context of broader sectoral reforms; (5) take into account the intrinsic as well as the extrinsic motivation of health workers; and (6) be costed and sustainable within the given fiscal space. Tasked with conducting an analysis of the potential impacts of the proposed

### Table 4. Monitoring Costs and Costs of Additional Incentives for the Rest of the Health Workforce

| Health Worker Type | Parameters Considered | Total Costs (NIS) | Assumptions |
|--------------------|-----------------------|-------------------|-------------|
| Paramedical staff  | Number of paramedical staff: 1,681 | Salary increase per one staff: 13,217.155 | 22,218,037.56 | Paramedical staff will receive an increase equivalent to one fourth of the total increase in physicians’ salaries from the basic and additional incentive point systems |
| Nurses             | Number of nurses: 1,548 | Salary increase per one staff: 13,217.155 | 20,460,155.94 | Nurses will receive an increase equivalent to one fourth of the total increase in physicians’ salaries from the basic and additional incentive point systems |
| Monitoring costs   | Number of employees in the Inspection and Monitoring Arm of the MOH: 300 | Lower bound salary (NIS) yearly per worker: 36,000 | Technical training costs yearly per worker (NIS): 900 | Equipment costs yearly: 500,000 | It is assumed that the Monitoring Arm of the MOH will have to hire extra 300 workers; each worker receives a salary of 3,000 NIS monthly; each worker will receive three training workshops yearly (each will cost 300 NIS); and total yearly equipment costs will be NIS 500,000 |

Total cost of the additional increases NIS 54,248,193.4

Source: Number of nurses and paramedical staff is based on Ministry of Health 2012 estimates. Authors’ calculations.
reforms, the World Bank proposed the following set of sequenced recommendations.

**Assess the Potential Impact of Reforms through a Series of Empirical Studies**

We recommend five key studies: (1) prevalence of dual practice and its underlying causes; (2) detailed labor market analysis, including public sector absorptive capacity; (3) a cost–benefit (or cost-effectiveness) analysis of referring services requiring rare specialties abroad versus providing services in the MOH (including contracting and infrastructure and equipment requirements); (4) costing of (a range of) proposed reforms and definition of a multiyear financial plan; and (5) impact of increasing user fees on access and utilization.

**Strengthen Monitoring and Evaluation (Enforcement) Mechanisms**

Strong monitoring and accountability systems will be integral to enforcing the eventual policy, particularly if the ban on dual practice proceeds. This entails enacting regulation and financial monitoring systems of private health provision with effective enforcement mechanisms, as well as increasing accountability and norms of peer pressure among health workers to ensure that dual practice does not continue outside the legal jurisdictions or that the ban does not lead to increased informal payments. The example of Greece shows that, in the absence of these, dual practice can continue, or even get worse, when banned.

**Incentivize Health Workers**

Increased salaries (or money incentives) alone are necessary but not sufficient to deal with this issue. Improving intrinsic motivators and working conditions will be important to ensure success of the reforms, recognizing that the political and financial circumstances will make the latter challenging. Both Turkish and French experiences demonstrate the importance of investing in the public sector, in terms of enhancing working conditions, accountability, and professional development opportunities in luring physicians back to full-time practice. The Greek example illustrates that increases in physicians’ salaries alone do not necessarily improve their performance or alter their incentives as long as their performance is not evaluated against service standards and their payments are not related to their performance. Specifically, we suggest that reforms be accompanied by (1) an initiative to improve nonfinancial incentives and human resource management tools, such as appreciation, supportive supervision, performance appraisal, career development, feedback from the community, and training opportunities; (2) initiatives to improve workplace conditions, including availability of equipment and medications; and (3) performance-based payment modalities (or pilots), such as performance-based financing, as an incremental step toward eventual provider payment reform moving away from central, historical budgeting.

**Monitor Policy Impacts**

To prepare for potential adverse effects of the ban (or amended policy) and to prepare to make adjustments and corrections as needed, health system impacts need to be monitored and adaptable. We propose (1) because losing key and rare specialists from the public sector is a real danger, considering an exception from the ban for these health workers specialists and/or design a plan to contract these services (similar to the systems setup in the United Kingdom, Spain, and Portugal, where private consultants work part-time for the public sector); (2) monitoring prevalence of informal payments to ensure these do not go up; and (3) monitoring the access quality of the public sector, including hospital occupancy, infection rates, and waiting times.

**Establish and Expand the Legislative and Regulatory Framework as a Necessary Means to Enforce Reforms**

A key complaint from health workers is that the proposed system for increases in user fees and insurance premiums is not sustainable or credible. As the thrice-delayed reform shows, health workers may derail the reforms or even destabilize the entire sector through strikes.

**Engage in Broad Sectoral Reforms That Address the Issues Underlying Dual Practice**

Dual practice arises from underlying sectoral factors that should be addressed in parallel to developing an appropriate policy response. We propose (1) strengthening service standards of quality performance through accreditation, internal audit, and updated tools and treatment protocols; (2) empowering civil society to exert peer pressure or consumer pressure on physicians to adhere to ethical and professional norms; (3) improving organizational and management practices in public facilities; and (4) improving health financing, including improving the health insurance law; defining a basic benefits package; engendering (some) facility autonomy; and developing a plan to move away from centralized historical budgeting for health facilities.
As policy makers in Palestine and elsewhere attempt to regulate dual practice in the health sector, much remains to be understood about the phenomenon and its implications on health markets. Though there is a lack of clear consensus on its net effects, evidence indicates that it is often a symptom of weak accountability structures and poor incentives for public sector health workers in developing countries, rather than the disease itself. The tradeoff between the advantages and disadvantages of dual practice largely depend on governments’ ability to enforce the regulations that increase health workers’ incentives and accountability. In the Palestinian context, this article recommends against the full ban of dual practice as currently formulated and provides specific recommendations on the analysis and health sector reforms to be considered when regulating dual practice.

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST

H. E. Jawad Awwad is Minister of Health of the State of Palestine.

ACKNOWLEDGMENTS

Emre Ozaltin was the task team leader for this study and Samira Ahmed Hillis and Jumana Alaref were team members.

FUNDING

This study was funded by World Bank technical assistance (TA) grant of $100,000 USD.

SUPPLEMENTAL MATERIAL

Supplemental data for this article can be accessed on the publisher’s website.

NOTES

[a] NGOs can be categorized in three broad categories: (1) those providing services to businesses (e.g. chamber of commerce); (2) those operate in partnership with the public sector (e.g., government-owned hospital); and (3) those providing services directly to the households such as charities, trade unions, professional unions, churches, and privately financed aid organizations.

[b] PHCCs in the West Bank received on average 11,800 visits in 2012. Assuming that a regular workday is seven hours and the total number of business days in the public sector is 248 days, a patient visiting a PHCC spent nine minutes with a health professional.

[c] According to internal documents, the proposed increase constitutes 35% of doctors’ monthly salaries through a basic incentive point system, whereby health workers accumulate points (each point is worth NIS 35) as a function of seniority, specialization, and educational attainment/years of training. The accumulated total cannot exceed 35% of physicians’ total monthly income. Health workers are incentivized to work additional hours and in certain areas according to a second point system whereby they accumulate additional points.

[d] 1 USD = 3.4844 Israeli Sheqel (NIS).

REFERENCES

[1] Gruen R, Anwar R, Begum T, Killingsworth JR, Normand Cx. Dual job holding practitioners in Bangladesh: an exploration. Soc Sci Med 2002; 54(2): 267-279.
[2] Berman P, Cuizon D. Multiple public–private jobholding of health care providers in developing countries: an exploration of theory and evidence. London: DFID Health Systems Resource Centre.
[3] Gupta N, Dal Poz MR. Assessment of human resources for health using cross-national comparison of facility surveys in six countries. Hum Resour Health 2009; 7(1): 22.
[4] Witter S, Thi Thu Ha B, Shengalia B, Vujicic M. Understanding the “four directions of travel”: qualitative research into the factors affecting recruitment and retention of doctors in rural vietnam. Hum Resour Health 2011; 9(1): 20.
[5] Ferrinho P, Van Lerberghen W, Fronteira I, Hipólito F, Biscaia A. Dual practice in the health sector: review of the evidence. Hum Resour Health 2004; 2(1): 14.
[6] Humphrey C, Russell J. Motivation and values of hospital consultants in south-east England who work in the National Health Service and do private practice. Soc Sci Med 2004; 59: 1241-1250.
[7] Jumpa M, Jan S, Mills A. The role of regulation in influencing income-generating activities among public sector doctors in Peru. Hum Resour Health 2007; 5(1): 5.
[8] Das J, Holla A, Mohpal A, Muralidharan K. Quality and accountability in health care delivery: audit evidence from primary care providers in India. Washington, DC: World Bank Group; 2015. Policy Research Working Paper No. WPS 7334.
[9] Eggleston K, Bir A. Physician dual practice. Health Policy 2006; 78(2–3): 157-166.
[10] Socha KZ, Bech M. Physician dual practice: a review of literature. Health Policy 2011; 102(1): 1-7.
[11] Jan S, Bian Y, Jumpa M, Meng Q, Nyazema N, Prakongsai P, Mills A. Dual job holding by public sector health professionals in highly resource-constrained settings: problem or solution?. Bull World Health Organ 2005; 83(10): 771-776.
[12] Garcia-Prado A, Gonzalez P. Policy and regulatory responses to dual practice in the health sector. Health Policy 2007; 84 (2–3): 142-152.
[13] Garcia-Prado A, Gonzalez P. Whom do physicians work for? An analysis of dual practice in the health sector. J Health Polit Policy Law 2011; 36(2): 265-294.

[14] Palestinian Central Bureau of Statistics and Ministry of Health. Preliminary results of National Health Accounts in Palestine at current prices for 2011–2012. February 2014. Accessible at http://www.pcbs.gov.ps/site/512/default.aspx?tabID=512&lang=en&ItemID=1026&mid=3171&w version=Staging (accessed 5 September 2016).

[15] Palestinian Ministry of Health. Health report, Palestine. Mid-year 2013. Available at http://www.moh.ps/Content/Books/c4QiEFVTTCYmrSGziSctuEHTFrP7FVeeSi3EuzNsiz3WD7KYmaqw9W9h_jvWKPlMihZtvu0t3KodjMGorCYWKwqDGYtDCYYXGrzUXzbhBFqiC.pdf (accessed 25 August 2016).

[16] World Health Organization. Regional data observatory—Eastern Mediterranean Region. 2014. Available at http://www.emro.who.int/entity/human-resources-observatory/index.html (accessed 25 August 2016).

[17] FAfo Research Foundation. Palestinian opinions about public services: synthesis of results of Fafo’s opinion polls in the West Bank and Gaza Strip (2005–2011). 2011. Available at: http://www.fafo.no/~fafo/media/com_netsukii/10129.pdf (accessed 25 August 2016).

[18] Palestinian Central Bureau of Statistics. Demographic and health survey—2004 final report. February 2006. Accessible at http://www.pcbs.gov.ps/Downloads/book1234.pdf (accessed 25 August 2016).

[19] Palestinian Authority. Council of ministers’ resolution no. 45 for the year 2005 pertaining to the executive regulations of the civil service law no. 4. 2005. Available at: http://mujtahi.birzeit.edu/pg/getleg.asp?id=14914 (accessed 30 December 2016).

[20] Ayanian J, Markel H. Donabedian’s lasting framework for health care quality. N Engl J Med 2016; 375: 205-297.

[21] Palestinian Ministry of Health. Health report, Palestine. 2012. Available at http://www.moh.ps/index/Books/BookType/2/Language/ar (accessed 5 September 2016).

[22] World Health Organization. Report of a field assessment health conditions in the occupied Palestinian territory (oPt). April 2015. Available at http://www.who.int/hac/crises/international/wbgs/opt_field_assessment_health_conditions_lapril2015.pdf (accessed 5 September 2016).

[23] Vujicic M, Shengelia B, Alfano M, Thu HB. Physician shortages in rural Vietnam: using a labor market approach to inform policy. Soc Sci Med 2011; 73(7): 970-977.

[24] Organisation for Economic Co-operation and Development. Health at a glance 2009: OECD indicators. 2009. Available at http://www.oecd.org/health/health-systems/44117530.pdf (accessed 25 August 2016).

[25] Palestinian Central Bureau of Statistics. Palestinians at the end of 2012. 2012. Available at http://www.pcbs.gov.ps/Portals/_pcbs/PressRelease/Press_En_PalestiniansEOY2012E.pdf (accessed 25 August 2016).

[26] Organisation for Economic Co-operation and Development. Health at a glance 2013: OECD indicators. 2013. Available at http://www.oecd.org/els/health-systems/Health-at-a-Glance-2013.pdf (accessed 25 August 2016).

[27] World Health Organization. The world health report 2000: health systems improving performance. 2000. Available at http://www.who.int/whr/2000/en/whr00_en.pdf (accessed 25 August 2016).

[28] Rand Corporation. Strengthening the Palestinian health system: 2005. Available at http://www.rand.org/content/dam/rand/pubs/monographs/2005/RAND_MG311-1.pdf (accessed 5 September 2016).

[29] Yoder RA. Are people willing and able to pay for health services? Soc Sci Med 1989; 29: 35-42.

[30] Russell S, Gilson L. User fee policies to promote health service access for the poor: a wolf in sheep’s clothing? Int J Health Serv 1997; 27: 359-379.

[31] International Monetary Fund. West Bank and Gaza: report on macroeconomic developments and outlook. 2014. Available at http://www.imf.org/en/Countries/ResRep/WBG (accessed 25 August 2016).

[32] Mossialos E, Allin S, Davaki K. Analyzing the Greek health system: a tale of fragmentation and inertia. Health Econ 2005; 14(Suppl 1): S151-S168.

[33] Franco LM, Bennet S, Kanfer R, Stubblebine P. Determinants and consequences of health worker motivation in hospitals in Jordan and Georgia. Soc Sci Med 2004; 58(2): 343-355.

[34] Malik AA, Yamamoto SS, Souares A, Malik Z, Sauerborn R. Motivational determinants among physicians in Lahore, Pakistan. BMC Health Serv Res 2010; 10(1): 201.

[35] Atun R, Aydin S, Chakraborty S, Sumer S, Aran M, Gurol I, Nazlioglu S, Ozgulcu S, Aydogan U, Ayar B, et al. Universal health coverage in Turkey: enhancement of equity. Lancet 2013; 382(9886): 65-99.

[36] Akdag R. Turkey health transformation program evaluation report (2003–2010). 2011. Available at http://www.saglik.gov.tr/EN/dosya/2-1261/h/turkey-health-transformation-program-2003-2010.pdf (accessed 25 August 2016).

[37] Kiwanuka SN, Kinengyere AA, Rutebemberwa E, Nalwadda C, Sengoooba F, Olico-Okui Pariyo GW. Dual practice regulatory mechanisms in the health sector: a systematic review of approaches and implementation. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London; 2011.