

## Health in the Occupied Palestinian Territory 5



# The health-care system: an assessment and reform agenda

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Attempts to establish a health plan for the occupied Palestinian territory were made before the 1993 Oslo Accords. However, the first official national health plan was published in 1994 and aimed to regulate the health sector and integrate the activities of the four main health-care providers: the Palestinian Ministry of Health, Palestinian non-governmental organisations, the UN Relief and Works Agency, and a cautiously developing private sector. However, a decade and a half later, attempts to create an effective, efficient, and equitable system remain unsuccessful. This failure results from arrangements for health care established by the Israeli military government between 1967 and 1994, the nature of the Palestinian National Authority, which has little authority in practice and has been burdened by inefficiency, cronyism, corruption, and the inappropriate priorities repeatedly set to satisfy the preferences of foreign aid donors. Although similar problems exist elsewhere, in the occupied Palestinian territory they are exacerbated and perpetuated under conditions of military occupation. Developmental approaches integrated with responses to emergencies should be advanced to create a more effective, efficient, and equitable health system, but this process would be difficult under military occupation.

### Introduction

Achievement of the human right to the highest attainable standard of physical and mental health<sup>1</sup> entails equitable access to effective health-care systems<sup>2</sup> and calls for health professionals to promote necessary change.<sup>3</sup> To strengthen the health systems of low-income and middle-income countries, the WHO Commission for Macroeconomics and Health calls for greater resources for health care.<sup>4</sup> Since the signing of the Declaration of Principles on Interim Self-Government Arrangements by the Palestinian Liberation Organisation and the State of Israel, also known as the Oslo Accords,<sup>5</sup> substantial donor assistance was meant to improve a health-care system for the occupied Palestinian territory (the West Bank, including the Palestinian Arab East Jerusalem, and the Gaza Strip). In 2003 alone, donations amounted to US\$240 million (\$65 per person), covering 87% of budgeted non-salary operating costs of the Ministry of Health.<sup>6</sup>

Health-care systems have three main goals: improving health, responding to the non-medical expectations of the population, and enhancing financial risk protection.<sup>7,8</sup> The first and second reports in this Series<sup>9,10</sup> on health and health services in the occupied Palestinian territory trace the steady improvement in the health status of the population until the mid-1990s when improvements slowed, and, in some cases, reversed. Reports two and three<sup>10,11</sup> show how planning and coordination of health care are inadequate, the use of resources is ineffective, and services are below acceptable standards, leading to public dissatisfaction with health services.<sup>12</sup> Current financial arrangements are associated with high risks and unequal burdens,<sup>13,14</sup> with substantial out-of-pocket payments that favour rich people and place a high burden on poor people.<sup>15</sup> Other reports in this Series<sup>9-11,16</sup> elucidate the role of Israeli military occupation in producing and maintaining inefficiencies and inequities and the relative

powerlessness of the Palestinian National Authority to counteract them.

In this report, we use reviews of published work and interviews to identify ways to integrate developmental approaches with responses to emergencies to create a more effective, efficient, and equitable health system. We provide a profile of the Palestinian health-care system and analyse the system with respect to the six building blocks of the WHO framework<sup>8</sup> for health systems: service delivery; workforce; information; medical products and technologies; financing; and leadership, governance, and stewardship. We emphasise the complexity of health-system building under conditions of military occupation, review future political scenarios, and suggests ways to improve performance and equity.

### Palestinian health-care system: a data profile

The 3.76 million Palestinians<sup>17</sup> living in the occupied Palestinian territory are in the middle of epidemiological and demographic transitions.<sup>9,11</sup> Four main providers<sup>18</sup> are responsible for primary, secondary, and tertiary health care: a Palestinian Ministry of Health, Palestinian non-governmental organisations, the UN Relief and Works Agency,<sup>19</sup> and the private sector. Health services are financed through a mixture of taxes, health insurance premiums and co-payments, out-of-pocket payments, local community financial and in-kind donations, and loans and grants from the international community (including the UN Relief and Works Agency).<sup>18</sup> Reviews of the health sector estimated that total health expenditure in 2002 was 8.6% of gross domestic product (GDP)<sup>20</sup> and per-person expenditure was \$135 in 2005.<sup>6</sup>

Health, nutrition, and population indicators suggest that the occupied Palestinian territory is doing well compared with many countries in the region.<sup>9</sup> Moreover, more than 95% of women receive some form of antenatal care and deliver in health institutions, and immunisation

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coverage is high (>95%).<sup>21</sup> However, socioeconomic and regional inequalities persist: an infant born to a family in the richest 20% in the West Bank is almost twice as likely to survive 1 year than is one born to a poor family in the Gaza Strip.<sup>14</sup> Non-communicable diseases are the main causes of mortality;<sup>11</sup> and, since 2000, there has been a substantial increase in the number of patients seeking mental-health services.<sup>22</sup> In view of the turbulent situation, the chances of the occupied Palestinian territory achieving most Millennium Development Goals by 2015 are low.<sup>23</sup>

Until the Oslo Accords and the events of September, 2000,<sup>9</sup> the occupied Palestinian territory had a functional, if dependent, economy. Lately, unemployment rates have spiralled upwards, and, in 2007, more than 21·5% of the active population was unemployed,<sup>24</sup> leaving 57·2% of Palestinian households with an income less than the national poverty line of \$3·18 per person per day.<sup>25</sup> By 2006, GDP in the occupied Palestinian territory had fallen by a third of its 1999 value, from \$1612 to \$1129.<sup>26</sup>

### Assessment of the health-care system

Complementarity between the four main providers of health care in occupied Palestinian territory has not developed from an attempt to establish a rational and efficient division of labour but has mainly arisen because of the political and economic situation. Closures,<sup>9</sup> segregation,<sup>27</sup> strikes,<sup>28</sup> and impoverishment lead many transfers of patients from one provider to another.<sup>29</sup> Restrictions on movement imposed by multiple checkpoints, barriers to movement,<sup>29,30</sup> and the separation wall<sup>31,32</sup> prevent access for patients and medical staff (figure). In July, 2007, alone, there were 40 recorded cases of ambulances being denied access to patients in the West Bank.<sup>34</sup> A survey at the end of 2003 found that the number of people needing 1 h or more to reach an appropriate health facility had increased by ten times in 3 years.<sup>29</sup> A network of mobile clinics now caters for the needs of people living in remote and isolated localities.<sup>35</sup> There are few effective restrictions in the system, and patients seeking referral services are generally entitled to receive them.<sup>36</sup>

After the Oslo Accords, the number of primary health-care centres run by non-governmental organisations fell from 242 in 1992 to 177 in 1994.<sup>37</sup> The decrease was mainly due to abrupt changes in donor aid policies and the Palestinian National Authority budget allocation strategy,<sup>32,37,38</sup> which aimed to reserve resources to rehabilitate the dilapidated services of the Ministry of Health. The increase in primary health-care centres sponsored by the Palestinian National Authority more than compensated for these losses, with about 170 new primary health-care facilities being opened (mostly in the West Bank) in 13 years.<sup>18</sup> Moreover, in 2006, over 40 clinics were mutually operated by the Palestinian Ministry of Health and non-governmental organisations.<sup>39</sup>

Secondary and tertiary care are provided through general and specialised hospitals, mainly located in

urban areas. The non-governmental sector operates 1582 beds in 28 hospitals (table), with a substantial proportion of its workload covered by the Palestinian National Authority health-insurance scheme.<sup>18</sup> The shortage in tertiary health-care services is clear, and those concentrated in Jerusalem are inaccessible to most people in the occupied Palestinian territory because of Israeli restrictions on movement.<sup>30,31</sup> As a result, an increasing number of cases are referred for treatment in other countries—about 15 000 cases in 2005<sup>21</sup> mainly to Jordan, Egypt, and Israel—thereby increasing the financial burden on the system and society.<sup>41</sup>

The Ministry of Health's share in overall service delivery has risen significantly, mainly because of severe population impoverishment, starting at the end of 2000, and the accompanying extension of free insurance coverage (see below).<sup>18</sup> However, this increase was not matched by increased capacity of the ministry, resulting in falling quality of care. Most ministry hospitals have to turn away many patients because they have no capacity. By contrast, non-governmental hospitals are underused,<sup>18</sup> emphasising the need for better coordination between providers. Despite several projects to promote quality of ministry-run services,<sup>20</sup> they are still perceived as inferior.<sup>12</sup>

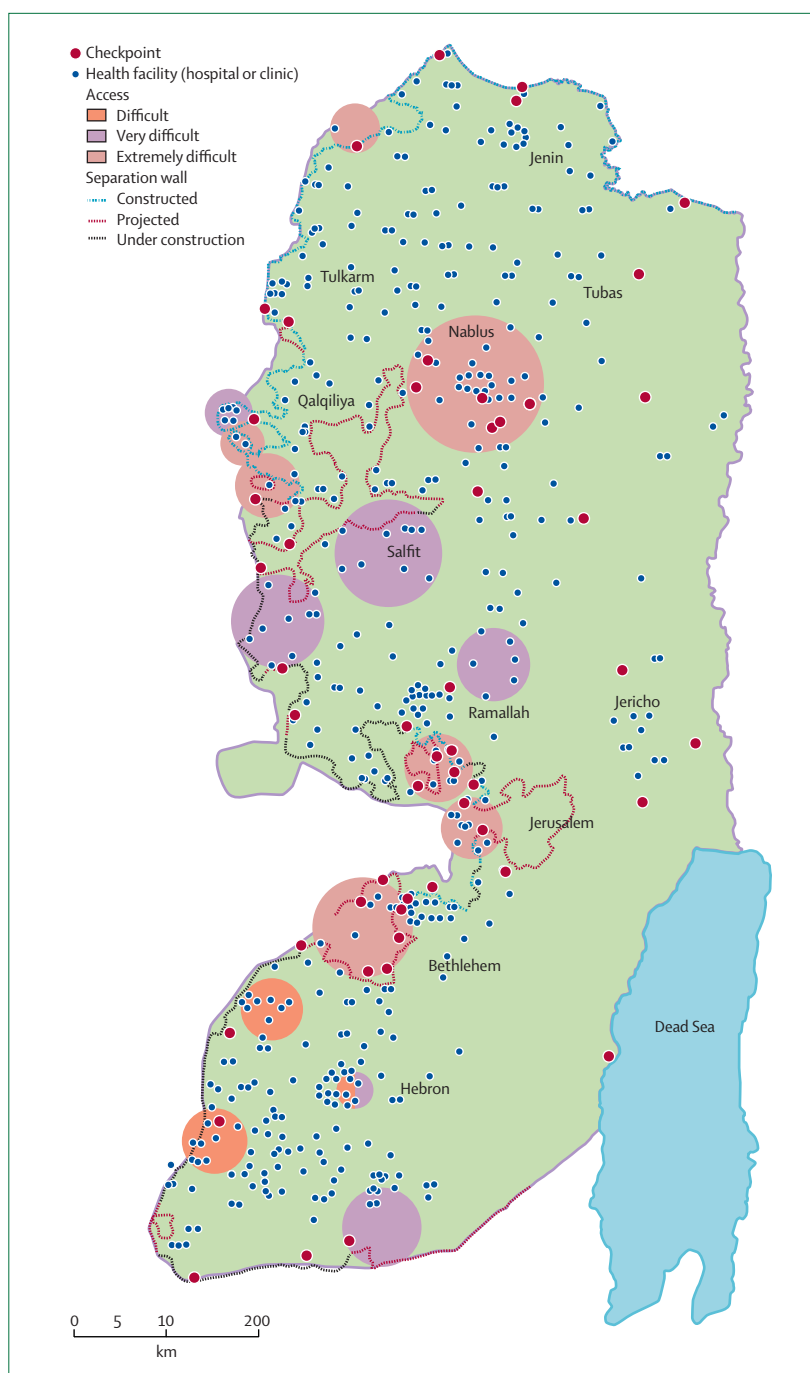
Financial accessibility to health services, especially for the most deprived sections of the population, has been compromised since 2000.<sup>28,29</sup> Results of recent surveys show that a third of a representative sample of the population could not access health services because of high costs<sup>29</sup> and that people living with financial hardship or in poverty are twice as likely as rich people to be unsuccessful in accessing hospital care.<sup>42</sup> Hence, patients' preferences to improve quality of care have concentrated on urgently meeting the most basic needs.<sup>43</sup> This pattern accords with Amartya Sen's hypothesis of adaptive preferences:<sup>44</sup> populations confronted with fundamental material constraints have objective difficulty in expressing what their true needs would be if they had more opportunities available to them.<sup>45</sup>

Inequitable distribution of health facilities between and within the West Bank and the Gaza Strip, favouring the Gaza Strip and the central areas of the two regions, contributes to health inequity—especially under the exceptional restrictions on movement.<sup>30,32</sup> The Gaza Strip has 1·4 beds for every 1000 people, and the West Bank has 1·2;<sup>18</sup> in the West Bank, Ramallah has 1·1, whereas Salfet district has only 0·2; and in the Gaza Strip, Gaza city has 2·1 and Rafah city only 0·5.<sup>18</sup> Primary health-care facilities, however, are more available in the West Bank than in the Gaza Strip<sup>18</sup> (2·1 vs 0·9 centres per 10 000 people). This pattern is caused by more dispersed and enclosed populations on the West Bank—due to Israeli checkpoints and the separation wall—and results in inefficiency in allocation of scarce resources. In both the West Bank and the Gaza Strip, UN Relief and Works Agency facilities are mainly concentrated in Palestinian refugee camps.

Health services in the Gaza Strip have deteriorated rapidly since the political impasse between the Palestinian National Liberation Movement (known as Fatah) and the Islamic Resistance Movement (known as Hamas), and the Israeli and international boycott of Hamas,<sup>46</sup> beginning in mid-2006 after the movement's election victory.<sup>9</sup> Secondary and tertiary care in the Gaza Strip are provided mainly by the Palestinian Ministry of Health, which is the only provider able to cope with the many cases and injuries related to the conflict, indicating the burden of the deteriorating Palestinian National Authority health sector in the Gaza Strip.<sup>47</sup> In June, 2007, Israel refused to allow travel outside the Gaza Strip for all patients referred to health-care services abroad (282 cases),<sup>34</sup> a policy indicative of Israel's decision to impose collective restrictive measures against civilians in the Gaza Strip.<sup>48</sup> Limited access to care has been documented in a series of reports prepared by the WHO office in Jerusalem, showing emerging shortages of drugs, medical supplies, and equipment during 2006 and 2007.<sup>49</sup> A recent WHO report documents 32 patients who died between October, 2007, and March, 2008, after being denied access to specialised treatment from outside the Gaza Strip.<sup>50</sup> At the time of writing (December, 2008), some hospitals in the Gaza Strip lack basic health commodities, such as anaesthetics needed for surgery.<sup>51</sup>

A plan for human resource development was prepared in 2000,<sup>52</sup> but its implementation has been poor. Although there are 2.6 physicians for every 1000 people in the Gaza Strip, there are only 1.8 in the West Bank.<sup>18</sup> Furthermore, the ratio of allied health professionals to population is very low compared with that in other countries,<sup>36</sup> and the skills of these workers are poorly developed and underused. Whereas Israel has 6.3 nurses for every 1000 people, the occupied Palestinian territory has only 1.7.<sup>18</sup> Health-care services remain highly physician oriented,<sup>10</sup> with doctors running many activities that could be done by nurses and community health workers at much lower costs.<sup>53,54</sup>

As a result of generalised unemployment<sup>24</sup> and impoverishment<sup>25</sup> since 2000, the Palestinian National Authority tried to soften the economic blow by putting more people on the government payroll,<sup>26,55</sup> and has done so despite an increasingly unsustainable wage bill.<sup>26</sup> Meanwhile, many workers have been hired to bolster political support.<sup>26</sup> Between 1999 and 2006, public-sector employment grew by 60%,<sup>26</sup> from fewer than 100 000 to 157 800, and increased further to 189 000 by mid-2007<sup>56</sup> under the Hamas-led government. An estimated 1 million Palestinians (workers and their dependants) depend on wages earned in public employment.<sup>57</sup> Such costs are further increased when Palestinian clearance revenues are withheld by Israel and international financial support is frozen, as happened between March, 2006, and July, 2007<sup>26</sup>—when Palestinian National Authority



**Figure: Distribution of and access to health facilities in the West Bank**

Planned barrier path based on Israeli Government map published Feb 20, 2005. Reproduced with permission from the UN Office for the Coordination of Humanitarian Affairs.<sup>33</sup>

employees, including Ministry of Health staff, did not receive their usual salaries.<sup>18</sup>

Although nearly all health service staff during the Israeli military occupation of 1967 to 1994 were Palestinians, they had only token involvement in the decision-making process, with a consequent failure to promote Palestinian

	West Bank	Gaza Strip	Ministry of Health*	UNRWA	Palestinian NGOs	Private	Occupied Palestinian territory
Primary health-care centres	525	129	416 (63.6%)	53 (8.1%)	185 (28.3%)	..	654
Hospitals	54	24	26	1	28	23	78
Hospital beds	2961 (59.1%)	2053 (41%)	2936 (58.5%)	63 (1.3%)	1582 (31.6%)	433 (8.6%)	5014
Population per primary health-care centre	4519	10774	..	..	..	..	5752
Beds per 1000 population	1.2	1.4	..	..	..	..	1.3
Distribution of service use	..	..	46%	20%	13%	21%	..
Health workers	..	..	13057	1752	7102	7341	..
Distribution of health-care expenditures	..	..	35%	10%	15%	40%	..

NGOs=non-governmental organisations. UNRWA=UN Relief and Work Agency for Palestine Refugees. \* Includes police medical services.

**Table: Distribution of health-care facilities in the West Bank and the Gaza Strip according to provider<sup>18,40</sup>**

leadership capacity.<sup>58</sup> The available health education programmes cannot meet the needs of the health sector,<sup>18</sup> and health professionals must therefore get training in schools outside the occupied Palestinian territory (mainly in Arab countries and in eastern Europe). The poor performance of the health-care system, and the obscure track of career progression—commonly a function of personal connections and cronyism—has also led to loss of talented health professionals from Ministry of Health facilities to international and local non-governmental organisations, the private sector, and through migration outside the occupied Palestinian territory: in a study of 95 medical doctors, 29 had reported seriously considering emigration.<sup>59</sup>

Insufficient monitoring and lack of supervision have allowed cronyism and corruption,<sup>60</sup> a lack of commitment and interest, and erosion of public trust and satisfaction.<sup>12</sup> An absence of requirement for continuing education activities<sup>52</sup> compromises the quality of care and threatens patients' safety.

A health information system to support evidence-based policy formulation was devised; however, data collection, analysis, and reporting need further development. The second report in this Series<sup>10</sup> shows how obtaining a reliable estimate of an indicator as basic as infant mortality is problematic. Many surveys are done and huge amounts of data are obtained that are improperly analysed. Barriers to promote a culture of evidence-based practices mainly relate to resistance to change and the feeling of a lack of ownership. The lack of effective partnership with those who are supposed to use the evidence, the almost absent dissemination of results, and the disengagement from the implementation process all culminate in loss of incentive to tackle change. The absence of proper financial incentives (eg, in the form of results-based financing) contributes to the entrenchment of current practices.

The deficit in the information needed for health-care management is a major difficulty, restricting the capacity to plan and assess performance. Information is urgently needed about the most common problems (eg, non-communicable disease prevalence and complications) to assess cost-effectiveness of various programmes; financial analysis is also needed to identify the treatments abroad with the largest budget shares; and patterns of use of non-governmental and Ministry of Health hospitals should be investigated to inform planning and improve efficiency.

Ministry of Health expenditure on drugs and disposables exceeds a fifth of its actual expenditure (23% in 2005)<sup>21</sup>—17% in Jordan and 25% Lebanon.<sup>61</sup> The ministry implemented the first Essential Drug List in 2000 and prepared a Drug Formulary in 2002. The effect of these initiatives has not been fully assessed.<sup>62</sup> However, observational studies indicate that irrational prescribing is a continuing difficulty,<sup>63</sup> created by short consultation and dispensing times and absence of treatment guidelines.<sup>62</sup>

A recent review of medicines use in 6032 encounters with patients in selected non-governmental clinics showed that antibiotics (mostly wide-spectrum) accounted for 33% of medicines prescribed, followed by analgesic and anti-inflammatory treatments (29%).<sup>62</sup> Combination medicines (8%) and injections (16%) were also given in many cases. 77% of prescriptions were of locally produced medicines, which typically cost less than similar drugs of Israeli or international origin (eg, the average price of co-amoxiclav in 2004 was \$5.25 if of local origin, \$6.05 from Israel, and \$6.85 from other sources).<sup>62</sup> Data from nine eastern Mediterranean countries showed that medicines account for a high proportion of health expenditure (35% in Egypt and Jordan).<sup>64</sup> Irrational prescribing and the higher prices of some prescribed medicines both contribute to the exaggerated burden on public expenditure and society as a whole. Investments in expensive medical technology do not also seem to have arisen from population-based requirements or from examining the cost-effectiveness of technologies.<sup>65</sup>

Health financing consists of collecting revenues, pooling risks, and allocating resources to purchase services.<sup>66</sup> The high proportion of GDP devoted to health<sup>67</sup> was a direct result of both the high level of investment needed to rehabilitate a system that had been neglected between 1967 and 1994,<sup>58</sup> and the low GDP. For example, between 1986 and 1989, while under the Israeli military government, the West Bank yearly public budget for health was kept at about \$20 million, despite rising costs of living and population increases.<sup>68</sup>

After establishment of the Palestinian National Authority in 1994, the task of building a functioning health-care system has been supported by substantial donor assistance. Between 1994 and 2000, donors committed \$353 million to the health sector and disbursed



about half of that in actual assistance;<sup>69</sup> by 2005, over 40 donors<sup>70</sup> had contributed \$10 billion to the Palestinian National Authority<sup>26</sup> (most of which was donated by the European Union<sup>71</sup>). The inadequate coordination of funding sources has contributed to the difficulty of even achieving simple objectives. Relief and emergency have repeatedly been the focus of health programmes, rather than long-term development, which has limited effectiveness, duplicated efforts, and eventually undone previous progress.<sup>10,11</sup> This situation has perpetuated dependence on external funding, compromising sustainability and future self-sufficiency. Indeed, after the recent Palestinian National Authority financial crisis, the Ministry of Health was not able to provide its essential operational budget,<sup>18</sup> and most activities in the *Medium Term Development Plan 2006–2008*<sup>72</sup> did not start.<sup>18</sup>

The Ministry of Health budget accounts for about 10% of the overall budget of the Palestinian National Authority.<sup>67</sup> However, the finances of the ministry have been precarious since 2001, both because of a steep decline in health insurance revenues, and an increase in the number of people insured. The increase in insurance coverage was partly due to the decree issued by the then president of the Palestinian National Authority, Yasser Arafat, that all Palestinian victims of the *intifada* would be covered by the health insurance scheme, without contributions. From 2000 to 2002, the number of households covered by the new free insurance scheme increased by 205 430,<sup>21</sup> whereas revenue from premiums fell from \$29·5 million to \$22·0 million.<sup>6</sup>

All revenues collected by the Ministry of Health are transferred to the Ministry of Finance, including any user fees and insurance co-payments; this practice undermines the potential incentive for improving the quality of care and providing some financial flexibility at a facility level.<sup>73</sup> Indeed, the centralised financial management of the Ministry of Health at the Ministry of Finance restricts the capacity of the directors of hospitals and health centres to exercise control over budgeting and staffing.<sup>74</sup>

The Palestinian National Authority health insurance system covered 56% of Palestinian households in 2005, 55% of which were insured without contributions.<sup>21</sup> The present fragmentation of the health financing system makes risk pooling a real challenge and compromises horizontal equity (ie, the requirement that people with equal ability to pay make equal payments).<sup>75</sup> Although the Palestinian National Authority compulsory health insurance is for public-sector employees only and insurance premiums do not adequately accord with ability to pay, the scheme does progressively assist poor people.<sup>13</sup> Unlike most financing plans elsewhere, the authority's health-insurance scheme requires patients to pay for diagnostic services and drugs but not for consultation costs. This situation is contrary to the idea that patients are in control of the decision to consult doctors but exercise little control over diagnostic services used.<sup>36</sup>

In a recent survey of national health expenditure,<sup>15</sup> households reported spending an average of 40% (range 9–61%) of their own out-of-pocket resources on health.<sup>6</sup> Out-of-pocket payments are clearly regressive (ie, the proportional cost of payments decreases as ability to pay increases) and remain the most inequitable way of financing health care;<sup>76</sup> they are also unlikely to generate sufficient revenue to support adequate services.<sup>77</sup> The current structure of out-of-pocket payments in the occupied Palestinian territory has almost no price-discrimination policies to account for differences in ability to pay.<sup>13</sup>

In 2005, the total operating expenditure of the Ministry of Health was \$139·6 million (compared with \$100·3 million in 2000), of which 52·4% was spent on salaries, 22·6% on drugs and supplies, 15·7% on referrals outside the Ministry's facilities (excluding cases referred by the Palestinian National Authority Cabinet), and 9·3% on other operating costs.<sup>18</sup>

Scarce resources have been wasted by health-care provisions that were not cost-effective, with inappropriate focus on high-technology interventions and tertiary health-care services, which were mainly provided outside the area. The total cost of treatment outside the Ministry of Health (inside and outside the occupied Palestinian territory) was \$58·1 million in 2004 and \$59·6 million in 2005, constituting 46·0% and 42·7% of the ministry's expenditure, respectively.<sup>21</sup> In 2005, more than \$40 million was spent on services provided outside the occupied Palestinian territory, mainly in Jordan, Egypt, and Israel.<sup>21</sup> In 2006, the number of patients referred elsewhere fell by 27·9%, lowering the costs of such treatment by 37%.<sup>78</sup> The high expenditure on treatment outside the occupied Palestinian territory leads to loss of benefits to the Palestinian economy.<sup>78</sup>

The World Health Report 2000 defines stewardship as the careful and responsible management of the wellbeing of the population,<sup>79</sup> and refers to the responsibility of the state for the welfare of its population.<sup>80</sup> Under Israeli military occupation, severe budgetary restrictions, underdevelopment<sup>58</sup> and de-development—the destruction of the development process<sup>81</sup>—became key features, including marginalisation of government health services and ad hoc dependence on Israeli medical services.<sup>68</sup>

Since 1994, the Ministry of Health has endeavoured to establish the role of the health sector, ideally through promotion of accessible, affordable, and sustainable health care of good quality and cost-effectiveness.<sup>82</sup> The ministry is the steward of the system and five of its six main stated functions relate to leadership and regulation.<sup>82</sup> Since then, in addition to increasing the number of primary health-care centres and hospital beds and promotion of the Palestinian National Authority's health insurance scheme, the ministry introduced new programmes (eg, reproductive health<sup>10</sup> and dental care) and upgraded old ones (eg, school

health<sup>83</sup> and chronic diseases<sup>11</sup>). The ministry is also responsible for licensing health professionals and institutions. Present practice, however, takes into account several input criteria in the licensing process with almost no consideration given to result and performance indicators. The prevailing circumstances restrict the capacity of the ministry to oversee the entire system, collectively plan its development, and exercise its regulatory role effectively.

A health plan for the occupied Palestinian territory<sup>84</sup> was developed with input from many stakeholders before the ministry was established. Since then, and before the third national health plan,<sup>18</sup> non-ministry stakeholders were not effectively involved in the planning process, with the result that there has been no overall development policy around which national and provider-specific policies could be developed. Although many of the objectives in successive national strategic health plans have been clear and restricted, few have had target completion times, or adequate budget preparation and prioritisation<sup>6</sup> (this is being attempted in the latest plan<sup>18</sup>). Furthermore, there have been no regular reviews and updates of stated objectives, taking account of achievements and changing circumstances.<sup>6</sup> Although preparation began in 2003, the third health plan<sup>18</sup> was only finalised in 2008.

### System building under military occupation

Several attempts to build a health-care system for the occupied Palestinian territory have been made in recent years, with some advances being achieved against the odds.<sup>58</sup> However, despite the substantial amount of money injected into the system<sup>6</sup> and the two concluded national health plans,<sup>82,85</sup> systemic goals remain far from met.<sup>9,12,13</sup> This failure is mainly due to three inter-related factors—endogenous Palestinian features, donors' policies, and political havoc—that compromise the WHO building blocks.

The Palestinian National Authority is expected to perform as the government of a state<sup>86</sup> while lacking control over its borders, basic resources, and many of the social determinants of health. The absence of a long-term Palestinian development agenda focusing on sustainable and equitable growth<sup>26</sup> has compromised any strategic planning. The extensive overlap of specialisation and the duplication of functions result from inadequate delineation of responsibilities, which impedes formulation, planning and prioritisation, implementation, and assessment of policies.<sup>87</sup> Internal mismanagement has promoted divides within the divide, with each stakeholder seeking its own financial survival.<sup>60</sup> The highly centralised financial and staffing systems and the lack of will to provide value for money have impeded development. Vague institutional arrangements have hindered the establishment of a proper governance system characterised by transparency, separation of powers, and the rule of law.<sup>55</sup>

Despite the important role of external funding in alleviating short-term effects of a socioeconomic crisis, the existing confusion in the system is compounded by the multiplicity of donors, who can have conflicting agendas and be poorly coordinated.<sup>58</sup> Notwithstanding several initiatives for joint programmes,<sup>88</sup> aid in the occupied Palestinian territory has repeatedly been reactive and has not always encouraged institution-building or created incentives for reform.<sup>70</sup> Many donations are based on bilateral deals that suit the donor's political needs and preferences as much as Palestinians requirements.<sup>70</sup> A 2007 document<sup>26</sup> presented to the Ad Hoc Liaison Committee<sup>89</sup> established to support the Middle East peace process recognises that donations remained "fragmented and focused on bilateral arrangements with donors based on short-term political positions rather than a collective, longer-term view on broader economic and governance fundamentals."<sup>26</sup> A recent report called for even more donations to enhance growth and enable development.<sup>90</sup>

The political instability of the Palestinian National Authority, with frequent ministerial changes (six ministers of health have been nominated in the past 3 years), has contributed to system instability. In the local context, many positions are filled on the basis of political favouritism<sup>55</sup> and ministerial changes are commonly accompanied by changes in mid-level and high-level managers—sometimes by additional recruitment.<sup>56</sup>

The factors that hinder health system development are not unique to the occupied Palestinian territory, but they are exaggerated and perpetuated under the oppressive conditions of the Israeli military occupation.<sup>60</sup> Furthermore, occupation creates some of the difficulties.<sup>91</sup> Occupation policies of separation, isolation, and segregation have created uncertainty, raised transaction costs, and shrunk markets, resulting in critical constraints on the survival of the Palestinian economy as a whole.<sup>26</sup> A recent World Bank report states that: "...growth rates will depend critically on the commitment of the international community to fill the total fiscal gap...[nevertheless]...Even with full funding but no relaxation in the closure regime, growth will be slightly negative...".<sup>90</sup> Admittedly, as Ajluni<sup>92</sup> has said, imagining a rational system of planning and financing is difficult when Israeli policy has greatly damaged infrastructure and impoverished the population.<sup>92</sup> The intensified siege and closure of the Gaza Strip has complicated already difficult reform efforts;<sup>18</sup> and the uncertainty about future developments, imposed by a fruitless peace process, aggravate the situation further.

### A way forward

Considering that Israel has never defined its borders,<sup>93</sup> the feasibility of steps to improve the health system in the occupied Palestinian territory will depend on future

political developments and border definitions, and the commitment on the part of the Palestinian society and the Palestinian National Authority to effect change. Although a best-case scenario would include establishment of a sovereign Palestinian State on all of the Palestinian territory occupied in 1967 (in accordance with UN resolution 242<sup>94</sup>), other possible scenarios can also be envisaged.

First, an enduring status quo, with continued construction of Israeli settlements and the separation wall in the West Bank (both deemed illegal under international law<sup>95,96</sup>), continued separation of the Palestinian Arab East Jerusalem from the West Bank and the Gaza Strip under Israeli military occupation, and continued political impasse between Fatah and Hamas.<sup>9</sup>

Second, a worst-case scenario would include a worsening political situation leading to the collapse or dissolution of the Palestinian National Authority, as a result of the persistent failure of peace talks—a situation now seen as plausible (or even imminent) by high level officials in the authority.<sup>97</sup> Dissolution of the authority would result in one of three possible developments: Israel resuming full responsibility, as a signatory of the Fourth Geneva Convention,<sup>98</sup> for the Palestinian population, which it now controls de facto; a return to the pre-1967 arrangements, with Jordan resuming control of what remains of the West Bank and Egypt administering the Gaza Strip;<sup>99</sup> or the systematic, illegal,<sup>98</sup> expulsion of Palestinians to neighbouring Arab countries, as repeatedly suggested by some former<sup>100</sup> and current<sup>101</sup> Israeli leaders.

Should a Palestinian governing body continue to exist, the most important feature of any successful initiative toward building an effective, efficient, and equitable health-care system will be effective stewardship, by which the Palestinian Ministry of Health becomes empowered and has the capacity to oversee and steer the entire system. A clear vision is needed of the regulations to be put in place, with frameworks for monitoring and evaluation being essential. Commitment from stakeholders other than the ministry is also important—stewardship after all is about collective rather than individual responsibility.<sup>80</sup> The high cost of treatment abroad might be countered by persuading partner sectors to provide services the ministry cannot afford. Here, the private sector can play an important part.<sup>78</sup> Moreover, focus should be given to stewardship for health, rather than just for health care, calling for intersectoral collaborations.

A clear policy for human resources for health is needed. Efforts to form, upgrade, and integrate individual capacities would not only enable future development plans to succeed<sup>102</sup> but also help build experience and confidence and introduce a momentum to promote change. As one observer of the situation in the occupied Palestinian territory put it, it is the “strong

individual capacities against severe institutional weaknesses” that has enabled a system of sorts to survive.<sup>103</sup> Creation of an effective human-resources capacity should start with revision of the available national plan for human resources<sup>52</sup> to identify needs in terms of health professionals and education and training programmes, as related to predefined strategic objectives. Rather than merely being providers of academic services, universities should build the required capacities, for example, through continuing education ventures. Strengthening of monitoring and supervision, accompanied by a system of rewards and sanctions, seems crucial to boost motivation, to halt the brain drain, and to enhance effectiveness and future development.

Efforts should be made to remedy malfunctioning schemes of health-care financing. Concrete steps are needed towards the institutionalisation of a genuine social insurance scheme with a view to universal coverage. The current health insurance scheme should become a sovereign and accountable legal entity, functioning under collective ministerial supervision, with control over its own revenues, which can be used to purchase services with appropriate methods of financing.<sup>104</sup> Community-based health financing schemes and the current Palestinian National Authority health insurance together could form a nucleus to enable efficient and equitable resource mobilisation<sup>105</sup> and to introduce the change gradually, taking into consideration prevailing political, economic, and social conditions. Recommendations for health-sector reform suggest that payment by capitation for primary care and per admission for inpatient care might improve cost-effectiveness and increase equity.<sup>76</sup> In the local context, evidence suggests that patients are willing to pay to benefit from improved essential quality attributes,<sup>106</sup> with amounts varying according to the extent of improvement and patients’ abilities to pay.<sup>107</sup> Such information could be used to help identify areas for improvement and inform the pricing structure in the adopted financing scheme.

Decisions should be evidence based, and for this to be possible, an accurate and continuously updated health information system is needed. Culturally sensitive evidence is needed, followed by the development and implementation of national protocols and standard operational procedures. However, only by involvement of those to whom the evidence is directed (eg, health-care providers and decision makers) and follow-up of the implementation process would practices effectively change to help fulfil the three systemic goals—improving health, responding to expectations, and enhancing risk protection—in the most cost-effective way. Quality of care should be at the core of any endeavour—acknowledging that improvement in quality does not always mean higher cost, but it does demonstrate political commitment (panel).

### Panel: Six WHO building blocks for health systems and the way forward for the occupied Palestine territory

#### Service delivery

- Promote primary health care as the effective backbone of the health-care system by increasing investment in primary centres and public-health activities (eg, preventive programmes for chronic diseases)
- Integrate and coordinate all providers and human-resources activities, with clear division of roles and tasks

#### Workforce

- Revise the available plan for human resources and its concordance with established policies and plans and prevailing gaps
- Assess available training programmes and activities in terms of their quality and appropriateness
- Build human capacities in planning, financing, and provision of health care
- Strengthen monitoring and supervision
- Develop a results-based system of rewards and sanctions, with transparent tracks of career progression

#### Information

- Upgrade the current health-information system to provide the information needed for all levels of clinical and administrative decision-making processes
- Develop national clinical management and administrative protocols, while involving those to whom the evidence is addressed in the process
- Promote a culture of evidence-based decision making at all levels of health-care planning and provision through hands-on training and intensive follow-up and supervision

#### Medical products and technology

- Promote rational use of drugs and effective drug management to increase accessibility and avoid wastage of scarce resources
- Revise practices of purchasing, prescribing, and dispensing to focus on the most cost-effective medications and technology

#### Financing

- Transform the current Palestinian National Authority health insurance scheme into a sovereign and accountable legal entity with control over its own resources
- Promote community-based health financing to cover the health-care costs of various categories of the population
- Integrate a system of payment by capitation for primary health care and per admission for inpatient care
- Work towards institutionalisation of a genuine universal scheme of social insurance
- Establish a single treasury account for the donors to reduce duplication and wastage of resources

#### Stewardship

- Empower the Ministry of Health through appropriate regulations and enhance capacity of planning and supervision
- Collectively redefine a vision for the health system
- Enhance intersectoral collaboration at all levels of planning, financing, and provision
- End cronyism and growth of public employment

The view of health in Palestinian Public Health Law as a fundamental human right should be integral to any efforts to establish a Palestinian State, while acknowledging limitations of resource availability and the need for self-sufficiency. Promotion of primary health care and integration of providers' activities and available human resources (medical, paramedical, and

non-medical) will ensure the most benefits for the most people. Preventive programmes are needed to enable favourable long-term health outcomes at low costs (eg, tobacco control and diet promotion efforts that reduce the burden of chronic diseases<sup>11</sup>). The Palestinian Ministry of Health's ability to set priorities that address individual preferences and to negotiate with donors should be improved to help avoid conflicting agendas and promote the welfare of the population.

Under the best-case scenario, the Palestinian Ministry of Health can choose to limit its role to being the steward of the system, while providing a basket of core services (including public-health activities), and the funding needed to cater for the needs of specific categories of the population (eg, vulnerable groups). Services could be purchased by an independent insurance fund that would raise money through an appropriate insurance-based risk-pooling mechanism to gradually create a self-sufficient, efficient, and equitable health-care system. Under the worst-case scenario, the focus has to remain on emergency relief, with attempts made to pursue human capacity development to enable the change, if circumstances allow. Finally, the scenario of the continuing status quo means consideration should be given to coordinating and harmonising the efforts of donors and providers to avoid wastage of scarce resources. Such synergy can be established by ending cronyism and inflation in public employment, establishing a single treasury account for the donors, while striking the balance between recruited staff and task allocation by putting competent professionals in the right places, by decentralisation of decision making, by promoting team work, and by involving the community.

A new opportunity to improve Palestinians' quality of life and increase national prosperity<sup>108</sup> emerged at the Paris conference in December, 2007.<sup>90</sup> Delegates decided to allocate a substantial sum of money to the Palestinian National Authority, including about \$120 million to be raised for the health sector between 2008 and 2010. The best allocation and use of these new funds will plant the seeds of genuine and sustainable development.

But health systems do not evolve in a vacuum. For continued development, social determinants have to be addressed. In the case of the occupied Palestinian territory, the occupation has to end. For a long time, Palestinians have declared "we are here to stay". What Palestinians want was summarised in the words of a woman in a recent article that appeared in *The New York Review of Books*: "We want to live in peace and dignity... our suffering will not end without ending the occupation."<sup>109</sup>

#### Contributors

AM wrote the first draft, all coauthors helped revise subsequent drafts before submission.



**Conflict of interest statement**

We declare that we have no conflict of interest.

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**References**

- UN High Commissioner for Human Rights. The right of everyone to the enjoyment of the highest attainable standard of physical and mental health: Commission on Human Rights resolution 2002/31, New York: UN, 2002.
- McKee M. Measuring the efficiency of health systems. The world health report sets the agenda, but there's still a long way to go. *BMJ* 2001; **323**: 295–96.
- Chalmers I. Human rights and professional responsibilities in health care and education. *Eur J Dent Educ* 2008; **12**: 11–16.
- Commission on Macroeconomics and Health. Macroeconomics and health: investing in health for economic development. Geneva: WHO, 2001.
- UN. Question of Palestine: history. <http://www.un.org/Depts/dpa/ngo/history.html> (accessed March 20, 2008).
- DFID. West Bank and Gaza health sector expenditure review, 2006. London: Department for International Development, 2006.
- Roberts M, Hsiao W, Berman P, Reich R. Getting health reform right: a guide to improving performance and equity. Oxford: Oxford University Press, 2003.
- WHO. Everybody business: strengthening health systems to improve health outcomes: WHO's framework for action. Geneva: World Health Organization, 2007.
- Giacaman R, Khatib R, Shabaneh L, et al. Health status and health services in the occupied Palestinian territory. *Lancet* 2009; published online March 5. DOI:10.1016/S0140-6736(09)60107-0.
- Abdul Rahim HF, Wick L, Halileh S, et al. Maternal and child health in the occupied Palestinian territory. *Lancet* 2009; published online March 5. DOI:10.1016/S0140-6736(09)60108-2.
- Husseini A, Abu-Rmeileh NME, Mikki N, et al. Cardiovascular diseases, diabetes mellitus, and cancer in the occupied Palestinian territory. *Lancet* 2009; published online March 5. DOI:10.1016/S0140-6736(09)60109-4.
- World Bank, Bisan Center for Research and Development. The role and performance of Palestinian NGOs: in health, education and agriculture. Washington, DC: The World Bank.
- Abu-Zaineh M, Mataria A, Luchini S, Moatti J-P. Equity in health care financing in the Palestinian Context: the value-added of the disaggregate approach. *Soc Sci Med* 2008; **66**: 2308–20.
- Mataria A, Raad F. Analyzing health equity in the West Bank and Gaza. Washington, DC: The World Bank, 2009.
- PCBS. Households health expenditure survey 2004. Ramallah (OPT). Palestinian Central Bureau of Statistics, 2004.
- Batniji R, Rabaia Y, Nguyen-Gillham V, et al. Health as human security in the occupied Palestinian territory. *Lancet* 2009; published online March 5. DOI:10.1016/S0140-6736(09)60110-0.
- Palestinian Central Bureau of Statistics. Population, housing and establishment census—2007. [http://www.pcbs.gov.ps/Portals/\\_pcbs/PressRelease/census2007\\_e.pdf](http://www.pcbs.gov.ps/Portals/_pcbs/PressRelease/census2007_e.pdf) (accessed Jan 14, 2009).
- Ministry of Health. National strategic health plan: medium term development plan (2008-2010). Palestine: Palestinian National Authority, Ministry of Health, Health Planning Unit, 2008.
- UNRWA. The United Nations Relief and Works Agency for Palestine Refugees in the near east guide. Vienna: UNRWA, Public Relations Department, 1995.
- Abed Y. Health sector review: a summary report. Jerusalem: The Italian Cooperation, 2007.
- MoH-PHIC. Health status in Palestine: Annual Report 2005. Ramallah (OPT): Ministry of Health—Health Management Information System, 2006.
- WHO. Health action in crises: West Bank and Gaza Strip. Geneva: World Health Organization, 2005.
- The World Bank. West Bank and Gaza: economic developments and prospects, March 2008. <http://go.worldbank.org/A6Y2KDMCJ0> (accessed Aug 21, 2008).
- PCBS. Palestine in figures 2007. Ramallah: Palestinian Central Bureau of Statistics, 2008.
- PCBS. Poverty and living conditions in the Palestinian territory, 2007. [http://www.pcbs.gov.ps/Portals/\\_pcbs/PressRelease/poverty\\_ee.pdf](http://www.pcbs.gov.ps/Portals/_pcbs/PressRelease/poverty_ee.pdf) (accessed Aug 18, 2008).
- World-Bank. Two Years after London: Restarting Palestinian Economic Recovery Economic Monitoring Report to the Ad Hoc Liaison Committee. <http://conflictblotter.com/files/WorldBankReportSEP07.pdf> (accessed April 2, 2008).
- UN. Commission on Human Rights, 60th session: economic, social and cultural rights—the right to food <http://domino.un.org/UNISPAL.NSF/f45643a78fcb719852560f6005987ad/bcfff2cc84e9bc85256e2b00685371!OpenDocument> (accessed Aug 19, 2008).
- Mataria A, Khatib R, Daoud A. Patients' flow and referral system at PMRS clinics in the West Bank: status quo, variations and determinants. Ramallah: Institute of Community and Public Health, 2007.
- PCBS. Access to health services survey—2003: main findings. Ramallah: Palestinian Central Bureau of Statistics, 2004.
- OCHA. West Bank closure count and analysis occupied Palestinian territory, September 2006. [http://www.ochaopt.org/?module=displaysection&section\\_id=103&format=html](http://www.ochaopt.org/?module=displaysection&section_id=103&format=html) (accessed Nov 30, 2007).
- Habib I. A wall in its midst: the separation barrier and its impact on the right to health and on Palestinian hospitals in East Jerusalem. Tel Aviv: Physicians for Human Rights, 2005.
- Jubran J. Health and segregation II: the impact of the Israeli segregation wall on access to health care services. Ramallah: Health Development, Information, and Policy Institute, 2005.
- UN Office for the Coordination of Humanitarian Affairs. Health facilities map-2. [http://www.ochaopt.org/documents/WB\\_Health\\_CAP2006.pdf](http://www.ochaopt.org/documents/WB_Health_CAP2006.pdf).
- Office for the Coordination of Humanitarian Affairs. The humanitarian monitor—occupied Palestinian territory. Office for the Coordination of Humanitarian Affairs, 2007.
- Daoud A, Khatib R. Capacity building on rational use of medicine: knowledge and practice affecting the mobile teams. Ramallah: Institute of Community and Public Health, Birzeit University, 2007.
- Schoenbaum M, Afifi A, Deckelbaum R. Strengthening the Palestinian health system. Santa Monica: RAND Corporation, 2005.
- Barghouthi M, Lennock J. Health in Palestine: potential and challenges. Ramallah: MAS Discussion Papers, 1997.
- Hanafi S, Tabar L. The Intifada and the aid industry: the impact of the new liberal agenda on the Palestinian NGOs. *Comp Studies South Asia, Africa, Middle East* 2003; **23**: 205–14.
- WHO. Palestinian health status. [http://www.who.int/hac/crises/international/wbgs/oPt\\_MoH\\_Palestinian\\_Health\\_Status\\_June2006.pdf](http://www.who.int/hac/crises/international/wbgs/oPt_MoH_Palestinian_Health_Status_June2006.pdf). (Aug 19, 2008).
- Palestinian Central Bureau of Statistics. Health care providers and beneficiaries survey—2005: main findings. Ramallah: Palestinian Central Bureau of Statistics, 2006.
- Mataria A, Houry P. Public policies to enhance private sector competitiveness in providing tertiary health care in Palestine: assessment and recommendations. Ramallah: Palestine Economic Policy Research Institute, 2008.
- WHO. Health action in crises: West Bank and Gaza Strip. [http://www.who.int/hac/crises/international/wbgs/OPT\\_Apr05.pdf](http://www.who.int/hac/crises/international/wbgs/OPT_Apr05.pdf) (accessed Aug 21, 2008).
- Mataria A, Giacaman R, Khatib R, Moatti JP. Impoverishment and patients' "willingness" and "ability" to pay for improving the quality of health care in Palestine: an assessment using the contingent valuation method. *Health Policy* 2006; **75**: 312–28.
- Sen A. Development as freedom. New York: Alfred A Knopf, 1999.
- Sen A. Inequality Re-examined. Oxford: Clarendon Press, 1992.
- Devi S. Hospitals in Gaza struggling after factional fighting. *Lancet* 2007; **369**: 2147–48.

- 47 The Gaza Strip: A humanitarian implosion. [http://news.bbc.co.uk/1/shared/bsp/hi/pdfs/06\\_03\\_08\\_gaza.pdf](http://news.bbc.co.uk/1/shared/bsp/hi/pdfs/06_03_08_gaza.pdf) (accessed March 16, 2008).
- 48 PHR. Physicians for human rights—Israel update. <http://www.mapak.org/images/content/File/Physicians%20for%20Human%20Rights.pdf> (accessed Jan 16, 2007).
- 49 WHO. Monitoring the Health Sector in the occupied Palestinian territory, series reports. [http://www.emro.who.int/palestine/index.asp?page=library&option=monitoring.WHO\\_monthly\\_monitoring](http://www.emro.who.int/palestine/index.asp?page=library&option=monitoring.WHO_monthly_monitoring) (accessed Jan 7, 2008).
- 50 WHO. Access to Health Services for Palestinian people: case studies of five patients in critical conditions who died while waiting to exit the Gaza Strip. West Bank and Gaza: WHO, 2008.
- 51 WHO. Health sector surveillance indicators: monitoring the health sector in the occupied Palestinian territory. [http://www.emro.who.int/palestine/index.asp?page=library&option=monitoring.WHO\\_monthly\\_monitoring](http://www.emro.who.int/palestine/index.asp?page=library&option=monitoring.WHO_monthly_monitoring) (accessed Jan 7, 2008).
- 52 MoEHE, MoH, WA. National plan for human resource development and education in health. Ramallah: Ministry of Education and Higher Education, Ministry of Health, Welfare Association, 2001.
- 53 Townsend J, Wolke D, Hayes J, et al. Routine examination of the newborn: the EMREN study—evaluation of an extension of the midwife role including a randomised controlled trial of appropriately trained midwives and paediatric senior house officers. *Health Technol Assess* 2004; 8: 1–100.
- 54 ICPH-BZU. Evaluation of the UNFPA reproductive health sub program—occupied Palestinian territory (oPt): 2001–2005. Ramallah: Institute of Community and Public Health, Birzeit University, 2006.
- 55 Said N, Badawi W. Public administration in the West Bank & Gaza: obstacles and opportunities. <http://unpan1.un.org/intradoc/groups/public/documents/un/unpan016109.pdf> (accessed March 28, 2008).
- 56 Yaghi M. Fayad's reform plan: difficulties and political implications. <http://www.washingtoninstitute.org/templateC05.php?CID=2729> (accessed April 3, 2008).
- 57 The Portland Trust. Debt rises in majority of Palestinian households. *Palestinian Econ Bull* 2007; 10. <http://www.portlandtrust.org/Bulletin%20Issue%2010%20July%202007.pdf> (accessed Jan 14, 2009).
- 58 Giacaman R, Abdul-Rahim HF, Wick L. Health sector reform in the occupied Palestinian territories (OPT): targeting the forest or the trees? *Health Policy Plan* 2003; 18: 59–67.
- 59 Mataria A, Abu-Hantash I, Amer W. The “brain drain” of the Palestinian society: with an exploratory study of the health and higher education sectors. Ramallah: Palestine Economic Policy Research Institute (MAS), 2008.
- 60 Halevi I. Self-government, democracy, and mismanagement under the Palestinian authority. *J Palestine Studies* 1998; 27: 35–48.
- 61 Khatib R, Mirza Z, Mataria A. Access to essential medicines in the Arab world: impediments and areas for improvement. In: Nuwayhid I, Khawaya M, Jabbour S, Giacaman R, eds. *Public health in the Arab world*. Cambridge: Cambridge University Press (in press).
- 62 Khatib R, Daoud A, Abu-Rmeileh NM, Mataria A, McCaig D. Medicine utilisation review in selected non-governmental organisations primary healthcare clinics in the West Bank in Palestine. *Pharmacoepidemiol Drug Saf* 2008; 17: 1123–30.
- 63 PSF. Medical and pharmaceutical situation inside the West Bank in primary health care. Ramallah: Pharmaciens Sans Frontier, 2003.
- 64 WHO-EMRO. Technical discussion on: medicine prices and access to medicines in the Eastern Mediterranean Region. Cairo: World Health Organization, 2007.
- 65 Garner P. Expensive medical technology—consultancy report. Boston: Harvard Institute for International Development, 1997.
- 66 Carrin G, James C. Key performance indicators for the implementation of social health insurance. *Appl Health Econ Health Policy* 2005; 4: 15–22.
- 67 Hamdan M, Defever M, Abdeen Z. Organizing health care within political turmoil: the Palestinian case. *Int J Health Plann Manage* 2003; 18: 63–87.
- 68 Giacaman R. Health conditions and services in the West Bank and Gaza Strip: United nations Conference on Trade and Development. UNCTAD/ECDC/SEU/3, 1994.
- 69 Government of Japan, The World Bank. Aid effectiveness in the West Bank and Gaza. Jerusalem: The Secretariat of the Ad Hoc Liaison Committee, 2000.
- 70 Conflict Blotter. Palestinian economic news, September 18th, 2007. <http://conflictblotter.com/2007/09/18/palestinian-economic-news/> (accessed April 02, 08).
- 71 Guttman N. Bush, Congress threaten to cut PA aid. <http://www.jpost.com/servlet/Satellite?cid=1137605934575&pagename=JPost%2FJPArticle%2FShowFull> (accessed April 03, 2008).
- 72 Ministry of Planning. Medium term development plan. Ramallah: Palestinian Authority, Ministry of Planning, 2006–08, 2005.
- 73 World-Bank. Financing health services in development countries: an agenda for reform. Washington, DC: World Bank, 1987.
- 74 Mataria A, Khatib R, Giacaman R. An assessment of the training needs for general, administrative and nursing hospital directors: the case of the public hospital in the West Bank and Gaza Strip. Ramallah: Institute of Community and Public Health, 2004.
- 75 Abu-Zaineh M. Contribution to the analysis of health equity: measurement and explanation of inequality and inequity in the health care sector in the context of developing countries: the Palestinian case. PhD thesis. Faculty of Economics Sciences and Management, University of the Mediterranean, 2008.
- 76 Gottret P, Schieber G. Health financing revisited: a practitioner's guide. Washington: The International Bank for Reconstruction and Development/The World Bank, 2006.
- 77 Pauly MV, Zweifel P, Scheffler RM, Preker AS, Bassett M. Private health insurance in developing countries. *Health Aff (Millwood)* 2006; 25: 369–79.
- 78 Mataria A, Khouri P. Public policies to enhance private sector competitiveness in providing tertiary health care in Palestine: assessment and recommendations. Ramallah: Palestine Economic Policy Research Institute (MAS), 2008.
- 79 WHO. World health report 2000: health systems: improving performance. Geneva: World Health Organization, 2000.
- 80 Hunter D, Shishkin S, Taroni F. Steering the purchasers: the stewardship role of government. In: Robinson R, ed. *Effective Purchasing for Health Gain*. Milton Keynes: Open University Press and European Observatory on Health Care Systems, 2004.
- 81 Roy S. De-development revisited: Palestinian economy and society since Oslo. *J Palestine Studies* 1999; 28: 64–82.
- 82 NSHP. National strategic health plan (1999–2003). Gaza: Palestinian National Authority, 1999.
- 83 Ziara S, El-Khateeb W, Skeik M, Abu-Arkoub O, Accorsi S, Cogo C. Health profile of the 1st grade school-aged children in Palestine: an account of a National School Health Programme. Ramallah: Palestinian National Authority Ministry of Health, 1997.
- 84 The Palestinian Planning and Research Centre. National Strategic Health Plan (1991–1993). Jerusalem: The Palestinian Planning and Research Centre, 2001.
- 85 NHP. National health plan for the Palestinian people: objectives and strategies. Jerusalem: The Palestinian Planning and Research Centre, 1994.
- 86 Sayigh Y. Inducing a failed state in Palestine. *Survival* 2007; 49: 7–39.
- 87 Sayigh Y, Shikaki K. Strengthening Palestinian public institutions. <http://www.cfr.org/content/publications/attachments/palinstfull.pdf> (accessed Sept 26, 2008).
- 88 UN. Second multi-year funding framework, 2004–2007. [www.undp.org/execbrd/word/dp03-32.doc](http://www.undp.org/execbrd/word/dp03-32.doc) (accessed Sept 26, 2008).
- 89 Partners in Peace. The local aid coordination committee (LACC) for development assistance in the West Bank and Gaza Strip: [http://www.arts.mcgill.ca/MEPP/unsco/pip/intro\\_files/I\\_2.html](http://www.arts.mcgill.ca/MEPP/unsco/pip/intro_files/I_2.html) (accessed Sept 30, 2008).
- 90 The World Bank. Investing in Palestinian economic reform and development: report for the pledging conference. [http://www.prospectforpeace.com/Resources/Statements/World\\_Bank-Palestinian\\_Economic\\_Reform\\_and\\_Development.pdf](http://www.prospectforpeace.com/Resources/Statements/World_Bank-Palestinian_Economic_Reform_and_Development.pdf) (accessed April 2, 2008).
- 91 IRIN. ISRAEL-OPT: Palestinian economy to be dependent on aid “in medium term”. <http://www.irinnews.org/Report.aspx?ReportId=75885> (accessed April 2, 2008).
- 92 Ajluni S. The Palestinian Economy and the Second Intifada. *J Palestine Studies* 2003; 32: 64–73.

- 93 Various authors. Swans commentary—instructive quotations behind the Israeli propaganda. Accessed at: <http://www.swans.com/library/dossiers/ipquotes.html> (accessed March 23, 2008).
- 94 The UN Security Council. Resolution 242 (1967) of 22 November 1967 <http://daccessdds.un.org/doc/RESOLUTION/GEN/NR0/240/94/IMG/NR024094.pdf?OpenElement> (accessed March 20, 2008).
- 95 The UN Security Council. Resolution 456(1980) of 1 March 1980. <http://domino.un.org/unispal.NSF/f45643a78fcb719852560f6005987ad/5aa254a1c8f8b1cb852560e50075d7d5!OpenDocument> (accessed March 25, 2008).
- 96 ICJ. Israel—Israel's separation barrier: challenges to the rule of law and human rights: part III and IV. [http://www.icj.org/news.php3?id\\_article=3411&lang=en](http://www.icj.org/news.php3?id_article=3411&lang=en) (accessed March 20, 2008).
- 97 PIC. Erekat: PA is on the verge of collapse and Fatah is losing popularity. Ramallah: Palestinian Information Centre, 2008.
- 98 Office of the High Commissioner for Human Rights. Geneva convention relative to the Protection of civilian persons in time of war. Geneva: United Nations, 1949.
- 99 Eshel D. Inner strife splits Gaza from West Bank: defense update. <http://www.defense-update.com/newscast/1206/analysis/analysis-171206.htm> (accessed March 31, 2008).
- 100 Joseph Weitz. A solution to the refugee problem: an Israeli state with a small Arab minority. <http://www.swans.com/library/dossiers/ipquotes.html> (accessed March 23, 2008).
- 101 Moledet. Israel's foremost right-wing political party "Moledet" website. <http://www.moledet.org.il/english/> (accessed March 25, 2008).
- 102 Adjibolosoo S. International perspectives on the human factor in economic development, 1998. Westport, CT: Praeger, 1998.
- 103 Pavignani E. Managing aid in the Palestinian health sector: an exploration. 2007.
- 104 Hsiao WC. Why is a systemic view of health financing necessary? *Health Aff (Millwood)* 2007; 26: 950–61.
- 105 Preker A, Carrin G, eds. Health Financing for poor people: resource mobilization and risk sharing. Washington: The International Bank for Reconstruction and Development/The World Bank, 2004.
- 106 Mataria A, Donaldson C, Luchini S, Moatti JP. A stated preference approach to assessing health care-quality improvements in Palestine: from theoretical validity to policy implications. *J Health Econ* 2004; 23: 1285–311.
- 107 Mataria A, Luchini S, Daoud Y, Moatti JP. Demand assessment and price-elasticity estimation of quality-improved primary health care in Palestine: a contribution from the contingent valuation method. *Health Econ* 2007; 16: 1051–68.
- 108 Palestinian National Authority. Building a Palestinian state: toward peace and prosperity. <http://imeu.net/engine/uploads/pna-full-report.pdf> (accessed Jan 10, 2009).
- 109 Horton R. Palestinians: the crisis in medical care. *New York Rev Books* 2007; 54: 22–24.