THE COLLABORATIVE GOVERNANCE OF LEBANON'S HEALTH SECTOR

TWENTY YEARS OF EFFORTS TO TRANSFORM HEALTH SYSTEM PERFORMANCE

WIM VAN LERBERGHE, ABDELHAYE MECHBAL, NABIL KRONFOL

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PREAMBLE

This essay on "The collaborative governance of Lebanon's health sector" is a well-documented, easily read, review of the transformation of Lebanon's health care system, over the past two decades. I would like to commend Dr. Wim Vanlerbergh, Dr. Abdel Hay Mechbal and Dr. Nabil Kronfol, who put this together based on evidence, published robust surveys, extensive interviews and mapping of all stakeholders' positions.

It has not been an easy journey: the post-civil war period in the 1990s witnessed a health sector dominated by powerful lobbies, political clientelism, a booming private sector, and a Ministry of health – weakened and marginalized - yet actively requested to subsidize health care, with serious budgetary consequences to the country, already drained by years of conflict.

Faced with this situation, the Ministry strived to rebuild itself. It did so using the power of information: surveys and studies undertaken by the Ministry in collaboration with WHO, the World Bank and Academic institutions, that provided a road map on the priorities to address and the objectives to achieve. This approach gave the Ministry the credibility it needed to steer the health care system; the capability to fill the vacuum; and a self-confidence to relate to all stakeholders and invite them all to assist in the development of the new health sector. This led to a unique international experience that was termed as "collaborative Governance", well recognized by international organizations, as a recipe for success and a model that could be readily adopted in other countries.

The Ministry chose to alleviate the burden on the less privileged strata by reducing the "catastrophic expenditures" that could push families to poverty. The Ministry re-engineered itself as a "safety net" to provide health care to the people who could afford least the cost of health care. It gave the hospital sector the deserved attention: It implemented the autonomy of public hospitals, refurbished the old hospitals and built new ones – and then improved the quality of hospital care by introducing accreditation – the first country in the region to do so – and improved on that system through repeated rounds. Private hospitals, the main providers of inpatient care, that were initially hesitant, bought into the culture of quality and adopted it with enthusiasm.

In parallel, the Ministry sought mutually beneficial alliances with the Non-Governmental organizations to promote Primary Health Care, through well designed and effective programs, spanning the life cycle, promotion of health and prevention of diseases, whether communicable or chronic. In the same vein, support was introduced to cover "catastrophic illnesses", such as chronic renal failure through dialysis, expensive medicines for cancer and other NCDs, and other advanced technologies. Through a stepwise approach, Lebanon has been moving slowly but surely towards universal health coverage.

Rationalizing health expenditures was a pre-requisite to support these efforts. The Ministry took measures to contain costs based on robust information systems, scientific parameters introduced in concert with the stakeholders- who recognized again their relevance and their merit to health care institutions and programs. Performance contracting became the new standard for public private partnership. Particular emphasis was put on multiple revisions of the price structure of pharmaceuticals that constitute a major component of health care expenditures whether to the Treasury or the households.

This essay "The collaborative governance of Lebanon's health sector" describes the various steps that were taken over the past two decades to transform the Ministry from a passive bystander to the main steward of the health care system, to move from a "laissez faire" complacent position to one of active collaborative governance based on strategic intelligence and consensual leadership. In fact, the very essence and fulcrum of this transformation resides in the leadership style of its principal architect, the Director-General of the Ministry of Health, Dr Walid Ammar, who

has worked hard over two decades to lead the health sector to achieve these astounding results. Perhaps I should stress here that one of his main achievements has been the investment in the quality and capabilities of the Ministry staff, who have joined with zeal and dedication these efforts despite adversity, shortages and meager rewards. Their drive was based on their belief in the leadership of the Ministry and the objectivity and soundness of their work.

Despite an impressive track record, the road remains bumpy and the transformation vulnerable essentially due to factors beyond the realm of the Ministry, as Lebanon faces one political crisis after another. Challenges related to the Syrian refugees are just one example, another is pandemic threats such as Ebola and other emergency diseases that know no boundaries. One should note though that the Ministry has been able to meet these challenges and overcome them even with its limited resources.

To sustain these successful achievements, it is paramount to maintain the culture of openness, transparency, evidence informed policy making and collaborative governance. For this purpose, and based on Dr. Ammar's initiative, the Policy Support Observatory was created as a joint project between the MOPH, WHO and the American University of Beirut Faculty of Health Sciences.

I would like to seize this occasion to thank not only the Ministry staff, but also all the stakeholders that joined and participated in these ventures, from the private sector, the Non-Governmental organizations, academic institutions and professional orders. I need to recognize as well the international organizations that supported us starting with the World Bank, the EU, UNICEF, and others, with special gratitude to WHO that joined forces intimately with the Ministry in this endeavor.

Ghassan Hasbani

Deputy Prime Minister
Minister of Public Health

SUMMARY

Despite a chaotic health system inherited after the 1975-91 civil war, and a manifestly adverse geo-political context, health indicators in Lebanon have continued to improve. The health system has shown remarkable resilience.1 There is evidence that coverage and performance continues to improve, and, compared to other countries, good value for money. This paper describes how Lebanon pursued universal coverage over the past two decades: by regulating the public purchase of inpatient care for the uninsured, improving quality and access of ambulatory care; and reducing the weight of out-of-pocket payments.

These measures were not the result of a blueprint-reform, but of incremental strategies orchestrated by the Ministry of Public Health (MoPH) as it took advantage of (or created) opportunities to move in the direction of universal coverage. Much of its success in doing so can be attributed to effective collaborative governance of the health sector. This report reviews advances over the past two decades and the leadership features that have been critical for the progress made. The achievements remain vulnerable to a disruptive regional context, but the lessons learnt are currently being institutionalised through the creation of a Policy Support Observatory as a collaborative effort of the MoPH, World Health Organization (WHO) and American University of Beirut (AUB).

LIST OF ACRONYMS AND ABBREVIATIONS

AUB	American University of Beirut
CSC	Civil Servants Cooperative
DRG	Diagnosis-related Group
GDP	Gross Domestic Product
HCAQ	Health Care Access and Quality
HMO	Health Maintenance Organization
HRH	Human Resources for Health
ICD	International Classification Disease
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MoPH	Ministry of Public Health
NGO	Non-Governmental Organization
NHA	National Health Account
NSSF	National Social Security Fund
OECD	Organization for Economic Cooperation and Development
OOP	Out Of Pocket
OPD	Out Patient Department
PHC	Primary Health Care
PSO	Policy Support Observatory
UHC	Universal Health Coverage
UN	United Nations
WB	World Bank
WHO	World Health Organization
YMCA	Young Men Christians Association

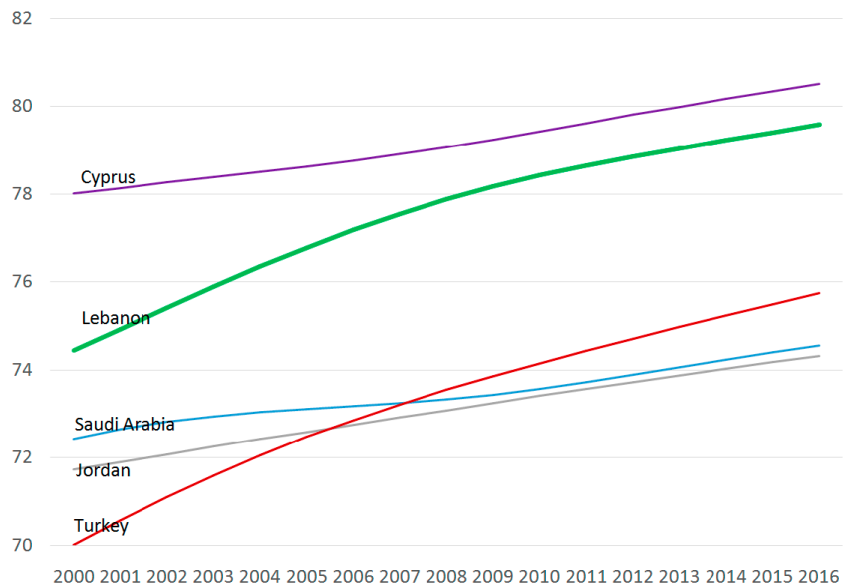
I. PERFORMING BEYOND EXPECTATIONS

Good governance. Lebanon's health sector has shown remarkable progress over the past twenty years. Many factors – economic, social, cultural -- have no doubt contributed. Along with the dynamism and resourcefulness of Lebanese society, the specificities of public governance of the health sector in Lebanon, as it developed during this period, have played a decisive role. Ultimately, the 'goodness' of health governance is measured by the ability of its health system to live up to people's expectations for improved health, by its resilience in coping with new challenges, by its proficiency in making the most of the resources its society can mobilise for health. In Lebanon's case achievements went well beyond what could have been expected given the country's recent history and geopolitical environment.

Tensions and conflicts. After the 1975-1991 civil war Lebanon has had to muddle through a succession of armed incursions, of civil strife, of dynamic reconstruction and institutional blockages. Its fragile stability is exceedingly vulnerable to regional tensions and conflicts. The massive influx of Syrian refugees has combined with episodes of costly institutional and political gridlock between executive and legislative branches of government and exacerbates economic and social tensions.

Remarkable resilience. One would have expected this to lead to the definitive breakdown of the chaotic health care system inherited after the civil war. Yet the past 25 years have also revealed remarkable resilience and areas of unexpected improvement: in health outcomes, in health care productivity and performance, and in health sector governance.[1] Traditional indicators of health outcomes have improved considerably. Between 2000 and 2015, 5.1 years were added to life expectancy at birth (Figure 1), outperforming other countries in the region.[2] Lebanon is one of only respectively 16 and 45 countries to have achieved MDG5 and MDG4.[3] Child mortality now stands at 8.3‰ and neonatal mortality at 4.8‰; infant mortality is 1/4th of what it was in 1990.[3] Maternal mortality decreased by 6.7% per year between 1990 and 2003, and by 8.6% per year between 2003 and 2013: this is among the fastest reductions recorded worldwide.[4] It now stands at 8.7 per 100,000 births for the Lebanese and at 27.7 for the refugee resident populations (2013 levels in Western Europe were 6.3, Central Europe 8.8 or Canada and the USA 17.6).

Figure 1
The increase in life expectancy at birth in Lebanon and neighbouring countries[5]



Lebanon now performs well in international comparisons (Table 1). It ranks 31st out of 166 countries in the Economist Intelligence Unit comparison of health outcomes, just after Denmark and just before the USA.[6] Lebanon is graded the healthiest Arab country in the Bloomberg 2017 Global Health Index, ranking between Czech Republic and the USA.[7] It is 34th out of 137 countries for the health sub-index in the World Economic Forum's global competitiveness report,[8] with health performing relatively better than other national sectors relevant to competitiveness. Lebanon's Health Care Access and Quality Index (HCAQ Index) ranks 31st out of 195 countries and regions, ex aequo with Portugal and Estonia.[9]

Table 1
Ranking of Lebanon's performance in health

31/166 The Economist Intelligence Unit Health Outcomes index[6]	32/163 Bloomberg 2017 Healthiest Country index[7]	34/137 Health index Global Economic Forum[8]	31/195 Health Care Access and Quality index[9]
28 Slovenia	29 Chile	31 Taiwan, China	29 Czech Republic
29 Qatar	30 Czech Republic	32 Czech Republic	30 Croatia
30 Denmark	31 Cuba	33 USA	31 Estonia
31 Lebanon	**32 Lebanon**	**34 Lebanon**	**31 Lebanon**
32 USA	33 Costa Rica	35 Costa Rica	31 Portugal
33 Kuwait	34 USA	36 Croatia	34 Israel
34 Czech Republic	35 Croatia	37 Qatar	34 Taiwan (province of China)

Value for money. The Healthcare Access and Quality Index is of particular relevance. Based on mortality that should not occur in the presence of high-quality health it reflects the adequacy of the services provided to the population. Lebanon has an index of 86 (countries and regions range from 19 for the Central African Republic and Somalia, to 97 for Iceland and Norway).

Resources obviously matter. Lebanon has a score of 86 while allocating 6.4% of its GDP to health, the same as Estonia, but significantly less than Israel (7.8%), Croatia (7.8%) or Portugal (9.5%). Apart from Singapore, none of the countries that spend less than Lebanon's 6.4% can boast of an HCAQ index as high as 86; many of those who spend more, in GDP terms, score below 86. This suggests Lebanon makes comparatively good use of the national resources it allocates to health.

This is confirmed by Figure 2, which plots the HCAQ Index against total health expenditure per capita in constant PPP$, for 184 of the 195 countries and regions with a score*. Lebanon is on the frontier curve: none of the countries that spend less per capita have a HCAQ index of 86 (the score for Lebanon, Portugal and Estonia). On average the 30 countries with an HCAQ Index above 86 (ie higher than that of Lebanon) spend 4.2 times more per capita than Lebanon – up to 9.5 times more in the case of the USA with an HCAQ Index of 89. Spending more, however, is not a guarantee of a score above 86: 39 countries spend up to 3 times–on average 64%–more than Lebanon, for an HCAQ Index score below Lebanon's 86. This is the case, for example, for the Russia Federation and Israel whose HCAQ indexes are respectively 75 and 85, for a per capita expenditure in PPP$ that is almost double (for the Russian Federation), and 2.6 times higher in the case of Israel. Lebanon thus seems to get comparatively good value for the money its spends on health.

* The following countries and regions are not plotted: American Samoa, Bermuda, Guam, Greenland, North Korea, Northern Mariana Islands, Palestine, Puerto Rico, Somalia, Taiwan (province of China), Virgin Islands.

Efficient public spending. Figure 3 plots the HCAQ index against public expenditure per capita. Lebanon lies beyond the frontier curve. This suggests that in the complex health landscape of Lebanon, public spending is being steered in the right direction and particularly well associated with access and quality – and this despite the chaotic system inherited after the war. The correlation between OOP spending per capita and the HCAQ Index is less tight than for public spending. Lebanon's OOP spending scores relatively well, but not on the frontier as is the case for total and public spending (Figure 4). This suggests that there is still some room for improved allocative efficiency, by further substituting OOP by pooled expenditure and by better regulation of how OOP expenditure is being spent. All in all, however, Lebanon apparently has a well governed health sector, with a degree of system efficiency that is particularly remarkable if one considers the chaos in its health system at the end of the civil war.

Figure 2

Healthcare Access and Quality Index[9] against total health expenditure per capita[10] for 184 countries and regions.

Cy: Cyprus; Ic: Iceland; Is: Israel; It: Italy; Jo: Jordan; Leb: Lebanon; Sp: Spain; Tu: Turkey; UK: United Kingdom; USA: United States of America

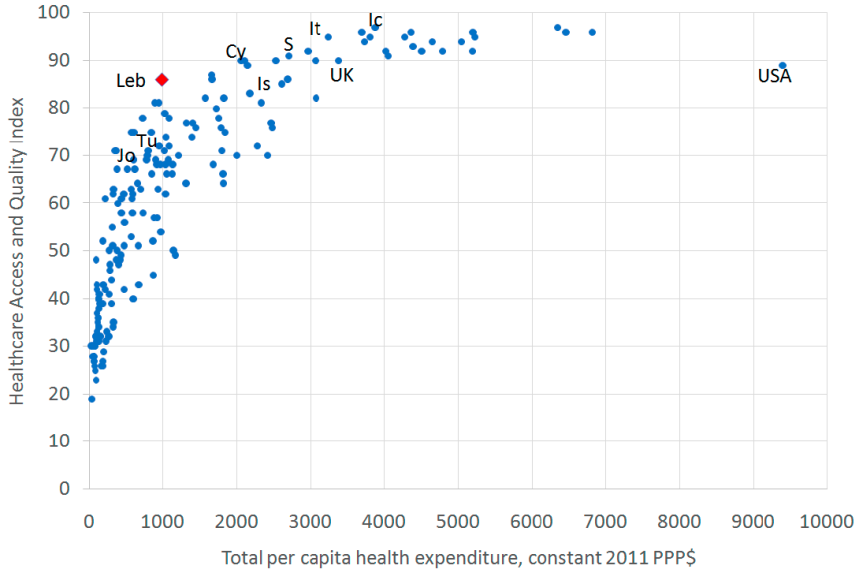


Figure 3

Healthcare Access and Quality Index[9] against public per capita health expenditure in PPP$[10]

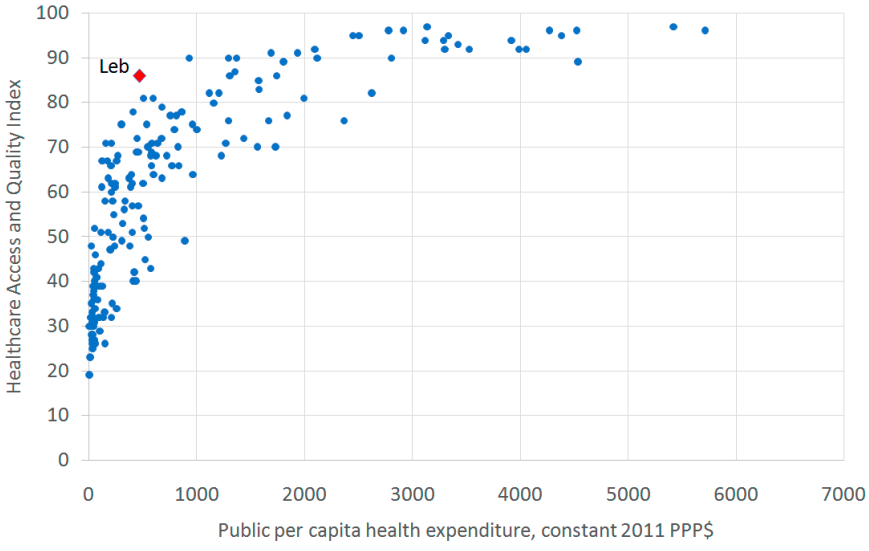
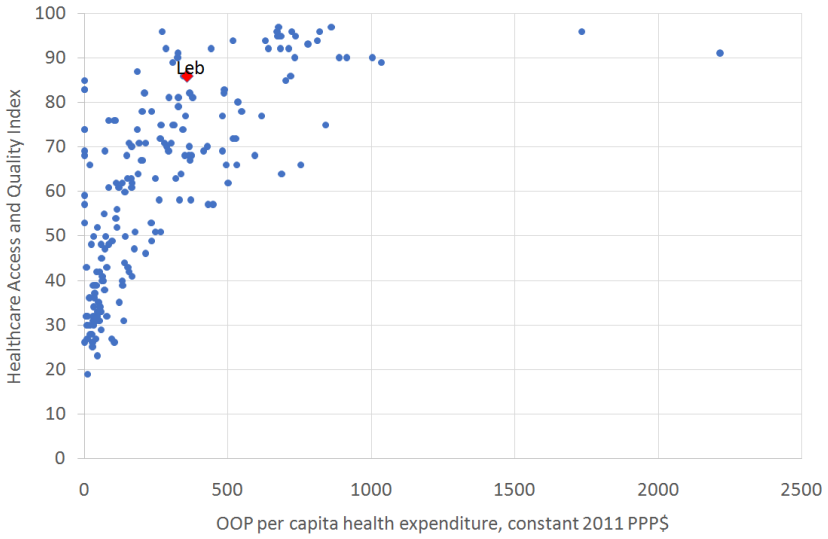


Figure 4

Healthcare Access and Quality Index[9] against OOP health expenditure per capita[10]



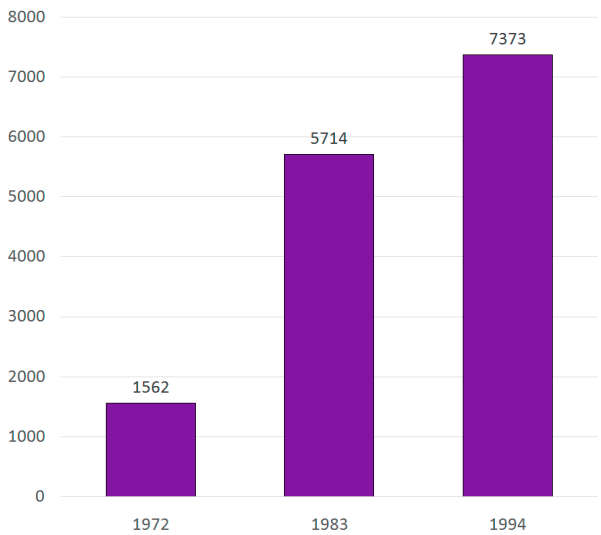
II. CHAOTIC BEGINNINGS

1. POST-WAR EXPANSION

The marginalisation of public authority. Before the war, Lebanon's health care system had a reasonably developed, albeit fragmented, public service component.[11] The system went in a tailspin during the hostilities: public facilities were shelled and looted, their staff dispersed. Well-trained professionals left the country; those who stayed had to struggle to survive on inadequate salaries. The highly centralized bureaucratic command-and-control structures of the MoPH collapsed and lost all control, even over its own services.[12] There was a window of relative calm in 1983, during which quite detailed proposals were developed to create a regulatory capacity.[13] A resurgence of hostilities soon put an end to that. This left MoPH with little or no negotiation power, while the National Social Security Fund saw its initial reserves and savings dwindle down.[14] External agencies and politically based NGOs became de facto substitutes for the MoPH, even taking over responsibilities for core programmes such as vaccination.[11]

A booming private sector. In contrast with the collapse of the MoPH infrastructure (by the end of the civil war, only half of the 24 public hospitals were operational, with an average number of active beds not exceeding 20 per hospital), the private hospital sector flourished. Its bed capacity quintupled (Figure 5). Many were small scale operations, with some 70% owned by physician-entrepreneurs and most targeting specific constituencies. They critically depended on capturing public subsidies – some 40% from MoPH and 60% from NSSF, Civil Servants Cooperative (CSC), Army or Security Forces. The arrangement was that MoPH would pay for patients without insurance coverage. The number of admissions it thus purchased from private hospitals surged during the war and the post-war boom in private hospital care: from 13,833 in 1971 to 64,147 in 1983,[14] and 140,000 in 1999. However, the MoPH lacked the administrative and political means to do more than authorise and pay the bills mechanically. Despite much larger overhead costs, the other public funders did not manage to translate their financial leverage into critical purchasing.

Figure 5
The war-time boom in private hospitals: n of beds pre-, half-way-, and post-civil war



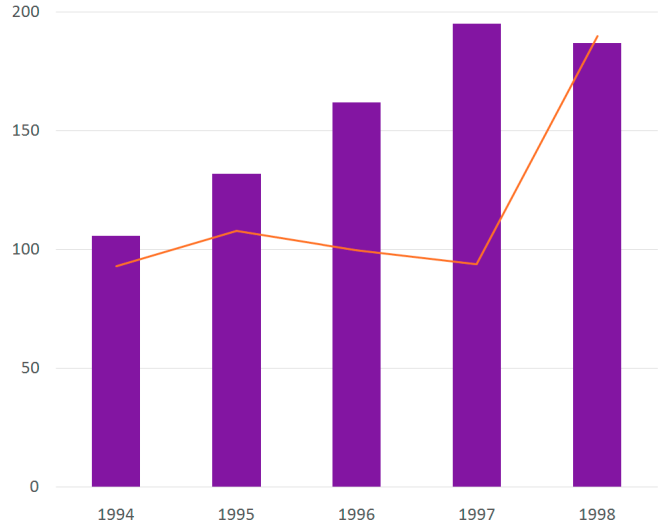
A flood of health entrepreneurs. The prospect of guaranteed and profitable funding, backed up by strong political lobbies, was a strong incentive to expand the supply of services and technology. In the mid-nineties, a few years after the end of the war, Lebanon boasted more than twice the number of cardiac surgery units per inhabitant, and 15 times that of lithotripsy machines in Germany.[16] In the post-war years the number of physicians grew by 8.3% per year, with nearly 70% specialists and doctor/population ratios higher than in Canada or the UK.[15,16,17] Many of these doctors had been trained in Eastern Europe, others in the Arab world, in North America, in Western Europe, or elsewhere. They rapidly saturated the hospital network (in contrast with the dearth of paramedical staff) and had to compete for outpatients in a highly competitive market. Despite licensing through an entry "colloquium", different medical cultures and uneven qualifications added to the impression of a medical system in disarray. A similar expansion took place in the pharmaceutical market. Between 1995 and 1999 the number of pharmacies increased from 883 to 1,405. In 1996, 5,521 different pharmaceutical items from 489 companies were sold through 106 importers; in 1997, 5,968 pharmaceutical products (less than 2% generics) were imported from 25 countries. Whether in terms of doctors, hospitals, technology, or pharmaceuticals, private entrepreneurship shaped the post-war health sector.

Commodification of health care. With increased supply came supply-induced demand. This anchored irrational consumption patterns in Lebanon's medical culture. Public hospitals and health centres had neither the means nor the support to propose an alternative. They lost most of their clientele to the NGO centres, the individual private specialist doctors and the private hospitals. Unregulated fee-for-service provision of health care by private health entrepreneurs became the rule and provided a highly profitable business model. Commodification and commercialization of health care soon dominated health care delivery, even in facilities that started out as non-for-profit NGO initiatives.[16] Many welcomed the growing uptake of hospital care, of specialist outpatient visits, of pharmaceuticals, as a sign that post-war reconstruction was on track. But health system managers started worrying about distortions, overconsumption and iatrogenesis – and about access for the more vulnerable people in society.[16]

Budgetary consequences. The most immediate worry, however, was the impact of the virtually unrestricted reimbursement of private hospital admissions on the MoPH budget (Figure 6). Whereas in the 1970s paying for admissions to private hospitals had absorbed 25% of the Ministry's operational budget, towards the end of the war the bills sent from the private hospitals exceeded the entire MoPH budget. Year on year, the Ministry had to ask for substantial budget increases to pay ever more for ever higher numbers of admissions to private hospitals.[14] In dollar terms the budget exploded from 83M$ in 1994 to 206M$ in 2001. Between 1994 and 2000 disbursements for medicines by the MoPH tripled from 7.5 Bill LBP to 23 Bill LBP, while those for hospitalisations in private hospitals nearly doubled from 106 Bill LBP to 205 Bill LBP. 78% of the MoPH budget was spent on hospitalisation for 3.2% of the population, of whom 0.2% absorbed 23% of the budget for kidney dialysis, transplant, cancer treatment and open-heart surgery.[15] This clearly was not sustainable – all the more since MoPH represented only 38% of public expenditure, the rest distributed over NSSF, CSC, the army and the security forces.

Free-for-all as the new normal. Twenty-five years later it is difficult to imagine to what extent chaos and 'anything goes' had become the new normal for users as well as for professionals – or to picture how little knowledge or leverage MoPH had to influence things. The rapid inflow of specialised professionals and cutting-edge technology specialists hid the patent systemic inefficiencies from view. Despite warning signs, the absence of reliable hard data on the extent of the problems –in itself a symptom of the chaos in the sector – was a real handicap in imagining alternatives. Only few in the health sector realised how dire the situation was, and fewer still saw a way forward.[18]

Figure 6
Struggling to catch up with the growing bill for admissions to private hospitals: accrual MoPH spending on hospital care (bars) and budget allocations (line) in billions LBP[15]



2. A HEALTH SECTOR DOMINATED BY LOBBIES AND CLIENTELISM

The marginalisation of the MoPH. During the war the MoPH thus lost much of its influence and authority. Its service network had collapsed, with few incentives for productivity or efficiency and no managerial discretion to respond to a changed environment.[19] Many of its programmatic responsibilities had been abandoned or – like vaccination – delegated to NGOs and voluntary agencies; staff was demoralised with little sense of discipline and massive absenteeism. The Ministry did not have the authority to impose considerations of disease control, continuity of care, or efficient use of society's resources. In 1995, for example, it investigated absenteeism and productivity among 350 physicians employed by the public hospitals. It tried to start disciplinary measures against 62 who had a particularly low productivity (surgeons and obstetricians who performed less than 1 surgical intervention or delivery per week, physicians who saw less than 1 patient per day). The Ministry lost this battle: political pressure made it drop sanctions. The health sector was ruled by lobbies and political clientelism.

The lobbies had emerged out of the rapidly growing numbers of private hospital entrepreneurs, the medical professions and the pharmaceutical sector. They defended their access to clientele, and through this clientele, to both out-of-pocket payments and public money. Each individual provider had an incentive to multiply commodified transactions: the more hospitalisations, surgical interventions, consultations, pharmaceuticals, tests, and other technical acts, the higher the income to keep their enterprises thriving. This provided a powerful incentive to lobby for minimal regulatory constraints, with little regard for the system-wide consequences or long-term effects.

Political clientelism. The interests of the entrepreneurial lobbies overlapped with those of the world of party- and sectarian politics. For many politicians, health care offered interesting opportunities for clientelism. On one hand this showed their importance for bringing close-to-client services (hospitals, clinics, health centres, pharmacies, technology) to their constituents –

by leveraging public funds for the necessary investments, or by expediting access to expensive individual health care. At the same time, they got political mileage from smoothing the life of individual entrepreneurs in their constituency and could buy the goodwill of the professional lobbies by eroding regulatory barriers to health care transactions.

Synergies. Short term and localised political clientelism thus worked in synergy with entrepreneurial logic. Macro-level financial consequences – and budgetary implications for the Government – carried little weight. What mattered was the immediate political capital created by expanding local access to hospital care and modern technology. All this dovetailed with Lebanon's mercantile culture, but also with the post-war strategy for economic reconstruction.

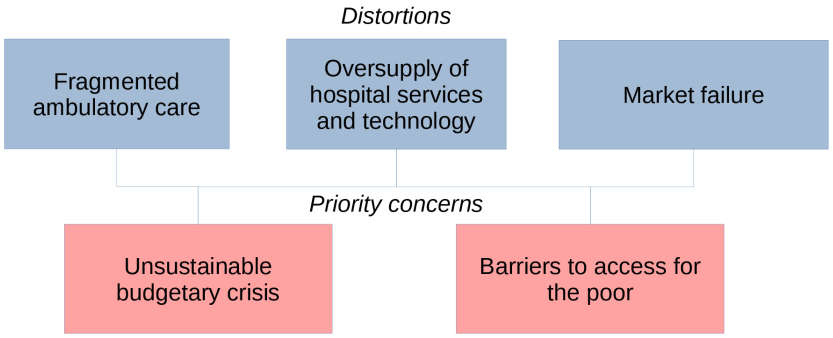
Fuelled by public subsidies. Whereas the dominant ideology opposed regulation of the private sector, there was considerable political pressure to subsidise it from public funds. An emblematic example was the Government's decision to consider all Lebanese, whatever their income, eligible for full reimbursement by the Ministry of expensive interventions (eg open-heart surgery) in private hospitals– without checks on over-prescription. At the same time, the Minister had discretionary power to pay for expensive cancer drugs on an individual, case-by-case basis. The budgetary consequences were clearly not sustainable; importantly, the explosion of supply-induced demand highlighted how far the system had strayed from a focus on improving health.[13,16]

3. FILLING THE POLICY VACUUM

Rebuilding a Ministry. As part of the post-war reconstruction initiatives, the Hariri government appointed a new leadership in various line-ministries in 1993. After a long series of caretaker directors-general in the MoPH, this filled the policy vacuum in the sector. The MoPH had to deal with the government's immediate concern: the sustainability of growing out of-pocket spending on health, and the rapidly increasing budget pressure of purchasing hospitalisation care from the private hospitals (Figure 6). It realised that the assumption of a self-regulating health sector – providing affordable quality care for the majority of the population – was inaccurate: Lebanon's health sector was a textbook example of market failure. Hard data (e.g. on health spending as a portion of GDP), were not available, but it was clear that there was a problem, with potential consequences for macro-economic stability. The MoPH viewed this with much anxiety, particularly in combination with the political decision, as part of the post-war reconstruction efforts, to invest US$ 320m in building 30 hospitals with a total capacity of 2,700 beds. This resonated well with the need to kick start the economy. It also fitted well with demand for access to care and consumption in the uneasy peace that followed the war. Yet the MoPH also realised that this would be a major challenge, given its lack of budgetary space and managerial capacity, and a dearth of nursing staff.[18]

The initial diagnosis. In this environment the MoPH's initial intuitive diagnosis of the sector's main policy challenges (Figure 7), was fairly straightforward. There were two main concerns, shared by WHO and the World Bank (WB): financial barriers to access and the budgetary predicament. MoPH attributed this to the distortions consequent on oversupply of hospitals and technology; fragmented and unregulated ambulatory care; and market failure. The MoPH would have to develop policy responses aimed at containing public spending while improving equitable access to the expensive hospital technology for the uninsured poor; it saw the investment in a new public network of hospitals and health centres as part of that response.

Figure 7
Mid-1990s: the intuitive diagnosis of the challenges faced in the health sector: systemic distortions and resulting priority policy concerns



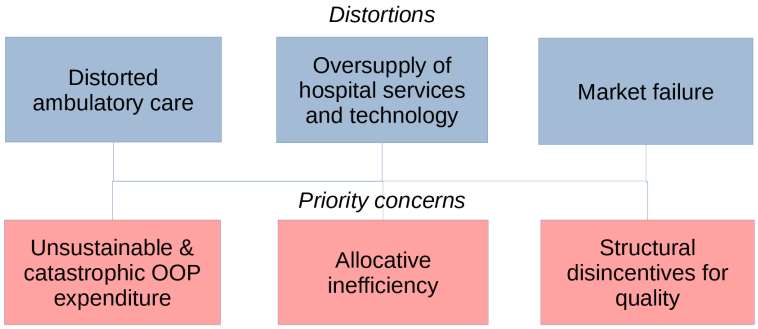
Filling the information gap. At the same time there was an acute awareness that there was little or no hard evidence to guide such strategies, manage the sector, or negotiate with the numerous actors and lobbies. It is revealing that the MoPH had no up-to-date inventory of health centres or hospitals in the country, and no overview of financial flows in the sector.[18] With the support of concerned Lebanese academics, the MoPH started investing heavily in strategic information (Table 2). Much of this was funded through the same World Bank loan that provided part of the investment in new public infrastructure and benefited from logistic and technical support of WHO. Table 2 lists some of the major efforts completed during the nineties. MoPH commitment to analytical work on system performance has been a constant since then: just between 2000 and 2016, 41 epidemiologic surveys have been conducted by MoPH, academia and UN institutions, along with numerous operational studies.

Table 2
Investment in strategic information during the 1990s

	Study	Added policy and management value of the information obtained
1993	WHO PHC Report	Understand the extent of problems and challenges in the health sector; generate awareness of the need to focus on primary care
1994	Analysis of hospital bills	Understand the pricing of care purchased from private hospitals; Improve negotiation position of the MoPH; contain public expenditure on hospitalisation
1995	Feasibility study HMO	Get a view of the range of available options for negotiation with the private hospital sector
1996	« Carte sanitaire » coverage plan of health infrastructure	Regulatory leadership; better control over the system and capacity to negotiate with the private sector
1996	Assessment of health centres	Identify potential for primary care provision as alternative to private ambulatory care
1996	Lebanon Maternal and Child health survey (PAPCHILD)	Baseline health and mortality indicators
1998	Household health expenditure and utilisation survey	Awareness of importance of OOP spending in household budget; awareness of importance of spending on ambulatory care and pharmaceutics
1999	Burden of Disease	Confirmation of importance of chronic diseases
1999	National Health Accounts	Awareness of importance of OOP spending
1999-2000	MICS 2 Survey	Baseline health and mortality indicators
1999-2000	National Perinatal Survey	Awareness of maternal health issues and the related policy responses

Better information led to a different diagnosis.
This information (particularly the Household Health Expenditure and Utilisation Survey and the National Health Accounts) substantially changed the MoPH's perception of the priorities that had to be addressed. It confirmed the intuitive diagnosis of market failure. Contrary to expectations, however, unequal access to hospital care for the poor was far less of an immediate problem than previously thought, while catastrophic OOP expenditure on pharmaceuticals and on outpatient care, and wastage of public resources through overbilling and gross inefficiencies came to the foreground. Better knowledge of how the system functioned gave the MoPH an insight in the structural disincentives to quality and parsimony of care, but also in the human and political geography of the health sector. Moreover, it changed the way the other health sector stakeholders viewed the MoPH: no longer merely as a source of steady profit, but as a knowledgeable negotiation partner.

Figure 8
End-1990s: the revised diagnosis of the systemic challenges the health sector: distortions, priority policy concernas, and intended policy response



Revised strategic goals. This brought the MoPH and its growing network of discussion partners to restate their strategic goals (Figure 8): rather than focus on cost-cutting in public expenditure and improving access to hospitals, the MoPH would have to concentrate on reducing the strain of OOP payments (even if that meant replacing OOP payments with public expenditure); on retargeting public expenditure to improve allocative efficiency and reduce wastage; and on creating incentives to improve quality of care while ensuring access to the poor and vulnerable. In this context the post-war investment in public hospitals and health centres was put in a new perspective: rather than a mere safety net for the poor, it also became a lever to introduce policy instruments for improving quality of care and fairer pricing in private hospitals. It is important to point out that the MoPH did not, at this stage, have a detailed blueprint of how to reform the health sector. Rather, it focused on looking for realistic and pragmatic opportunities to show leadership and improve things in three domains: hospitals and technology, ambulatory care, and access to pharmaceuticals – but with these priority concerns as a constant guide to identify concrete measures.

III. REGULATING THE HEALTH SECTOR

No blueprint. More clarity about the nature of the challenges did not mechanically translate into a detailed blueprint or a reform plan. It took time to obtain these insights and there were too many uncertainties about how to navigate the political decision space. The MoPH gave priority to a role of 'insurer of last resort focusing on the uninsured poor', over ambitions to control the health sector in its entirety. With hindsight, what happened is that the MoPH developed 'emergent strategies': actions and behaviour, consistent over time, emerging as intentions that collide with reality, on the basis of ongoing sense-making, accumulation of strategic intelligence, and managerial problem solving.[20] Regulations were introduced piece-meal, as opportunities arose. Over time they came to constitute comprehensive strategies that can be regrouped under three headings: rationalising the public purchase of inpatient care; improving the quality and equitable access to ambulatory care; and reducing the crippling OOP payments of the households.

1. CONTAINING COSTS AND IMPROVING QUALITY OF PUBLIC PURCHASE OF INPATIENT CARE

The expansion slows down. In the 2000s the expansion of the private health care infrastructure slowed down. Investment in heavy technology continued, but now at a slower pace than in the OECD, with population ratios stagnating at a high level (Figure 9). The rapid increase of hospital infrastructure, measured as number of hospitals and number of beds, levelled off (Figure 10). While the larger private hospitals increased in size, some of the smaller ones closed down. From the early 2000s onwards, the public hospital infrastructure that had been planned in the immediate post-war years, became operational. This brought the ratio of hospital beds per inhabitant to 3.1‰ in 2004. This put Lebanon in the 30-40th centile range of OECD countries, at the level of Portugal or Italy and well above Canada, UK, Denmark or Sweden.[21] Later, however, the expansion levelled off, and with the influx of Syrian refugees the ratio shrunk to 2.1‰. Lebanon is now at the lower extreme of the OECD distribution, but without the same primary care, day-care or home-hospitalisation infrastructure. The latest available population-level admission rates, from 2012, i.e. before the full impact of the refugee influx, there were 156 admissions per 1,000 inhabitants, i.e. slightly below the OECD median of 163‰, the same level as Sweden and well above Italy or Spain.[22]

The new public hospital infrastructure (which now accounts for 14% of the hospital beds) had been financed with funding from the World Bank, Saudi Arabia and Kuwait. Given the social demand for access to specialist secondary care, re-establishing public hospitals resonated well with the public and with the political drive for post-war reconstruction, as long as there was a consensus to refrain from heavy-handed regulatory efforts towards the private sector. But the rationale behind these efforts was to enable the MoPH to become again a major player in the health sector. It was an attempt to decrease dependency on the private sector and foster a more balanced partnership with the private sector. There is an increasing consensus, particularly since the inauguration in March 2005 of the Rafic Hariri University Hospital in Beirut, that this bet has paid off. This has worked because from the planning stage onwards, the MoPH was aware of the risk of building white elephants and the challenge of operating these facilities. As early as 1996, the Government approved legislation to grant financial and administrative autonomy to public hospitals, allowing them to sign contracts with financing agencies, including with the MoPH. Incentives were put into place to ensure public hospitals would be used. Uninsured patients pay only a 5% co-payment, against 15% in the private

hospitals. Public hospitals were twinned with academic medical centres to create a dynamic– and a perception–of quality, and protection against interference from politicians. This contributed to the credibility of the MoPH.

Most hospitalisations are paid from public sources. During the 2000s the MoPH continued to increase the number of hospitalisations purchased for uninsured patients: from 158,048 in 2002 to 243,248 in 2016. In population terms, MoPH-purchased admissions remained stable, around 45 per thousand inhabitants, with a peak at 49% in 2011-12. Behind these rates is a manifest increase in absolute number purchased hospitalisations. Those purchased from the private sector remained fairly stable: the increase was captured by the public hospitals. In 2006 the new public hospitals already accounted for 18% of reimbursed hospitalisations; 10 years later, in 2016, for 36%. Even so, the purchase of admissions by MoPH accounts for a substantial part – 30.0% – of the number of admissions in the private sector. If one adds in the hospitalisations covered by the National Social Security Fund (a volume comparable to that covered by the MoPH, those covered by UNRWA for Palestinians refugees, and, more recently, those purchased for Syrian refugees with donor funds, this highlights the dependence of the private hospitals on pooled, albeit fragmented, public funding mechanisms.

Figure 9
Medical technology per million residents: Lebanon and OECD average[23]

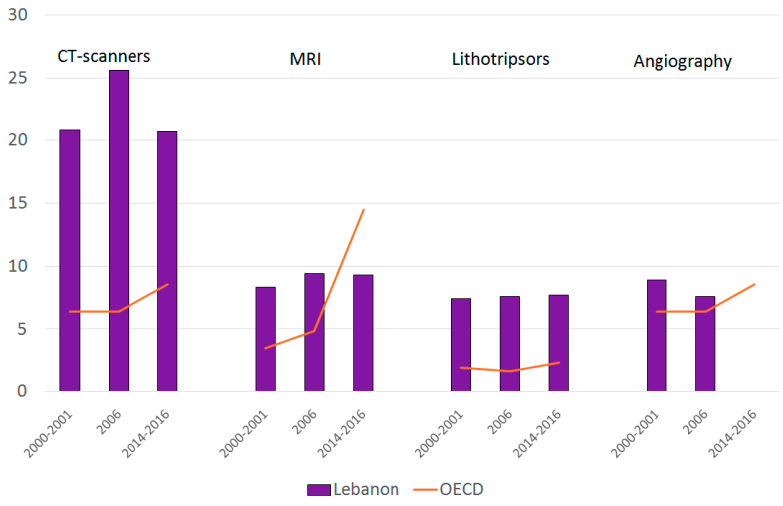
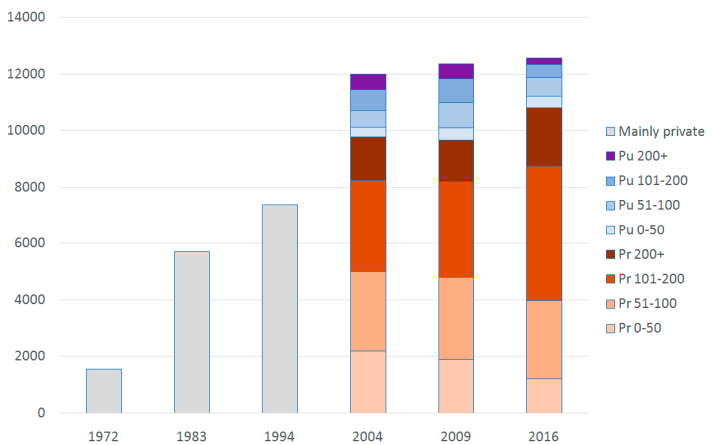


Figure 10
The expansion of hospital infrastructure: number of hospital beds, public and private, in hospitals of <51 beds, 51-100 beds, 101-200 beds and >200 beds. During the 1990s almost all beds were in private facilities.



Not only cost-containment. At the end of the 1990s the National Health Accounts had shown that purchasing inpatient care (then exclusively from private hospitals) absorbed 24.3% of total, and 62% of public expenditure. The budgetary impact on MoPH was an acute preoccupation, but there were other concerns as well. The prevalence of small-size hospitals, the managerial inefficiencies (occupancy ratios in the range of 60-65%), the poor utilisation of sophisticated services (less than three interventions per week in most open-heart surgery centres) raised concerns over quality of care. Over-hospitalisation was clearly an issue, part spurious and supply-induced, part for conditions amenable to ambulatory care. There were numerous instances of overbilling, of the MoPH and public insurance, but also of individual citizens. The National Health Accounts had given an insight in the nature of items billed to the MoPH and other public purchasers: 73% of the MoPH patients were hospitalised for surgical indications; diagnostic tests, imaging and drugs and medical supplies accounted for 44.5% of the costs, doctor fees 8.0%. All this suggested that hospitals boosted revenues by inflating investigations and supplies as a means of optimizing their revenues: this made rationalisation of hospital activity a matter of consumer protection as well as of budgetary prudence. Attempts at regulating hospital care would have to aim for cost-containment and transparency, parsimony in the reliance on hospitalisation, and quality of care.

Understanding prices. The first attempts to deal with this date back to the immediate post-war period and focused on what MoPH was charged for the inpatient care it purchased. The process was as follows. Patients without insurance could get a pre-hospitalisation authorisation from the MoPH. After the hospitalisation the hospital would send an itemised hardcopy bill to the MoPH, which would pay (as a rule without scrutinising the bill, not having the manpower to do so). The budgetary emergency caused by skyrocketing expenditures led the MoPH to make an in-depth analysis of prices charged for laboratory examinations, imaging, operating room costs and other cost item in order to at least identify patent abuse and misappropriation. The effects were near immediate: in 1995 the MoPH negotiated a 13% rebate. Various procedural changes were introduced. In 1997-99 the contracts and the required documentary support were reviewed (including such aspects as the use of ICD10, or confirmation that patients were not charged more than 15% in OOP fees). The increasing expertise of the MoPH in discussing and negotiating the bills made it possible to gain credibility and establish allies within the powerful hospital lobbies, eliminate gross overbilling, and, in 2000, introduce flat fees for surgical patients. Computerisation of the pre-admission authorisations, and later the of the discharge data, further improved the understanding of costs and pricing, with further gains in negotiation power.

User-friendliness. In the mean-time patients who wanted the hospitalisation to be reimbursed by the MoPH, still needed to go through a cumbersome bureaucratic process to get their authorisation. This first involved a visit to the NSSF and the civil servants' cooperative to get a 'certificate of non-adherence'. With this certificate, they could head to Beirut to join the waiting queues at MoPH to get a pre-admission authorisation rubberstamped (many would use a 'broker' for this whole process, creating new opportunities for clientelism). In 2001 the MoPH created a unified database of public beneficiaries. Double billing was eliminated without requiring visits to NSSF or the civil servants' cooperative. For patients, it meant a gain in time, money and comfort, particularly when after decentralisation of the process to district level a visit to the MoPH's offices in Beirut was no longer necessary.

Table 3
Initiatives to rationalise hospital care

Initiative	Effect
1994: Computerise authorisations of hospitalisation under MoPH reimbursement	Detect and reduce abuse; enhance credibility as negotiator
1997: Introduce flat fee for cardiac surgery	Immediate effect on number of interventions performed. Highlighted the distortions in the health care market and demonstrated the potential of regulatory measures
1997-99: Standardisation of contracts (including patient protection), standardisation of nomenclature, classification of surgical acts	Improved transparency of purchasing inpatient care for the uninsured; beginning of discussion of quality of care and patient protection
1998: Analysis of price structure of laboratory examinations, imaging, operating room, supplies	Renegotiated prices for purchasing inpatient care from private hospitals; Improved negotiation position of MoPH; containment of public expenditure on purchase of inpatient care
1998: Feasibility study of introduction of Diagnosis-related Group (DRGs)	Abandoned because of major resistance
1999: Introduction of ICD10 coding	Removed bottleneck for computerising the system
1999: Creation of accreditation committee to classify hospitals	Early involvement key stakeholders
2000: Introduction of flat fee for reimbursing surgery	Reduced overbilling
2001: Introduction and pilot-testing of accreditation.	Standards, Procedures, Guidelines, at this time with focus on patient safety and infrastructure
2001: Unified database of public fund beneficiaries (first centralised, later decentralised to district level)	Lightened the heavy (and clientelism-prone) bureaucratic procedure for patients; eliminated double billing
2001-2002: First accreditation survey round	47/148 hospital accredited; most failures in small (<100 bed) facilities
2002-2003: Upgraded second accreditation survey with follow-up audit	Upgrading of standards; new edition of guidelines; new scoring system; 39/45 accredited
2004-2005: Accreditation survey round	85/144 hospitals accredited
2006: Computerisation and analysis of admission data	Better understanding of case mix; increased authority in negotiations
2006: Follow-up accreditation survey round	18/34 hospitals accredited, 12 improved score, 3 failed
2006: Institutionalisation of the accreditation process	Internally led independent organisation, funded by hospitals, oversight by MoPH
2011: Computerisation and analysis of discharge data	Better understanding of case mix; increased authority in negotiations; better acceptance of objective criteria
2014: Introduction of case mix analysis	Sophistication of contractual arrangements
2015: Introduction of Third Party Assessment of admissions	Reduction of spurious hospitalisation
2016: Accreditation survey round	89/128 hospitals fully accredited, others with conditionalities

Perverse incentives. In the meantime, however, perverse incentives persisted. All hospitals, even those providing poor or dangerous care, were eligible for reimbursement by the MoPH. They would be paid according to four categories based on their physical structure and equipment, without consideration of competencies or quality. This encouraged hospitals to invest in sophisticated equipment and high-tech services in the hope of being reclassified in a higher tariff class.[24] It promoted the belief that unless a hospital provided "the full options"—that is a complete range of the latest sophisticated medical technology—it was not a good hospital.

Towards fairer contracts. Although the MoPH's agenda of cost-containment conflicted with the immediate interests of political and private sector lobbies, there were also shared concerns of improving quality and efficiency. During the 2000s the MoPH managed to establish a working relation with the representatives of the private hospitals to replace the categorisation in four tariff classes by a fairer system. This would take actual costs into consideration and reward quality and performance. The first step was to introduce a voluntary accreditation scheme. To do so the MoPH re-interpreted pre-existing legislation that gave it "the right to evaluate, classify and accredit hospitals according to their status, field of specialty and range of services provided". The law tied this to the contractual agreements with hospitals, which made it possible to use accreditation as a prerequisite for eligibility for contracting with the MOPH and other public purchasers. Since contracting was vital for the economic survival of hospitals, this proved a powerful incentive for hospitals to participate. It also put an end to the practice of accepting all hospitals, independent from their performance, as potential contractors. The MoPH now had a legal basis for being selective.

Introducing accreditation. The MOPH began the process of introducing accreditation in 2000, first focusing on safety and quality management. The first accreditation survey was completed in 2002, with 47 successful hospitals out of 128. A follow up audit in 2002-2003 saw 39 successful hospitals out of 45. Most importantly, 32 hospitals, often small with less than 100 beds, did not meet safety requirements, were not accredited and therefore no longer eligible as suppliers of inpatient care for the MoPH. The high success rate in the follow-up indicates that the process provided an effective incentive for a quality upgrade.[25] However, it also induced opportunistic behavior by hospitals; some made exceptional, on-the-spot efforts specifically for the survey visit in order to obtain a higher classification or accreditation score. To deal with this standards and procedures were revised, with a new edition of guidelines and a new scoring system.

Institutionalisation. The results of the 2004 -2005 accreditation survey prompted the Minister of Health to link hospitalization reimbursement tariffs to accreditation results.[24] Relating quality to payment made the contractual relationship with private providers easier to manage and allowed the introduction of incentive-based regulations and quality assurance programmes.[26] The revised contracts provided incentives for continuous quality improvement. In the beginning the emphasis was on safety, for patients and staff. But each successive accreditation round used more sophisticated criteria, to a foundation for consistent quality practice, and later to the introduction of outcome indicators. The accreditation process thus became a tool to improve the technical quality of care and limit perverse incentives. In the meantime, the management of the accreditation process was shifted from the foreign consultant firm to an independent Lebanese organisation. Oversight remained with the MoPH, but the funding came from the private hospitals themselves, who by now were convinced of the added value this provided. The accreditation process became more institutionalized and robust, with formalization of the awards process, surveys of the public hospitals, upgrading of the accreditation standards, and prequalification and selection of private certification bodies. Accreditation thus created a climate in which discussions on tariffs were linked to performance and conducted on transparent and objective bases.

An improved environment. The process has been selective: for example, in 2005, 59 out of 144 hospitals failed accreditation; they would all have been classified as eligible contractors in the previous system. In the most recent round, in 2016, 89 out of 128 hospitals received a full and unreserved accreditation for 3 years, others were required to make substantial improvements to their operations. The accreditation scheme thus signals which hospitals are the weaker institutions (often smaller hospitals) and provides incentives for improvements for those that failed to pass. On the whole, the accreditation process met with considerable support from the hospital network, because it provided a more level playing field for contracting and access to public subsidies. There was resistance too, including an aggressive religious- and politically-mediated campaign against the programme carried out by some of the hospitals that failed the accreditation. Overall, however, many adhered to the process basically because they saw it as transparent, fair and objective. This new environment of quality improvement contrasts sharply with the hospital culture of the mid-nineties, when capture of public subsidies and patient recruitment were the main drivers.

Performance contracting. In 2006, while the accreditation process was reaching maturity, the MoPH made arrangements for computerisation and analysis of admission data. In 2011 it did the same discharge data. This streamlined the management processes, but it also provided precious databases. These generated a wealth of information, further enhancing the reputation of the MoPH as an organisation capable of establishing an objective and transparent basis of evidence for developing regulatory measures. By 2014 this matured – with the buy-in of the hospital community - into a basis for establishing tariffs for contracting services provided by public and private hospitals. This system uses a validated mix of criteria:[27] accreditation score, patient satisfaction survey results, a case-mix index, intensive care unit admissions, ratio of surgical to medical admissions, and a deduction rate. Accreditation and patient satisfaction are a reflection of quality and account for respectively 40% and 10% of the total contracting score. The other factors are a reflection of performance, and together account for 50%. The pricing system thus reflects complexity as well as the quality of services provided and is perceived as fair and objective by the hospitals. The mix of criteria provides incentives to promote good practice and discourages overuse and abuse of the system.

Third party assessment of admissions. The recent introduction of third party assessment of admissions and discharges offers perspectives to reduce unnecessary hospitalisations while improving quality improvement and monitoring.

System effects. A sector characterised by unregulated competition for clientele has thus morphed into one where the principle of quality assurance has been institutionalised, incentives have been re-aligned and purchase of services become more rational. It has been possible to improve transparency, curtail overbilling and improve quality standards in hospitals. There are some indications that spurious excessive hospitalisation is reducing (at least for MoPH-purchased admissions), among others through the introduction of third party assessment of admissions. The average price paid per hospitalisation has diminished until 2011, when it picked up again. By 2014 the MoPH paid 22.4% more per hospitalisation than in 2002. In the same interval, however, cumulative consumer price inflation in Lebanon has been 59.6%.[28] This implies that the MoPH is getting a far better deal; it pays only 76.7% of what it would have paid with prices mirroring consumer inflation. Importantly, this has been done in a consensual way: the more demanding work standards have been interiorised by the field actors who have seen the advantage of a level playing field and accepted the regulatory role of the MoPH. It is possible that these behaviours have trickled down to the hospitalisations paid for under the other public and private schemes, i.e. not purchased by the MoPH, but concrete evidence for this is currently not available. The adversarial relation (a defensive MoPH on one side, and hospitals that take advantage of its weakness on the other) has been replaced by cooperation around the shared advantages of fairer contractual relations and improved quality. The dependence of the private hospital network as a whole on pooled funding provides public authorities, and particularly the

MoPH with considerable leverage to further rationalise the country's hospital network.

Unfinished agenda. This leverage can be used for further improvement. Much remains to be done at the level of each individual hospital: the coordination with ambulatory care into efficient and person-centred patient pathways, the rationalisation and person-centeredness of the hospital's outpatient care, the refocusing of inpatient care on conditions that are not amenable to outpatient care, the improvement of patient safety and protection, etc. At the aggregate level there is a case for organising better complementarity between hospitals, with better between-hospital specialisation and consolidation. In all likelihood, this will not be obtained through a prescriptive blueprint approach, but like the progress made over the past 15 years, incrementally and opportunistically, with the large consultation and active involvement of the major stakeholders in the whole process.

2. BETWEEN ALLIANCES AND LEVERAGE: WORKING WITH NGOS TO SERVE THE POOR

Little leverage. Unlike for hospitals, where it could use its purchase of inpatient care for uninsured patients to gain influence, the MoPH had little or no financial leverage for influencing ambulatory care. As individual entrepreneurs, private doctors worked without regulatory frameworks or negotiated fee-setting. The MoPH had only one formal lever: the colloquium that offered some limited licensing control over the entry of new physicians in the workforce – but not their practice. Still, something needed to be done. The 1998 national health accounts had shown that nearly two thirds of national health expenditure were for ambulatory care and medicines. According to the 1998 Household Health Expenditure and Utilisation survey up to 86% of OOP health expenditure went to ambulatory care, medicines and dental care. Ambulatory care obviously merited close attention. After decades of laisser-faire it had become essentially commercialised. With the proliferations of ambulatory subspecialties, primary care had been utterly neglected: in terms of primary prevention and health promotion, but also in terms of secondary prevention and quality curative care. Continuity of care, coordination of care or people-centeredness were left to individual initiative. Ambulatory care had become the prime example of fragmented consumption of health commodities, with overbilling of patients, supply induced demand and low standards of care, particularly for poorer patients.[15,16]

A de facto safety net. There were some assets to start from: an ample supply of physicians (albeit of variable level of competence); the social rhetoric of professional organisations; and a multitude of NGO health centres and dispensaries that provided primary and specialised ambulatory care to the lower-income members of their constituencies. Developed during the war, these NGO health centres and dispensaries constituted a de facto safety net for vulnerable populations, with 734 facilities in the mid-nineties. Together with 110 public facilities (of poor quality and little utilised) these health centres and dispensaries catered to 26% of the population.

NGOs as natural allies. During the Israeli incursions of 1993 and 1996 these NGO's and their health infrastructure played a key emergency response role. These dramatic events gave the MoPH and the NGOs the opportunity to get to know and appreciate each other. If during the 1993 attack their collaboration was still rather improvised, lessons were learnt, and the joint MoPH-NGO emergency response in 1996 was a smooth and highly effective operation. The NGOs thus became a natural collaborator and ally of the MoPH. The partnership rapidly moved beyond emergency response, to providing care to the less well-off, and, when the Syrian crisis broke out 15 years later, for the growing refugee population. Table 4 charts the milestones in this collaboration.

Table 4
Milestones in the collaboration between the MoPH and NGO health centres

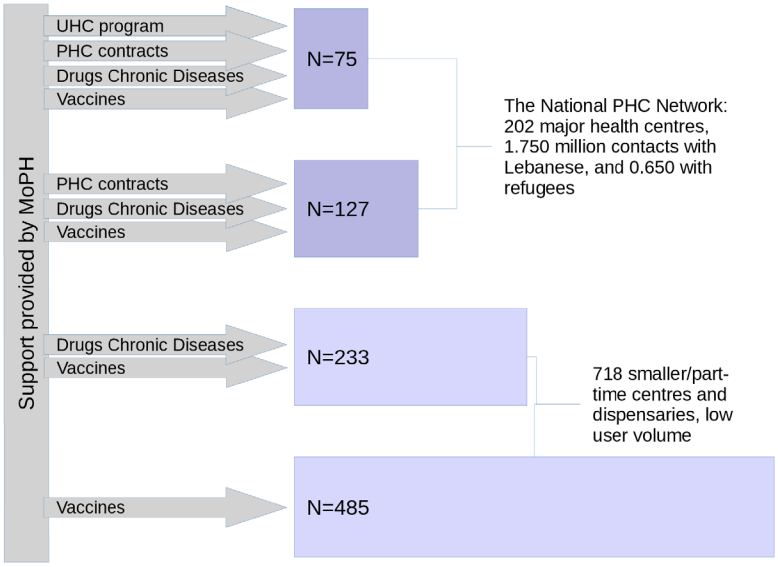
1993	Collaboration MoPH-NGOs on emergency response to Israeli attack PHC committee task force; first discussions on contracting
1994	MoPH enters in collaboration with YMCA to supply medicines for chronic diseases to NGO health centres
1995	First batch of contractual arrangements between MoPH and 28 NGO health centres
1996	Second Israeli attack: smooth and effective collaboration MoPH – NGOs Comprehensive assessment of 800 health centres. Creation of the National PHC Network
1997	Contracting out of newly built or rehabilitated government health centres to NGOs and municipalities
2004	National PHC committee develops a national strategy that continues the approach started in the 1990s A maternal health initiative in the highest maternal mortality pocket eliminates maternal deaths in that area, while containing C-section rates at one third of the national level
2005	86 centres are part of the Network
2006	MoPH promotes an offer of oral health care at health centre level
2008	Start of accreditation programme for HCs
2011	Start of the refugee influx
2012	Integration of the non-communicable diseases strategy (screening for diabetes and hypertension) in the work of the PHC network
2014	Pilot "Universal Coverage" programme launched in 75 health centres
2015	Experimentation with electronic medical record
2016	Integration of mental health care in the HC package
2017	202 health centres are part of the Network, 75 in accreditation programme Agreement for US$ 150m Lebanon Health Resilience Project zero interest loan

Priority to access for the poorest. Realising it had little leverage over private-for-profit ambulatory care, MoPH concentrated on collaborating with the NGOs to provide access to affordable primary care for the poorest. In the immediate post-war period the MoPH and the NGOs held their first discussions on the principle of a contracted collaboration. Contracted health centres would commit to provide a specified comprehensive package of PHC services, including prevention activities, in return for the MoPH in-kind support: guidelines, training, health education materials, vaccines, essential drugs, medical supplies and sometimes equipment. They would provide generalist and specialised outpatient services to a defined catchment area. In that catchment they would have responsibilities for immunization, school health, health education, nutrition, environmental health and water control. The contract would stipulate non-discrimination between uninsured patients and insured patients: all were to pay the same fees, thereby providing an option for affordable care for those less well off. After a comprehensive assessment in 1996, 29 of the 800+ NGO and public health centres were contracted into a "National PHC Network".

Expansion. By 2017, 202 of the NGO, public or municipality 920 health centres in the country were part of this Network. These 202 were the most active and utilised centres; together they cover most of the country, while those not part of the Network were, to a large extent, small or part-time dispensaries with few users. All 920 centres are supplied with vaccines by the MoPH, and 435 are supplied with medicines for chronic diseases under an arrangement the MoPH has with YMCA. This supplies 165,000 patients with

medicines for a total value of US$ 8m, 40% paid for by MoPH, the rest by various donors. The 202 centres that are part of the Network have a contractual relationship with MoPH as described above, and 75 of these, all accredited, receive grants to run a pilot 'Universal Coverage Programme' for part of their catchment area (this programme experiments with the introduction of registration and capitation for the provision of a 'wellness' package of early detection and management of chronic diseases). As a result, different health centres benefit from different degrees of MoPH support (Figure 11). Together they provide services to the poorer and uninsured sections of the population – alongside the large numbers of "for-profit" entrepreneurial practices and the (private and public) hospital outpatient consultations.

Figure 11
MoPH support to NGO & municipal health centres and dispensaries in 2017

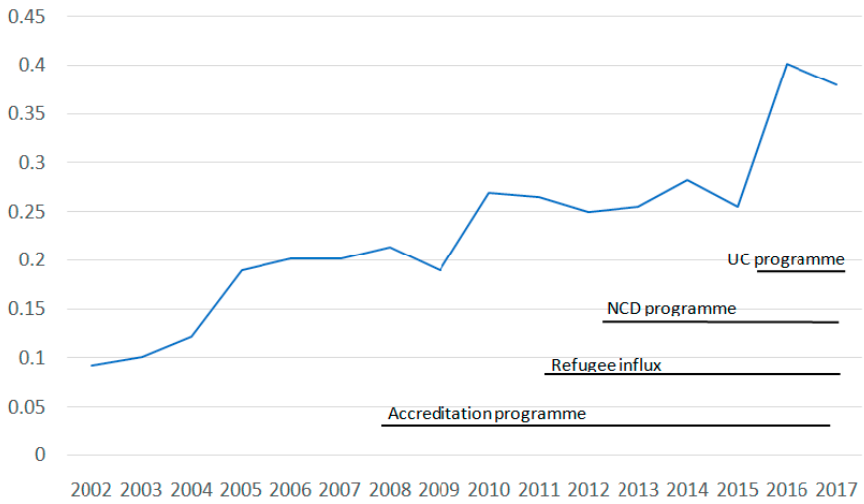


Uptake of care. The rationale for setting up the National PHC Network was to give an alternative to expensive private care to the 400,000 to 500,000 low income inhabitants without insurance coverage – and to do this with improved quality. By 2010 the number of patient-contacts in the Network, mainly by people from these categories, had grown to 1,150,000 – a utilisation rate of that target population of 2.6 per person per year. The strategy to build trust through an improved and accessible offer of services was working. in 2017 the number of contacts of low-income Lebanese had grown to 1,750,000 (more than 3.5 contacts per non-insured citizen per year), with an additional 650,000 contacts with Syrian refugees*.

Coverage of the vulnerable. The Network thus constitutes an important source of care for the poor. Extrapolating from the 1999 National Household Health Expenditure and Utilisation survey (3.8 outpatient consultations per person per year, 4.9 for the lowest income category) a low-end estimate of the volume of outpatient contacts, for 450,000 poor uninsured, would be in a range of 1,710,000 to 2,205,000.[15] This would mean that with 1,750,000 contacts the Network is providing the bulk of outpatient care (both primary and specialised) for the poor uninsured. On top of that, the Network has been able to also absorb - at least in part – the challenge of the influx of Syrian refugees while continuing to expand its range of services.

* The actual proportion of contacts with refugees is not available as yet but has been extrapolated from the 2015 data.

Figure 12
Utilisation of the National PHC Network: contacts per inhabitant per year (including refugees)



Access& Quality. The support given by MoPH has improved access and quality for the users of the National PHC Network – largely that of the poor uninsured, as well as Syrian refugees. Yet it also has a broader effect. It signals that the MoPH assumes its social contract of providing succour to the less-well-off in society and is making headway in doing so. The contracted health centres are an affordable and accessible source of ambulatory care – primary and specialised – that is an alternative to expensive private care. Importantly, they provide a cheap and reliable source of medicines, also for patients who prefer to consult private doctors. They are a basis for a considerable amount of training and capacity building that influences other health centres as well as the numerous private doctors who hold outpatient consultation in these health centres. They play an important role by providing access to the less-well off Lebanese (though the contracts were not designed for such purposes, they have been critical in the flexible response to the ambulatory care needs for the growing population of Syrian refugees).

Room for further improvement. Challenges remain, both in terms of access and of quality. The Network health centres have not as yet managed to move from a paradigm of fragmented specialist outpatient care to one of people-centred primary care. Registration and capitation are being piloted, but little has been done thus far on continuity and coordination of care, patient pathways and referral processes, while the introduction of a state-of-the-art electronic medical record is proving laborious and slow. Nevertheless, the contracted health centres – NGO, public, municipal – continue to form a good basis for developing the tools and approaches to high quality people-centred care.

Ambulatory care outside the National PHC Network. For the country as a whole, however, the contracted Network health centres are but one of the providers: there are also the individual private clinics, the hospital OPD's and the health centres and dispensaries that are not (yet) in the Network. These account for the majority of outpatient contacts. The total volume of outpatient contacts per year in Lebanon is not known with any degree of precision, but two figures can be used as benchmark. The 1999 National Household Health Expenditure and Utilisation survey[15] found 3.8 outpatient consultations per resident per year; utilisation is likely to have increased since, but this can be taken as a lower-end benchmark (the 2015 OECD average was of 6.9 consultations per person per year, with most countries reporting between four and eight consultations).[29] This lower-end benchmark translates to some 17m contacts for the Lebanese population or 23m for the total resident population (2.4 million out of which effectively took place in the National PHC Network).

Rationalising the work of other ambulatory care providers. The MoPH has pragmatically focused on the low-income groups – both out of concern for equity and because with the NGOs it could make use of its alliances and leverage to influence health care delivery. But the MoPH needs to exert its influence beyond the Network's ambulatory care. The context for improving quality of care is now more favourable than in the early 2000s. The authority of the MoPH has increased significantly, its collaboration with public insurance schemes has improved, and it can build on its experience in rationalising hospital care. It can now start to influence providers that cater to the rest of the population (and also remain a source of care, and OOP expenditure, for the poorest). First, there is the inclusion of outpatient care provided by the hospitals in the scope of accreditation of hospitals. Since hospital outpatient consultations probably make up a large proportion of total outpatient care, this would be a prime target to extend regulatory influence well beyond what is possible through the health centres. Second, the MoPH has managed to pass legislation on family medicine, requiring specific training as a condition for establishing a practice. If this is implemented, with the required large-scale investment in training, this is a promising avenue for improving technical quality and safety. Third, MoPH can build on its credibility as the broker of a successful accreditation programme among hospitals to extend the beginning HC accreditation programme to private practitioners. Finally, Lebanese medical culture encourages innovations such as state-of-the-art electronic medical records – with their potential for creating demand for technology that offers radical and visible improvements in integration and quality of care.

3. REDUCING OOP EXPENDITURE

Hospitals are not the only concern. At the end of the 1990s various studies and surveys had suggested that financial access to hospitals was not as problematic a barrier as had previously been thought. Uptake of in-patient care was actually highest among lowest income groups. Though much hospital care appeared inefficient and supply-driven, no income categories seemed patently excluded. This reassured the MoPH that it was effective in its role of insurer of last resort for the uninsured (who include "the poorer", but also "the older and the sicker", including better-off people without social security employment or voluntary private insurance). However, this was valid only for inpatient care, not for ambulatory care. The surveys showed that more than two thirds of total health expenditure went to fee-for-service ambulatory care, overwhelmingly paid for OOP.

Reducing OOP spending emerges as a priority. The level of OOP payment by households thus emerged as a major preoccupation. In 1998-99 health constituted 14% of household spending (19.9 for the lowest and 8.1% for the highest income categories; for low-income categories health reached a staggering 28.3% of non-food spending). Two percent of household incomes were for prepayment schemes, but 12% were for OOP payments (Table 5). This is well above the level that is associated with unacceptable frequencies of catastrophic expenditure and health-induced impoverishment. Households spent 1.6% of their budget OOP on hospital care, but 10.4% on ambulatory care and pharmaceuticals. This implied that OOP spending on ambulatory care had to become a prime target for poverty alleviation, for protection of the population against the financial consequence of ill-health, and for protection against financial exploitation of the sick. In the 2000s the MoPH thus started establishing the alliances and gathering the information necessary to tackle this issue.

Table 5
Household spending on health

	1998	2004	2012
OOP health spending as % of total household spending:	12.0%	6.8%	7.8%
Hospitalisation	1.6%	2.6%	1.85%
Ambulatory care (including dental care)	8.3%	1.4%	1.38%
Purchased medicines	2.1%	2.2%	4.12%
Prepaid health spending as % of total household spending	2.0%	2.4%	2.5%
Non-health spending as % of total household spending	85.9%	90.8%	91.5%
Health spending as % of non-food spending, average	20.6%	8.5%	9.84%
Health spending as % of non-food spending, lowest income	28.3%	19.3%	

Note: The 3 surveys used as data sources used different methodologies and sample sizes.

Overall, the situation improved over the last 15 years. WHO estimated that Lebanon spent 10.7% of its Gross Domestic Product (GDP) on health in 2000 and reduced this to a more sustainable 7.3% in 2015 (the National Health Account (NHA) estimates are higher, but show the same trends, with most of the reduction occurring between 2000 and 2005). In GDP terms OOP dropped dramatically, from 6.2% to 2.4%, while government, social security, and voluntary health insurance expenditures increased from 7.6 to 8.6%.[30] Figure 13 shows that in constant 2010 LBPs total health expenditure was reduced with 22%. The most striking feature of this reduction was a drop in OOP payments from 627,000 LBP per capita to 273,000 LBP; government spending and voluntary health insurance remained virtually the same, while social health insurance contributions doubled. The share of OOP in total spending thus dropped from 54% in 2000 to 32% in 2015 (Figure 14). This made a substantial difference to household budgets. As a share of household spending OOPs halved from 12.0% to 7.8% in 2012 (Table 5).

Figure 13
Health expenditure by source, constant 2010 LBP per capita.
Source: national health accounts database WHO[30]

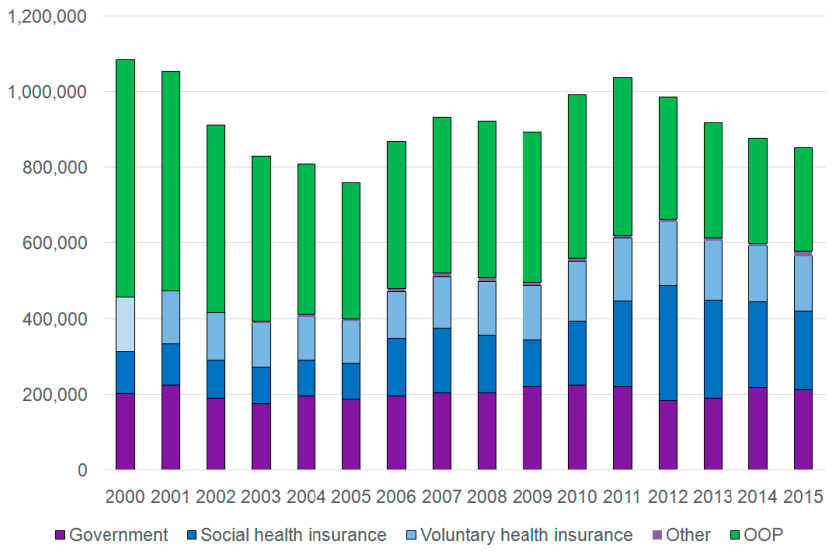
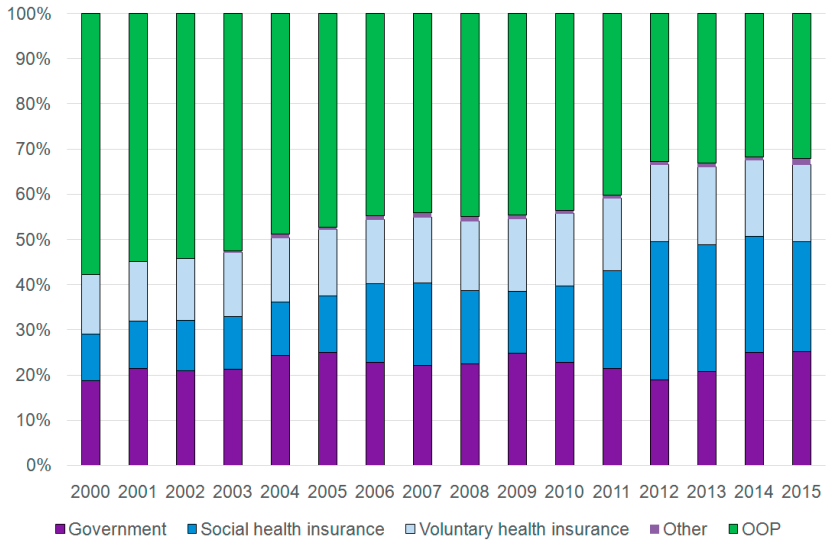


Figure 14
Health expenditure by source, distribution.
Source: national health accounts database WHO[30]



Multiple factors. What made it possible to both reduce total expenditure and shift from OOP to public spending? Obviously, a combination of factors: expansion of social health insurance, rationalisation of hospital care (prior authorisation, protocols, flat rates, performance linked pricing, lower unit prices). Uptake of affordable care through the National PHC Network – including for oral health – saved money for some. It made health care possible without catastrophic expenditure for others. At the same time the increasing number of competing doctors put a downward pressure on ambulatory care fees (it is telling according to Mednet the top 20% physicians have an annual income of above 200,000 US$, but the rest averages around 17,000 US$ per year). Overall, however, a critical contribution came from lowering out-of-pocket spending on pharmaceuticals. This came about in two distinct phases: before 2000 the MoPH focused on managing discretionary subsidies; and after 2000 it undertook to lower OOPs for medicines (Table 6).

Before 2000: rationalising discretionary subsidies. In the 1990s the only 'public subsidy' for pharmaceuticals came from the discretionary power of the Minister, who could authorise the purchase of expensive drugs – particularly for cancer treatment – for individual citizens who made a personal request. Whenever the Minister would grant support to such a patient, the MoPH would procure these drugs at retail prices from private pharmacies. Soon the doctors who were aware of this possibility started referring their patients to the Minister. Pharmaceutical companies then started publicising that their expensive drugs could be reimbursed through support of the Minister. This clearly could not go on, and in 1994 the MoPH established bidding for limited quantities of a restricted number of molecules – without touching the Minister's discretionary power. In 1995 the MoPH asked the professional orders to make therapeutic guidelines for expensive drugs and the next year, in 1996, a technical committee was formed to set criteria and examine demands for evidence-based approval. This gradually transformed discretionary MoPH subsidies into a regular MoPH function of procuring and dispensing expensive drugs – particularly cancer drugs – with the Karantina drug warehouse as the dispensing center for the whole country. This made for more rational utilization, even as the volume of medicines was increased: MoPH spending tripled, from 7,493mLBP in 1994 to 22,042mLBP in 1999.

Table 6
Milestones in MoPH's efforts to reduce OOP spending on pharmaceuticals

1993	No MoPH reimbursement of pharmaceuticals. Minister apportions expensive drugs to individuals on a discretionary case-by case base, on demand
1994	MoPH establishes bidding for limited quantities of restricted number of drugs
1995	Studies show there are between 5000-6000 different specialities on the market. MoPH asks professional orders to make therapeutic guidelines for expensive drugs. 2,341 pharmacies
1996	A technical committee sets criteria for evidence-based approval of requests: "State of the art treatment policy Expensive drugs procurement and dispensing became a regular function of the MOPH. The Karantina drug warehouse becomes the only dispensing center for the whole country. 2,577 pharmacies
1998	2,979 pharmacies
1999	Household health expenditure survey and NHA show importance of OOP expenditure on pharmaceuticals. 3,146 pharmacies
2000	Focus on poverty alleviation and preventing impoverishment from purchasing drugs with exorbitant prices.
2003	Applications for expensive cancer drugs became an important source of information on the burden of disease. The Cancer Registry started up, relying mainly on the MoPH warehouse database (since 2003). Legislation on registration, import and distribution of medicines
2005	Legislation on registration, import and distribution of medicines
2007	MoPH joins WHO Good Governance Initiative for Medicines
2008	Decentralization of drugs dispensing to one center per mohafazat.
2009	Good manufacturing guidelines
2014	Clinical trials model and procedures
2016	Code of ethics for promotion of medicines
2017	Barcoding and traceability

From 2000: reducing OOP spending on drugs. As of 2000, MoPH began focusing systematically on OOP spending on pharmaceuticals, in an explicit attempt to prevent impoverishment as a result from spending on health. The Ministry was a relatively small purchaser of pharmaceuticals (5.5% according to the 2005 NHA), but it could influence things in three ways: by improving access to affordable drugs, and specifically drugs for chronic diseases, through publicly subsidised schemes targeted at the poor and the uninsured; by improving practices in the pharmaceutical sector, rendering it more efficient and transparent; and by revising the price structure of medicines so as to make pharmaceuticals generally more affordable.

Public subsidy. The first instrument was to improve access to affordable drugs, and specifically drugs for chronic diseases, by subsidising schemes targeted at the poor uninsured. The MoPH set up a system of distribution of expensive medicines through the Karantina warehouse, and, through an arrangement with the YMCA, distributed heavily subsidised medicines for chronic diseases to the National Primary Health Care Network and other NGO health centres. In 1994 the MoPH spent 7,493 Bill LBP on medicines. By 2000 this had increased to 23,042 Bill, and by 2012 to 151,784 Bill. This represented a considerable (and much appreciated) effort by the MoPH. Yet most ambulatory pharmaceutical expenditure continued to flow through other channels. In 2012 between 7.7% and 9.9% (according to the source) of total spending on medicines comes from MoPH, and between 3.4 and 4.4% by other public sources.

Improved practices. In parallel the MoPH developed an important line of work on rationalising the pharmaceutical circuit: improved procurement and drugs registration, pricing, marketing authorization, good storage and distribution practices, unified prescription, promotion of the local production and generic drugs, introduction of bar-coding, etc. In 2007 a programme to reduce vulnerability to corruption in the pharmaceutical sector established a technical committee for registration of medicines with a manual, publication of its agenda and decisions, and publication of the schedules for the submission of applications for registration of medicines in chronological order. The Ministry updated the guide to the origins of good drug manufacturing, established a code of ethics for the promotion of medicines in Lebanon and adopted of the declaration of conflict of interest for members of committees dealing with pharmaceuticals and pharmacists inspectors. Manuals and guides were issued for licensing of pharmaceutical establishments, import and export of medicines, pharmaceutical inspection and pricing procedures. Lists of prices according to the last currency index were provided electronically to all health partners. This makes the sector much more robust that in the free-for-all of the 1990s.

Revision of pricing structure of pharmaceutical drugs. The old pricing system, dating back to 1983, established a fixed percent profit margin for all price brackets. This encouraged the importation and dispensing of expensive drugs, as well as overpricing to maximise profit. Two ministerial decisions issued by the MOPH in 2005 had considerable impact on the pricing structure. Decision 301/1 adjusted prices based on comparison with neighbouring countries (Jordan, KSA). This reduced the prices of 872 drugs with an average of 20%, saving USD 24m per year. Decision 306/1 established a new stratified pricing structure, with lower and degressive mark-ups. This decreased prices with 3 -15% per product, an estimated savings of USD 27m per year. It also introduced a mechanism for periodic price revision. The price revision targeted 1109 drugs by 2007. It lowered the public price of 360 drugs with a yearly saving exceeding USD 10m. More recently, decision 728/1 of 2013 on the pricing of generic drugs led to a 21% reduction of 629 products. The introduction of a new category E in addition to the repricing mechanisms (decision 796/1 of 2014) automatically decreased prices of 261 drugs by 17%, with further decreases to continue automatically in line with the periodic repricing mechanism.

Unfinished agenda. Though OOP spending for health has been considerably reduced, there remain important areas of further improvement: rational prescribing; regulation of fees for consultations, laboratory examinations and imaging; and OOP for dental care. There is little leverage over an intractable private ambulatory sector, but there is some potential for better regulation of hospital outpatient contacts, given the existing accreditation processes.

IV. FROM LAISSEZ-FAIRE TO COLLABORATIVE GOVERNANCE

Ambitions. Over the past 20 years the Lebanese MoPH has emerged from its marginality and reinvented itself as a key authority within the health sector. It did so despite an adverse environment, including repeated episodes of political gridlock, a culture of clientelism, armed conflict and influx of refugees, and resistance to regulation of strong vested interests and lobbies. It remains constrained by the fragmentation of the system. The Ministry is tempted to focus first and foremost on managing those activities it finances directly. For example, the statistical bulletin only provides information on hospitalisations purchased by the MoPH: data on what happens, for example, under social security fund coverage are not available. In doing so it rightly gives precedence to its function as payer of last resort for the uninsured and the poor. But it realises this cannot be done as in a vacuum: today's MoPH has the ambition to extend its regulatory influence to the whole sector.

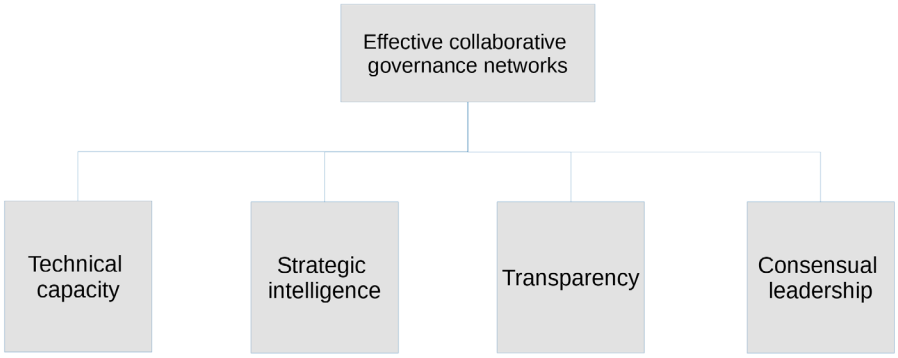
Collaborative governance networks. Critical to this ambition has been the emergence of Lebanon's own model of "collaborative governance": bringing together public and private stakeholders in consensus-oriented networks, as an alternative to fragmented, adversarial and managerial policy making. This replaced "disproportionate reliance on command-and-control on one hand, and laissez-faire disengagement of the state on the other" [31] by inclusive, participatory, negotiation-based leadership. Key networks of collaboration built around sectoral priorities are listed in Table 7. The list is not exhaustive but illustrates the variety of alliances and networks animated by the MoPH. These different networks operate at different levels of sophistication and formalisation. A systematic quantitative description of the network nodes, linkages, and added value (density, centrality, and multiplexity of links)[32] is not as yet available. However, most stakeholders confirm the critical and generally positive role of this way of working, with benefits well worth the extra effort required to invest in the collaboration with MoPH.

Table 7
Examples of the networks that are the basis of MoPH's collaborative health sector governance

√	the PHC network (Figure 11);
√	the hospital network (which brings together managers, academics and opinion makers in the hospital sector around common interests such as accreditation or performance issues, in both informal and ad hoc collaborations and in formal regulatory structures);
√	the network of mental health stakeholders;
√	the third-party payers network;
√	the collaborations with professional organisations around HRH regulations;
√	the pharmaceutical policy network;
√	the cancer register network, which emerged from collaborations around provision of publicly subsidised cancer medicines;
√	the epidemiological surveillance network (hospitals, health centres; sentinel private clinics, schools);
√	the mother and child observatory vital statistics network;
√	the emergency preparedness network, a collaboration between MoPH and NGOs that emerged from the response to the Israeli attacks in 1993 and 1996.

No single format. The emergence of collaborative governance networks was largely deliberate and long-term effort. It was made possible by managerial continuity in the Ministry over this whole period, and by systematic investment in building technical capacity and ensuring policy initiatives would be driven by hard information and strategic intelligence. At the same time, the Ministry developed a consensual leadership style and took care to be transparent in its communication with the public and the sector stakeholders (Figure 15). Together these have become key features of Lebanon's characteristic brand of collaborative health sector governance.

Figure 15
The basis for the effectiveness of Lebanon's collaborative governance networks



1. INVESTMENT IN TECHNICAL CAPACITY

Stronger but leaner. The MoPH that emerged out of the post-war chaos not only had to reconquer its stewardship position: it also had to reconstitute a functional organisation. In the political environment of the time, a stronger Ministry could not mean a larger one. It started downsizing as of the mid-nineties. The Ministry currently directly employs less staff than the AUB Medical Centre, despite the fact that it built a new public hospital network. The newly established public infrastructure (e.g. the 500 beds academic hospital) is autonomous and recruits its staff autonomously. The MoPH slimmed down, from 2,683 staff in 1993, to 1,089 in 2015: the number of auxiliary employees was reduced by two thirds, that of civil servants by more than three quarters (Figure 16). The more flexible category of contracted staff was less affected and currently plays a key role.

Different staff. If the MoPH has far less staff than it used to have, the most important change was not in the numbers but in the profiles. In the mid-nineties many were service delivery or auxiliary staff. The contracted staff were gradually replaced by highly qualified professionals with specialised managerial or technical expertise: in epidemiological surveillance and rapid response, accreditation and health technology assessment, IT, communication, development of primary care and universal coverage, and others. These now make up the bulk of the Ministry's contracted personnel. The organigramme of the Ministry has remained the same (approval of a modified organigramme has not as yet been able to overcome the inertia of the approval process),[33] but the MOPH has acquired a set of de facto skills and capacities that make new functions, previously non-existent, possible. This new generation of young, academically trained

technicians has brought with it a culture of productivity, of transparency and of collaboration with professionals in the private sector, in NGOs and in academia. The MoPH can thus also count on a broader network of expert-collaborators with whom it was possible to branch out into the development of guidelines, norms, and procedures relevant for the whole sector. As a result, MoPH could improve the management of its own structures, but also acquired capacities useful for steering the sector as a whole.

Improved steering capacity. The increased capacity to steer the sector is clear from the coherence of the incremental changes implemented to improve the purchase of inpatient care or the reduction of OOP payments. A further illustration comes from the comparison of the Ministry's role in the design and preparation of two major projects developed with the World Bank: the first in 1995-1998, the second in 2013-2015 (Table 8). The 1998 project had two major components: infrastructure and technical assistance. Technical assistance was contracted to WHO and focused on gathering information: a national household health expenditure and utilisation survey, a burden of disease study, and a national health account study, backed up by consultant support. In contrast, the 2014 project focused on a programme of concrete modifications and incentives for improving primary care and moving towards universal coverage. The role of the MoPH in both projects was totally different. In 1998 the design and technical content was largely consultant-driven, with the MoPH as an end-user of project-inputs. In 2014, the project was built around the technical inputs provided by the MoPH, who led the design with a view of using it to transform the way the sector functions. This changed role attests to the upgrade of the MoPH's technical and steering capacities. This would become even more evident when Lebanon was confronted with the refugee crisis and the Ministry took the lead in designing the health component for the international response to the crisis.

Figure 16
A leaner MoPH: staff establishment since 1993

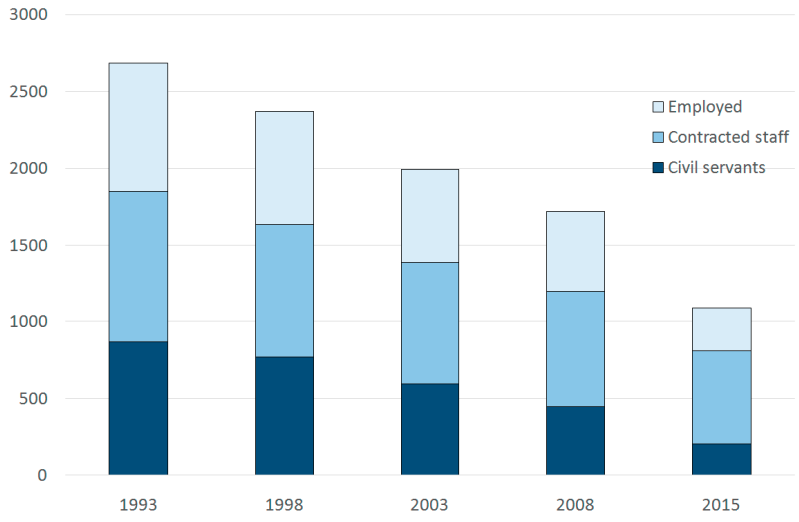


Table 8

MOPH leadership in mobilising external resources: world bank health sector support loans in 1998 and 2014

1998 Sector Reform	2014 Health Resilience
Focus on inputs: (i) New public infrastructure (ii) Technical assistance to fill information gaps	Focus on incentives for moving towards universal coverage: (i) for introducing capitation and prepayment in primary care; (ii) for performance; (iii) for establishing referral linkages
Grounded in qualitative identification of gaps and dysfunctions by external experts. Only rudimentary technical contributions to the design, apart from the infrastructure components	Built around MOPH experience, as evidenced by a wealth of annexed MoPH technical documents, including: definition of packages of care, norms, guidelines, payment modalities, accreditation, etc.
MOPH end-user of inputs; agenda and timetable defined by WB	MOPH initiator and leader of sector transformation, defines agenda and timetable

2. DATA, INFORMATION AND STRATEGIC INTELLIGENCE

Partners. As early as the mid-1990s the MoPH has paid particular attention to the production of strategic intelligence. Initially it relied primarily on its collaboration with WHO. Over time it diversified its collaborations. Production of strategic intelligence now combines the Ministry's own capacities with that of academia and the sector stakeholders that constitute the various networks. There is also a growing component of exchange with health systems researchers in other countries. As early as the mid-nineties the Ministry has partnered in multi-country research projects. These international contacts, and the collaboration with WHO and the World Bank would prove most useful as the MoPH established its authority as a key player in the health sector.

Three workstreams. The production of strategic intelligence by the MoPH has developed into three distinct but overlapping work streams: producing basic information through surveys and sectoral studies; exploiting operational intelligence generated by operating the system and complemented by scientific evidence; and understanding stakeholder expectations and interests through policy mapping of the human and political geography of the health sector.

Surveys and studies. There has been a flurry of epidemiological, demographic, and socio-economic surveys and studies to produce basic information essential to orient sectoral priorities. This work started in the mid-nineties (Table 2) and continued since, with over 40 surveys conducted by the MoPH, academia and United Nations (UN) institutions. These studies have at various moments in time provided new insights that have adjusted or changed priorities in governing the sector. They have reassessed and reoriented the governance priorities in the beginning of the 2000s. They have also been essential in measuring progress, for example with reducing OOP payments and catastrophic expenditure, or with timely detection of emerging or recurring health threats – such as the detection and subsequent resolution of pockets of high maternal mortality.

Operational intelligence. A second work stream consisted in the systematic analysis of information and data generated through the operation and management of the health system. Typical examples are the analysis of hospital discharge data or the identification of operational obstacles to targeting the poor and improving continuity of care in the UHC programme. It is this kind of information that signalled worrying levels

of oversupply and underutilisation of complex technology, or provided a basis for adjusting hospital incentives through a performance linked paying system.[27] The MoPH is well placed to combine analytic capacity and concern for scientific evidence (fed by close interaction with academia) with proximity to both the actual operations and the policy formation processes. This allows it to steer data gathering and analysis towards what is relevant for actual decision making and policy formation and to do so in a timely manner.

Stakeholder mapping. The fact of working through a set of overlapping networks with a large variety of sector stakeholders provided intelligence on the political geography of the health sector: the expectations, the interests and the positioning of professionals, organisations, consumers, and political actors. This has proved essential to develop policies and strategies that are not only rational but also enjoy a level of social consensus. This has not always been effective: witness the limited success in containing the supply of heavy infrastructure. In other instances, however, such as for rationalising the purchase of inpatient care, it has been critical. Much of the understanding of what moves stakeholders comes about tacitly and implicitly, but the Ministry has also developed a capacity for explicit policy mapping, which it has applied for orienting the architecture of financing the health sector.[15] A next step would be the formal mapping of the different networks, with quantification of density, centrality, and multiplexity of the links between the network nodes[32] to identify ways of further consolidating collaborative decision making.

Choosing what to target. Better strategic intelligence has made it possible to take a stepwise approach and gradual build-up of strategies to rationalise the sector, without losing a sense of direction. Rather than moving on all areas and subjects at once, the MoPH has focused on topics that were amenable to technical intervention and combined two distinctive features: (i) there is hard evidence showing the importance of the topic for the rationalisation of the sector and particularly for improving the care for the poor and vulnerable; and (ii) it is reasonable to expect either a win-win collaboration, or at least benign neglect, of the stakeholders involved, thereby avoiding a backlash or neutralisation by the forces of clientelism or vested interests.[26]

Incremental change. This meant moving forward step by step (Table 4), with much attention to confidence building and to keeping network partners on board. The progressive change of incentives for hospitals (Table 3) well illustrates this way of working, as do the changes in the managing pharmaceuticals to reduce their impact on household OOP spending. It implies, however, that important issues requiring rationalisation may have to be put on ice because the conditions are not ripe for change. This has been the case, for example, for rationalising ambulatory care provided by private doctors. The MoPH has focused on working with a collaborative network of NGO-run health centres (where a commonality of purpose could be fostered), as attempts at administrative regulation of the private sector were bound to fail. This has allowed it to create a space for the introduction of approaches that are new in the Lebanese context (active case management, continuity of care, registration, capitation, medical record, etc.). Yet this progress is still limited in scope and these efforts struggle to penetrate the private ambulatory care market. Strategies still need to be developed to protect consumers and improve quality where the majority of health care contacts takes place. As for other areas this is likely to be sequenced in a stepwise and opportunistic progression – and will require better intelligence on how this part of the health sector operates.

Guidance and spin-offs. A better understanding of the sector has thus allowed the MoPH to take a more activist role, in domains where social consensus would allow it to move forward without generating conflictual situations. Strategic information was useful to guide organizational and financial reform. It also generated several important spin-offs. It contributed to the perception of the MoPH discourse as evidence based, objective and neutral. This in turn provided the MoPH with new leverage and negotiation power, with the credibility, for

example, to mobilise the resources to deal with the refugee crisis.[1] More generally, it allowed its senior management to make the case for reform and to gain authority. It fostered alliances outside the MoPH and, within the Ministry, a new sense of purpose. Finally, it gave the MoPH the confidence to focus on a policy formation and regulatory function, rather than on building a parallel public delivery system that would duplicate the private sector.

3. TRANSPARENCY

Informed citizens. The Ministry has given much importance to transparent communication with the public and the sector's stakeholders. This was deemed necessary to Informed citizens would make possible to balance a user perspective of needs and expectations with the sector authorities' perspective of rationality, evidence and acknowledgment of constraints. An informed citizen would also provide a counterweight to the vested interests of lobbies and the clientelism prevalent in the sector. The MoPH has made ample use of IT to communicate with citizens. It was one of the first government institutions in Lebanon to create its website in the mid-1990s. The website lists the health care institutions, but also the contacts of the administrative units in the Ministry, and of the supervising doctors and officials responsible for providing patient assistance in public and private hospitals.

Information on medicines. For the country's supply of pharmaceuticals, transparent information – available to the various actors as well as to the general public, was considered key to eliminate non-technical losses. The processes governing the registration and distribution of medicines have been codified and made public. Key steps – e.g. the chronology of applications for registration – can be monitored through the MoPH website. The site also gives access to product information in the Ministry's database of medicines. The mobile app allows citizens to view the selling prices for the public according to the latest currency index. It describes under what conditions the Ministry can provide medicines for selected diseases as well as information and conditions for the use of the medicines for chronic diseases distributed through the primary health care centers.

Administration. Any citizen can communicate with the Ministry and send feedback or complaints through a range of channels: "Hotline 1214" (which receives complaints 24 hours a day, seven days a week); the MoPH mobile app; the Ministry's website; email; the Ministry's Facebook page; and the registry of the Bureau's Department in the Ministry. All complaints, whatever the channel, are forwarded to the official responsible for follow-up, registered, and tracked. The MoPH website gives the citizen access to information on health system performance, ongoing programmes and projects, health related information, and regulations and laws. Since 2005 the transaction management system makes it possible for citizens to track each administrative transaction and access the information on responsible authority, required documents and conditions, application days, and other relevant procedures. This has created a degree of openness and transparency that contrasts with the opacity of many of the other health sector's institutions.

4. CONSENSUAL LEADERSHIP

Key features of leadership style. The literature on collaborative public governance highlights the importance of leadership style for effective collaborative governance. Weber and Khademian[34] list seven key features, all of which have been recognisably present in the Ministry's way of working during the past decade. Table 9 lists these features; they are ranked by the frequency they were considered critical in interviews with 25 key informants in 2018. "Commitment to view networks as mutual-aid partnership with society" comes out on top. It has been a prominent feature of eg the collaboration with the NGOs, or with civil society in the Mental Health network, but also involved reaching out to the syndicate of private hospitals, or the professional associations in the pharmaceutical sector. The Ministry has been keen to give a prominent role to non-MoPH experts in the various commissions and networks, demonstrating its "Acceptance of a role for individuals without government portfolio", for example in developing national cancer treatment guidelines. It has shown its "Commitment to assuming leadership role" in the proactive identification of alliances and creation of networks around thematic priorities; or in the identification of OOP payments as a sectoral priority. "Commitment to govern within the rules yet think creatively" has shown its usefulness in eg the reinterpretation of the existing legislation for introducing the hospital accreditation system; or in the use of collaboration with WHO to overcome administrative hurdles. This creativity is recognised and appreciated in the sector. The Ministry had been careful to take an "open, listening and transparent approach", with the necessary patience to build consensus. This has been particularly important in negotiating regulations for the pharmaceutical sector or mechanisms for accreditation of hospitals. Key informants stress the lengthy give-and-take discussion required to come to a consensus in balancing public and private interests – and the need, for example in issues related to patient safety and quality of care, for the Ministry to step in forcefully in its role as sector steward.[35] It is in this role also that the Ministry had to promote "Understanding of intrinsic inseparability of performance and accountability" as when it negotiated the PHC network contracts, the UHC programme payments or the performance payment for hospitals. These arrangements are now well recognised as legitimate approaches to regulating health care provision. Key informants were somewhat less convinced about the extent to which acting with "Visible and explicit neutrality as neutral broker", was a characteristic of the Ministry's leadership style that was critical for the progress made. Its commitment to neutrality (eg in setting objective criteria for eligibility of public support for expensive cancer treatment) was well recognised, as was the legitimacy of its 'bias' as a defender of the public good. There remains, however, a perception that, whatever the Ministry's efforts, external political pressure at the non-executive level does influence some of the decisions. On the whole, however, key informants argue that, for example, merely establishing neutral grounds for discussing PHC contracts with the different professional, religious and political constituencies in the National PHC Network has been an achievement in and by itself.

Table 9

Key leadership style features, ranked according to frequency with which key informants consider them to have played a critical role in improving key aspects of hospital care, primary care and reduction of out-of-pocket payments during the past decade

Features of effective leadership	Considered 'very important'
Commitment to view networks as mutual-aid partnership with society	90%
Acceptance of a role for individuals without government portfolio	82%
Commitment to assuming leadership role	82%
Commitment to govern within the rules yet think creatively	78%
Commitment to an open, listening and transparent approach	77%
Understanding of intrinsic inseparability of performance and accountability	72%
Commitment to visible and explicit neutrality as neutral broker	68%

Continuity. One aspect, not part of the seven Weber and Khademian features, that emerges from discussions with key informants has been the continuity of the technical and administrative leadership of the Ministry. The heads of several health stakeholder organizations have been assuming their positions for more than two decades. With retrospect, this appears to have been critical in making successful governance possible. Collaborations over such a long period made it possible to build relationships of trust between stakeholders and familiarity with each one's style of operation. This facilitated cooperative relations even where policy interests or positions diverged. It allowed for progressive mutual understanding, patience, and incremental approaches, without jeopardising more creative options at a future stage. Institutionalising these collaborative approaches is a real challenge, but alternative ways of governing the health sector offer far less perspectives.

V. INSTITUTIONALISING COLLABORATIVE GOVERNANCE

Network based, collaborative governance has been a *necessary choice*. Reliance on command and control approaches was not an option. In the mercantile culture of the post-war years the MoPH had neither the instruments, nor the leverage or authority to regulate the powerful players in the sector. Had it wished to go down this road, any attempts would have been politically neutralised from the outset. A continuation of laissez-faire and disengagement of the state, on the other hand, was not more realistic either: the evident market failure contributed to impoverishment, produced poor outcomes and was not sustainable financially. The context mandated a flexible and pragmatic approach to leadership for the sector. As for other countries that developed collaborative governance in response to failure of government policy implementation and politicisation of regulation,[36] this developed into an emergent strategy of collaborative governance. During the 2000s, the MoPH's practice presented all the defining characteristics of this governance model:[35] it is initiated by a public agency; it is based on networks that include non-state actors; participants are not only consulted, but also engaged indecision making; the networks are formally organisation of the networks; decision making is done by consensus; and the focus of the collaboration is public policy and public management.

It was also an opportunistic choice. The MoPH intentionally established these networks with partners with whom it could detect a commonality of purpose as the starting point of an alliance. For example, the NGOs that were brought together in the PHC network had a track record of complicity with the MoPH through their joint response to the destruction caused by the Israeli incursions. Further collaboration naturally prolonged this collaboration as they shared a common public purpose with the MoPH. The MoPH saw the added value of bringing in the NGOs entrepreneurial culture, and the NGOs saw the benefit of the MoPH's support and endorsement. Perception of common ground for collaboration lay at the basis of other networks as well. The hospital managers shared the MoPH's concern for getting a handle on the cost-explosion and making public funding reliable and predictable, whilst improving quality. Collaborators in academia were interested in being involved in improving rationality and finding an audience for their research findings, while the MoPH could use their brainpower and their support for legitimising public authority. International players such as WHO shared the MoPH's concern for PHC, UHC, and effective governance of the health sector. Professional organisations shared the MoPH's concern for professional regulation and for steering HRH development. In each case it proved possible to find common interest around thematic priorities; without these alliances, the MoPH would never have been able to implement its prudent – but effective –reforms.

A good track record. The Lebanese health sector has shown remarkable resilience and progress, despite an adverse geo-political context. To a large extent this has been made possible by the performance of the MoPH in its capacity of steward of the health sector. The MoPH has gained considerable authority and respect in the sector: in terms of policy making, of sector regulation, and of brokerage between multiple stakeholders. It has developed an original and homegrown collaborative governance style that mobilises two essential assets. First, strategic intelligence: a combination of scientific evidence, operational information, and an understanding of the geography of stakeholder interests. Second, social consensus: through systematic, open and transparent collaboration with stakeholder networks and sensitivity to the expectations of the public. The MoPH's governance track record has been, given circumstances, remarkable.

Vulnerability. Nevertheless, the system remains vulnerable to Lebanon's human and political geography, in a context of clientelism and politicisation. Whereas the MoPH has thus far managed to avoid direct confrontation with vested commercial interests, these remain present, with important stakes. Furthermore, the regional geopolitical context remains volatile: the health sector has thus far shown remarkable resilience, but likely future shocks need to be anticipated.

Dimensions of consolidation. In this context the MoPH's collaborative governance must be consolidated and expanded, in two dimensions: a 'technical' one of institutionalising the reliance on evidence, information and alliance-building that has characterised the MoPH work over the last two decades; and a 'political' one of building the social consensus and support for the collaborative efforts to rationalise the health sector. Whilst the MoPH capacities have grown considerably, not in the least through its collaboration with WHO and academia, current ad hoc arrangements need to morph into institutionalised capacity for producing strategic intelligence and preparation of collaborative decision and implementation processes, whilst bolstering the credibility and legitimacy of the MoPH leadership.

The Policy Support Observatory (PSO). In April 2018 the MoPH, in collaboration with WHO and the AUB, has set up a Policy Support Observatory within the MoPH. The PSO has three lines of work. The first is to provide direct analytical and informational support to the Ministry's policy making: translating scientific evidence, operational knowledge, and strategic intelligence on stakeholder positions into actionable propositions, introducing Innovative approaches and tools, and anticipating future challenges and the next generation of health reforms. Along with this brain trust function the PSO intends to set up communities of practice whose prime focus is on identifying issues and innovative responses, as well as a National Health Forum (NHF) where civil society can be engaged in balancing needs, resources and expectations, in an evidence-informed conversation with health authorities. These mechanisms can harness the contribution of the various networks to shared policy objectives. The linkages with a wide range of constituencies can become a powerful source of support and social consensus. This will not only enhance the resilience of the health system, but also help spreading innovation and facilitate adoption of good practices: by persuasion, contagion and dissemination, rather than by administrative command-and-control.

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ABOUT THE POLICY SUPPORT OBSERVATORY

- The Policy Support Observatory provides direct policy inputs to the Ministry of Public Health and other sector stakeholders, in terms of policy formation and translation into implementation.
- Synthesizes scientific evidence, helps redesigning and upgrading information systems to generate pertinent information for decision making.
- Gathers strategic intelligence on stakeholders' positions and citizens' preferences.
- Identifies institutional bottlenecks and develops tools to help the MOPH and other stakeholders implement health policies.
- Facilitates the organization of a National Health Forum led by the MoPH.

ABOUT THE NATIONAL HEALTH FORUM

- Assists the MoPH in carrying out rational assessments of population needs, managing people's expectations, and maximizing benefit from national resources.
- Represents an important instrument for creating awareness on rational health policies and building social consensus.
- Coordinates ongoing transparent collaboration with stakeholders' networks.
- Facilitates Health Sector Collaborative Governance by institutionalizing reliance on evidence, information and alliance-building.

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