II. LEBANON'S HEALTH SECTOR: MODEST REFORMS DESPITE THE CHALLENGES

This special focus provides an overview of the health sector in Lebanon and highlights both successes and challenges facing the system. Lebanon's trends in health outcomes, inputs and spending are analyzed over time and compared to a number of countries with similar levels of income and health spending, as well as to the averages for the Middle East and North Africa (MENA) region. Global comparisons are presented for each of these measures based on the latest available year of data (generally 2011). Key challenges are highlighted; (i) low public spending on health which hinders the Ministry of Public Health's (MoPH) ability to adequately respond to the health needs of low income groups; (ii) high household out-of-pocket spending on health subjecting low income groups to financial hardship; (iii) disproportionate allocation of resources on expensive curative care; and (iv) emerging epidemiologic and population trends associated with unprecedented influx of refugees having significant implications on the delivery and financing of the health sector. Despite the challenges and prolonged periods of instability, the MoPH embarked on several successful reforms that contributed to the resilience of the system in the face of the crisis.

Overview of the healthcare system

45. **Despite protracted periods of instability, Lebanon attained significant improvements in the health outcomes, performing better than MENA averages (Table 2).** Between 1990 and 2012, the infant mortality rate dropped from 27.4 deaths per 1,000 live births to 8 deaths, under-five mortality rate declined from 33.1 to 9.3 deaths per 1,000 live births,[46] and maternal mortality ratio dropped from 52 deaths per 100,000 live births to 16 per 100,000.[47] Life expectancy has also improved, rising from 66.6 years to 81.5 years, considerably higher than MENA average of 69 years. Nonetheless, there are regional disparities in health outcomes with Beqaa and the North having lower rates than national averages.

46. **Lebanon's healthcare system is a complex amalgam of public and private institutions, providing health services to the population, with the MoPH serving as the main steward.** In the public sector, a total of 28 public hospitals, with a bed capacity of 2550,[48] in addition to dispensaries and primary health centers (PHCCs) provide healthcare across the country. All public hospitals are financially and administratively autonomous with administration boards appointed by government decrees.

TABLE 2. Health outcomes indicators, Lebanon and MENA average, most recent years.

	Life expectancy at birth (years)			Newborns with low birth weight (%)	Children under weight (%)	Mortality rate per 1,000 Live births		
	Total	Male	Female			Neonatal	Infant	Under-5
Lebanon	81.5	79.6	83.2	11.5	NA	5.4	8.0	9.3
MENA Average	69.0	71.0	73.0	12.0	13.0	17.0	30.0	39.0

Source: WHO-EMRO, 2013

47. **The private sector is a dominating part of the Lebanese healthcare system.** The majority of hospitals (168) are private, both for-profit and not-for-profit, comprising 84 percent of hospital beds in the country. Private hospitals' bed occupancy rate is around 58 percent with an average length of stay of

[46] World Bank, 2013a, World Development Indicators, World Bank, Washington, DC.

[47] World Health Organization (WHO), Regional Health Observatory, URL http://www.who.int/gho/countries/lbn/country_profiles/en/

[48] Walid Ammar MD, Ph.D., Health Beyond Politics, 2009, World Health Organization Eastern Mediterranean Regional Office.

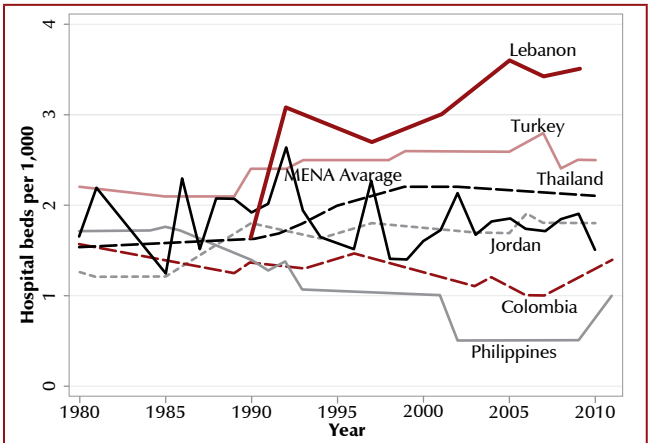

FIGURE 31. Hospital beds per 1000 population: Lebanon, MENA average, and other countries; 1980-2011.

Source: World Development Indicators and WHO NHA, 2013

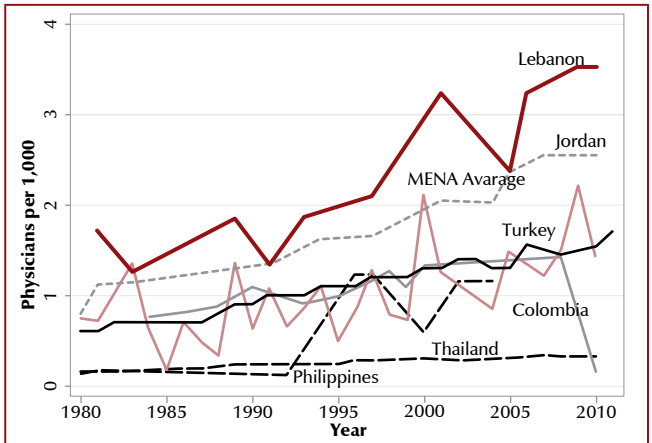

FIGURE 32. Physicians per 1000 population: Lebanon, MENA average, and other countries; 1980-2011.

Source: World Development Indicators and WHO NHA, 2013

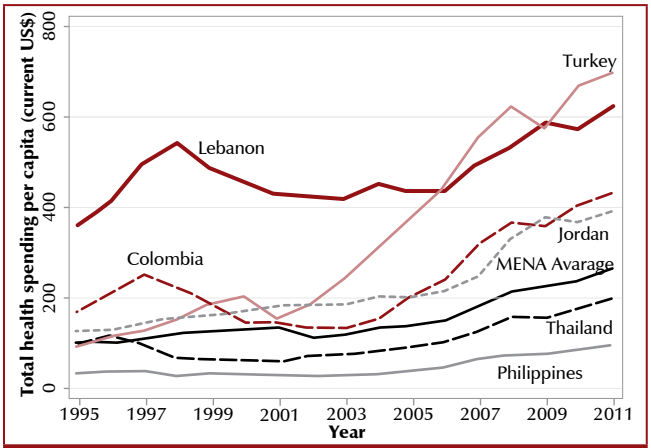

FIGURE 33. Total health spending per capita (current US$): Lebanon, MENA average, and other countries; 1995-.

Source: World Development Indicators and WHO NHA, 2013

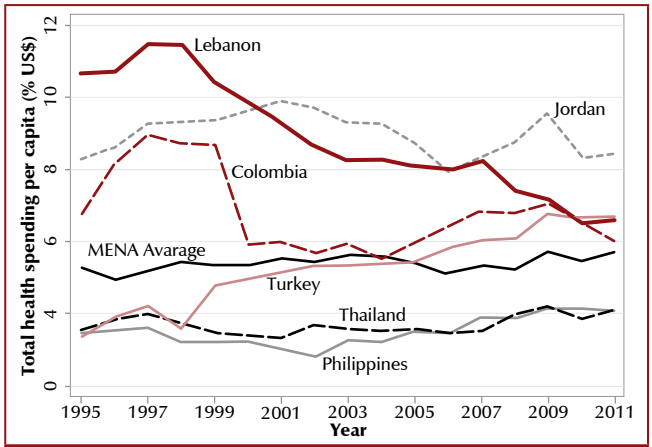

FIGURE 34. Total health spending as a share of GDP: Lebanon, MENA average, and other countries; 1995-2011

Source: World Development Indicators and WHO NHA, 2013

3 days.[49] The total hospital bed to population ratio is 3.5 beds per 100 population which is significantly higher than the MENA average of 1.5 beds and other countries with similar income levels (Figure 31).

48. **Lebanon has an imbalance in the supply of healthcare providers.** The number of physicians per capita has increased from 1.7 physicians per 1000 population in 1981 to 3.5 physicians per 1000 population in 2010, creating a surplus of physicians. While the ratio is more than twice as high as the MENA average and other countries with similar income levels, the rate at which it has increased is similar to other countries; the MENA average rose from 0.7 in 1980 to 1.4 physicians per 1000 population in 2011 (Figure 32). Yet Lebanon faces imbalances in health human resources with significant shortage of nurses, and oversupply of pharmacists (18.6 per 10,000 compared to 5 per 10,000 in MENA) and dentists (12.7 per 10,000 compared to 3 per 10,000 in MENA).

49. **Half of the Lebanese citizens have insurance coverage (50.1 percent) under the three main insurance schemes -** the National Social Security Fund (47.8 percent of insured), public schemes covering mainly public sector employees and the armed forces (30.8 percent of insured), private sector (16.3 percent of insured), and others (5.1 percent of insured). For the uninsured who belong mainly to low income groups and the informal sector, the MoPH serves as a safety net and as an insurer-of-last resort, providing a generous package of hospital services

[49] Syndicate of Private Hospitals, Lebanon, July 2013

through contracted public and private hospitals, and covering 85 percent of the hospital expenses, and 100 percent of medication of chronic and high risk diseases. While secondary and tertiary care in Lebanon is covered, for the most part, through the various schemes available in the country, Lebanon still faces coverage gaps in terms of preventive care, primary and ambulatory healthcare, with the low income groups carrying the higher financial burden.

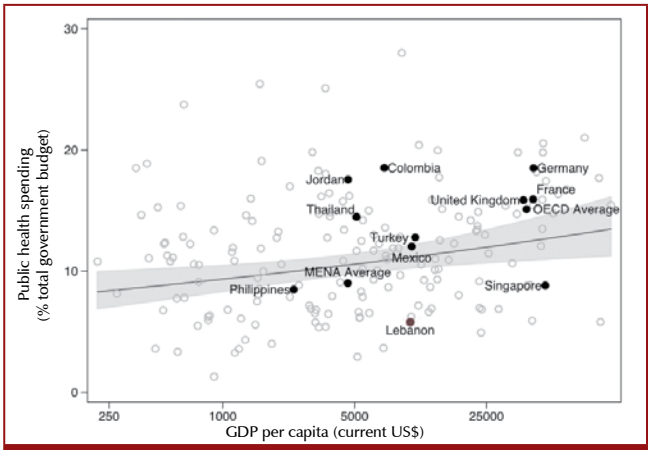

FIGURE 35. Public Health Expenditure as a Share of Total Government Expenditure versus Income Per Capita.

Source: World Development Indicators & WHO, 2013

Spending trends

Total health spending

50. **Lebanon experienced a significant increase in total health expenditures (THE) in recent decades.** Per capita spending rose from US$ 361 in 1995 to US$ 621 in 2011 (720 per capita in international dollar), which is higher than MENA average of US$ 220 (Figure 33). As a share of GDP, Lebanon's THE remains quite high despite falling from 10.7 percent in 1995 to 6.6 percent in 2011. This is comparable to other countries with similar income levels and almost 1 percent point higher than the MENA average of 5.7 (Figure 34).

51. **The composition of health spending in Lebanon differs quite drastically from other comparable countries, with the lion share of spending coming from private spending and out-of-pocket payments.** In 2011, private spending in Lebanon represented 74.5 percent of THE and 4.9 percent of GDP, while out-of-pocket (OOP) spending constituted 37.4 percent of THE, surpassing global averages. According to World Health Organization (WHO) criteria, countries with OOP shares between 15-20 percent of THE are able to ensure financial protection for their citizens. Given that Lebanon's OOP spending is higher than WHO macro criterion for financial protection suggests that further reforms need to be taken to ensure financial protection for the Lebanese.

Public health spending

52. **While THE per capita is higher than MENA average, public health spending per capita is quite low when compared to other countries with similar income.** In 2011, public spending on health represented 25.5 percent of THE (1.7 percent of GDP) and 5.8 percent of total government spending.[50] This is significantly lower than global averages (Figure 35). Similarly, MoPH allocations from the government budget (excluding debt) dropped by 41 percent from 5.9 percent of total government expenditures in 2005 to 3.4 percent in 2012.[51] Given the relatively low levels of public health spending as a share of the total government budget, a strong argument could be made for the reprioritization of the health sector by the GoL against other needs.

53. **Elasticities of public health spending varies across time periods.** Table 3 displays the elasticities of public health spending relative to total government revenues and total government spending. Relative to total government revenues, public health spending increased 52 percent per year less rapidly than government revenues for the 1995-2011 period (elasticity of 0.38). Between 2006 and 2011, however, public health spending grew 5.8 percent per year faster than total government revenues. Relative to total government

[50] This includes MoPH allocations, as well as health spending by the NSSF and the military.

[51] Ministry of Public Health, 2012.

TABLE 3. Elasticities of public health spending relative to government revenues and spending, 1995-2011.

	1995-2011	1995-2005	2006-2011
Public health spending relative to revenues	0.4	0.2	1.1
Public health spending relative to expenditures	0.7	0.4	1.3

Sources: WDI, IMF WEO, and WHO, 2013

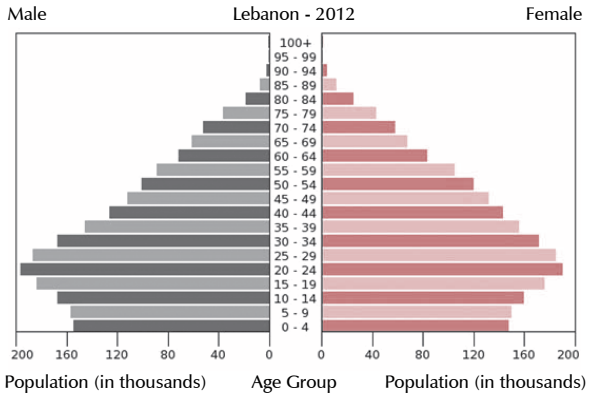

FIGURE 36. Population pyramid, Lebanon, male and female, 2012.

Source: UN Population database

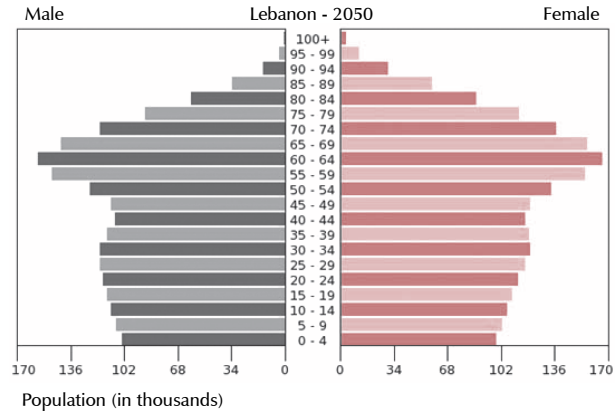

FIGURE 37. Population pyramid, Lebanon, male and female, projected 2050.

Source: UN Population database

TABLE 4. Household out-of-pocket expenditure on health, 2011.

	Average of household's expenditures US$	Average of individual's expenditures US$	Share of total household expenditure percentage	Share of total health expenditure percentage
Health categories	**2 446**	**603**	**7.8**	**100.0**
Pharmaceutical Products	1 287	317	4.1	52.6
Other Medical Products	4	1	0.0	0.2
Therapeutic Appliances and Equipment	67	17	0.2	2.8
Medical services (medical examination)	211	52	0.7	8.6
Dental Services	106	26	0.3	4.3
Other medical services	194	48	0.6	7.9
Hospital Services	577	142	1.9	23.6
Health Insurance	98	24	0.3	7.9
Total	31 279	7 715	100.0	-

Source: Central Administration for Statistics (CAS)-Household Budget Survey (HBS) 2011-2012

expenditures, government health spending grew 21 percent per year less rapidly from 1995-2011 (elasticity of 0.688), but 33 percent per year faster than GDP between 2006 and 2011 (elasticity of 1.329). This suggests that Lebanon could increase public spending in order to improve financial risk protection for the population. It is thus important to analyze the available fiscal space to understand whether this would be possible in the future.

54. **The limited fiscal space suggests that Lebanon will need to rely on efficiency enhancing reforms to improve health outcomes, such as those that strengthen incentives for cost effective medical care.** World Bank Staff projections of Lebanon's macroeconomic conditions indicate

that Lebanon's key fiscal indicators are projected to deteriorate slightly over the medium term; the overall fiscal deficit is forecast to widen from 6.6 percent of GDP in 2014, to 7.2 percent, 7.9 percent, 10.1 percent of GDP, in 2015, 2016 and 2017, respectively.

Main challenges

55. **A growing and aging population, combined with a rise in non-communicable diseases (NCDs) and injuries will carry significant implications for health care financing and service delivery in the future.** The bulge of currently young and healthy people will transition into a middle-aged and older cohort by 2050 (Figure 36 and Figure 37), which will increase demand for health care. Furthermore, epidemiological trends are shifting from communicable diseases to NCDs. Almost half of all deaths in Lebanon are due to cardiovascular diseases (45 percent), and one in five deaths are cancer related.[52] The top five causes of morbidity – measured by disability adjusted life years (DALYs) – are all NCDs, namely ischemic heart disease, low back pain, major depressive disorders, stroke and diabetes.[53] These trends also suggest that Lebanon will have to reshape its health system to better address the prevention and treatment of NCDs.

56. **The decline in government spending on health in the last decade is indicative of the lower prioritization of health within the government budget.** Low public spending on health has negative implications on health outcomes especially among low income groups. The need to achieve fiscal consolidation, however, suggests that financial resources for healthcare are limited, and improving the efficiency of spending will thus be essential for improving health outcomes.

57. **There is an over reliance on direct payment at the time people need care.** Despite MoPH's successful efforts at reducing out-of-pocket (OOP) spending to 37.34 percent in 2012,[54] the burden continues to be shared disproportionately among households, leaving Lebanon below the broad World Health Organization (WHO) macro criterion for financial protection. The obligation to pay directly for services subjects a large proportion of the population to financial hardship and impoverishment. Lower income groups spend a higher percentage of their income (14 percent) on health than those with higher income (4.2 percent).[55] For uninsured households, OOP expenditure accounts for 7 percent of income, while households covered under public and private health insurance schemes spend 6 percent and 5.2 percent of their income, respectively. The single largest component of out-of-pocket payments for health is pharmaceuticals, which accounts for more than half of total household expenditures (52.59 percent) (Table 4). While further analysis is important to understand health seeking behavior in the country, these figures may suggest that Lebanese use pharmacies as an alternative to costly physician's visits.

58. **Disproportionate allocation of resources favors expensive curative over cheaper preventative care.** As the main public health financing agency in Lebanon, the MoPH plays a key role in resource allocation. The MoPH allocates the majority of its budget (62 percent) to reimburse contracted private hospitals for the care provided to the uninsured population, while contributions to non-governmental organizations (NGOs) that are the main providers of primary health care services have remained at a relatively low level of less than three percent of the total budget (Table 5). As such, the system is skewed towards high cost curative care compared to lower, cost effective preventive and primary health care.

59. **Fragmentation of financing and service delivery systems is another challenge facing the**

[52] World Health Organization, Non Communicable Diseases Country Profiles, Lebanon, 2014, www.whoint/nmh/countries/lbn

[53] Institute of Health Metrics and Evaluation, 2013. GBD Profile Lebanon.

[54] Ministry of Health, National Health Accounts, 2012.

[55] World Bank, 2013b, Fairness and Accountability: Engaging in Health Systems in MENA. World Bank, Washington DC.

TABLE 5. Ministry of Public Health budget allocations for main categories, percentage share of total budget.

	2009	2010	2011	2012
Hospitalization in private sector	69.4	65.8	62.5	61.9
Public Hospitals	2.7	2.5	2.3	2.4
Medicines	15.0	18.7	20.8	21.8
Contributions to NGOs	2.9	2.6	2.4	2.4
Salaries and other employees' benefits	6.3	5.7	5.2	4.9
Other Expenses	3.2	3.8	3.7	5.0

Source: MoPH, 2013

health sector. Today, 20 percent of the insured population is covered by 70 private insurers, many of which are relatively small, while the other 80 percent are covered through multiple insurance schemes. On the public side, providers have different packages of subsidized services and varying reimbursement systems. From a governance perspective they fall under different ministries, making it politically difficult to obtain a coherent national policy framework. Fragmentation negatively impacts the health sector as it results in (i) adverse risk selection with the MoPH baring the burden of the sick population, (ii) higher administrative costs at both the fund (MoPH, NSSF) and the provider level, (iii) different groups getting different packages, and (iv) weak purchasing power.

60. **Adding to these challenges is the influx of Syrian refugees and the dramatic increase in demand for health services.** The immediate impact of the rapid increase in patients over a short time period has primarily been met through existing structures, and an accelerated use and hence depletion of resources. Refugees are accessing services extended to Lebanese citizens, thus putting pressure on the delivery, quality of services and on public finances. The fiscal impact of the Syrian crisis on the health sector has been estimated to be US$ 48-69 million in 2014. Overall healthcare costs needed to maintain the system to its pre-refugee access and quality levels was estimated at US$ 216-306 in 2014.[56]

[56] Lebanon Economic and Social Impact Assessment of the Syrian Conflict, World Bank and the United Nations, September 2013.

Key health sector reforms: moving in the right direction

61. **Several reform initiatives have been implemented in the past decade focusing on increasing system efficiency, controlling cost and improving quality of care.** These reforms successfully contributed to improving health sector performance, building up resilience to cope with the country's prolonged periods of conflict and crisis.

62. **Reforms aimed to improve access via an increase in the physical infrastructure.** As part of MoPH reform efforts to improve the quality and access to primary health care services to low income groups, the MoPH established in the 1990s a network of primary health care centers consisting of 230 centers run mostly by NGOs and municipalities. Under this partnership, the MoPH contracts with the network for the provision of essential care to communities around the country, including maternal and child health, reproductive health, dental care and management of chronic illnesses. The MoPH provides in-kind support to these centers including essential drugs and vaccines, and in return the PHCCs charge nominal fees for their services. This partnership proved successful in providing quality low cost primary care services and free drugs, especially to low income Lebanese as the use of network centers increased by 73 percent between 2002 and 2012, from 32,6184 to 121,2000 visits, respectively.

63. **Reforms also targeted the Quality of Care.** In 2000, the MoPH introduced the hospital accreditation program aimed at improving the quality of care. A similar program was initiated in 2009 for primary health care centers. The accreditation system forms a critical cornerstone of MoPH's regulatory role. As a major payer of health care in Lebanon, the MoPH only contracts with accredited hospitals and primary health care centers. This provides strong incentives to both private and public hospitals and centers to enhance their quality, and the ministry to monitor performance and regulate provider payment.

64. **There have been attempts to better scrutinize hospital contracting.** In 2009, the MoPH embarked on an important reform initiative aimed at improving hospital payment mechanisms and reducing expenditures. A new set of reimbursement rates were established based on key performance indicators (KPIs) consisting of case mix indices and accreditation results. Accordingly, contracted hospitals are reclassified and their rates re-adjusted based on more realistic measures. The system is supported with an automated billing system, utilization review and auditing mechanisms, which allow the MoPH to better monitor performance and expedite billing processes. The payment system became effective in early 2015, hence more time is needed to assess its impact on government hospital spending.

65. **Expanding coverage has also been a primary objective of the reforms.** Recognizing the need to reduce out-of-pocket spending and improve financial protection of the population, the MoPH set a new strategy in 2013 aimed at expanding health coverage to the uninsured. The strategy has been put into practice in 2015 through the Universal Health Coverage (UHC) program, targeting first poor households who are identified by the National Poverty Targeting Program as living below the poverty line.[57] Under this program, beneficiaries are provided with a subsidized package of essential health services, including preventive and case management services such as reproductive, maternal and child health services, screening tests and medications, management of chronic illnesses such as diabetes and hypertension. The program is targeting 150,000 by 2016, and aims to add another by 2018. Services are provided through 75 contracted network centers distributed throughout the country. The successful introduction of this program would lay the ground for expanding coverage to other groups in the future, namely the informal sector. It will also set the sector on the right path of shifting care to lower cost-effective setting, such as preventive and primary care, and to activities that benefit lower income groups.

66. **Price controls and Pharmaceutical measures.** With pharmaceuticals taking up more than half of households' spending on health and 22 percent of MoPH spending, the MoPH recently launched several measures to contain the escalating cost of drugs. Changes in drug prices are now reported by pharmaceutical companies within one month, compared to six months in the past, thus resulting in faster turn-around in reducing the cost of drugs in the market. A new generic drug policy as well as price cuts on high-cost drugs in the range of 15 percent have also been implemented. While cost savings in the pharmaceutical sector have already been reported lately, more time and further analysis are needed to assess the real impact of these measures on cost reduction.

Final note

67. **Against this background, reprioritizing government budget, giving health precedence, is essential for reforming the health sector in the country.** This is especially so in light of the government's strategy to reach out to low income groups with expanded coverage and improved services. However, considering the current economic and political environment and the limited fiscal space, the MoPH is rightly aiming at promoting

[57] The National Poverty Targeting Program (NPTP) was established by the Ministry of Social Affairs in 2011 as the first poverty-targeted social assistance program for the poorest and most vulnerable Lebanese families. To date, approximately 93,000 households have been identified as eligible to benefit from the NPTP social assistance package, with the poorest 5,076 households also benefiting from the e-card food voucher.

efficiency of spending and eliminating waste. Primary health care reforms through the UHC program, if well implemented, can shift the composition of spending toward prevention of diseases, helping to contain costs in the future.

68. **Fast tracking pharmaceutical reforms is also key, given the financial and fiscal importance medicines have in the overall funding of services.** Implementing cost control through the use of generic drugs is a good first step in that direction.

69. **Careful planning is crucial for moving the UHC program to the second stage of implementation, which may include expanding service coverage as well as population coverage to reach the informal sector.** This will entail expanding prepayment schemes, increasing the efficiency of revenue collection and encouraging risk pooling and coordination. As such, extensive policy analysis and key policy questions will have to be addressed who should pay and how much, what type of fund is most appropriate (public, private) and whether contribution should be made mandatory. Strengthening the public health insurance system through the harmonization of public pooling arrangements (e.g.; MoPH, NSSF) will also need to be considered and carefully examined.