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# Analysis of the Function and Structure of the Ministry of Health of the Republic of Cyprus

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**Poverty Reduction and Economic Management Unit**

**Southern Europe Program**

**Europe & Central Asian Region**

# CONTENTS

| Acronym | Meaning |
|---|---|
| AMIII | Archibishop Makarios III |
| ALoS | Average length of stay |
| BoCOC | Bank of Cyprus Oncology Center |
| CEO | Chief Executive Officer |
| CTs | Computed Tomography scan |
| CAC | Cyprus Anti-Drug Council |
| CING | Cyprus Institute of Neurology and Genetics |
| DDS | Department of Dental Services |
| DPS | Department of Pharmaceutical Services |
| DRG | Diagnosis-Related Groups |
| DPS | District Head of PHC & Public Health |
| EU | European Union |
| EMD | Executive Medical Director |
| FMO | Facilities Chief Medical Officer |
| FNO | Facilities Chief Nursing Officer |
| FED | Facilities Executive Director |
| FOP | Facilities Operations & General Services |
| FTE | Full Time Equivalent |
| GoC | Government of Cyprus |
| GDP | Gross Domestic Product |
| GHCSL | General Health Care Scheme Law |
| HAEI | Health Administration and Insurance |
| HIO | Health Insurance Organization |
| HSD | Health Services Department |
| HTA | Health Technology Assessment |
| IT | Information Technology |
| ICD | International Classification of Diseases |
| MRI | Magnetic Resonance Imaging |
| MPHS | Medical and Public Health Services |
| MoU | Memorandum of Understanding |
| MHS | Mental Health Services |
| MTBF | Mid-Term Budget Framework |
| MoF | Ministry of Finance |
| MoH | Ministry of Health |
| NHS | National Health System |
| NFI | Network Head of Finance & Information |
| NGS | Network Head of General & Customer Services |
| NHR | Network Head of Human Resources |
| NSP | Network Head of Strategic Planning |
| NGH | Nicosia General Hospital |
| OT | Operating Theater |
| OECD | Organization for Economic Cooperation and Development |

| | |
|---|---|
| OOP | Out of Pocket |
| PHC | Primary Health Care |
| PHCC | Primary Health Care Center |
| PAPD | Public Administration and Personnel Department |
| PAR | Public Administration Reform |
| PFMR | Public Financial Management Reform |
| SGO | Semi-Governmental Organization |
| SDR | Standardized Death Rates |
| SGL | State General Laboratory |
| SOE | State Owned Enterprise |
| TB | Tuberculosis |
| UK | United Kingdom |
| USA | United States of America |
| WHO | World Health Organization |

# PREFACE

This report was prepared as a part of Cyprus Public Administration Reform (P146719) project lead by Edgardo Mosqueira (Lead Public Sector Development Specialist, LCSPS1).

The objectives of the report are to: (i) assess the organizational structure of the MoH; (ii) advice on the structure of the network of public hospitals and other health facilities; and (iii) provide recommendations to improve the management capacity of decision making at hospital and health facility level.

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# EXECUTIVE SUMMARY

**Compared to other EU counties, Cyprus devotes a low share of resources to the health sector and relies heavily on private out-of-pocket expenditure to finance health care services.** The Cypriot public health sub-system still largely follows rules shaped during colonial times: (i) public health facilities are an integral part of the Ministry of Health (MoH) and its Departments, leading to centralized control and limited managerial decision-making capacity at facility level; (ii) health staff are civil servants hired and allocated to their posts by the central civil service staffing system and promoted largely according to seniority; and (iii) strict line-item budgeting process reduce flexibility and financial decision making.

**The expected reforms** – the introduction of a National Health System (NHS) that will coordinate the public and private subsystems; the implementation of public financial management reforms (PFMRs) that will enhance financial responsibilities and decision making capacity within the public sector; and the implementation of Public Administration Reform (PAR) that will introduce a more flexible regime for public sector employees – represent the opportunity to modernize and enhance the responsiveness of the health sector. In this context, there is the need of reviewing the organizational structure of the MoH, including the network of public health facilities. Recommendations are generally presented according to the following timeframe: Phase I – reforms that could be implemented within the existing frameworks up to the end of 2015; Phase II – reforms that could be implemented under new PAR and PFMR framework are expected to be implemented based on further reforms in 2016 and beyond; and Phase III – structural changes that could be implemented after a period of consolidation beyond 2017.

**Chapter 2 of this report, based on general principles of good public administration and management practice, and the impact of the NHS on a specific department, develop recommendations on:** (i) the way functions should be distributed across the departments comprising the MoH; (ii) options for restructuring the network of public hospitals and other health facilities; and (iii) how to improve the day to day management of hospitals and health facilities. With relation to the organizational structure of the MoH, general recommendations include: (i) on Phase I, the development of a comprehensive budget for each department that includes all resources utilized including staff, drugs and other consumables currently budgeted in other departments; (ii) on Phase II, the introduction of program budgeting and greater budget flexibility; (iii) and during Phase III, the option of establishing a "trading fund" (i.e. independent business units) to charge for the services provided both to external (private sector) and internal (public sector) clients or other institutional forms such as Semi Governmental Organizations (SGOs) and State Owned Enterprises (SOEs). On the other hand, some departments, such as the Department of Pharmaceutical Services and the Department of Medical and Public Health Services would require more substantial reforms as they combine functions such as regulatory and provision of services that should be separated.

**Chapter 3 of the report reviews the action plan for restructuring public hospitals as approved by the Council of Ministers at end-June 2013 and produces a number of recommendations:** (i) the proposal of organizing public health facilities under five regions is not appropriate for Cyprus's population size and geography. On the other hand a more practical option would be to begin with a *single* national "network headquarters" for the entire public health facility network with its own strategic management team, headed by a Chief Executive, to carry out strategic management and oversight for the whole health facilities network; however, underneath this national strategic management team, there should be increased delegation of operational management authority for health facilities to management teams in each region, which would report to the Chief Executive; options for 2-4 regions reporting to the national headquarters could be considered; (ii) to strengthen leadership and profile of primary health care in the management of the health facility network by having a full time Director responsible for PHC in the national network headquarters; (iii) to open the position of Network Chief Executive Officer and hospital Director posts to non-doctors; (iv) to develop new modality for the selection, contracting, training and career paths for management teams based on competitive selection and renewable fixed term contracts; (v) to develop professional oversight and development under new management structures; (vi) to identify opportunities for joint or shared services as in a small health system, economies of scale can be achieved by retaining some central servicing functions that provide joint services to all hospitals and the regional networks of primary healthcare facilities (e.g. procurement and logistics management services, human resource development, health information system and ICT support); and (vii) to create of new structures and metrics for external accountability and internal control: creation of internal audit functions within the new Health Services Department and other internal checks and balances for delegated personnel and administrative management functions are likely to be needed as part of reforms to delegate greater financial and personnel decision authority to health facilities.

**Chapter 4 identifies a number of challenges in the public health services delivery network:** long waiting times; not well explained variations among hospitals in terms productivity, costs; and suboptimal configuration of the portfolio of services across facilities and staff deployments. Specific management failures at health facility level include: (i) a significant part of available resources remains unused (operating theatres, diagnostic equipment, etc.); (ii) low capacity at primary health care level; (iii) suboptimal use of effective modern technologies at hospitals such as day-care and laparoscopic services; (iv) insufficient management skills and inadequate management tools at disposal of health facility managers; and (v) unsystematic quality assurance procedures or quality improvement initiatives. Irrespective of the option chosen to reconfigure the network of public hospitals the new management structure will need to adopt a more effective management style and, in general, support the professionalization of hospital management.

**Chapter 5 concludes the report presenting the roadmap for implementing the changes presented in the report.** The action plans comprising the roadmap for change is presented on the next page.

# ACTION PLAN FOR THE IMPLEMENTATION OF THE REFORMS

| Area of reform | Phase I | Phase II | Phase III |
|---|---|---|---|
| **MoH administration reorganization** | Implementation unit or steering committee dedicated to managing the reform process created<br><br>Strategic planning and budgeting unit created<br><br>Internal audit unit created<br><br>Chief Medical Officer, Chief Nursing Officer and Chief Pharmacist positions created<br><br>Purchasing and supply sector expanded to incorporate procurement of pharmaceuticals. To be completed 6 months before the introduction of the NHS.<br><br>Nursing Services: (i) functions related to nursing policy and professional development transferred to the Chief Nursing Officer; (ii) transfer of nurses to health facilities started (transfer of staff to health facilities may be completed only in Phase II for administrative and legal constraints)<br><br>Policy Unity to coordinate various units and functions already located at MoH administration (public health; EU and | Chief Medical Officer made responsible for regulatory function of public and private health facilities<br><br>Chief Pharmacist made responsible for pharmaceutical regulatory functions (drug registration, inspection of pharmacies and pharmacovigilance)<br><br>Transfer of nurses to health facilities completed (nurses reporting to Nursing Director in the hospitals) | Decision on whether transfer of the pharmaceutical regulatory functions to and independent pharmaceutical agency taken |

| Area of reform | Phase I | Phase II | Phase III |
|---|---|---|---|
| | International coordination; Health Monitoring and Evaluation; and Health Reforms Unit) created | | |
| **Department of Dental Services (DDS) reorganization** | Comprehensive budget for the department that includes all resources utilized by the department, including dental supplies and consumables developed | Program budgeting and greater budget flexibility introduced | Decision on whether transfer of dental curative services to health facilities where they are located is take; or to establish them as "trading fund" (preferred option) |
| **State General Laboratory (SGL) reorganization** | Comprehensive budget for the department that includes all resources utilized by the department, including laboratory supplies and consumables developed | Program budgeting and greater budget flexibility introduced | Option of establishing a "trading fund" (i.e. independent business units within SGL) to charge for the services provided both to external (private sector) and internal (public sector) clients evaluated |
| **Department of Mental Health Services (MHS) reorganization** | Comprehensive budget for the department that includes all resources utilized by the department, including inpatient medicines and consumables developed<br><br>Mental health nursing staff transferred to the MHS Department, reporting to the Nursing Director in the MHS management committee. | Program budgeting and greater budget flexibility introduced | Option of transferring mental health services to health facilities where they are located; or the alternative of establishing them as "trading fund" (preferred option) evaluated |
| **Department of** | Procurement, warehousing and | Procurement, warehousing and | Different structure for the |

| Area of reform | Phase I | Phase II | Phase III |
|---|---|---|---|
| **Pharmaceutical Services (DPS) reorganization** | distribution of pharmaceuticals and medical supplies transferred to the purchasing and supply sector at the MoH administration | distribution of pharmaceuticals and medical supplies (after NHS is implemented) reduced<br><br>Public pharmacies in health centers eliminated; hospital pharmacies reduced to dispensing of inpatient drugs and transferred to the public hospitals where they are located (after NHS is implemented)<br><br>Pharmaceutical regulatory functions (drug registration, inspection of pharmacies and pharmacovigilance) transferred to the MoH administration<br><br>Expertise on clinical pharmacology and pharmacoeconomic consolidated across the health system | pharmaceutical regulatory functions: (i) independent pharmaceutical agency; and (ii) consolidate regulation for human and veterinary medicines, considered |
| **Medical and Public Health Services (MPHS) reorganization** | New Health Services Department created<br><br>Network of public health facilities transferred to the new Health Services Department<br><br>Nurses and doctors transferred to the new Department of Health Services | Function of regulation and inspection of private providers transferred to MoH administration (new legislation required)<br><br>Department of MPHS discontinued | Different structure for the network of public health facilities: (i) establish a "trading fund"; (ii) transformation into semi-governmental organizations (SGOc); (iii) corporatization of public health facilities, considered |

| Area of reform | Phase I | Phase II | Phase III |
|---|---|---|---|
| **Restructuring of the network of public health facilities** | Implementation unit or steering committee dedicated to managing the reform process created<br><br>MoH and Council of Ministers decision on preferred option for restructuring health facilities network taken<br><br>Details for consolidated health facilities budgets agreed<br><br>CEO and other members of the strategic management team appointed<br><br>New Health Services Department to act as the "network headquarters" of public health facilities headed by the strategic management team created<br><br>Regulations, standard operating procedures and associated business documentation for budgets and staff at public health facilities developed | Consolidated health facilities budgets (including salaries of all transferred nurses and inpatient pharmacy staff, drugs and consumables) developed<br><br>Outplaced staff (e.g. from MoF PAPD, Treasury, IT departments) transferred to the management of the health facilities where they work | Different structure for the network of public health facilities considered: (i) establish a "trading fund"; (ii) transformation into semi-governmental organizations (SGOc); (iii) corporatization of public health facilities (SOEs)<br><br>Decision on how the number of hospital groups conforming the network (between 1 and 3) taken<br><br>Supervisory Board for the trading fund/SGO/SOE created |

# CHAPTER 1. MOH FUNCTIONAL REVIEW IN THE CONTEXT OF ONGOING REFORMS

## A. OBJECTIVES OF THE ASSIGNMENT

1. 1 **The report presents an independent external review of the Ministry of Health (MoH) and its network of public health facilities examining their functions, competences, organizational structure, size and staffing.** Based on the findings of this review, the Cypriot authorities will define a set of reforms that are expected to be approved following the appropriate national procedure by Q2 2014, after consultation with program partners, and subsequently implemented.

## B. THE CYPRIOT HEALTH SYSTEM: FINANCING, RESULTS, AND ORGANIZATION

1. 2 **The Cypriot health system consists of two parallel and uncoordinated sub-systems of similar size: a public one and a separate private one.** The public sub-system is highly centralized and almost every aspect related to planning, organization, administration and regulation is under the responsibility of the Ministry of Health. It is exclusively financed by the state budget, with services provided through a network of public hospitals and health centers directly controlled by the MoH.

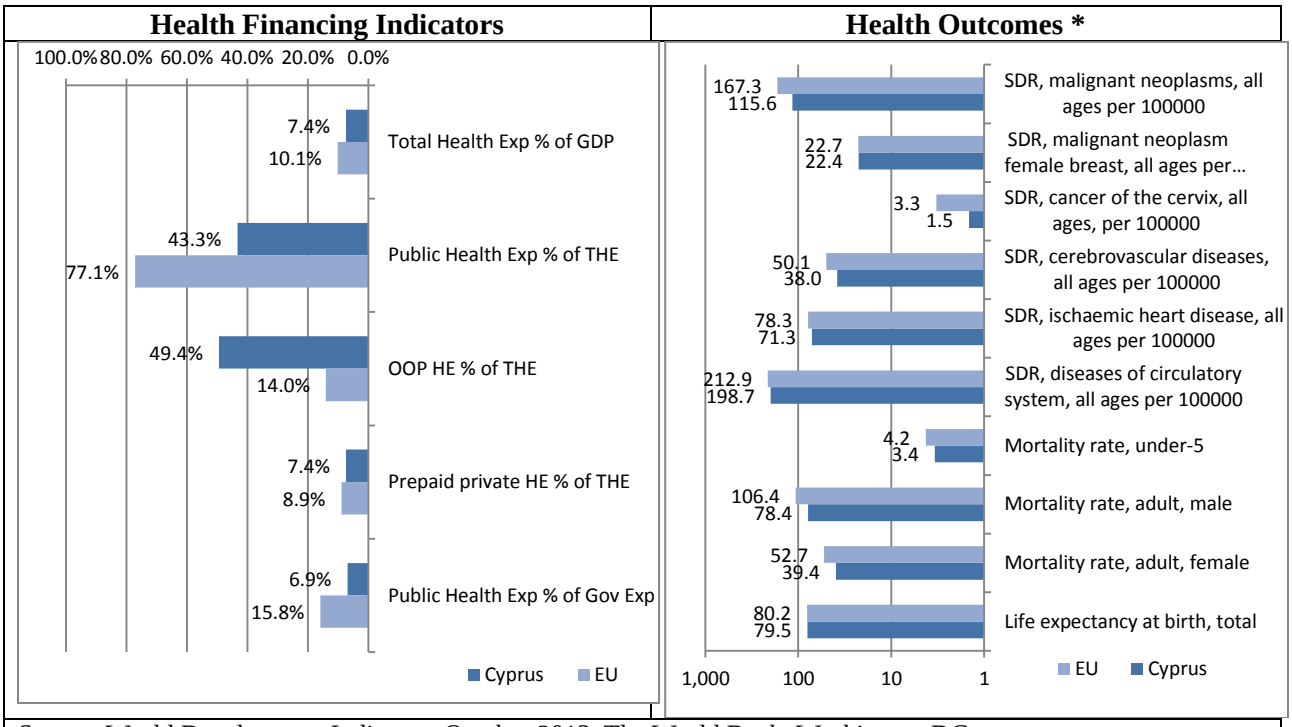
1. 3 **Citizens below a determined income level can use health services provided by the public system virtually free, while the rest of the population (no-beneficiaries) must pay according to fee schedules set by the MoH.** In addition, long waiting lists for some medical procedures and diagnostics lead to serious barriers to access health services provided by the public system. For this reason, a significant portion of the population prefers using private services for outpatient consultations and routine procedures, but using the public sector for more complex or costly services such as major emergencies. The private system is financed mostly by out-of-pocket payments and to some degree by voluntary health insurance. Additionally, the ongoing economic crisis has reduced demand to the private sector and exacerbated the shortcomings of the public sector.

1. 4 **Cyprus devotes a low share of resources to the health sector.** Total health care expenditures in Cyprus in 2011 accounted for 7.4 percent of GDP that is markedly below the EU average of 10.62 percent. Government funds represents around 43.3 percent of total health care expenditures, out-of-pocket private health spending another 49.4 percent, and the remaining 7.3 percent by prepaid private health spending. It is estimated that about 21.5 percent of the population has private health insurance coverage under group or individual scheme[1]. Overall,

[1]Theodorou M, Charalambous C, Petrou C, Cylus J. Cyprus: Health system review. Health Systems in Transition. 2012; 14(6):1–128; pp.44.

public health expenditure in Cyprus is lower that the EU average both as a percentage of GDP and as a percentage of total Government spending (Figure 1, left panel).

**Figure 1. Comparison of health financing and health outcomes indicators Cyprus and EU, 2011 data**




Source: World Development Indicators October 2013, The World Bank, Washington DC
* Figure1, right panel is presented in logarithmic scale.

1. 5 **Despite the low share of economic resources dedicated to health care, Cypriots enjoy good health comparable to other EU countries (Figure 1, right panel).** Even if life expectancy at birth in Cyprus is slightly below the EU (World Development Indicator, October 2013), Cyprus shows lower adult and child mortality rates. Standardized death rates (SDR) for the most common causes of deaths, such as cardiovascular diseases and malignant neoplasms, in Cyprus are lower that the EU average, including preventable conditions, such as breast cancer and cervix cancer.

1. 6 **The public health sub-system still largely follows rules shaped during colonial times.** MoH staff, including doctors and nurses working in the public health facilities, have the status of civil servants hired and allocated to their posts by the central civil service staffing system and promoted largely according to seniority. Such a top-heavy bureaucratic hierarchy limits opportunities for professional growth and recognition of performance and more generally the opportunities to modernize staff management. On the whole this administrative and rule-bound approach, combined with the centralization of decision-making constitutes a serious hurdle to the continuing development of effective and efficient management. Additionally, the fact that

ministries other than the MoH appoint officers both at central administration and health facilities (e.g. clerical, accounting and IT staff are appointed by the Public Service Committee according to the Public service Law and the Constitution and managed by the Public Administration and Personnel Department-PAPD at the Ministry of Finance-MoF) further contributing to the general lack of decision-making authority[2].

1. 7 **Public hospitals and primary health care centers (PHCC) form part of an integrated system of civil service and ministerial control of management, leading to centralized control and managerial decision-making outside the health facility.** Worldwide there has been a structural shift towards more autonomous model of public hospitals and other health providers over the last two decades.[3] Public hospitals in EU countries have become (to varying degree) quasi independently operated institutions through a process of autonomization, corporatization and, in some cases, privatization[4]. A shift towards more autonomy for public health facilities in Cyprus is expected to increase accountability, efficiency and the capacity of the public sector to respond to competitive pressure.

### B.1 MoH Organization

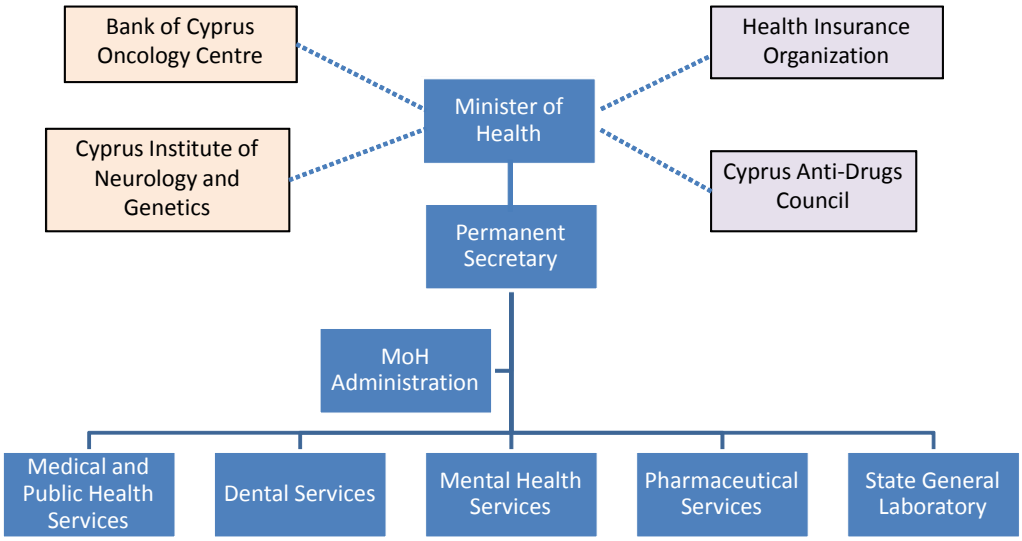
1. 8 **The structure of the MoH is described in Figure 2.** Besides the MoH administration (which also includes all nurses working in the public sector), the Ministry consists of five departments: (i) Medical and Public Health Services (which covers non-nursing health staff and has authority over public facilities); (ii) Mental Health Services; (iii) Dental Services; (iv) Pharmaceutical Services; and (v) State General Laboratory.

1. 9 **The public network of health facilities comprises:** (i) five district general hospitals located in Nicosia, Larnaca, Limassol, Famagusta and Paphos. The Nicosia General Hospital (NGH) is the largest hospital and is considered the referral hospital for specialist care in the country; (ii) the Archibishop Makarios III Hospital (AMIII), a specialized hospital for children and women located in the capital Nicosia; (iii) two small rural hospitals that provide limited inpatient services along with primary care in relatively isolated area: Kyperounta Rural Hospital and the Polis Chrysochou Rural Hospital ; and (iv) 38 PHCCs and as well as sub-centers in rural areas.

1. 10 **The public health system comprises also two Semi-Governmental Organizations (SGOs) that are financed by the MoH, but controlled by supervisory boards:** (i) the Health Insurance Organization (HIO); and the Cyprus Anti-Drug Council (CAC)[5] and two independent non-profit specialized health facilities that are mainly financed by the central government: (i) the Cyprus Institute of Neurology and Genetics (CING); and (ii) the Bank of Cyprus Oncology Center (BoCOC).

[2] No Ministry has responsibility to appoint permanent staff other than casual staff.
[3]Preker A.S., Harding A. (2003). Innovations in Health Service Delivery: The Corporatization of Public Hospitals. The World Bank: Washington DC.
[4]Saltman R.B., Duran A., Dubois H.F.W. (2011). Governing Public Hospitals: Reforms strategies and the movement towards institutional autonomy. WHO-EURO and the European Observatory on Health Systems and Policies: Denmark.
[5] The MoH is represented at the HiO's Board of Directors, but not at the Management Board of the CAC.

**Figure 2. Organizational structure of the MoH**




1. 11 **Four different types of workers are employed in the MoH.** The differences are related to the terms of their employment status and duration of the contract:

- *Permanent civil servants.* This category comprises permanent workers under the structure of the MoH (non-interchangeable personnel)and administrative, secretarial and assisting personnel (interchangeable personnel out-placed from the Public Administration and Personnel Department (PAPD), which has responsibility for the management of interchangeable staff).
- *Temporary workers with indefinite contract duration.* This category refers to casual workers that served in the public sector for more than 30 continuous months and thus gained, according to Cypriot labor law, an open-ended contract status in the public sector and the right to hold their posts until retirement. This practice is no longer in use for newly hired temporary workers who are now recruited for specific time-periods.
- *Temporary employees with definite contract duration.*
- *Hourly paid workers*. This category includes permanent, seasonal and casual hourly paid workers, such as manual workers, porters, cleaning staff, etc.

All staff enjoy employment protection, as they cannot be made redundant without compensation.[6]

1. 12 **The Law on State Budget sets the salary scales in the civil service.** Within the general salary framework, each position has a scale or a combination of scales, ranging from A1 (entry level scale for positions with minimum requirement for employment a high-school certificate) to A16(i) (highest scale for Directors of Departments of Ministries). The annual gross salary of civil servants in Cyprus consists of a basic salary (Scales A1 to A16(i) or fixed salaries for managerial position) as stated in the Budget, increased by the approved salary increases and the cost of living allowance. The annual salary of hourly paid employees in Cyprus consists of basic salary (Scales E1 to E8).

### B.2 The expenditure for health administration and insurance

1. 13 **The expenditures and number of permanent staff (i.e. civil servant) assigned to the MoH administration and the five departments comprising the MoH according to the 2013 State budget are presented in Table 1.**

**Table 1.MoH State Budget 2013**

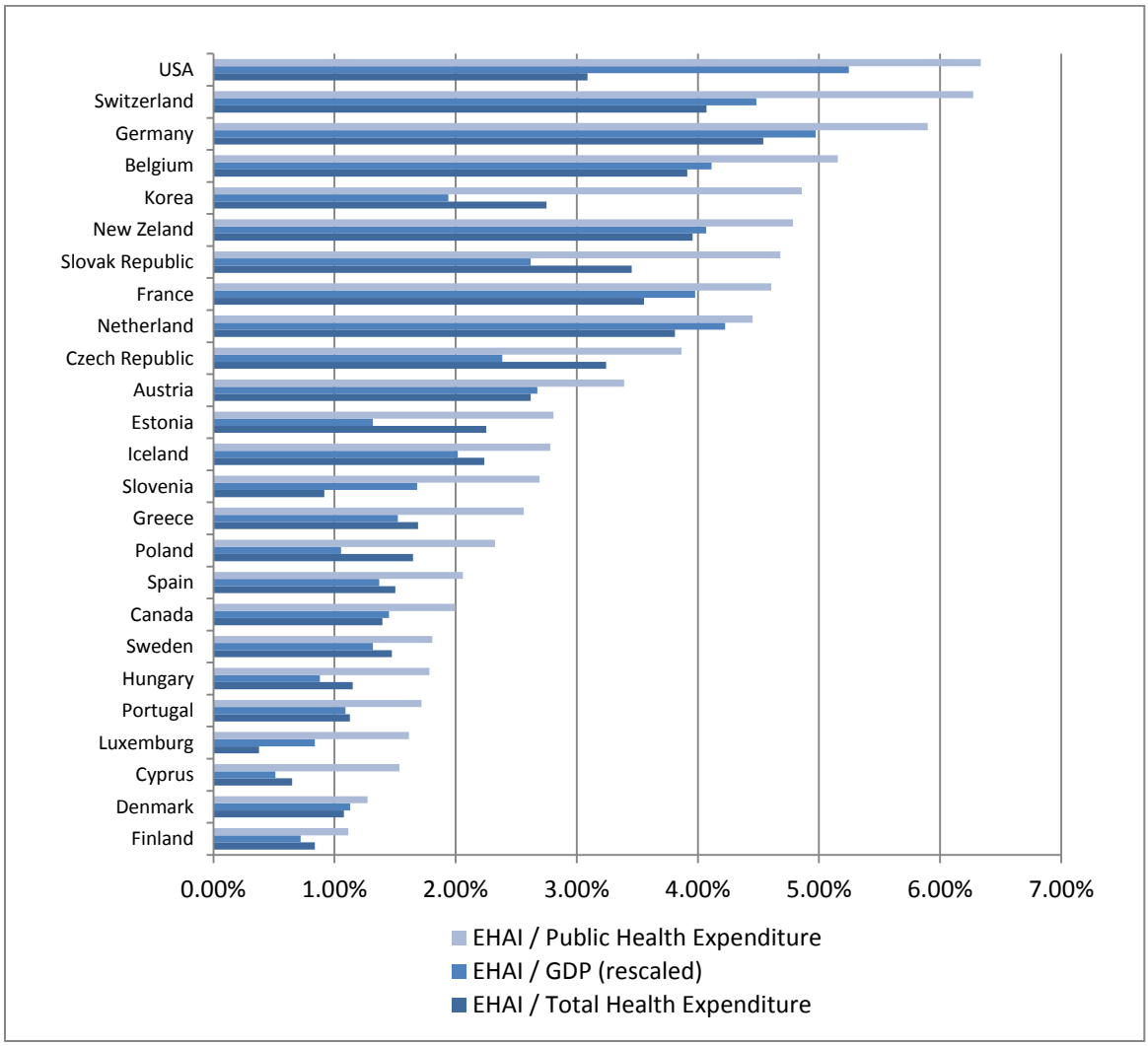
| | 2012 | | 2013 | |
|---|---|---|---|---|
| | **Posts** | **Current Expenditure (appropriated)** | **Posts** | **Current Expenditure (appropriated)** |
| MoH administration *** | 3,126 | 185,886,572 | 3,119 | 170,792,849 |
| Medical and Public Health Services *** | 1,119 | 243,211,922 | 1,080 | 246,335,827 |
| Mental Health Services | 92 | 12,590,409 | 92 | 11,498,968 |
| Dental Services | 82 | 5,205,977 | 77 | 4,970,611 |
| Pharmaceutical Services | 151 | 122,518,856 | 151 | 129,742,545 |
| State General Laboratory | 91 | 7,677,377 | 91 | 7,397,991 |
| * Minister not included; ** includes nurses; *** includes physicians | | | | |

1. 14 **Current line-items formulation of the State Budget allocates expenditures to the various departments.** However, since, as described in the section above, the MoH administration reports expenditures related also to financing and delivery of health services functions – not just administration, it was necessary to subtract those that do not refer to health administration and insurance, specifically: the expenditures of Nursing Service, Health Transfers (i.e. grant provided to the BoCOC and CING, and to finance the scheme to sponsor patients for treatment abroad). Based on this calculation, the expenditure of the core MoH administration and insurance was estimated in 2011 to total around 9.2 million euro, which represents around 1.53 percent of public health expenditure.

[6] Also temporary employees with definite duration enjoy employment protection for the duration of their term-contract.

1. 15 **Figure 3 presents public expenditure for general health administration and insurance (EHAI) from OECD countries and Cyprus as a percentage of public health expenditure, total health expenditure and GDP[7].** Overall Cyprus presents one of the lowest expenditure for general health administration and insurance as a percentage of public health expenditure. Only Finland and Denmark present lower relative EHAI expenditure. Similarly, EHAI is among the lowest when presented as a share of total health expenditure and GDP[8]. However, this estimate of MoH's EHAI in Cyprus is understated because it excludes the budget for outplaced staff from other Ministries (mostly from MoF) who work in MoH administration.

**Figure 3. Public expenditure for general health administration and insurance (EHAI), 2011**




Source: OECD Health data 2013 and GoC State Budget

[7] EHAI as a percentage of GDP has been rescaled (i.e. multiplied by 10) to facilitate comparisons with other figures presented in the graph.
[8] Only Luxemburg presents a lower EHAI as a percentage of total health expenditure.

### B.3 Staffing analysis: the MoH administration

1. 16 **It was agreed that the WB will provide a comparative staffing analysis with countries that have similar characteristics and perform similar functions.** For the MoH, it was agreed that the analysis would only cover the central administration.

1. 17 **A more detailed staffing analysis can only be undertaken once the authorities establish a strategic management process where budget constraints and individual performance are taken into consideration.** The new strategic planning and PFMR will identify the ministry, department, and unit level objectives, their performance targets, and the organizational goals down to individual organizational sections. On the basis of the expected targets and goals, it would be possible to identify the potential workload each organizational section will need to produce. Once this workload is defined, managers will then have to determine measures of staff productivity. Normally, a performance appraisal system should give some of this information, but in Cyprus the performance evaluation system does not adequately differentiate among staff as it rates nearly everyone as 'excellent'. Once these processes have been implemented, managers would then be able to determine the optimal mix of staff, given their budget constraint, to achieve their targets.

1. 18 **All international comparisons are subject to two important caveats.** First, the performance of other countries does not imply good practice; it merely describes the existing situation in other countries (and could easily represent a sampling of bad practices). Second, indicators for different countries are not strictly comparable as different ministries perform different functions to serve different citizens.

1. 19 **With these caveats in mind, Cyprus currently falls within the range of staff to population ratio in Ministries of Health among comparator countries and regions (see Table 2).** Staffing levels are expected to change, however, as the Cyprus MoH takes on a more stewardship role of the sector and releases its authority over the service delivery providers.

**Table 2.Ministry of Health: International Comparisons in Staff**

| Country: organization | Population (millions) | Staff | Ratio | Notes |
|---|---|---|---|---|
| **Cyprus: MoH administration** | **0.838** | **174** | **207.4** | Section 2.F presents the detailed organization of the MoH administration. |
| Croatia: MoH | 4.26 | 587 | 137.8 | The MoH of Croatia comprises the following Units: (i) cabinet; (ii) international cooperation; (iii) public procurement; (iv) internal audit; (v) central secretariat; (vi) health administration; (vii) transplant and biomedicine; (viii) sanitary Inspection with regional branches; (ix) legal and financial affairs. In addition, some health sector stewardship functions are located at the Croatian Institute Public Health and at the Croatian Health Insurance fund separate from the MoH. As a result the number on employees at the MoH administration is unusually small. |

| Country: organization | Population (millions) | Staff | Ratio | Notes |
|---|---|---|---|---|
| Slovenia: MoH | 2.058 | 100 | 48.6 | The MoH of Slovenia comprises three departments (health care, public health and healthcare economics), a secretariat grouping the administrative functions (legal services, human resources, administration, finance and IT), a division of e-health, and a unit for EU affair and international cooperation. Some health sector stewardship and public health functions that in Cyprus are under the MoH administration, in Slovenia are located at the National Institute Public Health and at the Health Insurance Fund. Therefore, the comparison between the MoH administration of Cyprus and the MoH of Slovenia could be biased in favor of the latter. |
| Latvia: MoH | 2.025 | 106 | 52.3 | The MoH of Latvia comprises seven departments (administration, budget and investment, EU funds, European affairs and international cooperation, pharmacy, public health, health care)and four independent divisions(audit and quality, legal, communication and strategic planning). Some health sector stewardship and public health functions that in Cyprus are under the MoH administration, in Latvia are located at the State Compulsory Health Insurance Agency. Therefore, the comparison between the MoH administration of Cyprus and the MoH of Latvia could be biased in favor of the latter. |
| Estonia: MoH | 1.339 | 44 | 32.9 | The Estonian Ministry of Social Affairs and its agencies is responsible for the development and implementation of overall health policy. The ministry comprises three major policy divisions: health, social services and employment. The health division is further subdivided into four administrative departments: health care; public health; health information and analysis; and e-health. In addition, some health sector stewardship and public health functions that in Cyprus are under the MoH administration, in Estonia are located at the National Institute Public Health and at the Health Insurance Fund. Therefore, the comparison between the MoH administration of Cyprus and the Estonian MoH could be biased in favor of the latter. |
| Italy: Basilicata regional health administrations (Aziende Sanitarie Locali) | 0.576 | 446 | 774.3 | The Basilicata regional health administrations are responsible to provide the level of services indicated in the national health plan within the region of Basilicata. The comparison did not include employees working atthe Italian MoH (i.e. federal MoH), but only those employed by the regional health |

| Country: organization | Population (millions) | Staff | Ratio | Notes |
|---|---|---|---|---|
| | | | | administrations. Therefore, the comparison between the MoH administration of Cyprus and the regional health administrations could be biased in favor of the latter. |
| Italy: Umbria regional health administrations (Aziende Sanitarie Locali) | 0.886 | 616 | 695.3 | The Umbria regional health administrations are responsible to provide the level of services indicated in the national health plan within the region of Umbria. The comparison did not include employees working at the Italian MoH (i.e. federal MoH), but only those employed by the regional health administrations. Therefore, the comparison between the MoH administration of Cyprus and the regional health administrations could be biased in favor of the latter. |
| Spain: Andalucía health service (Servicio Andaluz de Salud) | 8.45 | 1541 | 182.4 | The health service of Andalucía is the administrative structure that manages all public health centers, services and establishments within the region. The comparison did not include employees working at the Spanish MoH (i.e. federal MoH), but only those employed by the regional health administration. Therefore, the comparison between the MoH administration of Cyprus and the Spanish regional health services could be biased in favor of the latter. |
| Spain: Asturias health service (Servicio de Salud del Principado de Asturias) | 1.068 | 429 | 401.7 | The health service of Asturias is the administrative structure that manages all public health centers, services and establishments within the region. The comparison did not include employees working at the Spanish MoH (i.e. federal MoH), but only those employed by the regional health administration. Therefore, the comparison between the MoH administration of Cyprus and the Spanish regional health services could be biased in favor of the latter. |
| Spain: Balearic Islands health service (Servei de Salut de les Illes Balears) | 1.112 | 283 | 254.5 | The health service of the Balearic Islands is the administrative structure that manages all public health centers, services and establishments within the region. The comparison did not include employees working at the Spanish MoH (i.e. federal MoH), but only those employed by the regional health administration. Therefore, the comparison between the MoH administration of Cyprus and the Spanish regional health services could be biased in favor of the latter. |
| Spain: Extremadura health service (Servicio Extremeño de Salud) | 1.104 | 499 | 452.0 | The health service of Extremadura is the administrative structure that manages all public health centers, services and establishments within the region. The comparison did not include employees working at the Spanish MoH (i.e. federal MoH), but only those |

| Country: organization | Population (millions) | Staff | Ratio | Notes |
|---|---|---|---|---|
| | | | | employed by the regional health administration. Therefore, the comparison between the MoH administration of Cyprus and the Spanish regional health services could be biased in favor of the latter. |
| United Kingdom: Scottish Directorate of Health and Social Care | 5.295 | 445 | 84.0 | The Scottish Government has a government-wide horizontal analytical services group of economists, statisticians and researchers who provide analytical services for all sectors, including health. So the 445 number slightly understates staff numbers working on health stewardship functions. The Scottish Directorate of Health and Social Care has some additional functions not found in the Cyprus MoH: Social Care policy and policy on sport. |
| United Kingdom: Department of Health, Social Services and Public Safety of Northern Ireland | 1.811 | 655 | 361.7 | The Health, Social Services and Public Safety Department of Northern Ireland has its own unit of analytical services staff - economists, statisticians and researchers. The Department has some additional functions not found in the Cyprus MoH: policy, planning and oversight of Social Services and Fire and Rescue Services – which combines both fire and ambulance services. |

## C. ON-GOING HEALTH SECTOR REFORMS

1. 20 **To address the existing fragmentation of the Cypriot health system, after a long period of public dialogue and preparation the Parliament approved in 2001 the General Health Care Scheme Law (GHCSL) designed to establish a universal and mandatory social health insurance system.**[9] Under the new social health insurance system (also known as National Health System – NHS), health care financing will be tripartite, with the revenues coming from employee contributions (as well as pensioners, self-employed, corporate profits and renters), employer contributions and the state budget, in addition to co-payments. All revenues (except copayments) will be transferred to a central fund administered by the Health Insurance Organization (HIO), which will act as the exclusive purchaser of health care services through contracts with public and private providers. According to the Memorandum of Understanding (MoU) signed by the Government of Cyprus (GoC) and the group of international lenders comprising the IMF, EU and ECB (the "Troika") an NHS will be in place by mid-2016. Implementation is expected to be phased.

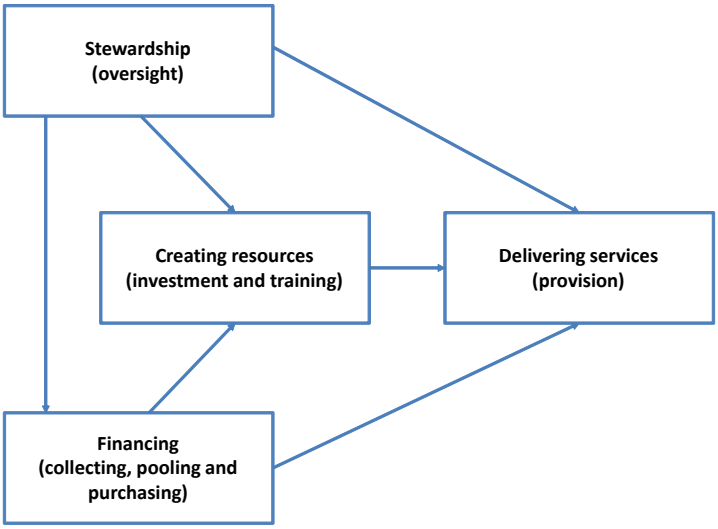
1. 21 **The introduction of the NHS will change significantly the responsibilities for the four key functions that all health systems have to undertake (see Figure 4):**[10](i) to deliver

[9] An amendment to the 2001 GHIS law was submitted to the House of Parliament in 2007, but it is pending approval.

[10] WHO (2000). The World health report 2000. Health systems: improving performance. WHO: Geneva.

health services; (ii) to generate the human and physical resources for health service delivery through training of health workers and capital investment; (iii) to raise, pool and allocate financial resources to pay for health care; and (iv) to provide stewardship (oversight, policy development and regulation) to the health system that consists in setting and enforcing the rules of the game and providing strategic direction for all the different actors involved.

**Figure 4. Functions of the Health System**




Source: adapted from WHO (2000).

1. 22 **Specifically under the NHS the four key functions of the health system are expected to change as follow:**

(i) *The stewardship (oversight) function* of the Cypriot health system will continue to reside in the MoH. However, it is expected that stewardship role of the MoH will expand both in scope and quality. It will expand in scope as the MoH will be responsible to oversee effectively the entire health system while at the moment the stewardship and coordination of MoH is mostly limited to the public sector. It will expand qualitatively as the NHS will introduce contract-based relationships with public and private providers.

(ii) *The service delivery (provision) function* of the health system will be modified significantly as the NHS will integrate both public and private providers. Both set of actors will be expected to abide by the rules set up to ensure that health services provided in the NHS are of good quality care while maintaining control of costs.

(iii) *The function of creating resources (investment and training) function* is expected to change significantly with the creation of a coordinated and integrated NHS. Currently, the MoH is responsible for the resources utilized in the public, while capital investments in the private sector are not regulated. The result is an uneven allocation of health infrastructure, human and financial resources between the two sub-systems producing long waiting lists in the public sector, and overcapacity and underutilization of hospital beds and expensive technologies in the private sector. Under the NHS the MoH and the

HIO will be required to coordinate and plan resources (e.g. capital investments, equipment and human resources formation) for the entire health system.

(iv) *The financing function* will change profoundly in the new NHS. First, additional public health funds will be collected with an increase in payroll taxesearmarked to finance the mandatory health insurance system. Second, based on the 2001 GHCSL all resources (tax based health funds and earmarked payroll contribution) will be pooled, transferred toand managed by the HIO. Finally, the purchasing and payment methods will change drastically with the introduction of contract-based relationships between HIO and health service providers and of output-based payment modalities: DRG-based payment per treated case for inpatient services, fees-for-services for specialized ambulatory services, diagnostics and prescription drugs, and capitation payment for PHC services.

1. 23 **In addition, the potential for MoH reorganization is linked and influenced by other reforms set by the MoU.** Firstly, the horizontal elements of the public administration reform (PAR) will review and propose changes regarding:

- *the appropriate system of remuneration and working conditions* in the entire public sector;
- *the mobility of staff* within the public sector; and
- *the introduction of a new performance-based appraisal system* for the public sector that would link performance to remuneration and salary increase, career development and promotion prospects.

1. 24 **Secondly, public financial management reforms (PFMR) will enhance the financial responsibilities and the decision making capacity within the public sector**. It is envisaged that under the new PFMR framework, program budgeting will be introduced. The MoH and its departments will obtain more authority over the financial resources allocated within each program budget that, in turn will enhance the effective level of autonomy and decision making capacity.

1. 25 **To summarize,** it is necessary to synchronize the sequence of the specific reforms proposed for the reorganization of the MoH with other on-going reforms: the introduction of the NHS, PAR and PFMR. Therefore, the following three Phases of reforms have been identified:

**Phase I – reforms that could be implemented within the existing frameworks:** Phase I covers the period before the NHS will be in place, and before public administration and PFMR become fully effective. Phase I is expected to cover the period up to the end of 2015, but could cover the first semester 2016 if the implementation of NHS is postponed.

**Phase II –NHS, new PAR and PFMR framework**. Taking advantage of the more flexible environment broader and deeper proposals for the reorganization of the MoH that will include both its organization and its network of health facilities could be implemented. Phase II is expected to be implemented in 2016and beyond.

**Phase III –transfer of functions to independent agencies and establishment of "trading funds"**. After a period of consolidation some functions (e.g. regulation of medicines) could be transferred to independent agencies following the practices of several EU countries, health

facilities could obtain institutional autonomy to operate within the public sector as business units that survive on the revenue they earn from the services they provide and departments could establish "trading funds" for its revenue-earning functions. Phase III of reform includes reforms that will require new health sector legislation. It also includes reforms that require increase in expenditure in preparation for implementation, such as development of enhanced management capacity and management information systems, upgrading of capital stock to enable competition with private sector, which may not be feasible until after the fiscal position of the Government has consolidated.

### C.1 Cross-cutting issues

1. 26 **The civil service and PFMR are expected to address two important cross-cutting shortcomings in the current financial and human resource management.**

(i) ***Management of financial resources***. The budget of a specific department does not record all resources utilized. For example pharmaceuticals expenditure is recorded in the Department of Pharmaceutical Services that is responsible for the centralized procurement of medicines and not in the budget of the hospitals and PHCC where drugs are prescribed and utilized. It is worth noting that as important cost elements are allocated to different MoH departments (such as medicines, nursing salaries, and capital expenditure) and, in some cases to a different ministry (such as administrative staff), the calculation of unit costsis difficult. To improve accountability for resources, the following phased approach is recommended:

**Phase I**: under the current PFMR framework, resources should be allocated in the budget of the department that would use them, in order to create comprehensive budgets. Within the health facilities network, each hospital and PHCC should have its own budget.

**Phase II:** under a reformed PFMR framework, departments would be able to develop program budgeting and obtain greater flexibility to reallocate budget between line items during the fiscal year.

**Phase III:** further PFMR. Some functions could be transferred to independent agencies and departments could establish "trading funds" for its revenue-earning functions. Trading funds are business units within MoH which are able to receive payments from HIO and copayments (in the case of health facilities), and from other regulated fees and charges (in the case of the pharmaceuticals regulation function and the State General Laboratory) and manage and account for their revenues and expenditures. They operate as semi-autonomous agencies financially, but they are not a separate legal entity and their staff remain part of the civil service.

(ii) ***Management of human resources.*** Similarly, a significant number of health staff is mapped to a department that is different from the one where services are provided or are seconded from other Ministries. For example administrative and clerical staff are appointed by the Public Service Commission and managed by the Public Administration

and Personnel Department (PADP) of the Ministry of Finance (MoF) and allocated to the various ministries. Within the MoH, the Nursing Service Sector, located in the MoH administration, has mapped all nurses employed by the MoH regardless of where they work.

1. 27 **An additional cross-cutting personnel management issue is the large share of temporary staff in much of MoH's health service delivery functions.** This situation has arisen because of extended freeze on hiring new permanent staff dating to a period in 2008-09 when the MoH was considering transformation of public health facilities into SGOs.

**Phase I**: transfer MoH staff to the department for whom they provide services. This is mostly relevant for nursing staff, but could also apply to pharmacists working in hospital inpatient pharmacies. Introduce performance-assessment reform and performance-based criteria and processes for promotion, and increase more decentralized decision-making over staff transfers under PAR. Should legal restrictions produce delays, alternative options based on the existing legislation should be explored.

**Phase II**: provide greater freedom for departments to select and promote staff, contract staff on short term contracts without incurring long term job protection, and outsource some non-clinical functions. During this phase, a costed plan for resolving the status of the many temporary staff working in health facilities should be devised, to enable them to transition to the new job contract provisions developed under PAR. Additionally, transfer of outplaced staff (e.g. from MoF PAPD, Treasury, IT departments) to the department where they work.

**Phase III:** expand flexibility in contracts and potential for outsourcing, as the economic and employment environment improves.

# CHAPTER 2. REVIEW OF MOH ORGANIZATION

*This section describes how the functions are distributed across the departments comprising the MoH and assesses the functionality of the organizational structure of the Ministry. The analysis of the existing functions and recommendations for change are based on a number of general principles deriving from good public administration and management practices:*

- *Rationale and coherent relation between strategic objectives and functions;*
- *Functions of the same type should be grouped together;*
- *Policy, regulation and service delivery functions should be separated;*
- *Support functions should be separated from other functions;*
- *No duplication or overlap of functions;*
- *Clear and short reporting lines;*
- *Viable size of departments and optimum spans of command for managers;*
- *Decision making should be delegated to the lowest suitable level.*

2. 1**In addition to the above-listed eight principles the review estimated for each department the effects deriving from the introduction of the NHS[11].** The following specific questions were used to assess the impact of the NHS on a specific department:

- *Will the functions provided by the department change under the NHS?*
- *Are there going to be duplication or overlap of functions under the NHS?*

2. 2 **Finally when policy options were identified,** recommendations were developed taking into account the following aspects:[12]

- *The feasibility of implementing the options;*
- *The expected financial consequences; and*
- *The expected impact on the quality of services.*

2. 3 **Based on the analysis of the functions performed by a given department** the report provides recommendations expressed in terms of whether a function should be strengthened, reduced, rationalized, abolished, outsourced or transferred to other bodies; if there is a need for introducing new functions or the existing functions should remain unchanged.

[11] At the time of the writing of the report some important aspects of the design of the NHS were not available, for example: (i) the detailed plan for the implementation of NHS was not available to the team (see revised MoU of November 2013); and (ii) the amendments to the 2001 GHIS law, submitted to the House of Parliament in 2007, were still pending approval.

[12] It should be noted that the impacts of the policy options identified can only be estimated with some level of uncertainty.

2. 4 **It is important to note that the recommendations presented in this section have been identified taking into consideration the expected pace of implementation of other relevant reforms (i.e. NHS, PAR and PFMR).** This implies that the recommendations presented are not to be implemented overnight, but represent a gradual approach according to the three phases presented in the previous section.

## A. DENTAL SERVICES

2. 5 T**he vision of the Department of Dental Services (DDS) is to promote oral health among all citizens and to provide quality dental services to the population without any form of geographical, economic and social disparity.** The core functions of the DDS are:

- *Provision of preventive dental services.* DDS implements preventing programs targeted to children aimed at promoting oral health. With 4 mobile dental units, preventive dental services are provided to elementary schools. Besides, in cooperation with the Cyprus Dental Association all the children at the age of 11 are examined by a dental officer and are then referred for treatment at the private sector. The costs of their treatment are covered by the DDS budget based on a fixed pricelist.
- *Provision of curative dental services.* DDS provides primary, secondary and tertiary oral health services. Urban and the rural health centers offer primary and secondary dental care (examination, fillings, extractions, root canal treatment, scaling, topical application of fluoride, sealants etc.). Tertiary oral health care is provided by prosthetic clinics located in 4 district hospitals (full and partial dentures).

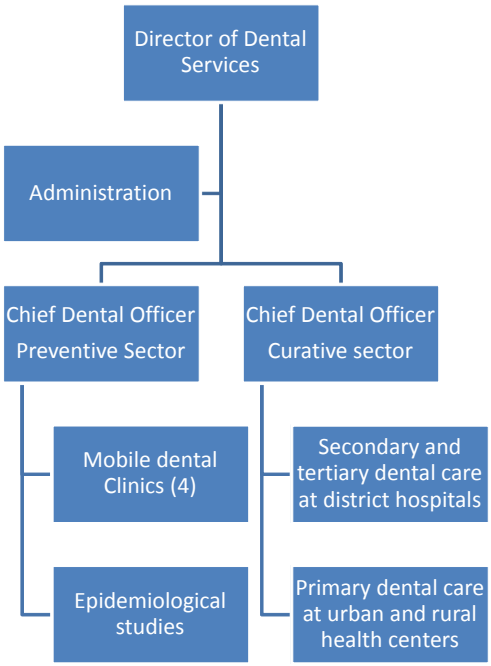
2. 6 **The staff working at the DDS are listed in Table 3**. Figure 5 presents the organization chart of the department.

**Table 3. Staff working at the DSS**

| | 2010 | 2011 | 2012 |
|---|---|---|---|
| Director of the PDS | 1 | 1 | 1 |
| Chief Dental Officers | 2 | 2 | 1 |
| Senior Dental Officer | 6 | 6 | 6 |
| Dental Officers | | | |
| Permanent | 19 | 24 | 24 |
| Temporary | 11 | 7 | 9½ |
| Senior Dental Assistants | 4 | 4 | 4 |
| Dental Assistants | | | |
| Permanent | 28 | 26 | 22 |
| Temporary | 6 | 8 | 11 |
| Supervisor of Dental laboratory | 1 | 1 | 1 |
| Senior Dental Technicians | 1 | 2 | 2 |
| Dental Technicians | | | |
| Permanent | 3 | 3 | 3 |
| Temporary | 5 | 5 | 5 |

| | 2010 | 2011 | 2012 |
|---|---|---|---|
| Assistant Secretary<br>Permanent | 2 | 2 | 1 |
| General Assistant<br>Hourly paid | 2 | 2 | 2 |
| Drivers of the mobile dental units<br>Hourly paid | 5 | 5 | 5 |
| Messenger<br>Hourly paid | 1 | 1 | 1 |
| TOTAL | 97 | 99 | 98½ |

**Figure 5. Organization chart of the Department of Dental Services**




2. 7 **The DDS appears to have a clear vision and functions aligned to the achievement of its strategic objectives.** The internal organization of the DDS is clear and its relative small size allows exploiting the limited flexibility and autonomy available to the DDS. The department fulfills the eight principles of good public administration and management practice listed above. In addition, the introduction of the NHS is not expected to modify the functions provided by the DDS. The only potential overlap between services provided by the NHS and currently provided by DDS relates to the provision of dental preventive services to those younger than 18. However, DDS already contracts private providers to provide dental preventive services; therefore the introduction of the NHS will not affect services directly provided by the DDS.

2. 8 **The recommendations for DDS** relate to the shortcomings in the current financial and human resource management highlighted in the previous section.

**Phase I:** to develop, a comprehensive budget for the department that includes all resources utilized by the department, including dental supplies and consumables.

**Phase II:** to introduce the program budgeting and greater budget flexibility.

**Phase III:** to consider the option of transferring dental curative services to health facilities where they are located; or the alternative of establishing them as "trading fund" (i.e. independent business units within health facilities). The two alternatives are compared in Table 4. The analysis suggests that the two options are similar in term of feasibility and financial impact. However, keeping curative dental services under DDS may improve quality of care as potential synergies among curative dental services provided across facilities could be exploited. *Therefore, based on the information currently available, the option of establishing a trading fund is preferred.*

**Table 4.Pro and cons of trading funds versus transfer of curative dental services to health facilities**

| | **Description** | **Feasibility** | **Financial Impact** | **Expected impact on quality** |
|---|---|---|---|---|
| **Transfer of services to health facilities** | Dental curative services (i.e. staff and equipment) could be transferred to health centers and district hospitals where they are located |  Difficulties may emerge for staff to agree to be transferred under the managers of health facilities. But staff could continue working in the same health facilities. |  Health facilities would be able to charge for curative dental services provided. |  The scope for synergies with other health services provided at health deriving from transferring dental curative services to health facilities appear quite limited. |
| **Establishment of a "trading fund"** | A "trading fund" for dental curative services provided at health centers and district hospitals could be established. |  The establishment of a specific trading fund for dental services may require administrative staff. |  The establishment of trading fund would bring revenues to the DDS. |  Keeping dental curative services under the DDS may create synergies across dental services. |
| **Note:** |  **Positive** |  **Mainly positive** |  **Neutral** |  **Mainly negative** |  **Negative** |

## B. STATE GENERAL LABORATORY

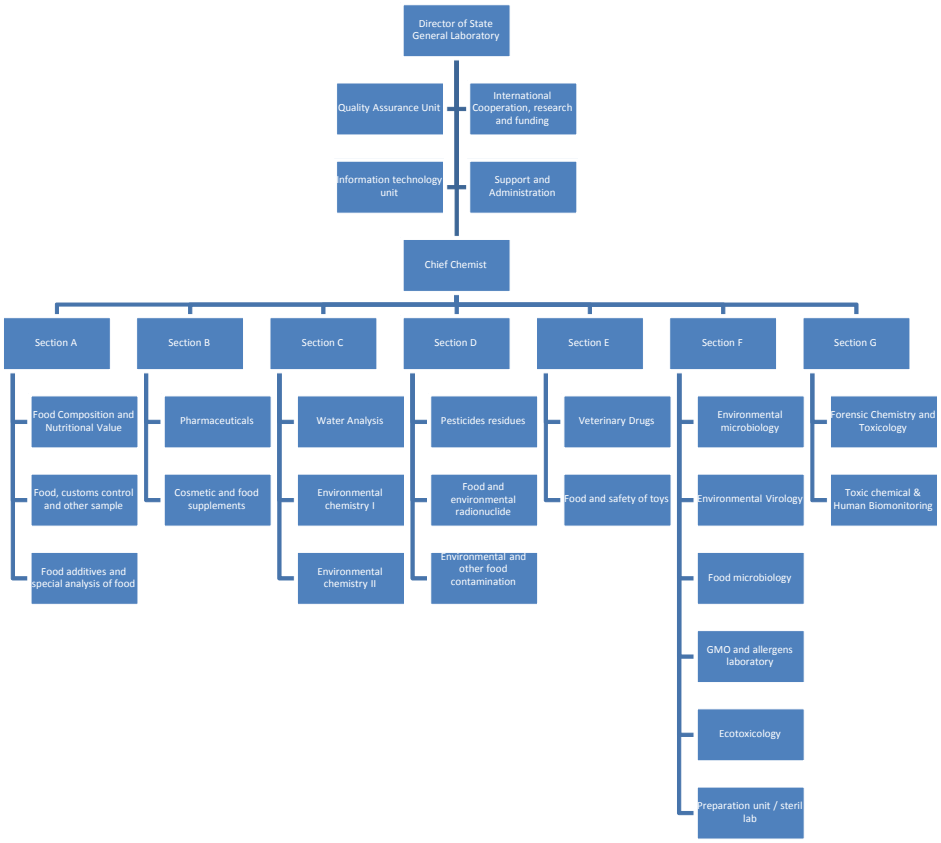
2. 9 **The State General Laboratory (SGL) department of the MoH** is the national official laboratory for the chemical, biological, microbiological, toxicological and radiological control and the national control center for food, water, environment, pharmaceuticals, cosmetics, various consumer goods, controlled drugs and forensic evidence. It is also the national reference laboratory for several food safety regulations according to the requirements of the relevant EU legislation (Reg. EU 882/2004). It provides laboratory services and advice to ministries, municipalities and private clients. The SGL is accredited according to the European Standard EN ISO/IEC 17025:2005 in many areas of its competence.

2. 10 **A total of 148 staff is currently working in the SGL (Table 5), of which 135 are SGL staff (71 permanent, 40 temporary and 23 hourly paid) and 13 are clerical staff seconded from MoF PMPD.** The SGL comprises 21 specialized laboratories (see Figure 6). The SGL carries applied researches and participates in national and European research projects, which are funded by the MoH, the National Research Promotion Foundation and the European Union.

**Table 5. Staff working at the SGL**

| | 2010 | 2011 | 2012 |
|---|---|---|---|
| Director of the PDS | 1 | 1 | 1 |
| Chief Analyst | 1 | 1 | 1 |
| Senior Analysts | 6 | 6 | 6 |
| Analysts | 41 | 41 | 41 |
| Senior Laboratory Superintendent | 1 | 1 | 1 |
| Laboratory Superintendents | 2 | 2 | 2 |
| Senior Laboratory Technicians | 6 | 6 | 6 |
| Laboratory Technicians | 33 | 33 | 33 |
| Hourly paid | 24 | 23 | 23 |
| Clerical Staff (from MoF PMPD) | 15 | 15 | 13 |
| Senior Accounts Supervisor (from MoF PMPD) | 1 | 1 | 1 |
| Project staff (other funds) | 22 | 20 | 20 |
| TOTAL | 153 | 150 | 148 |

**Figure 6. Organization chart of the State General Laboratory**




2. 11 **The SGL has clear objectives and strategic vision and is able to align resources to priorities and objectives.** The department fulfills the eight principles of good public administration and management practice listed above. In addition, the introduction of the NHS is not expected to modify the functions provided by the SGL and there are not potential overlaps with the services that will be provided by the NHS.

2. 12 **The recommendations for SGL relate to the shortcomings in the current financial and human resource management highlighted in the previous section.** In particular, SGL provides services to other units of the MoH and to other government ministries free of charge. This has an adverse effect on SGL by creating moral hazard in those other departments of Ministries – resulting in excess demand for SGL's services and a mismatch between demand and resource allocation. Therefore, there is an opportunity for developing a specific business unit in SGL to charge for the services provided.

**Phase I**: to develop, a comprehensive budget for the department that includes all resources utilized by the department, including laboratory supplies and consumables.

**Phase II:** to introduce the program budgeting and greater budget flexibility.

**Phase III:** to consider the option of establishing a "trading fund" (i.e. independent business units within SGL) to charge for the services provided both to external (private sector) and internal

(public sector) clients. This phase of reform would require adjustments to the budgets of other departments within MoH and other Ministries who currently use SGL services free of charge. *The option of establishing a trading fund at the SGL is assessed in Table 6, suggesting that its contribution would be largely positive in financial terms and on the quality of services, even if difficulties could emerge in setting it up.*

**Table 6.Pro and cons of establishing a "trading fund" at the SGL**

| | **Description** | **Feasibility** | **Financial Impact** | **Expected impact on quality** |
|---|---|---|---|---|
| **Establish "trading fund" (compared to status quo)** | SGL could establish a "trading fund" to charge external (private sector) and internal (public sector) for the services provided. |  Difficulties may emerge in the setting up of the trading fund. |  The establishment of trading fund would bring revenues to SGL. |  The remuneration for the additional services provided could create strong positive financial incentives to improve quality of services. |

## C. MENTAL HEALTH SERVICES

2. 13 **The key objectives of the Department of Mental Health Services (MHS) are:**to foster mental health policy reforms aimed at transferring the mental health services from the institutional setting to community-based setting; and providing quality mental health care services, including prevention of mental disorders, and drug addictions treatment and rehabilitation.

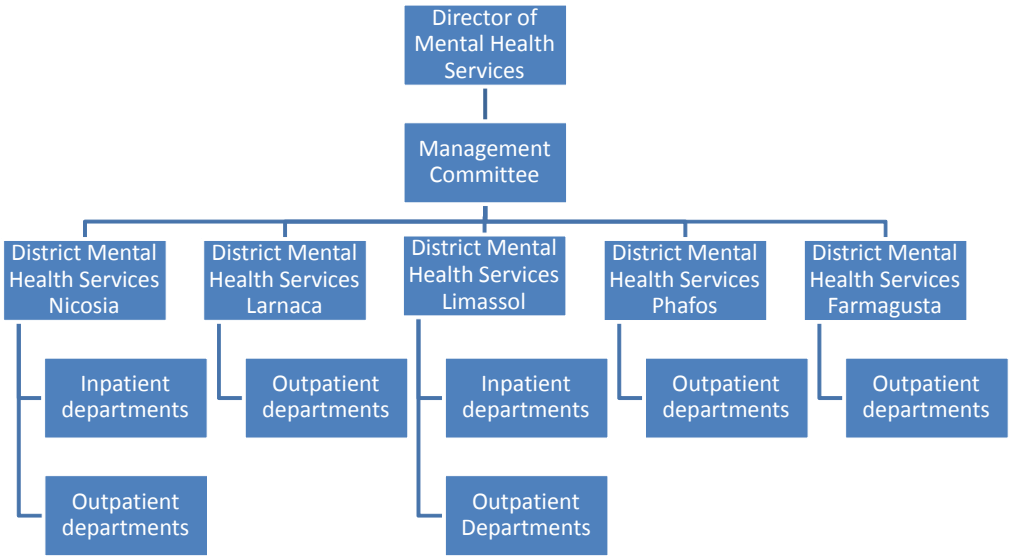
2. 14 **The main units which deliver mental health services are:** Community Mental Health Centers located in all districts, including mental clinics integrated in the Urban Health Centers, General Hospitals, the Child and Adolescent Mental Health Units, the units for Psycho-Social Rehabilitation (Day Centers and Vocational Rehabilitation Units), and the various prevention and treatment centers for drug abuse.

2. 15 **A total of 624 staff is currently working in the department of MHS (see Table 7).** The large majority is staff placed from nursing services. With relation to not seconded, 70 staff have permanent civil service status, 55 temporary employees and 84 hourly paid employees. The organization chart of the department of MHS is presented in Figure 7.

**Table 7.Staff working at the department of Mental Health Services**

| | 2010 | 2011 | 2012 |
|---|---|---|---|
| Director of the MHS department | 1 | 1 | 1 |
| Directors of Clinic / Department | 1 | 1 | 2 |
| Assistant Directors of Clinic / Department | 9 | 9 | 8 |
| Medical officers | 12 | 14 | 13 |
| Medical officers (temporary) | 6 | 8 | 9 |
| Medical officers (part time) | 7 | 3 | 1 |
| Chief special psychologist | - | - | - |
| Senior special psychologists | 1 | 1 | 2 |
| Special Psychologists A' | 5 | 4 | 6 |
| Special psychologists | 16 | 22 | 17 |
| Special psychologists (temporary) | 28 | 23 | 24 |
| Senior superintendent of Ergotheraphy department | 1 | 1 | 1 |
| Superintendent Ergotherapist | | | 1 |
| Senior Ergotherapists | 2 | 2 | 1 |
| Ergotherapists | 15 | 15 | 15 |
| Ergotherapists (temporary) | 17 | 20 | 20 |
| Assistant Ergotherapists | 3 | 3 | 3 |
| Hourly paid personnel | 89 | 88 | 84 |
| Administrative Staff (from MoF PMPD) | 23 | 22 | 21 |
| Nursing staff (from nursing services) | 370 | 375 | 389 |
| Accounting Officers (from Treasury) | 2 | 2 | 1 |
| Welfare Officers (from Social Welfare Services) | 2 | 2 | 2 |
| Warehouseman | 1 | 1 | 1 |
| Call Operators | 3 | 3 | 2 |
| TOTAL | 614 | 620 | 624 |

**Figure 7. Organization chart of the Department of Mental Health Services**[13]




2. 16 **The department of MHS has the clearly articulated strategic objective of moving from institutionalized to home-based care.** The department fulfills the majority of principles of good public administration and management practice. The presence of a large number of staff seconded or placed from other departments (i.e. 389 staff placed from nursing services and 13 from MoF-PAPD), contradicts the principle of having clear and short reporting lines. However, the establishment of a Management Committee that includes a chief nurse has mitigated this potential problem. In addition, the MHS Department will have partial overlap with the services that will be provided under the NHS. Some of the services provided by the MHS will be included in the benefit package of the NHS and public providers will compete with private ones on this segment: (i) hospitalization up to three months for mentally ill patients; however there will be little competition from the private sector because inpatient provision by private providers at the moment is not available; and (ii) outpatient specialized psychiatric services. Other services will continue to be financed from the budget.

2. 17 **There is a risk of fragmentation of patient care if the private sector competes aggressively to provide outpatient services.** However, the existing coordination between private mental health service providers and the MHS Department should provide a basis for negotiating contract provisions and care coordination arrangements to mitigate this risk. The NHS will privatize the provision of prescription medicines to outpatients by reimbursing private

[13] The organization chart is based on the interview with the Director of MHS and the management team of the department.

retail pharmacies. Coordination and information sharing with private retail pharmacies may also need to be developed for mental health patients whose medication use needs monitoring.

2. 18 **Finally, potential confusion in the reporting lines derives from the fact that mental health units are located in hospitals and health centers.** However, mental health wards are well carved out and there are established systems of psychiatric liaison teams to provide mental health input to management of hospital patients with dual diagnosis (mental and physical illness), in line with established international models of coordination of care.

2. 19 **The recommendations for the department of MHS** relate to the shortcomings in the current financial and human resource management already highlighted in other departments.

(i) **Phase I:** to develop, a comprehensive budget for the department that includes all resources utilized by the department, including inpatient medicines and consumables. Transfer mental health nursing staff to the MHS Department, reporting to the Nursing Director in the MHS management committee.

(ii) **Phase II:** to introduce the program budgeting and greater budget flexibility.

(iii) **Phase III:** to consider the option of transferring mental health services to health facilities where they are located; or the alternative of establishing them as "trading fund" (i.e. independent business units within health facilities). The two alternatives are compared in Table 8. The analysis, similar to the one performed for the DDS suggests that the two options are comparable in terms of the expected financial impact. On the other hand, the transfer of mental health services to health facilities may be more difficult than in the case of curative dental services because of the larger number of staff involved, therefore, in terms of feasibility, the two options are substantially equivalent. Finally, in terms of their impact to the quality of services, the options of creating a trading fund for mental health services could improve coordination and continuity of mental care. To conclude, the two options are very close, but based on the existing information the option of setting up trading fund for mental health services appears preferable to the alternative of transferring mental health services to the facility where they are located.

**Table 8. Pro and cons of trading funds versus transfer of mental health services to health facilities**

| | Description | Feasibility | Financial Impact | Expected impact on quality |
|---|---|---|---|---|
| **Transfer of services to health facilities** | Mental health services (i.e. staff and equipment) could be transferred to health centers and district hospitals where they are located |  Difficulties may emerge for staff to agree to be transferred under the managers of health facilities. But staff could continue working in the same health facilities. |  Health facilities would be able to charge for mental health services provided. |  The transfer of mental health services to health facilities may create synergies with other health services. |
| **Establish "trading fund"** | Establish "trading fund" for mental health services provided at health centers and district hospitals. |  The establishment of a specific trading fund for mental health would involve limited administrative costs. |  The establishment of trading fund would bring revenues to the MHS. |  Keeping mental health services under the MHS would maintain synergies across providers of MHS and foster current policy of deinstitutionalize MHS. |

## D. PHARMACEUTICAL SERVICES

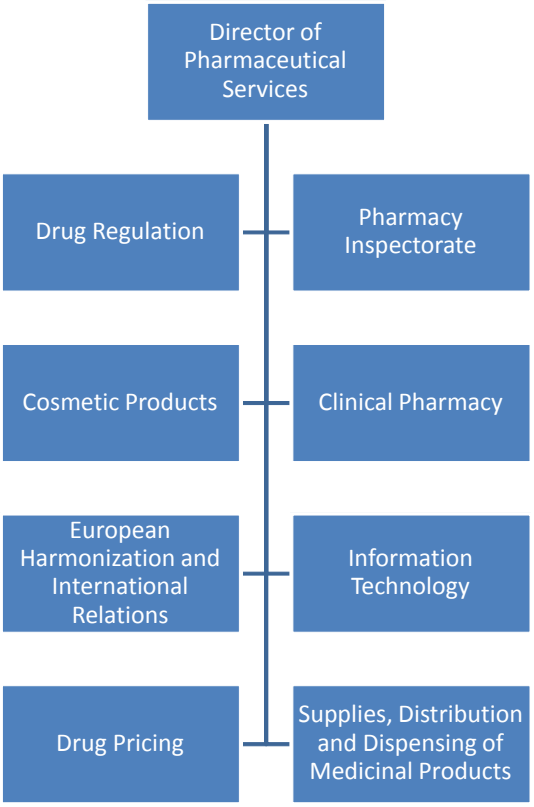
2. 20 **The mission of the Department of Pharmaceutical Services (DPS) is** to safeguard the right of Cypriot citizens, local habitants and visitors of Cyprus to access high quality, safe and effective medicinal and cosmetic products. To accomplish its mission the Department carries out the following activities:

- *Assessment* of applications and authorization for marketing of safe medicines for human use and the control of cosmetic products. This includes dossier evaluation for new drug and renewal applications.
- *Pricing* of medicines in the Cyprus market.
- *Control* of narcotic drugs and psychotropic substances.
- *Post marketing surveillance* for adverse drug reactions and the provision of drug information for the rational use of drugs to healthcare professionals and to public.
- *Dispensing medicines* from the government pharmacies.
- *Procurement* of medicines and other pharmaceutical products utilized in public health facilities.

- *Inspection* of private and government pharmacies, the wholesalers and the manufacturers of medicinal products.
- *Support* the work of the drug committee responsible for selecting the public hospital formulary.
- *Mutual recognition* of diplomas, degrees and other professional qualifications in Pharmacy.

2. 21 **The Department of Pharmaceutical Services (DPS) has a total staff 286,** which included 189 pharmacists (103 permanent and 85 temporary staff), 30 pharmacy technicians (10 permanent and 20 temporarystaff), 17 clerical officers (12 permanent and 5 temporary staff), 1 accountant, 1 accountant assistant, and 48 hourly-paid staff.DPS comprises the following units (see Figure 8): (i) drug regulation; (ii) pharmacy inspectorate; (iii) cosmetic products; (iv) clinical pharmacy; (v) European harmonization and international relations; (vi) information technology; (vii) drug pricing; and (viii) supplies, distribution and dispensing of medicinal products.

**Figure 8. Organization chart of the Department of Pharmaceutical Services**




2. 22 **The DPS manages 44 public pharmacies in Cyprus:** 8 of them are located at district and rural hospitals and 36 are rural or urban health centers. Public pharmacies employ a total of 126 pharmacists (53 permanent and 73 temporary staff), and 12 pharmacy technicians (2

permanent and 10 temporary staff) and 19 interchangeable hourly-paid staff. The DPS carries out functions that should be separated. The DPS is responsible for:

- *Three types of regulatory functions:* (i) regulation of quality, safety and efficacy of pharmaceutical products and manufacturers; (ii) regulation of private sector drug prices; and (iii) inspection of private retail pharmacies;
- *Policy:* definition of formulary for public pharmacies, based on clinical pharmacology and pharmacoeconomic analysis; and
- *Provision of services:* (i) procurement and logistics management of drugs supply chain to the public sector; and (ii) management of public pharmacies in located in public health facilities.

2. 23 **The DPS should focus on Pharmaceutical Regulation, Inspection, Pharmacovigilance and Policy** (i.e. regulation of pharmaceutical products and manufacturers, drug pricing, control of narcotic drugs and psychotropic substances, surveillance for adverse drug reactions and the provision of drug information, inspection of private and public pharmacies) and consider expanding the scope to encompass devices `and veterinary products regulation[14]. In addition assume responsibility of the HTA unit[15], provide clinical pharmacy and pharmacoeconomic support to HIO and Health Services Directorate and take responsibility for the development and maintenance of the public hospitals formulary. On the other hand, other functions should be transferred to other departments or modified over time (see Table 9), specifically in the short to midterm – Phases I and II:

- *Dispensing medicines from the government pharmacies.* The DPS currently manages 44 public pharmacies which dispense drugs to patients. However, under the NHS, patients will obtain primary care and hospital outpatient drugs from private pharmacies. Therefore, the NHS will eliminate the scope of public pharmacies in health centers and reduce the scope of hospital pharmacies to the dispensing of inpatient drugs. There is a case for transferring the public hospital inpatient pharmacy function and staff to hospitals under the new status, but retaining professional oversight of pharmacy and pharmacology policy and practice in both the public and private sectors by a professional "Chief Pharmacy Officer" in the central MoH administration.
- *Procurement, warehousing and distribution of pharmaceuticals and medical supplies.* This function will be significantly downscaled after NHS is implemented, because it will only procure inpatient medicines. There is a general agreement however that the capacity to procure centrally (rather than in each facility) should be retained. The down-sized function could be transferred to the Purchasing and Supply Sector at the MoH administration.

[14] The team invites MoH and MANRE to consider the potential synergies from merging pharmaceutical regulation of human and veterinary products.

[15] The MOU mandates a number of health technology assessments (HTA) to be performed during 2013 and the establishment of a dedicated HTA unit is currently being developed.

**Table 9. Assessment of proposed changes at the DPS**

| | Description | Feasibility | Financial Impact | Expected impact on quality |
|---|---|---|---|---|
| **Consolidate procurement, warehousing and distribution under MoH administration** | The function of procurement, warehousing and distribution of pharmaceuticals and medical supplies could be merged with the Purchasing and Supply Sector at the MoH administration. |  The transfer of function from DPS to MoH administration is not expected to generate specific problem and there is a general consensus on this change. |  The consolidation of the function is expected to create economies of scale and savings. |  The transfer of function is not expected to generate impact on the availability and quality of pharmaceuticals as expertise from DPS would be transferred to the Purchasing and Supply Sector at the MoH administration. |
| **Closure of public pharmacies dispensing drugs to patients** | The network of 44 public pharmacies which dispense drugs to patients could be significantly downscaled after NHS is implemented as outpatient medicines will be dispensed through private pharmacies. |  Difficulties may emerge to reallocate staff employed in public pharmacies. |  The closure of public pharmacies dispensing drugs to patients will avoid the duplication of services. |  The closure of public pharmacies is not expected to generate impact on the availability and quality of pharmaceuticals as they would be provided by an extensive network of private pharmacies. |
| **Transfer of hospital inpatient pharmacies to hospitals** | The remaining hospital pharmacies dispensing inpatient medicines could be transferred to the public hospitals where they are physically located. |  Difficulties may emerge for staff to agree to be transferred under the managers of health facilities. But staff could continue working in the same health facilities. |  The transfer of public pharmacies dispensing inpatient drugs to hospitals is required to bring all costs under the control of hospital managers. |  The transfer is not expected to generate impact on the availability and quality of pharmaceuticals. |

2. 24 **In the future – Phase III** - once the DPS is devoted primarily to regulatory functions (i.e. licensing of human medical products, inspection of pharmacies and pharmacovigilance), different structures could be explored. However, it should be noted that reviews of national pharmaceutical regulatory bodies show that different structure and organizations are used. For example, some countries have separate competent authorities for human and veterinary

medicines (e.g. UK, France and Hungary), but others have a single authority for human and veterinary medicines (e.g. Netherlands and Ireland). Some countries have a separate authority competent for small molecule based medicines and biologically based medicines (e.g. Germany). Even if the large majority of pharmaceutical regulatory agencies (with the exception of China) are able to charge clients for the services provided to recover its costs, they still receive public subsidies to cover certain functions such as pharmacovigilance. In Cyprus the DPS could become an independent pharmaceutical agency as in many other EU countries[16] and the DPS has already commissioned a detailed consultancy study of the case for establishing itself as an independent agency which can provide the basis for this phase of reform. An alternative is to keep these regulatory functions at the MoH administration and to create a "trading fund" to charge clients for the services provided. *As described in Table 10 the two alternatives are very close and there is not a clear preferred option. From one hand the establishment of an independent pharmaceutical agency could improve the quality of the services provided, but since this reform would require new primary legislation, the alternative of keeping the regulatory function of the DPS under the MoH administration would be easier to implement.*

**Table 10. Options for pharmaceutical regulatory: independent agency versus keeping pharmaceutical regulation at MoH administration, Phase III**

| | Description | Feasibility | Financial Impact | Expected impact on quality |
|---|---|---|---|---|
| **Create an independent pharmaceutical regulatory agency** | An independent pharmaceutical regulatory agency could be established as in several EU countries. |  The creation of an independent pharmaceutical agency may require primary legislation. |  Setting up of an independent pharmaceutical regulatory agency may require investments that could be compensated by the revenues generated. |  An independent pharmaceutical regulatory agency may be more effective than current arrangements. |
| **Pharmaceutical regulation at MoH administration** | Pharmaceutical regulation could be kept at MoH administration and a "trading fund" could be set up to charge clients for the services provided and recover costs. |  The option should be compatible with the legal and regulatory framework foreseen by Phase III. |  The limited administrative costs related to the transfer and establishment of the trading fund could be compensated by the revenues generated. |  The residual functions of the DPS could be transferred to the MoH administration is not expected to have an impact on the quality of services. |

[16] See http://www.ema.europa.eu/ema

## E. MEDICAL AND PUBLIC HEALTH SERVICES

2. 25 **The Department of Medical and Public Health Services (MPHS)** has the mission to promote and safeguard the health of the population of Cyprus, and to treat diseases based on the principles set by the World Health Organization (WHO) and within the framework of the European Union. To accomplish its mission the Department carries out the following activities:

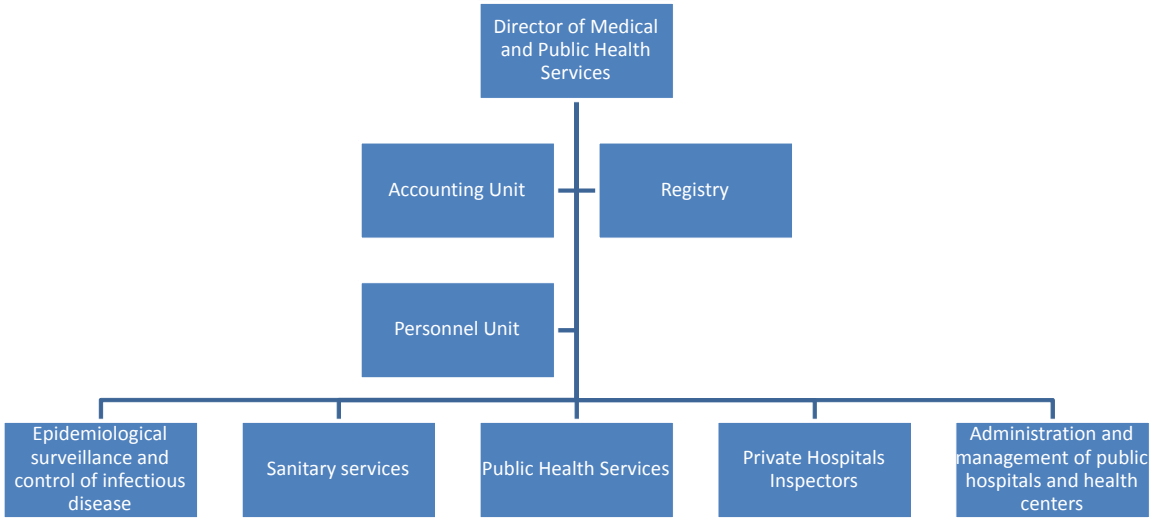
- *Administer and manage* public hospitals, rural and urban PHCCs and sub-centers.
- *Monitor and inspect* all private hospitals operating in Cyprus. The Director of the MPHS is the Commissioner of the private hospitals.
- *Administer and manage* public health prevention and promotion programs, including the children immunization programs.
- *Manage* the national network of epidemiological surveillance for the control of infectious diseases.
- *Manage* sanitary and hygiene services to ensure food quality and safety.

2. 26 **The Department of MPHS has a total staff 1,589 in 2012,** the large majority represented by medical and paramedical staff responsible to the delivery of health services (see Table 11). The organization chart of the department of MPHS is presented in Figure 9.

**Table 11. Staff working at the department of Medical and Public Health Services**

| | 2010 | 2011 | 2012 |
|---|---|---|---|
| Medical and paramedical staff | | | |
| Permanent | 821 | 836 | 805 |
| Temporary | 482 | 484 | 534 |
| Administrative staff | | | |
| Permanent | 4 | 2 | 2 |
| Temporary | 1 | 1 | 1 |
| Accounting staff | | | |
| Permanent | 2 | 2 | 2 |
| Temporary | - | - | - |
| Hourly Paid Staff | | | |
| Permanent | 6 | 6 | 6 |
| Temporary | 1 | 1 | 1 |
| Clerical Staff | | | |
| Permanent | 170 | 161 | 148 |
| Temporary | 91 | 90 | 90 |
| TOTAL | 1,578 | 1,583 | 1,589 |

**Figure 9. Organization chart of the Department of Medical and Public Health Services**




2. 27 **An increased level of managerial autonomy has been piloted at the New Nicosia General Hospital, where the executive director was given the role of officer in control of revenue and expenditure in the State budget supported by a management team.** However, the pilot is only partially active: the hospital director is still assisted by a management team but there is no longer a Nursing Director, Finance Director and HR Director at the hospital.

2. 28 **The department of MPHS combines a series of functions which, according to the principles discussed earlier, should be separated: regulatory functions related to control and inspection of private hospitals, provision of personal and public health services**. The department is too large and complex to be viable. Existing health legislation concentrates too many regulatory decisions in the post of the Director of MPHS, to the detriment of his/her capacity for strategic leadership and management of the entire health services network in the public sector. For example, as the Commissioner for private hospitals, the Director of the MPHS has a major and detailed workload in managing legal issues (over 2,000 active cases) without any legal staff.

2. 29 **The recommendations for the department of MPHS are:**

- Create a new Department **focused on the delivery of Health Services**(private services in hospitals and PHC facilities and public health-field services). The new department could be named as the **Health Services Department.**

2. 30 **The function of managing public health facilities (hospitals and health centers) and public health-field services would be transferred from the department of MPHS to the new Health Services Department.** The new Health Services Department would need a management team and staff able to provide leadership and strategic management and oversight of the MoH's health facility network (see Chapter 3 and Annex 3). While operational management should be delegated to health facilities, the Department could also provide support services for health facilities where it makes sense to centralize. The Department would need capacity for the following functions: strategic planning, performance monitoring, finance, human resources, investment planning, estate/infrastructure management, quality improvement and assurance, medical, nursing and pharmacy oversight, communication, and management of patient complaints.

2. 31 **The alternatives of "transforming" the department of MPHS to enhance leadership and strategic management and oversight of the MoH's health facility network with a dedicated management team, but keeping the function of regulation and inspection of private providers under the same department and of simply "renaming" the department of MPHS are also considered (see Table 12).** The assessment of the alternatives suggests that the option of creating a new department of Health Services is preferred as only this option would allow the separation of the regulatory function from the provision of health services, thus reducing potential conflict of interests and improve quality of services.

**Table 12. Assessment of proposed changes at the MPHS Department**

| | **Description** | **Feasibility** | **Financial Impact** | **Expected impact on quality** |
|---|---|---|---|---|
| **Create a new Department of Health Services** | The new Department would focus on health services delivery and will be managed by a team able to provide leadership and strategic management and oversight to the public health facility network. The function of regulation and inspection of private providers would be maintained in Phase I at the department of MPHS. |  The establishment of a new Department is compatible with existing regulations. |  The new management team, able to provide leadership and strategic management would generate short-term costs that would be offset by future opportunity to reconfigure and optimize the public health facility network. |  The improved management and focus to health services delivery would improve quality of services. In addition the separation of regulatory and provision functions would mitigate potential conflict of interests. |

| | Description | Feasibility | Financial Impact | Expected impact on quality |
|---|---|---|---|---|
| **Transform the department of MPHS** | The public health facility network under the department of MPHS would be managed by a team able to provide leadership and strategic management and oversight. The department of MPHS would maintain the function of regulation and inspection of private providers. |  The establishment of a new Department is compatible with existing regulations. |  The new management team, able to provide leadership and strategic management would generate short-term costs that would be offset by future opportunity to reconfigure and optimize the public health facility network. |  The improved management and focus to health services delivery would improve quality of services. However, the potential conflict of interest between regulatory and provision functions would remain. |
| **Rename the department of MPHS** | The department of MPHS would be renamed keeping the same functions. |  The change of name would be easy to implement. |  The change of name is not expected to generate any financial impact. |  The change of name is not expected to generate any improvement in the quality of services. |

2. 32 **In order to align the management of human resources (see section 1.3.1) it is recommended that nurses are transferred to the new Department of Health Services from the MoH administration where nurses are currently mapped to (see Table 13).** This action would bring all staff working at health facilities under the same management, improve staff coordination and quality of services.

2. 33 **The function of regulation and inspection of private providers should be maintained in Phase I at the department of MPHS as current legislation establish the Director of the MPHS as the registrar of private health facilities.** However health legislation should ultimately be revised to: (i) expand current regulation to public providers and private practitioners providing ambulatory health services; and (ii) reconsider the role of the Director of MPHS as the registrar for private health facilities. A detailed assessment of the required amendment of legislation and regulation will be needed before these structural reforms to separate service delivery and regulatory roles can be fully implemented. It may not be possible to enact these legal changes until Phase II of reform. Once the legal changes have been enacted the function of regulation and inspection of private providers could be transferred to MoH administration and the Department of MPHS could be discontinued (see Table 13).

**Table 13. Assessment of proposed changes at the MPHS Department**

| | Description | Feasibility | Financial Impact | Expected impact on quality |
|---|---|---|---|---|
| **Transfer of nurses to health facilities (new Health Services Department)** | Transfer of nurses to the new Department of Health Services will allow bringing all staff working at health facilities under the same management. |  Resistance to the transfer may emerge for staff to agree to be transferred under the managers of health facilities. But staff would continue in the same premises. |  The transfer is not expected to be financially neutral as, in principle, staff numbers could not change. |  The improved coordination and staff management is expected to improve quality of services. |
| **Transfer function of regulation and inspection of private providers to MoH administration** | It is expected that the transfer could not take place immediately as legal changes would be required to change the role of the Director of MPHS as the registrar for private health facilities. |  Primary legislation would be required to change the role of the Director of MPHS. |  Once functions are transferred the department of MPHS could be discontinued generating savings. |  The function of regulation and inspection could be expanded to cover also medical practices. |

2. 34 **Alternative arrangements regarding the provision of public health field-services were considered and are presented in Table 14.** This function could be transferred to the new department of Health Services, moved under the MoH administration, or kept at the MPHS. Consideration should also be given to organizational options for maximizing synergy between public health functions at district level that are delivered in health centers (such as health visitors and mother and child preventive health services). *The assessment of the alternatives suggests that the option of transferring public health-field services to the new Health Services Department is preferred in order to maintain synergies with health centers at district level.*

2. 35 **Changes to the central functions of this department are integrally linked to the options for restructuring and increasing autonomy of public hospital and health facilities, discussed in section 3 below, which should be implemented by Q2-2015.** Because legal changes to restructure the Department may not be possible by Q2-2015, creative transition options will need to be considered to enable Phase I of the re-organization of the health facilities network to begin. For example, consideration could be given to splitting responsibilities within the existing structure: the existing MPHS Director post would retain regulatory and public health responsibilities until legislation is amended, but a new position of "CEO of Health Services Designate" could be created. This person, hired in open competition on a fixed term contract, would oversee the health service delivery network and would become the Director of Health Services Department when the new MoH structure is fully implemented.

**Table 14. Alternative arrangements regarding the provision of public health field-services**

| | Description | Feasibility | Financial Impact | Expected impact on quality |
|---|---|---|---|---|
| **Transfer to the new Department of Health Services** | Public health-field services would be transferred to the new Department of Health Services |  Arrangements in the new Department would be substantially unchanged. |  The option would allow for the future closure of Department of MPHS. |  Synergies between public health functions at district level delivered at health centers are maintained. |
| **Transfer to MoH administration** | Public health-field services would be transferred to MoH administration. |  The transfer would mix policy and delivery functions at MoH administration. |  The option would allow for the future closure of Department of MPHS. |  Synergies between public health functions at district level delivered at health centers are not exploited. |
| **Remain at the Department of Medical and Public Health Services** | Public health-field services remain located at the Department of MPHS. |  The option would not require changes. |  Keeping functions at the Department of MPHS would impede the future closure of the Department. |  Synergies between public health functions at district level delivered at health centers are not exploited. |

## F. SUMMARY OF CHANGES IN MOH ORGANIZATION

2. 36 **The proposed changes in the organization of the MoH are now presented by Phases in the three diagrams below**.

**Figure 10. Phase I**

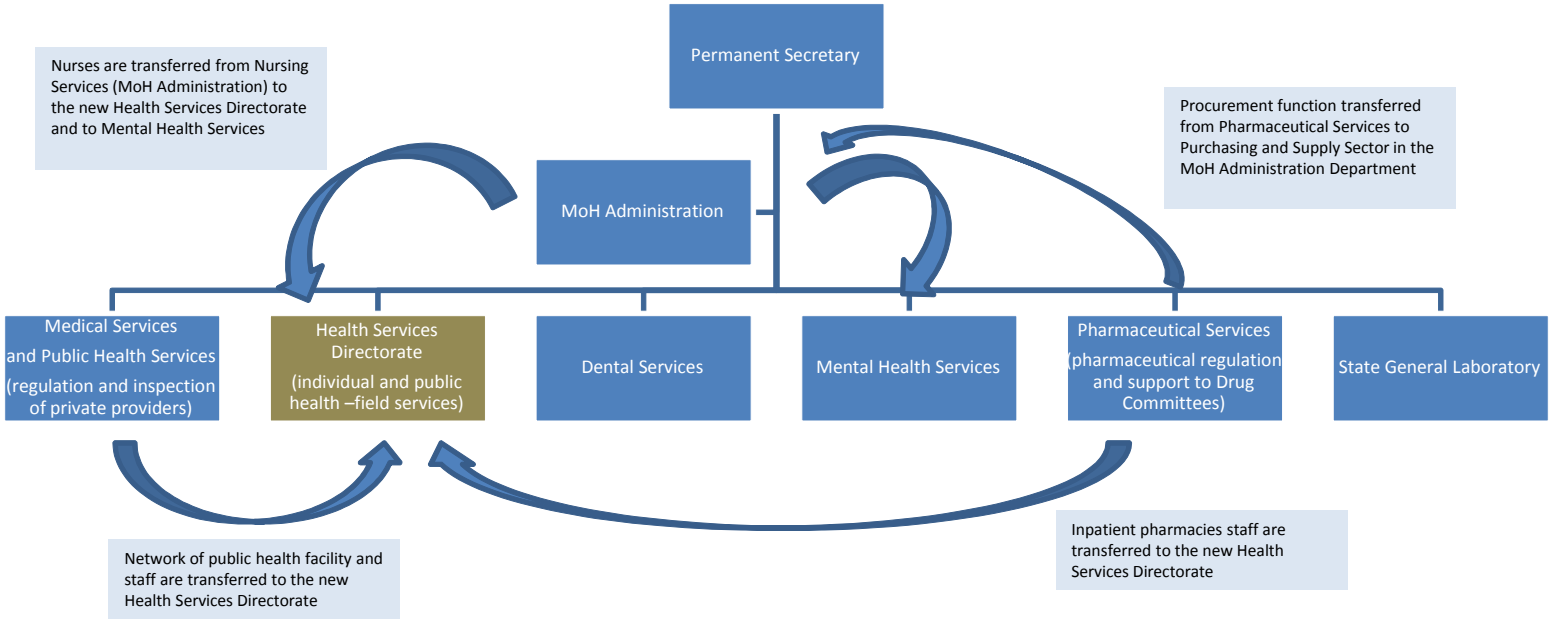


**Figure 11. Phase II**

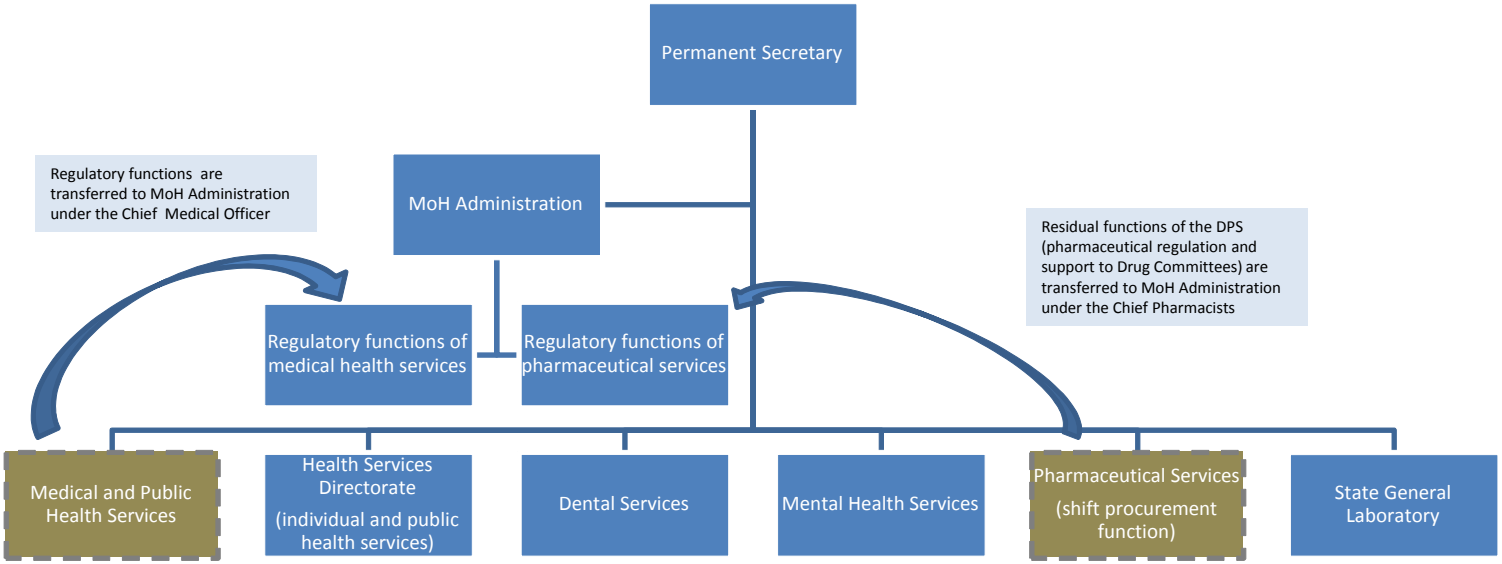
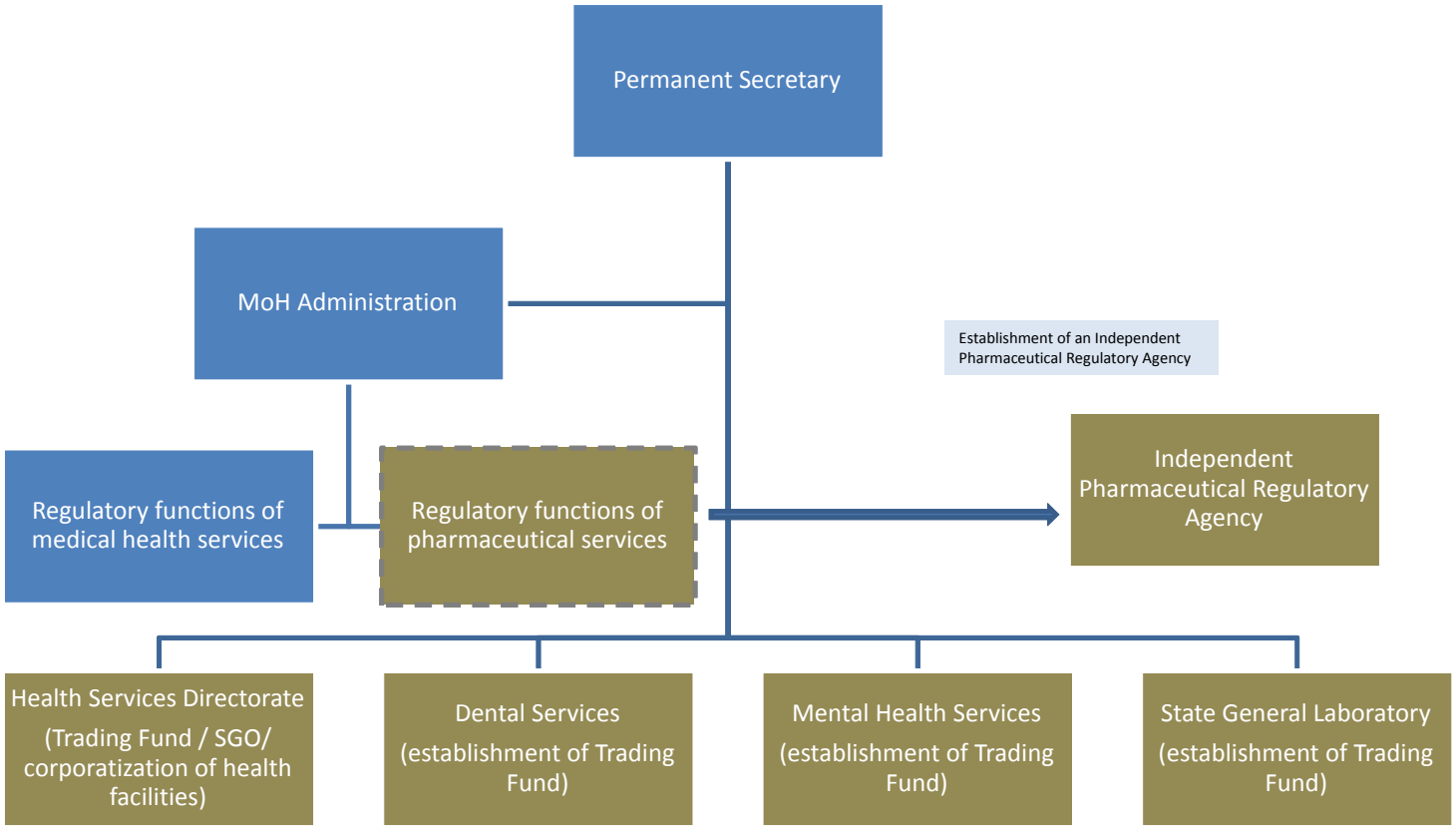


**Figure 12. Phase III**



## G. MOH ADMINISTRATION

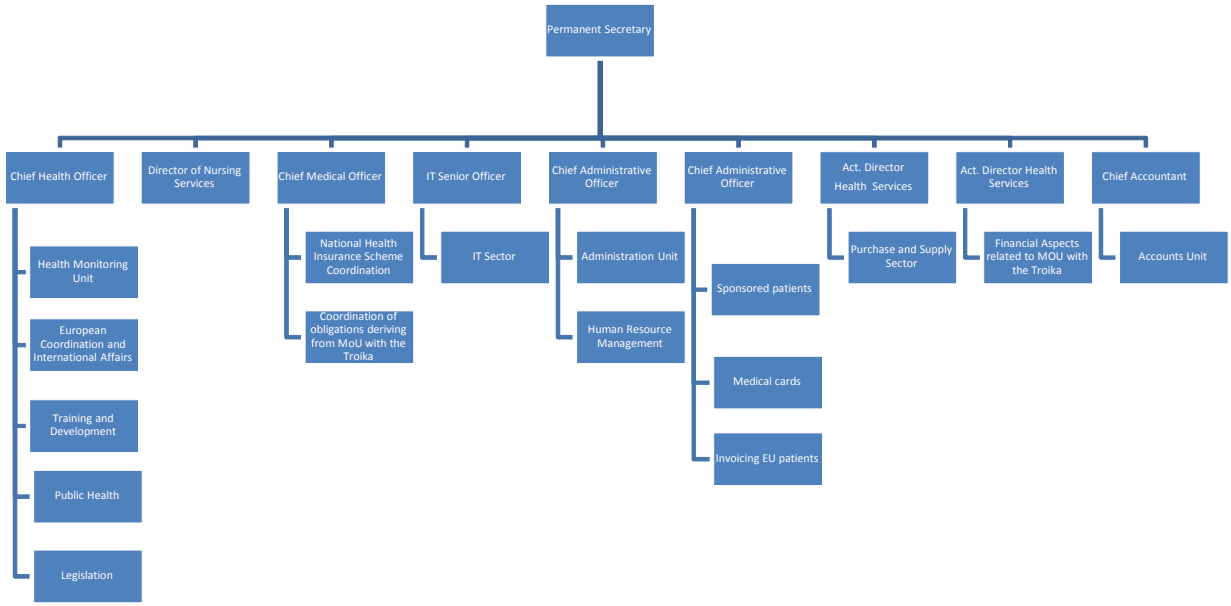
2. 37 **The MoH administration department employs around 174 staff of permanent and temporary staff (see Table 15).** However, only a fraction of them is officially mapped to the MoH and the large majority is seconded from other Ministries. In addition around 3,260 nurses are officially mapped in the Nursing Service unit at the MoH administration department, but effectively providing services at health facilities.[17] The organization chart of the MoH administration department is presented in Figure 13.

**Table 15. Staff working at MoH administration**

| | Permanent | Temporary |
|---|---|---|
| Minister | | 1 |
| Permanent Secretary | 1 | |
| Chief health officer | 1 | |
| Health Service Officers | 9 | 3 |
| Medical officers (all scales) (seconded from MPHS) | 5.2 | |
| Administrative Officers (senior and A') (seconded from PAPD) | 10 | |
| Pharmacists (seconded from DPS) | 2.2 | |
| Acting Health Directors (currently originating from Treasury) | 1.4 | |
| Accountants (from Treasury) | 5 | 1 |
| Chief administrative officer (PAPD) | 2 | |
| Officers (seconded from HIO) | | 2.4 |
| Security officer (Cyprus police) | 2 | |
| Statisticians (from Statistical services) | 3 | |
| Information technology officer (seconded from DITS) | 7 | 3 |
| Hourly paid (seconded from PAPD) | 13 | 1 |
| Nursing officers (all scales)(from nursing services) | 25 | |
| Press Officer | 1 | |
| Ministers' Counselor | 1 | |
| Clinical Psychologist (seconded from MHS) | 1 | |
| Sanitary Officer (seconded from MPHS) | 1 | |
| Medical Physicist (seconded from MPHS) | 1 | |
| Radiographer/Radiography Inspector (seconded from MPHS) | 2 | |
| Hospital Laboratory Officer/Technologist (seconded from MPHS) | 3 | |
| Agriculture Officer (seconded from Ministry of Agricul) | 1 | |
| Clerical Staff / Secretaries (all scales) (seconded from PAPD) | 25 | 29 |
| Clerical Staff in Bioethical Committee (all scales) (seconded from PAPD) | | 1 |
| Clerical Staff in Tender Board (all scales) (seconded from PAPD) | 1 | |
| Clerical Staff in Patients, right officers in hosp. all scales sec. from PAPD | 6 | |
| Clerical Staff in contract (Embassy of Cyprus in Berlin) | | 1 |
| Warehouseman (seconded and temporary contract) | 1 | 1 |
| TOTAL | 130.8 | 43.4 |

[17] The Nursing Service unit was created in the MoH administration department in the year 2003 and produced the official transfer of nurses from the department of MPHS to the Nursing Service unit of MoH administration department.

**Figure 13. Organization chart of the MoH administration**




2. 38 **The MoH administration has expanded its role and functions over time not always in an organized and systematic manner.** It needs to focus toward policy formulation, strategies, and regulatory functions of the Ministry as well as support functions such as IT, procurement, and human resources[18].

2. 39 **Recommendations for the MoH administration department are:**

- *Create a strategic planning and budgeting unit:* this section will be responsible for translating the macro level objectives into ministerial level objectives, produce targets, costs and budget aligned to the medium-term ceilings under the mid-term budget framework (MTBF).
- *Create an internal audit unit: the role of the internal audit unit is to provide the management of the MoH with assurance on the adequacy and effectiveness of risk management, control and governance arrangements.* Internal audit also plays a valuable

[18] The new units and positions at MoH administration are described in Annex 1.

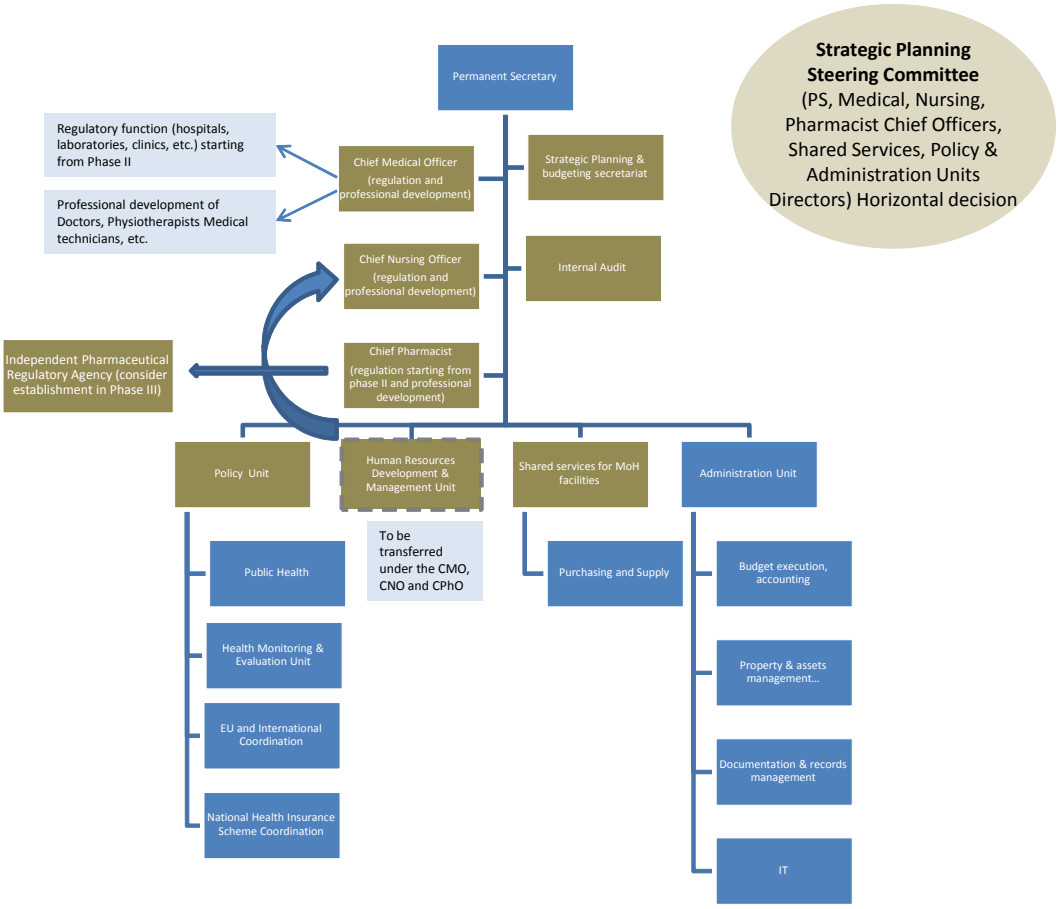
role in improving risk management, control and governance, thereby reducing the effects of any material adverse risks faced by the MoH.[19]

- *Create Chief Medical Officer, Chief Nursing Officer and Chief Pharmacist positions:* each of these posts would cover professional policies, professional regulation, professional education and development, and health human resource planning for the professions. This option could be considered in Cyprus to address the professional development issues that arise when health service management posts in health facilities and in the new Health Services Department are opened to candidates from a wider range of backgrounds, in place of the "professional pyramid" model that exists now. After NHS is implemented, the Chief Nursing Officer (for nurse professionals) and the Chief Medical Officer (for medical and paramedical professionals) would play a policy and professional development role over professionals in both public and private sectors. It is expected that from Phase II the Chief Medical Officer will also have the function of registrar of private health facilities that was previously under the Director of the department of MPHS, or for all public and private health facilities, as required by relevant legislation.
- *Expand the purchasing and supply:* this section would expand to incorporate procurement of pharmaceuticals. A future option for Phase II could be to convert this section into a separate business unit, providing services on a cost-recovered basis to the public health facilities network, mental health Department, state general laboratory and other MoH Departments. It could be established as a trading fund in a third phase of reform.
- *Reform Nursing Services:* the functions related to nursing policy and professional development would be transferred to the Chief Nursing Officer. Nurses placed in this unit would be transferred to the health facilities where they provide services.
- *Creation of a Policy Unity:* the unit will coordinate various units and functions already located at MoH administration: public health; EU and International coordination; Health Monitoring and Evaluation; and Health Reforms Unit.
- *Create a Research Unit:* the unit will assist scientifically and contribute to the evaluation of policy implementation at the Ministry level, nurturing a culture of research, innovation and entrepreneurship. The Unit will strengthen collaboration between Health Sector Entities and Academia involved in the area of health sciences research and coordinate with Research Units falling under the responsibility of other Ministries.

[19] This is aligned to the Ministerial Council Decisions 75.481 of 10/7/2013 and 76.025 of 6/11/2013 that involve all Ministries.

2. 40 **The organization chart of the MoH administration would evolve as presented in Figure 14.**

**Figure 14.MoH administration in Phase I and subsequent changes**



# CHAPTER 3. HEALTH FACILITIES RESTRUCTURING: MESO- LEVEL OF GOVERNANCE

## A. KEY CHALLENGES IN CURRENT GOVERNANCE OF HEALTH FACILITIES

3. 1 **A modern governance and management structure for public hospitals (and other health facilities) balances several dimensions:** (i) effective **managerial authority** delegated or assigned to the hospital or health facility network, commensurated with (ii) **managerial capacity,** systems and processes (discussed in section 4 of the paper), balanced with (iii) results-oriented **external accountability** and **internal control** systems developed in the hospital or health facility network to replace traditional centralized administrative control, and supported by (iv) **incentives** for performance for the health care institution, including financial incentives from the provider payment system and non-financial incentives such as reputational recognition and career path for managers. The following summarizes the current situation in Cyprus's public health facilities.

### A.1 Limited managerial authority to make efficiency and quality improvements

- ***Personnel management:*** There is a lack of decision-making authority at hospital level over personnel, as noted under Cross Cutting Issues in Chapter 1 of the report. Decision-making is centralized in the MPHS Department, and civil service commission. Hospital directors and heads of health centers do not have direct supervisory oversight of health facility staff that are mapped to other departments of MoH or to other Ministries, and their authority is impaired by the fact that hospital heads are asked to supervise staff of equal or higher grade than themselves.

  The GoC is committed to public administration reform (PAR) under the MoU. This will benefit health facility management, but there will be a need to allow for some distinctive needs of health service human resource management to maximize efficiency in complex service delivery. For example, managers may need greater flexibility to negotiate shifts and hours of work, but it is not efficient to increase the flexibility granted to staff over their own work hours in most hospital and health center posts. Until civil service reform occurs, health facility managers have limited authority over decisions needed to improve staff performance and productivity, though there are examples of progress being made (e.g. to reduce nurse absenteeism) with the support of central MoH leadership. If public health facilities face a need to re-allocate personnel across departments or downsize significantly in the face of future private sector competition when the NHS is implemented, the current civil service regime inhibits the scope for this kind of adjustment, increases the costs and slows the pace of change.

- ***Financial management:*** As noted under Cross Cutting Issues in Chapter 1 of the report, the budgets of hospitals and primary care do not account for all of the resources used by the health facility. Budget, procurement and investment planning processes are centralized. However, hospitals appear to have reasonably effective bottom-up input into budget formulation, requests for purchases and equipment (though procurement is centralized), capital planning and other major resource allocation decisions. By comparison with many countries with such centralized and rigid personnel and resource allocation regulations, health facilities appear to have a reasonably appropriate and well-functioning mix of inputs. This may reflect the advantages of a smaller health system with more direct and frequent communication between central and peripheral levels. It may also reflect a responsive approach by the central offices of the MoH, in acting as an upward channel for requests from health facilities to decision making processes in the Ministry of Finance (MoF), PAPD, Civil Service Commissions and Cabinet.

### A.2 Accountability for performance

3. 2 **There is not yet a clear and comprehensive responsibility in the central MoH for holding hospitals and primary care facilities accountable for all the important dimensions of performance.** Health facilities make regular as well as as-needed reports to the central Department of Medical and Public Health Services of administrative data, but this is not comprehensive, and there are parallel lines of reporting to different directorates and divisions on different aspects of hospital performance. The MoH's Monitoring Unit collects a range of data from hospitals that could be used for monitoring hospital outputs and some clinical outcomes. However, some key data bases are still in a developmental phase, though rapid progress has been made on improving medical coding of inpatient activity as a basis for future implementation of payment reform based on Diagnosis-Related Groups (DRGs). There are some gaps in data collection needed on hospital performance (e.g. comprehensive financial data, efficiency and clinical effectiveness measures). But even more important are the gaps in capacity or responsibility for analysis of health facility performance data into comprehensive and usable forms (e.g. performance dashboards for regular monitoring, and more in-depth analysis on strategic issues).

3. 3 **Government oversight of health facilities by central agencies and central MoH administration at present takes a "traditional" approach focused heavily on prior controls over particular inputs and processes, rather than on performance**. Within the limits of the current administrative regulations, the central MoH seeks to support healthcare facilities to improve quality and efficiency. But the current model runs the risk that MoH may take a somewhat reactive approach to solving problems and handling complaints from facilities or their staff, and may not be accustomed to taking a more independent stance in cases where there is a need to challenge current levels of performance. There is a need to clarify responsibility and develop business processes for the MoH to take a more strategic and pro-active leadership role in providing comprehensive performance feedback to facilities across all dimensions, ensuring there is follow-up action on shortfalls and ensuring sanctions (or some consequences, at least) for health facilities who fail to improve performance. The re-orientation of accountability will be

difficult to change to a marked extent in the absence of wider civil service/public administration reform (PAR) and public financial management reform (PFMR). These reforms are needed, among other things, to release central Ministry staff (particularly from MoF) placed in the MoH from routine, low-value tasks to more value-adding results-oriented mechanisms for analyzing provider performance and holding facilities accountable. PAR and PFMR has the potential also to clarify the roles and accountability of central agency financial and human resource management staff outplaced in health facilities.

### A.3 Incentives for efficiency and quality improvement

3. 4 **The GoC plans to implement an NHS which will introduce incentives for healthcare provider efficiency and customer-responsiveness through new provider payment methods and competition between public and private sectors.** However, the current financial management regime for MoH health facilities does not allow them to operate as envisaged under the NHS law.

3. 5 **As divisions of a government Ministry, health facilities are currently unable to retain any revenue they earn from future Health Insurance Office (HIO) payments for services, or from user copayments or other revenue** (e.g. from renting out space for cafes or shops in hospitals): all revenues revert to the Treasury. Under current public financial management rules, when NHS is implemented, all HIO payments for services of MoH facilities would revert to the Treasury, and the health facilities would continue to receive a line-item budget allocation, unrelated to their outputs or performance. Public health facilities would thus have no incentive to attract patients to compete with private providers in future or to seek other opportunities to increase revenue: NHS reforms thus would not have the intended effect on stimulating increased public sector efficiency.

3. 6 **Health facilities have no flexibility to transfer budget allocations between the detailed line items in their budget, nor can they retain and carry forward to future years any surpluses they generate from making savings relative to budget allocation.** Procedures for budget adjustment during the year are highly centralized in the MoF, and relatively small adjustments require parliamentary approval through supplementary budget appropriation legislation. As a result, health facilities have limited managerial scope and practically no financial incentive to generate efficiency gains.

3. 7 **In spite of the lack of incentives for efficiency, the few available aggregate indicators of hospital performance do not suggest particularly high costs or gross inefficiencies.** Nonetheless, there are visible examples of future potential to increase productivity of some assets and some categories of personnel if hospital governance and management practices are modernized, capacity strengthened and appropriate provider-payment incentives put in place by the NHS. For example, DRG-based payment should encourage greater use of day surgery and shorter lengths of inpatient stay, once hospitals are able to retain revenue from NHS and manage these financial resources more autonomously.

## B. THE MOH'S ACTION PLAN FOR RESTRUCTURING: ISSUES AND OPTIONS FOR CONSIDERATION

3. 8 **The Revised MoU, as it stands on February 2014, requires the MoH to take action on restructuring public hospitals under paragraph 3.2:** ***To strengthen the sustainability of the funding structure and the efficiency of public healthcare provision, the following measures will be adopted…*** *(b) re-structure public hospitals according to the action plan as approved by the Council of Ministers at end-June 2013 and aim at full implementation by* ***Q2-2015.***The Council of Ministers' decision was one of the additional permanent expenditure measures for 2013 which were adopted by Cyprus prior to the granting of the first disbursement of financial assistance, based on an earlier MoU requirement *to adopt a restructuring plan for public hospitals, improving quality and optimizing costs and redesigning the organizational structure of the hospital management, by putting into practice recommendations from the2009 "Public Hospital Roadmap"*. This roadmap, prepared for the MoH with advice from McKinsey & Company, was intended to prepare the Cyprus public hospitals for implementation of the 2001 NHS legislation, and included restructuring to give hospitals greater autonomy alongside other improvements in quality, efficiency and marketing to enable public hospitals to attract patients and offer services that would be competitive with the private sector on quality and cost. However, the measures in the action plan are beneficial in their own right, regardless of the form of NHS that is implemented and the timeframe for NHS implementation.

### B.1 Longer term directions and shorter term constraints

3. 9 **The NHS reforms set a longer term direction and context for restructuring of hospitals and other health facilities, but there is an expectation that there will be a transition period of some years of phased implementation before full adoption of measures that expose public health facilities to competition**. In developing the action plan for restructuring hospitals approved by the Council of Ministers in 2013, the MoH has taken into account its experience with pursuing hospital restructuring since the 2009 Roadmap was prepared and under earlier reform initiatives over the past 20 years. This experience highlights legislative, regulatory and fiscal barriers to implementation of the provider autonomy pillar of reform. Hospitals cannot be given greater authority and flexibility over personnel management nor can the MoH adopt more open, competitive hiring for hospital senior management teams until civil service legislation is reformed. Moreover, past advice from the Attorney General indicated that transforming public hospitals into semi-governmental agencies (as proposed in the 2009 Roadmap) or state owned enterprises would not produce any significant increase in the flexibility of the personnel management regime and could have a significant fiscal cost of compensation to employees for perceived loss of employment security and reduced promotion/career path prospects if they are transferred to a semi-governmental agency.

3. 10 **For these reasons, the MoH's action plan for reform drops this aspect of the 2009 Roadmap and retains public health facilities within the MoH and maintains the civil service status for hospital staff for the foreseeable future.** Consequently, management and accountability reforms of public providers in the health sector now depend on broader PAR and PFMR. Section 3.2.6 below considers longer term options for reform.

3. 11 **A further constraint to implementation of the 2009 Roadmap in the short to medium term arises from the current fiscal constraints and civil service hiring and remuneration freeze.** In 2009 McKinsey estimated the cost of upgrading health facilities to prepare them for NHS implementation to be approximately EURO 73 million over a three year transition period, with on-going additional cost each year of EURO 6.6 million for staff incentives and additional EURO 3 million for management costs associated with restructuring of hospital management and autonomy. This costing needs to be updated.

3. 12 **In sum, the 2009 Roadmap proposals need to be re-phased over time in the light of the MoU commitments on PAR, PFMR, budget limits and the hiring freeze.** In particular, there is a need to clarify whether and when there may be scope for new investment in upgrading hospitals, putting in place new management systems, creating new management posts and new hiring for management appointments (the MoH's action plan proposes to fill these posts by secondment in the meantime). As well, there will be a need for review of the Roadmap's proposal for staff financial incentives (bonuses) because these are inconsistent with emerging proposals for PAR.

### B.2 The MoH's action plan for restructuring health regions and hospitals

3. 13 **The following outlines the main features of the MoH's new action plan approved by the Council of Ministers in April 2013.** It is understood that there is a possibility to amend and refine this action plan before implementation, in light of discussion of the recommendations of this report. The next sections of the report will provide some suggestions for amendments and refinements to the action plan which could help link the various components of the MoH plan to the Government's public administration and financial management reform program.

3. 14 **In summary, the MoH's April 2013 action plan for restructuring health facilities proposes:**

- To organize all public hospitals and PHCCs into **5 health regions** by 1 January 2014, each with a consolidated, comprehensive budget, under the MPHS Department, and create **6 unified region & hospital management teams** each under the authority of an Executive Medical Director(EMD), accountable to the Director of MPHS, who would combine the role of chief executive and medical director. The MoH's intention is for the 4 regional management teams of Larnaca, Famagusta, Paphos and Limassol to combine management of the hospital and the region. However, Nicosia would have a slightly different structure: the Nicosia regional management team would manage the region and Nicosia General Hospital (NGH), but Archbishop Makarios III Hospital (AMH) would have its own management team reporting to the Nicosia region-NGH management team EMD. As at present, primary healthcare center (PHCC) heads will report directly to the Executive Medical Director of the hospital in each of these 5 regions, and the EMD may assign a medical officer in the hospital to management tasks related to the PHCCs. The action plan does not yet specify whether PHCCs will have their own budgets, separate from the hospital budget, though MoH considers that this would be desirable.

All MoH staff working in the region's facilities (including nurses and pharmacists) will be assigned to the MPHS Department. Although the MoH action plan does not propose assignment of staff of other Ministries working in health facilities to the health regions, the option of delegating authority and perhaps transferring functions and staff from central administrative departments to the MoH's regions is desirable and is likely to be considered as an option by the GoC as part of its PAR program over a longer time frame.

The MoH's aim is to gradually transfer management authority from the MPHS Department to these regions, though precise details and timetable are not yet indicated. The intention is to give regions enough authority to make better use of public health infrastructure, equipment, staff and other resources within their region, though the legal and regulatory basis for doing this is not specified in the Action Plan.

- The MoH proposes the management team to consist of EMD and Directors of Nursing, Human Resources, Financial Management, and Buildings & Equipment. Management team members will be full time managers. The management team will be responsible for the administration and management of the resources used in the hospital and all those who work in the hospital will be accountable to the management team. To have effective authority, the EMD needs to be appointed and paid at a superior grade to all staff in the hospital. In the shorter term, the MoH action plan proposes that management team members will have to be seconded from amongst existing staff because of the freeze on hiring and on creation of new posts. The aim is to gradually give greater administrative, financial and operational autonomy to public hospitals, which is necessary to enable them to become more flexible and more efficient so as to survive in competition with the private sector under the NHS. The MoH's action plan does not explicitly include policy about increasing and delegating management authority within the primary care system, nor does it include plans for restructuring pharmacy services that will be provided by the private sector once the NHS is implemented. However, the MoH has a separate well-developed plan for restructuring primary healthcare sub-centers to reduce costs.

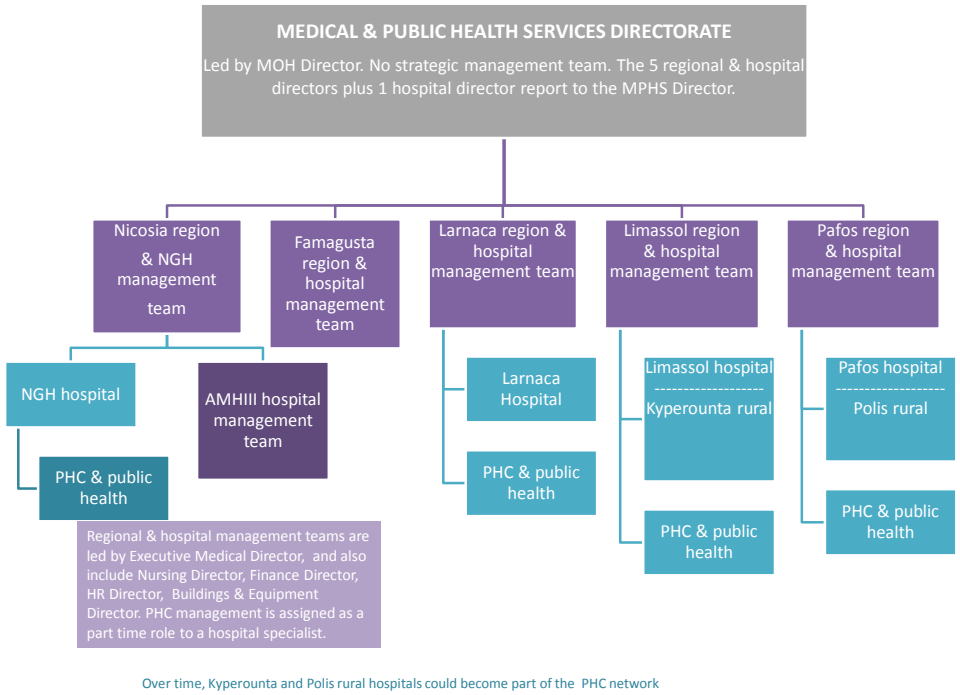
- Over the longer term, the MoH action plan proposes to introduce performance indicators for health facility staff and pay staff bonuses based on performance. As noted above, this proposal needs to be considered and discussed in the context of wider civil service reform, given that the GoC has decided to retain civil service status for hospital personnel. Although PAR is expected to link pay progression and promotion to performance appraisal in future, there is no proposal to introduce performance-based bonuses.

- To develop and enhance external accountability and internal control systems over public hospital's quality, use of all resources and management of personnel, though precise details and timetable are not yet indicated.

- To upgrade public hospitals' infrastructure and functionality to increase quality and efficiency to the level needed to enable them to compete with private hospitals, based on the 2009 Roadmap and related advice of McKinsey.

3. 15 **The MoH's proposed restructuring, approved by the Council of Ministers, is illustrated in Figure 15below.**

**Figure 15. MoH Restructuring Proposal Approved by Council of Ministers**




3. 16 **The MoH notes that implementation of the action plan is likely to have additional costs, associated with upgrading hospitals and new management structures, but does not yet quantify these.** It also notes there may be a need for management consulting services for implementation.

### B.3 Issues for consideration

3. 17 **A review of the above 2013 action plan, in light of the analysis of chapter 2 and international experiences suggests some options for the Government to consider as variants on their proposed plan.**

3. 18 **Number of regional groups of health facilities**: Five regional groups of hospitals and six separate hospital management teams seem to be excessive for Cyprus's population size and geography. There are several reasons for considering a smaller number of hospital/PHCC groups with management teams responsible for more than one hospital. This has advantages in both the short term and the longer term. The main advantages of having larger groups of hospitals under shared management are:

- *Higher quality of specialist clinical care and economies of scale*. Some regions (Pafos and Famagusta in particular) have small catchment populations for an acute hospital by modern European standards and so will never be able to offer the full range of secondary

care services. Trends in the EU are for greater concentration of specialized services in a smaller number of hospitals, because there is evidence of better clinical outcomes in larger centers of excellence. Economies of scale for hospitals are now rising. Small hospitals also find it difficult to recruit and retain specialist staff and require support from a larger hospital network, so they could ensure availability of specialist staff and back-up at all times.

- *Scarcity of experienced healthcare managers.* Apart from NGH and some of the semi-governmental and larger private hospitals, Cyprus has a limited pool of experienced hospital managers. It will be easier (and cost-effective) to create a smaller number of strong management teams.
- *Pooling risks of exposure to competition under NHS.* The effects of DRG-based payment and private sector competition on public hospital and health center revenue is likely to be more negative for some hospitals than others. Smaller hospitals in less populated areasand hospitals with many highly specialized services and teaching functions both tend to face financial difficulty under DRG-based payment systems. But urban hospitals may face stronger competition from the private sector. Larger groups of hospitals will be able to pool risks and have greater flexibility to redistribute resources internally in response to these pressures.

3. 19 **Stronger position of primary care in management:** There is a strong case to strengthen leadership and profile of primary health care (PHC) in the management of the health facility network by having a full time Director responsible for PHC at national level in the Department and full time regional/district PHC managers, rather than assigning PHC management as a part time activity to a hospital specialist. The NHS reforms envisage establishment of a PHC gatekeeper/referral system. Success in competition under the NHS will depend on having an attractive and flexible PHC system and good relationships and communication between the PHC and hospital. In fact, efficient and smooth coordination across levels of care could represent a decisive comparative advantage of the public sector network as it competes with more fragmented private providers. Therefore there is a need for the public facilities network to give priority to developing primary care, making it more attractive to urban and working age population as well rural and elderly. There are two options for the position of the regional/district PHC managers and the management of the PHCC network. Regional/district PHC managers could be members of integrated health facility management teams that would manage both the hospitals and the primary care network. Alternatively, regional/district PHC managers (who could also manage public health services) could report directly to a national PHC and Public Health Director. The former option could offer greater coordination of patient care (a desirable trend, being pursued in most EU countries), but the latter could offer a higher profile and management focus on strengthening the PHC network in preparation for competition with the private sector under NHS, as well as achieving greater synergies between PHC and public health services.

3. 20 **Opening the positions of Network Chief Executive Officer [CEO] in the new Health Services Department and hospital Executive Directors to non-doctors.** There is a case for opening these posts to non-doctors because this allows the public health facility network to

recruit its network and hospital leadership from any professional background and so can broaden the pool of talent for recruitment. Although he / she needs to have a good knowledge of health services (international experience with recruiting hospital Chief Executives with no prior health sector experience has not been successful in general), medical doctors are not the only cadre with this knowledge. Some of the MoH's strongest managers are not doctors. Doing so also recognizes that few clinicians with the profile needed to manage clinical practice and clinical quality in the hospital also have the needed knowledge and interest in other dimensions of hospital and health region management, at least in the short term. It also recognizes that the Network CEOand hospital Executive Directors are responsible for leading and coordinating all the professional groups within the health facility network in a fair and neutral way, and does not act as the representative of doctors.

3. 21 **Joint or shared procurement services:** In a small health system, economies of scale can be achieved by retaining some central servicing functions that provide joint services to all hospitals and the regional networks of primary health care facilities. This includes procurement and logistics management of pharmaceuticals and medical supplies, and procurement and engineering support services for medical infrastructure and equipment. However, other Directorates of the Ministry (Mental Health, Dental Services) also need to share procurement and logistics management services. Section 2.F of the report above therefore suggests that centralized purchasing and logistics service should be consolidated under the MoH administration. These functions are commonly established as semi-autonomous cost-recovering business units. Establishment of this type of semi-autonomous cost-recovering business unit, will not be fully possible until PAR and PFMR are implemented. However, as a transition measure, costs of medicines, supplies, equipment, etc. could be included in regional, hospital and primary care center budgets, as suggested under *Cross-Cutting Issues* in Chapter 2 of the report, so that health facilities take responsibility for controlling the volume and mix of medicines and other supplies they use.

3. 22 **Selection, contracting, training and career paths for national network and hospital management teams**: Public health systems with autonomous hospitals commonly employ managers on renewable fixed-term contracts of e.g. 3-5 years. However, successful health systems also have established mechanisms for developing a "pipeline" of hospital and health service managers through pre-service and in-service training, apprenticeship schemes (e.g. for service line managers, managers of clinical and non-clinical support functions, heads of health centers, etc.). Managers can be motivated by developing a career path offering promotion to more senior and larger scope management roles across the whole health system. In a pluralistic health system, designing management recruitment and employment processes to facilitate mobility between public, semi-governmental and private sector management roles, and to recognize international experience, is advantageous. Cyprus has scope to partner with health service leadership and management training and coaching programs elsewhere in the EU, in the same way that it does in training and development of specialist medical staff.

3. 23 **Professional oversight and development under new management structures:** The hospital restructuring will mean that professional cadres within health facilities report through a general management structure, ultimately to the hospital's Executive Director, who may have a different professional profile from their own. However, nurses and doctors would report respectively to the Nursing Director and Medical Director in the management team. These

directors would be responsible for professional oversight, training and professional development in this new structure. The proposed roles of Chief Nursing Officer and Chief Medical Officer in the central MoH administration could provide advice and support to the hospital nursing and medical directors, but would no longer have a line-management relationship to them and would no longer be involved in personnel administration for hospital staff.

### B.3 Options for structure of a single national facilities network

3. 24 **An alternative proposal for restructuring the health facilities network as a single national "network headquarters", is suggested at least for the initial years of reform.** This may need to be in place for as much as the first five years of reform implementation and should also be considered as a long term option**.** The first step in restructuring could be transformation of the MPHS Department into a more focused Health Services Department, as proposed in Section 2.E. The transformed Health Services Department would be organized as the "network headquarters" for the entire public health facility network with its own management team. It would consolidate management functions centrally. It would also lead the phased implementation of reform of the health facilities network and carry out a program of management development and support for the health facilities.

3. 25 **As well as providing leadership to the change management process, having a single network would have the advantages of:**

- *Mitigating the financial risks of NHS reform and private sector competition, which will create a high level of uncertainty in the early stages of reform.* A single network will be better able to pool financial risks across hospitals and cross-subsidize facilities that need time to downsize or cut costs in the face of private sector competition and DRG-based payment when NHS is implemented. A few years after NHS is implemented, the future revenues and demand for public health facilities will become clearer. This would be a better time to consider whether to divide up the hospitals and health centers network into two or three autonomous regional groups.
- *Planning public sector capacity and capital investment for the whole network and making optimal use of staff.* When public hospitals are given a high level of delegated management authority, and competition is introduced by NHS, there are risks of "unhealthy competition" in which every health facility over-investing new technology and capacity in an attempt to attract a larger market share and attract the most popular doctors. This "medical arms race" is typically followed by financial difficulties and failures in some providers as the HIO responds with measures to contain expenditure. This risk can best be managed in the short to medium term by retaining the ability to set priorities nationally for new investment and development in its public facilities network. In the longer term, new mechanisms for planning and regulating capacity could be developed. As well, it may be easier to manage challenges of scarce specialist skills, optimal distribution of staff, training and career mobility with one large pool of staff.

- *Economizing on the limited number of experienced and effective full-time health services managers currently available in the public health facilities network and the domestic labor market.* Table 16 below illustrates the numbers of management positions required in a single network model versus the five regions/six hospital management teams restructuring proposal approved by the Council of Ministers, compared to suggestions of numbers of managers with the relevant profile currently available in the public system.

**Table 16. Required staffing for a single network versus five regions**

| Position | A single network | Five region & hospital management teams plus 6th hospital management team | Likely to be available from existing staff |
|---|---|---|---|
| Chief Executive Officer of network (CEO) | 1 | 1 (MPHS Director) | 0 |
| Network Head of Strategic Planning (NSP) | 1 | 0 | 0 |
| Network Head of Human Resources (NHR) | 1 | 0 | 0 |
| Network Head of Finance & Information (NFI) | 1 | 0 | 0 |
| Network Head of General & Customer Services (NGS) | 1 | 0 | 0 |
| Network Head of PHC & Public Health (NPPH) | 1 | 0 | 0 |
| Facilities Chief Medical Officer (FMO)/Executive Medical Director (EMD) | 6 | 6 | 6 |
| Facilities Chief Nursing Officer (FNO)/ND | 6 | 6 | 6 |
| Facilities Operations & General Services (FOP)/B&ED | 6 | 6 | 6 |
| Region/Hospital Finance Director | 0 | 6 | 0 |
| Region/Hospital HR Director | 0 | 6 | 0 |
| District Head of PHC & Public Health (DPS) | 5 | 0 | 5 |
| **Total** | **29** | **31** | **23** |
| Not available | 6 | 12 | |

3. 26 **The advantages and disadvantages of a single network versus a five region/six management team model are summarized in Table 17**.

**Table 17. Pro and cons of creating a single network or five regions & six hospital management teams**

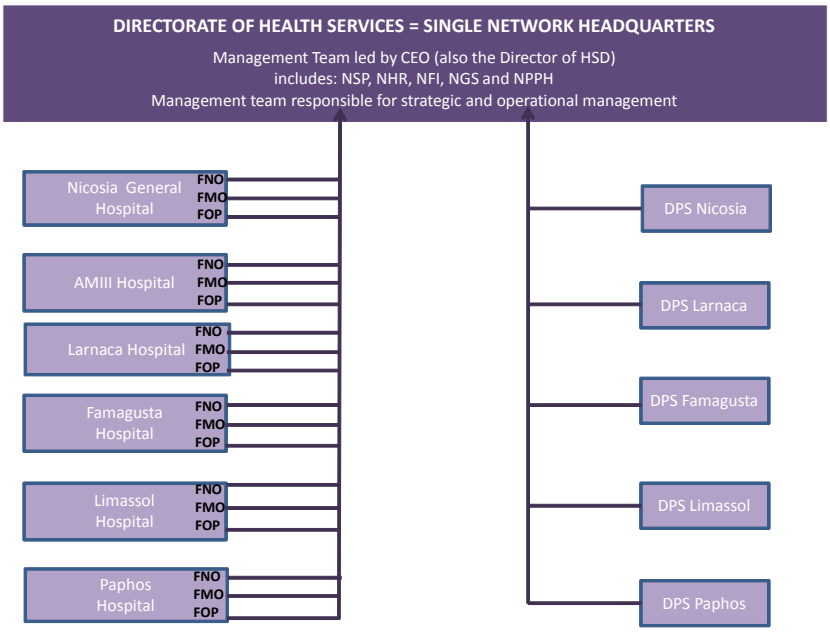
| | Description | Feasibility | Financial Impact | Expected impact on quality |
|---|---|---|---|---|
| **A single network** | One single group of health care facilities configured as a network |  It requires a lower number of highly experienced and qualified management staff. Management posts are concentrated at central network level where it is more likely to find them. |  It would create a single national network of facilities with a full range of secondary care specialist services and sufficient population catchment to achieve economies of scale. |  Facilitates addressing deep structural reforms (service delivery locations, economies of scale, correction of staff and cost imbalances, re-definition of the organizational architecture, better specialist cover for smaller hospitals, etc.) |
| **Five regions, six region &/or hospital management teams** | Facilities configured as five regions and six independently managed hospitals. |  It would require a large number of highly skilled management staff. |  Greater risk of financial unsustainability once NHS introduces private sector competition. |  Risk of different levels of structural reforms due to differences among managerial teams in strategy and performance, and duplication of specialist clinical facilities that require large volume of patients to maximize quality. |

3. 27 **Consideration needs to be given to how best to structure the internal management of the network.** Two options for structuring the single network are outlined and discussed below.

*(i)* ***Option 1: A single national "network headquarters" management team responsible for strategic and operational management***

3. 28 **A revised proposal for restructuring the health facilities network as a single network, with a single national management team, is illustrated in Figure 16.**

**Figure 16. Revised proposal for single network headquarters**




3. 29 **The revised proposal in Figure 16 combines strategic and operational management in a single large management team of 29 staff.** This means that the CEO has 22 managers in his/her directly reporting to him/her: 4 managers in the central team and 18 managers in the facilities teams in hospitals.[20] This could represent an excessively wide span of control, which largely replicates the status quo in hospital management (except for the two hospitals in Nicosia which share a management team with its own CEO). It may therefore lead to a risk of continuation of existing centralized business processes and decision-making, with operational issues referred up to network headquarters for resolution, rather than being addressed by increased responsibility and accountability at facilities level. The hospital level management team consisting of three officers (FNO, FMO, FOP), each of whom reports in parallel to the CEO in network headquarters, could create confusion regarding who is in charge.[21] The safe and efficient management of the daily 24-hour operations of complex modern hospitals requires strong, devolved leadership that has authority to get all the professional and non-clinical staff of the health facilities working together effectively. It also requires a practical degree of proximity of the operational management team to the hospital sites they manage – given the urgent and fast-changing pressures of managing patient flows in a large acute hospital. It was this body of evidence that led Cyprus to pilot reform to introduce a stronger operational management team

[20] The 5 District PHC and Public Health Services officers could report to the Network Head of PHC & Public Health (NPPH) in network headquarters and therefore not report directly to the CEO in network headquarters.

[21] Reviews of this type of hospital management model in the UK (see Griffiths R. 1983. NHS Management Enquiry) found that it results in weak accountability and divided management of health facilities, and leads to centralization of decision-making.

under an Executive Director for the hospitals Nicosia – with management responsibility for two hospitals - the NGH and AMIII hospital.

*(ii)* ***Option 2: Single network with separate strategic and operational management***

3. 30 **Option 2 separates strategic and operational management within the network management structure.** The small strategic management team at central headquarters would be responsible for strategic management functions (e.g. strategic planning, infrastructure and investment planning, financial management, human resource development, quality improvement). Operational management teams for health facilities would be given greater devolved authority and responsibility for the daily management of health facilities. Operational management would encompass responsibility for budget, staff management, and management of service delivery in health facilities. Operational management teams would be led by a Facilities Executive Director (FED), who would report to the CEO of the whole national facilities network. Other members of the facilities management teams would report to the FED. The operational management team structure would build on the experience of the past pilot of a management team with stronger authority in Nicosia, responsible for NGH and AMIII hospital.

3. 31 **Under this approach, the strategic management functions of the new department of Health Services for the whole facilities network would include:**

- *Strategic planning*, including decisions on service delivery mix and coordination across all public facilities, major investments, and clinical policies such as public hospital formulary;
- *Leadership of the change management process* for the single network, and of a program of management and support for health facilities;
- *Quality improvement and safety assurance* in the public network;
- *Human resources development and distribution* for the whole network;
- *Overall financial planning and resource allocation*;
- *Governance and oversight* of health facilities management, including performance monitoring, appointment and review of the Executive Directors of regional hospital groups;
- *Complaints management* (2nd level complaints management);
- *Communication and external relations* with MoH, HIO, regulators, patients and the public.

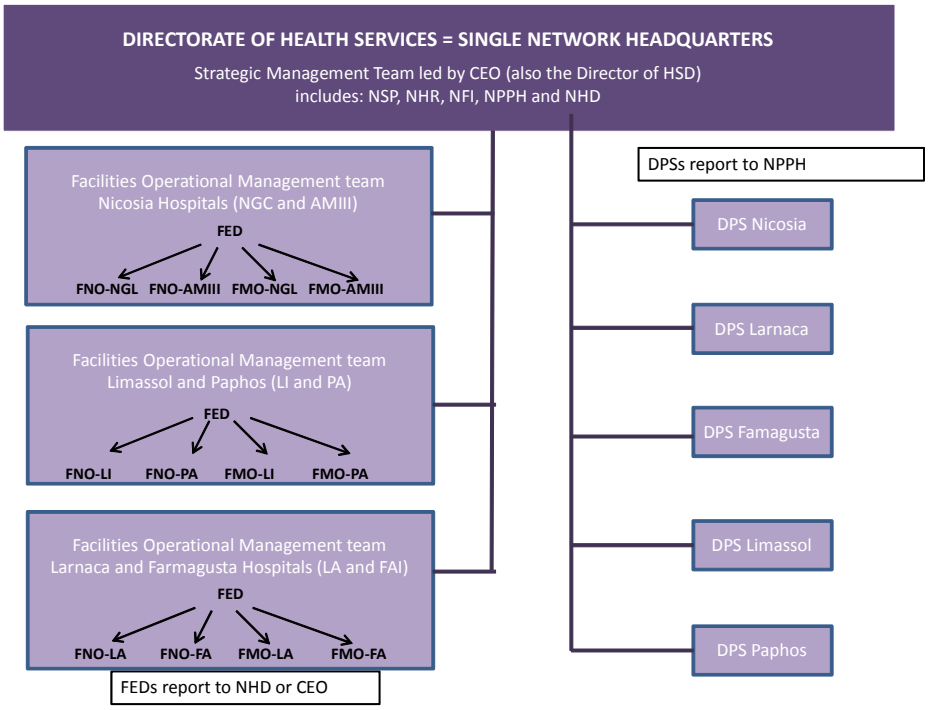
3. 32 **The operational management functions of the facilities management teams of hospital/PHCC groups would include:**

- *Budget management;*
- *Personnel management;*
- *Clinical safety and quality management* for services provided by the group;
- *Property, equipment and supplies management*, (though there would continue to be a centralized procurement function in the MoH);

- *Customer service management*, including first level of handling patient complaints.

3. 33 **Figure 17illustrates the option of separating strategic and operational management with three hospital operational management teams.** Annex 3 of the report provides more detail on the responsibilities of the network management team.

**Figure 17.Single network with separate strategic and operational management**




3. 34 **The option of having two operational management teams could also be considered (one team responsible for Limassol and Paphos, and the second team responsible for the Nicosia hospitals and for Larnaca and Famagusta), given the close proximity and small catchment population of Larnaca and Famagusta.** Having a maximum of three hospital operational management teams would balance the need for economies of scale on the one hand, with a more realistic span of management and practical proximity of the management team to their hospital sites.

3. 35 **However, there are trade-offs involved in designing the optimal network management structure.** Separating strategic and operational management and devolving operational management closer to health facilities would require a larger number of managers at the operational management level with the capacity to act as an executive director, bringing together all the members of the management team. This is likely to require more management development, and a slightly larger number of managers. It will require greater change to

business practices and ways of working in the Cyprus context. Because of these issues, and because of the challenges facing small hospitals with small catchment populations (such as Paphos and Famagusta), it would not be prudent to have a separate operational management team for every hospital. Building on the experience of the management team in Nicosia, it would be more practical to give each operational management team responsible for 2-4 hospitals in close proximity.

3. 36 **Some experts in the MoH have expressed some concerns about whether it is feasible for a single operational management team to manage more than one hospital.** The disadvantages we see in having a separate operational management team for all six hospitals is that it demands even more managers with adequate experience and capacity to act as facility executive directors. As well, for the reasons discussed above, we do not believe that this structure would be a good preparation for full NHS implementation. When NHS is fully implemented, in Phase III of reform if the Government establishes all six hospitals as autonomous business units, there would be increased risk of business failure among public hospitals. Hospitals that are too small to offer the full range of secondary care services or achieve economies of scale would probably not be clinically or financially viable in competition competing with other public hospitals and the private sector under the NHS.

3. 37 **The management structure set out in Figure 17has a slightly smaller management team than under the option illustrated in Figure 16, because there would be more delegation of operational management responsibility to the facilities operational management teams.** The aim is to free up the strategic management team to focus on leadership of change and strategic management issues. The facilities operational management teams would be led by a Facilities Executive Director (FED). The FED could report to the Network Hospitals Director or alternatively directly to the CEO. Each facilities management team would be responsible for two hospital sites. However, because of the wide scope of management responsibilities for the Facilities Chief Nursing Officer (FNO), it is proposed to have one FNO for each hospital site in the facilities management team. But we see a strong case to have a single FMO covering both hospitals in the Limassol/Paphos and Larnaca/Famagusta management teams, because of the need to manage specialist medical functions and staff in a coordinated way across both sites and to ensure safe clinical cover at the smaller Paphos and Famagusta hospitals. However, an alternative structure of the operational management team may be more appropriate for the Nicosia facilities management team, which combines two very large hospitals (NGH and AMIII) with different, complementary specialties in each hospital. In this group, there are no great advantages in combining clinical service line management across the two hospitals. Moreover, the very large size and tertiary service levels of the two hospitals in the group produces greater demands on medical management, which creates a case for having separate FMOs.

3. 38 **Management team numbers for the management structures displayed in Figure 16 (combining strategic and operational management) and Figure 17 (separating strategic and operational management) are illustrated in Table 18.**

**Table 18. Management teams for combined versus separate strategic & operational management**

| Position | Single network with combined strategic & operational management (Figure 16) | Single network with separate strategic & operational management (Figure 17) | Likely to be available from existing staff |
|---|---|---|---|
| Chief Executive Officer of network (CEO) | 1 | 1 | 0 |
| Network Head of Strategic Planning (NSP) | 1 | 1 | 0 |
| Network Head of Human Resources (NHR) | 1 | 1 | 0 |
| Network Head of Finance & Information (NFI) | 1 | 1 | 0 |
| Network Head of General & Customer Services (NGS) | 1 | 0 | 0 |
| Network Hospital Services Director (NHD) | 0 | 1 | 0 |
| Network Head of PHC & Public Health (NPPH) | 1 | 1 | 0 |
| Facilities Executive Director (FED) | 0 | 3 | 0 |
| Facilities Chief Medical Officer (FMO) | 6 | 6 | 6 |
| Facilities Chief Nursing Officer (FNO) | 6 | 6 | 6 |
| Facilities Operations & General Services Director (FOP) | 6 | 0 | 6 |
| District Head of PHC & Public Health (DPS) | 5 | 5 | 5 |
| **Total** | **29** | **26** | **23** |
| Not available | 6 | 9 | |

3. 39 **In comparing these options, and other variants, it should be noted that there is no single "best practice" model or the structure of management teams in hospital networks, though a core set of management functions needs to be covered.** The suggestions for management structures given in Figure 17 above cover these core functions. For example, health facilities groups often choose different approaches to how they group certain management responsibilities together (e.g. whether to have separate finance and HR directors or whether to group these functions under an Operations or Corporate Services Director). These choices are informed by workload and level of responsibility arising from the level of authority and responsibility delegated to the health facilities group. Different hospital groups adopt different variants of service line management structures across the whole hospital group versus hospital-site management for each hospital within the group. As well, management team structures may be adjusted for pragmatic recruitment and retention reasons related to the specificities of the availability and market remuneration rates of the relevant skills in local labor markets. In the medium to longer term, it is usual and desirable for the Chief Executive and Strategic Management team of the network to have some flexibility to adapt and revise the structure of facilities management teams and responsibilities over time, subject to accountability for containing the overhead costs of administration – for example through monitoring and disclosure of administrative costs as a share of total expenditure.

3. 40 **The advantages and disadvantages of a single network versus two or three networks are summarized in Table 19.** The two options have similar financial impact as they rely on a

management team of comparable size. The option separating strategic from operational management (Figure 17) is expected to impact positively on the quality of services and should be preferred. However, the option combining strategic and operational management (Figure 16) could be more feasible in the short term as requires fewer managers with enough experience and qualifications to lead a hospital operational management team.

**Table 19. Pro and cons of combined vs separated strategic and operational management teams**

| | Description | Feasibility | Financial Impact | Expected impact on quality |
|---|---|---|---|---|
| **Combining strategic and operational management (Figure 16)** | One single network management team of 29 managers, including both network managers and facilities managers. FMO, FNO and FOP in each of 6 hospitals reporting to network headquarters |  This model would require fewer managers with enough experience and qualifications to lead a hospital operational management team and most of them are already available at the facilities. |  It would require a slightly larger number of managerial staff (29) than the alternative (26), but since less people would be recruited for the new structure financial impact are considered similar. |  It could create a larger number of directors reporting to network CEO. Having a triage (FNO, FMO and FOP) in charge of the facilities management team could make it more difficult to address urgent safety-quality critical management issues. |
| **Separating strategic and operational management teams (Figure 17)** | Small strategic management team at network headquarters. Two or three operational management teams managing groups of 2-4 hospitals under leadership of Facilities Executive Director. FEDs report to CEO or Network Hospital Director. |  This model would require more support and mentoring for FEDs in the early period of reform to build their capacity. |  It would require a slightly smaller number of managers (26), but a larger number of FEDs that would need to be externally recruited, so total costs may be similar. |  Leadership of FED closer to hospitals, so better able to manage daily operational risks and service delivery. Single FMO covers more than one hospital, to enable stronger clinical governance and coordination and sharing of specialists across larger and smaller hospitals. |

### B.3 New structures and metrics for external accountability and internal control

3. 41 Creation of **internal audit** functions within the new Health Services Department and other **internal checks and balances** for delegated personnel and administrative management functions are likely to be needed as part of reforms to delegate greater financial and personnel decision authority to health facilities.

3. 42 **Reform of external accountability will involve several elements:**

- *Introduction of conventional (accrual) business accounting standards for hospitals:* production of income and expenditure statements, cash flow statements and balance sheets; work on this needs to be coordinated with PFMR, but could begin in "shadow form" as a duplicate/parallel set of accounts in the meantime; this reform will be difficult to implement without a combination of both retraining of existing government accountants and policy changes to permit some hire or contract in some experienced private sector accountants;
- *Development of multi-dimensional performance metrics* that regions and hospitals should report to the MoH (and disclose publicly) covering a balanced set of indicators of financial control, efficiency, clinical quality and outcomes, patient experience, equity and access; work on this needs to be coordinated between the MoH and the HIO because the HIO's contracts with providers may include minimum standards and performance requirements; development of performance indicators for reporting and analysis could begin immediately and be introduced early in reform with indicators drawn from available data, though performance indicators will be refined and developed over time as data collection and analysis is further developed;
- *Identification of responsibility and development of capacity and new business processes* within the MoH (as discussed above) and the MoF and the state audit authority for interpreting and using the new financial reports and performance reports, and instituting cycles of performance review and follow-up with hospitals (and primary care providers). MoH already has staff with economic and statistical skills, though some are assigned to duties which do not use this training. There seems to be potential to reassign existing staff, alongside training and use of external advice to implement this policy.
- *Development of policies and regulations* governing the requirements of semi-autonomous hospitals for working capital (though this may not be a priority if there is scope for the HIO to make advance payment to public providers for services) and investment capital finance, over the longer term.
- *Development of policies and regulations for regulating health facilities' ability to incur deficits, borrow, enter into leasing arrangements.* Over the longer term, there may be a need to develop policies and procedures dealing with insolvent and bankrupt public providers by removing or penalizing responsible managers, while ensuring the continued

provision of essential health services in locations where there are no alternative public or private providers.

### B.6 Longer term options for reform: changing the status of public hospitals

3. 43 **NHS reforms are premised on converting public hospitals into an organizational form in which hospitals are able to receive and retain payments from the HIO for the services they provide, and are expected to manage their expenses sustainably within this revenue stream – like a private sector business.** They may however, be paid from the MoH budget for additional services not covered by the NHS (such as some preventive health services). But the NHS reforms assume that public hospitals would not receive any ongoing general subsidy of their costs – the assumption behind the NHS appears to be that there will be competition with the private sector "on a level playing field". In practice, however, the public sector will provide a different and more complex mix of services and will be the "provider of last resort" in cases where there are no private sector services. The government as owner of the public hospitals and PHCCs would finance capital expenditure, but to avoid subsidy, it might need to provide capital finance in the form of a loan.[22]

3. 44 **Three options for longer term organizational reform to achieve this objective are summarized below.**

(i) ***Option A: "Trading Fund" Model.*** As noted under *Cross-Cutting Issues* in Section 1 above, there are models in other countries for establishing service delivery units of government ministries as financially independent business units (sometimes called "self-accounting" units or "trading funds") of the Ministry. This would enable health facilities to retain and manage revenue from HIO payments for services and manage its expenditures based on revenue earned from services (e.g. DRG-based payments for hospital inpatients, capitation-based payments for PHCCs). A "Trading Fund" has its own management team and board of directors. It accounts for its own revenues and expenditures and its balance sheet in the same way as a State Owned Enterprise (SOE). However, it is not a separate legal entity from the Government: it is part of a Ministry - the MoH in this case – so that any litigation against the trading fund is an action against the Government. Its staff are civil servants, though it is desirable for Trading Funds to operate with a modern, flexible public administration regime that also permits hiring of fixed term contractual staff on more flexible terms and conditions. Some countries introduce flexibility for Trading Funds to introduce bonus schemes for staff, subject to regulated parameters and guidelines. The chief executive of the Trading Fund, rather than the Board of Directors, is accountable to the Minister for the conduct and performance of the trading fund. The government budget law appropriates only the ***net*** expenditures of the Trading Fund, though the full financial plans and audited financial statements are

[22]Some countries, such as NZ between 1993-2000 and the UK, provide some capital as a mix of loans and "public dividend capital" or equity injections in an attempt to simulate private sector corporate financial structures, and require payment of a dividend or return on equity for the latter.

made available to the legislature. It is desirable for any net budget funding to the Trading Fund to take the form of explicit payments for outputs or services, and capital injections in the form or loans at appropriate market rates. Trading Funds are usually required to hold their cash balances in the Treasury system. It is desirable for the Treasury system to offer business-like banking services to Trading Funds. Trading Fund legislation and regulation should set limits on government subsidies to the Trading Fund and policies on capital finance/lending.

*(ii)* ***Option B: Conversion of hospitals to autonomous semi-governmental organizations (SGOs) Within Wider Public Sector.*** Under this option – envisaged in the 2009 Roadmap for hospital restructuring in Cyprus – special legislation is enacted to convert public hospitals into SGOs which are separate legal entities from the MoH, though usually subordinate or associated with the Ministry. The staff of the SGO has the status of public sector employees, distinct from civil service status. There is a wide range of legislative models of this type of hospital reform. The legislation and associated regulations can be crafted to specify the government's desired objectives for the hospitals, their governance arrangements, personnel regime, financial regulation, and so on. Typically the labor regime under this model is negotiated with health sector unions. It can provide for different terms and conditions from the civil service remuneration regime. It is desirable that this regulation would include sufficient flexibility and authority for the hospital management to adjust staff numbers in response to variation in demand and technology, and authority over management of performance and promotion. However, there are very few examples of countries transferring civil servants to more flexible public service employment status under this type of option. This model is more common in countries where hospital staff has always been employed outside the core civil service with the status of broader public sector employees or local government employees (e.g. UK, Australia).

*(iii)* ***Option C "Corporatization": State Owned Foundation or Company, Under Private Law.*** A small number of countries have converted public hospitals into state owned companies or state-founded non-profit foundations operating under private law (e.g. all public hospitals in Estonia, single hospitals in Malaysia and Thailand, all public hospitals in NZ for a period of 7 years after which reforms were reversed). Under this option, assets used by the hospital and staff working in the hospital are transferred to the new legal entity. Private law applying to companies or non-profit foundations applies to the hospitals, including private sector accounting standards, private sector labor law, competition law, etc. In addition to these general private laws, hospital legislation and regulations are required to impose additional public accountability and transparency requirements along with regulations governing safety, quality and controls on hospital capacity. Some countries attempt to apply the same regulatory standards to public and private hospitals, though in many countries this requires a transition period during which there is investment in upgrading public hospitals to meet these standards. In some

countries, transferring staff are given choice of whether to retain their former status as civil servants or public sector employees along with associated terms and conditions (working under placement from the civil service in the corporatized hospital), or to transfer to new more flexible labor contracts offered by the corporatized hospital, while all new employees are hired under new labor contracts by the hospital. Managing dual labor regimes adds to management complexity and risk and is typically resisted by unions. Some hospital corporatizations have allowed staff the choice of not transferring to the corporatized hospital and being re-deployed to other posts in the civil service or public sector. This is only workable for corporatizations of single hospitals or small numbers of hospitals in a larger health system (e.g. in Malaysia and Thailand). Countries with powerful health sector unions undertaking mass-corporatization of hospitals (e.g. New Zealand) have had to negotiate with national unions over the terms and conditions and protections for transferring staff and also over national agreements on terms and conditions for newly hired staff in corporatized hospitals. For this reason, increases in salaries and in public health expenditure are usually required to "oil the wheels" of reform under Option C.

3. 45 **Within the EU, Estonia is a well-documented, successful example of this type of reform.** Estonia introduced legislation requiring its public hospitals (which were semi-autonomous government entities prior to this reform) to convert to either a joint stock company owned by government, or a foundation founded by government. In Estonia, the transition for staff and managers was facilitated and the risk of reform was reduced by some critical contextual factors most of which are not present in Cyprus:

- *Rapid real growth in health expenditure* made it possible for corporatized hospitals to increase staff remuneration substantially in real terms after reform. Private labor law provided protection in the form of regulated minimum wage levels for various categories of workers.
- *Medical and nursing pay* was substantially below prevailing rates in neighboring EU states, and Estonian professionals had opportunities for economic migration, strengthening their position in negotiation with their employers.
- *There was not a tradition of powerful health sector unions.*
- *A previous round of reform had already introduced some increase in managerial and financial autonomy for hospitals* and had prepared both managers and staff for a further stage of reform. The leading university teaching hospital implemented reform first, and served as a positive model for other hospitals to follow and an advocate for reform within the hospital sector.
- *Public hospitals did not face private sector competition, DRG-based payment was not introduced until after hospitals had been corporatized, and was phased in gradually.* As a result, hospitals did not face risk or pressure to cut costs or downsize their staff at the same time as implementing corporatization.
- *EU structural funds and development assistance provided grant finance for technical*

*assistance and for substantial capital investment in upgrading public hospitals over the same period as reform was implemented,* improving staff morale and public perceptions of services after reform.

3. 46 **International examples of hospital organizational reform suggest there is very little difference between Option A and Option B for reform of hospitals in countries where existing hospital staff enjoy strong job security and protection of their employment terms and conditions.** This is in line with the advice of the Attorney General in Cyprus on previous proposals to convert hospitals to SGOs. Countries tend to pursue Option B if their hospital employees are already outside the core civil service or if change of civil status is associated with substantial improvements in remuneration for staff. Countries also pursue Option B if there are constitutional impediments or other entrenched legal and institutional obstacles to introducing net appropriation for business units within government Ministries. In the current context of Cyprus, under Option B, negotiation with unions would be required to change any aspects of the terms and conditions of existing staff and change of civil service status would be opposed by unions unless remuneration is increased. Under Option A, because of planned PAR it should be possible to introduce reforms to increase HR flexibility and productivity such as increased freedom to hire staff on fixed term contracts, and greater authority for hospital managers over performance appraisal, pay progression and promotion. Under Option A, PFMR should make it possible to introduce business-like financial regimes, and stronger accountability for results, though it is likely to take around five years to implement some components of reform (such as program budgeting), and the draft organic law does not provide for net appropriation. Both options A and B have similar costs of management and governance structures. The essential differences are that under Option B, the hospital or hospital group can be a separate legal entity which can sue and be sued, and under this Option, the board of directors rather than the chief executive is usually accountable for the organization's performance. In practice, however, governments have often intervened to prevent recourse to litigation by SGOs in the health sector. Governments have found it difficult to real risk and responsibility for failure to SGO hospitals. In the UK, for example, the Foundation Trusts model, introduced in 2003 was intended to transform NHS Trusts (a hybrid of Option A and B) into a more autonomous non-profit legal entity (Foundation Trusts are a hybrid of Option B and C). In practice, however, a bankruptcy regime for Foundation Trusts has proved difficult to implement. Hospital bankruptcy has usually been avoided by subsidies in the short term followed by forced merger of the failing hospital with a more profitable hospital that can cross-subsidize its losses. Such mergers have failed to improve hospital performance and often reduce competition. As well, the role and performance of boards of directors under Option B (and even Option C) has been disappointing in most countries, both because of lack of real sanctions and rewards for directors in the public sector context and because of risks of politicization of board appointments or instability in board appointments when governments change.

3. 47 **While the few successful international examples of Option C have been associated with more radical changes in hospital management and performance, it is not clear that this option would be feasible for the foreseeable future in the Cyprus context, particularly given the current climate of fiscal stringency.** In this climate, there is no room to negotiate increased remuneration in return for productivity-improving employment conditions and work practices. As well, there is a strong likelihood that some public hospitals will run deficits once

NHS introduces DRG-based payment and private sector competition. Corporatization can introduce virtuous cycles of improved incentives for productivity so long as hospitals break even or make surpluses. But corporatization does not offer a solution when public hospitals run deficits. As well, it would be prudent to phase in this type of reform. The management and governance demands of Option Care very demanding by comparison with the current civil service administration regime in hospitals in Cyprus. Most countries go through several stages of progressive increases in hospital management authority and accountability for results before they corporatize hospitals. Estonia, for example, implemented a form of Option B for more than five years before embarking on radical Option C organizational reform.

3. 48 **It is not possible to provide recommendations on the most appropriate reform option for Cyprus at the moment as the possible organization arrangements for the network of facilities presented in this section should be further studied and evaluated.**

# CHAPTER 4. HOSPITAL MANAGEMENT: MICRO LEVEL OF GOVERNANCE

*This Chapter provides specific recommendations to improve the management of public hospitals and PHCCs in the framework of the on-going reforms. The overall analysis indicates that:*

- *Public hospitals* are characterized by long waiting lists that affect negatively access to and utilization of services;
- *Public health facilities* suffer from weak organizational structure, insufficient management skills and limited use of modern management tools;
- *Public health facilities* generate essential resources that amounted to more than €7 million in 2012;
- *Cypriot public health facilities* could improve significantly the current level of efficiency and increase the volume of health services produced using the same resources if best practices from Europe are adopted.

## A. MAIN FINDINGS

4. 1 **The public health facilities network in Cyprus comprise eight hospitals, thirty eight PHCCs and several PHC sub-centers located in rural areas (Health and Hospitals Statistics 2011; Statistical Service).** Public hospitals are very different in terms of size, services provided and technical endowment:[23]

- *Nicosia General Hospital (NGH)* is the largest and most complex hospital with 494 beds. It provides secondary and tertiary health services for the whole population, acting at the same time as the reference hospital for practically all specialties.
- *Archbishop Makarios III Hospital (AMIII)* is located in Nicosia and has 154 beds. It is a specialized mother and child hospital, and the national reference hospital for these specialties. This facility also provides ophthalmologic services.
- *Limassol General Hospital* is the second biggest general hospital with 329 beds. It is fairly modern facility and provides a broad range of services to the 235,000 population living in Limassol district.
- *Larnaca General Hospital* has 167 beds. The hospital underwent substantial expansion as the population in the district increased from 115,000 to around 143,000 over the last decade.
- *Paphos General Hospital* has 150 beds and serves the 88,000 people living in the district.

[23]It is worth noticing that in Europe a typical general hospital would serve a population between 150,000 and 250,000 people. On the other hand, the population served by general hospital in Cyprus is smaller with the exception of Nicosia and Limassol general hospitals.

- *Famagusta General Hospital* started operating in 2006. The hospital has 72 beds and was constructed to meet the needs of the whole district. However, it currently serves only the 88,000 people living in the non-occupied territories. Hence the empty operating theatres – see next section.
- *The Rural Hospital of Kyperounta* has 45 beds. It serves a large, but scarcely populated geographic with a total population of about 20,000, mostly elderly residents that almost double during the summer period.
- *Polis Chrysochous Rural Hospital* was built in 1957. Since 2010 it operates an inpatient ward with 11 beds, two physicians and a cardiologist, and an Accidents and Emergencies Department.

### A.1 Hospital Activity

4. 2 **The availability of hospital beds in Cyprus is lower than EU-27 average.** Cyprus has 368.0 hospital beds per 100,000 population, compared with an average of 538.2 for EU-27, ranging from 272.6 for Sweden to 824.8 for Germany (Eurostat, Healthcare statistics, 2010 data). In the 2000–2010 decade, Cyprus underwent a hospital capacity reduction similar to the one observed for other European countries: 14.5 percent reduction in Cyprus vs. 17.38 percent in EU-27.

4. 3 **Average bed occupancy rate[24] in public general hospitals in Cyprus is very high at around 92 percent in 2011, but significantly lower at rural hospitals (see Table 20).** The configuration of medical services in Cyprus is somehow outdated and current public hospital management falls short of international best practices standards. Procedures that thanks to less invasive modern medical technology could be delivered in ambulatory or primary care setting continue to be delivered almost exclusively under in-patient setting in Cyprus. For example, in Famagusta hospital, the list of ambulatory services is limited to procedures such as excision of toe-nails, warts and cysts (both sebaceous and dermoid); drainage of abscess; biopsies; plaster; vaccinations; or intra-articular injections. Only the Limassol hospital uses more ambulatory surgery that represents around 30 percent of total elective surgery. However, the Limassol hospital does not perform any cataracts intervention in out-patient regime, and only few arthroscopy ambulatory surgeries.

4. 4 **As a consequence, bed occupancy in general hospitals in Cyprus is among the highest in OECD countries, just at the limit where safe occupancy ends and poor performance usually starts (increased waiting time to find a bed, staff stress, more frequent medical errors, increase in hospital acquired infections, etc.).** Bed occupancy rate across OECD countries stood at 78 percent on average in 2011, slightly above the 2000 level, with Israel having the highest bed occupancy at 98 percent, followed by Norway and Ireland also at over 90 percent (OECD, Health at a glance, 2013).

[24] Bed occupancy rate is calculated as the number of hospital bed-days divided by the number of available beds (multiplied by 365).

4. 5 **Hospital managers are aware of the situation, but explain that they "do not have the managerial capacity (in terms of planning, organization, leadership or control) to introduce the changes necessary to improve hospital output".** Managers, in particular, admit that the organization of the main elements of the clinical management (i.e., operating theatres working time and dedication; use of imaging diagnostic equipment; etc.) do not fall under their responsibility, but under the head of the clinics who directly agree among themselves how to distribute the use of those resources.

4. 6 **Hospital activity levels are significantly different between hospitals as indicated by the total number of discharges and discharges per bed presented in Table 20.**[25] Among general hospitals, Limassol and Makarios hospitals produce the highest numbers of discharges per bed. Nicosia General Hospital's rather low number of discharges per bed, on the other hand, probably reflects the higher complexity of treated cases.

**Table 20. Activity of public hospitals: discharges, bed occupancy rate**

| | Average bed occupancy rate (%) | Total hospital discharges | Hospital discharges per hospital bed |
|---|---|---|---|
| Nicosia General Hospital | 90 | 24,843 | 50 |
| Makarios Hospital | 93 | 11,008 | 71 |
| Limassol Hospital | 94 | 23,377 | 71 |
| Larnaca Hospital | 93 | 10,019 | 60 |
| Paphos Hospital | 97 | 9,202 | 61 |
| Famagusta Hospital | 77 | 3,602 | 50 |
| *Total General Hospitals* | *92* | *82,051* | *60* |
| Kyperounta Hospital | 58 | 1,002 | 22 |
| Polis Hospital | 42 | 346 | 31 |
| *Total Rural Hospitals* | *55* | *1,348* | *24* |
| **TOTAL CYPRUS** | **90** | **83,399** | **59** |

4. 7 **The comparison between rural and general hospitals is difficult for various reasons.** The rural hospitals provide both PHC and inpatient services and a quite different set of services: a third of the beds in Kyperounta are in the tuberculosis (TB) ward and the majority of hospital beds in Polis are devoted to long term inpatient care. In addition, neither of the rural hospital has operating theaters or obstetric activity. Notwithstanding the small size clear signs of inefficiency are detected in the two rural hospitals: both hospitals maintain fully equipped and operative

[25] Hospital discharge rates measure the number of patients who leave a hospital after receiving care. Since information on the case-mix produced by each hospital was not available, it was not possible to adjustment the crude number of discharges.

kitchens (5 staff in Kyperounta and 2 staff in Polis), Polis has well equipped ambulances for referring complex cases to other hospitals, but no drivers seem to be available.

4. 8 **Detailed information on the number of discharges, hospital days and Average length of stay[26] (ALoS) for selected procedures commonly understood to reflect hospital efficiency are presented in Table 21.**[27] The key messages are:

- *The treatment of tuberculosis patient is concentrated at Kyperounta rural hospital*, which does not follow the practice of the majority of EC countries, where TB patients are treated in ambulatory settings.
- *Total numbers of diabetes hospitalized cases in the public sector per population looks lower than the EU average*[28]. However, the lack of reliable information on activated performed at private hospital does not allow a straightforward comparison between Cyprus and the other EU countries.
- *The ALoS for cataract removal (ICD10 H25 – H28) is 2.4 days.* Cataract removal could be easily performed as a day care procedure, perhaps saving more than 4,000 hospital days.
- *ALoS for acute myocardial infarction (ICD10 I21 – I22) in public hospitals in Cyprus was slightly below the average for EU-27 (7.1 days, 2012 data;* OECD Health at a Glance: Europe 2012).
- *Inguinal hernia (ICD-10 K40, ALoS 2.9 in 2011 and 3.0 in 2010) as well as Cholelithiasis/ cholecystitis (ICD10 -10 K80 – K81, ALoS 4.5 in 2011 and 4.7 in 2010, respectively) are other procedures amenable to day care provision.* Around 8,000 days of hospital stay per year could be saved if day-care procedures were used.
- *Finally, ALoS for single spontaneous birth delivery (ICD-10 O80) was in Cyprus 4.6 days in the 2010 and 2011 period*, which is one day longer than average for EU at 3.6 days (OECD Health at a Glance: Europe 2012) indicating opportunity for efficiency improvement.

[26] ALoS refers the average number of days patients spend in hospital during an episode. All other things being equal, a shorter stay will reduce the cost per discharge. However, shorter stays could be more service intensive and thus more costly. Indeed, too short ALoS could reduce the comfort and recovery of the patient and even lead to a greater re-admission rate.

[27] Source: Statistical Service of the Republic of Cyprus. Health and Hospital Statistics, 2010 and 2011.

[28] Hospital admission rate for uncontrolled diabetes is considered an indicator of the capacity of effectively controlling and managing diabetes. The EU average for uncontrolled diabetes admissions (without complications) is 50 per 100,000 population and 109 per 100 000 population with short- and long-term diabetes complications (OECD Health at a Glance: Europe 2012).

**Table 21. Discharges, hospital-days and ALoS for selected procedures, average 2010-11**

| | | General Hospitals | | | Rural Hospitals | | |
|---|---|---|---|---|---|---|---|
| **Procedure** | **ICD-10** | **No. of discharges** | **Hospital-days** | **ALoS (days)** | **No. of discharges** | **Hospital-days** | **ALoS (days)** |
| Respiratory tuberculosis | A15 – A16 | 12 | 76 | 8.2 | 28 | 1,709 | 56 |
| Other tuberculosis | A17 - A19 | 2 | 24 | 9.7 | 0 | 0 | 0 |
| Diabetes mellitus | E10 – E14 | 369 | 2159 | 6.2 | 24 | 128 | 5.3 |
| Cataract and other disorders of lens | H25 – H28 | 1,695 | 3925 | 2.4 | 0 | 0 | 0 |
| Acute myocardial infarction | I21- I22 | 569 | 3578 | 6.3 | 11 | 68 | 5.6 |
| Inguinal hernia | K40 | 1,024 | 2987 | 2.9 | 1.5 | 24 | 8 |
| Cholelithiasis and cholecystitis | K80 – K81 | 1,080 | 4,987 | 4.6 | 11 | 66 | 5.7 |
| Single spontaneous delivery | O80 | 1,632 | 7,545 | 4.6 | 0 | 0 | 0 |
| **ALL DISEASES** | | 77,208 | 351,785 | 4.5 | 1,169 | 8,687 | 7.5 |

4. 9 **Waiting times for key surgical operations, outpatient visits and diagnostic tests are summarized in Table 22 (Source: Cyprus Statistical Service).**

**Table 22. Waiting times (in months) for selected procedures in General Hospitals, 2012[29]**

| Surgical operations | NGH | AMIII | Limassol | Larnaca | Paphos | Famagusta |
|---|---|---|---|---|---|---|
| Angiothoracic surgery | 12.0 | -- | -- | -- | -- | -- |
| Cardiac surgery | 5.0 | -- | -- | -- | -- | -- |
| ENT surgery | 4.0 | -- | -- | 2.0 | 6.0 | -- |
| General surgery | 6.0 | -- | 5.0 | 3.0 | 6.0 | 5.0 |
| Gynaecology | -- | 3.0 | 3.0 | 2.0 | 12.0 | -- |
| Orthopaedics | 24.0 | -- | 18.0 | 12.0 | 12.0 | 5.0 |
| Neurosurgery | 5.0 | -- | -- | -- | -- | -- |
| Ophthalmology | --- | 6.0 | 16.0 | 4.0 | 2.0 | -- |
| Other orthopaedic surgery | -- | -- | -- | 9.0 | 6.0 | -- |
| Paediatric surgery | -- | 6.0 | -- | -- | -- | 2.5 |
| Plastic surgery | 8.0 | -- | -- | -- | -- | -- |
| Urology | 2.5 | -- | -- | -- | -- | -- |
| **Outpatient visits** | | | | | | |
| Cardiology | 1.0 | -- | -- | -- | -- | 0.5 |
| ENT | 1.0 | -- | -- | 2.0 | 3.0 | -- |
| Gastroenterology | 8.0 | -- | -- | -- | -- | -- |
| General surgery | 1.0 | -- | 2.0 | 3.0 | 0.0 | 1.5 |
| Gynaecology | -- | 1.5 | 5.0 | 6.0 | 1.0 | -- |
| Internal Medicine | -- | -- | -- | -- | -- | 2.0 |
| Orthopaedics | 8.0 | -- | 3.0 | 6.0 | 4.0 | 3.5 |
| Neurosurgery | 7.0 | -- | -- | -- | -- | -- |
| Ophthalmology | 10.0 | --- | 5.0 | 5.0 | 4.0 | -- |
| Paediatric surgery | -- | --- | -- | -- | -- | 10.0 |
| Plastic surgery | 1.0 | -- | -- | -- | -- | -- |
| Urology | 7.0 | -- | -- | -- | -- | -- |
| Vasothoracic surgery | 6.0 | -- | -- | -- | -- | -- |
| **Diagnostic examinations** | | | | | | |
| Colonoscopy | -- | -- | -- | 6.0 | 3.0 | 5.0 |
| CT scan | -- | -- | -- | -- | 3.0 | -- |
| Echocardiography | 12.0 | -- | 0.0 | 3.0 | -- | 7.0 |
| Endoscopy | 7.0 | -- | -- | -- | -- | -- |
| Exercise test | 5.0 | -- | 0.0 | 2.5 | -- | 6.0 |
| Gastroscopy | -- | -- | -- | 4.0 | 2.5 | 5.0 |
| Gynaecological ultrasound | -- | 4.0 | -- | -- | -- | -- |
| Mammography | 0.0 | -- | 1.0 | -- | -- | 2.0 |
| MRI | 12.0 | -- | -- | -- | -- | -- |
| Osteoporosis/Bone density | 7.0 | -- | 13.0 | 7.0 | 10.0 | 0.0 |
| Pap test | -- | 14.0 | -- | 10.0 | -- | -- |
| Sleep apnoea test | -- | -- | -- | -- | 3.0 | -- |
| Thallium scan: myocard. perfusion | 36.0 | -- | 26.0 | -- | -- | -- |
| Ultrasound | 10.0 | -- | 4.0 | 4.0 | 4.0 | 0.0 |

4. 10 **Among surgical operations waiting times are particularly long for certain specialties such as ophthalmology and orthopedics.** Waiting lists for outpatient consultations are clearly

[29] -- means "not available"; a "zero value" is represented with a 0.0

shorter than those for surgery, with ophthalmology and orthopedichaving longer surgical waiting lists. Finally, waiting times are excessive for a number of diagnostic tests and in almost all hospitals. For example, waiting times for diagnostic services at NGH range from 0 month for a mammography to 3 years for myocardial perfusion.

4. 11 **The number of surgical operations performed in public hospital decreased from 30,342 in 2009 to 28,464 in 2012, which represents a rate of 3,303 surgical procedures per year per 100,000 population in 2012.** Assuming that surgical operations performed in public hospitals represent half of the total activity of the country[30], the national rate of surgical operations in Cyprus is close to the EU average of 6,777 surgical procedures per year per 100,000 populations[31]. Table 23 below shows the number of surgical operations and of functioning operating theatre (OT) located in each general public hospital. Each OT performs on average 1,017 surgical interventions per year. Larnaca shows the highest productivity with some 1,500 surgeries per OT, while NGH has the lowest figure, around 700. However, it is likely that differences are related to the higher complexity of operations performed at NGH.

**Table 23. Number of surgeries, operating theatres and surgeries per operating theatres in public General Hospitals, Cyprus 2012**

| | Nicosia General Hospital | Makarios Hospital | Limassol Hospital | Larnaca Hospital | Paphos Hospital | Famagusta Hospital | TOTAL |
|---|---|---|---|---|---|---|---|
| Total number of surgeries | 7,029 | 4,508 | 6,457 | 6,023 | 2,900 | 1,551 | **28,468** |
| Number of functioning operating theatres(*) | 10 | 4 | 5 | 4 | 3 | 2 | **28** |
| Number of surgeries/ operating theatres | 703 | 1,127 | 1,291 | 1,506 | 967 | 776 | **1,017** |

(*) As indicated, only general hospitals have operating theatres whereas small rural hospitals have not any.

4. 12 **In addition to 28 functioning OT, the country has 8 non-functioning OT.** In other words, 22 percent of the surgical capacity of the public sector somehow remains unused. Per facility this rate reaches 60 percent in Famagusta, while there is no unused installed capacity in Paphos. Apparently the hospital of Famagusta was originally built to serve a larger population (i.e. northern Cyprus) that is not using this facility.

4. 13 **Regarding obstetric services, delivery rooms within the public hospitals perform on average 11 deliveries per day.** Nearly half the deliveries in Cyprus take place in Makarios Hospital, the main reference hospital for obstetric services. On the other extreme, Famagusta presents the lowest rate, with less than one delivery per day. As a reference, international standards suggest that in order to maximize personnel and the technical equipment in delivery wards a minimum of 600 deliveries per year are ideally. In Cyprus, only Makarios and Limassol reach this limit (with 1,849 and 945 deliveries per year, respectively), while Larnaca, Paphos and Famagusta are well below the minimum number of deliveries per year (see Table 24).

[30] The assumption is based on the fact that the number of hospital bed in public hospitals is around half of the total hospital beds.

[31] Source: European Health for All Database HFA – DB, WHO-EURO http://data.euro.who.int/hfadb/, accessed on 29 January 2014

**Table 24. Number of deliveries performed in public General Hospitals, Cyprus 2012[32]**

| | Makarios Hospital | Limassol Hospital | Larnaca Hospital | Paphos Hospital | Famagusta Hospital | TOTAL |
|---|---|---|---|---|---|---|
| Spontaneous vaginal deliveries | 913 | 451 | 300 | 264 | 138 | 2,066 |
| Forceps assisted vaginal deliveries | 7 | 0 | 15 | 0 | 0 | 22 |
| Ventouse assisted vaginal deliveries | 88 | 21 | 6 | 15 | 6 | 136 |
| *Total vaginal deliveries* | *1,008* | *472* | *321* | *279* | *144* | *2,224* |
| Caesarean before labor starts | 527 | 304 | 122 | 88 | 78 | 1,119 |
| Caesarean after labor starts | 314 | 169 | 95 | 118 | 37 | 733 |
| *Total caesareans* | *841* | *473* | *217* | *206* | *115* | *1,852* |
| Total number of deliveries | 1,849 | 945 | 538 | 485 | 259 | 4,076 |
| Number of delivery posts | 5 | 2 | 3 | 2 | 2 | 14 |
| Number of deliveries per post | 370 | 473 | 179 | 243 | 130 | 291 |

4. 14 **The high rates of caesarean sections per 100 live births (45.4 percent on average, ranging from 50.1 percent in Limassol to 40.3 percent in Famagusta) deserve mention.** In 2011, the OECD average caesarian section rate was 26.9 per 100 live births, with highest rates in Mexico and Turkey (over 45 percent), followed by Chile, Italy, Portugal and Korea (between 35 percent and 38 percent) and lowest rates in Nordic countries (Iceland, Finland, Sweden and Norway) and the Netherlands -a range from 15 percent to 17 percent of all live births. Rates of caesarean delivery have indeed increased in all OECD countries in recent decades. While caesarean delivery is required in some circumstances, caesarean delivery continues to result in increased maternal mortality, maternal and infant morbidity, and increased complications for subsequent deliveries. Additionally, they entail higher financial cost (the average cost associated with a caesarean section is at least twice greater than a normal delivery in many OECD countries). All the above raise questions about the appropriateness of caesarean deliveries in Cyprus.

### A.2 Hospital Costs and Revenues

4. 15 **Unfortunately, costs data and costs per unit of service delivered are not systematically collected or computed in Cyprus.** With support from the MoH[33], the team estimated a budget per hospital and used available data to estimate the total costs per discharge and per bed-day numbers for each hospital (see Table 25).

4. 16 **The total cost per discharge among Regional Hospitals ranges from 6,591€ in Farmagusta to 3,431€ in Limassol.** The cost per bed-day ranges from 903€ in Farmagusta to 668€ in Limassol among Regional Hospitals. Rural Hospitals show higher costs per discharge and per bed-day than general hospitals, probably as a result of the low volume of inpatient activity compared to the provision of specialized outpatient and PHC services.

[32]Nicosia General Hospital is not in the table as there are no delivery services

[33] We thank Ms.Constantinou and Mr.Parellis for providing the primary data used in this analysis.

**Table 25. Total costs and breakdown of costs per discharge and bed-day, 2012**

| | Total costs | Staff expenses | Drug expenses | Medical supplies expenses | Other operating costs |
|---|---|---|---|---|---|
| **Costs per Discharge** | | | | | |
| Nicosia General Hospital | 5,379 € | 3,189 € | 976 € | 583 € | 632 € |
| Makarios Hospital | 4,348 € | 2,836 € | 729 € | 475 € | 308 € |
| Limassol Hospital | 3,431 € | 2,011 € | 782 € | 344 € | 293 € |
| Larnaca Hospital | 4,872 € | 3,111 € | 935 € | 482 € | 344 € |
| Paphos Hospital | 4,305 € | 2,704 € | 763 € | 437 € | 401 € |
| Famagusta Hospital | 6,591 € | 3,974 € | 827 € | 781 € | 1,009 € |
| *Total General Hospitals* | *4,557 €* | *2,776 €* | *852 €* | *480 €* | *448 €* |
| Kyperounta Hospital | 5,124 € | 3,876 € | 574 € | 201 € | 474 € |
| Polis Hospital | 10,494 € | 8,169 € | 1,131 € | 581 € | 613 € |
| *Total Regional Hospitals* | *6,503 €* | *4,978 €* | *717 €* | *298 €* | *510 €* |
| **TOTAL CYPRUS** | **4,588 €** | **2,812 €** | **850 €** | **477 €** | **449 €** |
| **Costs per Bed-Day** | | | | | |
| Nicosia General Hospital | 741 € | 439 € | 134 € | 80 € | 87 € |
| Makarios Hospital | 851 € | 555 € | 143 € | 93 € | 60 € |
| Limassol Hospital | 668 € | 391 € | 152 € | 67 € | 57 € |
| Larnaca Hospital | 801 € | 511 € | 154 € | 79 € | 57 € |
| Paphos Hospital | 724 € | 454 € | 128 € | 73 € | 67 € |
| Famagusta Hospital | 903 € | 545 € | 113 € | 107 € | 138 € |
| *Total General Hospitals* | *750 €* | *457 €* | *140 €* | *79 €* | *74 €* |
| Kyperounta Hospital | 313 € | 236 € | 35 € | 12 € | 29 € |
| Polis Hospital | 904 € | 704 € | 97 € | 50 € | 53 € |
| *Total Regional Hospitals* | *429 €* | *328 €* | *47 €* | *20 €* | *34 €* |
| **TOTAL CYPRUS** | **737 €** | **422 €** | **137 €** | **77 €** | **72 €** |

4. 17 **Staff costs represent the main cost element in all hospitals followed by drugs, medical supplies and other costs.** Information regarding revenues generated by the hospitals is presented in Table 26. These are revenues related to fees paid by patients who are not entitled to free services, co-payments and from other sources (e.g. rents from kiosks, cafeterias, etc.). Revenues are not received by the facilities but collected directly by the Treasury.

**Table 26. Revenues generated by hospitals, 2012**

| Hospital | Revenues |
|---|---|
| Nicosia General Hospital | 2,135,744€ |
| Makarios Hospital | 1,967,665€ |
| Limassol Hospital | 1,206,815€ |
| Larnaca Hospital | 790,945€ |
| Paphos Hospital | 438,864€ |
| Famagusta Hospital | 692,051€ |
| *Total General Hospitals* | *7,232,084€* |
| Kyperounta Hospital | 37,991 € |
| Polis Hospital | 65,244€ |
| *Total Rural Hospitals* | *103,225€* |
| **TOTAL CYPRUS** | **7,335,319€** |

## A.3 Analysis of Hospital Staff

4. 18 **Table 27 shows staff working in public hospitals in Cyprus.** Among the general hospitals Famagusta, Larnaca, Makarios and Paphos have more doctors per bed that the national average, while Nicosia and Limassol are below. A similar pattern can be observed for the ratios of nurses per bed: Makarios, Famagusta and Larnaca are above the average, while Nicosia, Limassol and Paphos are below. Regarding cleaning staff, Famagusta has the highest rate with 0.58 cleaners/ bed, almost twice than the national average, while Nicosia, Limassol and Paphos have the lowest rate (around 0.30 cleaners/ bed). In terms of kitchen staff, Famagusta and Larnaca have the highest rates (0.14 and 0.11), clearly above the mean (0. 09 staff per bed), while Nicosia, Makarios, Limassol and Paphos (all the four around 0.09) come behind. As usual the two rural hospitals show a different pattern. For instance, Polis has the highest staff rate with 6.45 staff per bed, while Kyperounta with 2.07 staff per bed has the lowest ratio.

**Table 27. Staff at public hospitals: total number and staff per bed, 2013**

| | Doctors | Nurses / Midwives | Physiotherapists | Lab &Diagn technic. | Admin &Financ. staff | Cleaning staff | Kitchen staff | Laundry staff | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **Total Number of staff** | | | | | | | | | | |
| Nicosia General Hospital | 180 | 892 | 43 | 172 | 69 | 148 | 44 | 56 | 560 | 2164 |
| Makarios Hospital | 72 | 347 | 8 | 11 | 18 | 58 | 14 | 3 | 130 | 661 |
| Limassol Hospital | 120 | 566 | 15 | 68 | 31 | 101 | 25 | 21 | 231 | 1178 |
| Larnaca Hospital | 88 | 335 | 9 | 56 | 18 | 68 | 18 | 3 | 115 | 710 |
| Paphos Hospital | 68 | 250 | 0 | 43 | 17 | 45 | 14 | 4 | 177 | 618 |
| Famagusta Hospital | 39 | 160 | 4 | 24 | 13 | 42 | 10 | 3 | 90 | 385 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Total General Hospitals* | *567* | *2550* | *79* | *374* | *166* | *462* | *125* | *90* | *1303* | *5716* |
| Kyperounta Hospital | 10 | 35 | 1 | 5 | 4 | 16 | 5 | 0 | 17 | 93 |
| Polis Hospital | 11 | 34 | 1 | 4 | 3 | 6 | 2 | 0 | 10 | 71 |
| *Total Rural Hospitals* | *21* | *69* | *2* | *9* | *7* | *22* | *7* | *0* | *27* | *164* |
| *TOTAL CYPRUS* | *588* | *2619* | *81* | *383* | *173* | *484* | *132* | *90* | *1330* | *5880* |
| **Staff per hospital bed** | | | | | | | | | | |
| Nicosia General Hospital | 0.36 | 1.81 | 0.09 | 0.35 | 0.14 | 0.30 | 0.09 | 0.11 | 1.13 | 4.38 |
| Makarios Hospital | 0.47 | 2.25 | 0.05 | 0.07 | 0.12 | 0.38 | 0.09 | 0.02 | 0.84 | 4.29 |
| Limassol Hospital | 0.36 | 1.72 | 0.05 | 0.21 | 0.09 | 0.31 | 0.08 | 0.06 | 0.70 | 3.58 |
| Larnaca Hospital | 0.53 | 2.01 | 0.05 | 0.34 | 0.11 | 0.41 | 0.11 | 0.02 | 0.69 | 4.25 |
| Paphos Hospital | 0.45 | 1.67 | 0.00 | 0.29 | 0.11 | 0.30 | 0.09 | 0.03 | 1.18 | 4.12 |
| Famagusta Hospital | 0.54 | 2.22 | 0.06 | 0.33 | 0.18 | 0.58 | 0.14 | 0.04 | 1.25 | 5.35 |
| *Total General Hospitals* | *0.42* | *1.87* | *0.06* | *0.27* | *0.12* | *0.34* | *0.09* | *0.07* | *0.95* | *4.18* |
| Kyperounta Hospital | 0.22 | 0.78 | 0.02 | 0.11 | 0.09 | 0.36 | 0.11 | 0.00 | 0.38 | 2.07 |
| Polis Hospital | 1.00 | 3.09 | 0.09 | 0.36 | 0.27 | 0.55 | 0.18 | 0.00 | 0.91 | 6.45 |
| *Total Rural Hospitals* | *0.38* | *1.23* | *0.04* | *0.16* | *0.13* | *0.39* | *0.13* | *0.00* | *0.48* | *2.93* |
| *TOTAL CYPRUS* | *0.41* | *1.84* | *0.27* | *0.27* | *0.12* | *0.34* | *0.09* | *0.06* | *0.94* | *4.14* |

4. 19 **Average staff costs in Cyprus (i.e. the total hospital staff cost bill divided by the total number of staff working in the hospital) are presented in Table 28.** As the personnel costs include salary (payroll plus employer's contribution) but also overtime and allowances, these rates probably reflect (in addition to differences in skill mix) differences in the payment of extra working times by different facilities.

**Table 28. Average costs per staff in public hospitals, Cyprus 2012**

| | Average costs per Staff |
|---|---|
| Nicosia General Hospital | 36.609 € |
| Makarios Hospital | 47.223 € |
| Limassol Hospital | 39.907 € |
| Larnaca Hospital | 43.893 € |
| Paphos Hospital | 40.257 € |
| Famagusta Hospital | 37.181 € |
| *Total General Hospitals* | *39.854 €* |
| Kyperounta Hospital | 41.759 € |
| Polis Hospital | 39.809 € |
| *Total Rural Hospitals* | *40.915 €* |
| **TOTAL CYPRUS** | **39.884 €** |

4. 20 **The discussion on the optimal staff ratios for Cyprus hospitals is quite complex.** Firstly, it is important to point out that, taking as an example the case of nurses that the ratios of staff to patients vary significantly across European countries. As presented in Table 29, the average ratio of patients to nurses across hospitals ranges from 5.4 in Norway to 13.0 in Germany.[34]

**Table 29. Nurses staffing in 12 European countries and the US**

| | Nurse staffing ratios | | No of |
|---|---|---|---|
| Country | Patients to registered nurses | Patients to total nurses | hospitals |
| Belgium | 10.7 | 7.9 | 67 |
| England | 8.6 | 4.8 | 46 |
| Finland | 8.3 | 5.3 | 32 |
| Germany | 13 | 10.5 | 49 |
| Greece | 10.2 | 6.2 | 24 |
| Ireland | 6.9 | 5 | 30 |
| Netherlands | 7 | 5 | 28 |
| Norway | 5.4 | 3.3 | 35 |
| Poland | 10.5 | 7.1 | 30 |
| Spain | 12.6 | 6.8 | 33 |
| Sweden | 7.7 | 4.2 | 79 |
| Switzerland | 7.9 | 5 | 35 |
| USA | 5.3 | 3.6 | 617 |

4. 21 **Secondly, it is important to point out that the ranking of the countries can vary significantly when total staff to patient is considered[35].** Therefore, it is not possible to consider a single type of health staff (e.g. the optimal number of patients per registered nurses, but the entire mix of hospital staff and the potential for substitution between staff-types should be considered.

4. 22 **Thirdly, only few countries enforce mandatory nurse-to-patient ratio.** And looking at the few examples of countries that have enforced such ratio we can see that: (i) a large variation among countries that have enforced them; and (ii) specific nurse-to-patient ratios are defined for different type of care environment (e.g. intensive care, general care, pediatric care).[36]

4. 23 **Therefore, it is not possible to give an answer regarding the optimal staffing ratio for Cyprus without a specific study that would analyze the:** (i) opportunity for substitution

[34]Aiken, H. L. et al. 2012. *Patient safety, satisfaction, and quality of hospital care: cross sectional surveys of nurses and patients in 12 countries in Europe and the United States*. BMJ 2012; 344; available at: http://www.bmj.com/content/344/bmj.e1717; published 20 March 2012.

[35]The study comprises of 1,105 general acute hospitals and data mean patients to registered nurses refer to the number of nurses on the ward on each nurse's last shift averaged across all nurses providing direct inpatient care in the sampled wards. Total staff includes professional registered nurses plus lesser trained care personnel (lower ratios indicate more favorable staffing).

[36]Royal College of Nursing (2012).*Mandatory Nurse Staffing Levels.Policy* Briefing 03/12. March, 2012

between staff; and (ii) consider the minimum required safety requirement for each specific setting of care.

### A.4 Capacity of PHCCs

4. 24 **Primary care in Cyprus is supposed to include diagnosis and treatment of acute conditions, diagnosis and management of chronic conditions, health promotion and disease prevention, screening, vaccinations and referrals to specialists and hospitals.** In practice, however, the scope and content of PHC services provided at public PHCCS is below the desired level. In a context of lack of coordination between primary and hospital levels, a number of cases that could be resolved in the health centers are systematically referred to hospitals, contributing to increasing hospital waiting times.

### A.5 Quality assurance

4. 25 **Few systematic quality assurance procedures or quality improvement initiatives (e.g. guidelines or protocols regarding criteria for admission, referral or inter consultations) were identified.** Only for discharge there were clear specifications about the set of data to be collected (although hospital managers recognized that in practice the percentage of cases in which such information is recorded is far from 100 percent).

4. 26 **Regarding committees, long lists of them were reported in all general hospitals, related to a wide range of domains, some adhered to legal requirements (staff safety and health; fire and emergency evacuation programs) and others more standard ones (infection control or patient complaints).** Nursing personnel usually have a large involvement in those committees For instance nurses appear to be assigned to these committees on a large scale as part of their official duties. In practice, however, it is rather unclear how active or useful these committees are: only one hospital (Paphos) was able to share the minutes of one of those committees.

4. 27 **Infection control, blood transfusion safety, pharmacy related safety and nursing related adverse events are patient safety subjects of particular concern.**Surgery safety (correct-site, correct-procedure, and correct-patient surgery) and unplanned readmissions measures, insofar as they exist, remain restricted to initiatives at the level of individual service units. Surgical waiting list management aspects, such as access policy, clinical prioritization and emergency designation, order, scheduling and booking are generally carried out. However, sharing criteria among different surgical units about operating room activity seemed not particularly well established.

4. 28 **The use of other quality management tools, such as clinical pathways or case-management protocols is only embryonic.** When adopted, they are limited at the domain of individual service units, but not generalized to the entire hospital organization. The management of patient complaints is currently the most extended quality management practice, involving both medical and nursing staff. The use of relevant aspects of patient centeredness- related quality, such as patient informed consent and research consent authorization, were not mentioned by any hospital manager.

4. 29 **Management of controlled substances and drug stock-outs also remain out of the scope of hospital managers and were referred as the responsibility of pharmacists.** Something similar happens with health technology / medical device planning. Finally, continuity of care activities are reduced to some rudimentary practices related to drug prescription record and medical record communication. During the interviews, representatives from both primary and specialized care complained about frequent medical information communication breakdown.

### A.6 Managerial Capacity

4. 30 **One challenge in Cyprus is the relatively limited degree of professionalization of hospital management.** Cypriot public hospital managers usually are well-motivated senior doctors who perform their managerial work based on practical/personal experiences but many lack formal training in management as a discipline. Additionally, the absence of a specific set of management tools is an impediment to successful development of managerial skills in health institutions.

4. 31 **Although all interviewed managers expressed a general interest in "having more autonomy, be able to manage their own budget and to select their staff" they display limited active involvement in setting strategic directions.** In a context of non-explicit strategic objectives, there are few established operational targets. Additionally, staff evaluations to assess performance are seldom used because of current civil service regulations. Hospital managers emphasized that chiefs of doctors, nurses, pharmacists, lab staff, administrative staff, etc., are accountable to their respective department at MoH headquarters. The existence of vacant posts among heads of clinics in the Famagusta hospital was mentioned as a situation which facilitated manager's capacity to make decisions.

4. 32 **Monitoring activities are usually too limited to issuing routine activity reports.** The extent of such reports varies according to the size of the facility (small rural hospitals just deliver very basic activity documents, while larger facilities provide annual reports). Small rural facilities report to their reference hospital (Paphos in the case of Polis and Limassol in the case of Kyperounta), and general hospitals send their reports to the Health Monitoring Unit at MoH. In all the cases, however, the documentation inspected revealed little interest in performance analysis.

4. 33 **Regarding waiting lists, some remarks by the very Statistical Service about their updating are self-explanatory:**

- *"Waiting lists are not computerized*, but handwritten with smudges and scribbles
- *Lists are not updated in any continuous and systematic way* (e.g. patients operated are not always deleted). In some facilities (no names were provided), no centralized lists exists and every doctor has his own.
- *Whenever activities to update waiting lists have been performed*, patients already operated in a different facility or who does not expect being operated or with wrong telephone numbers or lacking contact data; as well as duplicated names have been frequent issues".

4. 34 **As stated earlier, public hospitals budgets do not account for all of the resources used by the facility:** costs of staff, drugs and supplies are excluded, as they are directly provided by different department and units; depreciation and financing costs of capital are not reflected in public health facility budgets either. Also, budget processes, procurement and investment planning are centralized. In practice, only basic financial decisions are taken in public hospitals. The routine supervision and authorization of staff allowances and overtime payment seems to constitute the core activity of hospital management. Some managers are evidently concerned by the current level of efficiency and are actively searching for a better use of the available resources (in Nicosia, pre-surgical anaesthesiology procedures have been introduced to reduce costs; in Famagusta, overtime is only paid after strict controls confirming the need of the overtime).

## B. HOW TO IMPROVE EFFICIENCY IN THE DELIVERY OF HEALTH SERVICES: SOME LESSONS FROM EUROPE

4. 35 **For years, European countries have implemented strategies to expand capacity, choice and reduce waiting time using a combination of policies**:

- *Change the setting of care, substituting less appropriate with more appropriate forms of care;*
- *Integrate services/coordinating care/ giving a bigger role to primary care*;
- *Improve the quality, efficiency and appropriateness of hospital care*.

### *a. Changes in The Setting of Care*

4. 36 **After reviewing current patterns of care across settings (hospital; primary community and home),** many activities that earlier took place only at tertiary level have been shifted to secondary hospitals, as technology becomes more mobile; a new technological process (e.g. micro- surgery) for example replaced a previous one. Overall, technologies permit new mixes of preventive, diagnostic and treatment practices; in turn staff, skills, equipment, information and facilities can subsequently be reorganized in order to achieve better clinical, financial and patient-related outcomes in different settings.

4. 37 **In fact, continuous development and adaptation of clinical practice and organizational patterns, innovative technologies and changed mixes of staff and skills are not new to the health sector.**[37]

[37] For example, the use of $H_2$-receptor antagonists instead of surgery for peptic ulcer, supplemented by the testing for and eradication of Helicobacter pylori, changed the landscape of digestive surgery. One example of substitution was BCG vaccination and outpatient treatment, which helped to virtually eliminate the need for tuberculosis sanatorium with profound consequences in terms of resource use.

4. 38 **Although debate about the nature of the relationship between volume and outcome and the extent to which other factors should be taken into account remains,** there is also clear evidence that hospitals and physicians undertaking large volumes of particular procedures obtain better results than those who undertake only a few.

- *For those reasons*, the Netherlands, Sweden and the UK (and many other countries at smaller scale) have shifted to day case treatment and minimal access procedures, adopting a policy of centralization for certain services –for example, cataract surgery, inguinal hernia repair, breast biopsy, varicose vein stripping, cystoscopy, arthroscopy, cholecystectomy, laparoscopy, myringotomy and termination of pregnancy- for which mass low cost, low variation, high volumes day care is a cost-effective alternative to scattered high-cost inpatient care. For patients deterred from seeking treatment because they live far away, there is of course a trade-off between specialization and distance, and satellite clinics to reduce increased travel need to be provided.
- *Symmetrically*, at the other extreme of the continuum, new technologies raise additional requirements for increased skills, inviting a move from secondary to tertiary care (e.g. specialist cancer surgery).

4. 39 As indicated, all these adjustments are more than simply changing the location of care, and req**uire appropriate shift in skills and technology as well as reallocation of resources and better coordination.**

***b. Integrating Services/Coordinating Care/ Giving a Bigger Space to Primary Care***

4. 40 **A large number of hospital bed-days are being used by patients who are no longer benefiting from the services of a fully equipped general hospital.** Benefitting from key technologies potentially transferable to the home, such as infusion therapies, adjustable beds, enteral and parenteral nutrition, traction for congenital dysplasia of the hip, phototherapy for neonatal jaundice, home monitoring of risky pregnancies, etc. a number of major shifts have been under way in different parts of Europe to facilitate early discharge or to prevent admission (e.g. hospital outreach programs and hospital at home nursing schemes for cancer sufferers, long-term care home renal dialysis, self-care programs, shared care protocols, etc.).

4. 41 **In that context, many countries (Ireland, the Netherlands, the United Kingdom) are converting small hospitals into nursing homes and/or improving coordination between the health and social care sectors** through joint planning; nursing and, more recently, hospital-at-home schemes have been introduced in Denmark, Ireland, the Netherlands, Spain and the United Kingdom. In Belgium, hospitals have been able to re-designate beds from acute care to nursing home use.

4. 42 **One particular reform strategy that has been adopted across Europe has been to coordinate better clinical services across primary or ambulatory and hospital care**. Countries have introduced disease management programs with financial incentives for providers and patients, shifting care out of the hospital. Chronic processes such as asthma and chronic obstructive pulmonary disease, ischaemic heart disease and breast cancer and diabetes types 1

and 2 (Germany), cardiovascular diseases (Denmark) and cancer and others in France, Ireland, Italy, Sweden and the United Kingdom are now addressed through management programs with specifically trained multidisciplinary teams promoting seamless treatment. The Netherlands has experimented comprehensive integrated care networks that focus on the interface between acute hospital care and PHC, with a link to social care ("transmural care") to improve the quality of services for patients who could not return to a fully independent life.

4. 43 **Some countries have gone further and even tried to make the PHC team function as a coordination hub of people-centered care;** rather than spending all day only in traditional few-minute patient visits, PHC teams should manage the health needs of their registered population. They do so by means of curative, rehabilitative and preventive services plus the "follow-up from one visit to the next", including informational continuity; this entails the keeping of medical records for each patient/ visit, with personal relationship between patient and provider. In 2006, Germany strengthened GP's gatekeeping role, traditionally based on private practitioners operating mainly in solo practices; the health insurance system started offering voluntary gatekeeping contracts to people (with the incentive that patient would save the obligatory €10 user charge per quarter); millions of German chronic ill patients have subscribed.

4. 44 **Restructuring the organization of primary care has also been a common reform strategy in Denmark, Finland, the Netherlands, Sweden and parts of the United Kingdom**, encouraging providers to group together in larger primary care units and to increase the role of nurses in delivering and managing care to chronic conditions (e.g. diabetes and hypertension). In contexts where there were restrictions on qualified human resources (e.g. Germany, the Netherlands and the United Kingdom), new qualifications for university-trained nurses and other staff (e.g. "nurse practitioners") have been introduced to manage specific tasks; such professionals carry out nursing duties but also assume traditional physicians' tasks (e.g. prescribing drugs and giving uncomplicated treatment). Primary Care Trusts in the UK have also started to employ case managers to coordinate services for people with long-term conditions, or with complex social and health needs; their tasks include analyzing the registry to assess people's needs, developing care plans, organizing services, and monitoring the quality of care.

4. 45 **Several of the above approaches can prevent acute admissions.** As comprehensiveness is also linked to practice conditions, facilities and equipment (practice organization varies between countries, as shown in recent reviews of GP practice in Europe), the changes may also involve resource-intensive interventions, such as investing in human resources –e.g. training for complex tasks undertaken by nurses, etc. An additional problem is that they might shift costs to individual users or their families, either directly as co-payment (e.g. nursing home care) or indirectly (family care). Finally, service substitutions will place major demands on information systems, which will need to meet epidemiological and management requirements at population level, as well as to support providers of direct clinical care to individual patients.

***c. Improving Efficiency and Appropriateness of Hospital Care***

4. 46 **While, as shown above, successful primary prevention could reduce hospital admission rates, it is similarly understood that improving appropriateness of admissions would restrict hospitals to their "specialist role"**. This could be achieved for example by raising the severity threshold to be met before a patient is admitted, forcing clinicians to raise

admission thresholds, providing specific professional training, using observation units to separate out "borderline" patients (e.g. to rule out acute myocardial infarction, monitoring the evolution of asthma, etc.) or even by crude supply-side changes such as reducing the bed stock through bed closures. In general these measures have not proved particularly effective.

4. 47 **The same result could be obtained by expediting patient discharge to achieve reductions in length of stay.** However, doing so may encourage suboptimal practice if inappropriate mean lengths of stay targets are set. Furthermore, experience shows that shorter stays usually require the deployment of additional resources such as therapists, nurses or staff with other skills. Worse, a threshold change could impact other parts of the system; if patients with high levels of dependency are discharged, they are likely to make increased demands on PHC services or may even, on occasions, trigger increases in emergency admissions (under extreme cases, hospitals would be discharging low- cost patients, replacing them with high-cost patients who required expensive treatment and investigations, thus increasing the total hospital costs).

4. 48 **Quality is also often associated with efficiency, as those programs (e.g. decreasing hospital-acquired infections) are associated with, for example, fewer infections, shorter hospital stays, less readmissions, etc.** The basis of improving the quality of clinical care ("a high degree of professional excellence in relation to knowledge and technologies plus minimal risk and satisfaction of the patient") is the collection, synthesis and dissemination of evidence. Bluntly put, quality means establishing a criterion that can be used to improve a given clinical results in a given field, setting a realistically achievable standard and measuring/adjusting the level actually achieved.

4. 49 **Strategies to improve quality incorporate organizational, financial and regulatory tools.** Backed by national legislation and policies, initiatives range from strategies to improve patient safety, professional training programs and continuous professional development, better information systems at clinical level, and close follow up of indicators. Some countries have nationwide policies including training (e.g. for obstetric and perinatal care in Belgium, breast cancer, oral health and vascular surgery programs in Denmark, France, the Netherlands, etc.) The UK developed in the last decade a broad program with quality and other targets. Countries such as the Czech Republic and Slovenia have also established quality development policies in areas such as obstetrics and perinatal care. Clinical practice guidelines ("recommendations issued for influencing decisions about health interventions") might help manage particular conditions, although studies have shown that their dissemination is, in itself, insufficient to change behavior; concerns have also been expressed about the costs of developing and disseminating guidelines.

4. 50 **Other countries have emphasized managerial approaches to improve efficiency in a thorough way (including, for example assessing the effectiveness of hospital technology and of for pharmaceuticals –all would need to achieve value for money).** In short, hospitals and health care facilities are adopting management techniques from other sectors (benchmarking, quality enhancing techniques, business process re-engineering, patient-focused care, forms of contracting models, etc.) in order to improve performance (even if the research-based evidence about the components of effective hospital management is not as abundant as the increasingly well-developed literature about clinical effectiveness).

4. 51 **A notable reform trend across Europe is the separation of the purchaser and provider functions, decentralizing management to provider institutions in a general movement towards putting services close to the users.** In several publicly operated Western European health systems, the traditional hierarchy of health authorities at national, regional and local level above hospital providers is thus being replaced by more "managerial" arrangements (including, in some cases, rewards for managers and the freedom to reinvest savings). This is expected to reduce bureaucratic control, encourage innovative practices and increase responsiveness to purchasers' and patients' demands. In the UK and Scandinavian countries, more effective decentralized hospital management even involves clinical staff in clinical Departments and devolved budgetary responsibility to groups of clinicians at department or specialty level.

4. 52 **In summary, most developed countries are abandoning core tenets of hospital models established decades back and have undergone some forms of "process re-engineering towards patient-focused care" by means of:**

- *Intra-center adjustments* (e.g. decentralized decision making, clinical budgets/ protocols, multidisciplinary care teams, multi-skilling cross training, patient grouping/ aggregation, integrated patient records, redesigned physical environment, etc.), and/or
- *Large scale inter- center adjustments* (e.g. care networks, disease- and case-management, care "villages", open hospitals, etc.).

4. 53 **Public health systems with autonomous hospitals commonly employ managers on renewable fixed-term contracts of e.g. 3-5 years.** However, successful health systems also have established mechanisms for developing a "pipeline" of hospital and health service managers through pre-service and in-service training, apprenticeship schemes (e.g. for service line managers, managers of clinical and non-clinical support functions, heads of health centers, etc.). Managers can be motivated by developing a career path offering promotion to more senior and larger scope management roles across the whole health system.

4. 54 **Higher management capacity, including general management expertise and more sophisticated information systems to facilitate better decision-making in clinical, financial and other areas, are required correlates.** Self-governing schemes indeed face issues of public accountability in response to higher provider autonomy, better information systems and legal liability matching the representativeness/ expertise of management boards.

### B.1 A Path for Cypriot Public Hospitals

4. 55 **A useful starting point to identify the reform path for Cypriot public hospitals is to define strategically their future role within the health sector in a context of changing demographic and epidemiological profile, increased user's expectations, need to contain costs and opportunities from new medical technologies.** The strategic vision would define the role that public hospitals are expected to perform; their relationship with other health care providers (e.g. PHC, social and long-term care). A good analysis of alternative service delivery schemes and a clear understanding of the changes required in resources and skills mix needs to follow suit.

4. 56 **Core principles in modern hospital management are:**

- Against the old attitude of trusting the staff's ability to "know whatever needs to be done", modern hospitals clearly define objectives in line with the high-level goals of explicit policies;
- In contrast to passive attitudes of "responding to whatever could be done for an un-specific general wellness", modern hospitals have a flexible approach, assessed later to see how efficiently it worked;
- Versus the old reactive attitude of only responding to the service pressure of day-to-day work, modern hospitals prepare operational plans towards the achievement of those objectives;
- In both the public and the private sectors, those operational plans include service production processes articulated in unambiguously-defined output- and outcome-maximizing activities and tasks (along standard business practices);
- Service processes are in turn applied by means of financial and personnel management techniques, using quality information for monitoring and evaluation purposes;
- To that end, and in contrast with the old representational function delegated to senior medical figures, a dedicated managerial structure is needed, with the ability to provide leadership in coping with uncertainty, solving conflicts and crystallizing a corporate culture.

4. 57 **Ideally, public hospitals in Cyprus will follow similar trends and have a set of management teams able to:**

- Organize a basket of services according to level of complexity, concentrating surgical super specialties (cardiovascular, neurosurgery, etc.);
- Set up protocols providing criteria for referrals regarding the diagnoses which more frequently require admission;
- Set up clinical guidelines to ensure that ambulatory surgery is generalized for low cost, low variation, high frequency services for which technology and techniques exist (cataracts, inguinal hernias, etc.);
- Specify requirements to address key health system problems (e.g. 24x7 service delivery obligations, new network design, etc.);
- Define business plan and hospital budgets (including cost of medicines and supplies);
- Design a dashboard to continuously measure performance and identify weaknesses;
- Handle job descriptions, standard operating procedures, reporting formats and related business documentation, etc.;
- Involve fully intermediate cadres in the implementation of corrective measures.

4. 58 **In other words, Cypriot hospitals need to adhere to core principles in modern management:**

- Identity/status and managerial space to develop strategic and operational objectives (delegation of responsibility, allocation of budgets and resources);
- Defined objectives in line with the high-level goals of explicit policies (in the public sector, alignment with government policies);
- Prepared operational plans towards the achievement of those objectives; organized services with concrete sequence of activities;
- Defined service production processes in unambiguously-defined output- and outcome-maximizing activities and tasks (along standard business practices);
- Financial and personnel management techniques, using quality information for monitoring and evaluation;
- Rules for a dedicated managerial structure for coping with uncertainty, solving conflicts and crystallizing a corporate culture);
- Accountability duties on ex-post bases rather than through orders and instructions (retrospective assessment of efficiency as a flexible approach, based on improved access to information technologies);
- Formal training in management as a discipline as necessary.

### B.2 A Management Toolkit

4. 59 **How can Cypriot hospital managers make the change happen in practice?** From the perspective presented above, efficiency depends on the systematic use of a number of tools. Managers will need:

**a.** ***Proper planning periodically implemented, using Planning tools to anticipate future developments:***

- Business/Strategic Plans with objectives, activities and tasks projecting revenues and expenditures, including both the priorities and the options and means for achieving them plus different steps, directions and/or approaches (e.g. Logical Framework and Risk Management Charts);
- Goals and general direction and overall framework and principles for *managing strategic direction* (Health Needs Assessment; human resources availability; technology assessment; bed modeling; etc.)
- Analysis of functional profiles, with product specialization, impact projections in different areas, etc. (e.g. Scenarios);
- Co-ordination links between hierarchy levels, thematic areas and geographic zones;
- Budget and financial, projections, matching different scenarios in the future (payment modalities -e. g. DRG-based if that is the option chosen at national level, etc.);
- Processes mapping, with estimates of workloads;
- Operational targets/ target setting (Gantt's charts, etc.);

- Benchmarked key performance indicators;
- Health technology / medical device planning.

**b.** ***In order to put planning into practice in an efficient manner, Quality management tools are indispensable:***

- General Quality Assurance/ "quality improvement" schemes, procedures and initiatives. Patient management policies: e.g. data standards for admission, referral, inter consultations or discharge, patient confidentiality; patient with special needs; safekeeping of patient´s possessions, etc.;
- Clinical Quality and Outcomes materials, including clinical pathways, clinical guidelines and case management protocols, etc.;
- Strategies related to quality of care/ Work of committees: Oncology; Infection Control; Safety and Hygiene; Pharmaceuticals; Waste Management; Patient Care; Ethics; Clinical Audits; Supplies; etc.
- Patient safety subjects: blood transfusion safety, pharmacy related safety, adverse events (occurring in surgery, technology, nursing, medication errors); infection control;
- Surgery safety (correct-site, correct-procedure, and correct-patient surgery), studies of adverse events and unplanned readmissions measures;
- Complaints management system; perception of the care received /complaints from patients and their relatives; patients' and relatives' rights: provision of the required information / patient informed consent; research consent and authorization; etc.

***c. Financial management tools are essential to ensure the right availability of resources:***

- Budgets, costs and benefits. Conventional (accrual) business accounting standards for hospitals -including income and expenditure statements, cash flow statements and balance sheets, financial reports and forecasts, etc.;
- Provider payments and expenditures. Costs of staff, drugs and supplies; depreciation and financing costs of capital, budget processes, procurement and investment planning processes, staff allowances and overtime payments, etc.;
- Financial performance forms to monitor budget implementation, assess potential deviations, etc. and know the financial situation of the hospital, solvency and liquidity issues (e.g. Financial Plan, Annual Budget, Payment Schemes, etc.).

**d.** ***Human resources management tools are also necessary:***

- Job description sheets;
- Skills and profiles: competence mapping ;
- Staffing (both in absolute number and as FTE); staff selection –e-g- rosters, etc.;
- Annual leave, Absenteeism, Turnover and Vacant posts;
- Internal checks and balances for delegated personnel and administrative staff;

- Training schemes;
- *General communication plan* with internal (among members of the organization) and external dimensions (organization members interacting with outsiders) for building consensus; checking for effective understanding; reporting forms, etc.

**e.** ***Information tools are needed to understand what is happening in the facility. Indicators for follow up plus reporting and accountability mechanisms are needed in relation to:***

(i) General activity, including:

- Basket of services linked to population needs; inputs from clinicians;
- Appointments and admissions;
- Patterns of access to the hospital: share of patients referred from primary care; who come through the accident and emergency department and others;
- Bed use, per units;
- Surgery list management: clinical prioritization, urgency designation, order, scheduling and booking;
- Medication policies and procedures;
- Supply chain, purchasing and stock control, including drugs;
- Discharges, referrals and inter-consults;
- Waiting lists and waiting times; waiting list review; etc.

(ii) Diagnostic activity, including:

- Diagnostic tests performed daily, inter-facility variation; request procedures;
- Compliance with diagnostic tests (in particular, echographies; CTs; MRIs);
- Productivity of the main technologies in place; specific list of diagnostic tests required before surgery interventions (as a curiosity, for instance, chest X-Ray are not requested anymore for non-complex surgeries in western European hospitals);
- Inter-doctor/ departments variation regarding working time. Room for adapting staff working hours in order to increase equipment output (ideally without extra costs);
- Consumption of medical supplies versus volume of diagnostic services performed; inter doctor / department s variation; etc.

(iii) Surgical activity:

- Inter-doctors / inter-departments variations regarding working time. Room for adapting staff working hours in order to increase operating theatres output (ideally without extra costs);
- Productivity of the operating theatres;
- Reference units for highly specialized and low frequency surgeries;
- Development of ambulatory surgery - elective surgery performed on outpatient basis;

- Consumption of medical supplies in relation to level of services delivered. Inter doctors / departments variation.

(iv) Outpatient services:

- Daily patients attendance/ Inter-facility, inter-unit variation;
- Patients missing their appointments; efficiency of the appointment system;
- Productivity of outpatient services Inter-doctor/ department variation regarding the working time;
- Relationship among first consultations and follow-up consultations -effectiveness and efficiency of hospitals in delivering specific "specialized" consultation services (as opposite to "general hospital practice" services).

4. 60 **The main sources of information hospital managers should become familiar with include:**

- Morbidity and mortality registries;
- Repository of clinical histories;
- Activity and financial reports;
- Programs of drug prescription and pharmaceutical expenditures; etc.

**f.** ***Evaluation tools for measuring and assessing performance will provide managers with an ongoing picture of the situation in relation to the objectives set in the planning, thus closing the core circle between needs-objectives-activities and resources. They include:***

- Tools for the internal audit function (standard operating procedures, etc.);
- Monitoring activities: routine activity reports (varied according to size of the facility; small rural hospitals just deliver very basic activity documents, while larger facilities provide annual reports -e.g. Balance scorecards);
- Performance measurement to assess that the goals are being/have been achieved, the resources used and the level of efficiency in using the resources through a balanced set of indicators, etc.;
- Medical processes maps with identification of bottlenecks; surgical waiting list;
- Continuity of care activities; tools to manage referral activity as per the Operational Plan, Dashboard, Clinical Pathways, Clinical Guidelines, etc.;
- Control tools, including algorithms and approaches for regular and exceptional situations: access policy, clinical prioritization, emergency designation, order, scheduling and booking, criteria among different surgical units about operating room activity;
- Analytical and statistical tools, problem solving tools and time management tools, concentrating on key results in critical areas;
- Assessment of supplies; storing; sharing out logistics; consumption control;
- Financing of non-medical issues (including contracts with external providers);

- Levels of efficiency: e.g. pre-surgical anaesthesiology procedures have been introduced to reduce costs; overtime only paid after strictly controls confirming the need of the overtime);
- Comparative returns of operating theaters, units, equipment, individual professionals;
- Management of controlled substances and drug stock-outs;
- Change management tools; assessing the needs of the organization and benchmarking its situation.

## C. RECOMMENDATIONS FOR IMPROVING HOSPITAL MANAGEMENT

4. 61 **On the bases of the above analysis**, and as explained previously in the section on Governance, service production needs to be ring-fenced in Cyprus and essentially separated from other duties of the MoH (and of any other public institution or agency).

4. 62 **Beyond the legal aspect of receiving autonomous status or not (at least initially), service delivery facilities need to be networked.** The network(s) of all hospitals and primary care facilities should be provided with identity/status and managerial space of their own, for them to develop their strategic and operational objectives, in principle under the ownership of the Ministry of Health, to adjust functional profiles, product specialization, etc. to improve quality, efficiency and sustainability. A delegation of responsibility scheme mutually agreed-upon, based on benchmarked key performance indicators should vertebrate the accountability duties to be exercised (on ex-post bases rather than through orders and instructions).

4. 63 **In that context**, first the network and then indeed each hospital and each service delivery facility would need to elaborate business plans with clear objectives, activities and tasks, key medical processes maps with identification of major bottlenecks, indicators for follow up, reporting and accountability mechanisms, etc. Each hospital should also be requested to produce a budget, not as a result of "portions" of vertically segmented resource allocations but rather as true functional units. Such budgets would need to match different scenarios in the future reform context, as per current outlined functional and financial proposals, payment modalities (e. g. DRG-based if that is the option chosen at national level), etc.

4. 64 **In the context of the option for restructuring the network of public hospitals presented in Chapter 3 in all cases,** at least for some time, individual hospitals should not be economic units and should not "compete at first" but a single strategic management team should manage the entire network.

# CHAPTER 5. ROADMAP FOR IMPLEMENTING THE CHANGES

5. 1 **Phasing and coordinating MoH reorganization, restructuring and autonomy in hospitals with PAR and PFMR and NHS implementation.** All changes contemplated in the report should be sequenced into the three phases described in Chapter 1.

5. 2 **It will be important for the government authorities to coordinate health reform closely with PAR and PFMR reforms.** There will be a need for specific work-streams to be carried out jointly with MoF, MoH and the HIO to ensure that the reforms address some very specific requirements of the health system. These include: rising difficulty retaining specialist medical and technical staff in the public sector after NHS is implemented, increased unpredictability and variation in health facility revenue and future financial risk for public hospitals and the government budget under the NHS due to output-based payment and private sector competition. This will lead to variable revenues for public health facilities and the need for hospitals to be able to flex their budgets, finance working capital, and manage scenarios where hospitals run deficits in some years or face financial failure. Close coordination with HIO will therefore also be needed in the design of health-specific features of PFMR and in devising mechanisms to manage the financial risks to the public sector arising from NHS reforms.

***Implementation and Change Management***

5. 3 **The reforms Cyprus envisages implementing in the health sector under the MoU (NHS, hospital autonomy, and related changes to central MoH administration) are very major and complex,** to a much greater extent than in any of the functional review recommendations in other sector Ministries and public services. Implementation complexity and risks are increased because the Government is required under the MoU to implement a large and ambitious agenda of cross-cutting reforms and sector reforms in parallel.

5. 4 **It will be necessary to *establish an implementation unit* dedicated solely to managing the detailed policy design and implementation process in the health sector.**[38] At the very least, this could take the form of a joint steering committee and working groups between MoH, HIO and the central departments involved in PAR and PFMR, and to support these working groups with a full time secretariat. For the kind of hospital restructuring reforms envisaged in Cyprus, some countries have established temporary implementation units outside the MoH to lead implementation of hospital restructuring reforms of the sort planned in Cyprus, led by a dedicated reform-oriented senior manager, either seconded from the civil service or hired externally on a fixed term contract. This can create a working environment with a new organizational culture, supportive of change, and without conflict of interest in relation to key decisions involved (such as decisions affecting creation of management posts and appointment of managers in new structures). The implementation units typically comprise a combination of full

[38]For a more detailed discussion of international lessons on implementation of hospital organizational reform see Chris Ham and Loraine Hawkins. 2003. "Implementing Organizational Reform to Hospitals in the Public Sector". Chapter 2 in Alexander Preker and April Harding (Eds) *Innovations in Health Service Delivery.The Corporatization of Public Hospitals.*World Bank. Washington DC

time staff seconded from all of the Ministries who need to coordinate all aspects of detailed policy design and implementation (e.g. ministries of health, finance, public service, health insurance, hospitals) together with experts external to government hired on temporary contracts. Selection of staff that are highly motivated to support change is key. Successful hospital organizational reforms of this type and scale usually require hiring of management consultancy services, to assist with project management, support a program of communication with staff, and undertake training and capacity building for existing staff. Some financial resources will need to be mobilized (financed by savings elsewhere so as to meet agreed fiscal constraints) for at least a minimal amount of start-up activities identified in the action plan, including management training/coaching, technical consulting services (e.g. on new financial management and accounting requirements and business planning). The GoC could explore the feasibility of tapping the EU support group's offer of technical assistance from member states, to source this advice on an affordable basis.

5. 5 **A sequenced action plan for implementing Phase I and II of the recommended changes to the MoH and the restructuring of health facilities follows**. International reviews of experience with hospital organizational reform find that implementation cannot be conceived of as top-down implementation of a detailed blue print. (See Box 1.) Therefore it is not feasible or sensible to specify the longer term reforms of hospitals in Phase III as a list of specific time-bound actions. The more major long term reforms proposed for Phase III both for hospitals and creation of other agencies or Trading Funds will undoubtedly require a further round of policy consideration, decision and planning based on, among other things: (i) a review of progress and results from Phases I and II on the inter-related package of PAR, PFMR, NHS and MoH reforms; (ii) stakeholder responses to earlier phases of public sector reform and NHS reform; (iii) updated macro-economic; and (iv) fiscal outlook and political conditions for further reforms that will entail major new legislation.

**Box 1.** *…policymaking and implementation (of hospital organizational reform) must be seen as part of the same process….Policymakers have no alternative but to adjust course during the implementation process, seeing the delivery of change as an iterative experience in which feedback from earlier initiatives informs subsequent developments. This applies as much to the technical design of policy (e.g. institutional arrangements and payment mechanisms) as to the politics of implementation (e.g. anticipating and overcoming stakeholder opposition). Implementation is more likely to be effective if the inherently messy nature of the policy process is explicitly acknowledged.*

Ham & Hawkins (*loc. cit.* Preker& Harding Eds. 2003)

## A. PHASE I OF REFORM

- **Establishment of a multi-agency steering group and dedicated Implementation Unit to oversee the reforms, bringing together MoH, HIO, MoF and the Public Sector Reform Commission.** As noted above, the implementation unit could either consist of a multi-agency working group with a full time secretariat, or a temporary new organizational unit, probably outside the Ministry of Health. Human and financial resources for implementation need to be urgently identified. The implementation unit will need a leader and a team of a minimum of 8-10 staff to drive the implementation of the restructuring plan over a 3-5 years transition period.
- This Unit will immediately take responsibility for preparing necessary documentation, and coordinating implementation of the detailed project implementation plans and legal, administrative and other documentation required for the remaining actions steps listed below in Phases I and II of reform. Later the Implementation Unit will support detailed policy design and planning for Phase III reform. The Implementation Unit would also provide input to the MoH's strategic plan in relation to planned reforms.
- This Unit should also prepare a risk assessment and mitigation plan for the reforms, ideally as a joint assessment with risk assessment and mitigation plan for NHS implementation.
- Decision should be taken by the MoH and Council of Ministers on: (i) preferred option for re-structuring health facilities network (five regions or single network), (ii) preferred option for structuring of management teams (large management team combining strategic and operational management, of separation of strategic and operational management); and (iii) composition of the strategic management team which will head up the Health Services Department which will act as the "network headquarters" of the whole MoH network of hospitals, PHCCs and public health services. Ideally, the Chief Executive, other members of the network strategic management team, and 2-3 Facilities Executive Directors would be hired in open competition on a renewable fixed term contract of up to 3-5 years.
- Preparation of new job descriptions, competencies and experience required for the members of the network strategic management team.
- Detailed agreement between MoF and MoH on the first phase of consolidation of health facilities budgets. In Phase I, costs of drugs and supplies will be assigned to each hospital or department that consumes them during the budget preparation and execution processes for 2015/16. Preparation of hospital and health facility budgets for 2015/16 will include drugs and supplies procured centrally (though invoicing and payment of orders placed by the health facilities should remain centralized because of lack of accounting capacity in most hospitals). Consolidation of salaries budgets is not expected to be possible until 2015 Phase II in time for formulation of the 2016/17 budget, because of the substantial

legal and administrative work involved in transferring staff to the new Health Services Department.

***By end of Q3-2014 the following actions are proposed:***

- Appointment of the chief executive and other members of network strategic management team. To build momentum and provide leadership as early as possible in Phase I, the Chief Executive and strategic management team could be appointed to work in interim form in the Implementation Unit to help plan and implementation of hospital and health facilities restructuring, until the Health Services Department is established (by transforming and renaming the Medical and Public Health Services Department) and the restructured health facilities network is put in place. The 2009 Roadmap for hospital restructuring recommended that this component of reform would also require 6-8 "change agents" to work full-time with the strategic management team and each hospitals or group of PHCCs on leading and. These could be recruited from among existing staff, and seconded to work with the strategic management team in the Implementation Unit.
- Preparation of job descriptions for facilities operational management teams and district PHC and public health managers.
- Appointment of facilities operational management teams and district PHC and public health managers. Like the strategic management team, these could be hosted on an interim basis by the Implementation Unit until the MPHS Department is transformed and renamed as the Health Services Department. Facilities chief medical officers, facilities chief nursing officers and District PHC and public health services officers should be able to be recruited competitively from among existing personnel and appointed on secondment for fixed terms. Facilities Executive Director and ideally Facilities Operations Directors should be filled by open competition and appointed on fixed term contract. Facilities Executive Directors and District PHC and Public Health Services Officers will need to be appointed at a grade above that of the staff who report to them, to give them necessary authority.
- The new interim management teams will need to prepare business plans for managing their consolidated budgets for 2015/16 and projecting their revenue and profitability when NHS payment reforms are implemented, with the support of the Implementation Unit.
- Phase I of creation of the new Health Services Department to act as the "network headquarters" of the whole MoH health facilities network. This would take over the hospital, primary care and public health service delivery functions of the MPHS Department. It will be headed by the strategic management team, overseeing the regional hospital group management teams and PHC and public health directors already appointed. The remaining policy and regulatory functions of the MPHS Department will shift to the MoH administration, under the new post of Chief Medical Officer.

- Adoption of regulations, standard operating procedures and associated business documentation for delegation of authority over budgets and all staff working in the health facility network to the new Department and to regional hospital management teams. Delegation of authority and reporting lines could draw on lessons from the NGH pilot. Full transfer of staff may not be Feasible until Phase II, for implementation in 2016/17.
- Development of a "dashboard" of hospital and PHC performance indicators or a "balanced score card" for the MoH and the new Health Services Department to use in monitoring hospital and health center performance. Implementation of new reporting formats for delegated personnel and budget management functions.

## B. PHASE II OF REFORM

5. 6 **As envisaged in the MoH's action plan, Phase II of reform would further increase health facility autonomy and accountability for results based on taking advantage of the opportunities presented by further phases of PAR and PFMR implementation.** Some PAR and PFMR issues will take longer to address and timeframes are not yet certain. For example, transfer of nursing staff to the Health Services Department under the management of new hospital management teams is a lengthy administrative and legal process; policies on transfer of MoF outplaced staff have not yet been specified in detail; and development of program budgeting and greater budget flexibility are expected to take 5 years to implement fully. A second phase of increased hospital/health facilities autonomy could be implemented based on these further reforms in 2016 and beyond. During this phase of reform it may be possible to implement further reforms such as the following:

- Phase II of transformation of the new Health Services Department through transfer of hospital nursing and inpatient pharmacy staff to new Health Services Department, with nurses reporting to Nursing Director in the hospitals. Health center and outpatient pharmacies will close after NHS is implemented, though the public sector will need to develop a mechanism for providing pharmacy services in rural areas with no private pharmacy.
- Phase II of creation of during budget formulation and budget execution for the 2016/17 budget.
- Greater freedom for health facilities to select and promote staff, contract staff on short term contracts without incurring long term job protection, and outsource some non-clinical functions, based on PAR implementation.
- Transfer of outplaced staff (e.g. from MoF PAPD, Treasury, IT departments) to the management of the health facilities where they work, based on detailed policies and implementation plans for PAR.
- Greater flexibility for health facilities to reallocate budget between line items during the fiscal year. In order to gain control of their resources.
- The new facilities management teams should undertake program of business analysis and planning to prepare them for implementation of NHS. They need to better understand

main patterns of access to each hospital. A detailed analysis should be carried out to assess which share of patients are referred from primary care; come though the accident & emergency department and others. Although international best practices do not prescribe parameter in this regard managers need to discuss their respective performance figures and act accordingly. Subsequently, a diagnostic exercise should be organized around key fields: outpatient services, surgical activity and diagnostic activity.

5. 7 **The following issues should be analyzed regarding outpatient services:**

- Daily patients attendance Inter-facility variation
- Patients missing their appointments; efficiency of the appointment system
- Waiting list review (in line with McKinsey report recommendations)
- Productivity of outpatient services Inter-doctor/ department variation regarding the working time
- Relationship among first consultations and follow-up consultations (effectiveness and efficiency of hospitals in delivering specific "specialized" consultation services (as opposite to "general hospital practice" services)

5. 8 **The following aspects should be analyzed regarding surgical activity:**

- Basket of services linked to population needs. Specific inputs from head of clinics
- Reference units for highly specialized and low frequency surgeries
- Productivity of the operating theatres. Inter doctors / departments variations regarding the working time. Room for adapting staff working hours in order to increase operating theatres output (ideally without extra costs)
- Development of ambulatory surgery Percentage of elective surgery performed on outpatient basis
- Consumption of medical supplies in relation to level of services delivered. Inter doctors / departments variation

5. 9 **Regarding diagnostic activity, the review should include (drawing on work groups implementing recommendations of McKinsey):**

- Diagnostic tests performed daily Inter-facility variation
- Compliance with diagnostic tests (in particular, echographies; CTs; MRIs) request procedures
- Productivity of the main technologies in place. Inter-doctor/ departments variation regarding working time. Room for adapting staff working hours in order to increase equipment output (ideally without extra costs)
- Consumption of medical supplies versus volume of diagnostic services performed Inter doctor / department s variation

- Specific list of diagnostic tests required before surgery interventions (as a curiosity, for instance, chest X-Ray are not requested anymore for non-complex surgeries in western European hospitals)

5. 10 **By the end of Phase II, the new hospital management team(s) should be able to address the following issues:**

- Define comprehensive hospital budgets (including medicines, supplies, all staff);
- Identify the main weaknesses detected by the diagnostic exercise described above;
- Implement the dashboard designed during Phase II to continuously measure service performance and report to the network headquarters and MoH;
- Involve fully intermediate cadres in the implementation of the corrective measures;
- Specify requirements to address key health system problems (e.g. 24x7 service delivery obligations, response to low cost, low variation, high frequency services as differentiated workload, highly specialized workforce);
- Public hospitals and PHCCs should be able to draft strategic and business plans for 2016/17 and beyond projecting their revenue from NHS and other sources and planning their expenditure so that they operate sustainably within their revenue stream.

## C. PHASE III OF REFORM – LONGER TERM REFORMS.

5. 11 **For the reasons noted above, it is not realistic or meaningful in this report to put a firm deadline on Phase III reforms because these will involve both adoption of major new legislation, consolidation of Phase I and II reforms in MoH, PAR and PFMR, and fiscal space to undertake more ambitious reforms that will require up-front investment in management and technical capacity, and complex implementation.** Some reforms of MoH structures and functions will require detailed review and amendment of health legislation and regulation. In addition, to enable hospitals to function as business units when NHS is implemented, a further phase PFMR legislation is likely to be needed. Depending on the option chosen (as outlined in Section 3.2.6, this may take the form of legislation to enable establishment of Trading Funds (described above) or conversion of public hospitals into SGOs or SOEs. This will be a critical pre-requisite to full implementation of NHS reforms to provider payment and exposure of public hospitals to competition with the private sector. During this phase of reform it may be possible to implement the following further reforms:

- Introduction of legislation and regulation to convert the health facilities network of the new Health Services Department into either a "trading fund" – a business unit within MoH which is able to receive payments from HIO and copayments and manage and account for its revenues and expenditures in the same way as a business that is sustained by the revenues it earns, and SGO or an SOE, depending on the decision of the Government. The Trading Fund legislative model involved is adopted in the UK for revenue-earning business activities of government departments. It would allow health facilities staff to retain civil service status within the MoH.

- Decision on how many independent hospital trading funds/SGOs/SOEs to establish. For reasons discussed in Section 3 above, we believe that 1-3 independent hospital groups would be appropriate, together with 1-4 PHC groups, or 1-3 integrated hospital/PHC groups. However, before decision is taken on the number of independent health facility groups, analysis should be carried out of the financial and clinical sustainability of options for the number and configuration of groups after a period of experience with implementation of NHS. As well, assessment should be conducted of the managerial capacity and management systems readiness for each hospital/PHC group to move to more independent legal and financial status.
- Creation of a Supervisory Board for the trading fund/SGO/SOE to achieve greater independence from MoH line management alongside stronger oversight and accountability for performance within the MoH and central agencies (MoF, in particular).
- Once the main inefficiencies are identified and correctively approached, the new hospital management structure should concentrate in developing mechanism to consolidate the improvements:
    - Hospital management team job descriptions, standard operating procedures, budget management functions delegated to hospital management teams and related business documentation, reporting formats.
    - Protocols providing criteria for referrals regarding the diagnoses which more frequently require admission will be needed.
    - Protocols and clinical guidelines should also be developed to ensure that ambulatory surgery is generalized for those procedures for which there available technology and techniques (cataracts, inguinal hernias, colecystectomy, etc.) The same applies to the ratio normal deliveries / surgical section.
    - Organization of hospitals basket of services according to level of complexity, concentrating surgical super specialties (cardiovascular, neurosurgery, transplantations, etc.) in a single hospital (probably the Nicosia General Hospital)
    - The remaining facilities should escalate the surgery procedures according to volume and complexity criteria. At the same time, an effective system for referring patients should be developed.
    - Business planning for restructuring to rationalize and modernize facilities.

# ANNEXES

# ANNEX 1. DESCRIPTION OF NEW UNITS AND POSITIONS AT MOH ADMINISTRATION

## Strategic Planning and Budgeting Unit

| Organizational Unit | **Strategic planning and budgeting** - Ministry of Health Administration |
|---|---|
| Unit General Objectives | This section will be responsible for:<br>- translating the macro level objectives of the Government in the field of planning and budgeting into objectives at the level of the ministry of health<br>- setting up targets aligned to the medium-term ceilings under the mid-term budget framework (MTBF)<br>- assessing costs compatible with the medium-term ceilings under the mid-term budget framework (MTBF)<br>- producing budget figures aligned with the medium-term ceilings under the mid-term budget framework (MTBF)<br>- providing policy leadership to the totality of the health system in the areas above |
| Skill-mix; general lines | - Excellent knowledge of the health policy theory and its relationship with planning and budgeting<br>- Proven skills to develop and assess health policy proposals<br>- Ability to apply complex conceptual approaches and provide policy leadership;<br>- Ability to translate policies, plans and budgets into understandable language for non-specialists, communicate effectively and provide policy guidance to health institutions,<br>- Ability to interact effectively with a large range of stakeholders and partners both within and outside the Government and develop good working relations with people with a wide range of backgrounds and perspectives<br>- Ability to work to deadlines; strong results orientation; good skills in strategic planning and management,<br>- Ability to motivate and engage staff of different discipline. |

## Internal Audit Unit

| Organizational Unit | **Internal audit unit** - Ministry of Health Administration |
|---|---|
| Unit General Objectives | This unit will be responsible for:<br>- translating the macro level objectives of the Government into metrics at the level of risk management, control and governance within the ministry of health<br>- providing the management of the MoH with assurance on the adequacy and effectiveness of risk management, control and governance arrangements<br>- helping management to improve risk management, control and governance, thereby reducing the effects of any material adverse risks faced by the MoH.<br>- providing policy leadership to the totality of the health system in the areas above<br>- producing reports as adequate as per the MoH requirements in the field of audit |
| Skill-mix; general lines | - Excellent knowledge of the health policy theory and its relationship with governance, performance assessment and control<br>- Proven skills to implement health policy proposals with emphasis on accounting and provision of evidence<br>- Ability to apply complex conceptual approaches, translating policies into |

| | |
|---|---|
| Organizational Unit | **Internal audit unit** - Ministry of Health Administration |
| | understandable control measures, communicating effectively,<br>- Ability to interact effectively with a large range of stakeholders and partners both within and outside the Government and develop good working relations with people with a wide range of backgrounds and perspectives<br>- Ability to work to deadlines; strong results orientation; good skills in evaluation,<br>- Ability to motivate and engage staff of different disciplines. |

## Policy Unit

| | |
|---|---|
| Organizational Unit | **Policy unit** - Ministry of Health Administration |
| Unit General Objectives | This unit will be responsible for:<br>- translating the overall objectives for the health sector defined by the Government and by the Strategy Planning Unit / Steering Committee of the MoH into specific policy objectives for the ministry of health and related institutions in the public and the private sectors<br>- providing the management of the MoH with assurance on the adequacy and effectiveness of policy options for all other stakeholders<br>- coordinating various units and functions already located at MoH administration (e.g., public health; EU and International coordination; Health Monitoring and Evaluation; Health Reforms) in the pursuit of the above objectives<br>- providing policy leadership to the totality of the health system in the area of policy making, supported by reports as adequate |
| Skill-mix; general lines | - Excellent knowledge of the health policy theory and policy making<br>- Proven skills to develop and assess health policy proposals<br>- Ability to apply complex conceptual approaches and provide policy leadership;<br>- Ability to translate policies into understandable language for non-specialists, communicate effectively and provide policy guidance to health institutions,<br>- Ability to interact effectively with a large range of stakeholders and partners both within and outside the Government and develop good working relations with people with a wide range of backgrounds and perspectives<br>- Ability to work to deadlines; strong results orientation; good skills in policy design and formulation, implementation and evaluation,<br>- Ability to motivate and engage staff of different disciplines. |

## Chief Medical Officer, Chief Nursing Officer and Chief Pharmacist

| Job Denomination | Chief Medical Officer | Chief Nursing Officer | Chief Pharmacist |
|---|---|---|---|
| Organizational Unit | MoH administration | MoH administration | MoH administration |
| Job Definition | The Chief Medical Officer is in charge of professional policies, professional regulation, professional education and development, and | The Chief Nursing Officer is in charge of professional policies, professional regulation, professional education and development, and | The Chief Pharmacist is in charge of professional policies, professional regulation, professional education and development, and health |

| Job Denomination | Chief Medical Officer | Chief Nursing Officer | Chief Pharmacist |
|---|---|---|---|
| | health human resource planning for the medical profession and paramedical. | health human resource planning for the nursing profession. | human resource planning for the pharmacist professions. |
| Specific Objectives | This post is expected to contribute to the achievement of:<br>- policies acceptable for the medical profession and paramedical<br>- regulation in line with the ethical and professional interests of the medical profession and paramedical<br>- HR planning with adequate input from the medical and paramedical profession<br>- coordination of the MoH administration with acceptable participation of the medical and paramedical profession<br><br>(Specific objectives to be reflected in time-bound performance indicators) | This post is expected to contribute to the achievement of:<br>- policies acceptable for the nursing profession<br>- regulation in line with the ethical and professional interests of the nursing profession<br>- HR planning with adequate input from the nursing profession<br>- coordination of the MoH administration with acceptable participation of the nuring profession<br><br>(Specific objectives to be reflected in time-bound performance indicators) | This post is expected to contribute to the achievement of:<br>- policies acceptable for the pharmacist profession<br>- regulation in line with the ethical and professional interests of the pharmacist profession pharmacist profession<br>- HR planning with adequate input from the pharmacist profession<br>- coordination of the MoH administration with acceptable participation of the pharmacist profession<br><br>(Specific objectives to be reflected in time-bound performance indicators) |
| Functions | This post will focus on:<br>- contributing to the translation of the MoH objectives into policies and leadership affecting the medical and paramedical professions in the public and the private sectors<br>- participating in professional regulation, providing input from the perspective of the medical and paramedical professions<br>- contributing to the development of under and post graduate medical and paramedical education in coordination with relevant stakeholders | This post will focus on:<br>- contributing to the translation of the MoH objectives into policies and leadership affecting the nursing profession in the public and the private sectors<br>- participating in professional regulation, providing input from the perspective of the nursing profession<br>- contributing to the development of under and post graduate nursing education in coordination with relevant stakeholders and institutions<br>- providing the management of the MoH with assurance on the | This post will focus on:<br>- contributing to the translation of the MoH objectives into policies and leadership affecting the pharmacist profession in the public and the private sectors<br>- participating in professional regulation, providing input from the perspective of the pharmacist profession<br>- contributing to the development of under and post graduate pharmacist education in coordination with relevant stakeholders and institutions<br>- providing the management of the MoH with assurance on the |

| Job Denomination | Chief Medical Officer | Chief Nursing Officer | Chief Pharmacist |
|---|---|---|---|
| | and institutions<br>- providing the management of the MoH with assurance on the adequacy and effectiveness of policy options for medical and paramedical professionals<br>- ensuring adequate input from the medical and paramedical profession perspective into the HR planning<br>- participating from the professional medical and paramedical perspective in coordination of the various units and functions within the MoH administration in the pursuit of the above objectives | adequacy and effectiveness of policy options for nursing professionals<br>- ensuring adequate input from the nursing profession perspective into the HR planning<br>- participating from the professional nursing perspective in coordination of the various units and functions within the MoH administration in the pursuit of the above objectives | adequacy and effectiveness of policy options for pharmacist professionals<br>- ensuring adequate input from the pharmacist profession perspective into the HR planning<br>- participating from the professional pharmacist perspective in coordination of the various units and functions within the MoH administration in the pursuit of the above objectives |
| Competences (knowledge, skills and attitudes) | In terms of knowledge, skills and attitudes, the Chief Medical Officer will show:<br><br>- Excellent knowledge of the health policy theory and policy making, including planning, regulating and ensuring accountability<br>- Excellent knowledge of the human resource issues affecting the medical and paramedical professions, including training, deploying, retaining and providing incentives for excellent performance<br>- Proven skills to develop and assess policy proposals affecting the medical and paramedical professions<br>- Ability to apply complex conceptual | In terms of knowledge, skills and attitudes, the Chief Nursing Officer will show:<br><br>- Excellent knowledge of the health policy theory and policy making, including planning, regulating and ensuring accountability<br>- Excellent knowledge of the human resource issues affecting the nursing profession, including training, deploying, retaining and providing incentives for excellent performance<br>- Proven skills to develop and assess policy proposals affecting the nursing profession<br>- Ability to apply complex conceptual approaches and translate policies into understandable language | In terms of knowledge, skills and attitudes, the Chief Pharmacist will show:<br><br>- Excellent knowledge of the health policy theory and policy making, including planning, regulating and ensuring accountability<br>- Excellent knowledge of the human resource issues affecting the pharmacist profession, including training, deploying, retaining and providing incentives for excellent performance<br>- Proven skills to develop and assess policy proposals affecting the pharmacist profession<br>- Ability to apply complex conceptual approaches and translate policies into understandable language |

| Job Denomination | Chief Medical Officer | Chief Nursing Officer | Chief Pharmacist |
|---|---|---|---|
| | approaches and translate policies into understandable language for non-specialists, communicate effectively and provide policy guidance to medical and paramedical professionals,<br>- Ability to interact effectively with a large range of stakeholders and partners both within and outside the Government and develop good working relations with people with a wide range of backgrounds and perspectives<br>- Ability to work to deadlines; strong results orientation; good skills in policy design and formulation, implementation and evaluation,<br>- Awareness of the human resource situation in the health scene of the country and ability to motivate and engage medical staff in relation to the above. | for non-specialists, communicate effectively and provide policy guidance to nursing professionals,<br>- Ability to interact effectively with a large range of stakeholders and partners both within and outside the Government and develop good working relations with people with a wide range of backgrounds and perspectives<br>- Ability to work to deadlines; strong results orientation; good skills in policy design and formulation, implementation and evaluation,<br>- Awareness of the human resource situation in the health scene of the country and ability to motivate and engage nursing staff in relation to the above | for non-specialists, communicate effectively and provide policy guidance to pharmacist professionals,<br>- Ability to interact effectively with a large range of stakeholders and partners both within and outside the Government and develop good working relations with people with a wide range of backgrounds and perspectives<br>- Ability to work to deadlines; strong results orientation; good skills in policy design and formulation, implementation and evaluation,<br>- Awareness of the human resource situation in the health scene of the country and ability to motivate and engage pharmacist staff in relation to the above |
| Educational Background | It should be tailored to reflect Cyprus labor market characteristics | It should be tailored to reflect Cyprus labor market characteristics | It should be tailored to reflect Cyprus labor market characteristics |
| Previous Experience | It should be tailored to reflect Cyprus labor market characteristics | It should be tailored to reflect Cyprus labor market characteristics | It should be tailored to reflect Cyprus labor market characteristics |
| Reporting Lines Accountable to | PS | PS | PS |

## ANNEX 2. STAFFINGTHE HEALTH FACILITIES MANAGEMENT TEAM

| Position | Single network with combined strategic & operational management (Figure 16) | Single network with separate strategic & operational management (Figure 17) | Likely to be available from existing staff |
|---|---|---|---|
| Chief Executive Officer of network (CEO) | 1 | 1 | 0 |
| Network Head of Strategic Planning (NSP) | 1 | 1 | 0 |
| Network Head of Human Resources (NHR) | 1 | 1 | 0 |
| Network Head of Finance & Information (NFI) | 1 | 1 | 0 |
| Network Head of General & Customer Services (NGS) | 1 | 0 | 0 |
| Network Hospital Services Director (NHD) | 0 | 1 | 0 |
| Network Head of PHC & Public Health (NPPH) | 1 | 1 | 0 |
| Facilities Executive Director (FED) | 0 | 3 | 0 |
| Facilities Chief Medical Officer (FMO) | 6 | 6 | 6 |
| Facilities Chief Nursing Officer (FNO) | 6 | 6 | 6 |
| Facilities Operations & General Services Director (FOP) | 6 | 0 | 6 |
| District Head of PHC & Public Health (DPS) | 5 | 5 | 5 |
| **Total** | **29** | **26** | **23** |
| Not available | 6 | 9 | |

5. 12 **The Chief Executive Officer of the Network** [CEO] - should have full responsibility over the results of all facilities involved in the network and making the key management decisions.

5. 13 **The following key posts can be foreseen to support the CEO of the Network:**

- Head of Network Strategic Planning [NSP], in charge of developing the overall facility framework and principles for operation under his/her guidance, reorganizing the service map and helping the Executive Director lead the *change management* affecting the core issues and objectives of the organization. This should be the person in charge of preparing/coordinating the business plan for the entire network and then measuring that the goals have been achieved and the resources used to achieve them;
- Head of Network Human Resources [NHR], in charge of designing the broad staff guidelines and supporting the individual facilities in selecting, contracting and training staff as necessary (in line with the national Human Resources Department). Providing at first and on continuous basis the necessary appropriate training for hospital management teams will also be an important responsibility;
- Head of Network Financing& Information [NFI], in charge of financial management of the network, interpret its financial situation, design and develop budgets and forecasts,

deal with solvency and liquidity issues, etc., closely aligned with the national Financing Department. Organizing first and then implementing the production of hospital budgets in line with the business plan of the network and of the very facility will also be an important responsibility;

- Head of Network General and Customer Services [NGS], in charge of articulating the rules, procedures and records related to: (a) producing robust data through properly coordinated information systems; (b) patients' and relatives' rights, their complaints and perception of the care received as well as provision of the required information; and (c) contribute to the centralized procurement for core purchases in the network, in line with the national Procurement Department.
- Network Hospital Services Director [NHD], responsible for directing and coordinating activities related to various initiatives involving hospital network management, including but not limited to quality improvement and provision of services.
- Network Head of PHC & Public Health [NPPH], responsible for directing and coordinating activities related to the network of PHCCs that involved primarily the provision of PHC and public health services.

5. 14 **Facilities Executive Directors [FED],** are professional primarily focused, but is not limited to, day-to-day operations, communication, client interface, and coordination to ensure service quality and financial management in the hospitals comprising the hospital group under his/her responsibility;

5. 15 **Facility Chief Medical Officers [FMO],** are the professional medical reference and ultimate responsible in the clinical field, including quality of care (i.e., infection control; surgery safety, studies of adverse events; solutions for issues related to patient safety) and translating the goals already determined into concrete sequence of clinical activities;

5. 16 **Facility Chief Nursing Officers [FNO],** are the professional nursing reference in charge of nursing care and quality, translating the goals already determined into concrete sequence of nursing activities in close coordination with the General Manager and the chief medical officer;

5. 17 **Heads of Facility Operations and General Services [FOP],**have three main responsibilities: (a) training and managing staff in connection with the Head of the Network Human Resources; (b) managing the supplies (though procurement would remain, as indicated, centralized for most purchases); storing; sharing out logistics; consumption control; (c) managing the financing of non-medical issues, including getting involved in the follow up of contracts with external providers); and (d) dealing with information system issues.

5. 18 **District Health PHC and Public Health [DPS],** are in charge of coordinating the provision of PHC, preparing the reforms establishing a PHC gatekeeper/referral system and being in charge of proper implementation of community, "public health" services and related activities in each of the districts.

*Costs estimates of the Network Management Team*

5. 19 **Salary scales in the Cypriot public service include a range from A1 (e.g. the post of Office Assistant) to A16 (e.g. the post of Department Director**). According to the information provided for the higher position in the scale (July 2011 table of salaries, currently in force) the income of those posts is:

A16 – Yearly salary ranging from 77,000 € to 94,000 € (as per seniority)
A15 – Yearly salary ranging from 70,000 € to 87,000 € (as per seniority)
A14 – Yearly salary ranging from 62,000 € to 83,000 € (as per seniority)
A13 – Yearly salary ranging from 58,000 € to 76,000 € (as per seniority)

5. 20 **Other costs components to be considered include:** social insurance costs, coherent contributions, redundancy compensation, provident fund, medical fund, etc. and represent around 15 percent of gross salary.

5. 21 **Assuming that the selected CEO would be paid as a A16 position** (range 85,000-110,000 Euros/year) as the highest posts in the Cypriot public services while the other component of the Network Headquarters management team (NSP, NHR, NFI, NPPH and NHD/NGS) would also require high salaries in the range 70,000-90,000 Euros/year), the following figures emerge:

**Table 30. Additional costing estimates for the proposed staff (in €, per year)**

| | **Single network with combined strategic & operational management (Fig. 16)** | | **Single network with separate strategic & operational management (Fig. 17)** | |
|---|---|---|---|---|
| **Position** | **Cost range** | **Number** | **Cost range** | **Number** |
| **CEO** | 85,000-110,000 | 1 | 85,000-110,000 | 1 |
| **NSP** | 70,000-90,000 | 1 | 70,000-90,000 | 1 |
| **NHR** | 70,000-90,000 | 1 | 70,000-90,000 | 1 |
| **NFI** | 70,000-90,000 | 1 | 70,000-90,000 | 1 |
| **NGS / NHD** | 70,000-90,000 | 1 | 70,000-90,000 | 1 |
| **NPPH** | 70,000-90,000 | 1 | 70,000-90,000 | 1 |
| **FED** | - | - | 60,000-80,000 | 3 |
| **Total** | **435,000-560,000** | **6** | **615,000-800,000** | **9** |

# ANNEX 3. JOB DESCRIPTION OF THE HOSPITAL NETWORK MANAGEMENT TEAM

| | |
|---|---|
| Denomination of the post | **CHIEF EXECUTIVE OFFICER OF THE NETWORK [CEO]** |
| Organizational Unit | Network Management Team, Headquarters-located Department of Health Services |
| Unit General Objectives | The Network Management Team will be responsible for:<br>[a] Translating into service-provision-management terms the objectives of the MoH for the network of public health facilities<br>[b] Maximizing in the various facilities of the network the output of the resources devoted to service provision<br>[c] Ensuring in an adaptive way the best input-mix for achieving the above<br>[d] Providing managerial leadership to the totality of the network |
| Job definition | The CEO, as top authority, is in charge of managing the performance of all the health facilities in the network -within the context of the strategies, policies and budgets established by the MoH |
| Specific objectives | This post is expected to:<br>[a] Provide leadership to the entire network and its staff<br>[b] Devise business plans for the public health facility network<br>[c] Manage the available resources, and<br>[d] Control the performance of the organization to ensure that health services are provided in accordance with the main lines designed by the MoH.<br>*(Specific objectives will be reflected in time bound performance indicators)* |
| Functions | [1] Developing strategies that define how the network's goals will be achieved<br>[2] Developing guidance for the management of the network<br>[3] Leading major organizational change projects that need demonstrable top-level commitment;<br>[4] Leading staff to achieve the goals of the organization<br>[5] Setting up (variable) structures whose architecture should facilitate the implementation of the chosen strategies;<br>[6] Undertaking figurehead responsibilities, including solving issues that cannot be appropriately dealt with at a lower level in the network management team |
| Competences | In terms of knowledge, skills and attitudes, the CEO will prove:<br>- Excellent knowledge of the Cypriot health system and services<br>- Strong background in management techniques and tools |

| | |
|---|---|
| | - Great confidence from the central stewards (mainly MoH) and full alignment with government policies<br>- Proven skills to develop and implement business plans and make difficult decisions with strategic perspective<br>- Ability to create an empowering and motivating environment<br>- Ability to promote innovations, motivate through leadership, communicate effectively and move forward in a changing environment<br>- Ability to interact effectively with a range of stakeholders and partners, both within and outside the network of public facilities<br>- Ability to work with deadlines; strong results orientation; good skills in implementation and evaluation,<br>- Awareness of the main issues in the health scene of the country and ability to motivate and engage staff in relation to the above |
| Educational background | University degree<br>Post-graduate specialization in management, public health, or related fields would be desirable |
| Previous experience | Position of responsibility in complex organizations<br>Experience of work in managing health organizations would be desirable |
| Reporting lines | CEO takes responsibility for the success of the team and accounts for its performance as well as his/her own to the Minister of Health and other high-level authorities with an agreed upon frequency -say twice a year plus whenever necessary<br><br>CEO supervises and coordinates the action of his/her entire team, made of staff and line managers. With some (those located in the "network headquarters"), CEO manages all aspects of the network's activity through meetings of variable frequency (say every two weeks), as necessary. With those located in the health facilities the CEO manages aspects of the facility that would deserve its involvement (probably with rather high frequency during the initial stages)<br><br>CEO organizes specific meetings with the entire network management team whenever necessary |

| | |
|---|---|
| Denomination of the post | **NETWORK HEAD OF STRATEGIC PLANNING [NSP]** |
| Organizational Unit | Network Management Team, Headquarters-located Department of Health Services |

| | |
|---|---|
| Unit General Objectives | The Network Management Team will be responsible for:<br>[a] Translating into service-provision-management terms the objectives of the MoH for the network of public health facilities<br>[b] Maximizing in the various facilities of the network the output of the resources devoted to service provision<br>[c] Ensuring in an adaptive way the best input-mix for achieving the above<br>[d] Providing managerial leadership to the totality of the network |
| Job definition | NSP is in charge of developing the framework and principles of the network operations and structure, under the leadership of the CEO |
| Specific objectives | This post is expected to:<br>[a] Support the CEO in producing network strategies<br>[b] Strengthen the managerial aspects of the facility network (pursuit of corporate objectives, unit of command, solid follow-up and accountability, etc.)<br>[c] Ensure effective supervision of the work of the set of facilities<br>[d] Strengthen transparency through better follow up and evaluation<br>*(Specific objectives will be reflected in time bound performance indicators)* |
| Functions | [1] Producing business plans for the facilities and the overall network and keeping them updated<br>[2] Developing performance indicators and tools for appraising progress in the implementation of the plans<br>[3] Suggesting organizational arrangements at facility level to improve service delivery effectiveness and efficiency as needed, as per the network objectives<br>[4] Keeping others informed about relevant issues related to network performance<br>[5] Creating a compelling vision of shared goals and a roadmap for successfully achieving real progress within the network |
| Competences | In terms of knowledge, skills and attitudes, NSP will prove:<br>- Excellent knowledge of the Cypriot health system and services and full alignment with the core values and policies of the MoH<br>- Strong background in technical aspects such as: political analysis, needs assessment, planning, performance appraisal, etc.<br>- Proven skills to developing and keeping updated business plans<br>- Ability to develop performance indicators and to assess progress in implementation of the plans<br>- Ability to interact and negotiate effectively with persons |

| | |
|---|---|
| | outside and inside the network<br>- Ability to promote innovative arrangements to maximize the effectiveness of network team<br>- Ability to deal constructively with conflicts; strong results orientation; good skills in managerial implementation and evaluation |
| Educational background | University degree<br>Postgraduate studies in Health Sciences, Engineering, Management, Law, Economics, or Political Sciences would be desirable |
| Previous experience | Position in charge of planning and evaluation in a public or private firm<br>Working experience in the public health sector would be desirable |
| Reporting lines | NSP will periodically meet the CEO as necessary (say once every 1-2 weeks at least), alone and/or with other headquarters-located managers (NHR, NPPH,NFI and / or NGS).<br><br>Meetings with facility-located managers will take place with an agreed upon frequency (probably with rather higher frequency in initial stages). Specific meetings could be held whenever justified |

| | |
|---|---|
| Denomination of the post | **NETWORK HEAD OF HUMAN RESOURCES [NHR]** |
| Organizational Unit | Network Management Team, Headquarters-located Department of Health Services |
| Unit General Objectives | The Network Management Team will be responsible for:<br>[a] Translating into service-provision-management terms the objectives of the MoH for the network of public health facilities<br>[b] Maximizing in the various facilities of the network the output of the resources devoted to service provision<br>[c] Ensuring in an adaptive way the best input-mix for achieving the above<br>[d] Providing managerial leadership to the totality of the network |
| Job definition | NHR is in charge of designing broad staff guidance for the network in order to ensure the best performance in every facility, under the leadership of the CEO |
| Specific objectives | This post is expected to:<br>[a] Support the CEO in ensuring a solid foundation in the field of human resources<br>[b] Strategically assist network facilities to design, establish and |

| | |
|---|---|
| | promote effective, efficient, satisfactory and sustainable human resources policies<br>[c] Develop sound procedures for selecting, training, deploying and retaining well-skilled and appropriately endowed human resources in the network facilities<br>*(Specific objectives will be reflected in time bound performance indicators)* |
| Functions | [1] Assisting facility management teams to properly staffing units for ensuring quality, accessibility and efficient use of the services provided<br>[2] Producing technically sound mechanisms and procedures to develop the staff of the facility<br>[3] Assessing human resources training needs and providing effective training programs<br>[4] Developing incentive schemes to retain good professionals |
| Competences | In terms of knowledge, skills and attitudes, NHR will prove:<br><br>- Perfect knowledge of MoH and network policies and objectives<br>- Good skills in strategic management applied to health sector human resources<br>- Ability to promote effective human relations, and to motivate and encourage staff of different disciplines and backgrounds<br>- Ability to interact and negotiate effectively with persons outside and inside the network<br>- Ability to deal constructively with conflicts; strong results orientation; good skills in managerial implementation and evaluation |
| Educational background | University degree<br>Postgraduate studies in Health Sciences, Management, Law, Economics, or Political Sciences would be desirable |
| Previous experience | Position in charge of human resources in public or private organizations, including high-skilled professionals and multidisciplinary teams<br>Working experience in the public health sector would be desirable |
| Reporting lines | NHR will periodically meet the CEO as necessary (say once every 1-2 weeks at least), alone and/or with other headquarters-located managers (NSP, NPPH,NFI and / or NGS).<br><br>Meetings with facility-located managers will take place with an agreed upon frequency (probably with rather higher frequency in initial stages). Specific meetings could be held whenever justified) |

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| Denomination of the post | **NETWORK HEAD OF FINANCING & INFORMATION [NFI]** |
| Organizational Unit | Network Management Team, Headquarters-located<br>Department of Health Services |
| Unit General Objectives | The Network Management Team will be responsible for:<br>[a] Translating into service-provision-management terms the objectives of the MoH for the network of public health facilities<br>[b] Maximizing in the various facilities of the network the output of the resources devoted to service provision<br>[c] Ensuring in an adaptive way the best input-mix for achieving the above<br>[d] Providing managerial leadership to the totality of the network |
| Job definition | NFI is in charge of the financing management of the network, closely aligned with MoH and network policies and objectives, under the leadership of the CEO |
| Specific objectives | This post is expected to:<br>[a] Support CEO in producing appropriate network and facility budgets, in line with agreed upon objectives<br>[b] Assist network facilities in budget implementation<br>[c] Develop sound procedures for monitoring and assessing the financing situation in the facilities<br>[d] Deal with the solvency and liquidity of the whole network of public facilities<br>*(Specific objectives will be reflected in time bound performance indicators)* |
| Functions | [1] Assisting facility management teams to prepare and implement budgets for ensuring the achievement of expected objectives<br>[2] Identifying models of good practice in this area and developing strategies for wide dissemination through the network<br>[3] Producing performance indicators to appraise the financing situation<br>[4] Interpreting the financial situation of the network and providing advice in case of relevant financing issues<br>[5] Providing mechanisms to deal with solvency and liquidity issues |
| Competences | In terms of knowledge, skills and attitudes, NFI will prove:<br><br>- Excellent knowledge of MoH and network policies and objectives<br>- Proven skills to develop and assess health financing proposals<br>- Ability to apply complex conceptual approaches, translate |

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| | these into understandable language for non-specialists and provide facilities with tailor-made support<br>- Ability to develop good working relations with counterparts with a wide range of backgrounds and perspectives<br>- Capacity to work with deadlines<br>- Strong results orientation<br>- Ability to deal constructively with conflicts and motivate and engage staff of different disciplines |
| Educational background | University degree in Economics or Health Economics<br>Postgraduate specialization in Management, Law, or related fields would be desirable |
| Previous experience | Senior position as financial or economic adviser in complex public or private organizations<br>Working experience in the public health sector would be desirable |
| Reporting lines | NFI will periodically meet the CEO as necessary (say once every 1-2 weeks at least), alone and/or with other headquarters-located managers (NSP, NPPH,NHR and / or NGS).<br><br>Meetings with facility-located managers will take place with an agreed-upon frequency (probably with higher frequency in initial stages). Specific meetings could be held whenever justified) |

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| Denomination of the post | **NETWORK HEAD OF GENERAL AND CUSTOMER SERVICES [NGS]** |
| Organizational Unit | Network Management Team, Headquarters-located Department of Health Services |
| Unit General Objectives | The Network Management Team will be responsible for:<br>[a] Translating into service-provision-management terms the objectives of the MoH for the network of public health facilities<br>[b] Maximizing in the various facilities of the network the output of the resources devoted to service provision<br>[c] Ensuring in an adaptive way the best input-mix for achieving the above<br>[d] Providing managerial leadership to the totality of the network |
| Job definition | NGS is in charge of providing rules and procedures related to general and customer services, including the maintenance of records in this area, under the leadership of the CEO |
| Specific objectives | This post is expected to:<br>[a] Support CEO in ensuring a solid foundation in general and customer services in the network<br>[b] Assist network facilities in implementing those rules and procedures |

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| | [c] Set up the organizational and operational baseline for improving general and customer services performance at facility level<br>[d] Ensure the availability of information systems and updated data related to the above<br>*(Specific objectives will be reflected in time bound performance indicators)* |
| Functions | [1] Providing facility management teams with appropriate rules and procedures to manage general and customer services in line with agreed-upon objectives<br>[2] Identifying models of good practice in the area of general and customer services and develop strategies for wide dissemination through the network<br>[3] Producing performance indicators regarding the provision of general and customer services in the facility<br>[4] Designing network and facility management information systems and maintaining them updated<br>[5] Assessing performance in this area and providing advice whenever relevant |
| Competences | In terms of knowledge, skills and attitudes, NGS will prove:<br>- Solid knowledge of policies and objectives of the MoH and of the facility network<br>- Technical skills in the area of general and customer services<br>- Capacity to work in team<br>- Communication skills and ability to promote effective relations with counterparts of different disciplines and cultures<br>- Capacity to work with deadlines<br>- Strong results orientation<br>- Ability to deal constructively with conflicts and encourage staff to improving performance |
| Educational background | University degree<br>Postgraduate specialization in Engineering, Management or related fields would be desirable |
| Previous experience | Senior position in complex public or private organizations<br>Working experience in the public health sector would be desirable |
| Reporting lines | NGS will periodically meet the CEO as necessary (say once every 1-2 weeks at least), alone and/or with other headquarters-located managers (NSP, NPPH,NHR and / or NFI).<br><br>Meetings with facility-located managers will take place with an agreed upon frequency (probably with rather higher frequency in initial stages). Specific meetings could be held whenever justified) |

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| Denomination of the post | **NETWORK HOSPITAL SERVICES DIRECTOR [NHD]** |
| Organizational Unit | Network Management Team, Headquarters-located Department of Health Services |
| Unit General Objectives | The Network Management Team will be responsible for:<br>[a] Translating into service-provision-management terms the objectives of the MoH for the network of public health facilities<br>[b] Maximizing in the various facilities of the network the output of the resources devoted to service provision<br>[c] Ensuring in an adaptive way the best input-mix for achieving the above<br>[d] Providing managerial leadership to the totality of the network |
| Job definition | NHD is in charge of providing rules and procedures related to general and customer services, including the maintenance of records in this area, under the leadership of the CEO |
| Specific objectives | This post is expected to:<br>[a] Support CEO and FEDs in ensuring coordination among hospitals comprising the network<br>[b] Assist hospitals in implementing new rules and procedures<br>[c] Set up the organizational and operational baseline for improving general and customer services performance at facility level<br>[d] Ensure the availability of information systems and updated data related to the above<br>*(Specific objectives will be reflected in time bound performance indicators)* |
| Functions | [1] Providing facility management teams with appropriate rules and procedures to manage general and customer services in line with agreed-upon objectives<br>[2] Identifying models of good practice in the area of general and customer services and develop strategies for wide dissemination through the network<br>[3] Producing performance indicators regarding the provision of general and customer services in the facility<br>[4] Designing network and facility management information systems and maintaining them updated<br>[5] Assessing performance in this area and providing advice whenever relevant |
| Competences | In terms of knowledge, skills and attitudes, NHD will prove:<br>- Solid knowledge of policies and objectives of the MoH and of the facility network<br>- Solid knowledge of hospital management and organization<br>- Technical skills in the area of general and customer services |

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| | - Capacity to work in team<br>- Communication skills and ability to promote effective relations with counterparts of different disciplines and cultures<br>- Capacity to work with deadlines<br>- Strong results orientation<br>- Ability to deal constructively with conflicts and encourage staff to improving performance |
| Educational background | University degree<br>Postgraduate specialization in Engineering, Management or related fields would be desirable |
| Previous experience | Senior position in complex public or private organizations<br>Working experience in the public health sector would be desirable |
| Reporting lines | NHD will periodically meet the CEO as necessary (say once every 1-2 weeks at least), alone and/or with other headquarters-located managers (NSP, NPPH,NHR and / or NFI).<br><br>Meetings with facility-located managers will take place with an agreed upon frequency (probably with rather higher frequency in initial stages). Specific meetings could be held whenever justified) |

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| Denomination of the post | **NETWORK HEALTH OF PHC & PUBLIC HEALTH [NPPH]** |
| Organizational Unit | Network Management Team, Headquarters-located Department of Health Services |
| Unit General Objectives | The Network Management Team will be responsible for:<br>[a] Translating into service-provision-management terms the objectives of the MoH for the network of public health facilities<br>[b] Maximizing in the various facilities of the network the output of the resources devoted to service provision<br>[c] Ensuring in an adaptive way the best input-mix for achieving the above<br>[d] Providing managerial leadership to the totality of the network |
| Job definition | NPPH is responsible to lead and coordinate the provision of PHC, community, "public health" services and related activities, under the leadership of the CEO |

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| Specific objectives | This post is expected to:<br>[a] Improve the patterns of PHC, community and public health service production quality, access to and utilization of his/her district interacting with the relevant professionals<br>[b] Help achieve the performance targets set up for the district<br>[c] Improve coordination with the referral hospitals as per agreed upon objectives<br>[d] Work with headquarters-located and DPS to ensure the best service mix within the network<br>*(Specific objectives will be reflected in time bound performance indicators)* |
| Functions | [1] Maintaining top standards of quality and effectiveness in the district<br>[2] Supporting PHC staff in reviewing service data towards the achievement of optimum patient outcomes and ensuring effectiveness in the established mechanisms<br>[3] Coordinating within the district the introduction of innovations on the basket of services suggested from headquarters managers and reporting on progresses<br>[4] Achieving professional support to activity-improving initiatives suggested from headquarters and reporting on progress<br>[5] Assessing training needs for district staff and ensuring the provision of training as necessary and as agreed upon with headquarters managers |
| Competences | In terms of knowledge, skills and attitudes, NPPH will prove:<br>- Skills to lead, interact and negotiate effectively with PHC personnel in the district<br>- Demonstrable knowledge on the technical aspects of measuring, analyzing and reporting on district activity<br>- Proven alignment with the objectives of the network and the core values and policies of the MoH<br>- Ability to implement business plans, use performance indicators and assess progress<br>- Sound knowledge of the district structure (staff, infrastructure and equipment) and basket of services<br>- Ability to deal constructively with conflicts; strong results orientation; good skills managerial implementation and evaluation |
| Educational background | University degree in Medicine |

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| | Postgraduate specialization in Family Medicine, Public Health, Management, Economics, or related fields would be desirable |
| Previous experience | Position in charge of a health facility, preferable in PHC<br>Working experience in managing public health organizations would be desirable |
| Reporting lines | NPPH will periodically meet the CEO as necessary (say once every 1-2 weeks at least), alone and/or with other headquarters-located managers (NSP, NGS, NHR and / or NFI).<br><br>Meetings with DPS will take place with an agreed upon frequency (probably with rather higher frequency in initial stages). Specific meetings could be held whenever justified) |

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| Denomination of the post | **FACILITY EXECUTIVE DIRECTOR [FED]** |
| Organizational Unit | Network Management Team, Facility-located<br>Department of Health Services |
| Unit General Objectives | The Network Management Team will be responsible for:<br>[a] Translating into service-provision-management terms the objectives of the MoH for the network of public health facilities<br>[b] Maximizing in the various facilities of the network the output of the resources devoted to service provision<br>[c] Ensuring in an adaptive way the best input-mix for achieving the above<br>[d] Providing managerial leadership to the totality of the network |
| Job definition | FED is the professional responsible for day-to-day operations, communication, client interface, and coordination to ensure service quality and financial management in the hospitals comprising the hospital group under his/her responsibility |
| Specific objectives | This post is expected to:<br>[a] Improve the patterns of service production quality, access to and utilization in the facilitiesunder his / her |

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| | responsibility<br>[b] Achieve the activity targets set up for the facilities under his / her responsibility in terms of waiting lists and times, surgical activity, costs, etc.<br>[c] Work with headquarters-located and other facility-located managers for ensuring the best service mix within the network<br>*(Specific objectives will be reflected in time bound performance indicators)* |
| Functions | [1] Works collaboratively with FNOs and FMOs and other staff to ensure standards of operation and medical care are met<br>[2] Work collaboratively with the CEO and Network Management Team in the planning and delivery of all health services<br>[3] Oversee planning, operations and business development inhospitals<br>[4] Works with Network Management, FNOs and FMOs to manage hospital operational, financial status, and employee relations<br>[5]Participates in the budgeting process and manages the hospitals to the budget.<br>[6]Ensures that staff workflows are efficient and effective. Supports process improvement and customer service initiatives |
| Competences | In terms of knowledge, skills and attitudes, FED will prove:<br>- Skills to lead, interact and negotiate effectively with all personnel inthe facilities<br>- Demonstrable knowledge on the technical and financial aspects of measuring, analyzing and reporting on hospital activity<br>- Proven alignment with the objectives of the network and the core values and policies of the MoH<br>- Ability to implement business plans, use performance indicators and assess progress<br>- Sound knowledge of the facility structure (staff, infrastructure and equipment) and basket of services<br>- Ability to deal constructively with conflicts; strong results orientation; good skills managerial implementation and evaluation |
| Educational background | University degree<br>Postgraduate specialization in Health Sciences, Management, Economics, or related fields would be |

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| | desirable |
| Previous experience | Previous healthcare managerial experience<br>Working experience in managing public health organizations would be desirable |
| Reporting lines | Specific meetings with other facility -located managers (FMO, FNO, FOP) would be held at least weekly and whenever justified.<br>FED will periodically meet the headquarters-located managers with an agreed-upon frequency (probably with higher frequency in initial stages).<br>Meetings with staff in his/her facility will take place as per an agreed upon calendar (with rather higher frequency in initial stages). Specific-purpose meetings would be held whenever justified) |

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| Denomination of the post | **FACILITY CHIEF MEDICAL OFFICER [FMO]** |
| Organizational Unit | Network Management Team, Facility-located<br>Department of Health Services |
| Unit General Objectives | The Network Management Team will be responsible for:<br>[a] Translating into service-provision-management terms the objectives of the MoH for the network of public health facilities<br>[b] Maximizing in the various facilities of the network the output of the resources devoted to service provision<br>[c] Ensuring in an adaptive way the best input-mix for achieving the above<br>[d] Providing managerial leadership to the totality of the network |
| Job definition | FMO is the professional medical reference in the facility and ultimate responsible in clinical field under the leadership of the CEO |
| Specific objectives | This post is expected to:<br>[a] Improve the patterns of service production quality, access to and utilization of his/her facility interacting with the medical professionals<br>[b] Help achieve the activity targets set up for the facility in terms of waiting lists and times, surgical activity, costs, |

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| | etc.<br>[c] Improve coordination with PHC medical staff, as per agreed upon objectives<br>[d] Work with headquarters-located and other facility-located managers for ensuring the best service mix within the network<br>*(Specific objectives will be reflected in time bound performance indicators)* |
| Functions | [1] Maintaining top standards in medical activity in the facility [Accident & Emergency; Diagnostic procedures; Hospitalization; Surgery (in-patient; day-care & ambulatory); Obstetric services; Outpatient consultation, etc.]<br>[2] Supporting medical staff in reviewing data towards the achievement of optimum patient outcomes and ensuring effectiveness in the established mechanisms<br>[3] Ensuring top standards in the medical contribution to facility committees (i.e., infection control; surgery safety, studies of adverse events; patient safety issues, etc.) and reporting on their activity<br>[4] Coordinating within the facility the introduction of innovations on the basket services suggested from headquarters managers and reporting on progress<br>[5] Achieving professional support to activity-improving initiatives suggested from headquartersand reporting on progress |
| Competences | In terms of knowledge, skills and attitudes, FMO will prove:<br>- Skills to lead, interact and negotiate effectively with medical personnel inside the facility<br>- Demonstrable knowledge on the technical aspects of measuring, analyzing and reporting on hospital activity<br>- Proven alignment with the objectives of the network and the core values and policies of the MoH<br>- Ability to implement business plans, use performance indicators and assess progress<br>- Sound knowledge of the facility structure (staff, infrastructure and equipment) and basket of services<br>- Ability to deal constructively with conflicts; strong results orientation; good skills managerial implementation and evaluation |
| Educational background | University degree in Medicine<br>Postgraduate specialization in Health Sciences, Management, Economics, or related fields would be |

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| | desirable |
| Previous experience | Position in charge of hospital units<br>Working experience in managing public health organizations would be desirable |
| Reporting lines | Specific meetings with other facility -located managers (FNO, FOP and/or DPS) would be held at least weekly and whenever justified.<br>FMO will periodically meet the headquarters-located managers with an agreed-upon frequency (probably with higher frequency in initial stages).<br>Meetings with staff in his/her facility will take place as per an agreed upon calendar (with rather higher frequency in initial stages). Specific-purpose meetings would be held whenever justified) |

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| Denomination of the post | **FACILITY CHIEF NURSING OFFICER [FNO]** |
| Organizational Unit | Network Management Team, Facility-located<br>Department of Health Services |
| Unit General Objectives | The Network Management Team will be responsible for:<br>[a] Translating into service-provision-management terms the objectives of the MoH for the network of public health facilities<br>[b] Maximizing in the various facilities of the network the output of the resources devoted to service provision<br>[c] Ensuring in an adaptive way the best input-mix for achieving the above<br>[d] Providing managerial leadership to the totality of the network |
| Job definition | FNO is the professional nursing reference in the facility in charge of nursing care and quality, under the leadership of the CEO |
| Specific objectives | This post is expected to:<br>[a] Improve the patterns of service production quality, access to and utilization of his/her facility interacting with the nursing professionals<br>[b] Help achieve the activity targets set up for the facility in |

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| | terms of waiting lists and times, surgical activity, costs, etc.<br>[c] Improve coordination with PHC nursing staff, as per agreed upon objectives<br>[d] Work with headquarters-located and other facility-located managers for ensuring the best service mix within the network<br>*(Specific objectives will be reflected in time bound performance indicators)* |
| Functions | [1] Maintaining top standards in nursing activity in the facility [Accident & Emergency; Diagnostic procedures; Hospitalization; Surgery (in-patient; day-care & ambulatory); Obstetric services; Outpatient consultation, etc.]<br>[2] Supporting nursing staff in reviewing data towards the achievement of optimum patient outcomes and ensuring effectiveness in the established mechanisms<br>[3] Ensuring top standards in the nursing contribution to facility committees (i.e., infection control; surgery safety, studies of adverse events; patient safety issues, etc.) and reporting on their activity<br>[4] Coordinating within the facility the introduction of innovations on the basket services suggested from headquarters managers and reporting on progress<br>[5] Achieving professional support to activity-improving initiatives suggested from headquarters and reporting on progress |
| Competences | In terms of knowledge, skills and attitudes, FNO will prove:<br>- Skills to lead, interact and negotiate effectively with nursing personnel inside the facility<br>- Demonstrable knowledge on the technical aspects of measuring, analyzing and reporting on hospital activity<br>- Proven alignment with the objectives of the network and the core values and policies of the MoH<br>- Ability to implement business plans, use performance indicators and assess progress<br>- Sound knowledge of the facility structure (staff, infrastructure and equipment) and basket of services<br>- Ability to deal constructively with conflicts; strong results orientation; good skills managerial implementation and evaluation |
| Educational background | University degree in Nursing<br>Postgraduate specialization in Health Sciences, Management, Economics, or related fields would be |

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| | desirable |
| Previous experience | Position in charge of hospital unit at nursing level<br>Working experience in managing public health organizations would be desirable |
| Reporting lines | Specific meetings with other facility -located managers (FMO, FOP and/or DPS) would be held at least weekly and whenever justified.<br>FNO will periodically meet the headquarters-located managers with an agreed upon frequency (probably with higher frequency in initial stages)<br><br>Meetings with staff in his/her facility will take place as per an agreed upon calendar (with rather higher frequency in initial stages). Specific-purpose meetings could be held whenever justified) |

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| Denomination of the post | **FACILITY OPERATIONAL AND GENERAL SERVICES HEAD [FOP]** |
| Organizational Unit | Network Management Team, Facility-located<br>Department of Health Services |
| Unit General Objectives | The Network Management Team will be responsible for:<br>[a] Translating into service-provision-management terms the objectives of the MoH for the network of public health facilities<br>[b] Maximizing in the various facilities of the network the output of the resources devoted to service provision<br>[c] Ensuring in an adaptive way the best input-mix for achieving the above<br>[d] Providing managerial leadership to the totality of the network |
| Job definition | FOP is in charge of managing staff, supplies, financing of non- medical issues, and information systems at facility level, under the leadership of the CEO |
| Specific objectives | This post is expected to:<br>[a] Improve the patterns of service production quality, access to and utilization of his/her facility interacting with the non-health professionals<br>[b] Help achieve the activity targets set up for the facility in terms of waiting lists and times, surgical activity, costs, |

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| | etc.<br>[c] Improve the provision of non-health services within the facility (cleaning, catering, maintenance, etc), as per agreed upon objectives<br>[d] Work with headquarters-located and other facility-located managers for ensuring the best use of available resources at facility level<br>*(Specific objectives will be reflected in time bound performance indicators)* |
| Functions | [1] Maintaining top standards in implementing the operating procedures for managing the facility (supplies, storage, logistics, consumables control, etc.)<br>[2] Managing the financing of non-medical issues, including getting involved in the follow up of outsourced services<br>[3] Coordinating within the facility the introduction of innovations suggested from headquarters managers/ ensuring the provision of training to non-medical facility staff as necessary<br>[4] Ensuring a smooth running of facility information systems towards the achievement of optimum quality outcomes in the facility<br>[5] Reporting on general and customer services according to an agreed-upon calendar |
| Competences | In terms of knowledge, skills and attitudes, FOP will prove:<br>- Skills to lead, interact and negotiate effectively with non-medical personnel inside the facility<br>- Demonstrable knowledge on the technical aspects of measuring, analyzing and reporting on hospital activity<br>- Proven alignment with the objectives of the network and the core values and policies of the MoH<br>- Ability to implement business plans, use performance indicators and assess progress<br>- Sound knowledge of the facility structure (staff, infrastructure and equipment) and basket of services<br>- Ability to deal constructively with conflicts and encourage staff to improving performance |
| Educational background | University degree<br>Postgraduate specialization in Engineering, Management or related fields would be desirable |
| Previous experience | Position in charge of operations and general services in complex organizations |

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| | Working experience in the public health sector would be desirable |
| Reporting lines | Specific meetings with other facility -located managers (FMO, FNO and/or DPS) would be held at least weekly and whenever justified.<br>FOP will periodically meet the headquarters-located managers with an agreed upon frequency (probably with higher frequency in initial stages).<br><br>Meetings with staff in his/her facility will take place as per an agreed upon calendar (with higher frequency in initial stages). Specific-purpose meetings could be held whenever justified) |

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| Denomination of the post | **DISTRICT PHC AND POPULATION SERVICES HEAD [DPS]** |
| Organizational Unit | Network Management Team, Facility-located<br>Department of Health Services |
| Unit General Objectives | The Network Management Team will be responsible for:<br>[a] Translating into service-provision-management terms the objectives of the MoH for the network of public health facilities<br>[b] Maximizing in the various facilities of the network the output of the resources devoted to service provision<br>[c] Ensuring in an adaptive way the best input-mix for achieving the above<br>[d] Providing managerial leadership to the totality of the network |
| Job definition | DPS is in charge of proper implementation of PHC, community, "public health" services and related activities in each of the districts, under the leadership of the CEO |
| Specific objectives | This post is expected to:<br>[a] Improve the patterns of PHC, community and public health service production quality, access to and utilization of his/her district interacting with the relevant professionals<br>[b] Help achieve the performance targets set up for the district |

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| | [c] Improve coordination with the referral hospitals as per agreed upon objectives<br>[d] Work with headquarters-located and other PHC managers for ensuring the best service mix within the network<br>*(Specific objectives will be reflected in time bound performance indicators)* |
| Functions | [1] Maintaining top standards of quality and effectiveness in the district<br>[2] Supporting PHC staff in reviewing service data towards the achievement of optimum patient outcomes and ensuring effectiveness in the established mechanisms<br>[3] Coordinating within the district the introduction of innovations on the basket of services suggested from headquarters managers and reporting on progresses<br>[4] Achieving professional support to activity-improving initiatives suggested from headquarters and reporting on progress<br>[5] Assessing training needs for district staff and ensuring the provision of training as necessary and as agreed upon with headquarters managers |
| Competences | In terms of knowledge, skills and attitudes, FMO will prove:<br>- Skills to lead, interact and negotiate effectively with PHC personnel in the district<br>- Demonstrable knowledge on the technical aspects of measuring, analyzing and reporting on district activity<br>- Proven alignment with the objectives of the network and the core values and policies of the MoH<br>- Ability to implement business plans, use performance indicators and assess progress<br>- Sound knowledge of the district structure (staff, infrastructure and equipment) and basket of services<br>- Ability to deal constructively with conflicts; strong results orientation; good skills managerial implementation and evaluation |
| Educational background | University degree in Medicine<br>Postgraduate specialization in Family Medicine, Public Health, Management, Economics, or related fields would be desirable |
| Previous experience | Position in charge of a health facility, preferable in PHC<br>Working experience in managing public health organizations would be desirable |

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| Reporting lines | Specific meetings with other district staff and managers of the health facility of reference (FMO, FNO, FOP) would be held whenever justified.<br>DPS will periodically meet the headquarters-located managers with an agreed upon frequency (with higher frequency in initial stages) |

The reporting lines to the Hospital Network Management team are represented in the following figures:

**Figure 18. Reporting lines in single network with combined strategic and operational management (see Figure 16)**

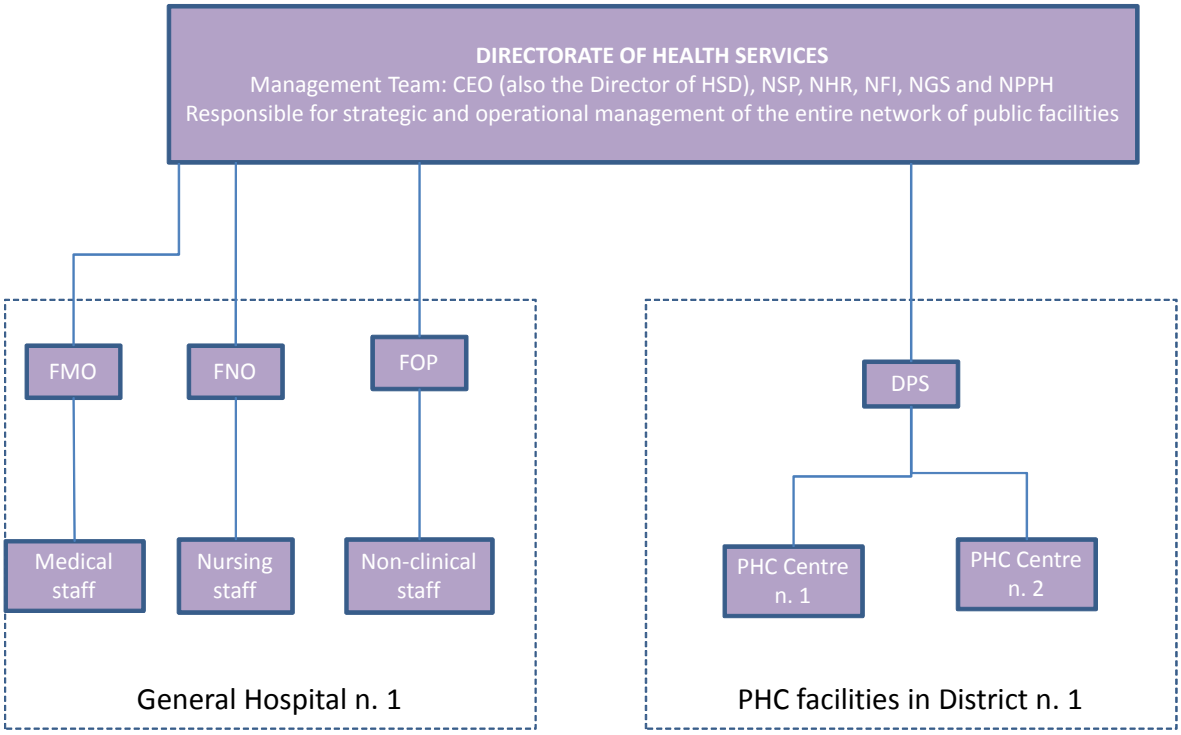
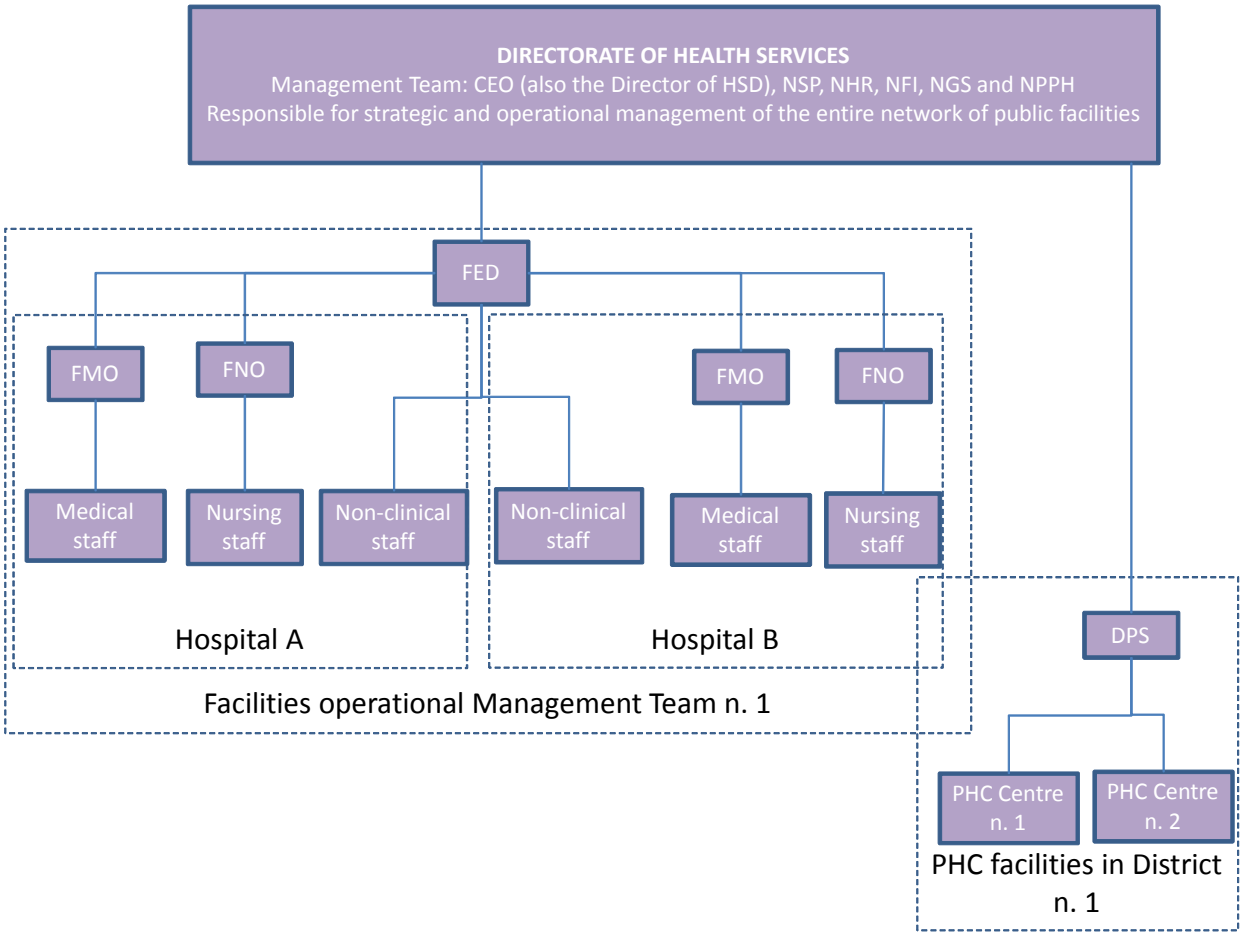


**Figure 19. Reporting lines in single network with separate strategic and operational management (see Figure 17)**



# ANNEX 4. TRAINING FOR THE HOSPITAL NETWORK MANAGEMENT TEAMS

5. 22 **Appropriate training would be needed to support new and current health facility managers to achieve facilities and organization's goals.** Training should focus on practical managerial aspects rather than theoretical issues. It should address their actual needs and be appropriate for their roles and positions. A list of training topics is suggested for both network-based and facilities-based managers. Common modules are identified that would also facilitate the sharing of information and understanding between managers. Individual training and development programs should follow to complete the staff training program.

**Table 31. Training modules for national network and hospital management teams**

| Network-located managers | Facilities-located managers |
|---|---|
| • Management in a Health Sector context<br>• Planning at corporate level / Strategic management<br>• Managing senior managers<br>• Managing inter-relationships<br>• Finance for non-finance manager<br>• Designing work processes /Personal organization<br>• Project management<br>• Performance management<br>• Change management<br>• Communications | • Management in a Health Sector context<br>• Planning and implementation / Goal setting for organization/department<br>• Managing people<br>• Managing inter-relationships<br>• Basic finance<br>• Managing work processes / Managing your time<br>• Project management<br>• Effectiveness and efficiency<br>• Change management<br>• Communications |

5. 23 **The modules outlined are designed to give general management skills to all managers regardless of their backgrounds.** The training modules outlined addresses general management skills. They are appropriate for onboarding managers to facilitate their introduction into the workplace. Given that training needs are best identified at an individual level, different managers will gain different benefits from each module and will find some modules of greater relevance than others. Except for those that have had specific high level management training, it is suggested that managers would attend all modules to give a comprehensive underpinning for more specific future management development.

5. 24 **The content and scope of the training modules comprising the suggested Management Training Program is described below.** Each module could a day long, for a total of 10-days of training.

- *Management in the health sector*. This module explores what it means to be a manager in the health sector at this time. It compares management the public and private sectors. Whilst many generic skills will be the same across both sectors, there are specific contextual pressures in the public sector that are different and in addition to those faced

by private sector managers. The module looks at the social, political and economic context and how the recent reforms are impacting upon the roles and responsibilities of managers at all levels. It addresses the question: what is a manager? This will lay the foundation for future topics and set them in their wider managerial context. It also explores the wide range of different management styles that are possible and how to judge the suitability of each for particular circumstances.

- *Strategic planning and goal setting.* Planning needs to occur at every level. For top managers whatever their functional responsibilities there is the requirement that plans are established at the corporate level first and then translated into specific functional requirements. Further down the hierarchy managers need to understand how to interpret and implement objectives set from above, into plans for their own organization / department. The module also carries on from that on planning to focus on the management of the ongoing processes, with the combination of short and long term goals, and how these relate to organizational, functional and departmental goals.
- *Managing senior managers and managing people.* This module gives an understanding of organizational culture. This includes issues such as power and the informal 'organization'. It covers the key areas of the motivation of (managers and) staff, issues of conflict resolution, and how different approaches are required for different groups.
- *Managing relationships in the workplace.* This module covers the main forms of inter-relationships from the permanent to the transitory. It looks at different levels and types of collaboration and team working, as well as the more specific skills involved in the process of negotiating. Such processes can occur within a single organization or between one or more organizations.
- *Finance (for non-finance managers).* This module gives an appreciation of the role of the finance function and explains how the use of financial data can aid the managerial role. It explains the principles of management accounting and budgeting but is not designed to give specific financial skills.
- *Designing and managing work processes and time management.* This module explores different organizational structures and the choices to be made in the relationships of different functions within the organization. Issues of work process design will be discussed in relation to the work of course participants. It also addresses how managers at different levels need to organize themselves, to prioritize how they spend their time, and to ensure that optimum value is made of time available (delegation, time management techniques, chairing or managing meetings, etc.)
- *Project management.* This module looks at the specific techniques available to successfully manage projects of different sizes. It will combine a number of elements that have been covered in earlier modules.
- *Performance assessment.* This module looks at how top managers can establish parameters to monitor, assess and influence the performance of different parts of the organization. For senior managers the emphasis is on how effectiveness and efficiency

can be improved through different techniques such as decision making and planning processes.

- *Change management.* This module considers the types of change that organizations need to plan for, whether in response to an influence external to the organization or designed to meet a perceived future need. How can the change be introduced, resistance overcome and implementation managed.
- *Communication in the workplace.* This module covers the wide range of possible means of communications for managers, including verbal, written and electronic. How to choose between these and uses them to greatest effect. Communication can be to and between individuals or groups, directorates and departments; it can be upwards, downwards and horizontal; internal and external.

## ANNEX 5. RESULTS AND MONITORING FRAMEWORK

| Result Indicators | Area of reform | Aspect monitored by the indicator | Units of measurement | Baseline (year) | Phase I * | Phase II * | Phase III * | Data Source and Methodology |
|---|---|---|---|---|---|---|---|---|
| Total health expenditure as a percentage of GDP | High level indicator | Capacity to generate resources for the health system | Percentage | 7.4% (2011) | 7.5% | 7.5% | 7.5% | World Development Indicators (WDI) |
| Percentage of public health expenditure financed by out of pocket expenditure | High level indicator | Financial protection of the health system | Percentage | 49.4% (2011) | 45% | 35% | 30% | World Development Indicators (WDI) |
| Staff working in the MoH administration | MoH administration | Effectiveness of MoH administration | Ratio per population (millions) | 207.4 (2013) | 207 | 207 | 207 | MoH |
| Difference between number of staff mapped and working in the MoH administration | MoH administration | Distortion of the PAR and PFMR framework | Number | 2,945 (2013) | 2,800 | 1,000 | 0 | MoH and State budget |
| Revenue generated by MoHas a percentage of total expenditure** | MoH administration | PFMR in the health sector | Percentage | 0 (2013) | 0 | 10% | 25% | MoH and State budget |
| Average time to complete an investigation of private health facility | Department of MPHS and MoH administration | Regulatory capacity of MoH | Number | TBD (2013) | TBD | TBD | TBD | MoH |
| Number of Health Facility managers appointed through open competition | New Department of Health Services | Managerial capacity of public health facilities | Number | 0 (2013) | 5 | 12 | 20 | MoH |
| Revenue generated by health facilities | New Department of Health | Financial autonomy of public health | Percentage | 0 (2013) | 0 | 10% | 80% | MoH and State budget |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| as a percentage of total expenditure | Services | facilities | | | | | | |
| Waiting times for knee replacement in Nicosia General hospital | Public Hospitals | Hospital management | Months | 24 (2012) | 20 | 18 | 12 | MoH |
| Waiting times for outpatient department – gastroenterology - in Nicosia General hospital | Public Hospitals | Hospital management | Months | 8 (2012) | 7 | 6 | 5 | MoH |
| ALoS for cataract | Public Hospitals | Hospital management | Days | 2.4 (2010-11) | 2 | 1.5 | 1.5 | MoH |
| ALoS for inguinal hernia | Public Hospitals | Hospital management | Days | 2.9 (2010-11) | 2.2 | 1.7 | 1.7 | MoH |

Notes: * Targets are indicatives. ** Specific indicators could be developed for individual departments.

## ANNEX 6. OPERATIONAL RISK ASSESSMENT FRAMEWORK (ORAF)

| | | |
|---|---|---|
| **Stakeholder Risk** | Rating | **Moderate** |
| Risk Description:<br>Leadership Change. Future changes in the leadership in the Ministry of Health (MOH) and Ministry of Finance (MOF) could potentially affect the reform process if the new leadership does not support the current reform process. | Risk Management:<br>The existence of the MoU should support continuity and commitment to reforms. | |
| **Capacity** | Rating | **Substantial** |
| Risk Description:<br>Limited experience in implementing sectorial reforms of comparable complexity that are interdependent (i.e. NHS, PAR and PFMR reforms). | Risk Management:<br>The setting up of an implementation unit or steering committee dedicated solely to managing the detailed policy design and implementation of health sector reforms is recommended. | |
| **Social** | Rating | **Substantial** |
| Risk Description:<br>Unions could oppose some of the reforms that would change current status quo and working environment. | Risk Management:<br>Effective information and communication campaign to engage staff actively in the change process. | |