



**REPUBLIC OF MACEDONIA
MINISTRY OF HEALTH**



WORLD BANK

**TECHNICAL ASSISTANCE IN STRENGTHENING OF
HOSPITAL MANAGEMENT THROUGH HEALTH
MANAGEMENT CURRICULA DEVELOPMENT &
ESTABLISHMENT (ORGANIZATIONAL DEVELOPMENT) OF
NEW SKOPJE GENERAL CITY HOSPITAL
(RFP & HSMP 3-1A-CS1)**

(IBRD LOAN # 4733)

FINAL REPORT

July 2010



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Project Title:	TECHNICAL ASSISTANCE IN STRENGTHENING OF HOSPITAL MANAGEMENT THROUGH HEALTH -MANAGEMENT CURRICULA DEVELOPMENT & ESTABLISHMENT (ORGANIZATIONAL DEVELOPMENT) OF NEW SKOPJE GENERAL CITY HOSPITAL (RFP & HSMP 3-1A-CS1)	
Project reference:	(IBRD Loan # 4733)	
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Period:	December 2009 – June 2010	
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Acknowledgement

The consultants from Conseil Sante would like to express their appreciation to the organizations and persons in Macedonia associated with this project. Those involved -in the Ministry of Health; the Project Coordination Unit; the Health Insurance Fund; the new City General Hospital; and the City Surgical Hospital – have provided invaluable support and assistance to the consultant team. Thanks go also to The Centre School of Public Health and those professors who have contributed to and participated in the management training program.

The support and assistance received by the consultant team from Professor Stojcev, the Director of the new City General Hospital, and his staff, has been particularly appreciated.

Note: The new City General Hospital for Skopje, formerly the Military Hospital was re-named The Eighth September Hospital in the course of the project. In order to avoid confusion with earlier reports and documents, the previous name-The City General Hospital-is used throughout this report.

Abbreviations

ABC	Activity Based Costing
ALOS	Average Length of Stay
CGH	City General Hospital
CSH	City Surgical Hospital
CSPH	Centre School of Public Health
DRG	Diagnostic Related Group
HIF	Health Insurance Fund
HMP	Hospital Master Plan
HR	Human Resources
IP	In Patient
IT	Information Technology
MoH	Ministry of Health
NHS	National Health Service
OD	Organisational Development
O&M	Organisation and Management
OP	Out Patient
PCU	Programme Coordination Unit (MoH)
PHC	Primary Health Care
QA	Quality Assurance
SHC	Secondary Health Care
TA	Technical Assistance
THC	Tertiary Health Care
ToR	Terms of Reference
UK	United Kingdom

1 Introduction

1. The Republic of Macedonia has received a Specific Investment Loan from the International Bank for Reconstruction and Development in amount of US \$ 10 million toward the cost of a Health Sector Management Project. The objectives of the project are to:

- Upgrade Ministry of Health (MOH) and Health Insurance Fund (HIF) capacity to formulate and effectively implement health policies, health insurance, financial management and contracting of providers; and;
- Develop and implement an efficient scheme of restructuring of hospital services with emphasis on developing day-care services and shifting to primary care.

The consulting firm Conseil Santé undertook an assignment in the City of Skopje in the Republic of Macedonia between January and June 2010 in relation to this project.

2. The purpose of the assignment was to improve the efficiency and quality of hospital services in the Republic of Macedonia through:

2.1. The development of a new and sustainable syllabus and curriculum for a national Hospital Management training program.

2.2. Supporting the continued organisational development of the new City General Hospital in Skopje and establishing an effective organisational and management structure and processes.

3. The objectives of the assignment were to:

3.1. Develop a new, sustainable, well tailored and focused syllabus and curriculum for Hospital Management training program in duration of about 8 days or 4 modules, jointly with the School of Public Health at the Skopje Medical Faculty, in collaboration with the Ministry of Health.

3.2. Pilot and improve the content of the newly developed management training program by training a specified number of hospital management staff, principally from the new City General Hospital in Skopje.

3.3. Provide technical expertise and guidance to the Ministry of Health and the Director and management staff of the new General City Hospital in Skopje to establish an organisation capable of providing high quality, cost-effective healthcare to the residents of Skopje.

4. The overall assignment had two principal and related parts:

Part I: Strengthening of Hospital Management through Health Management Curricula Development.

4.1. The principal elements of this part of the assignment comprised:

4.1.1. The development of a syllabus and curriculum with an approximate duration of about 8 days (4 modules or more) that can be adapted for different management audiences and is sufficiently flexible to allow for regular updating. The management course curriculum would include:

- Trends in health services management
- Health system organization
- Introduction to the changes in Macedonian health care system
- Human resource development and performance evaluation
- Quality management
- Collecting data and benchmarking performance
- Economic evaluation of health care programs and health financing mechanisms;
- Risk management in health care organizations
- Project management, planning and evaluation

4.1.2. Training of Trainers training in Hospital Management to up to 20 professionals with expertise in the field of public health who will in future serve the School of Public Health at the Skopje Medical Faculty to provide management training to health professionals and managers.

4.1.3. The pilot testing and performing of the first management course training for about 60 participants principally from the management staff of the new City General Hospital.

Part II: Technical support and guidance for the organisational development of the new Skopje City General Hospital.

4.2. The principal elements of this part of the assignment comprised:

4.2.1. Providing continuous technical support, guidance and advice to the MOH and new Skopje City General Hospital management in how to implement organizational change.

4.2.2. Putting in place the organisational and management structure and processes at the City General Hospital necessary to establish an organisation capable of providing high quality, cost-effective healthcare.

4.2.3. Equipping the Management Staff of the City General Hospital with the requisite training and management tools and processes to enable them to function effectively in the organisational and management structure proposed in 4.2.2 above.

4.2.4. Enabling the staff of the City General Hospital to make the changes necessary to adopt those European best clinical and management practice changes to clinical practice that can increase the efficiency, effectiveness and quality of clinical services as for example the greater use of ambulatory services.

4.2.5. Improving the coordination with Skopje primary care facilities to strengthen the capacity of the PHC clinics and to introduce improved patient management and referral practices.

5. Organisation of the work

5.1. The consultant team comprised:

- Mr Peter Droog-Hospital Management Specialist (Team Leader)
- Mr Charles Carson-Business Planning Development Specialist
- Mr Sten Bang Christensen-Organizational Development Specialist
- Mr Eero Linnakko-Performance Scorecard Training Specialist
- Mr Michael O'Rourke-Continuous Quality Improvement Training Specialist

The consultant team undertook six missions in all and delivered an additional workshop in ABC costing analysis in Skopje on June 30th at the request of the MoH and for the benefit of hospital management teams from across Macedonia.[see Annex 9.27]

5.2. As stated above, the Terms of Reference (ToRs) for the assignment identified two principal components to the project:

- The development of a sustainable program of management training to support the development of the health system in Macedonia
- The provision of technical assistance to the Board and management of the new City General Hospital (CGH) to support its development into a functioning general hospital to serve the residents of the City of Skopje.

5.3. The approach adopted by the consultant team is described in detail in the Inception Report. As presented, the consultant team first developed a methodology for each component, and then integrated their approach to ensure coordinated interventions by the team working as resource both for Management Training and Technical Assistance (TA) to the City General Hospital. In this way it was intended that the benefits from the Management Training and TA components would be realized for all the key participants.

5.4. The approach adopted by the consultant team can be represented as a series of related processes as follows:

- Put the problem into context.
- Undertake a Needs Analysis
- Involve the key actors in supporting the Organisational Development (OD) of the CGH
- Obtain a shared understanding of the current situation
- Analyze the current status of the transformation of the Military Hospital into the new Skopje General City Hospital
- Analyze current management training and provide proposals for future training
- Present a detailed work plan for the remainder of the assignment targeting both major objectives
- Present a time table for the remainder of the assignment targeting both major objectives
- Identify further steps and activities to be undertaken, underlying the expected results

5.5. This Report is divided into two related Parts:

5.5.1. Part I is concerned with the Management Training Program

5.5.2. Part II deals with the Technical Assistance provided to the CGH.

In both parts there are sections describing in detail the Outputs and the Outcomes are along with a section entitled Next Steps containing suggestions for further related actions and activities related to the initial objectives in the Terms of Reference (ToRs).

2 EXECUTIVE SUMMARY

1. This Final Report is concerned with an assignment undertaken at the request of the Ministry of Health of the Government of Macedonia by a consultant team from Conseil Santé in the City of Skopje in the Republic of Macedonia between January and June 2010. The purpose of the assignment was to improve the efficiency and quality of hospital services in the Republic of Macedonia through:

1.1. Development of a new and sustainable syllabus and curriculum for a national Hospital Management Training Program.

1.2. Support to the MoH in the continued organisational development of the new City General Hospital in Skopje and establishing an effective organisational and management structure and processes.

2. The Report contains the detail of what was achieved in relation to the Terms of Reference and suggestions for further action by the MoH and the new City General Hospital in relation to the Terms of Reference. A Summary of the situation at the end of the assignment in relation to the objectives as stated in the Terms of Reference is provided below.

3. The situation at the end of the assignment in relation to the overall objectives of the assignment is as follows:

3.1. Overall Objective 1: Develop a new, sustainable, well tailored and focused syllabus and curriculum for Hospital Management training program in duration of about 8 days or 4 modules, jointly with the School of Public Health at the Skopje Medical Faculty, in collaboration with the Ministry of Health.

- *The syllabus and curriculum for a new Hospital Management Training Program for managers and professionals in the Macedonian Health System is now available for use by the MoH. The Training Needs Analysis completed by the consultant team ensured that the syllabus and curriculum reflect the Macedonian context. The joint working with the School of Public Health at the Skopje Medical Faculty will ensure the sustainability of the Program*

3.2. Overall Objective 2: Pilot and improve the content of the newly developed management training program by training a specified number of hospital management staff, principally from the new City General Hospital in Skopje

- *The content of the newly developed management training program was piloted at two modular four-day training events involving hospital management staff in June 2010. The two modules were evaluated and the results used to improve the content of the program.*

3.3. Overall Objective 3: Provide technical expertise and guidance to the Ministry of Health and the Director and management staff of the new General City Hospital in Skopje and implement measures required to establish an organisation capable of providing high quality, cost-effective healthcare to the residents of Skopje.

- *The consultant team have provided technical expertise and guidance throughout the assignment not only to the MoH and to the Director and Management staff of the new CGH but also to other key stakeholders including the Director and Management staff of the City Surgical Hospital and the HIF. This has included:*
 - *The development of a new O&M structure for the CGH*
 - *The development of step by step manuals for hospital managers at CGH for implementing the new O&M structure, the Strategy, the Business Plan and a Budget*
 - *Providing appropriate management tools as for example ABC analysis tool and training in the use*
 - *Providing management materials relating to European best practice in hospital management*
 - *Presentations and working papers*

The Board and the Director of the CGH are now equipped with the essential management “building blocks”- O&M structure, the Strategy, the Business Plan and a Budget-required establish an organisation capable of providing high quality, cost-effective healthcare

3.4. The situation at the end of the assignment in relation to the detailed objectives of the assignment is as follows:

3.4.1. Detailed Objective 1: The development of a syllabus and curriculum with an approximate duration of about 8 days (4 modules or more) that can be adapted for different management audiences and is sufficiently flexible to allow for regular updating.

The consultant team have produced a syllabus and curriculum that can be delivered over eight days in modular form comprising the following:

- *Current issues in health care organization and delivery*
- *The changing Macedonian health care system: current policy, legal and regulatory reforms*
- *Health care quality improvement: techniques, methods and applications for Macedonian hospitals*
- *Health Human Resources Management*
- *Information management and information systems*
- *Introduction to health economics and health financing: financing mechanisms and management accounting*
- *Use of data and performance indicators in hospital management*

- *Planning for health and hospital services of the future*
- *The syllabus and curriculum is in a form that allows for regular updating.*

The Information Management and Information System Training module, not in the original training plan in ToR, was added to the final training plan because:

- *The importance of the management of information both for process and organization management in hospitals*
- *The complexity and high cost of IT implementation for health care in general.*
- *The large ongoing health information system implementation project in Macedonia (Integrated Health Information System) under the Ministry of Health that must be supported by extensive IT training of hospital staff.*

The team also handed over to the PCU a document entitled: "Definition for the electronic referral and discharge letter system" and some useful addresses to the relevant web-pages.

3.4.2. Detailed Objective 2: Training of Trainers training in Hospital Management to up to 20 professionals with expertise in the field of public health who will in future serve the School of Public Health at the Skopje Medical Faculty to provide management training to health professionals and managers

- *The consultant team completed the training of trainers in collaboration with the School of Public Health at the Skopje Medical Faculty in May 2010 and there are [...] professionals with expertise in the field of public health now competent to provide management training to health professionals and managers in accordance with the new syllabus and curriculum*

3.4.3. Detailed Objective 3: The pilot testing and performing of the first management course training for about 60 participants principally from the management staff of the new City General Hospital

- *The content of the newly developed management training program was piloted at two modular four-day training events – June 15 to 18 and June 22 to 25 2010 attended by up to 60 hospital management staff selected by the MoH. In addition to the new City General Hospital, hospital management staff from the City Surgical Hospital and the Clinical Centre of Skopje also participated. The two modules were evaluated and the principal results have been taken into account and used to improve the content of the program.*

3.4.4. Detailed Objective 4: Providing continuous technical support, guidance and advice to the MOH and new Skopje City General Hospital management in how to implement organizational change.

- *The consultant team have provided detailed technical expertise and guidance on how to implement organizational change throughout the assignment not only to the MoH and to the Director and Management staff of the new CGH but also to other key stakeholders including the Director and Management staff of the City Surgical Hospital and the HIF.*

3.4.5. Detailed Objective 5: Putting in place the organisational and management structure and processes at the City General Hospital necessary to establish an organisation capable of providing high quality, cost-effective healthcare;

- *A new O&M structure has been devised for the CGH that is capable of being implemented by the Board and Director of the CGH. The Director and his management staff have been provided with advice and guidance and the management tools necessary to implement a Strategy, a Business Plan and a Budget for the CGH. The Board and the Director of the CGH are now equipped with the essential management “building blocks”- O&M structure, the Strategy, the Business Plan and a Budget-required establish an organisation capable of providing high quality, cost-effective healthcare*

3.4.6. Detailed Objective 6: Equipping the Management Staff of the City General Hospital with the requisite training and management tools and processes to enable them to function effectively in the organisational and management structure proposed in 4.5 above.

- *The Management staff at the CGH have been given the requisite training and provided with the necessary management tools and processes to enable them to function effectively in the organisational and management structure proposed in 4.5 above. This has been achieved by:*
 - *Presentations to managers and clinicians explaining the management principles and practice informing the O&M structure; the Strategy; the Business Plan and the Budget*
 - *The development of detailed manuals for hospital managers at CGH on a step by step approach to implementing the new O&M structure, the Strategy, the Business Plan and a Budget*
 - *Providing appropriate management tools and training management staff in their use. These include:*
 - *Activity Based Costing Analysis tool –to provide the detailed information on costs and activities required for Business Plans and Budgets*
 - *Nurse Staffing Dependency tool-to enable the fair and equitable allocation of nursing staff in relation to workload*
 - *Workload Guidelines for CGH Medical Staff-to enable the productivity of medical staff in in-patient and out-patient settings to be measured against accepted standards*
 - *A system for monthly reporting of activities and costs against budget*

- *The team have also made these tools and materials available to managers in other Macedonian Hospitals*

3.4.7. Detailed Objective 7: Enabling the staff of the City General Hospital to make the changes necessary to adopt those European best clinical and management practice changes to clinical practice that can increase the efficiency, effectiveness and quality of clinical services as for example the greater use of ambulatory services.

- *The consultant team have provided advice and management materials relating to European best practice in hospital management in particular in relation to Day case Surgery; measures to reduce ALOS; and proposed practical measures along with detailed guidance on improving day case rates for cataract extraction and hernia repair*

3.4.6. Detailed Objective 8: Improving the coordination with Skopje primary care facilities to strengthen the capacity of the PHC clinics and to introduce improved patient management and referral practices

- *Whilst the ToRs also refer to the need for clinical pathways and referral protocols to be introduced, the consultant team discovered that there was no standard means of patient registration at the CGH and that as a consequence it was not possible to ascertain from which GPs and where in the City of Skopje referrals were being made to the hospital. Accordingly a referral survey has been initiated and pro-forma referral and discharge letters have been developed for use by the CGH staff. A first analysis of referrals has been undertaken. And it is intended that the information on referrals will be compiled and reported upon monthly and be included on the agenda for regular meetings with GPs.*

PART I: MANAGEMENT TRAINING PROGRAMME

1. The principal conclusions of the Inception report concerning management training were that the consultant team should:

1.1. Identify those areas where the need for improved management processes and interventions was a priority.

1.2. Propose the indicative management training needed and the interventions and specific training modules that should be applied.

2. This part on The Management Training Program of this report is in three sections:

- Section 3. Outputs: This section describes what the consultant team did in relation to paragraphs 1.1 and 1.2 above.
- Section 4 Outcomes: This section describes the results that were achieved and the benefits that were realised for developing a sustainable programme of management training for Macedonia.
- Section 5 Next Steps: This section contains some suggestions for the MoH and the CSPH as to those further actions that could be considered place to further the original aims of the TA.

2.1. The Inception Report contained a Training Needs Analysis. Needs Analysis is a means of identifying the problems and issues associated with meeting the ToRs and identifying potential interventions and possible solutions. The potential “problem” areas in relation to management training in Macedonia identified by the team included the following:

- The need for a coherent policy framework for hospital services in Skopje
- The corresponding lack of clear role delineation for hospital services and relationships between hospitals
- The need for greater autonomy for healthcare institutions
- The need for incentives for managers to address efficiency and cost reduction measures
- The need for workforce planning particularly in relation to the over-supply of doctors
- The need to address the productivity of doctors in hospitals
- The need for a systems improvement approach by the MoH
- The need to upgrade management skills/processes/competencies/capacity
- Inappropriate organisational and management structures and processes
- The need for human resource development

- Training needs and ongoing skills development
- Lack of improvement tools and processes
- The need to implement international clinical best practice
- Need for greater management efficiencies concerning clinical support and technical services

3 OUTPUTS

The rationale for the measures taken in relation to paragraphs .1.1 and .1.2 above is discussed and described as follows:

3.1. The Inception Report contained a Training Needs Analysis. Needs Analysis is a means of identifying the problems and issues associated with meeting the ToRs and identifying potential interventions and possible solutions. The potential “problem” areas in relation to management training in Macedonia identified by the team included the following:

- The need for a coherent policy framework for hospital services in Skopje
- The corresponding lack of clear role delineation for hospital services and relationships between hospitals
- The need for greater autonomy for healthcare institutions
- The need for incentives for managers to address efficiency and cost reduction measures
- The need for workforce planning particularly in relation to the over-supply of doctors
- The need to address the productivity of doctors in hospitals
- The need for a systems improvement approach by the MoH
- The need to upgrade management skills/processes/competencies/capacity
- Inappropriate organisational and management structures and processes
- The need for human resource development
- Training needs and ongoing skills development
- Lack of improvement tools and processes
- The need to implement international clinical best practice
- Need for greater management efficiencies concerning clinical support and technical services

Their analysis showed that competencies in areas such as strategy formulation and implementation; accounting and finance; leadership; marketing and human resources management now essential to successfully direct a healthcare facility were required. It suggested that Hospital Directors and their staff in Macedonia now require new skills if they are to be able to deliver high quality cost effective healthcare.

3.2. The consultant team concluded that the competencies referred to above could best be ensured by the following combination of professionals:

- Healthcare management researchers focusing on the development of new knowledge
- Specialists in curriculum development focusing on needs analysis and course design

- Trainers focusing on skills transfer

In practice, effective skills transfer requires trainers to be part of the process leading to the development of new knowledge, driven also by an understanding of existing gaps in the set of skills managers must deploy in the real world.

3.3. In the Second Progress Report the consultant team indicated the three inter-related competencies required by training institutions in Macedonia in order to ensure the relevance, quality and sustainability of management training. These were:

- Development of proprietary knowledge in the field of health care management: The ability to carry out original research on what works and what does not in the specific environment of healthcare is necessary, since future trainees are not going to value training institutions simply repeating the same concepts they can read in the management books now widely available.
- Design of management development curricula suitable to meet learning needs: If the principle of a standard training curriculum is going to be set aside (at least in part), then the ability to analyze the need for new management skills and to design learning processes suitable to address these gaps are going to be key determinants of competitiveness.
- Modern training methodologies focusing on skills transfer: The effective transfer of skills, though, requires different educational methods than the transfer of knowledge, even more when trainees are adults with direct experience of organizational dynamics and with the desire to occupy leadership positions.

3.4. The team's analysis of current management training and proposals for future training dealt with the strengths and weaknesses of current health management processes in Macedonia; identified the need where appropriate for improved management processes and interventions; and proposed the management training needed and the interventions and specific training modules that could be applied.

3.5. Following agreement with CSPH counterparts to develop and deliver eight one-day workshops on Health Management topics a Syllabus and Program were agreed [See [Annex 9.1. Management Training: Program and Syllabus](#)] Specific workshop materials were prepared remotely and forwarded to Professor Spasovski, the convenor of the technical working group. The proposed workshops were drafted and reviewed following a number of helpful suggestions; the material was finalized and comprised Power Point presentations; training exercises; case studies; and background papers. These were incorporated into the packages. These included a Glossary of Terms; Executive Summaries of papers and the order and sequencing of the daily program and presentations. The material was translated into Macedonian in May.

3.6. The eight one-day workshops comprise the following:

- Current issues in health care organization and delivery

- The changing Macedonian health care system: current policy, legal and regulatory reforms
- Health care quality improvement: techniques, methods and applications for Macedonian hospitals
- Health Human Resources Management
- Information management and information systems
- Introduction to health economics and health financing: financing mechanisms and management accounting
- Use of data and performance indicators in hospital management
- Planning for health and hospital services of the future

3.7. The workshops took place in two sessions-15 to 18 June and 22 to 25 June. In the event, due to budgetary constraints, the MoH limited attendance to 30 participants. The Program is attached to the Report [See Annex 10.2.Hospital Management Development Program (HMDP): Macedonia -2010] and the list of participants is also attached [See Annex 9.3.HMDP Macedonia 2010: Participants]. In order to properly evaluate the impact of the workshops and their contribution to the aims and objectives of the Management Training Program, an evaluation form was developed by the team [See Annex 9.4. HMDP Macedonia 2010: Evaluation Form] and a summary report on the findings is attached [See Annex 9.5. HMDP Macedonia 2010: Evaluation Report].

3.8. Whilst it is encouraging that, as reported in the ToRs, the Macedonian healthcare managers clearly acknowledge the need for more sophisticated management skills, it was apparent from the analysis contained in the Inception Report that the existing health management and leadership training program requires some re-consideration by its sponsor the MoH and the PCU on behalf of the MoH. It is, for example, reasonable to expect new professionals to enter the field of health care management, as a direct consequence of the new responsibilities accruing to health care facilities. In order to assist the MoH and the PCU in formulating a strategy that will support a sustainable Training Strategy the consultant team also developed a document entitled A Competency Framework for Healthcare Managers in Macedonia [See Annex 9.6. Macedonia: Competency Framework for Healthcare Managers] and a document entitled A Situation Analysis of Health Management Training Needs in the Macedonian health sector [See Annex 9.7. A Situation Analysis of Health Management Training Needs in the Macedonian health sector].

4 OUTCOMES

4.1. The following outcomes were achieved:

4.1.1 A detailed Management Course training program with elaborated modules, duration, theoretical materials, case studies and evaluation forms to evaluate the knowledge of participants and effects of the training, as well as to find about future needs and management concerns. **The Information Management and Information System Training module, not in the original training plan in ToR, was added to the final training plan because of:**

- The importance of the management of information both for process and organization management in hospitals
- The complexity and high cost of IT implementation for health care in general.
- The large ongoing health information system implementation project in Macedonia (Integrated Health Information System) under the Ministry of Health that must be supported by extensive IT training of hospital staff.

The team also handed over to the PCU a document entitled: “Definition for the electronic referral and discharge letter system” and some useful addresses to the relevant web pages.

4.1.2 Summary results of testing of course materials with local experts from the Centre School of Public Health indicating that they can be adapted for different management audiences and are sufficiently flexible to allow for regular updating.

4.1.3 Training of Trainers training in Hospital Management to up to 20 professionals with expertise in the field of public health who will in future serve the School of Public Health at the Skopje Medical Faculty to provide management training to health professionals and managers.

The pilot testing and performing of the first management course training for 30 participants principally from the management staff of the new City General Hospital.

PART II: Technical assistance to the new Skopje city general hospital

1. The Inception Report provided an analysis of progress prior to the start of the project with the transformation of the Military Hospital into the new Skopje General City Hospital. The analysis focused on the management processes-planning, organisation, staffing, leading and control-of modern hospital management and specified the key issues that needed to be addressed by the project in order to complete the organisational development (OD) of the former Military Hospital into a fully functioning modern hospital capable of delivering high quality, cost-effective healthcare in accordance with its assigned role in the hospital system for the City of Skopje.

2. The principal conclusions of the Inception report were that our focus in providing advice and support to the organisational development of the CGH should be on putting in place the essential “building blocks” as follows:

2.1. The Board of the CGH needed to develop a Strategy and a Business Plan and Budget in order that the planned gradual build up of clinical services could be supported by the requisite financial and human resources.

2.2. An Organisation and Management Structure appropriate to the CGH's new role was needed. This would most importantly include the Direction (Director/Chief Executive supported by a Central Management Team) responsible for the overall direction, control, co-ordination, monitoring and evaluation of the work of the hospital. The new structure would ensure that the hospital's services and functions were organised and managed in a way that enables the quality, costs, and efficiency of clinical services to be addressed.

This part on The Technical Assistance to the new Skopje City General Hospital is in three sections:

- Section 6.Outputs: This section describes what the consultant team did to put in place those essential “building blocks” referred to in paragraphs 2.1.1. and 2.1.2.above.
- Section 7 Outcomes: This section describes the results that were achieved and the benefits that were realised for the OD of the CGH.
- Section 8 Next Steps: This section contains some suggestions for the Board and the Director of the CGH as to those further actions that need to take place to realise the original aims of the TA.

5 OUTPUTS

6.1. The rationale for the focus on the essential “building blocks” for the Organisational Development of the CGH as proposed by the consultant team is discussed and described in turn as follows:

Strategy

6.2. It is a key responsibility of the MoH in relationship to its oversight role for the health system in Macedonia to ensure that there is a national strategy and policy framework in place that defines the roles and relationships of the PHC, SHC and THC sectors. In the case of hospital services in Skopje, there should be a plan in place, often referred to as a Hospital Master Plan, that contains policies defining the overall hospital capacity (both Public and Private); the resources (Financial, HR and Infrastructure); the roles and relationships of the hospitals; their resources and capacities and the quality improvement, cost reduction and productivity strategies that are to be pursued.

6.3. The formulation of a hospital strategy in accordance with direction and policies of the Hospital Master Plan is a key responsibility of the Board and the Director. In order to develop a hospital strategy, it is essential that the Director is able to provide leadership, and that the Board members are equipped to discharge their responsibilities for providing the direction and oversight to the organisation. Board members, in particular those with no previous experience of the health sector, should complete an induction programme, ideally prior to their taking up their appointments. The induction programme is intended to acquaint them with their roles and duties in relation to their exercising oversight; approving management structures, plans and budgets; and monitoring the performance of the organisation in accordance with those approved plans and budgets. The consultant team have compiled a manual for the CGH Board members that provide a comprehensive and accessible guide to what is expected of them [See Annex 9.8. The Role and Duties of Hospital Board Members]

6.4. In order to formulate a hospital strategy, it is also important that the Director and his central management team should be conversant with both the theory and practice of planning and be aware of the links between the hospital's Strategy, the Business Plan and the Budget. In addition, Heads of Departments and managers should be capable of responding to the Strategy by formulating plans for their services with details of proposed costs and activities that can then be assessed by the central management team; prioritised and incorporated into the Hospital's Business Plan and translated into annual Budgets.

6.5. In the case of the CGH, the Board and Director were appointed only in February 2010 and lacked previous managerial experience at this level. Furthermore there was no central management team in place nor managers capable of supporting the Director at the executive level (please refer to Second Progress Report Sections 2.7 to 2.9 for details). The O& M structure in place reflected the hospital's previous role as a military hospital. The Board and the Director would need support if they were to provide a new identity, sense of purpose and direction for the staff and the public that reflected its new role as the General Hospital for the City of Skopje.

6.6. The need for a Hospital Master Plan for Macedonia in general and the City of Skopje in particular was highlighted in the Inception Report (See Section F: Analysis of the transformation of the military hospital into the new Skopje City General Hospital-in particular paragraphs F21 and F22). The consultant team responded initially by proposing the establishment of a Steering Group at the MoH that would support the Board and Director of the CGH by providing a forum where the gaps in strategy and policy could be addressed. This concept was endorsed by the First Deputy Minister who determined that it be designated as the CGH Planning Group [See Annex 9.9.CGH Planning Group: Membership and ToRs].

6.7. Once a practical solution had been proposed to help remedy the lack of a hospital master plan, the consultant team turned their attention to providing an introduction to theory and practice of hospital strategy formulation targeted at the different levels of management in the hospital. These inputs took the form of Power Point Presentations to the Director, the Board and the Heads of Departments. The presentations dealt with the theory and practicalities of developing a Strategy for the City General Hospital. At each session, there was an opportunity for questions and discussion.

6.8. Once the initial round of induction training had been completed, a small task group was established to work with the consultant team to produce a detailed Manual and supporting pro-formas showing step -by -step how to develop a Strategy for the City General Hospital [See Annex 9.10.CGH Draft Strategy]. As an aide to the Director and the Board, an illustrative first draft of a proposed Strategy for the City General Hospital was devised and circulated. [See Annex 9.10.CGH Draft Strategy]

Organisation and Management Structure

6.9. In order that a modern hospital can be capable of delivering high quality, cost-effective healthcare, it is considered necessary to have three essential elements in place. These are:

A Governing Body/Supervisory Board: This is usually a board of directors that exercises oversight on behalf of the owner (in the public sector it is the MoH and/or the Municipality). The Board has the overall authority and responsibility to appoint the Director/Chief Executive (in some cases the Director/Chief Executive may be appointed by the Minister of Health); approve the management structure including the Central Management Team (see below) proposed by the Director; and to monitor their performance according to approved plans and budgets.

A Central Direction: This comprises a Director/Chief Executive supported by a Central Management Team. The Direction is responsible for the overall direction; control; co-ordination; monitoring; and evaluation of the work of the hospital

An appropriate Organisational and Management Structure: The Central Direction can only be effective if the hospital's services and functions are organised and managed in a way that enables the quality, costs, and efficiency of clinical services to be addressed. It is the responsibility of the hospital's Director/Chief Executive to design and implement an organisational and management structure that enables the hospital to deliver high quality, cost effective healthcare.

6.10. The consultant team proposed a simple, functional organisational and management structure for the CGH that has the following characteristics:

- It is based around a limited grouping of functions
- It integrates related services and activities
- It contains as few departments as possible
- It has as few management levels as possible
- It determines management responsibilities, accountability and relationships
- It is flexible and adaptable

6.11. A manual was developed for the Director and staff of the CGH entitled "The Development of an O&M Structure for the Skopje City General Hospital in Ten Steps" The manual deals with both the theory and the practicalities of introducing Central Management functions and developing a simple, functional organisational and management structure including detailed guidance (including job descriptions) on the following:

- The role of the Director/Chief Executive and Deputy
- The role of the Central Management Team
- The levels of management
- The role of the Departmental Manager
- The concepts of accountability and reporting

6.12. Since the legal status of the current employees continued to remain in doubt until a systematization plan for the CGH had been approved by the MoH, and ultimately the DoF, the consultant team sought to assist the Director in placing the current staffing on as sound a basis as possible pending the introduction of the new O&M structure. It quickly became evident that there were constraints on the equitable allocation of human resources to structures in the Macedonian health system:

- The current lack of a Master Plan with planned service capacities meant that there is currently no sound basis for projecting eventual staffing numbers for the CGH.
- The absence of detailed information on the allocation of staffing, activities and costs, meant that it was difficult to ascertain whether the current human resources were adequate for the activities or equitably allocated (Later remedied by the ABC analysis –see 6.15 below)
- The systematization process gives no autonomy given to Directors to set levels of remuneration. Furthermore, it involves a normative approach to setting staffing

levels, in particular those of medical staff, that does not take into account either necessary changes in working practices (e.g. Day Surgery) or accepted standards for doctors' productivity (e.g. minimum monthly requirements per doctor for patients treated).

Whilst the systematization plan developed by the Director and submitted to the Board at their meeting on April 17 2010 reflected these constraints, it also provided the consultant team with valuable insights into how the proposed O&M structure could be reconciled with and adapted to the Macedonian context and in particular the Human Resource (HR) constraints of the current systematisation process.

6.13. After taking into account the response of the Director and other stakeholders, a final version of the manual was produced entitled "The Development of an O&M Structure for the Skopje City General Hospital in Ten Steps". [See Annex 9.11. [The Development of an O&M Structure for the Skopje City General Hospital: Manual](#)] was produced and circulated. Once all the responses had been taken into account, a detailed briefing was given to the Minister of Health in the form of a Power Point Presentation entitled "The Development of an O&M Structure for the Skopje City General Hospital in Ten Steps" [See Annex 9.12. [The Development of an O&M Structure for the Skopje City General Hospital: Presentation to the Minister of Health](#)]. The presentation provided an overview of how the O&M structure could be developed in a step by step approach and how once implemented it would facilitate increasing efficiency and reducing costs. The presentation met with a favourable response from the Minister and the consultant team was encouraged to proceed with implementing their proposals.

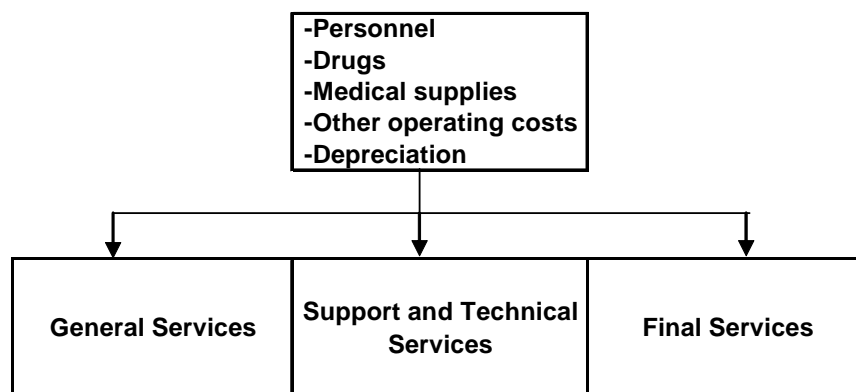
Business Plan

6.14. The formulation of the hospital's Business Plan is the responsibility of the Director and the central management team. The pre-requisites for developing an effective Business Plan are an appropriate O&M structure along with a detailed description of how the functions and departments are organised and the relationships and responsibilities of the staff at the different levels in the organization (These requirements are addressed in paragraphs 6.9 and 6.10 above). Detailed information on costs and activities of services and departments is required in a form that facilitates an understanding and appreciation of the relationship between costs and activities. (This requirement is addressed in paragraph 6.15. below) The linkages between the hospital's Strategy, the Business Plan and the Budget should also be evident.

6.15. Activity Based Costing (ABC) is a method whereby direct and indirect costs are merged to create a comprehensive cost insight into the various health care services referred to in each cost centre. In principle it allows monitoring of costs, activities and the setting of prices for the services delivered with each cost centre. ABC Analysis¹ is a proven and effective method of providing detailed information referred to in paragraph 6.14 above using readily available data on costs and activities of services and departments in a form that facilitates an understanding and appreciation of the relationship between costs and activities. The consultant team introduced an ABC analysis tool for use by the hospital staff at the CGH. The model uses routinely available hospital financial and activity data in a unified analytical structure. It is a spreadsheet application that can be used by hospital staff after only a short induction. A guide to the use of the ABC analysis tool was produced for the CGH Staff [See Annex 9.13. Guide to Activity Cost Tables] and Calculation tools for use with the ABC analysis were also provided [See Annex 9.14. Activity Based Costing: Calculation Tools] In order to ensure the sustainability of the process, a CGH business planning group was formed[See Annex 9.15. CGH Business Planning Group-Membership] The group led by the Chief Nurse for the CGH included economist, IT and statistician specialists and produced the summary analysis tables of activities and costs presented to clinicians and Heads of Departments. Figure 1 below illustrates the process involved.

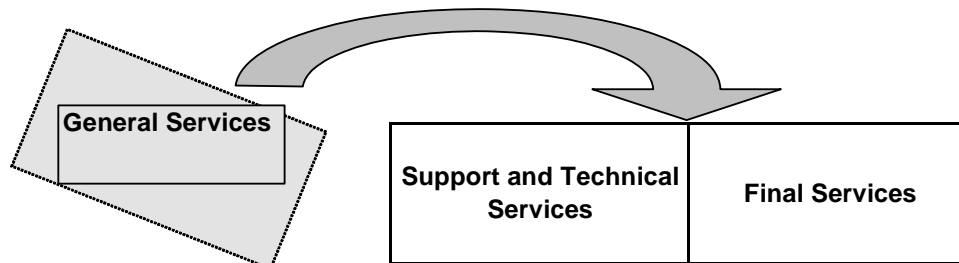
Figure 1. ABC Analysis-Diagram of the Process

Step 1: Allocation of costs to the different services (Result= direct cost per service)

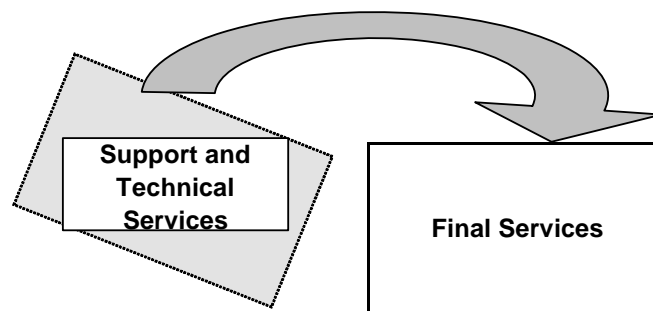


¹ See: "RATIONALE FOR ADOPTING ACTIVITY-BASED COSTING IN HOSPITALS: Three longitudinal case studies"
Tiivistelmä suomeksi **JANNE JÄRVINEN** Faculty of Economics and Business Administration, Department of Accounting and Finance, University of Oulu OULU 2005
See also: **H.Granof: "Using Activity-Based Costing to Manage More Effectively"** Department of Accounting. College of Business Administration. University of Texas at Austin. 2000

Step 2: Allocation of cost of General Services to the other services (Result= full cost of Support and Technical Services (i.e. full cost of one laboratory test) and semi-full cost for Final Services).



Step 3: Allocation of the cost of Support and Technical Services to the final services (Result=full cost of Final Services (i.e. full cost of one hospital bed-day in Medicine department))



The indicators used can include:

- Cost per visit at outpatient department(s)
- Cost per admission for inpatients
- COST per bed day for inpatients
- Cost per intervention in operating theatre
- Cost per patient for imaging, laboratory and physiotherapy

6.16. The consultant team also devised a Manual for developing a Business Plan for the City General Hospital [See Annex 9.16. CGH Business Planning Manual]. The Manual describes the process in detail and includes pro-formas and checklists. Detailed description of the current costs and activities of the CGH obtained from the summary tables from the Activity Based Costing Analysis have been used to develop the first draft of a CGH business plan [See Annex 9.17. CGH Draft Business Plan]. A business plan should also contain proposals for changes to clinical practice that can increase the efficiency, effectiveness and quality of clinical services. One such change is the replacement of in-patient surgery with day-case surgery. It is generally accepted that

over 70% of all elective surgery (including surgery for children) can be undertaken safely, effectively and appropriately on a day case basis. Day case surgery is liked by patients and is cost effective in that it can help remove the need for costly in-patient beds.

6.17. To assist the CGH make the transition today care surgery, an additional management tool was proposed by the consultant team for use in the CGH. Entitled The Basket of 25 Day Case Procedures it was first employed by the United Kingdom's National Health Service as a means of increasing the rates of day case elective surgery. The tool was developed by the UK Audit Commission in the 1990s in collaboration with the English Royal College of Surgeons. The 25 procedures within the 'Basket' can be done safely and effectively as day cases and together they account for some 80 % of all elective surgical procedures that are amenable to day case surgery. NHS hospitals in the UK routinely collect data on the procedures according to a protocol (see Figure 2 below) containing ICD 9 and 10 diagnostic codes and the data is entered onto a national database where hospitals can "benchmark" their performance against similar hospitals. The UK NHS has developed detailed guidance on all aspects of day case surgery and this is readily available for managers and clinicians in Macedonia [[See Annex 9.18. Day Case Surgery Reference Material](#)].

Figure 2. The Basket of 25 procedures suitable for Day Surgery

Audit Commission – Codes for 25 Basket procedures					
		Definition Codes	Combination Codes	Exclusion Codes	ICD 10
1	Orchidopexy	N08,N09(xs 081+091)			
2	Circumcision	N30.3,N30.4			
3	Inguinal Hernia	T19,T20,T211,T212, T213, T218,T219			
4	Excision of breast lump	B28.3			
5	Anal fissure dilation or excision	H50,H54,H56.2,H56.4	H25,H28,H412, H443, H444,H48,H52		K60
6	Haemorrhoidectomy	H511			
7	Lap cholecystectomy	J183 with approach code Y508(access minimal)			
8	Varicose vein stripping or ligation	L85,L87			
9	Transurethral resection of bladder tumour	M42		M65	
10	Excision of Dupuytren's contracture	T52.1,T52.2,T54.1			
11	Carpal tunnel decompression	A65.1			
12	Excision of ganglion	T59,T60			
13	Arthroscopy	W82,W83,W84,W85, W86, W87, W88		W74,W70, W283,W783, W69, W085	
14	Bunion operations	W79,W59,W151, W152,W153			
15	Removal of metalware	W283			
16	Extraction of cataract with/without implant	C71,C72,C73,C74, C75,C77	C601		H25,H26, H28, Q120
17	Correction of squint	C31,C32,C33,C34,C35			
18	Myringotomy with/without grommets	D15		E08.1,E20.1, F291,F34, D191	
19	Tonsillectomy	F341-F344			
20	Sub mucous resection	E03.1,E03.6,E04.1,E04.6		E081,E201,F34, F291,E02,E142, F328	
21	Reduction of nasal fracture	V09.1,V09.2			
22	Operation for bat ears	D03.3			Q17.5
23	Dilation and curettage/ hysteroscopy	Q10.3,Q18	P313,Q013,Q02,Q03, Q413		Not O04
24	Laparoscopy	Q17,Q35,Q36,Q38, Q39,Q50, T43,T42,Q49	P313,Q013,Q02,Q03, Q413		
25	Termination of pregnancy	Q10.1,Q10.2,Q11.1, Q11.2, Q11.3	Q14		O049

6.18. The ToRs also refer to the need for clinical pathways and referral protocols to be introduced. The consultant team discovered that there was no standard means of patient registration at the CGH and that as a consequence it was not possible to ascertain from which GPs and where in the City of Skopje referrals were being made to the hospital. Accordingly, referral survey has been initiated and pro-forma referral and discharge letters have been developed for use by the CGH staff [See Annex 9.19.CGH Referrals proofreads] A first analysis of referrals has been undertaken. It is intended that the information on referrals will be compiled and reported upon monthly and be included on the agenda for regular meetings with GPs.

The Budget

6.19. There are a number of pre-requisites for drawing up an effective hospital budget. As with the Business Plan, there needs to be a detailed description of the Functions, Departments and Services of the Hospital. There should be a detailed description of costs and activities and the information should be in a form that enables an understanding and appreciation of the relationship between costs and activities. A system has to be put in place for monitoring and reporting on monthly expenditures and activities in relation to the budget at both central and departmental level. [See Annex 9.20.CGH Monthly Budget Reports].

6.20. As part of the budgeting process, it is the responsibility of the Direction to ensure that resources are allocated equitably in relation to activities. Human resources are the most important and costly resource in hospitals. In the interests of efficiency and equity, there should be a system for allocating staffing resources in particular nursing staffing in relation to workloads and an accepted means of determining the workloads expected of individual doctors in different specialties in both in-patient and out-patient settings.

6.21. The consultant team have introduced to the CGH a nurse dependency tool designed nurse managers make better decisions about the most cost effective number and mixes of nurses. The nurse dependency tool comprises a manual which describes in detail three methodologies for estimating the size and mix of nursing teams. These are:

The Professional Judgement Method: This technique helps managers convert duty rota decisions into whole time equivalents (WTE's). This method is simple to use and is an excellent starting point for ward managers.

Nurses per Occupied Bed Method: This method using average nurses per occupied bed is another popular method of determining or evaluating ward staffing. This method, like the professional judgement one above, epitomises the-keep-it-simple approach to demand-side workforce planning. The staffing and occupancy are empirically derived and can be collected routinely.

Acuity-quality Method: A third way of estimating or evaluating the size and mix of ward nursing teams is (in full) the dependency-activity-quality or acuity-quality method for short. This staffing method overcomes most of the weaknesses highlighted in the professional judgement and nurses per occupied bed methods. It is especially useful in wards where patient numbers and mix fluctuate. Medical and surgical admission unit managers have found the acuity-quality-method valuable.

The manual [See Annex 9.21.CGH: Manual for Estimating the Size of Nursing Teams] contains detailed step by step procedures for undertaking all three methods along with the documentation required for each method. Nursing dependency categories are described, as is a tool for assessment of the quality of nursing care. The Chief nurse completed an initial review of the allocation of nursing staff at the CGH using the nurse dependency tool [the results?].

6.22. The consultant team has also devised a set of guidelines for use in the CGH that suggest workload measures for doctors in different specialties and in in-patient and out-patient settings. The guidelines [See Annex 9.22.CGH: Workload Measures for Doctors] are based on international comparison data and medical practitioner consensus conferences and are designed to be used in conjunction with data from the ABC analysis tool in order to generate a dialogue with doctors about their clinical practice and their use of resources. In collaboration with the Director and his management team and applying the management tools referred to above, the consultant team have prepared a first draft budget for the CGH [See Annex 9.23.CGH: Draft Budget].

6 OUTCOMES

Strategy

7.1. A hospital like any organisation should have a long-term plan or strategy. In the case of a hospital it is to ensure that it reflects its role in the health care system; enables it to conform to the health strategy of the MoH and to adapt to changes from within society. The draft CGH Strategy developed by the consultant team is capable of being adapted and improved by the Board and Director of the CGH. It will help to provide a direction to the staff (in particular the medical staff) and ensure that the hospital remains sustainable over the long term and capable of delivering high quality, cost-effective services.

Organisation and management

7.2. When devising an appropriate O&M structure, in management as in architecture, the maxim “form follows function” applies. The organisation of a hospital should reflect its core services, should determine roles, responsibilities and relationships and enable the equitable allocation of resources. Without an appropriate O&M structure, a hospital is an amalgamation of semi-autonomous professional groupings using and seeking resources without regard to the long-term interests of the organisation.

7.3. The proposed structure for the CGH is a simple, functional organisational and management structure that has the following characteristics:

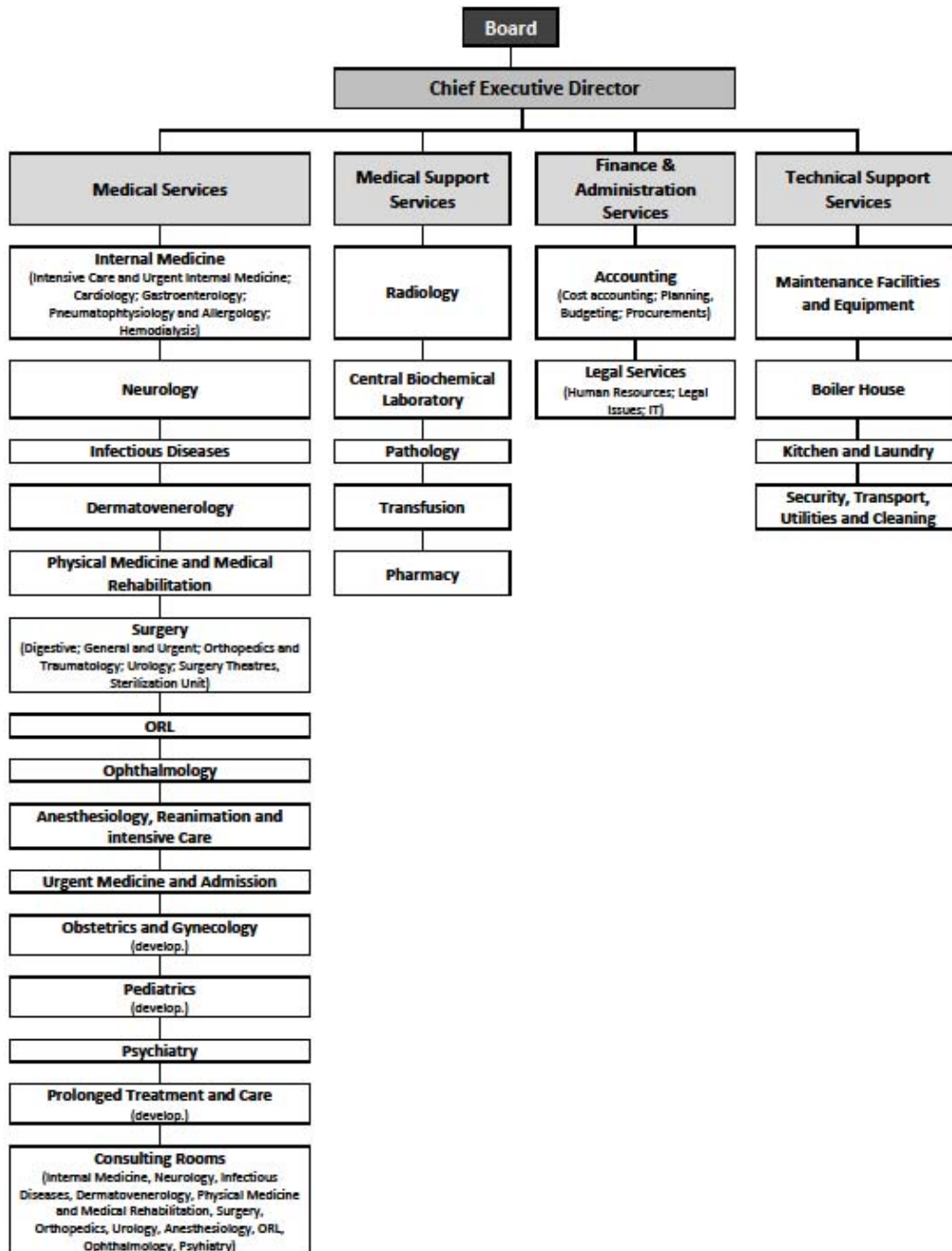
- It is based around a limited grouping of functions
- It integrates related services and activities
- It contains as few departments as possible
- It has as few management levels as possible
- It determines management responsibilities, accountability and relationships
- It is flexible and adaptable

7.4. The manual developed for the Director and staff of the CGH entitled «The Development of an O&M Structure for the Skopje City General Hospital in Ten Steps» deals with both the theory and the practicalities of introducing Central Management functions and developing a simple, functional organisational and management structure including detailed guidance (including job descriptions) on the following:

- The role of the Director/Chief Executive and Deputy
- The role of the Central Management Team
- The levels of management
- The role of the Departmental Manager
- The concepts of accountability and reporting

The O&M structure devised for the CGH by the Director is shown below as Figure 3.

Figure 3. The O&M structure for the City General Hospital Skopje



Business plan

7.5. The aim of business planning for hospitals is to strengthen management capacities with a view to improving their efficiency and economic and institutional sustainability on a long-term basis. The financial and human resource aspects of the business plan should enable the hospital to increase its revenues and reduce its costs. The absence of a long term direction (a Strategy) and a Business Plan that the Director and Departmental managers are committed to, can lead to a situation often referred to as “management by crisis.” This does not create the appropriate environment to engage clinicians and other health care professionals in discussions on improving quality or increasing efficiency.

7.6. An important component of any business plan is measures to increase income. In hospitals, income generation can take many forms from using spare capacity in kitchens or laundries to treating private patients. The income generated can then be used for example to invest in maintenance or to develop new services. In addition to its financial and human resource aspects, the business plan should also contain proposals for changes to clinical practice that can increase the efficiency, effectiveness and quality of clinical services. An example of such measures is day surgery.

7.7. The information gained from using the ABC analysis enables the CGH Management Team to evaluate the hospital’s expenditures and activities in the following areas:

- Expenditure information
 - Hospital expenses per cost group
 - Direct costs of hospital organization units
 - Total cost of each department in financial and percentage value
 - Percentage ratio of direct, indirect clinical and indirect non-clinical costs
- Information on parameters of clinical activities for departments and hospital as a whole:
 - Bed occupancy rate (BOR) and average length of stay (ALOS)
 - Number of doctors, nurses and technical staff per 100 beds
 - Monthly number of admissions per doctor
 - Monthly number of outpatient examinations per doctor
 - Monthly number of operations per doctor for department of surgery
- Information on costs connected with activities for individual departments and hospital as a whole:
 - Costs per inpatient
 - Staff costs per inpatient
 - Hospital day costs
- Systematized analyses of tables provide the hospital management with a better insight into the following

- Expenditure in certain departments compared to activities
- Percentage values of cost groups and their mutual relations
- Percentage ratio of direct and indirect costs
- The distribution of staff costs
- The distribution and use of space and human resources, and their comparison against a standard
- Activities of certain departments and their mutual comparison
- Ratio of the number of inpatients and outpatients

Whilst the ABC analysis tool is intended primarily for use by hospitals in the planning and budgeting process, it does have a second and related application and that is as a tool for the MoH and the HIF to monitor the efficiency of hospitals.

7.8. Whether developing a Business Plan or formulating a budget (see below), the CGH will derive immeasurable benefits from the use of the ABC analysis tool as it is a pre-requisite for any hospital management team to understand how money is being spent; where it is being spent; for what purpose and by whom. In order to increase the quantity of services within available resources, hospital management teams must be able to evaluate current hospital expenditure and activities. Arriving at this understanding is not dependent on large-scale investment IT systems: routinely available data can provide managers with sufficient information to make decisions on resource allocation. The data used should be “common currency” that is it should be routinely collected and readily available, understandable by staff, and used for planning, monitoring and reporting at the hospital and MoH level. Managers and equally importantly clinicians need to understand the relationship between inputs and activities and the information provided.

Budget

7.9. Whilst a Business Plan deals with the long term and needs to be realised in stages over a number of short-term cycles known as the financial year, the budget is the means for an organisation to make an annual plan that meets the Business Plan’s objectives. The budget identifies the activities required of departmental managers and allocates the human, financial and technical resources deemed necessary to produce those activities. The Departmental management is then held accountable for the use of those resources and progress is monitored through monthly and quarterly reports to identify whether corrective action is required. Managers and clinicians are accountable for the resources that are used in hospitals.

7.10. The O&M structure and the supporting manual developed by the consultant team (see paragraphs 6.9 to 6.11 and 7.2 to 7.4 above) will ensure that the roles and relationships of Services and Departments and the responsibilities of managers and staff at different levels in the CGH can be readily understood. The ABC analysis tool can provide the necessary information on costs and activities. The proformas included with the Business Plan Manual have been devised to enable monthly monitoring and reporting.

7.11. Nurses, perhaps more than any other professional group, are affected by clinical, educational, and managerial developments in health services. Consequently, decisions about the size and mix of nursing teams are important -overstaffed, undermanned or imbalanced nursing teams have implications for the quality and cost of patient care. The nurse dependency tool should help the CGH to mitigate these problems. The costs, efficiency, and quality of clinical services also depend critically on the productivity of doctors with the Workload Guidelines and the data from the ABC analysis the Board and the Director of the CGH now have the means to open a dialogue with their doctors on their activities and the use of resources.

7 NEXT STEPS

8.1. In light of the outcomes referred to in Section 7 above, the following suggestions are made to the Board and the Director of the City General Hospital:

8.2. Strategy:

Two principal courses of action are suggested:

8.2.1. The draft CGH Strategy document prepared by the consultant team should be reviewed by the Director and areas where MoH policy guidance is required should be referred to and discussed at the Skopje CGH Planning Group.

8.2.2. The revised CGH Strategy Document should then be discussed and approved by the Board of the CGH.

8.3. O&M structure:

Three principal courses of action are suggested:

8.3.1. The appointments proposed in Section 2.13 of the Second Progress Report necessary to introduce a central management team should be implemented, in particular the Chief Manager, Finance and Administration

8.3.2. The current systematization for the CGH should be reviewed in the light of the summary results on activities obtained from the ABC analysis and the guidelines on workloads for medical staff at the CGH.

8.3.3. The Chief Nurse should apply the nurse dependency tool to review the allocation of nursing staff to wards and departments as proposed in the current systematisation for the CGH

8.4. Business Plan:

Three principal courses of action are suggested:

8.4.1. The information from the ABC analysis should be used to identify key areas for improvement in clinical services (see in particular 8.5.2. concerning day surgery below and Recommendation 9.4.1. below) draws up action plans and monitors and reports on implementation.

8.4.2. The results from the first quarter of the GP referrals survey are analysed and action plans drawn up to increase throughput (and income) in those clinical specialties where activity data from the initial ABC analysis reveals an excessive use of resources i.e. that currently the doctors do not meet workload guidelines or the ALOS suggests an excess of beds.

8.4.3. The central management team prepare a first draft of the Business Plan using the Manual and pro formas and the information on activities and costs obtained from the ABC analysis.

8.5. Improving the efficiency, effectiveness and quality of clinical services:

Five principal courses of action are suggested:

8.5.1. The ABC analysis tools should be used in a systematic manner to produce monthly reports. The Business planning group should collect and analyse the data and produce the monthly reports according to the format proposed. The monthly reports should be circulated to and discussed with clinical staff and Heads of Departments and a record kept of the meetings listing the actions to be taken.

8.5.2 .The CGH data relating to the UK NHS Basket of 25-day case procedures, should be analysed, percentage rates calculated and targets set for improvement particularly for Hernias and Cataracts.

8.5.3. A survey of activity in the out-patient department should be undertaken to determine the ratios of new to follow-up patients by specialty with a view to reducing the numbers of follow up patients.

8.5.4. Data on ALOS and BO should be analysed and reviewed in the light of the information on activities and cost obtained from the ABC analysis and targets set by specialty for improvements.

8.5.5. As part of the regular meetings held with GPs, information relating to referrals (see 8.4.2. above) and out-patients (see 8.5.3. above) is shared and discussed with a view to improving the service offered to patients.

8.6. Income generation:

Three principal courses of action are suggested:

8.6.1. The use of accommodation and utilities by the Philip 11 Hospital and other tenants should be put on a proper commercial footing and subject to a formal legal agreement

8.6.2. The CGH should adopt a policy of “Green Energy” and adopt energy conservation measures to produce a reduction in energy usage of some 20% in 5 years. The “savings” from schemes such as solar power electrical generation should be invested in planned schemes to improving the maintenance of the hospital fabric

8.6.3. The feasibility of establishing a private patient in-patient facility should be considered provided that a review of in-patient activities and costs identifies spare capacity; a survey of likely demand proves there is sufficient demand and a fully costed and documented price list for procedures is produced.

8 CONCLUSIONS AND RECOMMENDATIONS

In light of what is contained in Part One: Management Training Program and Part Two: Technical Assistance to the new Skopje City General Hospital of this report (see sections 3 to 8 above) we come to the following conclusions and make the associated recommendations:

9.1. Healthcare Management Training

9.1.1. There are a number of lessons that have been learned from previous management training activities in a number of health organisations where the training activities have been centred upon the management teams of the Health Care Institutions and relevant senior and middle level managers. The experience of these projects has provided insights into the capacities of middle and senior level managers, the skills that need to be reinforced and the key issues to be addressed in successful implementation of a national training programme. There are some key lessons for the implementation of a program in health service management that are of relevance to the Macedonian context. These are:

- **Multi-disciplinary Training:** The defining characteristic of health service management is its complexity. This requires collaboration between professions and inevitably involves team-working. Experience shows that health service management training is most effective when it is done on a multi-disciplinary basis, and delivered in a series of short linked modules that keep managers in touch with their working environment and most relevant when it equips Directors and their senior and middle managers with sound conceptual models and relevant practical advice and guidance to enable actual problems to be addressed and solved.
- **Achieving best practice:** The experience of a number of health training activities has demonstrated that Healthcare Directors and their management teams are capable, with the relevant training, and with the appropriate management tools of providing high quality services in a cost effective manner according to international best practice standards and within available resources.
- **Modular based training:** Potentially the clinicians and managers already possess many of the skills required for a modern healthcare system. However where there are recognized shortfalls in skills and knowledge in relation to internationally recognized good practice then modular-based training programmes have been demonstrated as most effective in filling these “competency gaps” This type of approach has the following advantages in that it:
 - Recognizes the existing skills and knowledge of staff,
 - Makes the most efficient use of training resources,
 - Involves minimum time-out for staff going through training and
 - Allows for staff to build up credits that allow entry to higher level training such as a masters’ programme.

9.1.2. In order to develop a sustainable and successful training programme for health service managers in the Macedonian Health System, we believe that the following key issues need to be addressed:

- **Putting theory into practice:** The experience from healthcare management training activities suggests that not only is competency based learning most appropriate to meeting the needs of managers and clinicians, but that wherever possible whatever is taught is applied in the work situation by the participants. We consider that “action learning” is an appropriate approach to training Macedonian Healthcare Managers. The action learning approach involves managers addressing real problems in the workplace and finding solutions to them through facilitated training modules/sessions combined with a number of field visits including following up of achieved results.
- **Obtaining results:** Organizational and management training programmes that have specific goals are generally more effective in producing measurable results. We believe that the main goal for healthcare managers of increase efficiency and quality of services will more readily be met if the central management provides clear expectations of the results to be achieved and holds managers to account for their performance. Experience shows that it is not sufficient merely to supply management tools to managers in the expectation that they will be used. Implicit in the “action learning” concept is a systematic and sustained follow up on the application of the learning and the production of results.
- **Management Team based:** As stated above, the defining characteristic of hospital management is its complexity and this requires collaboration between professions and inevitably involves team-working. We believe that management training is most effective when it is done on a multi-disciplinary basis that is the Director and the management team and of course most relevant when it enables actual problems to be solved. Hospital Directors (managers) have to appreciate that they have to lead and motivate their management teams. Team members have to appreciate that they are personally accountable for their function as well as being a good team member. We believe that equipping team members with the appropriate management tools enables them to contribute more effectively to providing more efficient service delivery.

9.1.3. We conclude that a good start has been made in addressing these issues in the testing of the four modules of the new Management Training Program in June 2010 and that there are opportunities to integrate more fully the outcomes of the TA to the new City General Hospital with the future development of the new Management Training Program.

9.1.4. Recommendation: We suggest to the MoH that all the documentation, presentations relating to the outputs from the TA to the new Skopje CGH are made available to the Faculty of the Centre School of Public Health, Skopje so that they can be adapted and incorporated into the syllabus and curriculum of the new Management Training Program using the approach that we have suggested above.

9.2. The use of resources:

9.2.1. It is essential that not only in the new Skopje City General Hospital, but also in all Macedonian hospitals, managers can account for how resources are being used, where, for what and by whom within their organisation. In order to increase the quantity of and improve the quality of services within available resources, hospital managers must be able to evaluate current expenditure and activities. Managers, and equally importantly, clinicians need to understand the relationship between inputs and activities

9.2.2. Understanding the relationship between inputs and activities is not, as is sometimes assumed, dependent on large-scale investment in IT systems. The result of the use of ABC analysis by the hospital staff at the CGH has demonstrated that routinely available hospital financial and activity data can provide managers with sufficient information to evaluate current expenditure and activities and to make informed decisions on resource allocation. The ABC analysis tool that was used is a spreadsheet application that can be applied by hospital staff after only a short induction.

9.2.3. Variation is intrinsic to healthcare and arises from clinical variability flow variability, and professional variability. Addressing these variations in performance in a systematised manner is one of the principal means of improving efficiency and quality in the delivery of health services. Clinicians are central to the core business of any healthcare institution. They have the key impact on the use of resources and need encouragement to change in their practice in order to achieve best performance standards. The experience of sharing the results of the initial ABC analysis with the clinical staff at the CGH has demonstrated that a frank, open and mature discussion on the allocation of resources is both practicable and desirable. The reaction from other Macedonian hospital managers at the ABC workshop held by the consultant team in Skopje on June 30th 2010 suggests that the ABC analysis tool and the nurse staffing and medical workload guidelines meet a current need and that there is a general willingness to adopt the ABC analysis tool and associated management tools provided by the team.

9.2.4. Recommendation: We suggest to the MoH that the ABC analysis tool could be made available for use in all public sector hospitals in Macedonia along with the Nurse Dependency tool and the Medical Workload guidelines and that Boards and Directors are asked to apply these tools to review the allocation and use of resources in their hospitals in a more systematic manner.

9.3. Organisation and Management structures:

9.3.1. As has become apparent to us in our work with the Director and managers at the CGH, and all too often in our experience, there are unrealistic expectations of Directors and hospital managers. Improving the efficiency and quality of clinical services and reducing costs, can make great demands on health professionals. However well intentioned the local management might be, it is our experience that results will fall short of expectations unless there is an appropriate O&M structure in place. Our focus in providing advice and support to the organisational development

of the CGH has been to focus on putting the essential “building blocks” in place. These are:

- A Central Direction: This comprises the Chief Executive/Director supported by a Central Management Team. The Direction is responsible for the overall direction, control, co-ordination, monitoring and evaluation of the work of the healthcare institution(s).
- An appropriate Organisational and Management Structure: The Central Direction can only be effective if the healthcare institution’s services and functions are organised and managed in a way that enables the quality, costs, and efficiency of clinical services to be addressed
- A Governing Body/Steering Committee - This is usually a board of Directors/Steering Committee that exercises oversight on the part of the government and/or the municipality and monitors performance according to approved plans and budgets.
- A Business Plan: The organisation and services of the healthcare institution must reflect the intent of the “consortium” strategy for the involved Health System (facilities) and be sustainable over the long term. This requires the development of an organisational strategy that improves efficiency and quality that is accompanied by measures to enable the healthcare institution to increase revenues and reduce costs.
- A Budget: The Business Plan is implemented annually through the budget that allocates resources and establishes clear responsibilities for the completion of activities. The budget identifies the activities required of departmental managers and allocates the human, financial and technical resources deemed necessary to produce those activities. The Departmental management is then held accountable for the use of those resources and progress is monitored through monthly and quarterly reports.

9.3.2. We consider that without an appropriate O&M structure, a healthcare institution at any level is merely at best an amalgamation of semi-autonomous professional groupings using and seeking resources without regard to costs, overall efficiency and quality or the long term interests of the healthcare system.

9.3.3. Recommendation: We suggest to the MoH that the manual entitled “The Development of an O&M Structure for the Skopje City General Hospital in Ten Steps” is made available to other hospitals and that the MoH asks Boards and Directors to review their current structures in the light of the principles and proposals that are contained within.

9.4. Day Case Surgery:

9.4.1. It has become evident in the course of the project that there exists scope within the CGH for changes to clinical practice that could increase the efficiency, effectiveness and quality of the hospital’s services. In this regard, the CGH is not unique among Macedonia’s hospitals. For example, it is generally accepted good practice that over 70% of all elective surgery (including surgery for children) can be undertaken safely, effectively and appropriately on a day case basis. Day case surgery is liked by patients

and is cost effective in that it can help remove the need for costly in-patient beds. We have observed an ALOS of four days associated with cataract extraction and heard assertions from some clinicians that day case surgery for cataract extraction is neither acceptable to patients nor feasible. And yet we have also observed day case extraction as the procedure of choice in the private sector often by the same clinicians.

9.4.2. There is ample detailed guidance and protocols available to clinicians and hospital managers (see paragraph 6.17 above and Annexe 9.18) to enable the MoH to have confidence in requiring hospitals to markedly increase their day surgery rates in line with international good practice. For example, it is international good practice that up to 98 % of cataract extractions could be undertaken on a day case basis. Experience shows however that a marked shift to day case surgery will have implications for the hospital payments system. The HIF needs to be fully aware of and prepared for the impact of the ensuing rise in productivity on their cash limited funds.

9.4.3. Recommendation: We suggest that as well as the MoH making clear to hospital Directors and Boards that they are expected to apply the guidance and protocols to shift from in patient to day care where appropriate, that it approves the establishment of a day case trial for cataract extraction at the CGH involving the HIF, and that the resultant ABC analysis cost data is used by the HIF to determine an appropriate national re-imburement rate for cataract extraction using day surgery.

9.5. Hospital services in Skopje

9.4.1. The lack of a hospital master plan for Skopje and a supporting policy framework was identified from the outset of the project as a major constraint on the organisational development of the CGH (see the analysis contained in the Inception Report). In order to have a functioning and sustainable CGH it is necessary for the new CGH board to have a Strategy dealing with how they envisage the medium to long term future of the hospital and a business plan detailing how they will realise their expected future. The development of the Strategy and Business Plan for the CGH has been made more difficult by the lack of an appropriate forum where the policy gaps that exist in relation to the MoH's hospital strategy for Macedonia in general and the City of Skopje in particular can be discussed and resolved.

9.4.2. In a country with a population of some two million, of whom some forty percent live in the capital Skopje, a hospital master plan (see paragraph 6.2. above) for Skopje is undesirable. The lack of a hospital master plan and a coherent policy framework makes it difficult for the CGH and other hospital boards to appreciate where their hospital "fits in" to the "big picture" of public and private hospital provision and to plan accordingly. It also makes it difficult for the HIF as it needs to know what kind of activity it should be purchasing for the health needs of the population as well as specifying the cost, quality and efficiency of that activity in order to use the contracting mechanism to the maximum advantage.

9.4.3. Recommendation: It is suggested that the MoH activates the CGH Planning Group [see [Annex 9.9. CGH CGH Planning Group: Membership and ToRs](#)] under the chairmanship of the First Deputy Minister and so that it can serve as the forum to

address the gaps in the current policy framework for hospital services in the City of Skopje and to consider the need for a Hospital Master Plan for the City of Skopje. A suggested framework for developing a Hospital Master Plan for Skopje is attached [see [Annex 9.24. Suggested process for developing Hospital Master Plan for Skopje.](#)]

9.6. Hospital Autonomy:

9.6.1. There have been instances in the course of this project where the current rules and regulations-systematisation; employment law; hours of work; procurement- have acted as constraints on making much needed changes as for example adjusting staffing rotas, moving staff and matching staff to workloads. It is evident to us that hospital Boards and Directors need greater autonomy if they are to meet the expectations of the MoH to increase efficiency and improve quality within existing resources.

9.6.2. In Macedonia as in other health systems, a key concern is how to balance the increased management autonomy that comes from decentralization, with the needs of the community and accountability to the government for the use of public money. Governance and autonomy lie outside our current terms of reference but we would make the observation that there exists a useful conceptual framework for the organizational reforms of hospitals² and that there are some generic key components³ required to create a strong and effective system of corporate governance.

9.6.3. Recommendation: We would suggest that should the MoH decide to give greater autonomy to hospitals that it gives consideration to coordinating changes to hospital autonomy and strengthening of corporate governance with management training for boards and management teams.

² Harding A and Preker S ed : A conceptual framework for the organizational reforms of hospitals in Innovations in Health Service Delivery: The Cooperatization of Public Hospitals World Bank Washington 2003

³ See for example: The Higgs Report 2003 on UK business corporate governance and the code for UK NHS board members in: Governance in the NHS 2003 and the proposed governance charter in Victorian Hospitals Governance Review 2003

Technical Assistance in strengthening of hospital management through health -management curricula development & establishment (organizational development) of new Skopje general city hospital

9 ANNEXES

9.1	Management Training: Program and Syllabus
9.2	Hospital Management Development Program (HMDP): Macedonia -2010
9.3	HMDP Macedonia 2010: List of Participants and Certificate
9.4	HMDP Macedonia 2010: Evaluation Report
9.5	HMDP Macedonia 2010: Suggestions for future training
9.6	Macedonia: Competency Framework for Healthcare Managers
9.7	A Situation Analysis of Health Management Training Needs in the Macedonian health sector
9.8	The Role and Duties of Hospital Board Members
9.9	CGH Planning Group, Membership and ToRs
9.10	CGH Draft Strategy
9.11	The Development of an O&M Structure for the Skopje City General Hospital: Manual
9.12	The Development of an O&M Structure for the Skopje City General Hospital: Presentation to the Minister of Health
9.13	Guide to Activity Cost Tables
9.14	Activity Based Costing: Calculation Tools
9.15	CGH Business Planning Group-Membership
9.16	CGH Business Planning Manual
9.17	CGH Draft Business Plan
9.18	Day Case Surgery Reference Material
9.19	CGH Referrals pro-formas
9.20	CGH Monthly Budget Reports

9.21	CGH: Manual for Estimating the Size of Nursing Teams
9.22	CGH: Workload Measures for Doctors
9.23	CGH: Draft Budget
9.24	Suggested process for developing Hospital Master Plan for Skopje
9.25	Presentation on Draft Final Report to First Deputy Minister-Skopje 29 June 2010
9.26	Presentation on Draft Final Report to Staff of September 8th Hospital-Skopje 30 June 2010
9.27	Presentation on ABC costing analysis given 30th June 2010 in Skopje