USAID | JORDAN
FROM THE AMERICAN PEOPLE

HUMAN RESOURCE DEVELOPMENT PLAN

JORDAN HUMAN RESOURCES DEVELOPMENT PROJECT REPORT NO. 8

SEPTEMBER 2005

This publication was produced for review by the United States Agency for International Development. It was prepared by the Jordan Ministry of Health and Initiatives Inc.

ACKNOWLEDGEMENTS

The HRDP team wishes to recognize the important contributions to all the work conducted under project over the last year of the four MOH Technical Counterparts, namely: Dr Osama Samawi, Dr Safa Qusoos, Dr Salah Diab, and Dr. Mohamed Al Ta'rawneh. These individuals provided continuous guidance and advice to the HRDP team. They participated in all the analyses carried out. They reviewed all reports and provided helpful suggestions for improvement. They facilitated the working groups throughout the Strategic Projections Workshop. Above all, they ensured that the work conducted under the HRDP was known and understood by other MOH managers.

The HRDP team also gratefully acknowledges the assistance given by the HRDP Administrative Counterpart, Dr. Taher Abu Al-Samen. Dr Taher facilitated all communication between the HRDP and the MOH, assisted in arranging for meetings with MOH officials, and ensured that the numerous necessary letters of introduction and invitation to both MOH officers and other organizations participating in the work were disseminated promptly.

LIST OF ABBREVIATIONS

Asst. ....Assistant
FTE ....Full Time Equivalent Staff Member
GP........................General (Medical) Practitioner
HC.......................Health Center
HR ....Human Resources
HRDP..................Human Resources Development Project
HRM....................Human Resource Management
MOH...................Ministry of Health
MOHE.................Ministry of Higher Education
NGO...................Non-Governmental Organization
PHC.....................Primary Health Care
RMS.....................Royal Medical Services
Tech. ....Technician

HUMAN RESOURCE DEVELOPMENT PLAN

JORDAN HUMAN RESOURCES DEVELOPMENT PROJECT REPORT NO. 8

JENNIFER HUDDART, M.B.A.

The information contained in this report is the product of an evaluation conducted by Initiatives Inc. The report was prepared under the auspices of the Technical Assistance and Support Contract (TASC2 Global Health), implemented by Initiatives Inc. under Task Order No. GHS-I-802-03-00040-00 issued by the U.S. Agency for International Development. The opinions expressed in this report are those of the individual authors and do not necessarily represent the views of USAID.

Initiatives Inc.
376 Boylston Street, Suite 4C
Boston MA 02116 USA
TEL (617) 262-0293
FAX (617) 262-2514
www.initiativesinc.com

DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

CONTENTS

ACKNOWLEDGEMENTS i

LIST OF ABBREVIATIONS ii

LIST OF TABLES v

I THE HUMAN RESOURCE DEVELOPMENT PROJECT (HRDP) 1
- Goals and Objectives of the HRDP 1
- Components of the HRDP 1
- Approach Taken 3
- Contents of this Final Report 3

II EXECUTIVE SUMMARIES OF HRDP REPORTS 4
- The Human Resources for Health Situation Analysis 4
- The Motivation Study 6
- The Compensation (Salary and Benefits) Study 7
- Assessment of MOH Human Resource Management Policies and Practices 11
- The Strategic Health Workforce Projections 14
- Workload-Based Projections of Staffing Need 22

III KEY HR ISSUES ARISING FROM THE ANALYSES AND RECOMMENDATIONS FOR ACTION 28
- Planning of Human Resources 28
- Monitoring of the Human Resource Situation 28
- MOH Pre-Service Training 29
- Non-MOH Pre-Service Training 31
- General Management 31
- Human Resources Management 32
- The Compensation System 32
- Career Progression 33
- Recruitment and Retention 34
- Suggested Priorities for Implementation of Recommendations 35

LIST OF TABLES

Table 1 Products of the HRDP ... 2
Table 2 Distribution of Staff by Place of Work ... 4
Table 3 Distribution of Professions by Place of Work ... 4
Table 4 Annual Loss Rates of Staff from MOH ... 5
Table 5 Annual Graduates from Jordanian Training Programs ... 5
Table 6 Organizations Studied ... 8
Table 7 Benchmarking of Benefits ... 9
Table 8 MOH Salaries as Benchmarked to the Market Levels ... 9
Table 9 Benchmarking Salaries of Specific Positions in Different Entities ... 10
Table 10 Human Resource Components Covered by the HRM Assessment ... 12
Table 11 Results of the HRM Assessment ... 13
Table 12 Baseline and Projected Staff Requirements (FTEs) by Type of Health Center ... 16
Table 13 Baseline and Projected Staff Requirements (FTEs) for Public Sector Hospitals ... 17
Table 14 Baseline and Projected Staff Requirements (FTEs) for the Central MOH and Health Directorates ... 18
Table 15 The Impact of Training Outputs and Attrition on Staff Supply ... 19
Table 16 2014 Human Resource Supply –Requirements Comparison – Scenario 1 ... 20
Table 17 Key Output Indicators - Scenario 1 ... 21
Table 18 Health Centers Involved in the Study ... 23
Table 19 Average Times Taken for Service Delivery ... 24
Table 20 Assumptions on Time Spent on Other Duties ... 25
Table 21 FTE Staff Required based on Projected PHC Workload 2014 ... 26
Table 22 Comparison between Numbers of Staff Currently Working at Health Centers and the Projected Requirements ... 27
Table 23 Required Changes in Training Outputs from MOH Schools ... 30

I. THE HUMAN RESOURCE DEVELOPMENT PROJECT (HRDP)

GOALS AND OBJECTIVES OF THE HRDP

The goal of the Human Resource Assessment and Development project was to provide the MOH with the information to be able to make decisions about the future of their human resources and to have an understanding of the approaches and the tools which will help them to continue to monitor and plan for their human resources as circumstances change in the future.

The objectives for the project were as follows:

1. Assess the adequacy of present staffing of health facilities at primary & comprehensive health centers, hospital and governorate levels.
2. Document the distribution and qualifications of managerial, technical & administrative staff within the central MOH and bodies related to supporting the functions of the MOH.
3. Assess the adequacy of the present training capacity in the country & define the possible need for extra facilities and trainers.
4. Assess the current employment policies & practices to explore how current regulations & practices facilitate or hinder effective human resource management.
5. Provide MOH with quantitative information about the numbers of staff required for full staffing of public health facilities and design on the basis a plan which describes the training and human resource management needs to achieve full staffing over the next decade.

COMPONENTS OF THE HRDP

The HRDP was a one-year project which commenced in September 2004.

The work under the HRDP was organized around a number of products, each of which represented one component of the project. These products are shown in Table 1.

Report No. 1
Mapping of the Central MOH

This was a organizational chart of the central MOH, together with details of the numbers and qualifications of the staff employed in each unit, section, Department and Directorate.

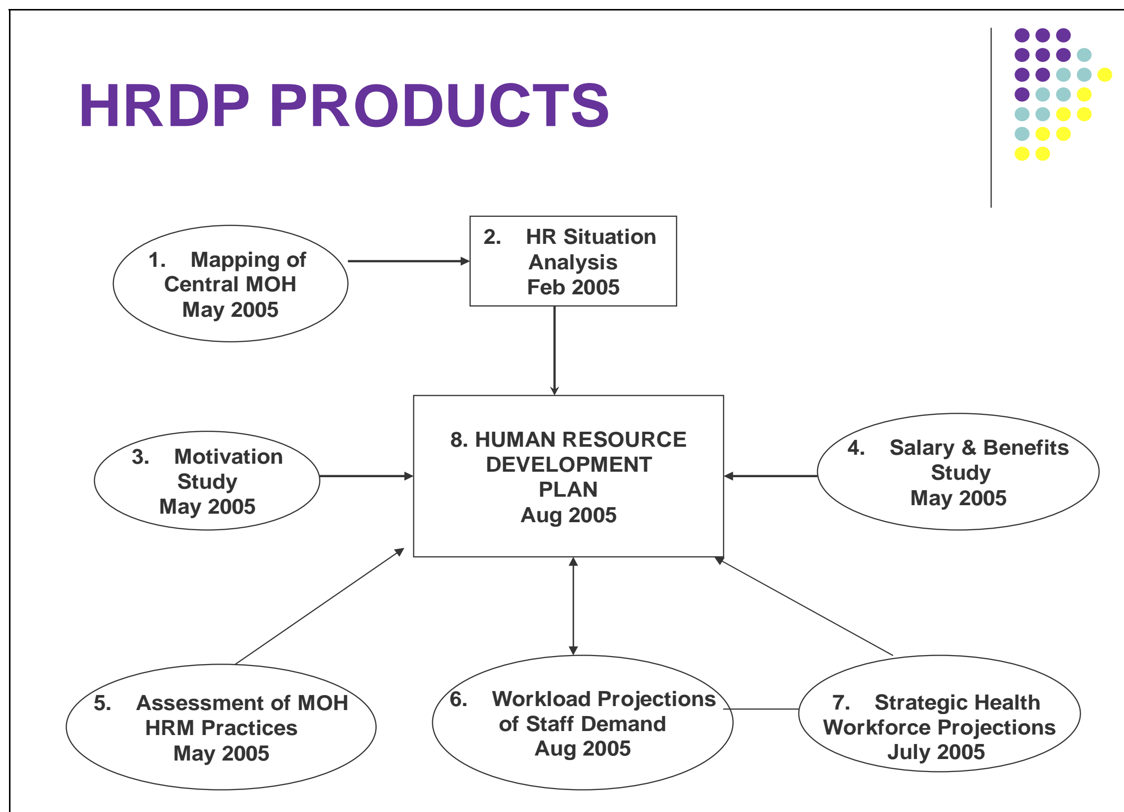
Report No.2
HR Situation Analysis

This was an analysis of the current staffing situation in the health sector in Jordan. Due to difficulties in obtaining data from the Royal Medical Services and the private health sector, the major focus of the report is the Ministry of Health. The analysis provides information on the number and distribution of 2004 health facilities in the country, on the current staffing levels in each type of facility, on attrition rates from the MOH by profession, and on present pre-service training outputs from MOH, University and private health training institutions in Jordan.

Report No. 3
Motivation Study

This study examined the factors that motivate health staff to remain in or leave their employment with the MoH, the reasons people apply for training in the health professions and why graduates of this training may not continue on as health workers in the public service. The respondents for the study included present MoH staff in a variety of positions, recent leavers from the MOH (in the last 24 months), students in pre-service training programs in the health professions and school aged youth about to make decisions regarding their future careers.

Table 1: Products of the HRDP



Report No. 4
Salary and Benefits Study

This study compared MOH salaries and benefits for certain benchmarked positions with those paid by the private health sector, NGOs and the Ministry of Education. The objective of this study was to determine the relative competitiveness of MOH salaries and benefits so as to inform decision-making about the potential to negotiate improvements to aid in maintaining staff performance and staff retention.

Report No. 5
Assessment of MOH Human Resource Management Practices

A human resources management system that functions effectively can assist the organization in developing a set of policies, systems and practices that provide an environment which advances the skills and increases the motivation of staff in order to achieve the highest possible level of performance over time. This assessment was carried out to determine the current stage of development of human resource management policies and practices in the MOH and to identify areas that need attention if the MOH is to improve both staff retention and staff performance.

Report No. 6
Workload Projections of Staff Demand

This analysis focused on the workload of staff at government primary health care facilities in Jordan and, based on projections of future client demand, presented projections of the needs for doctors and nurses in the health centers. The report also compares Jordan's MOH hospital

staffing situation in relation to beds with the situation reported in several other countries.

Report No. 7
Strategic Health Workforce Projections

In June 2005, senior representatives from the MOH and other Jordanian institutions that provide support and services to the Jordanian health sector, prepared 10-year projections of future staffing and training needs that would be affordable within projected financial allocations to the MOH. This report summarizes the approach taken and the results of the deliberations.

Report No. 8
Human Resource Development Plan

This is the current report.

APPROACH TAKEN

At the start of the project, the Secretary General was asked to nominate MOH officers to be the technical counterparts to the consultants. These officers were to provide guidance to the consultants and oversight of their work. In addition, one MOH officer was as the administrative counterpart to the consultants and was to facilitate all meetings and communications between the project and the MOH.

Three MOH officers were appointed by the MOH as technical counterparts and one as the administrative counterpart in September 2004. In January 2005, the project requested one additional technical counterpart and the MOH made this addition.

The technical counterparts have been involved in every step of the project. They provided invaluable guidance and support throughout the year's work and each of the reports was sent first to them in draft for their review and comments before being finalized and formally submitted to USAID and the MOH. They attended all important meetings, represented the project when staff members or consultants were not present, and took leadership during the Strategic Health Workforce Projections proceedings.

CONTENTS OF THIS FINAL REPORT

This final report provides an overview of all the work carried out under the HRDP. It summarizes the main findings of each of the analyses and studies conducted. Based on these findings, it then identifies the important human resource issues that are now facing the MOH. It then concludes with recommendations on steps that the MOH will need to consider to deal with these issues.

II. EXECUTIVE SUMMARIES OF HRDP REPORTS

The one report that is not summarized here is that of the Mapping of the Central MOH, since this is not a report that can be condensed.

THE HUMAN RESOURCES FOR HEALTH SITUATION ANALYSIS

This report is a compilation of information about the staffing situation in the MOH at the end of 2004 in relation to the health facilities and the population served. It also details current training programs in the country offering basic and post-basic courses in the health professions and presents data on intakes and outputs from these programs. A summary of the key elements of the report is given below.

Health Facilities

In 2004, there were a total of 9,262 acute hospital beds in Jordan, or one bed for every 690 people. Of these total beds, MOH hospitals represented 34.2%, the private sector 37.4%, the RMS 19.5%, and the University Hospitals 8.9%. The 3,172 MOH acute hospital beds were provided through 26 hospitals, with a relatively low average occupancy rate of 65%.

There were a total of 687 health centers (comprehensive, primary, village and stand-alone MCH centers). On a national level, this represented one health center for 8,000 people, although this ranged from one health center for 31,000 persons in Amman to one health center for 2,170 people in North Badiah Directorate.

Staff

In November, 2004 the MOH had a total of 23, 934 staff. Of this total number, 23.7% were ancillary staff, 15.7% were qualified nurses and midwives, 14.8% were administrative staff, 13.4% were doctors, 11.9% were unqualified nurses, 2.0% were dental doctors, and 9.4% were other categories.

Table 2 shows the distribution of MOH staff by place of work. A total of 44.1% of all staff were working in hospitals and 32.0% in health centers.

Table 2: Distribution of Staff by Place of Work

Place of Work	%
Central MOH	9.0%
Al Basheer Hospital	10.3%
Other Hospitals	34.1%
Health Centers	32.0%
Health Directorates	12.8%
Special Units	2.0%

The central MOH employed a total of 2,057 staff, representing 9% of total MOH employees. The central MOH plus the Health Directorate office staff represented almost 22% of all MOH staff.

Table 3 provides information on the distribution of the different professional categories by place of work.

Table 3: Distribution of Professions by Place of Work

Category of Staff	Hospitals	Health Centers	Health Directorates	Central MOH
All doctors	64%	29%	4%	3%
GPs	21%	71%	7%	1%
Registered Nurses	87%	6%	2%	1%
Midwives	48%	41%	10%	1%
Pharmacists	10%	0%	22%	27%
Asst. Pharmacists	29%	51%	13%	6%
Laboratory Techs.	44%	21%	15%	10%

In relation to the gender of MOH staff, 80% of the Obstetric and Gynecology specialist doctors are male and only 20% are female. A similar pattern is found for all doctors, where 86% are male and 14% are female. 62% of the registered nurses and 75% of the pharmacists are female. For management staff, only 12% of the senior managers and 33% of the middle managers in the MOH are female,

Of the total MOH staff in 2004, 16% of the medical specialists and 12% of the registered nurses were on long leave.

Losses of Staff

The average loss rates of staff from the MOH between 2002 and 2004 are shown in Table 4.

Table 4: Annual Loss Rates of Staff from MOH

Category of Staff	Average Loss Rate/Year	Average No. Leaving/Year
Laboratory Technicians	16%	32
Registered Nurses	10.2%	228
Other Technicians	8.7%	72
Specialist Doctors	7.1%	84
X Ray Technicians	5.7%	23
GPs	3.0%	32

The number of laboratory technicians leaving the MOH each year represents 48% of the total annual number of new graduates.

For X-Ray technicians (who are trained only by the MOH), an average of 23 have been leaving the MOH each year, compared to an average annual output from training of 36, which means that the net annual increase for the MOH is only 13.

For specialist doctors, where there have been an average of 121 graduating each year, the net increase available to work with the MOH, if they so choose, is only 37.

Workload/Staff Member

The report provides information on the average number of patients per staff member working day at MOH hospitals and health centers. In hospitals, the average number of in-patients per day per doctor varies from 0.2 at two hospitals to a high of 7.3 at the national psychiatric hospital. Similarly, the average number of in-patients per day per qualified nurse ranges from 0.2 to 9.1.

For health centers, the average number of clients per day for each doctor ranges from a high of 54 to a low of 7. For qualified nurses, the range is even more extreme, with the average number of patients ranging from a low of 30 to a high of 323. The report makes the comment that workload does not appear to be taken into account in the deployment of available staff.

Training

The report provides details of the intakes and outputs from the different health training programs available in Jordan through the MOH, the public training institutions (universities) and private universities and colleges. Table 5 presents information on average numbers of graduates each year from all the different institutions.

Table 5: Annual Graduates from Jordanian Training Programs

Training Program	Training Sector	Average No. of Graduates/Year
Resident Doctors	MOH	121
Medical Interns	MOH	237
Doctors	MOHE Private Universities	162
Registered Nurses	MOHE Private Universities	646
Associate Nurses	MOH	815

Training Program	Training Sector	Average No. of Graduates/Year
	MOHE Private Colleges	
Laboratory Technicians	MOHE Private Universities	67
Associate Lab. Techs.	MOH	45
X-Ray Technicians	MOH	36

THE MOTIVATION STUDY

This study was conducted by the Community Development Group (CDG), The study examined the factors that motivate health staff to remain in or leave their employment with the MOH, the reasons people apply for training in the health professions and why graduates of this training may not continue on as health workers in the public service. The respondents for the study included present MOH staff, recent leavers from the MOH (in the last 24 months), students in pre-service training programs in the health professions and school aged youth about to make decisions regarding their future careers.

Information was collected through a combination of face-to-face interviews with trainees, telephone interviews with recent leavers and written questionnaires in the case of MOH staff who were too busy for face-to-face interviews. Comments from school-aged students were gathered in the form of focus group discussions around specific topics. 61 students from Amman, Irbid and Karak participated in the focus groups. 180 trainees from 5 universities, 153 staff from ten MOH health facilities around the kingdom and 32 recent leavers from MOH took part in the survey.

Current MOH Staff

Regarding current MOH staff, they referred to their strong relationships with their colleagues and the satisfaction they feel from doing a worthwhile job as reasons for liking their jobs. However, there were numerous reasons for frustration:

- Low salaries and allowances
- Absence of opportunities for promotion
- Lack of support for training to enable advancement
- Long hours of work
- Too much work
- Lack of accommodation
- Lack of child care.
- Sub-standard equipment
- Lack of access to needed information.
- Lack of appreciation and support from superiors
- Lack of autonomy
- No participation in decision making.

Recommendations made by current MOH staff included:

- Raise staff salaries and allowances (for risk of infection and night duty specifically) so that total remuneration matches salaries in the private sector and region.
- Develop simple, fair and transparent rules for promotion devoid of favoritism and nepotism which will motivate staff and make them feel appreciated for hard work.
- Make staff training available both for career development and refreshing knowledge.
- Give staff opportunities to raise their concerns and interaction with administration and supervisors should be more motivational.

- Provide accommodation for staff who live far from their workplaces or are on duty and provide MOH assistance in housing.

Recent Leavers from MOH

Leavers resigned from MOH positions because of frustration with job conditions including low salaries, lack of opportunity for promotions or training and heavy workload, combined with knowledge of better job opportunities outside the public sector. Most leavers who moved on to new jobs cited increased wages and more comfortable work environments in their new workplaces. Their recommendations were similar to those of current MOH staff, but focused on salary issues and interaction with management.

Trainees

Among the trainees interviewed, most had entered the training program because their Tawjihi scores allowed them to do so. Other motivations for entering the training included the strong labor market for the profession, trainees' personal interest in the health sector and the incomes they expected to accrue. They looked forward to helping those in need, opportunities for higher study and a strong job market, although among their reservations regarding the health sector was the low social regard of individuals in health related professions, especially nurses and X-Ray technicians.

In general, the training met trainees' expectations, with some finding it more difficult than they had expected. The overriding recommendation was that there be more practical training included in the syllabus.

With regard to the MOH as an employer, the information held by trainees was conflicting and disparate, belying a shortcoming in the MOH's dissemination of information about its job opportunities. Moreover, only 14% of trainees expressed a desire to work for the MOH upon completing their studies.

School Students

Students who participated in focus groups were mainly focused on passing their Tawjihi exams before thinking about their careers. However, their positive perceptions regarding the health profession included prestige, the broad base of knowledge one acquires through work in the health sector, the human side of the profession and the availability of job opportunities.

Among their negative perceptions of the health professions were the long and expensive study period, the commercialization of the health sector and the inappropriate social attitudes about professions such as nursing and health technicians' work for men.

Many students gained information about the MOH through TV spots and advertising campaigns. However, perceptions of MOH work conditions were shaped through direct experience with the MOH or from relatives employed by the Ministry. Although some were aware of the recent progressions of the MOH, opportunities for training and the MOH role in serving the poor, there were also negative reports of working conditions from relatives.

Again, the lack of information among these students about to enter the work force hinders the dissipation of widespread negative perceptions regarding working conditions within the MOH.

THE COMPENSATION (SALARY AND BENEFITS) STUDY

There are several indications that the MOH's compensation plan is causing problems. There is evidence of high employee loss rates, no or little differentiation between high and low performers, general employee dissatisfaction with pay practices, decreased individual accountability, and decreased effort and productivity.

The MOH loses its professional health staff not only to wealthy, neighboring countries but also to other health organizations in Jordan. This study was conducted to assess how salaries and

benefits provided by the MOH to its staff (within the context of civil service and labor law regulations) compare to those provided by other Jordanian employers.

The objective of the study, which was carried out by Deloitte of Jordan, was to assess the MOH compensation plan in relation to its effect on enabling the MOH to:

- Recruit and retain qualified employees.
- Increase or maintain morale/satisfaction.
- Reward and encourage peak performance.
- Achieve internal and external equity.
- Reduce turnover and encourage loyalty.

The approach for undertaking this assignment was based on benchmarking the ministry's compensation plan with other leading private and non-governmental entities in Jordan. The organizations covered under the study are shown in Table 6.

Table 6: Organizations Studied

- Al Khaldi Medical Center
- Ibn Al Haitham Hospital
- Arab Heart Center
- King Hussein Cancer Center
- Al Esra Hospital
- Jordan University Hospital
- United Nations Works & Relief Agency (UNRWA)
- Jordan Red Crescent
- Jordanian Association for Family Planning & Protection (JAFPP)
- American Medical Clinics
- Ministry of Education
- Ministry of Health

The approach taken was to identify the best practice in all benefits available in the market and judged MOH's practice against that best practice by using four levels of competitiveness as follows:

- Extremely Competitive: If MOH practice is better than the best practice.
- Competitive: If MOH practice is equivalent to the best practice.
- Weak: If MOH practice is less than the best practice.
- Extremely Weak: If MOH practice does not have this benefit at all.

Table 7 summarizes the results of the study in relation to benefits offered by the MOH.

In relation to salaries, Table 8 presents a comparison of MOH salaries for the benchmarked positions with market levels. The positive value refers to the fact that the MOH salary level is higher than the prevailing market rates and the negative value indicates lower salary levels as benchmarked with market rates. To give an example, for Gynecology and Obstetric Specialists, the MOH salary is JD 843 lower than the minimum salary paid by the market, is JD 1,540 lower than the average salary paid by the market, and JD 2,381 lower than the maximum salary for this position paid by the market.

Table 9 presents the results of the study in relation to staff which do not directly provide service delivery to clients. The Ministry of Education was included in the study since there was understanding that it had been able to negotiate for better conditions of service for its staff.

Table 7: Benchmarking of Benefits

Benchmarking Result	Number of Benefits	Applicable Benefits
Extremely Competitive	10 (36%)	• Technical / Job Allowance • Educational Scholarships • Local travel • Outside country travel arrangements • Annual leave • Sick leave • Maternity leave • Educational leave • Pilgrimage/Hajj leave • Leave without pay
Competitive	6 (21%)	• Hardship allowance • Family/ children allowance • Overtime • Thank you letters • Parking facilities
Weak	4 (14%)	• Salary increments • Transportation/ Car allowance • End of service award • Health, disability & life insurance
Extremely Weak	8 (29%)	• Provident Fund • Housing fund • Salary advances • Employee loans • Schooling benefits • Compassionate leave • Marriage leave • Symbolic gifts
Total	**28 (100%)**	

Table 8: MOH Salaries as Benchmarked to the Market Levels

Position	Monthly Take-Home Salary (JD) (Basic + Monthly Allowances)		
	Minimum	Average	Maximum
Specialist: Gynecology/ Obstetrics	-843	-1,540	-2,381
Specialist: Family Medicine	-90	-646	-1,395
General Practice	-135	-240	-300
Dentist	-264	-230	-28
Registered Nurse	31	35	-160
Associate Nurse	48	0	-245
Midwife	15	-5	-130
X- Ray Technician	-65	-160	-340

Table 9: Benchmarking Salaries of Specific Positions in Different Entities

Position	MOH	MOE	Private Sector
HR Director	432	469	3,750
Governorate Director	957	N/A	875
Nursing Tutor	500	N/A	1,500

Conclusions and Recommendations

Salary: The salaries paid by MOH to its staff are lower than the market in 80% of the cases examined. Unless the MOH can raise the salaries paid to its employees, it will continue to lose it staff to the private sector in Jordan and elsewhere in the region.

Benefits: MOH grants a series of benefits to all of its employees. The results of the survey revealed that 36% of these benefits are extremely competitive, 21% are competitive, and 14% are weak, while 29% are extremely weak. In order for MOH to be more competitive in term of benefits, the following measures are recommended to the MOH.

Transportation Allowance: MOH should provide all of its employees with a transportation/car allowance. However, the amount of the allowance should be determined according to the grade, position and job nature of the employee.

Hardship Allowance: MOH should provide some of its employees with a hardship allowance that is calculated as a percentage of the basic salary. The nature and location of the job should be evaluated in order to ensure fairness in granting such an allowance.

Family/ Children Allowance: MOH should increase the current amount paid.

Housing and Furniture Allowance: MOH should provide some of its employees with a housing and furniture allowance that is granted as a lump sum amount. The intention behind such a benefit is to provide accommodation for employees at high grades; especially those employees who live far from their work place.

Overtime: Employees who are eligible for this benefit should be very carefully watched to ensure fairness when applying such a policy.

Provident Fund: MOH can introduce a Provident Fund System to its staff members. Such is a system will act as a retention mechanism.

Housing Fund: MOH should have a housing fund in which all employees are given the chance to contribute. The rationale behind such a benefit is to give employees the chance to own a house through small/ minor installments that are taken out of their monthly pay checks.

End of Service Award: MOH should have an end of service award that is granted to employees only at the time of leaving the service. This benefit can play a vital role in the retention process for employees opting to find a job outside the ministry. The mechanism of such a benefit should be very carefully selected.

Salary Advances: MOH should develop a policy for salary advances. Such a policy, when developed, should be only used by those who are urgently in need for cash before paychecks are distributed.

Employee Loans: MOH should develop a policy for employee loans. Such a policy, when developed, should have a clear control mechanism that would prevent it from being abused on the part of the employees.

Educational Scholarships: MOH should improve its current policy regarding educational scholarships through developing a new amended policy that is more open and dedicated towards the development of staff in all fields of study.

Schooling Benefits: MOH should provide some of its employees with schooling benefits for their children. The intention behind such a benefit is to provide for the education of employee's children in order to give employees themselves a better notion of job security.

Airline Tickets for Employee Vacations: MOH could provide its top management personnel with airline tickets once per year for their annual vacations.

Outside country travel arrangements: MOH should cover all out-of-pocket expenses incurred during international business travel on actual basis upon the presentation of supportive documents. MOH should also compensate employees who travel for the time spent away from home. We recommend that such compensation be given in the form of an expatriation allowance calculated as a set amount for every night spent in a foreign country.

Annual Leave: MOH's practice regarding annual leave is *extremely competitive*.

Sick Leave: MOH's practice regarding sick leave is *extremely competitive*.

Maternity Leave: MOH's practice regarding maternity leave is *extremely competitive*.

Educational Leave: MOH's practice regarding educational leave is *extremely competitive*.

Pilgrimage/Hajj Leave: MOH's practice regarding pilgrimage/Hajj leave is *extremely competitive*.

Compassionate Leave: MOH should grant its employees compassionate leave for the death of direct family members from the first and second degrees only.

Marriage Leave: MOH should grant its employees marriage leave when they get married. This leave can be taken once only during the entire period of service at MOH.

Paternity Leave: MOH should grant its employees paternity leave when their wife's give birth to a child.

Leave Without Pay: MOH's practice regarding leave without pay is *extremely competitive*.

New benefits: The study recommended that MOH study the possibility of adding the following benefits to the pool of benefits they grant to their employees:

- Thank you letters
- Symbolic gifts
- Retreats
- Employee of the month
- Honor certificates
- Special memberships
- Parking facilities
- Day care services
- Cafeteria services

ASSESSMENT OF MOH HUMAN RESOURCE MANAGEMENT POLICIES AND PRACTICES

Human resources management can be defined as: *the integrated use of policies, procedures and management practices to recruit, utilize, maintain and develop employees in order for the organization to achieve its goals.* [1]

A human resources management system that functions effectively can assist the organization in developing a set of policies, systems and practices that provide an environment which advances the skills and increases the motivation of staff in order to achieve the highest possible level of performance over time.

An organization which develops and maintains an effective human resource management system will benefit in the following ways:

---

[1] *The Manager*, Volume VIII, Number 1, Spring 1999. Management Sciences for Health.

- It encourages systematic planning to support the organizational mission and goals;
- It increases the capacity of the organization to achieve its goals;
- It provides a clear definition of each employee's responsibilities linked to the organization's mission and goals;
- It encourages greater equity between compensation and level of responsibility;
- It clearly defines responsibilities of managers and supervisors;
- It increases level of performance and the efficient use of employee's skills and knowledge;
- It results in cost savings through improved efficiency and productivity;
- It increases the organization's ability to manage change.

The Assessment

The assessment was conducted with the help of an assessment instrument developed by Management Sciences for Health. This instrument has been used in numerous organizations in many countries around the world to identify the characteristics and capacity of an organization's human resource system and provides a foundation for the development of an action plan for improving the human resource management system. The instrument covers 21 human resource components, grouped into six broad areas of human resource management, as shown in Table 10.

The assessment was conducted by a team of individuals from HRDP and the MOH. Their views were based either on direct experience as staff members of the MOH or on experiences gained from other countries on human resource management practices that can assist or hinder an organization's efforts to increase the effectiveness of its endeavors.

Table 10: Human Resource Components Covered by the HRM Assessment

HRM Capacity HRM Budget HRM Staff **Human Resource Planning** Organization Mission/Goals Human Resource Planning **HR Data** Employee Data Computerization Personnel Files **Training** Staff Training Management & Leadership Development Links to External Pre-service Training	**Personnel Policies and Practice** Job Classification System Compensation and Benefits system Recruitment, Hiring, Transfer and Promotion Staff Orientation HR Policy Manual Discipline, Termination & Grievance Procedures Relationship with Unions Labor Law Compliance **Performance Management** Job Descriptions Staff Supervision Work Planning & Performance Evaluation

As organizations mature, they evolve through several stages of development. Organizations move through these stages at different rates, but their progress tends to be accelerated when they have developed a clear set of goals which all staff know about and understand, when they have good management structures and systems,

and when they have skilled managers and staff who use these systems effectively.

It is usual to find that different components of the human resource management system are at different stages of development since components may have received different levels of attention over time. The assessment instrument identifies four stages of development for each of the human resource management components. The scoring of the results was done by awarding points based on the stage of development that the MOH was assessed as having reached. For example, if the assessed stage of development for a particular component was '2' then the score awarded was 2.

Results of the Assessment

Table 11 provides a summary of the assessment scores assigned to each of the 23 human resource management components covered.

Table 11: Results of the HRM Assessment

Component	Assessed Stage of Development	Highest Possible Score	% Highest Score Achieved
Human Resources Capacity			
Human Resources Budget	2	4	50%
Human Resources Staff	3	4	75%
Human Resources Planning			
Organizational Mission & Goals	1	4	25%
Human Resources Planning	2	4	50%
Personnel Policy/Practice			
Job Classification System	3	4	75%
Compensation and Benefits System	3	4	75%
Recruitment, Hiring, Transfer and Promotion	3	4	75%
Orientation Program	1	4	25%
Policy Manual	4	4	100%
Discipline, Termination, Grievance Procedures	2	4	50%
Relationship with Unions/Syndicates	2	4	50%
Labor Law compliance	4	4	100%
HR Data			
Employee data	3	4	75%
Computerization of data	2	4	50%
Personnel files	4	4	100%
Performance Management			
Job descriptions	2	4	50%
Staff supervision	2	4	50%
Work Planning and Performance Review	2	4	50%
Training			
Staff Training	2	4	50%
Management and Leadership Development	2	4	50%
Links with External Training Organizations	2	4	50%
Total Assessment Score	**52**	**84**	**62%**

Overall, the total score of 62% indicates that the MOH needs to work on strengthening its human resource management policies and practices. Improvements in these practices could have a significant impact on the retention, the motivation and the performance of its staff.

THE STRATEGIC HEALTH WORKFORCE PROJECTIONS

In June 2005, the HRDP assisted the MOH in the implementation of a strategic health workforce projection workshop. The workshop was the first of its kind in the country. It brought together senior officers of the MOH with others from related ministries and agencies, namely: the Ministry of Finance; the Ministry of Planning; the Ministry of Higher Education; the Public Sector Development Administration; the Civil Service Bureau; the Private Hospitals Association; the Medical Council; the Nursing Council; the Medical Syndicate; and the Nursing Syndicate.. The participants provided essential views and judgments about the future direction of health care and workforce development needed to create a framework for projecting long-term growth and change.

The specific objectives of the workshop were to:

- Project future public and private health sector growth;
- Develop proposals for health care institutional development;
- Establish staffing standards and workforce requirements into the future;
- Determine the means of meeting the staff requirements of the future including the implications for changes in the type and volume of training of new health workers;
- Produce a human resource requirement and supply strategic projection which demonstrated the extent to which the proposed development was feasible.

It employed a powerful planning tool developed for the World Health Organization. This modeling tool provided a means to produce a strategic and quantified human resource projection of future staff requirements and supply covering all aspects of health care in the country.

With the benefit of computerization, this projection was systematic and rigorous and provided the means for subsequent amendments as the circumstances of the health sector changed in the future and current uncertainties were resolved..

It is important to recognize that this was the first attempt in Jordan to make comprehensive projections for the whole health sector and the results must be seen in this light. Planning is an iterative process, with alternative scenarios needing to be explored and tested out before the “best fit” can be determined and used to guide decision-making. As can be seen from the results, even repeatedly revised projections of staffing needs resulted in critical shortages of staff (particularly registered nurses and medical staff).

The MOH will need to explore further scenarios to try to ensure that proposed service development is consistent with the availability of human resources. With the first projections using the model completed, subsequent modifications to produce new scenarios are easy to make and can be done quickly.

The projections completed during the workshop and presented here were based upon a number of assumptions about the future, namely:

a) Population will increase by 22.5% over the ten-year period with a small shift of the population from rural to urban.
b) Health issues will move in part from endemic environmental diseases to those chronic diseases more commonly associated with modern Western societies.

c) Public sector services will focus on strengthening primary care roles and with stronger links to the private sector in the provision of hospital services.

d) Increased attention to the retention of staff, particularly specialist doctors and registered nurses. The Secretary General of the MOH emphasized at some length in his opening remarks at the workshop the need to improve staff retention. Other elements of the work currently being undertaken by the HRDP should provide some guidance on potential action to improve motivation and retention. The workshop, however, did not consider changes in retention rates which might occur as a result of management action to improve retention.

Results

Primary Health Care Services

The MOH plans to increase the number of comprehensive health centers (53 units to 82) and primary health centers (356 units to 443). The current policy of containing MCH centers in primary care units means that there will be no further expansion of separate MCH centers from the thirteen that currently exist. Nor are there plans to increase (or decrease) the present number of village health centers.

Annex 4 presents the projected staff requirements for the different categories of health center by 2014. Staff in primary centers are projected to increase by approximately 50% to address increased workload and expansion of services.

Table 12 presents the projected staff requirements for the different categories of health center by 2014. Staffing of the health centers is projected to increase by approximately 50% to address increased workload and expansion of services.

Hospital Staffing

Table 13 presents the staff requirements for public sector hospitals (MOH and University) for the next 10 years. These requirements are defined as staffing standards for individual hospitals and then multiplied by the proposed increase in hospitals and hospital beds to provide total FTE staff needs.

Despite the intention to limit hospital growth in the public sector, decisions made outside the MOH may lead to the creation of seven new MOH hospitals and an increase in MOH hospital beds of 31% above existing. Given the relatively low occupancy rate for public sector hospital beds, a population growth of only 22.5% and a predicted expansion in private sector beds of some 35% in the ten-year period, a further review of public sector hospital bed expansion is desirable.

During the workshop, proposals were made to reduce the staff to bed ratio for key staff in hospitals, particularly medical specialists (from 1:3 beds to 1:5) and nurses (from 1.05 nurses per bed to 0.9 per bed). However staff to bed ratios for MOH hospitals other than Al Basheer and University Hospitals remain high and out of step with staffing levels in these major tertiary hospitals.

There was a concerted effort to change the ratio between registered nurses and associate and assistant nurses with assistant nurse training to be discontinued. As a result of the actions proposed in the projections, this ratio would change from a current level of 33% registered to 67% other nurses to 45% registered to 55% other nurses. While this is seen as a desirable move by nursing organizations in Jordan, the reality is that at the very least associate nurse training will need to be stepped up to meet the projected shortfall in registered nurses. Consequently, the desired nursing ratios may not be achievable in this ten-year period.

Table 12: Baseline and Projected Staff Requirements (FTEs) by Type of Health Center

Staff Category	Staff per individual health center								Total public sector PHC staff	
	Comprehensive. H.C.		Primary .H.C.		M.C.H. Centre		Village H.C.			
	2004	2014	2004	2014	2004	2014	2004	2014	2004	2014
Specialist Doctor	1.8	3.0	0.0	0.0	0.2	1.0	0.0	0.0	112	260
Medical Resident	0.7	1.0	0.1	0.2	0.0	0.0	0.0	0.0	66	171
General Practitioner	3.2	4.0	1.4	2.5	0.5	1.0	0.0	0.0	686	1,449
Dental Doctor	2.2	3.0	0.7	1.0	0.0	0.0	0.0	0.0	366	689
Registered Nurse	1.0	2.0	0.2	0.2	0.2	0.3	0.0	0.0	125	257
Associate Nurse	0.2	9.0	0.0	2.2	0.0	2.0	0.0	0.4	16	1,846
Midwife	1.4	2.0	0.7	1.5	2.0	3.0	0.0	0.0	362	867
Assistant Nurse	4.2	1.0	1.9	0.0	1.2	0.0	0.3	0.0	1,009	82
Pharmacist	0.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	21	82
Assistant Pharmacist	2.2	3.0	1.0	2.0	0.2	0.0	0.1	0.0	503	1,132
Laboratory Tech.	1.8	2.0	0.2	0.5	0.2	1.0	0.0	0.0	181	399
X-ray Technician	1.0	1.5	0.0	0.2	0.0	0.0	0.0	0.0	61	212
Other Technician	1.4	2.0	0.1	0.2	0.2	0.0	0.0	0.0	128	253
Env'al H'lth Staff	1.0	2.0	0.3	1.0	0.1	0.0	0.0	0.1	172	634
Tech. Administrator	1.3	2.0	0.6	0.8	0.2	0.5	0.0	0.0	296	525
Senior Manager	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
Middle Manager	0.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	24	82
1st L.Mgr & engineer	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	11	95
Clerical Staff	2.8	5.0	1.0	1.3	0.5	1.0	0.1	0.1	543	1,026
Support staff	12.6	15.0	4.4	5.0	3.5	4.0	0.5	0.5	2,411	3,632
Total per clinic	**39.1**	**60.5**	**12.9**	**18.6**	**8.9**	**14.8**	**1.2**	**1.1**	**xxxxx**	**xxxxx**
Total, Location type	**2,075**	**4,980**	**4,590**	**8,231**	**116**	**192**	**311**	**292**	**7,092**	**13,695**

Table 13: Baseline and Projected Staff Requirements (FTEs) for Public Sector Hospitals

Staff Category	Al-Basheer		University Hospitals		Other MOH Hospitals (per Hosp)		Nat. Psychiatric Center		Total FTEs in public hospitals	
	2004	2014	2004	2014	2004	2014	2004	2014	2004	2014
Av. bed size	**811**	**973**	**412**	**675**	**92**	**105**	**198**	**198**		
Specialist Doctor	279.0	195.0	150.3	168.8	27.8	18.0	3.5	20.0	1,309	1,189
Medical Resident	269.0	172.7	134.2	150.0	20.3	10.0	12.0	20.0	1,089	863
General Practitioner	17.0	19.6	0.0	0.0	28.0	25.0	1.0	3.0	747	860
Dental Doctor	27.0	31.1	21.0	24.2	1.9	2.0	0.0	1.0	118	149
Registered Nurse	434.0	400.0	388.0	446.2	56.9	45.0	66.0	75.0	2,821	3,008
Associate Nurse	167.0	300.0	29.0	55.0	14.0	35.0	6.0	60.0	601	1,753
Midwife	58.0	66.7	5.5	6.3	15.3	17.6	0.0	0.0	468	664
Assistant Nurse	246.0	100.0	45.0	30.0	47.1	10.0	57.0	15.0	1,674	537
Pharmacist	22.0	25.3	15.0	17.3	2.3	2.6	2.0	5.0	115	161
Assistant Pharmacist	62.0	71.3	23.3	26.8	8.8	10.0	6.0	10.0	349	487
Lab. Technician	68.0	78.2	35.6	40.9	10.0	11.5	2.0	8.0	402	566
X-ray Technician	75.0	86.3	39.1	45.0	9.2	10.5	2.0	6.0	395	543
Other Technician	141.0	162.2	76.2	87.6	15.0	17.2	9.0	10.4	700	939
Env'al H'lth Staff	6.0	6.9	3.0	3.5	1.2	1.4	2.0	6.0	48	78
Tech. Administrator	54.0	62.1	29.5	33.9	8.1	9.3	9.0	4.6	342	452
Senior Manager	3.0	3.5	2.0	2.3	1.0	1.0	1.0	1.2	34	45
Middle Manager	26.0	29.9	15.7	18.1	4.2	4.0	5.0	5.8	175	216
1st L.Mgr & engineer	18.0	20.7	9.1	10.5	3.5	4.0	4.0	4.0	134	187
Clerical Staff	122.0	140.3	69.1	79.5	16.5	19.0	19.0	16.1	728	978
Support staff	160.0	184.0	136.4	156.9	39.6	40.0	35.0	40.3	1,532	1,947
Total per hospital	2254	2156	1227	1403	330.5	293.1	241.5	311.4		
FTE staff per bed	**2.8**	**2.2**	**3.0**	**2.1**	**3.6**	**2.8**	**1.2**	**1.6**		
Total for Public Hosp.	2,254	2,156	2,454	2,786	8,592	9,744	483	937	13,784	15,624

MOH Management Staffing

Table 14 presents the results of the decisions made during the workshop in relation to the staffing of the central MOH and the Health Directorates.

There is a projected reduction of 6.7% in the staffing of the central MOH by 2014. This is considerably less than the changes anticipated by the Public Service Development Administration, as presented to participants during the workshop.

The workshop resulted in a projected 3% increase in the staffing of the Health Directorates, but this includes 21 Health Directorates (an increase of one over the 20 in place at the time of the 2004 baseline.

Table 14: Baseline and Projected Staff Requirements (FTEs) for the Central MOH and Health Directorates

Staff Category	Central MOH			Health. Directorates (21)		
	2004	% Change	2014	Staff per Health. Dir.		Total 2014
				2004	2014	
Specialist Doctor	32	-7.0	15	1.7	2.0	42
Medical Resident	54	-20.0	6	1.4	1.4	28
General Practitioner	16	2.0	20	3.6	4.0	84
Dental Doctor	5	0.0	5	2.5	3.2	67
Registered Nurse	16	-5.0	10	2.7	2.1	44
Associate Nurse	2	-20.0	0	0.4	5.0	105
Midwife	6	-8.0	3	4.8	2.0	42
Assistant Nurse	11	-30.0	0	9.9	1.0	21
Pharmacist	60	0.0	60	2.3	2.0	42
Assistant Pharmacist	60	4.0	89	6.4	6.4	134
Laboratory Technician	89	3.0	120	7.1	4.0	84
X-ray Technician	7	5.0	11	1.3	0.5	11
Other Technician	52	2.0	63	4.7	5.0	105
Env. Health Staff	176	1.0	194	15.6	18.0	378
Tech. Admin.	182	1.0	201	7.4	8.0	168
Senior Manager	53	-4.0	35	0.9	1.0	21
Middle Manager	152	-3.0	112	5.8	6.0	126
First L.Mgr & engineer	96	1.0	106	3.6	4.0	84
Clerical Staff	372	0.0	372	22.0	25.0	525
Support staff	616	-2	503	51.3	50.0	1,050
Totals	**2,057**	**- 6.7%**	**1,926**	**153.7**	**150.6**	**3,162**

Projected Pre-Service Training Needs

Table 15 provides details of the projected training outputs for the different health professions trained in Jordan. For nurses, the projected figures were provided by the Nursing Council and were said to represent concrete plans. For other categories, the annual training outputs were what participants estimated to be possible.

Table 15 shows that that it would be possible to increase the annual number of doctors completing their residency (largely within MOH

Table 15: The Impact of Training Outputs and Attrition on Staff Supply

Profession	New graduates from region		Annual % losses	Total Staff Supply	
	2004	2014		2004	2014
Specialist Doctor	121	180	7.1	5,455	**3,023**
Medical Resident	121	180	2.2	1,221	**1,938**
General Practitioner	240	300	3.0	4,124	**5,076**
Dental Doctor	238	250	2.3	3,278	**4,316**
Registered Nurse	703	1,400	10.2	7,493	**9,517**
Associate Nurse	815	250	2.7	1,070	**4,980**
Midwife	81	150	3.1	1,458	**2,032**
Assistant Nurse	0	0	3.5	3,380	**2,230**
Pharmacist	595	500	2.7	1,727	**5,312**
Assistant Pharmacist	24	100	3.5	5,409	**3,986**
Laboratory Technician	112	150	3.4	1,332	**1,740**
X-ray Technician	36	50	5.7	768	**596**
Other Technician	262	300	8.7	1,426	**1,739**
Environmental Staff	22	25	1.1	757	**871**
Tech. Administrator	X		0.2	1,293	**1,757**
Senior Manager	X		0.0	137	**154**
Middle Manager	X		0.6	573	**789**
First L.Mgr & engineer	X		1.5	413	**679**
Clerical Staff	X		5.3	2,609	**3,901**
Support staff	X		4.9	6,868	**8,760**
Totals	**3,370**	**3,835**	**xxxxx**	**50,791**	**63,395**

hospitals) by 48% by 2014. For GPs, the increase is estimated at 25%. For registered nurses, current plans indicate an almost doubling of the number graduating each year from Universities.

The training of Associate Nurses is being scaled down and Table 15 indicates that the Nursing Council proposes a reduction to less than one third of current outputs from all the training schools in Jordan.

The training of Assistant Pharmacists, which only the MOH trains, is projected to increase by 400%, from 24 per year to 100 year. Similarly, the MOH training program for X-Ray technicians is projected to expand to produce 40% more graduates per year.

Laboratory Technicians (which in the projections include both Baccalaureate Technicians and Associate Degree Assistant Laboratory Technicians), show an increase of 34% in graduates per year.

The largest gap, based on projected needs, is for specialist doctors and registered nurses. The problem here is not simply to meet the expansion of staff requirements but the high loss rates, with many of the most skilled staff emigrating to other countries, most notably those Gulf State countries adjacent to Jordan.

A notable exception to the shortages shown for other categories, there is projected to be an over-supply of pharmacists.

Projected Shortfall in Staff for 2004

Table 16 provides details of the projected shortfalls in staff for the whole Jordanian health sector in 2014. It shows the total requirements for the different staff categories by 2014 and the total projected availability (supply) of staff by that year, taking into account increases in supply from training and losses from attrition.

The largest deficit (in terms of percentage of the total requirement in 2014) is for specialist doctors. At 55% shortage, the X Ray technicians show the next highest shortfall, followed by assistant pharmacists (36%), environmental health staff (33%), GPs (29%).,registered nurses and midwives (both at 17%).

There are surpluses in relation to pharmacists (99%) and, due to the reduced demand for them by the private sector, to associate nurses and assistant nurses.

Table 16: 2014 Human Resource Supply –Requirements Comparison – Scenario 1

Staff Category	2014		Balance (surplus or shortage)	
	Supply	Requirement	Number	% of Requirement
Specialist Doctor	3,023	7,910	**- 4,667**	**- 62%**
General Practitioner	5,076	7,141	**- 2,065**	**- 29%**
Dental Doctor	4,316	5,198	**- 882**	**- 17%**
Registered Nurse	9,517	11,432	**- 1,915**	**- 17%**
Associate Nurse	4,980	4,470	510	+ 11%
Midwife	2,032	2,439	**- 407**	**- 17%**
Assistant Nurse	2,230	1,180	1,050	+ 89%
Pharmacist	5,312	2,672	2,640	+ 99%
Assistant Pharmacist	3,986	6,265	**- 2,279**	**- 36%**
Laboratory Technician	1,740	1,822	**- 82**	**-5%**
X-ray Technician	596	1,318	**- 722**	**- 55%**
Other Technician	1,739	2,072	**- 333**	**- 16%**
Envir"al Health Staff	871	1,294	**- 423**	**-33%**
Totals	**47,356**	**56,841**	**- 9,485**	**-17%**

Staff Salaries and Benefits

Participants were asked to make assumptions about realistic changes in salaries and benefits over the next 10 years. This was done by proposing differential increases in real income (excluding increases to cover the impact of inflation). The increases incorporated into the projections varied in average terms from 4% per annum in real income change for staff in short supply such as registered nurses down to 1% for staff in adequate supply such as clerical staff. It is not certain whether this is feasible in civil service terms although there is evidence of some differentials being applied in the past to general practitioners.

Overall Health System Indicators

Table 17 provides a comparison of indicators for health system performance for 2004 and 2014 based on the results of the projections made. The cost results (for the public sector) are realistic (at 102% of projected increases in public sector allocations).

Table 17: Key Output Indicators - Scenario 1

Year 2004	Year 2014	Assumption or Result	Projection Years = 10
DEMOGRAPHIC INDICES			
5,323,200	6,520,830	Total population	
------	2.05%	Assumed average annual % change in the population	
79%	81%	Assumed % of population in urban areas	
------	2.3%	Calculated average annual % change in urban population	
------	1.0%	Calculated average annual % change in rural population	
GROSS DOMESTIC PRODUCT and EXPENDITURE ASSUMPTIONS			
-	7.3%	Annual average rate of change in gross domestic product (GDP)	
30.5%	25.0%	Total recurrent public sector as % of GDP	
6.8%	7.8%	Recurrent health expenditures as % of public sector	
73.6%	76.0%	Personnel expenditures as % of public health sector	
-	2.0%	Assumed annual real change in health worker salaries (unweighted)	
-	22%	Calculated av. total change in real health worker salaries (unweighted)	
ESTIMATED ECONOMIC FEASIBILITY OF PROJECTED REQUIREMENTS			
-	6.9%	Calculated sustainable average annual change in expenditures	
-	6.9%	Assumed average annual change in expenditures	
-	194.2	Calculated target year cost of health personnel (000,000)	
-	191.1	Calculated target year funds available for personnel (000,000)	
-	102%	Calculated Target-Year costs as % of projected T-Year funds	
PRIVATE SECTOR ESTIMATES AND ASSUMPTIONS			
-	3.0%	Assumed average annual change in private sector beds	
3,950	5,308	Number of private sector beds	
-	4.0%	Assumed average annual % change in private sector Specialist Doctor	
-	3.7%	Assumed average annual % change in private sector Medical Resident	
-	4.0%	Assumed average annual % change in private sector G P	
-	4.2%	Assumed average annual % change in private sector Dental Doctor	
-	4.1%	Assumed average annual % change in private sector Registered Nurse	
PERSONNEL INDICES			
105	90	Population per health worker	
95	112	Health workers per 10,000 population	
50,791	72,783	Total health personnel included in scenario	
-	3.7%	Average annual % change in health personnel	
976	824	Population per Specialist Doctor	
4,360	4,005	Population per Medical Resident	
1,291	913	Population per General Practitioner	
1,624	1,255	Population per Dental Doctor	
710	570	Population per Registered Nurse	
1.8	1.5	Number of public sector nursing staff per doctor	

Table 17, continued

Year 2004	Year 2014	Assumption or Result
PERSONNEL INDICES (continued)		
1.5	1.2	Number of public sector auxiliary & assistant nurses per qualified nurse
47%	49%	% of all health workers in public sector
-	81.7%	% of all public sector personnel in clinical locations
-	1.3%	% of all health workers in academic & training locations
-	7.7%	% of all health workers in non-clinical public health
INSTITUTIONAL INDICES		
1.6	1.8	Total public and private beds per 1000 population
8,360	11,709	Total number of hospital beds
52.8%	54.7%	% of beds in the public sector
31	39	Number of public sector hospitals
142	163	Average beds per public sector hospital
------	3.4%	Calculated average annual change in total number of beds
2004	**2014**	**Assumption or Result** **Projection Yrs = 10**
HEALTH SYSTEM PRODUCTIVITY		
589,398	1,036,424	Total hospital discharges
111	159	Hospital discharges per 1000 population
52%	53%	% of discharges from public sector hospitals
74%	83%	Average occupancy rate in public hospitals
4	3	Average length of stay in public hospitals (days)
70	86	Average discharges per bed-year in public hospitals
#N/A	#N/A	Per capita visits by a --> Specialist Doctor
0.00	#N/A	Per capita visits by a --> Medical Resident
0.00	#N/A	Per capita visits by a --> General Practitioner
0.00	#N/A	Per capita visits by a --> Dental Doctor
0.00	#N/A	Per capita visits by a --> Registered Nurse

WORKLOAD-BASED PROJECTIONS OF STAFFING NEED

The strategic health workforce planning workshop required participants to make assumptions about future staffing standards for both the government and the private health sectors in the country and then these standards were applied to expected changes in the number and size of health facilities to project future staffing needs. These projections were then tested for feasibility in terms of cost and in terms of required outputs from pre-service training institutions.

This was the first time that the Ministry of Health had the experience of making staffing projections on the basis of staffing standards and being able to rapidly see the implications of different assumptions and the exercise was a

valuable learning experience for all involved. However, it was sometimes difficult for individuals to understand the real meaning of the assumptions they were making.

The purpose of the workload based analysis was to provide a confirmation of the strategic workforce projections by conducting detailed timings of primary health care services provided through the MOH health centers. These timings were then used to project the numbers of staff that will be required to provide high quality services for the future.

For hospitals, the analysis provides some international comparisons of the levels of staffing per bed.

Observations of Service Delivery

The study was conducted in a total of six health centers: three comprehensive health centers and three primary health centers, as shown in Table 18.

Table 18: Health Centers Involved in the Study

Directorate	Type of Health Center	Name of Health Center
Balqa	Comprehensive	Ain Al-Basha
	Primary	Al Salt
Zarqa	Comprehensive	Zarqa Jadideh
	Primary	Shabeeb
Amman Capital	Comprehensive	Al Weibdeh
	Primary	Hamzah

With the assistance of the PHCI project, in 2002 the Ministry of Health developed standards of care for health centers. Volume 6 contains performance checklists which lay out the tasks that should be completed by service providers as they provide services to clients.

The standards cover all priority primary health care services. The same services were to be observed and timed under the current study, namely:

- First Antenatal Visit
- Return Antenatal Visit
- Postnatal Visit
- Assessment of 2-8 week old infant
- New Family Planning Client
- Continuing Family Planning Client
- Child Immunization
- Hypertensive Patient
- Diabetic Patient
- Child with Diarrhea
- Child with ARI
- Asthma Patient
- Other MCH Client
- Other GP Visit – Adult
- Other GP Visit - Child

Each health center participating in the study was provided with a stopwatch to time it took to provide the service.

Results

<u>Standards of Service Observed</u>

All of the services observed were performed by either a GP or a qualified nurse or midwife. (This was requested in order that there could be some confidence that the standards of service delivery should be reasonably high).

Only twelve out of the 202 observations conducted achieved a standard of less than 60%.

Seven of these observations were at comprehensive health centers; five were at primary health centers. Where the standards of service were lower than 60%, then the times taken were omitted from the analysis.

Time Taken to Provide Services

For this part of the analysis, all the observations that did not achieve at least 60% of the expected standard were excluded. This was to ensure that the timings reflect a reasonably high standard of service. The times taken to provide services through all the remaining observations were then averaged. The results are shown in Table 19.

Table 19: Average Times Taken for Service Delivery

Service	Time Taken (Mins)			
	GP	Nurse	Midwife	Total
1st Antenatal Visit	8.03		10	18.03
Follow up Antenatal Visit			12.15	12.15
Postnatal Visit	9.00		9.81	18.81
Infant Assessment (6-8 weeks)	4.00		3.32	8.32
New Family Planning Client		20.33		20.33
Continuing Family Planning Client		8.05		8.05
Child Immunization		6.26		6.26
Hypertension Patient	10.00	7.26		17.26
Diabetic Patient	10.00	4.88		14.88
Child wit Diarrhea	7.12			7.12
Child with ARI	5.75			5.75
Asthma Patient	5.60	4.00		9.60
Other MCH Client	4.52		2.00	6.52
Other Adult GP Client	4.00	1.35		5.35
Other Child GP Client	4.00	1.13		5.13

Projection of Future PHC Service Workload

Two sources of data were used to obtain information on client visits to health centers:

a) The MOH health center returns for 2004 made through the local area network (LAN) from the Health Directorates;

b) The returns made to the MOH Quality Directorate from individual health centers for 2003 and 2004 on the monitoring of the control of hypertensive and diabetic patients.

For each type of patient, utilization rates per 2004 population were then calculated. These rates were then applied to the projected population for 2014. Two alternative projections of future workload were made: the first (the "low" projection) assumed no change in the 2004 utilization rates; the second (the "high" projection) assumed a 30% increase in utilization rates for antenatal, postnatal, family planning, immunization, hypertension, diabetic and asthma clients.

Staff Time Spent on Other Duties

The study focused on the time it takes staff to provide high quality services to clients. In addition to dealing with clients, staff members also carry out other duties at their place of work. These were not observed, so assumptions were made about the time taken to conduct these other duties. These assumptions are shown in Table 20. The Table assumes that staff are expected to work 7 hours a day for 265 days a year (excluding weekends, public holidays, and vacations).

Table 20: Assumptions on Time Spent on Other Duties

Other Duties	Assumed Time		
	Per Day	Per Year	As % of Working Year
Staff meetings	1 hour	38 days	14.3%
Record Keeping/Data Analysis	1 hour	38 days	14.3%
Staff supervision	1 hour	38 days	14.3%
Training	-	10 days	3.8%
Sick days	-	10 days	3.8%
Down time (not working)	2 hours	76 days	28.7%
Total for Other Duties		**210 days**	**79.2%**

Projection of Staffing Needs

Based on the projected number of client visits to health centers in 2014, the times taken for service delivery (Table 19), and the assumptions about the time staff spend on other duties Table 20), Table 21 shows the FTE GPs, Nurses and Midwives that would be needed at all health centers across the country.

The results shown in Table 21 are both surprising and shocking. The calculations in Table 21 for FTEs required assume that each staff member should be working for 7 hours each working day for 265 days each year.[2] The lower the number of hours worked each day, the higher the number of staff that would be required to provide services to clients.

On the other hand, the assumption that 79% of each working year is spent on "other duties" (including days off sick) is high.

Nevertheless, given the assumptions made, the FTEs required as shown in Table 20 are considerably lower than the existing number of staff currently working at health centers, as shown in Table 22.

[2] For the purposes of this Study, population projections provided by the Policy Project using the Jordan Family Planning model for the period 2002 – 2020 were used. This model projects the population growth rate to drop from a current level of 2.5% to a growth rate of 1.9% by 2014.

Conclusions

In this analysis, staff requirements were based solely on workload. In reality, even if workload may not justify a full time staff member, there is a often a need to have a staff member at the facility to be able to provide service to those who need attention.

Nevertheless, the analysis does raise questions about staff productivity in the MOH health centers. Further evidence was given in the Situation Analysis Report. Here it was shown that at comprehensive health centers, the number of patient visits per doctor per day ranged from a low of 7 to a high of 15. Taking the highest GP service delivery time per client observed (10 minutes), then to provide care to 7 clients would require only 1 hour, 10 minutes of the day.

For qualified nurses, the Situation Analysis showed that at primary health centers each nurse was seeing between a low of 6 patients per day to a high of 129 patients per day. Taking the average time for all services that a nurse was shown to spend with one patient (7 minutes), then to provide service to 6 patients would require only 42 minutes of the day.

Table 21: FTE Staff Required based on Projected PHC Workload 2014

Activity	Projected Clients/Year		Days Required for Low Volume of Clients			Days Required for High Volume of Clients		
	Low	High	GP	Nurse	Midwife	GP	Nurse	Midwife
1st Antenatal Visit	40,670	58,100	778		968	1,111		1,383
Return Antenatal Visits	144,200	187,505			4,172			5,424
1st Postnatal Visit	16,070	25,350	344		375	543		592
Total Postnatal Visits	119,625	144,190						
Infant Assessment	19,540	25,350	186		154	241		200
Follow up Postnatal Visits	2,640	3,520						
1st Family Planning Visits	79,210	103,125		3,834			4,992	
Follow-up FP Visits	150,515	245,110		2,885			4,698	
>1 Child EPI Visits	16,900	22,010		252			328	
Hypertensive Visits	99,138	157,674	2,360	254		3,754	2,721	
Diabetic Patient Visits	89,225	139,480	2,124	154		3,317	1,621	
Child with Diarrhea	10,790	10,780	183			183		
<5 Child with ARI	10,210	12,676	140			140		
Asthma Patient Visits	48,515	60,644	647	462		809	578	
Other MCH Visits	169,080	169,080	1,820			1820		
Other GP Visits – Adult	5,172,542	5,051,622	49,262	16,626		48,111	16,237	
Other GP Visits - Child	654,952	654,952	6,238	1,762		6,238	1,762	
Total Staff Days Required for Service Delivery			**64,082**	**26,229**	**5,839**	**66,267**	**32,937**	**7,759**
Total FTE Staff Required for Service Delivery			**241.8**	**99.0**	**22.0**	**250.1**	**124.3**	**29.3**
Additional Staff Time Needed for Other Duties			**+79.2%**	**+79.2%**	**+79.2%**	**+79.2%**	**+79.2%**	**+79.2%**
Total FTEs Required			**433.7**	**177.4**	**39.4**	**448.1**	**222.7**	**52.5**

Table 22: Comparison between Numbers of Staff Currently Working at Health Centers and the Projected Requirements

Staff Category	2004	Needed 2014 (High Volume)	Difference
GP	756	448	- 308
Qualified Nurses	143	223	+ 80
Midwives	294	53	- 241

III. KEY HR ISSUES ARISING FROM THE ANALYSES AND RECOMMENDATIONS FOR ACTION

Based on all the findings from all the analyses conducted under the HRDP, this section provides a summary of the key human resource issues confronting the MOH and recommendations on the steps that the MOH should consider taking to address these issues.

PLANNING OF HUMAN RESOURCES

- The MOH has paid little attention to the planning for its human resources in the past. Due to the length of time it takes to train health professionals, plans need to cover at least 6 years ahead (the equivalent of the years of training for doctors).
- The strategic health workforce projections workshop was a first attempt by the MOH to test out the human resource implications of proposed health service changes over the next 10 years. The results demonstrated that the MOH will need to explore further scenarios to try to ensure that proposed service development is consistent with the availability of human resources.
- Planning for human resources cannot be effectively done without a clear plan for the services and health facilities that the MOH intends and can afford to provide in the future and a widely accepted vision of the service priorities that the MOH intends to pursue. At present, within the MOH, knowledge and understanding of future service plans appear to be largely confined to the Planning Directorate.
- Planning for future health services requires input from those with expertise and experience in planning techniques, in service delivery, in financing, in equipment and in human resources. Within the MOH, those with expertise in human resources do not appear to have routinely been part of the future planning for health services.
- Planning in the MOH, as in many other countries, is often complicated by promises made by the country's leadership concerning new health facilities for particular parts of the country.
- Although it is understood that the MOH has little influence over statements and decisions made by the country's leadership, the MOH needs to ensure that at least the Minister of Health is informed of the results of the projections workshop to try to develop a wider understanding of the human resource problems it is facing.

Recommendation 1

The MOH should develop a long term plan for the health services it wishes to provide for the people of Jordan. This plan should then provide the framework for the annual plans that the MOH prepares. Human resources should be an integral part of this plan, with participation in the planning from those in the MOH who have expertise in this area.

Recommendation 2

Using the projections model given to the MOH, alternative scenarios for the future staffing of the planned health services need to be explored by the MOH to determine what will be feasible.

Recommendation 3

The Ministry of Health should ensure that the Minister of Health is apprised of the results of the strategic projections work to begin the process of ensuring that there is wider understanding of the human resource problems that the MOH is facing.

MONITORING OF THE HUMAN RESOURCE SITUATION

The Personnel Database

- Monitoring requires information that is relevant, up-to-date, and easy to analyze. In attempting to gather information about the current human resource situation in the MOH, it became clear that the information

that is available is not being regularly summarized, analyzed and presented in ways that are useful for the briefing of senior managers or for decision-making. Managers should be regularly provided with simple reports that enable them to monitor loss rates of the different categories, the distribution of staff across different levels of the service, and the outputs from training.

- Elements of the personnel database require revision. The database currently uses approximately 150 professions and more than 800 job titles to classify staff. This is both unnecessary and confusing both for those maintaining the system and for those requiring reports from the system.

Recommendation 4

The staff classification system in the MOH and as entered into the personnel database, requires revision. The job titles should be standardized and restricted to common titles in current use in the MOH. The professions classification should also be revised to exclude "false" professions such as 'driver'.

Recommendation 5

At the same time as the staff classification system held on the personnel database is revised, programs should be written to enable the easy production of summary reports of the data held

Recommendation 6

Summary reports of the human resource situation should be regularly submitted to senior MOH managers and should be reviewed and discussed so that there is common understanding of key issues and decisions made on what needs to be done to address them.

Recommendation 7

Individual records (for selected items of data) for staff working in specific Health Directorates and hospitals should be decentralized to the respective locations where those individuals are deployed. Whilst all data entry and updating should be done centrally, to ensure that updates are authorized and that the data remains consistent, if the personnel database were placed on a network, then the Health Directorates and hospitals could access their own staffing information.

Workload and Staff Deployment

- It is clear that decisions about the deployment of staff available in the MOH are not taking workload considerations into account. Of course, staff will have strong preferences about where they would like to be posted and can try to influence this decision through the connections they may have, but the MOH should still attempt to ensure a more reasonable distribution of staff in relation to the workload faced in the different health facilities across the country. This can only be done if the staff : workload ratios are monitored.

Recommendation 8

As part of the revision of the personnel database, links with the computerized HMIS system should be made to enable analysis of the client utilization of service data with the staffing data so that workload monitoring.

Recommendation 9

The MOH should review its procedures for decision-making about staff deployment. One of the criteria for decision-making should be the staff to workload ratios at different sites across the country.

MOH PRE-SERVICE TRAINING

Pre-Service Training Needs

- The results of the strategic workforce projections workshop indicate that the MOH will need to review the intakes to its own training programs if it is going to achieve the staffing requirements identified over the next 10 years. The projected changes in training outputs from MOH training schools to enable the MOH to achieve its 2014 staffing requirements are summarized in Table 23.

- Table 23 shows that an increase in annual training outputs of 113 per year (a 60% annual increase) is required for Associate Nurses. An increase of 59 (a 49% annual increase) is required for medical residents. An increase of 37 (a 86% annual increase) is required for X-Ray technicians. An increase of 13 (a 76% annual increase) is required for Health Inspectors. Table 23 also shows that there could be reductions in the annual intakes to midwifery and laboratory assistant training programs.
- Table 23 shows that if Rufaidah and Nusaibeh colleges had a combined annual output of 300 nurses by 2014, then the MOH could achieve 82% of its projected requirements by 2014. However, the nursing colleges report that around 70% of their graduates in 2003 never joined the MOH at all, preferring to pay the bonding penalty and join the private health sector or leave the country. If this level of loss continues, the MOH will not be able to get close to achieving its 2014 requirements.

Table 23: Required Changes in Training Outputs from MOH Schools

Training Program	Annual Outputs		
	2003	Required by 2014	Change p.a.
Medical Resident	121	180	+ 59
Associate Nurse	187	300	+ 113
Midwife	82	65	- 17
Assistant Lab. Technician	45	40	- 5
X-Ray Technician	43	80	+ 37
Health Inspector	17	30	+ 13

- There is another problem related to Associate Nurses. The Nursing Council is planning to cut national outputs from these programs to less than a quarter of the current level since they wish to make the baccalaureate the minimum nursing qualification

Recommendation 10

Given the significant national shortage projected for registered nurses, the MOH needs to have urgent discussions with the Nursing Council to determine the future of its own training programs for Associate Nurses.

Recommendation 11

Urgent work should be done by the MOH to determine how to increase the intakes to the medical residency, associate nurse, X-Ray technician and Health Inspector training programs. Investigations into the physical capacity of the training institutions (Rufaidah and Nuseibeh Colleges for the Associate Nurse, and Yajouz and Irbid Allied Health Institutes for the Health Inspectors and X-Ray technicians) will need to be carried out and decisions made on the increased number of tutors that will be needed for increased student intakes.

The Pre-Service Training Curricula

The Motivation Study indicated that the students in health training programs have defined the need for their training to include more time for them to practice the skills they are being taught. This need was echoed by MOH health managers.

Recommendation 12

The MOH should enter into discussions with the Nursing Council on how the practical component of the nursing curricula could be expanded.

NON-MOH PRE-SERVICE TRAINING

- The Ministry of Higher Education is responsible for the standards of health training programs offered by the public universities and private colleges. The Higher Education Council reviews proposals from each University on the number of places on each course it plans to offer in the following year. The MOH does not, at present, participate in formal discussions of decisions related to plans for student intakes at either public or private universities and colleges.

Recommendation 13

Given the results of the strategic projections workshop on changes in the outputs from the universities and private colleges, the MOH needs to share these findings with the Ministry of Higher Education and the Higher Education Council to see if it can influence decision-making by these bodies. It would be advisable for the Nursing Council to participate in these discussions, since one of the largest shortfalls relates to the registered (baccalaureate nurses).

GENERAL MANAGEMENT

- The motivation study revealed that current MOH staff and recent leavers cite the lack of constructive support and recognition from their managers, and poor or biased decision-making as major causes of dissatisfaction and their lack of motivation.
- The Assessment of Human Resource Management in the MOH revealed a lack of a clear vision and goals within the MOH, a lack of authority to participate in decision-making, weak performance management in terms of individual work planning and associated performance reviews, poor supervision, and a lack of attention to management and leadership development.
- Most managers in the MOH are doctors. The medical training that doctors receive does not include management and thus an individual appointed as, for example, a hospital director, may take up that position with no formal training in management and little guidance.
- The staffing of the central MOH, as revealed by the Situation Analysis, is very high in relation to the size of the country and as a proportion of all MOH staff. 2, 057 individuals are working in the central MOH, representing 9% of total MOH staffing.

Recommendation 14

Consideration should be given by the MOH to instituting a management training program for all those currently in management positions, starting perhaps with the hospital and Health Directorate directors. If possible, over time, such training should be a pre-requisite before an individual can be posted into a management position. This training should cover, at least, how to prepare realistic work plans, how to monitor the achievement of the work plans, how to supervise their staff, and how to conduct performance-based performance appraisals.

Recommendation 15

The Ministry should give serious consideration to a program of decentralization of authority and responsibility to hospitals and to Health Directorates. This would have to be accompanied with clear definitions of responsibility for the oversight of the decentralized management and strict monitoring of total expenditure. Procedures would need to be defined if management performance is not acceptable. This process should be accompanied by a reduction in the numbers of staff working at the central level, with a corresponding increase in those at the decentralized levels. This may not be a choice for the MOH, since it is clear that reforms of the civil service are going to promote decentralization and decision-making in the field.

HUMAN RESOURCES MANAGEMENT

Control over Posts and the Filling of Posts

- Officially, all Ministries in Jordan operate within the constraints of an establishment, where the numbers of posts that may be filled are authorized by the Civil Service Bureau. Although the MOH has to conform to the financial controls over its total salary bill, the establishment control process has become meaningless. Many individuals have been moved into posts (job titles) by the MOH which are inappropriate for their qualifications and experience.
- Transfers of staff to new positions within the MOH are carried out without any transparent definition of the requirements of the new position, the experience and the qualifications required. New position opportunities are never made public and there is generally no competition when decisions are made on who should fill them.

Recommendation 16

The MOH should develop job descriptions for each position, detailing the specific responsibilities for each post and the qualifications and experience required of the post holder. Then the MOH should review its procedures for the appointment and transfers of staff to ensure that decisions are made based on the position requirements. If more than one appropriate candidate is available to fill a position, the MOH should consider openly advertising the post (internally) and interviewing those who apply.

Performance Management

- There are generally no job descriptions for staff outside of the hospitals and health centers. Expectations for what staff are meant to do are the domain of each individual manager and, in the absence of any clear individual work plans for a year, makes it difficult for senior management to know exactly what the MOH is achieving.
- The annual performance assessment within the MOH tends to be focused on punctuality (whether an individual comes to work on time and stays for the expected hours), behavior toward their superiors, and dress. Work performance is not considered an important criterion for assessment.
- There is little scope for the MOH to reward staff who consistently perform well. The "jedara" system only entitles an individual to one salary merit increase during their time on one level or grade and the highest annual increase in limited to JD 6.00 per year.

Recommendation 17

Each Directorate/Department should not only prepare an annual plan, this work required to implement this plan should be divided among the staff members and their implementation progress monitored. Their performance should be taken into account in the conduct of the performance appraisals.

Recommendation 18

Managers should be trained in how to conduct the annual performance appraisals for their staff (see also Recommendation 10) so that this appraisal can be one of the tools for encouraging high performance.

Recommendation 19

Although the MOH is constrained in its ability to change the "jedara" system, it would be important for the MOH to consider rewarding good performance of individual staff members through public recognition of their achievements. The MOH should also closely track changes in civil service employment policies to see if a more effective performance reward policy can be implemented.

THE COMPENSATION SYSTEM

- The salaries paid by MOH to its staff are lower than the market in 80% of the cases examined. Unless the MOH can raise the salaries paid to its employees. It will continue to lose it staff to the private

sector in Jordan and elsewhere in the region.

- 43% of all the benefits offered by the MOH were classified by the Salary and Benefits Study as either weak (less than those offered by the market) or extremely weak (were not offered at all by the MOH.
- The overall compensation system (including benefits and allowances) rewards qualifications and length of service, not performance. The basic civil service salary only represents between 15% (for doctors) to 32% (for non-doctors) of total take home pay. The balance of the take home pay is made up of a variety of allowances and incentive payments, which do not affect an individual's pension entitlement upon retirement.

  In addition, due to the differential allowances paid for qualifications, the take home pay for individuals occupying positions of similar levels of responsibility and authority may vary greatly.

  For example, a non-doctor Director (of a Directorate in the central MOH), may receive one quarter of the amount paid for a doctor-Director. This can be viewed as unfair since the performance expectations for both Directors are the same.
- Allowances represent up to 80% of total take-home pay for certain categories of MOH staff.
- Although the civil service allows for pay increases based on performance, the amounts of money involved are very small (for example, 0.75% of basic annual salary) and are not strong motivators for good performance.

Recommendation 20

As part of the upcoming job evaluation study to be conducted across the civil service, the MOH should discuss the potential for making pay levels for its health professionals more comparable to the private sector and for strengthening the levels of pay in relationship to the value of the individuals to the MOH and the country. The MOH should also discuss the potential for reducing the package of allowances in return for substantial increases in salary.

CAREER PROGRESSION

- For most professions within the MOH, there is no career ladder. A registered nurse working for the MOH will remain a registered nurse throughout his/her service with the MOH unless transferred into a management (non-service delivery) position. The lack of clear advancement policies contributes to staff dissatisfaction and low performance.
- The Civil Service regulations give the definition of a promotion as a rise in grade or in category which can be awarded to an individual if there is a vacancy in the higher grade. Promotion decisions are to be made on the basis of employee performance, education, length of service and training programs attended. However, within the MOH, not only is there a lack of clear career paths, there is the also the issue that there do not appear to be clear criteria for decision-making on promotion decisions.

Recommendation 21

Consideration should be given to the development of career ladders for health service staff. For example, in most countries, the civil service will enable a newly graduated nurse to be "promoted" to a 'staff nurse' position after a number of years, subject to satisfactory performance. Other steps on the career ladder (such as the matron of a hospital) may be subject to competition. If the MOH can prepare its proposal, then this proposal should then be negotiated with the Public Sector Development Administration and/or Civil Service Bureau

Orientation of New Staff

- There is no system or requirement for new employees (either those new to the MOH or those transferred to a new work location) to be given a formal orientation to their workplace, to the workplace policies

and procedures, or to the expectations for their performance. This means that new staff members are not provided with information that will rapidly help them to understand what is expected of them: their job description; the unit's work plan and their expected contribution to its achievement; the standards of performance expected.

Recommendation 22

Jordanian hospitals participating in the pilot hospital accreditation program will be assessed on how well they orient new staff at the hospital. Staff orientation should be a standard procedure for all new MOH staff, wherever they are posted. The Personnel Directorate should be given the responsibility to put together a standard package of information for new staff, describing the vision of the MOH, defining expected behaviors towards colleagues and clients, and providing a simple manual of MOH employment policies.

Recommendation 23

The Director and immediate supervisor of new staff appointed or transferred to a new work location should be responsible for providing an orientation, seeking to inform the new staff member about particular work site policies and practices, about expected standards of performance, and about the specific responsibilities of the new staff member. They should also be responsible for introducing the new member to other staff and to directing them on where to find the necessary rooms, equipment and supplies for their work.

RECRUITMENT AND RETENTION

Perceptions of the Health Professions

- The Motivation Study showed a lack of knowledge and understanding amongst school leavers about careers in the health professions.
- There are negative social attitudes in Jordan about careers in the health professions (except for medicine, dentistry and pharmacy). This contributes towards a reluctance to enter training in the health professions and towards staff dissatisfaction with the way they are perceived and treated by the public.

Recommendation 24

The MOH should consider preparing an information booklet on the careers available within the health professions, summarizing the work of the different professions and the potential for further training and development. These should be distributed to students about to sit their Tawjihi examinations.

Staff Retention

- Salaries and benefits offered by the MOH are low in comparison with the local labor market and represent a prime cause of dissatisfaction and low work performance amongst MOH staff.
- Other reasons cited as to why individuals left the MOH relate to the style of management, the lack of respect for them and their work, the inability to participate in decision-making and the rigid centralization of authority.
- Although scholarship students attending MOH training colleges pay a penalty of JD 150 for each month of training received if they fail their course or drop out of training. They also sign a contract committing to two years of service for every one year of scholarship education and also pay the same financial penalty if they fail to do so, this has not been successful. Those graduates who subsequently leave Jordan to work in the Gulf states ask their prospective employers to pay the penalty.

Note: Recommendation 20 also deals with salary and benefit issues.

Recommendation 25

To try to retain new graduates for at least two years, the MOH could consider the option of withholding the award of the qualification certificate until the contract period of service has been completed. This would need to be discussed with the Nursing Council and the Nurses Syndicate. If this course of action was agreed, it would have to replace the present financial penalty payable if the contract period is not completed.

SUGGESTED PRIORITIES FOR IMPLEMENTATION OF RECOMMENDATIONS

The recommendations given in the previous section are classified according to technical area. In this section, the same recommendations are classified according to their relative priority and their ease of implementation in order to assist the MOH in their decision making.

No.	Recommendation	Justification for Priority
First Priority Recommendations		
1	Strategic Plan for the MOH	It is possible that the MOH is in the process of developing a strategic plan as part of its efforts under the National Agenda, although this plan is unknown to most MOH officers. If a plan is under development, its contents need to be widely disseminated amongst MOH staff so that all their efforts can be focused. If no plan is being developed, then this must be a high priority for the MOH.
3	Dissemination of the results of the Strategic Health Workforce Projections Workshop	The MOH should organize a dissemination of the results of its projections to the Minister and key MOH officials to ensure a wider understanding of the human resource problems that the MOH is facing.
4	Updating of the 'job titles' and 'professions' used in the MOH personnel database.	Both of these items could be done quite simply by the MOH, which has the technical expertise to do the necessary programming. The updating of the job titles and professions (recommendation 4) should precede the programming of the standard reports.
5	Programming of standard reports of the personnel database information so that regular reports can be produced.	
8	Linking the personnel database records to the HMIS to produce staff to workload analyses by work place.	An assessment of the potential to link the personnel database records to the HMIS GP system will need to be carried out as part of the design of this sub-system, which since a prime reason for this is to assist Health Directorate directors to improve the deployment of his staff across the health centers.
11	The MOH should urgently plan to adjust (either increase or decrease) its intakes to its training institutions.	Based on the findings of the Strategic Projections workshop, training intakes to the MOH training programs need to be adjusted. The MOH needs to explore how it could adjust intakes to its programs for medical residents, associate nurses, X-Ray technicians, midwives and Health Inspectors.

No.	Recommendation	Justification for Priority
First Priority Recommendations, continued		
10	The MOH to discuss with the Nursing Council its needs for continuing to train Associate Nurses.	The MOH Human Resource Development Directorate should meet with representatives of the Nursing Council to share the results of the Strategic Workforce Projections workshop (at which the Nursing Council was present) and to share the MOH needs for increased numbers of Associate Nurses. The meeting should also explore the need for improved practical skills amongst the registered and associate nurse graduates.
12	The MOH to discuss with the Nursing Council the need to increase the practical component of the nurse training curricula.	
13	The MOH to discuss its staffing needs with the Ministry of Education and Education Council to see if it can influence decision-making by these bodies.	The MOH Human Resources Development Directorate needs to share the results of the Strategic Workforce Projections workshop (at which the Ministry of Higher Education was present) to explore whether it could participate in annual decision-making about university intakes for the health professions training programs.
16	Definition of job requirements for each position in MOH *(see also under Third Priority Recommendations).*	In addition to the job descriptions which have been, or are currently being, developed for MOH posts, there is the need to define the qualifications and experience required of the post-holders.
17	Each MOH staff member should have his/her own annual work plan.	Each MOH unit should be required to divide responsibility for achievement of the annual unit work plan amongst the staff of that unit. Progress on these individual work plans should be regularly reviewed by their supervisor and the annual performance appraisal should be based on work plan achievements.
No.	**Recommendation**	**Justification for Priority**
Second Priority Recommendations		
2	The MOH should explore alternative future workforce scenarios using the projections model.	The strategic projections workshop failed to achieve a balance between staffing needs and training outputs for health professionals. Alternative scenarios for staffing standards, number of health facilities and feasible training outputs need to be explored to determine a feasible balance between HR supply and demand.
6	Reports of the HR situation should be regularly disseminated to MOH managers.	Once the programming of standard reports for the personnel database has been completed (recommendation 5), these reports should be disseminated to selected MOH managers on a pre-determined schedule. At the time of the first dissemination, a short presentation of the sources of the data and the meaning of the reports should be provided to recipients.
7	Decentralization of the personnel database to Health Directorates and Hospitals.	This will require assessment of the present "Local Area Network" utilized by the Health Directorates for the HMIS to determine its utility for networking of the personnel database fields. An assessment of the potential for networking of the personnel database to hospitals would also need to be undertaken as a preliminary to implementation of this recommendation.

No.	Recommendation	Justification for Priority
Second Priority Recommendations, continued		
9	The MOH should review its procedures for decision-making on deployment of staff to ensure that workload is taken into account.	Once recommendations 7 and 8 have been completed, the MOH should conduct training of its managers at central and Health Directorate levels to explain the use of the staff : workload analyses in decision-making about staff deployment.
14	Skill-based management training should become a pre-requisite for individuals being appointed to management positions within the MOH.	At present, few MOH directors have ever received any management training either before or during their appointment as managers. This is a high priority if management within the MOH is to be improved. Over time, such training should become a pre-requisite prior to appointment as a manager.
18	MOH managers should be trained to conduct performance appraisals of their staff.	As part of their management training (see recommendation 14), MOH managers should receive training in the conduct of performance appraisals based on participatory and objective assessments of work performance.
15	The MOH should consider decentralizing authority and responsibility (budgets and staff) to hospitals and Health Directorates.	Decentralization is now a government of Jordan priority and the MOH will be expected to follow government policy. However, a plan for management training must be in the process of implementation prior to significant decentralization taking place.
22	The MOH should prepare a package of general information about MOH employment for new staff.	This package should contain at least the MOH vision, guidance on how it expects staff to behave towards colleagues and clients, and general information about MOH policies and procedures.
23	Orientation to a particular worksite and specific job responsibilities should be provided by the site director and immediate supervisor.	This is already a requirement for those hospitals participating in the hospital accreditation program, so efforts here are intended to be directed to the central MOH, the Health Directorates and health centers.
No.	**Recommendation**	**Justification for Priority**
Third Priority Recommendations		
16	Vacancies should be advertised internally and internal appointments and transfer decisions should be based on these requirements.	Once job descriptions and post requirements have been developed for all MOH positions, changes in the appointment procedures need to be made to make internal appointments competitive and transparent. *(This does not apply to new civil servants, who are currently recruited by the Civil Service Bureau).*
19	The MOH should develop a process of recognizing high performance, through public recognition and, perhaps, awards of higher training.	The civil service reform program is intending to change the salary system for government employees. It is not known at this time what these changes will involve. Nevertheless, the MOH should consider the means it can use to reward high performance and to develop procedures for this to happen.

No.	Recommendation	Justification for Priority
Third Priority Recommendations, continued		
20	The MOH should prepare its justifications for improved salary and benefit levels for its professional health staff.	A civil service-wide job evaluation exercise is soon to be launched with the objective of changing the salary system to be based on the post rather than the post-holder. Since health professionals usually fare poorly in most job evaluations, the MOH needs to prepare its justifications for improved salary and benefits for its staff to submit with those who will be conducting the job evaluation exercise.
21	Develop career ladders and career progression criteria for each of the health professions.	As part of the preparation for the job evaluation exercise, the MOH should prepare its proposals for the definition of career ladders for each of the health professions and the criteria to be applied to progression up these career ladders.
24	The MOH should prepare a booklet on careers available within the health professions.	This booklet should explain the training required and where this training is available, the length of training, the job responsibilities after training, the potential for further specialization, and possible career progression opportunities
25	Revise the bonding regulations for MOH scholarship students	The present bonding system is not working to retain graduates, even for the two years of service following graduation since foreign employers are simply agreeing to pay the financial penalty. Alternative arrangements need to be explored.