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- ・ 平成 19 年 5 月 21 日 東京大学国際保健学 講演会 「Aid coordination mechanisms for reconstructing the health sector of post-conflict countries」 講演

## H. 知的財産権の出願・登録状況

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厚生労働科学研究費補助金（社会保障国際協力推進研究事業）

分担研究報告書

### 保健医療人材養成と緊急人道援助

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#### 研究要旨

本分担研究課題は、保健医療人材養成、緊急人道援助の分野における国際イニシアティブや戦略、および日本の貢献についての情報を収集し分析すること、および、世界保健機関 (World Health Organization: WHO)、国際赤十字赤新月連盟等の、活動内容と意思決定メカニズムに関して調査し検討することである。平成19年度は、主に保健医療分野の開発援助、特に紛争後や巨大災害後復興、および緊急人道援助に携わる人材養成、赤十字国際委員会 (International Committee of the Red Cross: ICRC) および国際赤十字・赤新月社連盟 (International Federation of Red Cross and Red Crescent Societies: IFRC) の活動、その成果と課題に関して、調査検討した。

国際保健医療分野の人材養成には、各国の政府機関、研究機関、大学、国連機関、国際NGO等が、関わっている。世界的には、欧米の公衆衛生大学院、国連 Junior Programme Officer (JPO) 制度、MSFやOxfamなどの大手国際NGOによる研修制度など、知り得た限りでも、数百をこえる研修があるが、研修期間や内容はさまざまである。特に、紛争や巨大災害時の人道援助での中堅的役割を果たすための研修としては、赤十字国際委員会 (ICRC) によるH.E.L.P. I (Health Emergency in Large Populations)・H.E.L.P. II (Health, Ethics, Law and Politics) が実績をあげている。また、日本の大学・開発関係機関・NGO・学会などによって、日本でも人材育成活動が実施されている。

紛争や災害、特に最近増加している巨大災害は、それぞれが特徴的であり、ある事例に習熟したとしても、それを他の紛争や災害に該当できることはほとんど無い。したがって、人材育成の骨子は、(1) 基本的な災害医療・看護の研修を受けること、(2) 出来る限り、多様な現場を、(3) 多数経験すること、その際に、(4) 可能な on the job training の機会を持つことにつきる。

## A. 研究目的

本研究全体の目的は、保健医療関連の各種国際イニシアティブの効果、保健医療分野で活動する国際機関・国際的基金・主要国際NGOの活動内容と意思決定メカニズム、国際イニシアティブ・国際機関に対する日本の貢献と課題について分析し、保健医療分野における日本の国際社会に対する貢献が、より効果的で存在感あるものとする方策を提言することである。日本のODA予算が縮小傾向にある一方、平成20年には、G8サミットおよび第4回アフリカ開発会議が日本で開催され、保健医療分野支援が重要課題の1つとなっている。国際社会で存在感を示しながら、公衆衛生・医療行政等日本の経験を生かした支援を進めるには、国際保健医療分野の課題に対する深い理解と、国際機関等の意思決定過程への参画が不可欠である。日本が効果的に国際貢献できれば、国際的感染症予防はじめ、日本の厚生労働行政にも裨益できると考えられる。

分担研究課題は、保健医療人材養成、緊急人道援助の分野における国際イニシアティブや戦略、および日本の貢献についての情報を収集し分析すること、および、世界保健機関 (World Health Organization: WHO)、国際赤十字赤新月連盟等の、活動内容と意思決定メカニズムに関して調査し検討することである。平成19年度は、主に保健医療分野の開発援助、特に紛争後復興、および緊急人道援助に携わる人材養成と、赤十字国際委員会 (International Committee of the Red Cross: ICRC) および国際赤十字・赤新月社連盟 (International Federation of Red Cross and Red Crescent Societies: IFRC) の活動の成果と課題、意思決定メカニズムに関して調査検討した。

## B. 研究方法

欧米の公衆衛生大学院、赤十字国際委員会、国際赤十字・赤新月社連盟、国境なき医師団 (Medecins Sans Frontieres: MSF)、OXFAM等の主要国際NGOの刊行物、ウェブサイトより資料を収集した。また、米国のジョーンズ・ホプキンス大学、日本および韓国赤十字等の関係者より、情報を収集した。

## (倫理面への配慮)

本研究は、直接、人や動物を対象とした基礎医学研究・臨床研究・疫学研究ではないため、既存の倫理指針の対象とはならない。関係者からの情報収集の際には承諾を得て、個人情報保護に留意した。文献資料の引用時には、出典を示して、著作権保護に留意した。

## C. 研究結果

### (1) 国際保健医療分野の人材養成

#### 1) 世界的状況

##### (a) 欧米の大学、特にアメリカの公衆衛生大学院

長期開発および緊急人道援助に関わる、初心者および中級者が、広範な知識を習得する場といえる。最も実践的な研修あるいは実践経験者が多いのは Johns Hopkins University Bloomberg School of Public Health、理論研修は Harvard University School of Public Health、その他アメリカでは、Yale、Columbia、Tulane、Michigan、North Carolina 各大学、イギリスの London School of Tropical Medicine and Hygiene、Liverpool 大学など、公衆衛生大学院や人口問題関係機関、熱帯病研究所、国際問題研究所などがある。これらの大学は、国連や世界銀行、また、米国開発援助庁 (United States Agency for International Development: USAID) や大手国際NGOと連携して、世界の保健医療問題対策を提言したり、問題の生じている各地に直接関与したりすることもある。

##### (b) 国連機関、特に国連 Junior Programme Officer (JPO) 制度

どちらかといえば、社会学系の長期開発に関与する人材の研修の場となっている。On the job Training の場と考えるべきであり、成果は、スーパーバイザーの経験や専門分野と研修者のニーズのマッチング、および適切な事例に遭遇するかどうかで大きく異なる。緊急人道援助の現場では、実践経験を積むことはできるが、学問的研修ではないことを銘記すべきである。

日本では、外務省の人材センターが、雇用情報を提供している [注 1]。国際機関では、それぞれの組織の Vacancy note や Internship の広報に注意し、自分の専門性を明確にした application を送る必要がある。例えば、WHO [注 2]、世界食糧計画 (World Food Programme: WFP) [注 3]、国連児童基金 (United Nations Children's Fund: UNICEF) [注 4] 等の国連機関のウェブサイトには、雇用情報が掲載されている。

通常は、複数、それも多数組織に、相当の期間を見込んで、応募する必要がある。また、その間、生活費やインタビューのための経費も、通常は自己負担である。そのため、あまり安価な研修とはいえないが、適切な場を得た場合の成果は大きい。

[注 1]

[http://www.mofa-irc.go.jp/boshu/boshu\\_aejpo.htm](http://www.mofa-irc.go.jp/boshu/boshu_aejpo.htm)

[注 2]

<http://www.who.int/employment/internship/en/>

[注 3]

[http://www.wfp.org/contact\\_wfp/vacancies/interns.asp?section=8&sub\\_section=5](http://www.wfp.org/contact_wfp/vacancies/interns.asp?section=8&sub_section=5)

[注 4]

[http://www.unicef.org/about/employ/index\\_internship.html](http://www.unicef.org/about/employ/index_internship.html)

### (c) 国際 NGO / NPO

国際的な NGO/NPO には、多様な組織があり、MSF や Oxfam などでは、独特の研修制度を持っている。特に、緊急人道援助での人材育成能力は高い。Oxfam では、ボランティアやインターンの研修について、ウェブサイトに掲載している [注 5]。

また、実践的なマニュアルや、途上国の多様な状況に対するガイドラインなどを持つ国際 NGO も多い。例えば、MSF Reference Books: [注 6]、Oxfam のマニュアル [注 7] は、ウェブサイトに掲載されている。画期的なものとして、NGO と赤十字、さらに WHO、UNICEF など、国連人道機関も加わって、人道援助の考え方と実践のあり方をまとめ集約したものが、Sphere Project [注 8] である。

この内、国際赤十字・赤新月社連盟 (IFRC) では、1986 年来、人道援助に関する世界最高の研修の 1 つと位置づけられる H.E.L.P I (Health Emergency in Large Populations) と H.E.L.P II (Health, Ethics, Law and Politics) [注 9] を、毎年、世界で 10-13 コース開催している。アジアでは、2003 年来、日本赤十字九州国際看護大学が、隔年に開催するコースまで、継続されたものがなかった。

[注 5]

[http://www.oxfam.org.uk/get\\_involved/volunteer/interns.html](http://www.oxfam.org.uk/get_involved/volunteer/interns.html)

[注 6]

[http://www.msf.org/msfinternational/invoke.cfm?component=article&objectid=213ECEA1-E018-0C72-09C8D35F019EE95C&method=full\\_html](http://www.msf.org/msfinternational/invoke.cfm?component=article&objectid=213ECEA1-E018-0C72-09C8D35F019EE95C&method=full_html)

[注 7]

<http://www.oxfam.org.uk/resources/>

[注 8]

<http://www.sphereproject.org/>

[注 9]

[http://www.icrc.org/web/eng/siteeng0.nsf/htmlall/help\\_course?opendocument](http://www.icrc.org/web/eng/siteeng0.nsf/htmlall/help_course?opendocument)

### 2) 日本の人材育成

#### (a) 大学

最近では、分野を問わず、大多数の大学が「国際」に関与している。しかし、内容は、千差万別であり、大学全体の教育や研究との関連が明記されている場合や、指導者の資質が一定している施設は多くないといえる。しかし、過去 30 年の、わが国の開発および人道援助協力の実績にともない、多数の中堅層が育っていることは事実である。

#### (b) 開発関係機関

外務省管轄の財団法人国際開発高等教育機構 (Foundation for Advanced Studies on International Development: FASID) は、開発援助の実務者向け研修から、大学院教育まで、各種人材育成活動を行っている。日本の

ODA 実施機関である国際協力機構 (Japan International Cooperation Agency: JICA) においても、実務者向け研修や、開発援助の課題に関する調査研究を実施している。

#### (c) NGO

ジョイセフ (家族計画国際協力財団) (Japanese Organization for International Cooperation in Family Planning: JOICFP) では、リプロダクティブ・ヘルス分野の専門家を養成する研修を国内外で実施している。AMDA は、緊急人道援助や開発援助事業を実施しており、派遣する会員に対して研修している。

#### (d) 学会

日本国際保健医療学会では、学生部会を設置して、若手の人材育成をはかっている。

## (2) 赤十字運動

### 1) 設立の経緯と目的

赤十字国際委員会 (International Committee of the Red Cross: ICRC) は、H.デュナンの発想を基に、本来、紛争時の傷病者救援を目的に設立されたスイスの NGO である。しかし、その理念に賛同した各国にも、同様の組織として、各国赤十字社または赤新月社が設立された。後にその連合体として設立され、自然災害救援と開発援助を本務とするのが、国際赤十字・赤新月社連盟 (IFRC) である。現在では、紛争地に発生する自然災害も多く、連帯して行動することが多い。

### 2) 組織構成

国際的な赤十字運動の最高議決機関は、赤十字・赤新月国際会議である。本会議は、赤十字国際委員会 (ICRC)、国際赤十字・赤新月社連盟 (IFRC) および各国赤十字・または赤新月社 (2007 年以降は、Red Crystal 社もある) 183 社の各代表と、ジュネーブ条約加入国政府代表が加わったメンバーから構成される。本会議は、政治的討論は許されず、人道的事項、ジュネーブ条約に関する提議、国際赤十字・赤新月運動全体に関わる問題のみが協議される。決議に関しては、各国赤十字・

赤新月社代表、政府代表、ICRC、連盟が、1 票ずつを行使する。

### 3) 活動内容

紛争、災害その他あらゆる人道の危機に対応している。国際的な活動の決定は、国際赤十字委員会、または国際赤十字・赤新月社連盟によって決定される。各国赤十字または赤新月社の独自の活動が妨げられることはないが、ある国の赤十字社が他の国に働きかける場合、国際赤十字・赤新月社連盟を通じて、関与国の赤十字もしくは赤新月社との連携がとられることになる。世界各国の赤十字・赤新月社は、ジュネーブ条約および国際人道法のアドボカシー、ボランティア精神に基づく救援活動など、共通するものがある。

### 4) 日本の貢献

日本赤十字社は、全国ネットの組織であり、かつ我国唯一の血液供給体制を持つ機関である。全国ネットの医療施設、全国の 6 看護大学と 17 看護専門学校、1 助産師学校などの人材育成施設を有し、各都道府県支部、および各種ボランティア組織を基盤として、国内外の救援にあたっている。

現在、赤十字の旗の下に勤務するスタッフは、約 55,000 人、その他、社資 (寄付) 提供者は 1,190 万人に上る。また、例えば、スマトラ沖地震による津波災害では、世界の救援金約 1,000 億円強に対し、日本からの協力は 105 億円であり、財政的貢献度は高い。しかし、アフリカやアフガニスタン、イラクといった紛争地での勤務には限界があり、人的貢献は今後も問題といえる。

## D. 考察

世界的には、国際機関、国際 NGO、アカデミック、各国政府が、国際イニシアティブの形成と意思決定に関わっている。欧米では、NGO や大学が、テーマを持って、国連や大手 NGO に売り込む場合もある。他方、日本でのイニシアティブは、政府中心の官主導が主体である。

国連は、レベルにもよるが、プロジェクト担当者の裁量権が比較的大きい。しかし、最

近では、ミレニアム開発目標 (Millennium Development Goals: MDGs) のような、グローバルテーマに引っ張られすぎて、ローカルなニーズへの対応が等閑になっている。

いずれにせよ、重要なことは、紛争や災害が発生した現場の人材による自立的かつ自律的救援、復興さらに開発が可能になることであり、今後、人材育成に主題をおいた協力が求められよう。

紛争や災害、特に最近増加している巨大災害は、それぞれが特徴的であり、ある事例に習熟したとしても、それを他の紛争や災害に該当できることはほとんど無い。したがって、人材育成の骨子は、(1) 基本的な災害医療・看護の研修を受けること、(2) 出来る限り、多様な現場を、(3) 多数経験すること、その際に、(4) 可能なon the job trainingの機会を持つことにつける。

## E. 結論

赤十字国際委員会 (ICRC) および国際赤十字・赤新月社連盟 (IFRC) の活動と成果、および緊急人道援助に携わる人材養成に関して、検討した。国際保健医療分野の人材養成には、各国の政府機関、研究機関、大学、国連機関、国際NGO等が関わっており、数百をこえる研修があるが、研修期間や内容はさまざまである。IFRCによるH.E.L.P. I (Health Emergency in Large Populations)・H.E.L.P. II (Health, Ethics, Law and Politics) が実績をあげている。

緊急人道援助に携わる人材育成の骨子は、(1) 基本的な災害医療・看護の研修を受けること、(2) 出来る限り、多様な現場を、(3) 多数経験すること、その際に、(4) 可能なon the job trainingの機会を持つことである。

## F. 健康危険情報

該当事項なし

## G. 研究発表

### 1. 論文発表

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## H. 知的財産権の出願・登録状況

該当事項なし

研究成果の刊行に関する一覧表

書籍

著者氏名	論文 タイトル名	書籍全体の 編集者名	書 籍 名	出版社名	出版地	出版 年	ペー ジ
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**ARAB REPUBLIC OF EGYPT**

**STRENGTHENING NURSING EDUCATION IN EGYPT**

**– A FEASIBILITY ASSESSMENT –**

*VERSION 2*

*NOVEMBER 10, 2007*

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## ACRONYMS

BSN	Bachelor(s) of Science in Nursing
CCO	Curative Care Organization
DPT	diphtheria, pertusis and tetanus
GDP	gross domestic product
GNI	gross national income
HIO	Health Insurance Organization
HSRP	Health Sector Reform Program
ICU	intensive care unit
ICN	International Council of Nurses
IEC	information, education, and communication
LE	Egyptian Pound (One US dollar = 5.656 LE in August 2007)
LMI	lower-middle income countries
MCH	maternal and child health
MOHP	Ministry of Health and Population
NGOs	non-governmental organizations
PHC	primary health care
STN	Secondary Technical Nurse(s)
STNS	Secondary Technical Nursing School
TN	Technical Nurse(s)
USAID	United States Agency for International Development
WHO	World Health Organization

## EXECUTIVE SUMMARY

Good quality of nursing care is one of the key factors of health services. Nurses are expected to play various roles and provide not only physical care but also mental support to clients through a holistic and comprehensive approach.

Nurses usually enjoy well respected professional status in most industrialized countries, however, in many developing countries, they are still poorly trained and less regarded. Despite previous attempts by the Ministry of Health and Population (MOHP) of Egypt to upgrade nursing education, many nurses are still inadequately trained and supervised, receive little respect, are poorly paid and are often under utilized. In addition, the distribution favors urban areas leaving significant gaps in the availability of qualified nurses in remote areas.

This feasibility assessment aims to collaborate with the MOHP to: (i) evaluate the feasibility of the existing plan for strengthening nursing education prepared by the MOHP Central Administration of Nursing; (ii) update and supplement existing data and information; and (iii) facilitate the ongoing dialogue about nursing education between the World Bank and the MOHP.

There are three different levels of nursing education programs in Egypt: (1) University (Faculty of Nursing); (2) Technical Institute (Nursing Branch); and (3) Secondary Technical Nursing School (STNS). Applicants of Universities and Technical Institutes have to complete 12 years basic education or to graduate STNS with high scores. There are 13 Faculties of Nursing in public universities and two private Faculties of Nursing. The graduates are awarded Bachelor Degree in Nursing (BSN) after four years studies and one year internship. About 3,000 BSN graduate every year. There are 12 Technical Institute Nursing Branches, and 700 to 800 students in total enroll every year. The graduates are awarded Diploma of Technical Nursing after two years studies.

Admission to STNS is allowed after nine years of basic education. There are 267 STNS in total: the MOHP runs 203 STNS, the MOHP affiliations manage 38 STNS, and universities, Military, Police and non-governmental organizations (NGOs) own 26 STNS. Enrolled students are in total 6,000 to 10,000 per year. The graduates are awarded Diploma of Secondary Technical Nursing after three year studies.

Majority of midwives have been educated in STNS as well, although there are Midwifery Diploma courses in the Technical Institutes and Master courses in obstetrics in universities.

There are around 200 thousands registered nurses, of whom more than 85 percent are secondary technical nurses (STN). Among the registered nurses, 65 percent are employed by the MOHP general hospitals and PHC centers.

The salary scales of public employees are fixed at very low levels, and benefits, added as incentives, are also in very little for nurses. Thus, quite a few nurses are absent from their work to earn money by working in the private sector. In addition, many nurses take long leaves legally: female nurses can take maternity and child care leaves up to six years, and unpaid leaves up to 10 years to accompany their husbands working abroad. They can keep their graded positions during the long leaves, and employers can hire substitutes only at part-time contract basis.

The distribution of nurses in the country is not even. Urban governorates such as Cairo and Alexandria have more nurses than remote governorates such as Qena and Sohag. Better qualified nurses also concentrate in urban areas. The MOHP enrolled nurses are deployed to the two year mandatory services in the public sector, but the procedure of deploying newly graduated nurses is very complicated and often results in misallocation. Thus, the MOHP will start a computer matching system for deployment of nurses in 2007.

The Central Nursing Administration of the MOHP has prepared a strategic plan from 2007 to 2012 to upgrade and strengthen nursing education in Egypt. Under the plan, STN will be abolished and only two levels, *i.e.*, graduates of universities and Technical Institutes, will be retained. Quality of nursing education should be improved by upgrading the curricula, and installing accreditation and re-licensing mechanisms. Nurses will be distributed properly between urban and rural areas, and hospitals and PHC centers. It is also proposed to build three new Nursing Academies, in addition to a pilot at Beni Suef

University and the National Training Institute in Cairo. The Nursing Academies are expected to play roles of continuing education and accreditation of nurses and nursing training of unemployed graduates of other faculties.

The MOHP commit to implement the reform, and has started to upgrade 20 STNS in six governorates in 2007. The graduates of the pilot 20 STNS learn English intensively for six weeks in the newly started Bridging Course, and then will study for two more years. In 2008, another 140 STNS will be upgraded to become Technical Institutes, after rationalized by merging and closing small schools.

The overall direction of the MOHP strategy is right, however, it requires simultaneous efforts in various aspects, since the nursing sector has been long neglected. The activities in the strategy need to be prioritized and done by step by step manner.

It is needed to map STNS and rationalize them before upgrading to Technical Institutes. Existing and newly-upgraded Technical Institutes should be improved in terms of facility and equipment, as well as the capacity of teaching staff. Education curricula should be developed based on concrete evidences of clinical cases in Egypt.

Existing STN need to be improved in knowledge, skills and motivation, while upgrading newly graduated STN. Technical Institutes could be the places for their re-training. Establishing Nursing Academies should be delayed to a later phase, after evaluating other activities.

Nurses in remote areas should be increased in quantity, while improving quality, through increasing nursing students in those governorates, where socio-cultural difficulties exist.

Performance evaluation mechanisms should be introduced and linked to an incentive mechanism. Low moral and lack of discipline seem to be more serious issues than the quality of nursing education for improving nursing services. Licensing and accreditation mechanisms of nurses should be established as well. It is also important to assure appropriate career paths of nurses, along with the improvement of their qualification.

In addition, the status and education of midwives should be improved.

The MOHP needs to secure budget to provide proper incentives and to sustain the strategic activities. The activities should link with other reform efforts, such as rationalizing the size and number of public hospitals and PHC centers, and defining roles of the public and private sectors. It is also important to reform the current rigid and inefficient management systems of public sector human resources.

In line of the MOHP strategy, the World Bank is expected to play the following roles:

- Rehabilitate existing 12 Technical Institutes after examining the situation. Management training should be provided simultaneously, in collaboration with other aid agencies.
- Map the 241 MOHP affiliated STNS throughout the country and make a plan of merging, closing and rationalizing them.
- Upgrade the rationalized number of STNS to Technical Institutes and improve the facilities and equipment.
- Coordinate with other aid agencies to provide the MOHP with necessary technical assistance, including: development of curricula and teaching materials; evaluation of education quality, as well as the upgrading activities; improving teachers' capacity; installing risk management mechanisms; and preparing licensing and accreditation systems.
- Continue to support the MOHP to reform and rationalize health services in the public sector and to define roles of the public and private sectors.
- Continue discussions with the Egyptian government regarding human resource management policies and budget allocation.

## I. INTRODUCTION

1. Good quality of nursing care is one of the key factors of health services. Nurses are expected to play various roles depending on the level of health services. A nurse can be a major service provider of preventive and basic curative care at a primary health care unit without any physicians. Nurses are required highly specialized technical skills as a member of specialized team, such as intensive care unit (ICU) at the tertiary level hospitals. Nurses provide not only physical care but also mental support to clients through more holistic and comprehensive approach than rather specific approach taken by physicians. Nurses usually enjoy well respected professional status in most industrialized countries, however, in many developing countries, they are still poorly trained and less regarded.

2. The Ministry of Health and Population (MOHP) of Egypt has been implementing a comprehensive Health Sector Reform Program (HSRP), with the assistance of the World Bank and other donors, during the last decade. The HSRP intended to: improve health status of the Egyptian people; ensure equity in physical and financial access to health services; improve the efficiency and quality of services, and promote long-term financial sustainability of the health system. The first priority of HSRP was to ensure universal coverage of public health services, particularly of primary health care (PHC) services, and to improve access to, efficiency, and quality of PHC services.

3. Egypt has made remarkable achievements in several aspects of human development. As shown in Table 1, child and maternal mortality rates, immunization coverage, and access to safe water are better in Egypt than the averages of lower-middle income countries (LMI). However, many challenges still remain, e.g., higher fertility and population growth, wider gender gaps in education and labor participation, lower health expenditure and fewer health professionals than the averages of LMI.

**Table 1: Basic Social and Economic Indicators of Egypt**

Basic Social and Economic Indicators	Egypt	LMI*
GNI per capita (US\$)	1,260	1,923
Total population	74 million	
Urban population (%of total population)	43	50
Average annual population growth rate (%)	1.7	0.8
Net migration	- 450,000	
Adult literacy rate (% age 15 and older)	M 83 F 59	M 93 F 85
Youth literacy rate (% age 15-24)	M 90 F 79	M 97 F 95
Primary completion rate (%of relevant age group)	M 96 F 93	M 97 F 96
Transition to secondary education (% of enrollment in last year of primary)	M 83 F 89	-- --
Labor force participation rate (% ages 15-64)	M 76.9 F 21.6	M 85.4 F 65.1
Access to an improved water source (% of population)	98	82
Life expectancy at birth (years)	M 68 F 73	M 68 F 73
Child immunization rate (DPT % of children ages 12-23 months)	98	86
Under five mortality rate (per 1000 live births)	33	39
Maternal mortality ratio (per 100,000 live births)	84	163
Total fertility rate	3.1	2.1
Health expenditure per capita (US\$)	64	92
Total health expenditure (% of GDP)	5.9	5.4
Public health expenditure (% of total)	37.0	47.7
Physicians (per 100,000 population)	50	130
Nurses and midwives (per 100,000 population)	440	--
Hospital beds (per 100,000 population)	220	280

\* LMI: Lower-middle income countries; M: male; F: female.

(Source: World Development Indicators 2007)

4. One of the major challenges is training and deployment of good quality of various types of health professionals including nurses. Despite previous attempts by the MOHP to upgrade nursing education, many nurses are still inadequately trained and supervised, receive little respect, are poorly paid and are often under utilized. In addition, the distribution favors urban areas leaving significant gaps in the availability of qualified nurses in remote areas. The situation is worsened by a high turn over of qualified nurses who leave the public sector to work overseas or in the private sector.

5. This feasibility assessment aims to collaborate with the MOHP to: (i) evaluate the feasibility of the existing plan for strengthening nursing education prepared by the MOHP Central Administration of Nursing; (ii) update and supplement existing data and information; and (iii) facilitate the ongoing dialogue about nursing education between the World Bank and the MOHP. During the assessment mission, site visits and interviews were conducted to examine current situation of nursing care and nursing education. The visited places include: National Training Institute in Abaseya, Cairo; Dar el Shefa Hospital and its Technical Institute and Secondary Technical Nursing School (STNS); General Hospital, STNS, and two PHC centers in Suez governorate; Faculties of Nursing of Cairo University and Ain Shams University, Health Technical Institute in Imbaba, Cairo, and the Nursing Syndicate. In addition, views were exchanged with bilateral donors, which may be interested in assisting nursing education, such as Spain and Japan.

## **II. CURRENT SITUATION OF NURSING EDUCATION IN AND HEALTH SERVICES EGYPT**

### **1. Health Services and Health Sector Strategy**

6. Public health services in Egypt consist of four tiers: (1) MOHP general hospitals at the national and governorate levels, and district hospitals and PHC centers at the peripheral level; (2) Health Insurance Organization (HIO); (3) Curative Care Organization (CCO); and (4) specialized centers and teaching hospitals. Health services are also provided by university hospitals and relatively small scale private hospitals. Other ministries including Ministries of Education, Agriculture and Transportation, as well as the Army Medical Services, provide their employees with health care services.

7. Appendix 1 shows the organization structure of the Central Administration of Nursing of the MOHP. Undersecretary of Nursing reports to Assistant Minister of Curative Care, and supervises three Director Generals: Curative Care, PHC, and Education and International Affairs. The Central Administration of Nursing supervises Nursing Directorate in each governorate. It also coordinates with other MOHP Directorates such as preventive care and medicine, as well as universities and other related agencies.

8. Large health gaps between urban and remote rural areas, and between rich and poor households remain. For example, under five mortality rate of the richest quintile was 34 per 1,000 live births, while that of the poorest quintile was 98 per 1,000 live births; and births attended by skilled health staff of the richest quintile was 94 percent, while that of the poorest quintile was 31 percent.<sup>1</sup> Qualified nurses are still in shortage in remote governorates such as Sohag and Qena, as shown in Appendix 2. Per capita public spending in health was 67 percent higher in richer urban areas than in poorer rural governorates.<sup>2</sup> Social and economic factors that affect health of people include: illiteracy especially among women; unemployment and poverty; over populated and crowded housing; air and water pollution; cultural beliefs and health and nutrition habits.

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<sup>1</sup> The World Bank: World Development Indicators 2007.

<sup>2</sup> The World Bank: Project Appraisal Document: Arab Republic of Egypt – Health Sector Reform Program, 1998.



9. The HSRP by the MOHP intends to improve national health outcomes, as well as the equity, efficiency, quality, and long-run financial sustainability of the health sector. It addresses underlying structural problems that require a complete overhaul of all aspects of the health system through a phased approach. The fragmented sector organization and management mechanisms had to be reformed to improve efficiency in financing and collaboration among various programs and between public and private sectors. Health service delivery systems need to be improved in efficiency and quality, as bed occupancy rates in many public hospitals are less than 50 percent, and PHC centers lack basic equipment and drugs. The first priority of the reform should be universal coverage with a basic package of PHC, including rationalization of the PHC delivery system, and reform of the HIO.

10. The HSRP also addresses issues of misallocation and low quality of health professionals, including nurses. Nursing education needs to be reformed, so that nurses can effectively play various roles from sophisticated curative care in hospitals to basic preventive care at the PHC level. As care providers of clients and their families and communities, nurses promote health, and prevent and treat diseases. Nurses could be managers and leaders both in service and in schools. Nurses play academic roles, including teachers and trainers of graduate and undergraduate nursing students, researchers at universities, and advisors and consultants in nursing for national and international agencies.

## 2. Nursing Education

11. Current nursing education programs are shown in Table 2. There are three different levels of nursing education programs in Egypt: (1) University (Faculty of Nursing); (2) Technical Institute (Nursing Branch); and (3) Secondary Technical Nursing School (STNS).

**Table 2: Nursing Education Programs in Egypt**

Admission Requirements	Duration	Certificate	Legislation
<b>(1) University (Faculty of Nursing) Program</b>			
(a) i) 12-year secondary level school education ii) Diploma of Technical Nursing with over 75 % of total graduation scores iii) Diploma of Secondary Technical Nursing with over 75 % of total graduation scores + Qualification examination (b) Personal interview (c) Medical examination	4 years + 1 year internship	Bachelor of Science in Nursing (BSN)	Licensed Professional Nurse
<b>(2) Technical Institute (Nursing Branch) Program</b>			
(a) i) 12-year secondary level school education ii) Diploma of Secondary Technical Nursing with over 75 % of total graduation scores (b) Personal interview (c) Medical examination	2 years	Diploma of Technical Nursing	Licensed Technical Nurse (TN)
<b>(3) Secondary Technical Nursing School (STNS) Program</b>			
(a) 9-year basic level school education (b) Medical examination	3 years	Diploma of Secondary Technical Nursing	Licensed Secondary Technical Nurse (STN)

(Source: MOHP)

12. (1) University (Faculty of Nursing) program: Applicants have to complete nine years basic education and three years secondary education. Applicants usually have over 92 percent graduation scores of secondary schools. The graduates are awarded Bachelor Degree in Nursing (BSN) after four years studies and one year internship. The curricula are designed to train practitioners who have managerial and teaching skills. There are 13 Faculties of Nursing in public universities: Alexandria, Cairo, Ain

Shams, Sohag, Asyut, Menia, Ismailia, Port Said, Benha, Tanta, Mansura, Damanhur, and Dakahlia. In addition, Beni Suef University will open a new Faculty of Nursing in September, 2007. There are two private Faculties of Nursing: October Six University in Giza, and British University in Cairo. Faculties of Nursing of Alexandria, Cairo, and Ain Shams, which were established in 1950s, 60s, and 80s, accept about 300 students per year, while the rest of the above Faculties, established after the late 1990s, accept about 80 to 100 students per year. In total, about 3,000 BSN graduate every year.

13. About 40 percent of the students of Faculties of Alexandria, Cairo, the first year of Ain Shams, and Beni Suef are males, while the other Faculties accept only females. Cairo University Faculty of Nursing started to allow admission of male students in 2001. Increase of male nurses contributes to improve social status of nurses, and to increase number of nurses in service, as many female nurses take leaves for their life course events. In addition, male nurses are highly demanded in the Gulf countries, where they will be paid much better than in Egypt. Cairo University Faculty of Nursing also accepts about a dozen foreign students from Palestine, Iraq, Sudan, Djibouti, and Somalia. They have to pay higher school fee than Egyptian students, and usually half of the fee is covered by their government scholarship.

14. (2) Technical Institute (Nursing Branch) program: Applicants have to complete nine years basic education and three years secondary education or to graduate STNS with over 75 percent scores. The graduates are awarded Diploma of Technical Nursing after two years studies. There are 12 Technical Institute Nursing Branches under the Ministry of Higher Education and affiliated to the MOHP: Alexandria, Cairo/Giza (Imbaba), Ain Shams, Sohag, Asyut, Menia, Beni Suef, Fayoum, Suez, Menoufia, Tanta, and Mansura. There are another nine Technical Institute Nursing Branches affiliated to military, police, and universities. For example, Cairo University Faculty of Medicine has two Technical Institutes of Nursing: Kasr el Eini, and National Cancer Institute.

15. Most Technical Institutes accept about 24–29 students per year. Enrolled students are in total 700 to 800 per year and the majority are women, although Technical Institutes accept both male and female students. Most of the faculty members are females. Health Technical Institute (Imbaba) accepts about 200 students per year in the Nursing Branch, about 30–40 in the Midwifery Branch, about 15–30 in the Psychiatric Nursing Branch, and about 30–40 in the Emergency Service Branch. Most of the students in the Nursing Branch are graduates of STNS.

16. (3) Secondary Technical Nursing School (STNS) program: Admission is allowed after nine years of basic education. The graduates are awarded Diploma of Secondary Technical Nursing after three year studies. As listed in Appendix 3, there are 267 STNS in total: the MOHP runs 203 STNS at the central and governorate levels, the MOHP affiliations including HIO and CCO manage 38 STNS, and universities, Military, Police and non-governmental organizations (NGOs) own 26 STNS. All students attending on the MOHP-run STNS are provided with LE 10 per month stipend. Most STNS are in small scale, accepting less than 30 students each year. Enrolled students are in total 6,000 to 10,000 per year.

17. Although most STNS accept only female students, 15 MOHP-run STNS, a Military-affiliated STNS and a Police-affiliated STNS accept only male students, and seven MOHP-run STNS and three university-managed STNS accept both male and female students. Both male and female students learn the same curriculum during the first and the second year, then in the third year, female students learn midwifery and maternal care, and male students learn emergency care.

18. Table 3 shows various postgraduate nursing education programs. Most Faculties of Nursing provide with postgraduate programs for university graduates, *i.e.*, Master and Doctor Degrees and Diploma courses in various specialties. There are no Specialty Diploma courses for which the graduates of

Technical Institutes can apply. The graduates of STNS can enroll one year Specialty Diploma courses after two years practical experience.

19. There are various postgraduate in-service training programs that provide nurses with specific knowledge and skills, sponsored by the MOHP and donor agencies. The lengths of courses vary from a week to six weeks, depending on the subjects and targets. The National Training Institute of the MOHP in Abaseya, Cairo, hosts a variety of in-service training courses, including training courses for nursing school teachers from all over the country.

**Table 3: Postgraduate Nursing Education Programs in Egypt**

Certificate	Applicant	Duration	Roles of Graduates
Doctorate Degree in Nursing Science	Master	5 years	Graduates work mostly in nursing education institutions as faculty members, or in management position in health service institutions.
Master Degree in Nursing Specialties	BSN	Minimum 2 years	Graduates are required to work in specialized areas of practices, such as medicine, surgery, pediatrics, obstetrics, psychiatrics, community health, and administration.
Diploma in Nursing Specialties	BSN	1 year	Each university provides various Specialty Diploma courses, such as infection control, ICU, emergency, critical care, hospital management, psychiatrics, and midwifery.
Specialty Diploma in Nursing	STN + 2 year practice	1 year	There are Midwifery and Physiotherapy Diplomas. Oncology Diploma course started in 2000. STNS teachers are required to have a Specialty Diploma and an Education Diploma.

(Source: MOHP)

20. Majority of midwives have been educated in STNS. Some Secondary Nurse-Midwives have Midwifery Diploma obtained through a year postgraduate specialty education. There are nine Midwifery and Community Nursing branches at the Technical Institutes, which have been first established in 1997 in Cairo/Giza (Imbaba) and Alexandria. After two years study, the graduates are awarded Diploma of Midwifery Nursing and Community Nursing. The curricula are community oriented to addresses health problems at the community level. As of 2005, the graduates reached to 149. In addition, BSN may obtain Specialty Diploma or Master Degree in Obstetrics and Midwifery.

### 3. Career Paths of Nurses

21. When nursing students graduate STNS, Technical Institutes, or Faculties of Nursing, they register the Nursing Syndicate and are recognized as registered nurses. The Nursing Syndicate is a professional association, of which main roles are to provide its members with social safety-nets, such as inexpensive housing, disease compensation, and retirement benefits, etc. The Syndicate does not have academic and accreditation roles. STNS students have to pass a national standard examination before their graduation, while graduates of Technical Institutes and Faculties of Nursing take no national standard examinations.

22. Appendix 2 shows distribution of nurses of each qualification in each governorate. Urban governorates such as Cairo and Alexandria have more nurses and better qualified nurses than remote governorates such as Qena and Sohag. Most of the registered nurses enroll the MOHP and are deployed to the two year mandatory public services. The MOHP receives requests of posting nurses from each governorate, and prioritized wish lists of health facilities from the newly registered nurses. Then, the MOHP allocated the new nurses according to the designated ratios and criteria. This process is extremely complicated and often caused misallocation of nurses. The MOHP will start a computer matching system for deployment of nurses in 2007, so that nurses will be evenly distributed throughout the country.

23. Table 4 shows the numbers of registered nurses in the year 2006. The total number of nurses was 201,669, among which 6.2 percent were BSN, 0.9 percent were Technical Nurses (TN), 85 percent are Secondary Technical Nurses (STN), and 7.9 percent were other qualification including midwives. As shown in Figure 1, the numbers of nurses have been gradually increasing. However, only four nurses and 2.5 physicians are available for 1,000 patients in 2005. MOHP enrolled nurses were 149 per 100,000 population, while nurses in service were 134 per 100,000 population.

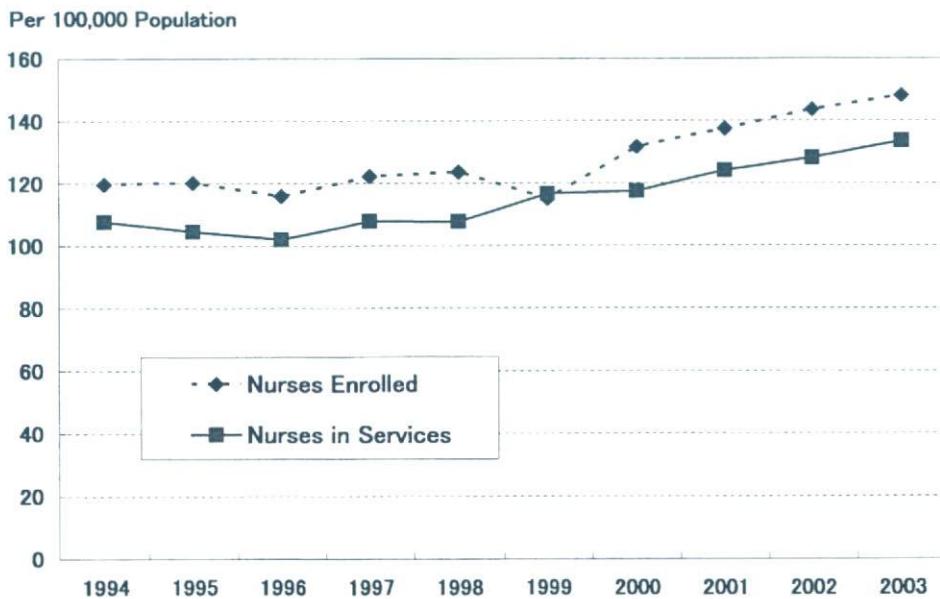
**Table 4: Number of Nurses of Each Qualification (2006)**

Qualification	In-Service			MOHP Enrolled			Syndicate Registered		
	Number	Ratio (%)	per 100,000 Population*	Number	Ratio (%)	per 100,000 Population	Number	Ratio (%)	per 100,000 Population
Professional Nurse (BSN)	2,555	2.8	3.8	3,022	3.0	4.5	12,503	6.2	18.5
Technical Nurse (TN)	1,455	1.6	2.2	1,551	1.5	2.3	1,815	0.9	2.7
Secondary Technical Nurse (STN)	82,340	90.7	121.8	91,409	90.8	135.2	171,419	85.0	253.6
Former 5-year Course Technical Nurse	348	0.4	0.5	ND	ND	ND	15,932	7.9	23.6
Midwives	ND**	ND	ND						
Nursing Aid	3,218	3.5	4.8						
Health Visitor	760	0.8	1.1						
Nurse with experience	140	0.2	0.2						
<b>Total</b>	<b>90,816</b>	<b>100.0</b>	<b>134.3</b>	<b>100,671</b>	<b>100.0</b>	<b>148.9</b>	<b>201,669</b>	<b>100.0</b>	<b>298.3</b>

\*Total population: 67.6 million (see Appendix 2); \*\*ND: no data available.

(Source: MOHP)

**Figure 1: Nurses Enrolled and in Service**



(Source: MOHP)