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PATIENT PRIVACY IN THE HEALTH INFORMATION SYSTEM (HIS)

**PALESTINIAN HEALTH SECTOR REFORM AND DEVELOPMENT
PROJECT**

SHORT-TERM TECHNICAL ASSISTANCE REPORT

**Prepared by:
John Harry Gunkel, M.D.
Consultant
Chemonics International**

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ACRONYMS

eHealth	The shorthand indication of electronic health information and management systems
HIPAA	Health Insurance Portability and Accountability Act
HIS	Health Information System
LOE	Level of Effort
M&E	Monitoring and Evaluation
MOH	Ministry of Health
NGO	Non-Governmental Organization
NICU	Neonatal Intensive Care Unit
PHC	Primary Health Care
PM Council	Palestine Medical Council
SOW	Scope of Work
STTA	Short-Term Technical Assistance
U.S.	United States
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
USAID	United States Agency for International Development
WHO	World Health Organization

ABSTRACT

The Health Information System (HIS) is an integrated and automated system underpinning the Ministry of Health (MOH) reform agenda for health care that will serve the public, nongovernmental organizations (NGOs), the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), and the private sector.

The shift to a computerized HIS is a major reform process that would transform records and record keeping from paper to an automated computerized system. Along with the resistance to change, health professionals and administrators are faced with the question of who has rights to this data, and how patients' privacy and confidentiality of their information will be protected.

The purpose of the consultancy was to assess the current state of privacy and confidentiality issues for HIS, to develop a framework with which to address patient and employee privacy rights, and to develop a formal policy for privacy and confidentiality. Additionally, the consultant was tasked with helping to plan and hold a workshop for key stakeholders to present findings and develop consensus.

At the beginning of the consultancy, it was determined that the local legal context for eHealth is rudimentary; that practices regarding protecting patient privacy were not systemic but were largely situational and individualized; and that expectations and standards regarding this issue among stakeholders were disparate. However, it was also determined that there was general interest and enthusiasm for establishing a more systematic approach to protecting patient privacy and ensuring appropriate use of HIS data.

Products of the consultancy included:

- An overarching framework document which would be used as a “roadmap” for addressing this issue.
- A workshop to present the framework to a select group of experts and achieve consensus among them to guide the process forward.
- An HIS Manual comprised of the framework document, the HIS Privacy Policy, and a technical Users' Manual for dealing with the technical aspects of privacy.

The consultancy occurred from May to December 2012.

SUMMARY OF RECOMMENDATIONS

Within the next month:

- The MOH, with support of the Project, should prepare a plan with timelines to implement the policy and launch an education campaign for patients and HIS users regarding privacy and confidentiality.

Within the next six months:

- The MOH, with support of the Project, should conduct a follow-up workshop with a select group of experts to enlist their consensus and support.
- The MOH, with support of the Project, should launch the education campaign.

Within the next year:

- The MOH, with the support of the Project, should monitor the status of compliance with the Policy.

SECTION I: INTRODUCTION

The Palestinian Health Sector Reform and Development Project is a five-year initiative funded by the U.S. Agency for International Development (USAID), designed and implemented in close collaboration with the Palestinian MOH. The Project's main objective is to support the MOH, selected NGOs, and selected educational and professional institutions in strengthening their institutional capacities and performance to support a functional and democratic Palestinian health sector able to meet its priority public health needs. The Project works to achieve this goal through three components: (1) supporting health sector reform and management; (2) strengthening clinical and community-based health; and (3) supporting procurement of health and humanitarian assistance commodities.

At the heart of the Project since its beginning has been development of an electronic health information management system. Health information management is crucial to ensure a sustainable Palestinian health system and to support the efforts of the MOH to provide the best possible quality of health care for all citizens. To address this need, the Project has been working closely with the MOH to implement a HIS in selected facilities in the West Bank. This effort has been consistent with and cooperative with the MOH *Palestinian National Health Strategy 2011-2013*, which calls for development of a Health Information Management System.

The Project's HIS was originally envisioned to serve health care needs of the public, NGOs, UNRWA, and the private health care sector. The objectives were to:

- Integrate health care record systems.
- Improve governance, planning, administration, and management of health systems.
- Improve the efficiency of health service delivery, both personal care and public health services.
- Develop a population health care database.
- Facilitate monitoring and evaluation (M&E) of health trends.
- Data for decision-making.

The HIS is a single authority system with multiple applications and capabilities including clinical standards and protocols, patient records, MOH personnel files, staff schedules, job descriptions, comprehensive financial information, cost of services, pharmaceutical stock information, equipment information and preventative maintenance schedules, and a referral system. Such a system is information-intensive and, by its nature, much of the information is highly personal to patients and therefore very sensitive. While there is a need to productively utilize the information and data for public health needs and decision-making, it is essential to maintain patient privacy.

'eHealth,' the use of electronic technology in providing, delivering, paying for, and planning health care, has become a global phenomenon. Although systems vary in their scope and abilities, at the heart of all is confidential patient information. The ethical imperative to maintain the fidelity of the trust relationship between the health care system and the people it serves demands that patient rights of privacy and confidentiality be served and protected.

The objective of this consultancy was to assess the current status of privacy in the HIS and create an eHealth policy framework and policy that address privacy issues.

SECTION II: ACTIVITIES CONDUCTED

The activities for the consultancy fell into four broad categories: (1) Background and Assessment; (2) Draft a Framework Document; (3) Conduct a Consensus Building Workshop with Stakeholders; and (4) Produce a HIS Manual.

I. Background and Assessment

It was first necessary to determine the current status of the HIS capabilities regarding privacy and confidentiality and to learn how issues had previously been handled. The consultant gathered relevant background information, using multiple sources, and held discussions with several key persons.

- A perspective on legal issues was obtained from the World Health Organization (WHO) document, “Legal Frameworks for eHealth.”
- Another document provided insight that was helpful for the Palestinian context, “Electronic Health Privacy and Security in Developing Countries and Humanitarian Operations.”
- Discussions occurred with the administrator of a system in use for many years in the United States at University Health System in San Antonio, Texas. Those discussions provided the consultant with good, real-life scenarios that can arise.
- Discussions were held with Project HIS team and management.
- Discussions were held with Dimensions, the technical implementer of the HIS for the Project.
- Discussions were held with the MOH Legal Department.

2. Draft a Framework Document

The background assessment and initial discussions with Project management made it clear that the subject of privacy and confidentiality is complex and multi-faceted (*See Annex E1. Framework for eHealth Privacy and Confidentiality*).

It was agreed that the first step would be to draft a framework document which would serve as a guide for the process, as well as a first step toward a User’s Manual to come later. The framework document would also provide the basis for a consensus building workshop, which would be critical in gathering support and momentum for the HIS as it developed and its use became widespread.

The framework document was completed in the summer of 2012 and had several components:

- Background and review of eHealth in general.
- Brief summary of legal aspects, including a review of the United States Health Insurance Portability and Accountability Act (HIPAA) law Privacy Rule.
- Ethical principles and commentary.
- The specific challenges and issues to be addressed in considering aspects of privacy and confidentiality with HIS, including:
 - Defining users of the system.
 - Protecting the information.

- Uses and disclosures of the information.
- Administrative and organizational aspects.
- Enforcement and Compliance.

(These categories are further explained in Section III.B.)

3. Conduct a Consensus Building Workshop with Stakeholders

The technical aspects of protecting the information were well known to the HIS technical team and implementer. In addition, because eHealth systems are now widespread, extensive guidance is available from the experience of others. For continued development of the HIS by the Project, however, it was necessary to consider these elements within the local context and also obtain consensus support from local experts and decision-makers. Without this support, widespread acceptance of the system would be a greater challenge.

A one-day workshop, *Meeting to Build Consensus for eHealth: A Framework Policy for Patient Privacy*, was planned and held on July 16, 2012 (see *Annex B. Agenda*). Approximately 20 persons, from diverse experiences and perspectives, attended. Representatives were present from the MOH, local NGO hospitals, the academic sector, the Palestine Medical Council (PM Council), and the WHO.

There were three main objectives for the meeting:

- Build consensus about aspects of privacy and confidentiality for the HIS.
- Identify key issues and tasks for development of the User's Manual.
- Address selected challenges and issues to enable completion of the Framework document.

These objectives were successfully met.

4. Produce an HIS Manual

Following the meeting, the consultant revised the framework document for adoption by Project management as the final framework. This document then guided the development of the final HIS User's Manual. The Manual consisted of three sections, interrelated yet each able to be used independently:

- The Framework on Privacy and Confidentiality.
- The HIS Privacy Policy Manual (*See Annex E2. Privacy Policy for the HIS*).
- The HIS User's Manual.

SECTION III: FINDINGS, CHALLENGES, RECOMMENDATIONS, AND NEXT STEPS

A. Findings

- Preliminary assessment revealed that no laws specifically dealing with privacy of electronic records were codified or enshrined in the Palestinian Territories.
- A number of privacy and/or confidentiality issues have previously arisen in the course of developing and rolling out the HIS; however, there has not been a systematic approach to dealing with these issues. Before this consultancy, there were no written policies or guidelines for these matters. Each case had been handled separately and differently, often by the technical implementing company who is first made aware of the issue.
- The technology to assure privacy (passwords, encryption, audit trails, etc.) was known and immediately available.
- There was readiness for the HIS among most segments and entities involved in health care and health care delivery in the Palestinian Territories.
- Conversely, there appeared to be little awareness or understanding of the HIS among the general populace. Moreover, there may not be understanding among patients of their rights or responsibilities.
- There was consensus among many interested parties in the Palestinian Territories about several key issues, as follows (these are detailed further in the framework document):
 - A legal framework is needed in the Palestinian Territories.
 - Governance is a critical but challenging aspect of the HIS.
 - In general, confidentiality of electronic medical records should follow standards long established for paper records.
 - Remote access to HIS (i.e., from outside the facility) should only be permitted under specified conditions set forth in written policy.
 - Ownership of patient-specific data belongs to the facility. Ownership of aggregated data belongs to the MOH.
 - Publication or dissemination of data may be considered under specified conditions set forth in written policy.
 - Use of data for certain other purposes may be considered under specified conditions set forth in written policy.
- There are a few other issues that are more contentious and controversial and will need further exploration, consensus-building, and maturing as the HIS comes into wider use (these are detailed further in the framework document):
 - Whether patients with certain communicable diseases should be made known among hospital staff for purposes of protecting the staff from contagion.
 - Whether identified patient records should be accessible to managers and/or directors for purposes of quality control and monitoring care.
 - Who should be responsible for assessing penalties in the event of breach of confidence and whether the penalties should be standardized or case-specific.
 - Whether data can be shared among all entities (MOH, NGO, private, etc.) whether they are users of the system or not for the purposes of public health and planning.

B. Challenges

- The shift to a computerized system is a major reform process from paper records. Along with the resistance of change, health professionals and administrators are faced with the question of who has rights to the data and what the legal status is for computer generated documents.
- Gaining wide consensus among all stakeholders and patients for a framework in a context with only minimal legal standards and guidelines at the present time.
- Similarly, establishing standards of compliance and enforcement that will be justly applied in a context with only minimal specific legal guidelines at this time (i.e., will the same standards be applied to low-level clerical users of the system and to high-level officials?).
- Educating and raising awareness among patients about privacy, confidentiality, rights, and responsibilities.
- Promoting widespread trust of electronic records among patients.

C. Recommendations

- Continue to monitor and survey existing laws, regulations, and guidelines in the Palestinian Territories that will affect aspects of eHealth. If needed, revise policies and the User's Manual accordingly.
- Codify and enshrine the work to date by determining an implementation date when new practices regarding privacy and confidentiality will begin. These practices will be those identified in the HIS Privacy Policy and will replace the *ad hoc*, case-by-case method currently being used. It is necessary to formalize this launch because users have been following other practices during the time HIS has been in use. Some unlearning will be necessary for some users.
- Inform current users about the new practices prior to the implementation date.
- Conduct a follow-up consensus building meeting among a select group of stakeholders and thought leaders to enlist their consensus and support.
- With the MOH, devise and develop a public education campaign about eHealth.
- Perform follow up monitoring and surveillance of system use to ensure compliance with the new policy.

D. Next Steps

- Make plans for the implementation date and its follow up surveillance.
- Plan and launch the education campaign.
- Maintain contact with select members of the consensus building group to move toward the wider consensus building that will be necessary for the successful implementation of practice policies and guidelines.

ANNEX A: SCOPE OF WORK

Short-Term Consultancy Agreement Scope of Work

SOW Title: Hospital Advisor for Privacy Rights and the Neonatal Intensive Care Unit
Work Plan No: Technical, B.
SOW Date: 4/18/2012
SOW Status: FINAL
Consultant Name: John Harry Gunkel, M.D.
Job Classification: Short-Term US Expatriate Consultant
Reporting to: Dr. Jihad Mashal, Deputy Chief of Party – Technical Programs

I. Project Objective

The Project is a five-year initiative funded by the U.S. Agency of International Development (USAID), and designed in close collaboration with the Palestinian Ministry of Health (MOH). The Project's main objective is to support the MOH, select non-governmental organizations, and select educational and professional institutions in strengthening their institutional capacities and performance to support a functional, democratic Palestinian health sector able to meet its priority public health needs. The Project works to achieve this goal through three components: (1) supporting health sector reform and management; (2) strengthening clinical and community-based health; and (3) supporting procurement of health and humanitarian assistance commodities.

The Project supports the MOH in implementing health sector reforms needed for quality, sustainability, and equity in the health sector. By addressing key issues in governance, health finance, human resources, health service delivery, pharmaceutical management, and health information systems, the MOH will strengthen its dual role as a regulator and main health service provider. The Project also focuses on improving the health status of Palestinians in priority areas to the MOH and public, including mother and child health, chronic diseases, injury prevention, and breast cancer screening for women.

II. Specific Challenges to Be Addressed by this Consultancy

The Health Information System (HIS) is an integrated and automated system underpinning the MOH reform agenda for health care that will serve (from original vision) the public, NGOs, UNRWA, and private health care providers and players. The objectives behind implementing an HIS in the Palestinian Territories are as follows:

- Integrate health care record systems.
- Improve governance planning, administration, and management of health systems.
- Improve the efficiency of health service delivery, both personal care and public health services.
- Develop a population health care Database.
- Facilitate monitoring and evaluation of health trends.
- Data for decision-making.

The shift to a computerized system is a major reform process that would transfer the use from paper filing to and automated computerized system. Along with the resistance of change, health professionals and administrators are faced with the question of who has rights to this data and what the legal status is of computer generated documents.

The HIS is designed to be inclusive of clinical standards and protocols, patient records, MOH personnel files, staff schedules, job descriptions, comprehensive financial information, cost of services, pharmaceutical stock information, equipment information and preventative maintenance schedules, and a referral system. There is a need to productively utilize the data generated from HIS for decision making and provide guidelines related to user access and privileges that would maintain process flow and privacy of patient information. Due to the flow of information there is a debate about who has rights to access the database, which in turn creates privacy rights issues and legal and/or ethical concerns.

While addressing the patient's privacy rights, the said consultant will also look at the management of systems in the Neonatal Intensive Care Units (NICU) and assess the current practices within the unit. This assessment will demonstrate the areas where guidelines can be created in the management and patient safety of the NICU.

III. Objective and Result of this Consultancy

There are two main objectives of this consultancy. The first objective of this consultancy is to assess the current role HIS is taking in management and decision making, and to create a framework consisting of an eHealth policy framework for how to address patient and employee privacy rights. In this manual, the consultant will also include guidelines for user rights and privileges based on their role at MOH, maintaining the processes' flow and patient privacy.

The second objective is to work alongside local short-term technical assistance (STTA) consultants in their work in the Neonatal Intensive Care Units (NICU) at various MOH hospitals and aid them in creating guidelines for the NICU.

IV. Specific Tasks of the Consultant

Under this Scope of Work (SOW), the Consultant shall perform, but not be limited to, the specific tasks specified under the following categories:

- A. *Background Reading Related to Understanding the Work and Its Context.* The Consultant shall read, but is not limited to, the following materials related to fully understanding the work specified under this consultancy:
 - Year 4 Annual Implementation Plan.
 - Most recent Project quarterly report.
 - WHO Assessment.
 - WHO Legal Framework for Privacy Issues in eHealth.
 - 2011-2013 MOH Health Strategy.
 - Palestinian Public Health Policy Law.
 - Palestinian e-Government Strategy.

B. *Background Interviews Related to Understanding the Work and Its Context.* The Consultant shall interview, but is not limited to, the following individuals or groups of individuals in order to fully understand the work specified under this consultancy:

- Dr. Jihad Mashal, Deputy Chief of Party – Technical Programs.
- Abdulhamid Qusrawi, HIS Manager.
- Dr. Daoud Abdeen, Primary Health Care (PHC) Director.
- Project HIS Team.
- Bashir Barghouthi, MOH Liaison Consultant.
- Relevant MOH counterparts.
- NICU STTA consultants.

C. *Tasks Related to Accomplishing the Consultancy's Objectives.* The Consultant shall use his/her education, considerable experience and additional understanding gleaned from the tasks specified in A and B above to:

The consultant will work in various sites to assess the following; whereas the findings will be applied to all facilities under HIS at a later stage:

- **Task 1:** Develop an eHealth policy framework with set guidelines to give user permissions based on their role; adopted from the World Health Organization (WHO) legal framework for privacy issues in eHealth and international best practices.
 - Assess the current privileges and access rights given to users at HIS facilities.
 - Consult with key MOH personnel.
- **Task 2:** Conduct a workshop for key stakeholders to present findings to create a consensus document on HIS-generated data.
- **Task 3:** Produce NICU guidelines in (e.g., IPC) pending conversation with Dr. Khammash.

V. Expected Products

Within three days of the Consultant's first day of work, the Consultant should provide the methodology for successfully completing the work (i.e., Methodology Template). The substance of, findings on and recommendations with respect to the above-mentioned task shall be delivered by the Consultant in a written report, policy statement, strategy, action plan, etc. for submission to USAID (using Project-provided STTA report template). A draft of this report is due no later than 3 business days prior to the consultant's departure (unless otherwise specified) and final no later than 7 business days after the consultant's departure. Please note that USAID requires a debrief to be scheduled prior to your departure. You will find a list of debrief topics in the STTA Methodology template to cover with your team leader before you meet with USAID.

The reports shall include the following:

- Draft methodology (specialized user manual) for using HIS reporting tool at different levels, identifying specific reports and their purpose.

- Assessment results of current methodology in granting and revoking user rights and privileges.
- Methodology for granting and revoking user rights and privileges while adopting WHO legal framework for privacy issues in eHealth.
- Consensus document concerning the privileges and usage for HIS-generated data.
- eHealth Policy Framework.
- NICU Guidelines (to be defined later).

VI. Timeframe for the Consultancy

The timeframe for this consultancy is on or about 5/20/2012 and will conclude on or about 12/31/2012. The consultant will be working in country (June 3 – July 19), however may be assigned up to five days of remote work as needed.

VII. LOE for the Consultancy

Total days of level of effort (LOE) estimated at 48. For the first visit the days of level of effort are estimated to be three days for travel, up to 40 days for work in West Bank, and up to 5 days of remote work.

VIII. Consultant Qualifications

The Consultant shall have the following minimum qualifications to be considered for this consultancy:

Educational Qualifications

- Medical degree, with specialization in research in related field or equivalent in experience.

Work Experience Qualifications

- Shall be a currently licensed physician in good standing.
- Minimum of three years of work in specialized medicine.
- Extensive experience in international health and development, with preference of knowledge of the Palestinian Healthcare System.
- Knowledge of Arabic Language is preferred.
- Excellent communication and teaching skills.
- Experience with international standards development.
- Familiarity with USAID and international experience.
- Fluency in written and spoken English.

IX. Other Provisions

This SOW document may be revised prior to or during the course of the assignment to reflect current Project needs and strategies.

ANNEX B: ASSIGNMENT SCHEDULE

June 5, 2012	Meet with Project HIS team regarding consultancy
June 6, 2012	Visit Rafidia Hospital (Nablus)
June 8, 2012	Phone conference with Mr. Bill Phillips, CTO University Health System, regarding their HIS and privacy issues
June 14, 2012	Meet with representatives of Dimensions, the technical implementer of the HIS
June 20, 2012	Meet with Project personnel to plan for consensus building activity
July 16, 2012	Workshop: Consensus Building for eHealth Privacy Policy (<i>agenda below</i>)

Meeting to Build Consensus for eHealth: A Framework Policy for Patient Privacy

Location: City Inn, Al Bireh

Date: July 16, 2012

Agenda:

- 8:30 – 9:15** Registration
- 9:15 – 9:30** Opening: *Dr. Jihad Mashal*
- Introduce attendees
 - State general purpose of meeting
- 9:30 – 10:00** Overview of Health Information System (HIS) Aspects Affecting Privacy & Confidentiality: *Dimensions Healthcare*
- 10:00 – 10:30** Overview of eHealth: *Dr. Harry Gunkel*
- Review of framework policy document
 - Objectives of meeting
- 10:30 – 11:00** **Break**
- 11:00 – 11:15** Introduce Small Group Work: *Tamara Tamimi*
- Methodology
 - Present case scenarios to entire advisory group with brief commentary on purpose of each
- 11:15 – 12:00** Small Group Work
- 12:00 – 1:00** **Lunch**
- 1:00 – 2:30** Small Group Presentations: *Knowledge Management*
- 2:30 – 3:00** **Break**
- 3:00 – 3:30** End of Day Summary and Next Steps
- 3:30 – 4:00** **Wrap-up**

ANNEX C: CONSULTANT CV

Personal

Education and Training

- High School Diploma: Alamo Heights High School, San Antonio, TX, 1966
- **B.A.** University of Texas at Austin, 1970, Summa cum laude, Zoology
- **M.D.** University of Texas Medical School at San Antonio, 1974
 - Pediatric Residency: Columbus Children’s Hospital, Columbus, OH, 1974-’75
 - Pediatric Residency: Bexar County Hospital District, San Antonio, TX, 1975-’77 (Chief Resident 1976-’77)
 - Neonatal-Perinatal Medicine Fellowship, Bexar County Hospital District, San Antonio, TX, 1977-’79
- **M.A.P.M.** (Master of Arts in Pastoral Ministry) Seminary of the Southwest, Austin, TX; May 2008
- **Certificate** in TESOL/TEFL. International TEFL Teacher Training. December 2010

Professional Experience

- Short-term Consultant, Chemonics International, for US AID Palestinian Health Sector Reform and Development Project (Flagship Project), April 2011 – present
 - Provide mentoring for physicians in pediatrics in selected facilities of the Palestinian Ministry of Health (MoH)
 - Provide technical assistance and support for pediatric programs and services in MoH facilities
 - Provide technical assistance and oversight for program development in pediatrics

- Plan and implement data collection to assess the success of interventions, including developing appropriate tools for Monitoring and Evaluation (M&E)
 - Provide technical assistance in developing framework for privacy and confidentiality in use of the Health Information System.
- Advisor to the Medical Director, Chemonics International, for US AID Palestinian Health Sector Reform and Development Project (Flagship Project), June 2010 – September 2010
- Short-term Consultant, Chemonics International, for US AID Palestinian Health Sector Reform and Development Project (Flagship Project), February 2010 – May 2010
- Part-Time Instructor, Bethlehem University Nursing Program in Qubeiba, June 2008 – present
- Volunteer for Mission, US Episcopal Church, assigned to Diocese of Jerusalem, Nov 2007 – Feb 2009
 - Provide administrative support to health care facilities of the Diocese
 - Provide technical assistance and mentoring to health care facilities of the Diocese
 - Provide assistance in program development for health care services in the Diocese
 - Provide communication and logistical support for overseas partners
- Retired Status (USA) January 2006
- United States Food and Drug Administration, Silver Spring, MD, 2003-2006
 - Medical Officer, Division of Pulmonary and Allergy Products
 - Review, analyze, summarize data relating to the safety and efficacy of pharmaceutical drug products for diseases of the respiratory and allergic systems
- University of Texas Health Science Center, Department of Pediatrics, San Antonio, TX, 1995-2003
 - Associate Professor, Division of Neonatology; Director of Clinical Research
 - Provide clinical care in normal newborn nursery
 - Prepare and write grant proposals
 - Direct clinical research projects
 - Teach residents and medical students
 - Committee work, including Institutional Review Board and Admissions Committee
- Ross Laboratories Division of Abbott Laboratories, Columbus, OH, 1985-1995

- Director of Clinical Research
 - Coordinate and supervise clinical activities related to development of pharmaceutical products
 - Directed multicenter clinical trials in US and Europe
 - Co-authored scientific publications in peer-reviewed professional journals
- St. Francis Medical Center, La Crosse, WI, 1983-‘85
 - Director of Neonatal Intensive Care Unit
- Cedars-Sinai Medical Center, Los Angeles, CA, 1979-1983
 - Staff Neonatologist
 - Director of High-Risk Infant Follow-up Clinic

Licensure and Certification

- License E2592, Texas Medical Board, Expires 11-30-2012
- Board Certified, American Board of Pediatrics, 1979
- Sub-board Certified, Neonatal-Perinatal Medicine, 1979

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Honors and Awards

- Phi Beta Kappa, 1970, University of Texas at Austin
- Alpha Omega Alpha, 1973, University of Texas Medical School at San Antonio
- Hal Brook Perry Distinguished Alumnus Award, Seminary of the Southwest, September 2010

Volunteer and International Experience

- Volunteer in various activities, Occupied Palestinian Territories, February 2009 – February 2010

- Volunteer for Mission, Episcopal Church USA, assigned to Episcopal Diocese of Jerusalem, November 2007 – February 2009
- Volunteer with San Antonio homeless shelter, Jan 2007 – Oct 2007
- Volunteer pediatrician, Volunteer Clinic of Austin, TX, January 2007 – October 2007
- Volunteer with Columbus AIDS Task Force, Columbus, OH, 1985-1988
- Work-related travel to United Kingdom, Sweden, Saudi Arabia, Kuwait
- Personal travel to UK, France, Germany, Italy, Belgium, Netherlands, Austria, Switzerland, Ireland, Greece, Mexico, Kenya, Israel
- Technical Exchange Program, People to People International, to People's Republic of China, South Korea, Japan, Hong Kong

ANNEX D: BIBLIOGRAPHY OF DOCUMENTS COLLECTED AND REVIEWED

- D1. Beauchamp TL, C. J. (2001). *Principles of Biomedical Ethics*. Oxford: Oxford University Press.
- D2. Ministry of Health, Palestinian National Authority 2010. *Palestinian National Health Strategy 2011-2013: Setting Direction – Getting Results*. Ramallah.
- D3. Policy Engagement Network. (2010). *Electronic Health Privacy and Security in Developing Countries and Humanitarian Operations*. London: London School of Economics.
- D4. World Health Organization. (2012). *Legal frameworks for eHealth*. Geneva, Switzerland: World Health Organization.

ANNEX E: LIST AND COPY OF MATERIALS DEVELOPED AND/OR UTILIZED DURING ASSIGNMENT

- E1. Framework for eHealth Privacy and Confidentiality
- E2. Privacy Policy Manual for the HIS
- E3. STTA Methodology