

REVIEW OF REPRODUCTIVE HEALTH RESEARCH STUDIES IN LEBANON

2000-2002

Study Conducted by

Faysal El-Kak, M.D.
Consultant, National Reproductive Health Programme

Forward

During the 2000-2002 period, the United Nations Population Fund (UNFPA) supported the Government of Lebanon, through the Ministry of Public Health and the Ministry of Social Affairs, in the undertaking of several studies related to Reproductive Health in Lebanon, covering situation analysis, needs assessment and socio-cultural research. This publication represents one of the following eight studies:

- Review of Reproductive Health Concepts in Medical and Paramedical curricula in Lebanon. 2000
- Mapping of Primary Health Care Centers in Lebanon. 2000
- Review of Reproductive Health Research in Lebanon. 2000-2002
- Situation Analysis of Reproductive Health in Lebanon. 2001
- Information, Education, and Communication Priorities in Reproductive Health in Lebanon. 2001
- Clients' Perception of Reproductive Health Services Provided in Selected Clinics in Lebanon. 2001
- Situation Analysis on Occupational Hazards and their Impact on Reproductive Health in Lebanon: A Survey for Policy Development. 2001
- Equipment Utilization Review Study in Reproductive Health Settings. 2002

The aim of these studies is to make available substantive information and data on the current situation in reproductive health at the levels of services, human resources, awareness and information dissemination, commodities, clients' satisfaction, research, and policy development. The findings and recommendations of these studies constitute key inputs to address needs and gaps, to improve the quality of services and of information, and to formulate policies and strategies.

Undertaken by national experts, the studies also benefited from substantive contributions from a number of people and institutions whose assistance is gratefully acknowledged. Particular appreciation is expressed to the Reproductive Health teams at the Ministry of Public Health (MOPH) under the leadership of the Director General Dr Walid Ammar, and at the Ministry of Social Affairs (MOSA) under the leadership of the Director General Ms Nimat Kanaan. Special thanks also go to the World Health Organization (WHO) for its technical input, to the International Labor Organization (ILO) for its technical and financial contribution, and to the United Nations Foundation (UNF) for its financial support.

Yves de San
UNFPA Representative, Lebanon
2002

Note: The views and opinions expressed in these reports are those of the authors and institutions, and do not necessarily reflect those of the United Nations Population Fund (UNFPA) and/or relevant funding, implementing and executing partners.

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List of Acronyms

AIDS.....	Aquired Immuno Deficiency Syndrome
AUB.....	American University of Beirut
AUB-MC.....	American University of Beirut-Medical Center
BWELL.....	Bettering Women's Conditions in Labor and Delivery in Lebanon
CFR.....	Cohort Fertility Rates
CI.....	Confidence Interval
CPPR.....	Cohort Parity Progression Ratios
CPR.....	Contraceptive Prevalence Rate
EOC.....	Emergency Obstetric Care
EPDS.....	Edinburgh Postnatal Depression Scale
FHS.....	Faculty of Health Sciences
GHQ.....	General Health Questionnaire
GOL.....	Government of Lebanon
HB.....	Hepatitis B
HCP.....	Health Care Providers
HIV.....	Human Immuno-Deficiency Virus
ICN.....	Intensive Care Nursery
ICPD.....	International Conference on Population and Development
IEC.....	Information, Education, and Communication
IUD.....	Intra Uterine Device
KABP.....	Knowledge, Attitude, Behavior, and Practices
KAP.....	Knowledge, Attitude, and Practices
LFGPA.....	Lebanon Family Planning Association
LU.....	Lebanese University
MOPH.....	Ministry of Public Health
MOSA.....	Ministry of Social Affairs
NAP.....	National AIDS Program
NCPNN.....	National Collaborative Prenatal Neonatal Network
OCP.....	Oral Contraceptive Pills
PAPCHILD.....	Pan Arab Project for Mother and Child
PHC.....	Primary Health Care
PHS.....	Population and Housing Survey
RH.....	Reproductive Health
RH/FP/SH.....	Reproductive Health including Family Planning/Sexual Health
RHWG.....	Reproductive Health Working Group
RSH.....	Reproductive and Sexual Health
RTI.....	Reproductive Tract Infections
SIBER.....	Surveillance and Interventions for Behavioral Risk Factors in Adolescents

STI..... Sexually Transmitted Infections
TB..... Tuberculosis
TBA..... Traditional Births Attendants
TFR..... Total Fertility Rate
UNFPA..... United Nations Population Fund
UNICEF..... United Nations Children'd Fund
WHO..... World Health Organization

Executive Summary

The Reproductive Health (RH) sub-programme for Lebanon clearly emphasizes and stresses the need for socio-cultural and operations research. This research should aim at improving quality of RH services and their utilization. As such, the sub-programme document calls to identify priority RH research areas, and to conduct studies to assess efficiency, examine utilization patterns of current services as well as determine satisfaction levels of service users. It also recommends conducting socio-cultural research on attitudes of men, women, youth and adolescents toward RH issues to compliment the existing research in this area.

In an attempt to re-define research priorities, and to identify research needs, it was decided to compile all existing RH-related research available over the past 12 years, categorize it by topic, and analyze the findings as they relate to more understanding of the RH status in Lebanon. Also, areas of duplication and absent research topics will be identified. In this endeavor, and with this prevailing situation in the background, the review will attempt to look at all available completed and ongoing research work that tackles RH issues as defined by the Programme of Action of the International Conference on Population and Development (ICPD), Cairo, 1994, and will try to reflect on this work and on future areas of research.

This review comes in two parts. The first part is a compilation of all the available research on RH, completed and ongoing. The second part of the review reflects on the compiled work in terms of its type, agenda-specificity, application, and novelty, and will suggest recommendations for future research.

In this document, all the available and accessible RH research work was reviewed and classified. Some of the research work may have not been included, being either non-disseminated or not registered, or even unfinished.

This work covers most of RH topics and it sets grounds for different types of investigation and analysis. The evolving nature of RH concept generates areas of research that deserve prompt consideration and demand lots of efforts. This puts sub-programme managers and stakeholders and RH researches face-to-face with several challenges that constrain the national sub-programme. A lot of these challenges are mentioned in this review necessitating undertaking of well-planned actions and steps. Some of these actions and measures are related to initiation of research committee from all involved sectors to identify and prioritize areas of research, advocacy for RH matters among researchers dealing with RH-related topics to encourage formation of research teams, and creation of a mechanism to assess the impact of the research on the community.

I. Introduction

Reproductive Health (RH) issues are deeply rooted in the biomedical dimensions, yet their origins often lie in human behavior that is at the heart of socio-cultural dimensions. Socio-cultural research has a major contribution to make to our understanding of consequences of reproductive ill health. It brings a wide array of qualitative and quantitative tools that can be used to gain insight into reproductive health issues. It also brings a perspective that stems partly from the consideration that technology, interventions and services should be modified to suit people, rather than the other way around. The reproductive health sub-programme for Lebanon clearly emphasizes and stresses the need for socio-cultural and operations research. This research should aim at improving quality of RH services and their utilization. As such, the RH sub-programme document for the years 1997-2001 with the Government of Lebanon (GOL) - implemented by the Ministry of Public Health (MOPH) and Ministry of Social Affairs (MOSA)- calls to identify priority RH research areas, and to conduct studies to assess efficiency, examine utilization patterns of current services as well as determine satisfaction levels of service users. It also recommends conducting socio-cultural research on attitudes of men, women, youth and adolescents toward RH issues to compliment the existing research in this area.

In its attempt to improve the quality of care that should accompany the implementation of integrated RH services, the RH sub-programme document also recommends carrying research aimed at improving quality and ensuring safety of these services, taking into account women's needs and perceptions when organizing these services. Research should also focus on measuring programme impact especially for the new initiatives.

The recommendations inherent in the document had set grounds for launching research in certain priority areas in reproductive health matters. Though most likely these recommendations were not followed, other RH sub-programme constraints had contributed to lack of research agenda that will direct and guide the efforts and interests of RH researchers in various arenas. Fortune enough, the establishment of the national RH sub-programme supported by United Nations Population Fund (UNFPA) had prepared and contributed to the foundation of few research groups and initiatives that will later on produce most of the available RH research. Some of these groups are concerned with different RH topics like safe motherhood, reproductive morbidity, and men's role in RH.

II. Objectives

At the time when the sub-programme document was prepared, there was a serious lack in information related to situation analysis, needs assessment, and policy matters regarding RH status in Lebanon. Concurrently, ongoing RH-related research activities, albeit minimal, were not coordinated and disseminated nation wide and among various academic institutions. This situation would undoubtedly affect any efforts undertaken towards the establishment of a research agenda that will help accomplishment of the sub-programme objectives.

In an attempt to re-define research priorities, and to identify research needs, it was decided to compile all existing RH-related research available over the past 12 years, categorize it by topic, and analyze the findings as they relate to more understanding of the RH status in Lebanon. Also, areas of duplication and absent research topics will be identified. In this endeavor, and with this prevailing situation in the background, the review will attempt to look at all available completed and ongoing research work that tackles RH issues as defined by the Programme of Action of the International Conference

on Population and Development (ICPD), Cairo, 1994, and will try to reflect on this work and on future areas of research.

III. Methodology

This review comes in two parts. The first part is a compilation of all the available research on RH, completed and ongoing. Each work will be listed and briefed under a relevant RH heading, and will be summarized in a way to show its purpose, methodology, results, and conclusion or recommendation. It will be noted if the work is published, unpublished, or ongoing. Special note will be made on the compiled work of students and graduates in various disciplines of reproductive health, when available.

In order to do that, research groups, libraries, and publication documents of various universities and relevant institutions will be contacted and accessed. In addition, meetings with researchers will be conducted to discuss research agendas.

The second part of the review reflects on the compiled work in terms of its type, agenda-specificity, application, and novelty, and will suggest recommendations for future research. Research restrictions will be reviewed along with possible areas of duplication in the research reviewed if any. This review does not in any mean pretend to judge the quality of contents of these works, but it attempts to provide different researchers and other interested groups with database on RH research in the context of the national RH sub-programme objectives.

IV. Research Topics

The research topics are compiled under five headings: Sexually Transmitted Infections including HIV/AIDS (STIs/HIV/AIDS), Reproductive Morbidity, Safe Motherhood, Family Planning and Fertility, Youth, Gender and Information, Education and Communication (IEC), miscellaneous RH Topics, and others.

IV.1. STI, HIV, and AIDS

The World Health Organization (WHO) being an executing partner of the UNFPA-supported RH sub-programme was responsible for executing the operations of the research component. It has supported and sponsored several research activities, while other institutions carried out their own research on reproductive health issues, some of which were also assisted by WHO.

Starting 1992, the National AIDS Control Program (NAP) in collaboration with the WHO sponsored a series of Knowledge, Attitude, Behavior, and Practice (KABP) surveys related to HIV/AIDS in Lebanon. The main aim of these surveys is to describe and examine the knowledge, attitudes, behavior, and practices of different populations in the Lebanese community to be able to devise proper intervention models, and to help minimize spread of HIV/AIDS. This series was designed, implemented and reported by a WHO consultant (Dr Abdo Jurjis). The surveys will be presented by the title of the studied group.

IV.1.1. The Refugee Camps (1992)

This survey involved interviewing around 1500 persons from 500 randomly selected families in 7 large refugee camps. It was analyzed with respect to knowledge, attitudes, and practices

related to HIV/AIDS according to age group, sex, occupation, marital status, and level of education.

Results show that in assessing the level of knowledge, generally the refugees were still confused about the true nature of AIDS disease with males being better knowledgeable than females (less so in widows and divorced), and the younger better than the older. However, there was good level of knowledge regarding modes of transmission and high-risk behavior, despite low level of knowledge about degree of infectivity. Just above one third of the sample realized that there is no cure. A proportion ranging from 1/3 to 1/2 of the sample is not clear about modes of non-transmission like kissing, toilet seats, hand shaking etc.

The study concludes that the majority of the interviewed believe that AIDS is a serious problem in camps, but few of them will sympathize with AIDS victims, and they are willing to take all the necessary measures and practices to prevent its transmission. Nevertheless, the use of condoms for protection was disregarded due to possibility of breakage. A good percentage mentioned abstinence and advised health education. Mass media was the main source of information. The study recommends special awareness and counseling programs for this community to help them deal better with this problem.

IV.1.2. The Laboratory Technicians (1993)

This survey aims for an initial assessment of the KAP of laboratory technicians concerning HIV/AIDS bio-safety precautions during testing. The methodology involved using 59 observation lists and 115 questionnaires for technicians covering most of the labs in Lebanon testing for HIV.

Results reveal that regarding HIV/AIDS knowledge, technicians got their information from medical journals, books and physicians. Regarding the knowledge of safety measures and precautions, about 15% of technicians were aware of the presence of a universal precaution list, and about 1/3 did not know about modes of HIV transmission. Worrying enough, a proportion of the sample between 20-50% of technicians is not practicing proper measures regarding disposal of infected material, wearing gloves, and use of special boxes. The majority requested training courses and workshops. The study recommends that the NAP should respond to the needs of those technicians by providing them with skills and training.

IV.1.3. The Nurses (1993)

This study aims at assessing KAP of nurses in relation to patient care and infection in the various health settings. Methodology involved surveying a total of 314 nurses with a questionnaire answered by an interview. The sample is randomly selected, and representative of all the Muhafazats. Results imply that most of the nurses were overloaded with patient's care, and around 18% had a university level affected gravely their learning and continuous education as well as educating patients and their families. Although nurses seemed to know very well the different modes of transmission of the HIV/AIDS and the risk of symptomatic carriers, they still have misconceptions about the possible transmission by casual contacts. This is affecting negatively their attitude towards strict application of universal precautions to all patients. In fact, nurses practice universal precautions only on HIV positive patients. They falsely agree (97.5%) that the success of universal precautions depends on the health personnel knowledge of HIV status of the patient. It seems that they miss the basic philosophy of universal precautions. Regarding their perception of AIDS, the majority of nurses expressed certain thoughts, feelings, and opinions that are not consistent with international health standards and instructions; nevertheless they would report AIDS cases to health registry officials which is cooperative in this case. The study also revealed that nurses were not clear about the path physiology of the disease, its various stages and its complications.

The study concluded that the attitudes of nurses towards AIDS patient reflected a lot of discrimination at the basis of HIV status and affected seriously the approach and the performance of procedure and care. This might be related to the need of nurses for more

appropriate information on the AIDS disease, as their current sources of information are audio-visual mass media, and journals and workshops for those in university settings. A lot of efforts should be done to assert to nurses the basic preaching and education concerning AIDS disease and patients. It remains an essential matter to act to raise awareness and improve infection control in clinical settings.

IV.1.4. The Secondary School Students (1993)

This survey is looking into the KABP of secondary school students, stressing the need for adequate formulation of health education programs on AIDS at schools. Methodology included 2235 students randomly selected from private and public secondary school, representing all grades.

Results revealed the need for proper AIDS information provision for students. Certain variables identified some suitable means that are culturally and socially widespread to help launch an effective AIDS program. It was concluded that school teachers (biology) must receive adequate capacity building on AIDS, as they represent a good source of information for students. TV could be properly used to channel scientific information and suitable guidance to students nation-wide. Future campaigns for students in curricular and extra-curricular activities should stress issues related to HIV testing, transmission, and their effect on reproductive health. The need to decently deal with AIDS victims should be emphasized.

IV.1.5. The Out-of-school Youth (1994)

This study aimed to assess the educational needs of the out-of-school youth using the Focus Group Discussion sessions. Results show that the level of knowledge of this "hi risk" group was not satisfactory, as their knowledge of causes, stages and modes of transmission, in addition to preventive measures of AIDS was confused. This insufficient and confusing knowledge had seriously affected the sexual practices of the sample studied, where the majority engaged in unsafe sexual and physical (skin piercing) practices. These findings entitled the investigators to adopt an educational campaign (brochure, educational sessions, and condom distribution) that was found to impact remarkably the knowledge, attitudes, and behaviors of the out-of-school youth.

The investigators recommend that out-of-school youth needs particular attention concerning clear information provision, easy access to condoms, information, and counseling, and available job opportunities.

IV.1.6. The Students Officers (1995)

This study tried to look into the KABP of students-officers, and consequently to intervene by providing educational materials and sessions, and assess outcome. The methodology involved Focus Group Discussions revealed a group at hi risk regarding insufficient knowledge and indulgence in unsafe sex practices. After an intervention in the form of a booklet containing an educational material followed by a group discussion (30-40 persons), the response was positive and the sample studied expressed they know better and are willing to know more and to adopt safer behaviors. The author calls upon making educational sessions more regular and sustained by reinforcing booklets and group discussions and relevant illustrations.

IV.1.7. The General Population (1996)

This national study assessed the prevention efforts aimed at reducing the rate of HIV transmission through sexual intercourse using selected indicators. The methodology included a representative sample of 1504 respondents, age 15-64 surveyed in relation to KABP. The sample was characterized by the presence of high-risk indicators regarding non-regular multiple partners, early sexual activities, and unsafe sexual practices.

Data show that this study reflected remarkable improvement in awareness and knowledge concerning the various aspects of the disease and its prevention. In addition, the overall rates of

misconceptions decreased, yet many still believe that HIV/AIDS carriers always show symptoms. Despite more availability and easier access to condoms their rate of use is still relatively low. This lack of condom use in the face of relatively high percentage of non-regular partners could present a risky window for potential HIV transmission. The perception of risk, attitudes and behaviors of people towards HIV/AIDS patients although progressed from 1991, more work is needed to introduce positive changes in lifestyles, and adoption of safer sexual behavior.

The researchers recommend that the future work in the prevention of HIV transmission in Lebanon should stress upon: repeat essential prevention messages, address misconception, issue of symptomatic HIV positive, promote safer sexual practices, and focus on the peripheral zones.

Jihan Tawileh (1993). Females and HIV infection in Lebanon 1988-1993.
(from the National AIDS Control Programme).

From 1988 to 1993 around 205 individuals were reported to be infected with HIV. Out of these, 16% are females. They seem to have contacted the disease primarily from heterosexual contact; intravenous drug abuse was responsible for less than 10% of the cases. The author recommends immediate interventions as there are no available data on safe sex in Lebanon, and the number of unwed mothers is almost unheard of in addition to expected rise of prostitution.

Elie Karam (1993). Women and AIDS.
(in an Expert Report on Substance Abuse in Lebanon, presented to WHO).

This report contains a special reference to women and AIDS. It notes that of the 205 individuals HIV infected individuals reported in Lebanon from 1988-1993, 16% are females. They seem to have contacted the disease primarily from heterosexual contact; intravenous drug abuse was responsible for less than 10% of the cases. The report recommends immediate interventions as there are no available data on safe sex in Lebanon, and the number of unwed mothers is almost unheard of in addition to expected rise of prostitution.

Ghada A. Nuwayhed (1997). AIDS and Unprotected Sex: Knowledge, Attitudes, Beliefs and Behaviors of Students at the American University of Beirut.
(thesis dissertation for a Master of Science in Population Studies).

The purpose of this study is to investigate AIDS-related knowledge, attitudes, beliefs and behaviors of students at the American University of Beirut. It also aims to identify the relationship between condom use, as a protective measure against AIDS, and elements of the Health Belief Model, and with individual, parental, and general characteristics.

The method of investigation was an 8-page questionnaire distributed through campus mail. Four hundred and sixty seven subjects were drawn from a stratified student population enrolled in the 1995/1996-fall semester on a simple random basis. A total of two hundred and eighty-eight questionnaires were received. In general, the respondents were single, Lebanese, heterosexual, and almost evenly distributed between males and females belonging to middle and high class. The average age was 20.91 years. Almost 50% of respondents claimed to be sexually active with 68.1% of who are condom users.

The respondents were knowledgeable about AIDS and expressed positive attitude towards AIDS and condoms. The levels of perceived severity of and susceptibility to AIDS were moderate. Although they perceived condom use as an effective method against AIDS, several barriers to their use were reported mainly: unpleasant to use, reduce sexual pleasure, prone to tear, and partner disagreement to its use. On the other hand, reading or hearing about AIDS, or discussing AIDS with family members, physicians, or friends motivated students towards condom use. Students also expressed their willingness to change risky practices

related to AIDS by selecting and limiting partners, condom use, and avoiding sex with high risk groups. Compared to other variables, determined perceived severity of and susceptibility to AIDS have stronger predictive power of condom use. The study recommends educational campaigns on proper condom use and adequate sex education and its role in minimizing vulnerability of young adults to AIDS.

National AIDS Program (2001). Prevalence of Sexually Transmitted Diseases in Women Attending Gynecology/Obstetrics Clinics in Lebanon.

This study aims to determine the prevalence, etiology and pattern of STI among women attending obstetrics and gynecology clinics in greater Beirut area, as well as the anti-microbial susceptibility pattern of some STI pathogens.

A total of 462 non-pregnant aged 15-55 years were interviewed and examined after informed consent was filled. Laboratory specimens were collected (Pap smear, end cervical and vaginal swabs, and blood sample) and tested for candida, motile trichomonads, N. gonorrhoea, Chlamydia, H. ducreyi, HIV, and HBS Ag.

Though vaginal discharge was found to be the major complaint, chlamydia (14.3%) and candida (13.6%) were highly prevalent, whereas N.gonorrhoea, H.ducreyi, Syphilis and HIV had zero prevalence in this sample.

Chlamydia and candida were more prevalent among younger age groups and divorced females. Women with positive laboratory tests of Chlamydia were more likely to be diagnosed with cervical discharge, as compared to women with candida who are more likely to present with vaginal discharge. The majority of those women had normal Pap smears.

The authors recommend larger studies involving both sexes that will allow assessing susceptibility in the country and help planning for primary prevention and care.

IV.1.8. Ongoing Research

Adnan Mroueh and Muheiddine Seoud (2000). Prevalence of Human Papilloma Virus in Lebanon. (from the Department of Obstetrics and Gynecology, Faculty of Medicine, American University of Beirut).

This study aims to look at the prevalence of Human Papilloma Virus in Lebanon by examining registers and charts.

IV.2. Reproductive Morbidity

Muheiddine Seoud, Ali Khalil, John Jamal, and Faysal El-Kak (1994). Pap Smear at the American University of Beirut - Medical Center, 1994: How Good is our Screening?

(From the Department of Obstetrics and Gynecology, Faculty of Medicine, American University of Beirut).

This study aims to look at the correctness of the technique used in collecting Pap smears and to assess their reports. The methodology involved reviewing all 3000 Pap smears done over a period of one year (1993-1994) and examined the means of reporting and the results. Results show that the percentage of positive findings is very low and some means of reporting are not satisfactory. The authors urge specialists to adapt to standard guidelines in performing and reporting Pap smears.

Mary Deeb and Françoise Ghorayeb (1994). Who Goes for a Pap Test? Preventive Behavior among Women in Beirut, Lebanon.

(from the Faculty of Health Sciences, American University of Beirut).

This study aims to assess the preventive behavior among women in Beirut, Lebanon. In order to assess the reason for non-utilization, a questionnaire was designed that looks at the knowledge, attitudes, beliefs and behavior of women concerning the Pap smear test. In

addition, hospital-based data collection on cervical cancer was carried out in order to evaluate the seriousness of the problem in Lebanon. Results showed a low rate of preventive health services utilization, including Pap smear screening. The authors recommend encouraging women to use preventive services by working with health care providers and women themselves.

Mary Deeb, Françoise Ghorayeb, Tamar Kabakian, Joumana Yertzian, and Naji Aswad (2002). Measuring Gynecological Morbidity: Evaluating Two Data Sources from Beirut. (from the Faculty of Health Sciences and Faculty of Medicine, American University of Beirut). In Press, Health Care for Woman International.

The aim of this project is to attempt to strengthen the population laboratory database on reproductive health. For this purpose, the group launched two surveys in 1995 that addressed gynecological morbidities: a clinic based study and a hospital based one. Gynecological morbidity data from 779 ever-married women aged 15-49 who reported visiting a gynecologist in a population-based health interview in Beirut, Lebanon, were compared with data collected from 808 ever-married woman aged 15-49 years visiting private gynecologists clinics. These surveys aim to provide a more comprehensive picture of gynecological morbidities in Beirut in terms of women's perception of their symptoms, their health seeking behavior and their medically diagnosed conditions. This will enable researchers to identify the conditions that need to be targeted in prevention programs, specifically through the hospital based data, as well as the conditions that women need to be aware of.

Results of neither of data sources represent the actual prevalence of gynecological conditions among ever-married women aged 15-49 years in Beirut. Nevertheless, in the absence of any other source of information in the country, both data sources shed some light on the importance of certain reproductive health problems like, menstrual disturbances, lower reproductive tract infections, and infertility-related problems, from women's perspective as well as from clinic perspective.

The authors recommend the use of health service data provided a representative sample of providers can be identified, and health service use is high. They also recommend using this study indirectly to analyze medical procedures and assess the quality of reproductive health care.

Mary Deeb (ed.) (1997). Beirut: A Health Profile 1984-1994. American University of Beirut.

This study population is based on two population household surveys that were undertaken by the Faculty of Health Sciences, AUB in the city of Beirut in 1983-1984 and 1992-1993. These two surveys provide a unique longitudinal perspective in describing change overtime in health issues. In each household the respondent provided information on all permanent residents of the household,, the survey cohort data covered 1641 comprising a total of 6327 individuals. Morbidity information covered specific current ailments and chronic conditions ever experienced by members of the household. A good section in this study includes issues in reproductive and child health. The method used was based on the perceived morbidity reported by the respondent.

Regarding reproductive and child health section, this section addressed reproductive health through a three-dimensional framework including gynecological diseases and risks, successful childbearing, and reproductive choice. This is the first attempt in Lebanon trying to include reproductive gynecological morbidity indicators in a population-based survey. Use of health services and health indicators are analyzed in relation to selected socio-demographic indicators.

The findings point to a relatively high use of gynecological health services, albeit most of it non-preventive. Women's most frequently reported gynecological complaints were

inflammations (part of lower reproductive tract infections) and menstrual irregularities. The most commonly reported medical diagnosis resulting from visits to a gynecologist were conditions of the lower reproductive tract.

Concerning successful childbearing, it was found that among women, who delivered in the past 3 years, 94.8% had antenatal care and 92.4% had had hospital deliveries. However, the proportion having postnatal care was lower (59%). Concerning reproductive choice, overall contraceptive prevalence was around 61%, with women interviewed reporting 86% ever using. This represents higher rates of utilization compared to other countries Egypt and Tunisia. A comparison of maternal health care in Morocco and Tunisia, which used data from DHS (Obermeyer 93) revealed an effect of socio-economic factors, especially education and women's status, on the use of family planning methods. IUD was the most commonly used, followed by rhythm method and oral contraceptives. However, close to 40% are still using the traditional methods. It worth mentioning that the use of oral contraceptives dropped and the IUD rose in comparison to 83-84 and due to the fact that the population of 93-94 is older. Factors like desire for more children, undesirable side effects of contraceptives, inconvenience, irregularity of the menstrual cycle and others were behind not using the methods. This again warrants additional studies and interventions to cope with the unmet needs.

The findings of this study could have future implications for planning of health promotion activities and utilization of medical services.

Naji El-Saghir, Ziad Salem, Salim Adib, Kamal Bikhazi, and Phillip Issa (1997). Breast Cancer Screening: Recommendations and Controversies with Reference to Screening in Lebanon. (from the Departments of Internal Medicine, Surgery, and Radiology, Faculty of Medicine, and Faculty of Health Sciences, AUB).
In the *Lebanese Medical Journal*, 45, 206-211.

This is a review article attempting to provide a set of recommendations in breast cancer screening for the case of Lebanon, that are adopted from international and standard guidelines. In Lebanon there is no vital statistics available, and the authors report launching a major campaign to establish a national tumor registry. This includes the Lebanese Cancer Societies, Ministry of Health, Order of Physicians, and the main hospitals. The authors stress the importance of continuing medical education of our practicing physicians, as well as nurses to properly explain and perform breast examinations and recommend mammography-screening guidelines.

Nagi El-Saghir, Salim Adib, Amjad Mufarrij, Spiridon Kahwaji, Ali Taher, Phillip Issa, and Ali Shamseddine (1998). Cancer in Lebanon: Analysis of 10220 Cases from the American University Medical Center.
(from the Faculty of Medicine, Faculty of Health Sciences, AUB).
In *Lebanese Medical Journal*, 46(1): 4-11.

This study reviews and analyzes cancer cases in Lebanon. A total of 10220 cancer cases seen and recorded 1983-1995 in the American Hospital Tumor Registry were retrospectively reviewed. There were 5086 cancer cases in males with the 5 most common being: lung cancer, bladder, larynx, lymphoma, and leukemia. As for females, there were 5134 cases with the 5 most common being: breast, cervical, colo-rectal, lymphoma, and brain cancers. The average of age of females was relatively lower as compared to males

Francoise Ghorayeb, Mary Deeb, and Tamar Kabakian-Kasholian (1998). Differentials of Women's Perception and Medical Diagnosis of Reproductive Morbidity in Beirut.
(from the Faculty of Health Sciences, American University of Beirut).

The aim of this study is to examine the educational differentials between women's reports of signs and symptoms and physicians' diagnosis of gynecological morbidity. A total of 789

women visiting 27 private gynecological clinics in Beirut were interviewed. Unlike women's reports of symptoms of menstrual problems and infertility, reports of discharge, burning sensation, itching, and irritation were found to be in perfect agreement with the clinical diagnosis of Lower Reproductive Tract Infections. Moreover, the specificity level was lower among the low education group as compared to the high education group. These findings highlight the contribution of cultural variations in women's understandings of the nature of the condition, their endurance and health expectations.

Mary Deeb, Johnny Awwad, and Hanna Kaspar (1998). Bekaa Reproductive Health Study. (from the Faculty of Health Sciences and Faculty of Medicine, American University of Beirut).

This study is similar to "Giza Morbidity Study" and aims at investigating the prevalence of gynecological conditions and their risk factors, as well as understand women's perceptions of these morbidity conditions of health and ill-health as related to reproduction. A random sample of a total of 557 women aged 15-60, and residing in the village of Nabi Sheet were selected to participate in a variety of methods that included a detailed questionnaire, medical examination, and laboratory tests. A multi-disciplinary team of researchers based at the Faculty of Health Sciences and American University of Beirut-Medical Center undertook the study.

Preliminary analysis of results suggests surprisingly low levels of reproductive morbidity, outside genital prolapse, and despite high fertility (contrary to Giza). However, half the women studied were found to be suffering from any type of genital prolapse. Although contraceptive use was quite high, yet there still are women who do not use any of the most common methods (IUD and pills) due to side effects. It looks like there is a lack of appropriate contraceptive methods for elderly. There was a frequent mentioning of *ta'sib* and related problems, a concept, which is culture specific. It is expected that further analysis will shed light on several questions related to women's perception of health conditions and its matching with the diagnosis and patterns of health care utilization.

Carla Makhlouf Obermeyer, Françoise Ghorayeb, Robert Reynolds (1999). Symptom Reporting around the Menopause in Beirut-Lebanon. (from the Department of Population and International Health, Harvard University, 665 Avenue of the Arts, Boston, Monde Arabe 02115, USA and UNFPA, Amman, Jordan). In *Maturitas* 33, 249-258.

The aim of this study is to assess the extent to which women in Beirut suffer from symptoms in the course of the menopause transition, and to measure the medical management of menopause. A representative sample of 298 women were asked about their socio-demographic characteristics, life circumstances, general health, and reproductive health; questions about symptom management and lifestyle were also asked.

The study documents the frequencies of various symptoms associated with aging and menopause. The number of symptoms reported by respondents is negatively associated with employment, but other associations with socio-demographic variables are not significant. Smoking is found to be high in the study population and is associated with the occurrence of hot flashes, but its association with other menopausal symptoms is not significant. Over a third of the women seek help in dealing with the symptoms they experience, 15% use HRT, and 20% calcium supplements.

Ghada El-Hajj Fuleihan, Mary Deeb (1999). Hypovitaminosis D in a Sunny Country. (from Epidemiology and Biostatistics Department, Faculty of Health Sciences, and Internal Medicine Department, Faculty of Medicine, American University of Beirut). Letter to the editor in *The New England Journal of Medicine*, vol.340, no.23, 1840-1841.

The paper aims to measure vitamin D level in a group of rural women in Lebanon. Serum 25-hydroxyvitamin D and parathyroid hormone were measured in the serum of 465 women.

Results demonstrate that a substantial number of healthy young women in central Lebanon had vitamin D insufficiency in the summer. This might be explained by the lack of government program to supplement food, and by the cultural habits of women. Results underscore that it can also be endemic even in young women in sunny countries.

Abla M. Sibai (1998). *The Elderly in Lebanon: their Demographic, Socioeconomic, Social and Health Aspects.*
(from the Department of Epidemiology and Biostatistics, Faculty of Health Sciences, AUB).

The aim of this study is to provide a sound and scientific basis for governmental and non-governmental organizations to take appropriate actions and mobilize resources for the elderly in the right direction. The methodology utilizes data from different sources. It relied heavily on secondary in-depth analysis of the data of the "Population and Housing Survey" (PHS). The sample of this study is a national probability sample covering governates and cazas and consisted of around 70,000 households (10% of total population) covering demographic and socioeconomic characteristics, health status and social support of the elderly.

Results show an increase in the proportion of the elderly population in Lebanon, with females outnumbering males. Their socioeconomic profile showed increased self-sufficiency with age and engagement in labor with the advantages of living in an independent residence. However, there are striking gender gaps in widowhood affecting mostly elderly females who represent the most disadvantaged family profile. Regarding health profile and despite the limitations of the PHS data, elderly population suffers from serious morbid conditions and disabilities.

The authors recommend examining the current policies and services for the elderly and update them. They also recommend future research to evaluate the environmental and socioeconomic conditions of the elderly including clinical assessments and measurements.

Abla M. Sibai and May Baydoun (1999). *Elderly Lebanese Women in an Aging World.*
(from the Department of Epidemiology and Biostatistics, Faculty of Health Sciences, AUB).
In *Al-Raida* Special Issue, 16 (85), 11-21.

The aim of this study is to examine the socioeconomic and health characteristics of the elderly women in Lebanon. The methodology uses the Population and Housing Survey (PHS), to estimate the number of elderly and study their characteristics. The results show that the number of elderly women is increasing in Lebanon, unequally distributed among regions. They had greater life expectancy than elderly males (4 years). The wider the gender gap the more elderly women are expected to suffer from the consequences of widowhood, loneliness, major restructuring of family relationships and social roles, loss in socio-economic resources and decline in social support. As for health status and needs, the leading causes of morbidity remain chronic in nature and are usually associated with disabilities.

The authors recommend two types of investigative efforts: firstly, a thorough assessment of present resources including services and activities provided by the government, voluntary organizations and families; secondly, a thorough assessment of present and projected needs of the elderly in the community and in organizations. Such data will provide valuable information for health and social policy makers to plan interventions.

Monique Chaaya, Hillary Bogner, Joseph Gallo, Philip Leaf (2001). *Association of Gynecological Symptoms with Psychological Distress in Women of Reproduction Age: A Survey from Gynecology Clinics in Beirut, Lebanon.*
(from the Faculty of Health Sciences and the Faculty of Medicine, American University of Beirut). Submitted to the *Journal of Women's Health and Gender-Based Medicine*.
No previous research has investigated whether there is an association between psychological distress and gynecologic symptoms in the Arab world. We hypothesized that psychological distress

would be associated with both specific gynecologic complaints as well as psychosocial factors.

We carried out a cross-sectional study of women attending gynecology clinics in Beirut, Lebanon. Participants were women aged 18 to 49 years who were seeking health care from gynecologists affiliated with two general teaching hospitals in Beirut (n=355). Psychological distress was assessed using the General Health Questionnaire (GHQ). Asking women about presenting gynecologic symptoms assessed gynecologic complaints.

Women who visited the gynecologists for specific complaints for post-surgical follow-up, and those coming for insertion of loops or other services were more likely to be distressed than women coming for a general checkup ($\chi^2 = 9.466$, $p = 0.024$). About one in two women who reported abdominal pain or pain in the breast reported significant psychological distress. Only bleeding and infertility were not significantly associated with psychological distress.

A high proportion of women attending gynecology clinics for specific complaints expressed psychological distress. These findings highlight the importance of considering the psychological component of gynecological morbidity.

IV.2.1. Ongoing Research

Huda Zurayk, Faysal El-Kak, and Afamia Kaddour (2002). Reproductive Health: Perception of Women in the Suburbs of Beirut.

(from the Faculty of Health Sciences and the Faculty of Medicine, American University of Beirut).

This study is part of an urban health research involving: youth, elderly, household, women, and social capital. It aims to understand the perception of women in 3 suburbs of Beirut, regarding their reproductive health and mental health issues, their utilization of health services, and the costs of those services.

Faysal El-Kak, Afamia Kaddour, and Huda Zurayk (2002). Provider Perception on Sexuality and Childbirth.

(from the Faculty of Health Sciences and the Faculty of Medicine, American University of Beirut).

This study aims to look at the attitudes and skills of obstetricians/gynecologists concerning sexuality and sexual health issues of their clients, and how they deal with them (management and/or referral). It will also look at sources of the physician competencies through residency training and other post-doctoral training activities, and what resources they use to enhance their skills in the sexuality issues.

For this task, around 300 physicians will be interviewed all over Lebanon.

Muheiddine Seoud, Ali Khalil, Hanna Kaspar, Ghassan Azar, Ramiz Azoury, and Munir Nasr (2000). Vulvar Cancer in Lebanon.

(from the Department of Obstetrics and Gynecology, Faculty of Medicine, American University of Beirut).

This study is about examining the prevalence of vulvar cancer in Lebanon, and analyzing the profile of women with this disease.

Mary Deeb, Johnny Awwad, Joumana Yeretian, and Hanna Kaspar (2000). Low Prevalence of Reproductive Infections in a Rural Area in East Lebanon.

(from the Faculty of Health Sciences and the Faculty of Medicine, American University of Beirut). Resubmitted as a revised paper to *Bulletin of the WHO*.

The aim of the study was to determine the level of reproductive morbidity and evaluate its determinants in a rural community in East Lebanon.

Data were collected through interviews with women in their homes, physical examinations and history taking by physicians in a clinic in the community, and laboratory tests. A total of

557 ever-married women between the ages of 15 and 60 years were randomly selected. Just over half the sample (51%) had five or more children, and 79% of women under 45 years of age were currently using a contraceptive method. The prevalence of reproductive tract infections was very low: 1% of the women had sexually transmitted diseases and 9% had endogenous reproductive tract infections. None had chlamydial infection or a positive serologic finding of syphilis. None had invasive cervical cancer, and only one had cervical dysplasia. In contrast, genital prolapse and gynecological morbidity were elevated. Half of the women studied had genital prolapse, and 30% were obese.

These findings highlight a low prevalence of reproductive tract infections in this conservative rural community in East Lebanon. Possible explanations include the conservative nature of the community, the high rate of utilization of health care services, and the liberal use of antibiotics without a medical prescription. More importantly, the study unveiled an unexpectedly high prevalence of genital prolapse and obesity – a finding that has clear implications for determining primary health care priorities in such rural communities.

Mary Deeb, Johnny Awwad, Tilda Farhat, and Donald Steinwachs (2001). Women's Report of Symptoms of Reproductive Health Conditions and Patterns of Utilization of Care. (from the Department of Epidemiology and Biostatistics Faculty of Health Sciences and the Faculty of Medicine, American University of Beirut). Submitted to *Medical Care*.

This study attempts to examine the degree of utilization of reproductive health services according to the women perception of their complaints.

Johnny Awwad, Joumana Yeretian, Hanna Kaspar, and Mary Deeb (2002). Determinants of Prolapse in a Community Setting. (from the Faculty of Health Sciences and the Faculty of Medicine, American University of Beirut).

Mary Deeb, Tamar Kabakian-Khasholian, and Tilda Farhat (2002). Women's Perception of Reproductive Morbidity Conditions: A Qualitative Study. (from the Faculty of Health Sciences and the Faculty of Medicine, American University of Beirut).

This study attempts to examine and compare what women perceive as complaint and what is really diagnosed.

Francoise Ghorayeb, Mary Deeb, and Tamar Kabakian-Khasholian (2002). Perceived Reproductive Morbidity and Care Seeking: Does Education Matter? (from the Faculty of Health Sciences, American University of Beirut). Submitted to *Journal of Biosocial Science*.

The study's objective was to compare women's reports of signs and symptoms of gynecological morbidity with their physicians' diagnoses, with the diagnoses used as a gold standard, and to examine educational differentials in the levels of agreement.

The study used clinic-based data obtained in 1995 from a sample of 27 private gynecologists' clinics in Beirut, Lebanon. Interviewers covered 60 consecutive clinic hours in each selected clinic. A total 789 women visiting private gynecological clinics in Beirut participated.

There were no educational differentials observed in the agreement levels between women's reports and physicians' diagnoses of reproductive morbidity. However, there was excellent agreement between women's reports of signs and symptoms indicative of lower reproductive tract infection and physicians' diagnoses of the same condition.

The high levels of agreement found in this study have not been reported previously in similar studies. The results of the present study highlighted the contribution of cultural variations in women's understanding of the nature of medical conditions. The authors recommend improving the measurement of perceived morbidity in community-based studies of reproductive morbidity.

Ghada El-Hajj Fuleihan (2000). Bone Mineral Density and its Predictors in Patients Referred to an Osteoporosis Program in Lebanon.
(from the Department of Internal Medicine, Faculty of Medicine, American University of Beirut).

The purpose of this study is to define the prevalence of osteoporosis using bone mineral density (BMD) criteria and evaluate the predictors of bone mass in patients referred for bone density measurement at AUB-MC. Overall, the prevalence of osteoporosis using strict BMD criteria and the predictors of BMD in the study group were comparable to published figures in European or American Caucasian population.

Ghada El-Hajj Fuleihan (2000). Nutritional and Lifestyle Risk Factors for Bone Loss in Elderly Patients at Maawa El-Ajaza.
(from the Department of Internal Medicine, Faculty of Medicine, American University of Beirut).

This study aims at assessing the dietary intake and the nutritional status of two groups of elderly: psychiatric elderly residents, and cognitively intact residents of a nursing home in Beirut (Maawa el-Ajaza Marounite). An instrument for the assessment of nutritional status of all residents is accordingly developed and tested. The primary objective is to test the hypothesis that calcium, vitamin D, protein and energy intake is sub optimal among the residents of an elderly home as compared to accepted standards. The secondary objectives are to investigate that the anticipated nutritional status would be better among residents with intact mental health than among institutionalized psychiatric elderly; and to investigate the correlation between different levels of psychiatric well being and nutritional intake.

IV.3. Safe Motherhood

Nabil Mounla and Adele Khudr (1989). Pediatric Mortality: an Avoidable Tragedy.
(from the Department of Pediatrics, Faculty of Medicine, American University of Beirut).
In *Lebanese Medical Journal*; 38(1): 25-8.

The aim of this study is to focus attention on the problem of infant mortality in Lebanon. The methodology included data compilation on infant mortality from 1978-1986 at AUB-MC, where causes of death were analyzed for 602 males and 398 females.

Results show that around 40% of all neonatal deaths were due to neonatal disease like hyaline membrane disease that can be prevented by better prenatal care. Infections cause around one quarter of deaths and many are preventable through adequate public health measures and good personal hygiene. Congenital diseases were around 22%. In utero diagnosis and treatment can reduce these problems. Other mortalities are related to tumors and other miscellaneous diseases. The authors recommend steps to reduce infant mortality: prenatal care, diagnosis and screening, intrauterine surgery; resuscitation and intensive care centers with modern equipment and trained personnel; national vaccination and screening programs and parental education.

Iman Nuwayhid, Bassem Yammout, Ghassan Azar, and Mona Al Kouatly Kambris (1998). Narghille (Hubble-Bubble) Smoking, Low Birth Weight, and Other Pregnancy Outcomes.
(from Department of Environmental Health, Faculty of Health Sciences, Departments of Obstetrics and Gynecology, and Internal Medicine, Faculty of Medicine, American University of Beirut). In *American Journal of Epidemiology*, Vol.148, No. 4, 375-383.

The aim of this study is to identify the effect of smoking narghiles during pregnancy on the weight of the newborn and other pregnancy outcomes. The methodology involved interviewing three groups of women in several hospitals in Lebanon between 1993 and 1995: 106 who smoked narghiles during pregnancy, 227 who smoked cigarettes, and 512 who did not smoke.

Results show that the adjusted mean birth weight of babies born to women who smoked one or more narghiles a day during pregnancy and to women who started smoking in the first trimester was more than 100 g less than that of babies born to nonsmokers ($p < 0.1$). The adjusted odds ratio of having babies with low birth weight (< 2500 g) among the narghile smokers was 1.89 (95% confidence interval (CI)). The risk increased to 2.62 (95% CI 0.90-7.66) among those who started smoking narghiles in the first trimester. A stronger association and a dose-response relation were found among cigarette smokers. The association between narghile smoking and other pregnancy outcomes, especially Apgar score and respiratory distress, was also noticeable. The authors recommend further research and a policy action to fight the misperception that narghile smoking is safe.

Pan Arab Project for Child Development (1998). Lebanon Maternal and Child Health Survey.

This survey aims to build a database on various aspects that affect Maternal and Child Health in Lebanon. The methodology involved a survey conducted during January-March 1996. The sample included 5431 households from 291 clusters of all governorates, of which 3314 of 3443 by ever married women aged under 55 years were completed. Data was collected on households, housing, maternal and child health, and community characteristics.

Results indicate that infant mortality declined to 28/1000 live births. Under-age-5 child mortality declined to 32/1000 live births during the 5 years preceding the survey. Almost 74% of infant mortality occurred neonatally; it was higher among males. Infant and child mortality were lower in Nabatieh and Beirut governorates. Among the 1767 children aged under 5 years, 12% were moderately/severely stunted. The highest levels were among children aged 48-59 months. Under 3% were wasted. During the 2 weeks before the survey, 23% of children aged 6-11 months had diarrhea, especially boys. 57% suffered from coughs, of whom 19% also had difficulty breathing. Cough prevalence was highest among children aged 6-11 months. 8% ever had measles. Measles were higher among children of illiterate mothers. 31% suffered from fever. 86% of children aged 12-23 months were fully immunized. Although most mothers knew about oral rehydration, only 33% treated diarrhea with it. 88% of infants were ever breast-fed. Maternal mortality had been 104/100,000 live births since 1984. 39% of mothers received postnatal care. The fertility rate was 2.5 in the preceding 5 years. Women desired 4 children.

The recommendations focus on health education programs, improving the environmental conditions that affect mother and child health, and support policies for population and reproductive health.

Helen Chacar Rabay, M Sokhn, and M Azar (1997). Breast Feeding Practices in an Area of Beirut. In *Lebanese Medical Journal*, June, 45(2): 84-9.

The aim of this study is to examine breast-feeding practices in a group of Lebanese women. The methodology included surveying 170 breast-feeding mothers in pediatric clinics in Beirut and its suburbs. Results show that the average age of mothers was 27.8 years with average duration of marriage being 4.6 years. One third of mothers were primiparous breast-feeding for the first time. Only 11% of newborns were fed within the first hour of life, and the majority fed between first and sixth hour. Close to 50% of the newborns were exclusively breast fed in the first 4 months. Around 50% of breast feeding mothers changed their eating habits. Most of the mothers consumed inadequate quantities of milk, fruits, and vegetables. The percentage consuming tobacco, coffee, tea, and alcohol were similar during pregnancy and breast-feeding and somewhat lower than before pregnancy. The authors conclude that women were inadequately informed about breast-feeding and its benefits.

Mary Deeb (1998). Breast Feeding and Weaning Practices. In *Lebanon Maternal and Child Health Survey 1996*, 95-110, Ministry of Social Affairs.

This report focuses on breast-feeding issue in PAPCHILD. It reflects the increased incidence of breast-feeding, with a trend of shorter periods and complementary feeding at younger ages of children. The average breast-feeding period was 9 months, and was done according to baby's needs and not according to a certain time schedule. There was a correlation between shorter breast-feeding periods, early weaning and higher education.

Jinan Usta (1997). Midwifery and Small Maternity Clinics in Lebanon.
(from the Department of Family Medicine, AUB).

This study attempts to describe the complications associated with deliveries in small maternity clinics run by midwives. The methodology consists of collecting cases referred from maternity clinics to large hospitals within Lebanon for the year 1996. Results show that the most common complication was postpartum hemorrhage followed by endometritis and postpartum infection. In the newborn, the most reported complication was jaundice followed by prematurity, hypothermia and sepsis. The study recommends further training for midwives regarding skills to assure antiseptic deliveries and adequate newborn care, in addition to providing adequate transport facilities for the high risk newborns.

Muheiddine Seoud, Iman Dabbousi, and Khalida Bitar (1993). Maternal and Perinatal Outcome of Elderly Gravidas over the Age of 40 years.
(from the Department of Obstetrics and Gynecology, AUB).

This study aims to look at the outcome of pregnancy of advanced maternal age at the AUB-MC. The method involved reviewing the outcome of 400 pregnant women above the age of 40 years, and comparing them to 400 well matched and randomly chosen control group aged 20-30 years. Results show a significant increase in maternal and perinatal mortality and morbidity. The authors recommend close follow up and monitoring of those pregnancies. In addition, they emphasize counseling for those women before getting pregnant and assure their unmet needs in family planning.

Muheiddine Seoud, Ali Khalil, Ghassan Azar, Naji Aswad, Abdel-Rahman Bizri, Madlene Akel, and Mona Nabulsi-Khalil (1992). Screening for Tuberculosis in Pregnancy: is it Cost Effective?
(from the Departments of Obstetrics and Gynecology, Medicine, Family Medicine, and Pediatrics, AUB).

This study attempts to assess the cost-effectiveness of tuberculosis (TB) screening in pregnancy at AUB. The methodology involved studying 850 pregnant women with PPD and those who tested positive had Chest X Ray, sputum culture and HIV. There were over 35 women with positive PPD 4 of them with active TB. Epidemiological survey of the place of living was done and will be used for formulating universal screening.

Mona Nabulsi, Ali Khalil, A.Farah, and George Araj (1997). Prevalence of Hepatitis B surface Antigen in Pregnant Lebanese Women.
(from the Departments of Pediatrics, Obstetrics and Gynecology, and Laboratory Medicine, Faculty of Medicine, American University of Beirut) In *International Journal of Gynecology and Obstetrics*, August, 58(2): 243-4.

This study aims to look at the prevalence of hepatitis B antigen in pregnant Lebanese women. The methodology included a cross sectional study of 558 pregnant Lebanese women attending the antenatal clinics at the American University of Beirut Medical Center. Results show that 16 women were positive for HBs Ag and, of those, only 1 was positive for Hbe Ag. There were no significant differences between Hbs Ag-positive and negative women in terms of age, education, socioeconomic status, or HBV risk factors (e.g. blood transfusion, intravenous drug use, alcohol intake, history of jaundice, marriage to a man with multiple sexual partners).

Authors conclude that the 2.9% prevalence detected in this study places Lebanon among countries with moderate endemicity for HBV. Since known risk factors for HBV were not associated with Hasbro positively, routine antenatal screening as well as universal newborn vaccination against HBV is recommended to prevent prenatal infection and horizontal transmission in the community.

Zuheir Bittar (1998). Rates of Prenatal Mortality and Low Birth Weight among 3367 Consecutive Births in South of Beirut.
(from the Department of Pediatrics, Lebanese University). In *Lebanese Medical Journal*, 46(3): 126-130.

A total of 3367 consecutive births were reviewed prospectively from a population with relatively underprivileged living conditions. Prenatal mortality was found at a rate of 22.4/1000 births, early neonatal mortality formed 6.66/1000 births, and stillbirth formed 15.83/1000 birth. Low birth weight rate was 5.43% of live birth. Analysis of our findings suggests the need to improve follow-up and care in the immediate period before and during delivery, in the immediate postpartum and neonatal care periods.

The aim is to prevent and treat intrauterine asphyxia, fetal distress, obstetric complications, and resuscitate the newborn and improve the Intensive Care Nursery (ICN) procedures. These measures are expected to reduce fresh stillbirth and early neonatal mortality. Lowering the rate of low birth weight is of less urgent nature in this population as it is relatively not high. The author recommends recruiting more neonatologists and to subject ICN units in Lebanon to standardized requirements. Centralization of care given to severely sick neonates and to women with high-risk pregnancy in optimal conditions is mostly needed.

Zuheir Bittar (1998). Major Congenital Malformation Presenting in the First 24 Hours of Life in 3865 Consecutive Births in South of Beirut: Incidence and Pattern.
(from the Department of Pediatrics, Lebanese University). In *Lebanese Medical Journal*, 46(5): 256-26.

The aim of this study is to look into the incidence and pattern of congenital anomalies in the area of southern Beirut. A total of 3865 consecutive newborns delivered between 1991 and 1993 were prospectively studied. All neonates had received a physical examination during the first 24 hours of life. The most common congenital anomalies were skeletal, followed by genitourinary and neural tube defect. The malformed infants formed around 25% of all prenatal death suggesting that improved care given to these patients will reduce prenatal mortality.

Incidence of neural tube defect, 3.1/1000 births, was higher than in many western and Middle Eastern countries reports suggesting the need for further testing for incidence and etiology. Among the malformed infants, the rate of low birth weight and the rate of parental first cousin consanguinity were significantly higher than corresponding rates among normal infants in a control group.

Joseph Suidan and Georges H. Abitayeh (1999). Obstetrical Outcome Following Epidural Analgesia in 506 Consecutive Deliveries.
(from the Department of Obstetrics and Gynecology, Hotel-Dieu de France Hospital and St Joseph University Faculty of Medicine). In *Lebanese Medical Journal*, 47(6): 329-332.

This study examines the effect of epidural analgesia on delivery outcome. A total of 506 consecutive deliveries in Hotel-Dieu Hospital, under epidural, and delivered by the same obstetrician were studied. Around 336 delivered without epidural at the same period. The epidural group had around 20% normal vaginal deliveries, and around 7% by cesarean sections, while the rest had operative deliveries. There was one case of dural puncture that was managed by blood patch. The degree of pain relief obtained by the epidural was deemed satisfactory in 456 patients (90%). The primary cesarean section rate in patients who

received an epidural was not higher than that in patients who did not. The authors conclude that epidural analgesia is a safe and highly effective method of pain relief during labor.

Toufic Ossiran (1998). Phasing Out TBA's in Lebanon. (from the Family Planning Association-Lebanon). In *Planned Parenthood Challenges*, (1): 22.

The aim of this study is to identify the remaining traditional birth attendants and determine their level of education and the quality of services they offer. The methodology included a survey interviewing TBA's on demographic and practice profiles. Results show that the majority of TBA's in Lebanon are over 50 years of age, illiterate, and completely untrained. Only 26% of them ever observed or assisted a trained midwife or physician in a delivery. The majority used traditional instruments or outdated methods employing powerful medications. It is estimated that TBA's attend 12% of all deliveries in Lebanon, more on rural than in urban areas. It was impossible to determine what percentage of maternal mortality rate was attributable to them. The majority of TBA's stated that they are not interested in training.

The author recommends that the government must regulate the practice of the TBA's and must urge them to have training. The author also recommends phasing out TBA's practice within 10 years, finding alternatives for the remaining ones.

(from the Departments of Psychiatry and Psychology/Saint-George Hospital - Beirut, Psychotherapy/Sacré-Coeur Hospital - Baabda, Faculty of Medicine/Saint-Joseph University - Beirut, Departments of Psychology/Lebanese University, Psychology/ American University of Beirut, Institut de développement de la recherche appliquée à la clinique (IDRAC) - Beirut, and Faculty of Health Sciences/American University of Beirut). In *Lebanese Medical Journal*; 47(3): 169-174.

This study aims to examine the prevalence of depression in pregnant women. It is one of the pilot studies on depression on Lebanon. The methodology included 150 women admitted consecutively during the months of May and April 1987 during the "Lebanon Wars" to the delivery suite at Saint-George Hospital, Beirut. They were interviewed using a structured questionnaire (DIS). The study was conducted in two phases: the first on the second post-delivery day, and the second, one year later. Results reveal that the prevalence of major depression in these women was found to be 31.3% lifetime, 10% during pregnancy and 10.9% during one-year follow-up. The authors conclude that lifetime depression increased with the number of children in the household. Depression during pregnancy was found to be inversely related to economic and educational levels.

Mary Deeb, Oona M.R.Campbell, and Tamar Kabakian-Kasholian (1997). Safe Motherhood in Lebanon: New Population-Based Results from the Beirut 1994 Survey. (from the Epidemiology and Biostatistics Department, Faculty of Health Sciences, American University of Beirut, and Maternal and Child Epidemiology Unit, Department of Epidemiology and Population Sciences, London School of Hygiene and Tropical Medicine, London, UK). In *International Journal of Gynecology & Obstetrics*, 56 (1997), 181-182.

This paper aims to present new data on safe motherhood in Lebanon to argue the estimates presented by WHO and UNICEF of maternal mortality, which gave Lebanon a high implausible figure. A multipurpose, population-based, health interview survey of 2017 households was conducted in Beirut, in 1992-93. Other methods and supplementary data from national samples were also used. The data presented prove that medical services around pregnancy and childbirth continued to be provided in all times-even war times- in addition to data collection and research.

Rita Khayat and Oona M.R. Campbell (2000). Hospital Policies and Practices in Maternity Wards in Lebanon. (from the Faculty of Health Sciences, American University of Beirut, and London School of Hygiene and Tropical Medicine, London, UK). In *Health Policy and Planning*; 15(3); 270-278.

The main objectives of this study were to acquire baseline data on policies and routines applied in the obstetrics ward service for women having normal delivery, estimate the prevalence of certain practices, assess whether women are given choice and look into the degree of agreement between process of care at hospitals and women's reporting of preferences and care received. A sample of 39 hospitals was selected and the director, head midwife, or head nurse of the Obstetrics Department was interviewed.

Results show that the majority of hospitals have no written policies or standard birth procedures and lack mechanisms for evaluation although records were available. This is well stressed in the national sub-programme towards improving quality of services and having a committee for guidelines procedures and protocols. Women received minimal prenatal care education and minimal family planning counseling in the postpartum period. The authors recommend further work assessing health outcomes of maternity care, and need for intervention-related research to implement changes in provider practice.

Tamar Kabakian-Khasholian, Oona Campbell, Mona Shediak-Rizkallah, Françoise Ghorayeb (2000). Women's Experience of Maternity Care: Satisfaction or Passivity? (From the Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon and Maternal and Child Epidemiology Unit, Department of Epidemiology and Population Sciences, London School of Hygiene and Tropical Medicine, London, UK and UNFPA, Amman, Jordan). In *Social Science and Medicine*, 51, 103-113.

This study aims at describing Lebanese women's responses to the management of their pregnancy and delivery as part of safe motherhood. Semi-structured interviews were conducted with women from three areas in Lebanon. A total of 117 interviews were completed using a qualitative approach, and focus group discussions.

Results show that selection of health care provider was highly influenced by the opinion of other women, with more comfort in female HCP, and more trust in male HCP competence. There was lack of information provision (antenatal and intrapartum) and women did not complain, as they trust their health care provider. Women rated the level of communication between the health care provider and themselves as being of primary importance in determining their level of satisfaction with care. The extent of passivity and feeling of discontent women have varies according to their social class and the amount of psychosocial support they receive throughout the process of childbirth.

Important study implications to consider for policy formulation include: issues pertaining to patient-doctor interaction and increased mother-baby contact after childbirth, improving women's awareness of availability of alternative choices and their perceived need for preventive care, encouraging HCP to supply information about childbirth and to respect women's right for alternative choices.

Monique Chaaya, Oona M.R. Campbell, Faysal El-Kak, Hilda Harb, and Afamia Kaddour (2001). Psychosocial and Obstetrical Risk Factors for Postpartum Depression. (from the Faculty of Health Sciences, American University of Beirut, and Department of Epidemiology and Population Sciences, London School of Hygiene and Tropical Medicine, London, UK). In press, in the *Archives of Women's Mental Health*.

The aim of this study is to assess the prevalence and risk factors of postpartum depression in Lebanese women. The study is a prospective investigation of 538 women delivering in hospitals in Lebanon over a period of two months. The first phase involved collecting information within 24 hours of delivery using a structured questionnaire, on predictors of postpartum depression. The women were asked to agree to a home visit for interview 2 to 3 months after delivery. In the second phase, data on postpartum depression were collected using Edinburgh Postnatal Depression Scale (EPDS) and other information on the health of the mother and the baby.

One in five women (21%) were found to have postpartum depression according to the EPDS. In the bivariate analyses postpartum depression was significantly related to depression during pregnancy, social support, type of delivery, fetal monitoring, episiotomy, education and health of the mother, and stressful life events. In the multivariate analysis, depression during pregnancy and chronic illness predicted significantly postpartum depression.

Findings from this study are consistent with other studies. Obstetrical procedures and care during pregnancy are not adequately targeting the issues of post-partum depression. Implications for research and action concerning antenatal package, labor and delivery practices are raised.

Faysal El-Kak, Monique Chaaya, Oona M.R. Campbell, and Afamia Kaddour (2002). Responsiveness to Antenatal Care in Lebanon.

(from the Faculty of Health Sciences, American University of Beirut, and Department of Epidemiology and Population Sciences, London School of Hygiene and Tropical Medicine, London, UK). In press, in the *East Mediterranean Health Journal*.

The aim of this study is to describe the antenatal and labor package offered by different providers, assess its impact on pregnant women, and compare it to international updated patterns of care. A total of 538 women were interviewed within 24 hours of delivery using a structured questionnaire, where the questions were arranged in reverse chronological order (backward recall). They addressed different aspects respectively relating to the newborn, postpartum symptoms, delivery care practices, course of the current pregnancy, the package of prenatal care received, and the type of health care provider.

Results were analyzed in terms of two independent variables: the provider and the number of antenatal visits. In case of the provider, the only significant finding was related to more oxytocin use in women who visited obstetricians as compared to midwives. There was more compliance with antenatal recommendations in women who visited obstetricians, but that was not significant. When taking the number of visits as independent variable, it was found that reduced number of visits (0-4) is significantly related to problematic outcome for the baby. Number of visits was also significantly correlated with epidural anesthesia and more compliance with diet advice and regular check-up.

It appears that the traditional package of antenatal care visits practiced in Lebanon could be re-evaluated putting more weight on the content of these visits without affecting perinatal outcomes. Antenatal care provided by midwives appears to be as satisfactory as that of obstetrician.

Monique Chaaya, Johnny Awwad, Oona Campbell, Abla Sibai, and Afamia Kaddour (2001). Demographic and Psychosocial Profile of Smoking Among Pregnant Women in A Developing Country: Public Health Implications.

(from the Department of Epidemiology and Biostatistics at the Faculty of Health Sciences and the Department of Obstetrics and Gynecology at the Faculty of Medicine, American University of Beirut, and Department of Epidemiology and Population Sciences, London School of Hygiene and Tropical Medicine, London, UK).

This study aims at assessing the prevalence and determinants of smoking during pregnancy in Lebanon. It is A cross-sectional study using two structured instruments. One instrument included information on demographic characteristics, smoking patterns in the index pregnancy and previous pregnancies, use of prenatal health services, stressful life events and social support during pregnancy. The second was the Arabic GHQ-12.

Women who delivered within 24 hours were asked to consent to participate in the study. The total sample comprised of 570 women. The prevalence of ever smoking was 32 % and 20 % for smoking in pregnancy. Considering narguileh smoking, the prevalence of tobacco

use in pregnancy increased to 27 % in Beirut and 25 % in the suburbs. Younger age, low education, high parity, inadequate prenatal care and heavy/moderate smoking increased smoking in pregnancy, whereas stressful life-events, distress, and having a smoking husband were additionally associated with being ever-smoker. Education was a powerful predictor for both smoking in pregnancy (OR = 4.7) and ever smoking (OR =2.80). Younger age was associated with smoking in pregnancy (OR=0.89), while older age was associated with ever smoking (OR=1.11). Other independent predictors for ever smoking included: parity, distress and having a smoking husband.

Policies and programs to eliminate or reduce smoking during pregnancy should be targeted toward young and less educated females and involving the spouse. The role of the health care provider, in particular the obstetrician, in promoting smoking cessation in pregnancy is also discussed.

Ministry of Public Health and UNICEF (2001). Prenatal Morbidity and Mortality Among Mothers and Newborns in Lebanon.

This is the first major study after PAPCHILD trying to look at antenatal care, labor and delivery, and postpartum care. A total of 5242 delivering women making 5344 deliveries were surveyed. A semi-structured questionnaire was administered that includes most of the scope of safe motherhood indicators.

The results of the study revealed remarkable discrepancies between national indicators in morbidity and mortality between the national figures and the other figures in rural areas of Akkar, Baalbeck and Hermal areas. It also revealed lack of antenatal coverage and ineffective non-standardized pregnancy care practices. Many of the differences presented were related to regional, socio-cultural, insurance factors as well as to the health system of care (public vs private).

This rich and descriptive study sets ground for diverse intervention that must be undertaken to improve the quality of safe motherhood services.

IV.3.1 Ongoing Research

Muheiddine Seoud, R. Sultaneh, and A. Itani (1993-). Nutritional Survey of Lebanese Pregnant Patients.

(from the Department of Obstetrics and Gynecology, Faculty of Medicine, American University of Beirut).

This study is a national survey trying to assess the nutritional profile of the Lebanese pregnant women in terms of diet content, health care provider recommendations, and eating habit.

Khaled Younis (1999). National Collaborative Perinatal Neonatal Network (NCPNN).

The National Collaborative Perinatal Neonatal Network (NCPNN) is a non-profit voluntary collaboration of health professionals, who have joined to ameliorate and refine the proficiency of perinatal and neonatal medical care, through an integrated database to perform outcome research, randomized clinical trials and ultimately quality improvement.

Tamar Kabakian-Kosholian and Oona M.R. Campbell (2001). Improving Women's Health Postpartum: The Impact of Provision of Written Information.

(from the Faculty of Health Sciences, American University of Beirut and London School of Hygiene and Tropical Medicine, London, UK).

This work aims at identifying health needs of postpartum women and attempt to develop a health education tool.

IV.4. Youth

Abdo Jurjus, Jihan Tawilah, and Fadi Gerges (1991). A School Health Programme for Lebanon. In *World Health Forum*; 12 (4): 452-3 (letter).

This study aims to assess health needs in Lebanon at school level. The methodology involved 882 students aged 5-19 years from 8 schools whose health needs were assessed by a health team including a physician, a medical intern, a dentist, a nurse, and a health worker. Parents completed a questionnaire on health and demographic concerns, while students were physically examined. Results indicate that 16.8% of students needed follow up care with a specialist for congenital and developmental ailments or communicable diseases. Health education was not included in school curriculum.

The authors recommend that health education begin in the primary grades and within community. Comprehensive health programs including health services, health education, and a healthy environment need to be instituted. Home, community, and school need encouragement to build a strong liaison.

Basem Saab, Nabil Shararah, Malek Makarem, Elias Saaru, Jinan Usta, and Mustapha Khogali (1996). Data from a School Health Project in Beirut.

(from the Department of Family Medicine, Faculty of Medicine, American University of Beirut). In *Lebanese Medical Journal*, 44, 63-67.

This study evaluates the health status of elementary school students in Lebanon. A total of 2778 elementary students enrolled in 25 government schools in Beirut were surveyed. Parents completed special forms relating to demographic and socio-economic information and to the students medical and vaccination history. Each student had a complete physical examination. Results show that the most common medical problems were poor dentition, followed by incomplete immunization, enuresis, pediculosis and defective vision. It was also noticed that 72% of the students have at least one member in the family who smokes. The authors recommend need for fluoridation of public water, provision of accessible and affordable medical and dental care, carrying vaccination campaigns and introducing health education in elementary schools in Lebanon.

Abla Sibai and Nabil Kanaan (1997). Youth Health Risk Behavior Survey among Secondary School Students in Lebanon: Prevalence and Clustering of Risk Behavior.

(from the Faculty of Health Sciences, and Department of Family Medicine, American University of Beirut).

The aims of this study are to evaluate the prevalence of high-risk behavior among high school students in Lebanon, and to determine the age of first knowing about these behaviors. A cross-sectional survey on public and private secondary school students was conducted. It included 1086 students from 14 schools within Beirut and suburbs answering unanimously a close-ended questionnaire. Part of the questionnaire covered issues related to sexual health.

Results clearly shows that sexual activity starts as early as the age of 15 years and it is more common among males as compared to females (30% vs. 2.5%), with relatively high percentage of them (10.5%) having multiple partners. The use of condom was the most prevalent contraceptive. It was noticed that sexual behavior was clustered with other high-risk behaviors like substance abuse and risky driving, issues that will put adolescents at higher risks of morbidity. It remains to be tested the level of reproductive health knowledge among adolescents.

The investigators recommend integrating a school health programme in the curricula to address pre-adolescent to secondary school stage. This is intended to encourage positive and healthy life-styles and to create a healthy school environment. They also recommend a holistic approach to health issues to affect health behavior in all aspects of adolescent

life accompanied by legislation and adequate media campaign.

Mona Shediac-Rizkallah, Rima Afifi, Tilda Farhat, Joumana Yeretian, Faysal El-Kak, Iman Nuwayhed, Abba Sibai, Kassem Kassak, and Nabil Kanann (2001). A Glance at Adolescent Health in Post-War Lebanon: Findings among Students at the American University of Beirut. (from the Faculty of Health Sciences, American University of Beirut). *International Quarterly of Community Education*.

The aim of this comprehensive study was to assess the prevalence of health behaviors among students at the American University of Beirut, both overall, and in subgroups varying by gender and age. In addition, the distribution in the total number of health risk behaviors in the study population was examined, also looking at the effect of gender and age. The methodology involved the vast majority of students newly entering the University (1065 students) who were asked to complete a self-administered questionnaire covering 15 behavioral and lifestyle risk factor areas, including sexual behavior and gender.

Results covered a final sample of 954 students and they show that large numbers of the university students are engaging in behaviors, which place them at increased risk for negative health outcomes. For example, 24% of students ever had sexual intercourse, with significantly higher proportion among males. Gender appeared to be a key influencing factor on many health behaviors. The authors point to the need for health-promoting interventions, particularly in the policy area. They also recommend additional research on a national representative sample with emphasis on gender and cultural factors.

Faysal El-Kak, Rima Afifi, Mayada Kanj, Carol Telgeh. and Mona Shediac-Rizkallah (2001). High-School Students in Postwar Lebanon: their Attitudes and Information Sources Related to Sexual and Reproductive Health. (from the Department of Health Behavior Education, Faculty of Health Sciences, American University of Beirut). In Press, *Journal of Adolescent Health*.

This study aims to propose school programs in sex education and adolescent counseling. It addresses attitudes of high-school students in Lebanon towards sexual and reproductive health issues and services, in a context where school health education programs and adolescent health services are almost absent at all levels of government, school and society.

High school students (n=466) attending a career orientation fair in December 1997 were asked to answer a one-to-one sexual health inventory in the presence of health educators. The questionnaire covered topics about counseling, reproductive health issues, sexual education tools and services. The sample includes 54.5% females and 45.5% males; mean age is 17.5 years old and age range is 15-20 years old. Overall, 93% of the students were extremely willing to know more about family planning and contraception, pregnancy and childbirth issues. Our students showed a perceived need for education, guidance and health services. The majority of them (90.8%) supported sex education in schools. As for the sources of sexual and reproductive health information, friends were cited as the leading source (60.5%), followed by media (51.6%). Parents were reported as the next more frequent source (32.2%). Also, friends ranked first in the list of persons with whom sexual health issues were discussed, followed distantly by parents.

Results show unequivocally that students want to know more about SRH issues. Yet, a majority believes that sexual health services and counseling are not readily available to young people.

Mohammed Faour (1998). The Silent Revolution in Lebanon: Changing Values of Youth, Beirut, Lebanon. (from the American University of Beirut).

The aim of this study is to investigate the prevalence of a set of social values and norms

among Lebanese college students, and compare, where feasible, the results with relevant pre-war data. The set includes individual values, societal values, family norms, and political norms. Also the impact of gender, social class, and educational level will be examined.

The methodology is based on four surveys of Lebanese students aged 17-24 years. These surveys include a stratified random sample of AUB students in 1993; two quota-samples of AUB students in 1994 and 1996; and a purposive sample of LU students in 1996. The total sample size was 2893 students.

Results, especially those related to gender and family, show that there is a notable rise in democratic practices within the Lebanese nuclear family. The nuclear family form is rapidly gaining grounds at the expense of the traditional extended form. Results also show that the number of Lebanese women in higher education is rising along with their participation in the labor force. The authors call upon the government to respond to the growing social change permeating young people and capitalize on it. He also advises men and all concerned to yield to women's demands.

Family Planning Association-Lebanon (1997). Youth in Lebanon and Issues of Reproductive Health, AIDS, and Addiction.

This survey aims to assess the KAB of youth of Lebanon in relation to high-risk issues and to provide guidelines for policy makers. The methodology involved a random national sample of around 1000 individuals, age 10-24 years, selected from the national survey (95-96), where they were asked to respond to a questionnaire about their attitudes concerning issues of RH, AIDS, and substance abuse or addiction.

Regarding RH issues, young people defined RH as the ability of people to enjoy a well balanced family life as far as emotional, sexual, and social dimensions are concerned. This reveals a deeper and wider understanding of the RH concept away from the classical definition of family planning. This brought them closer to the international standard definition, especially the educated sectors. The study shows that socio-economic and educational changes had affected the youth (more females than males) regarding delaying the age of marriage with a clear trend among females to marry between ages 25-29. Both expressed their willingness to know about RH issues more so in older age groups (20-24). Amazingly enough, 6% find no need for RH knowledge and 12.5% had no answers.

Willingness to know more was remarkable with higher education and age. The need for sexual knowledge and awareness was clearly expressed where the need is most for AIDS, followed by sexual diseases, and followed by birth control. The issue of abortion is still taboo for a good number of young peoples, in addition to disinterest of those guys in contraceptives. There was a gender issue studied in terms of roles of boys and girls within marriage. Regarding information source; doctors were the best source of RH information followed by books, and lastly the biology teachers. This response reflects youth need for scientifically sound information, where they insisted that it should be given to them in an interesting and interactive way (audiovisual, debates), and it should contain all components of RH. In specific, youth expressed their will to know about anatomy and physiology topics as well as safe sexual practices, STDs, risks of homosexuality, and genetic diseases.

Regarding AIDS component in this study, it was shown that the vast majority of youth has heard of the disease and is aware or conscious of its seriousness. However, this was not commensurate with the belief that AIDS is a threat to the Lebanese community. This could in a way reflect insufficient amount of information and inefficient health media addressing youth who are supposed to be provided with accurate and sound information. On the other hand, the youth were knowledgeable about modes of AIDS transmission, despite some mentioning toilet seats, swimming pools and shaking hands as possible means of communicating the disease. With respect to preventive measures, only 23% of youth had

scientifically solid knowledge, and the majority demanded proper dissemination of correct information on prevention to be carried by the concerned institutions (ministries, national program) in addition to awareness sessions in universities, support and counseling to the victims and their families. Regarding their attitudes, around one third responded that AIDS patients should stay away from healthy people, while the rest advised AIDS patients to continue treatment, avoid sexual activities, keep a normal life, isolate themselves, and tell people about it so they can learn from the experience. These same attitudes did not change in case of HIV positive cases. These attitudes embodying a lot of hostility, blame and criminal implication led the youth to include general security forces to play a role in prevention. There appears to be an ethical dilemma at the level of the approach to AIDS and sero-positive cases that need to be re-defined and clarified by all concerned parties. The youth were extremely willing to take part in all voluntary activities aimed to reduce AIDS.

The study concludes by stressing the importance of youth role. The authors recommend launching of well-prepared campaigns of awareness and skills at different levels in different settings to address needs of youth.

IV.4.1. Ongoing Research

Stella Major, Faysal El-Kak, Rima Murtada, and Rima Afif-Soueid (2002). Effect of Health Education Course at AUB on the Attitudes and Health Behavior of Students. (from the Department of Health Behavior and Education, FHS, AUB).

This study attempts to assess the value of an interventional tool in health education on changing attitudes and behavior of students. A group of students (50) registered for a course in health education at AUB (HBED 201) were pre-tested and later post-tested after course completion with a semi-structured sliding health inventory scale. The same scale was administered to a similar group of students who were not exposed to the course material. Results will be compared and analyzed.

IV.5. Family Planning and Fertility

Mohammed Faour (1990). Family Planning in Lebanon: Constraints and Performance. (from the Department of Sociology, AUB). In *Al-Abhath*, Vol.38, 75-88.

This descriptive article aims at identifying the major societal constraints to family planning in Lebanon and at assessing the demographic performance of the programme in rural areas. The methodology relies on the analysis of data and statistics made available from the Family Planning Association (LFPA) records. Results indicate that the basic constraints to effective functioning of the family planning programme in Lebanon are: legal, political, and social. The author calls for an indirect approach where family planning issues are introduced within a broad strategy of social and economic development. This can be much more effective than the traditional direct approach.

Marianne Khlaf, Mary Deeb, and Yousef Courbage (1997). Fertility Levels and Differentials in Beirut during Wartime: an Indirect Estimation based on Maternity Registers. (from the Department of Epidemiology and Biostatistics, American University of Beirut, and Institut d'Etudes Démographiques, Paris). In *Population Studies*, 51(1), 85-92.

This paper attempts to assess fertility changes in the two main religious communities in Lebanon's capital during the war period. The methodology is based on information relating to all births recorded in the maternity registers of hospitals in Greater Beirut (city and inner suburbs) in 1984 and 1991. Demographic variables (mother's age and parity) were used in an indirect estimation of fertility and information on socio-demographic variables (religion and hospital class) was recorded, with the latter variables being used as a proxy for social class. Total fertility rate (TFR) in Greater Beirut was estimated from these data for Christians and

Muslims separately. The technique was based on the distribution of births by mother's age and parity. A statistical analysis of the joint distributions of mothers by age, parity, religion, hospital class, and study year was also undertaken to investigate fertility differences by religion within social class.

Indirect estimates of TFR indicates a decline of fertility that was higher in M Muslims as compared to Christians (4.8% vs 3.6%) but that was not significant as results indicate absence of any substantial drop in fertility during the Lebanese civil war. This was related to factors of internal migration and previous fertility decline. The authors recommending using this data to establish local monitoring system for fertility, which could be used by policy makers for health and family planning purposes.

H.N. Rizkallah and A.A. Moneim (1997). Fertility Decline in Lebanon. In *Population*, September-October; 52(5): 1224-33.

The aim of this study is to examine fertility trends in Lebanon. The methodology involved interviewing 3000 ever-married under the age of 50 years in 4600 households for the Lebanese Survey of Maternal and Child Health. Results indicate that in the periods 10-14 years and 0-4 years prior to the survey, the total fertility rates dropped from 3.8 to 2.5 respectively. The decline affected all age groups, especially women aged 20-35 years. The majority of non-single women had ever used a contraceptive method. IUD was the most commonly used method followed by withdrawal, oral contraceptives, and condoms. Pharmacies were the single most important source of contraceptives. The authors conclude that contraception and later marriage have been the principal determinants of fertility decline.

Prem C. Saxena and Habbouba Y. Aoun (1997). Women's Education, Economic Activity and Fertility: Relationship Re-Examined. (from the Population Studies Program, Faculty of Health Sciences, American University of Beirut, and Faculty of Health Sciences, University of Balamand, Lebanon). In *Al-Abhath*, 45: 25-39.

The aim of this study is to investigate how women's education and work status affect fertility of Lebanese women. The study also attempts to assess the extent of maternal role incompatibility experienced by Lebanese women engaged in higher and lower prestigious occupations and its effect on their fertility. The methodology included a sample of women working in a Lebanese private school. The list included 596 names of married men and women classified according to level of education. Non-working wives of males working at school were included in the sample. The sample was drawn through a systematic random sampling procedure, and data was collected through personal interview method.

Results show that women working in lower prestigious occupations had borne on average 1.7 children as compared to 2.1 children born to women working in higher prestigious occupations. Non-working women had borne on average 3.2 children. Maternal role incompatibility, experienced more in lower educated category, had a significant effect on the number of children borne (fertility). The authors concluded that although the study is based on data collected from one private school only, results have clearly demonstrated a greater impact of maternal role incompatibility as compare to education in the reduction of fertility of workingwomen.

Andrzej Kulczycki and Prem C. Saxena (1999). New Evidence on Fertility Transition through Wartime in Lebanon. (from the Population Graduate Program). *Genus*, Vol. LV, n. 3-4, 131-152.

The aim of this article is to briefly review the design of the Population and Housing Survey (PHS) and to derive estimates of both current and cohort fertility. The article then shows how fertility rates and trends differ spatially across Lebanon and attempts to provide a partial account for some of this variation. The methods made use of the PHS household survey implemented between November 1995 and June 1996 by the Ministry of Social Affairs with

assistance from UNFPA. The survey consisted of a stratified cluster sample of 64,472 households. A number of indirect techniques can be used to derive fertility estimates. In this paper, the authors used the Brass P/F ratio, cohort parity progression ratios (CPPRs), and cohort fertility rates (CFRs) methods.

Results show that fertility levels have been falling steadily in Lebanon over the course of several decades. However, the regional differentials in fertility are very large for such a small population. The authors conclude that war had no significant depressing effect on the quantum of fertility. This raises the question if an increase in fertility could yet occur, perhaps due to improving economic conditions and the new climate of optimism within Lebanon where pronatalist norms remain intact.

Rozzet Jurdi and Prem C. Saxena(2001). The Prevalence and Correlates of Consanguineous Marriages in Yemen: Similarities and Contrasts with other Arab Countries.
In Press *Journal of Biosocial Science*.

Using data obtained from the 1997 Yemen Demographic and Maternal and Child Health Survey (YDMCHS), the prevalence, trend and correlates of consanguineous marriages have been determined in Yemen. In this nationally representative sample of 9,726 women, consanguineous marriages accounted for 39.9% of the total. In terms of the socioeconomic characteristics of individuals, the inverse expected association with consanguinity has been found for only some of the explanatory variables, namely women's education and occupation, type of family and socioeconomic status. However, what has been surprising is the positive impact of husband's background on consanguinity, with highly educated men and those working in the formal sector of the economy being more likely to be married to cousins. No statistically significant difference in the prevalence of consanguinity has been found by residence and age at marriage. As for the trend in consanguinity in Yemen, in contrast to our expectations, there has been a rise in cousin marriages across the various marriage cohorts. Results from multivariate logistic regression corroborate the findings obtained from the bivariate analysis.

Prem C. Saxena and Andrzej Kulczycki (2002). Trend in Age at First Marriage and the Impact of the Civil War on the Marriage Market in Lebanon.
Submitted to *Demography-India*.

This paper examines nuptiality trends and patterns using a new data set obtained from the 1996 Population and Housing Survey of Lebanon. The objectives of the paper are, firstly, to examine the proportions of single men and women by age, and to analyze trends and differentials in the mean ages at first marriage of males and females at both national and mohafza (Governorate) levels. Second, to estimate the singulate mean age at marriage (SMAM) for Lebanon and its mohafzat. Third, to discuss the shortcomings of these two approaches to measure average ages at first marriage by means of the direct question on age at marriage and indirectly estimating the mean age at marriage from the proportion single. To derive meaningful estimate of age at marriage, the authors suggest combining suitably both the estimates that is obtained from the direct question on age at marriage and the other from proportion single. Finally, the paper addresses if war had any significant impacts on age at marriage and the marriage market in Lebanon. Mate availability ratios are analyzed at both national and mohafzat levels to answer this question.

Prem C. Saxena and Rozzet Jurdi (2002). Impact of Proximate Determinants on the Recent Fertility Transition in Yemen.
In Press *UN ESCWA Bulletin*.

Based on the 1991-92 and 1997 Yemen Demographic and Maternal and Child Health Surveys data, the present study gives trends in fertility in Yemen. Using Bongaarts (1982) model, the role of proximate determinants on the recent fertility decline in the country has

been studied. Also, by decomposition of the change in the Yemen's total fertility rate (TFR) between 1992 and 1997, the contribution of the factors responsible for fertility transition has been analysed. Contraceptive prevalence and postpartum infecundability have been found the most important factors accounting for the reduction of TFR from 7.7 in 1991-92 to 6.6 in 1997.

Prem C. Saxena and Andrzej Kulczycki (1996). A Comparative Study of the Demographic and Health Situation in Selected Arab Countries.

(from Population Studies Program, AUB).

This study derives national and sub-national estimates of fertility and draws conclusions about the levels and trends of fertility over the past five decades for Lebanon. It uses the 1996 Population and Housing Survey (PHS) to reflect on the fertility rate ranges over years and per Muhafaza. It was noted that the major reductions in family size came from decline in parities four, five and six. The disparities in fertility are even more striking at the district level and have widened over time. The researchers concluded that fertility decline does not appear to have been significantly interrupted by the hostilities of the civil war.

Mary Deeb, Joumana Yertzian, Roula Samaha, and Young Kim (2002). A Cohort Study on the Effect of Widowhood on Mortality in Beirut.

(From the Faculty of Health Sciences, AUB). Submitted to *Population Studies*.

Most studies to date have not been able to successfully explain the excess mortality associated with widowhood due to various limitations in their data or study designs. Our study benefits from a data set rich in socio-demographic and health behavior characteristics as well as the availability of information on the same individual after a ten-year lapse. Our results suggest an excess mortality among widowed individuals relative to their married counterparts, even after accounting for possible confounding risk factors. In addition, the results point to the significant contribution of cumulative exposure to war events with a three-fold increase in the risk of death among individuals exposed to two or more war events when compared to individuals exposed to none.

Cynthia Myntti, Abir Ballan, Omar Dawache, Faysal El-Kak, and Mary Deeb. Getting beyond the stereotypes: Men, Withdrawal and Reproductive Health in Lebanon.

(from the Faculty of Health Sciences, American University of Beirut). *Contraception*, Vol. 65(2), 2002, 165-170.

This work seeks to understand the role of men in reproductive health in Lebanon by focusing on withdrawal practices as a birth control method. A total of 25 people (11 men and 14 women) were interviewed, who were currently practicing withdrawal or had done so in the past. Results revealed that the most important reason for the continuing practice of withdrawal is the fear of side effects from other methods. Men and women expect pleasure and fulfillment in sexual relations, but they are willing to limit their fertility by means they consider safe. No prototypical practice of withdrawal seemed to exist, which may explain the variability found in preventing pregnancy among users.

IV.5.1. Ongoing Research

Andrzej Kulczycki and Prem C. Saxena (1997). Marriage, Consanguinity and Family Planning in Southern Lebanon.

(from Population Studies Program, AUB)

This project investigates current and recent marriage and family planning practice in southern Lebanon. It examines the determinants, preferences and trends associated with marriage and consanguinity, as well as their relation to family planning. It is a systemic random sample of currently married women of childbearing age from households from 4 villages in southern Lebanon.

Andrzej Kulczycki and Prem C. Saxena (1997). Contraceptive Use Dynamics in Southern Lebanon. (from Population Studies Program, AUB)

This study examines a number of features of fertility and family planning, including specific problems related to contraceptive use and other aspects of reproductive health in southern Lebanon. It includes 600 currently married women aged 15-49 randomly selected from 6 villages, in addition to focus group discussions with married women and men. The work is still ongoing and no data was made available.

IV.6. General and/or Combined Reproductive Health Issues

Berj Hatjian, Bader Younes, and Ziad Haddad (2001). Situation Analysis on: Occupational Hazards and Their Impact on Reproductive Health. A Survey for Policy Development. (from the Public Health and Development Sciences Programme, Faculty of Health Sciences, University of Balamand).

This study aims to assess qualitatively and semi-quantitatively the exposure to and distribution of occupational hazards and their impact on reproductive health. It also aims to increase the awareness of workers/employers about occupational hazards and their risks to reproductive health, as well as to provide real time situation analysis for decision makers for developing an integrated and more comprehensive RH policy.

The study identifies target industries/occupations in Lebanon and classifies them based on the toxicity of occupational hazards to RH. Stillbirth and spontaneous abortion were RH outcomes that were considered.

In the phase I of this study, RH was found to be an issue of concern when studied in relation to occupational hazards. There is a large population whose RH is directly or indirectly affected by occupational hazards, with the main stakeholders being unaware of this problem.

The study calls for particular efforts to integrate occupational/RH issue into research and development agenda of local and regional agencies, and most importantly into the national RH sub-programme.

Mohammed Faour (1996). Knowledge, Attitudes, and Practices of Women about Pregnancy and Childbirth, Family Planning, and Quality of Services. (from the Family Planning Association-Lebanon).

The aim of this study is to look at the attitudes, knowledge, and practices of women residing in the southern suburb of Beirut, in relation to experiences in pregnancy and childbirth, family planning, and quality services. Systematic random sampling of 1200 household was performed. With respect to educational and economic levels of interviewed females, it was found that despite the in-existence of illiteracy among females below 30 years of age, it still increases with advancement of age. More than 17% of females aged 10 years and more are in the labor force. Regarding pregnancy and childbirth, the mean age at first marriage is 19.4 years, with the average number of pregnancies being 4.6 reaching 7.4 in women aged 45-49 years of age. Besides, the incidence of induced and spontaneous abortions increases with age (0.5 per woman for induced abortion and 1.9 for spontaneous). This means that 38% of pregnancies do not reach term. This implies that a lot of pregnancies are still unplanned and not followed up properly. Results clearly show there is a remarkable drop in cumulative fertility as compared to 1971 survey (5.9 to 3.65), and a drop in total fertility rate.

Despite the elevated number of hospitals and supervised deliveries, the percentages of home deliveries was found to be close to 10% and of unattended deliveries was close to 7%. These findings indicate that pregnant women are still facing the risk of unsafe deliveries and postpartum problems. Regarding knowledge, attitudes and practices related to

contraception, results reveal that close to 98% of women know about two methods (OCP and IUD) at least. However, this was not reflective of equivalent contraceptive use. In fact, the current Contraceptive Prevalent Rate (CPR) was again high (70%), and the majority (54%) uses modern methods with One Year Continuation Rate of 82%. Women using methods prefer the IUD followed by OCP with no major complaints reported. The two main sources for the methods were the physician and the pharmacy, followed by dispensaries, nurses, and midwives. The majority of women were satisfied with the services offered but asked to have more information and counseling.

The author recommends that family planning clinics should possess more advanced audiovisual aids, and should hold more IEC activities and training sessions in order to meet the demand of their clients for quality services.

Georgette Tannouri (1998). Unmet Reproductive Health Needs of Rural Women in Bekaa Area. (from the Family Planning Association-Lebanon).

This study aims at identifying, defining, and addressing unmet reproductive and sexual health needs of rural women in Bekaa area. The study methodology involved 500 women selected randomly from households in 10 villages (2 villages per Caza), and it included 4 components: demographic, pregnancy and childbirth, family planning, and reproductive and sexual health knowledge, in addition to a focus group discussion.

Results have shown that the fertility is still high; total fertility rate was 4.49 and marital fertility rate was 6.64-7.15, which might be responsible for cases of unplanned pregnancy leading to induced abortions. Cases of spontaneous abortions, stillbirth, and neonatal mortality are still happening reflecting poor antenatal care. The differences between average number of pregnancies and average number of live birth (4.47 vs. 3.64) indicates an average loss of one baby per mother.

With respect to family planning, the CPR is still low (52%), with prevalence of use of traditional methods (30%). The preferred sources for the methods are the "doctor" and the "pharmacy", due to lack of trust in other health care providers including the social worker. The use of contraceptive methods is accompanied by several problems (79%) and no counseling was given. Knowledge about the content of family planning services was low and these services were not sufficient and of quality, according to women. The study revealed an ample need for "information" related to SRH, especially the young category showing a greater need for knowledge related to STD and safe sexual life. A need was expressed for SRH services in all the villages with and without FP services, especially services related to "adequate medical tests" and STD. Along that women expressed their demand in having job offers and opportunities. Social workers need to be more remunerated to do a better job.

Mariana Khayyat Sabbouri (1996). Educational and Cultural Obstacles to Reproductive Health in Sidon-Lebanon.

This paper aims at defining the cultural obstacles affecting the reproductive health behavior, related to religious statements, popular beliefs, and common practices happening especially among low socioeconomic groups surveyed. The method used included: observation and guided interviews, in addition to field trials, whereby the research team looked at the degree of response of women to the PHC services, and the problems facing them in this regard. In addition, the team looked into the women's reproductive behavior starting from marriage till after delivery in the light of the present traditions, and to what extent they are attached and affected by theoretical and practical religious principles.

In this study, the author showed how prominent is the effect of tradition and popular stories on the reproductive behavior and understanding of this group of people. Besides, an overwhelming belief in destiny and control by superpowers was clearly observed mainly to justify people's inability to access health services and indicate their ignorance (high levels of

illiteracy). The author recommends intense and well-designed reproductive health education programs (group discussions including men) coupled with free or near free access to services, and proper training of health care workers.

IV.7. Gender and Information, Education, and Communication

Zouheir Hatab (1989). Man and Family Planning in Lebanon. (from the Family Planning Association-Lebanon).

This study identifies men's attitude and behaviors related to contraception. The methodology included a stratified national random sample that involved 1400 interviews of men aged 19-50 years. The results reveal that in general Lebanese men are willing to widely accept the idea of family planning and give women more role in selecting contraceptive methods. Family planning methods are firstly used for birth spacing, and secondly for preventing future pregnancies. Results indicate that there is no proper understanding of the family planning concept and its practices within a comprehensive vision to family well being. All contraceptive practices are mainly related to socioeconomic factors. The author recommends addressing men in specific activities to encourage them to play more definite and responsible role in family planning.

Azzam I. Lebanese Women in Television: Status and Role. A Quantitative and Qualitative Assessment of the Position of Lebanese Women in the Currently Functioning TV Stations since 1997. (from the Department of Social and Behavioral Sciences, AUB).

The study investigates the extent to which Lebanese women are consciously challenging or reinforcing oppressive cultural symbols.

Ali Faour (1995). Lebanese Women Facing War and Violence (1975-1990). (from the Family Planning Association, Lebanon).

The aim of this study is to examine the social and economic conditions of the Lebanese women and families during the civil unrest (1975-1990) that lead to remarkable change in the socioeconomic and demographic structures. The methodology included 3 descriptive field surveys carried out in areas in Lebanon in different times. The surveys covered several hundreds of houses and thousands of individuals in 4 components: housing conditions, demographic changes, educational level, and economic activity.

Results revealed dramatic effects of destruction caused by war leading to displacement and as a result formation of miserable over-populated quarters. Regarding demographic changes, results reveal a decline in total fertility rate and an increase in the percentage of female singles, in addition to noticeable spread of cases of widowship, divorce, migration, violence against women, sexual assault, and more involvement of women in economical support of their families. The author recommends and urges the government and the private sector to issue legislations and create opportunities towards women empowerment, protection, and justice.

Michèle Obeid (1998). Gender and Division of Labor in a Changing Rural Area: a Case Study. (thesis towards a Master of Arts in Anthropology).

The aim of this work is to explore social change in the remote village of Irsal in Northern Bekaa, Lebanon and the means of coping with this change. It also aims to look into gender relations and the extent to which the gender system has been affected. The method employed was the participant observation, with in-depth interviews and focus groups.

M. Arevian, S. Noureddine, Tamar Kabakian (1997). A Survey of Knowledge, Attitude, and Practice of Cervical Screening among Lebanese/Armenian Women. (from the School of Nursing, American University of Beirut), in *Nursing Outlook*, 45(1), 16-22.

This study aims to examine the impact of an intervention on the knowledge, attitude and practice of cervical screening in the population of Lebanese/Armenian women. A cross sectional survey of 176 women was carried using a self-administered questionnaire, following a one-year long intervention. The intervention included activities educational classes, media messages and free screening. Results show that higher knowledge was noted in women who received the intervention compared to those who did not ($p < 0.05$). No difference in attitude or practice was noted between the intervention and comparison groups. The authors recommend that further research is needed to explore the attitudes that hinder the practice of cervical screening so that appropriate interventions can be developed.

Nada I. Sleem (1998). Women's Perception of Power and Health: Evidence from a Village in Lebanon. (thesis towards Master of Sciences in Population Studies, Faculty of Health Sciences, AUB).

This purpose of this study is to examine the decision-making power structure between husband and wife in a rural area in Lebanon. It also aims at investigating the possible resources that may affect these marital power relations. A further attempt was to examine the relationship between dominance and wives' mental health and the family members' acute and chronic physical health. The survey included 153 currently married women interviewed using a structured questionnaire. Several dimensions of power were considered including taking decisions related to reproduction, children, buying food and household items, social relations as well as macro and women related issues.

Results reflected sociocultural characteristics of the study area and the importance of socioeconomic attributes in affecting wives' relative decision-making power. Using the Multinomial Logit Regression analysis, findings noted that women who win in case of conflict were more likely to perceive relationships to be egalitarian or dominated by themselves rather than by their husbands. This related to several factors that women have like: belonging to the same village as husband, work, not religious, literate father-in-law, husband working in urban areas, lower number of children, higher number of boys, higher age at marriage, and unarranged marriage. In terms of dominance and health, results showed that women who have literate fathers-in-law are more likely to perceive themselves dominant than their husbands in matters of reproduction as compared to women who have illiterate ones. It was also found that controlling decision-making areas that are not in accordance with the community-defined roles is related to depression among women and to chronic physical problems among men. The study recommends additional research involving men, urban areas, and bigger samples of study. It also calls for policy implications towards increasing women's education and social empowerment.

Zeinab M. Mawla (1993). The Roots of Gender Discrimination in Family Upbringing. (from Institute of Social Sciences, Lebanese University).

This study aims to look at factors and reasons behind gender discrimination in Lebanese families, and its effects on the individual and the society. The researcher reviews some of the literature that examines the domains and the manifestations of discrimination in human relations, family values, social contexts, education, and others. The study warns from negative consequences to this discrimination on family members and societal relations by quoting certain literature.

T. Papazian (1993). Should Women's Health be a Medical Specialty? In *Al-Raida*, Vol.10, No.61, 10-12.

The aim of this survey is to examine the attitudes of medical doctors regarding totality of

women's health. The methodology involved a simple interview of 7 Lebanese physicians of different specialty. Results show that none of the physicians interviewed were aware of the idea of a women's health specialty, and they refused it categorically. They agreed that a family physician is the best person to provide comprehensive care and to refer the patient. The author was intrigued by the similarity of responses of male and female physicians and related this to the same background of the physicians and to the absence of an aggressive women's liberation movement in Lebanon.

Randa Abul-Husn (1994). Health Awareness among Lebanese Women.
In *Al-Raida*, Vol. XI, No.67, 20-23.

This small study attempts to look into the health awareness among Lebanese women. A random sample of 201 women were surveyed, the majority are in the age bracket 20-30 years and of university education engaged in remunerated work or employment. Results reveal that Lebanese women possess some degree of general awareness about health matters and issues, and are eager to know more. However, they seem to lack initiative in proper health practices and behaviors, such as exercising and regular medical check ups. Generalizations from this survey imply that Lebanese women seem to lack discipline and attitude needed for being health conscious person.

Institute for Women's Studies in the Arab World (1998). Female Labor Force in Lebanon.
In *Al-Raida*, Volume XV, No.82, 12-23.

The goal of this study is to provide the database needed to formulate prioritized strategy related to the supply of and demand for women in the Lebanese labor market and to design adequate plans of action and policies to implement such a strategy. The specific objectives of the study are: to provide a profile of working women, to highlight women working conditions, to examine sociocultural problems facing women at work, and to detect employer preferences. The results on gender issue in the study showed that as the educational level of parents improves, female workers tend to disregard the effect of gender on their access to employment opportunities. Higher female education and professional levels and more years of experience decrease the impact of gender on access to employment opportunities. Also, gender bias in access to employment declines as the size of enterprise increases. The importance of gender as a criterion in the selection of work is confirmed by 43% of workingwomen. The degree to which gender forms a primary consideration within this context varies according to educational levels of the female and family and status at work. The study concludes with general recommendations that can be used to improve the quality of female labor force supply and make it more responsive to labor demand.

Mary Deeb and J. Hatem (1998). Review of Legal Aspects of Women's Health in Lebanon.
(from Faculty of Health Sciences, AUB).

This is a review article of certain legal issues and laws that are directly affecting women's health in relation to rights and quality.

Ezzat Charara (1998). Psychological Health of Woman between Science and Religion.
Beirut, Dar al-Jadeed.

This book is about a study examining woman and psychological health in Lebanon, emphasizing the surrounding situations concerned with her psychological and counseling cure. For this purpose, all those involved with psychological health of woman were interviewed.

Leila Ahamed (1992). Women and Gender in Islam.
New Haven, Yale University Press.

This book looks and examines the historical roots of practices taking shape in early Islam and

the discourse of these practices and its relation to social change in the modern era. It also traces the impact of socioeconomic changes to the appearance and evolution of feminist discourses.

Sherifa Zuhur (1992). *Revealing Reveiling: Islamist Gender Ideology in Cotemporary Egypt.* Albany-NY, SUNY Press.

This book is originally a thesis reflecting on the opinions and ideals of fifty Egyptian women, veiled and unveiled, and compares their views to the gender ideology of the contemporary Islamists. Women social backgrounds are examined in the context of the Egyptian state and its social policies. It also explores the history of Muslim women and the debates over gender that has developed since the golden age of Islam.

IV.7.1. Ongoing Research

Ghada El-Hajj Fuleihan (2000). *Gender Differences in Nutritional and Lifestyle Risk Factors for Bone Loss in Children in Lebanon.*

(from the Department of Internal Medicine, Faculty of Medicine, AUB).

This study investigates vitamin D insufficiency in healthy children. Children ages 10 to 16 years from 3 private schools in Beirut, Lebanon, with differing socioeconomic status (SES) were studied: 169 in the spring of 1999 and 177 in the following fall; 83 students participated in both study phases. They had a physical examination, answered a dietary questionnaire, and blood was drawn for calciotropic hormones and indices of bone turnover.

Overall, 52% of the students were vitamin D-insufficient; the proportion of insufficiency was 65% in the winter and 40% at the end of the summer. During both seasons, girls had lower vitamin D levels than did boys; those who followed the dress code of covered head, arms, and legs had the lowest levels. Students in the mid-SES school had lower 25-hydroxyvitamin D (25-OHD) levels than did the ones from the high-SES school. After adjusting for confounders, gender, SES, and body mass index remained the significant predictors of vitamin D levels in both seasons ($R^2 = 0.53$, for spring and 0.28 for fall). There was a significant inverse correlation between 25-OHD levels and parathyroid hormone levels that were best fitted by a curvilinear model ($R^2 = 0.19$).

Even in a sunny country, hypovitaminosis D is common in schoolchildren, more so in the winter. Girls, especially those with a lower SES, are at particular risk. The inverse changes in parathyroid hormone suggest that insufficient vitamin D levels may deleteriously affect skeletal metabolism in healthy adolescents. Vitamin D insufficiency may be prevalent in many other countries where supplementation of milk with vitamin D is not mandatory. Our results call to a reconsideration of vitamin D supplementation in high-risk adolescents to further optimize skeletal health. Vitamin D insufficiency, bone metabolism, nutrition, gender, socioeconomic status.

Ghada El-Hajj Fuleihan (2000). *Education as a Strategy to Improve Patient's Adherence to Raloxifene Therapy.*

(from the Department of Internal Medicine, Faculty of Medicine, AUB).

As life expectancy continues to increase, women will soon be postmenopausal for one third of their lives. The human and economic costs of this increased longevity in an estrogen-deficient state are substantial. They include a projected increase in cardiovascular events, the leading cause of death in post-menopausal women, and in osteoporotic fractures. However, despite the many benefits of estrogens, less than one fifth of women ever take them. This reluctance is based on the high incidenc of side effects, and to fears from cancer of the breast. Raloxifene (Evista) is a selective estrogen receptor modulator that received FDA approval for osteoporosis treatment. This agent reduced the risk of fractures by 50% and of breast cancer by 70%. Due to its low side effect profile, compliance is expected to be higher in Raloxifene than with estrogen. However, compliance with medication for chronic diseases

is extremely low. This study will test the hypothesis that patient education will improve compliance with Raloxifene.

IV.8. Others

Leila Farhood, Huda Zurayk, Monique Chaya, Fadia Saadeh, Garbis Meshefedjian, and Thuraya Sidani (1993).

The Impact of War on the Physical and Mental Health of the Family: The Lebanese Experience. In *Social Science and Medicine*, vol. 36 (12), 1555-1567.

The aim of this study is to address the impact of war-related stressful life events on the health of families living through the war conditions prevailing in Lebanon for the past 12 years. Indicators of somatization, depression, psychological symptoms, interpersonal relations and marital relations represent health outcome. Associations are described between elements of war stress and health outcome variables for mothers, fathers and adolescents in a sample of Beirut families. The role of the mediating factors of social support and social class is discussed.

Saint-Joseph University, Mid-wifery School.

Several small research projects done by students and supervised by the faculty of this school had been provided for this review from year 1991-2000. These projects include:

- Evaluation of the health conditions of mother and infant in the region of Karm El Zeitoun, Beirut.
- Prevalence of breast cancer in women presenting to Hotel-Dieu Hospital during the year 2000.
- Complications of induced labor.
- Evaluation of the efficacy of prevention tools of cervical cancer in women presenting to a community dispensary in Nabaa, Beirut, during 1992-1993.
- Urinary incontinence.
- Examining the indication of cesarean sections in women delivering at Hotel-Dieu in 1998.
-

Other student projects are being done in various universities that address issues related to RH and are mainly about attitudes and prevalence.

V. Determinants of Reproductive Health Research

V.1. Current and Ongoing Research: Background and Status

The first pre-requisite of good research is that its general aim and specific objectives be clearly defined. The compiled available research in this document embodies several components of RH as per ICPD definition. Obviously, academic institutions, concerned NGOs, and research groups are attempting to convoy the introduction and the evolution of RH concept since its inception. These efforts were charged and intensified with the establishment of the national sub-programme on reproductive health and the NAP. Those programmes had vehemently emphasized the needfulness of sociocultural research in respective RH areas. Though this research albeit its happening, should be fostered by certain guidelines in order for it to be contributing to action and change.

In Lebanon, RH research was started by some public health and social scientists who were exposed and trained in the emanating RH issues. The crux of the research questions

remained within these circles and to a large extent stayed away from academicians and physicians. Research groups like Reproductive Health Working Group (RHWG), Bettering Women's conditions in Labor and delivery in Lebanon (BWELL), and Surveillance and Intervention for Behavioral Risk factors in adolescents (SIBER), all are housed in the Faculty of Health Sciences at the American University of Beirut, and are conducting high quality research in the area of reproductive health and adolescent health.

The fact that physicians are not closely involved in RH research is a matter-of-factly related to the formation of doctors as leaders of technical and biomedical models of health care. Despite the emphasis of the RH sub-programme document on the component of research, this emphasis was not paralleled in implementation. So, research remained fluctuating and muddled depending on the initiative of the corresponding institutions or organization. In fact, the majority of compiled research work came from institutions of Health and Social Sciences and minimal studies came from medical schools. Even then, medical doctors had a public health specialist or a social scientist co-investigating the work. In this respect, researchers did not attempt to come together to set an agenda for research guidelines and topics.

Despite all the apparent and inherent constraints delaying the adequate continuation of research activities, the compiled research had addressed several topics and subjects which open doors for various additional works. The compiled research has many characteristics that make it practically relevant. These characteristics are:

- ❑ *The research done appears to answer clear research questions.*
- ❑ *A multidisciplinary team of social scientists, health scientist, and medical doctors mainly conducts the research. An approach that adds to the value and the quality of research.*
- ❑ *The compiled work –undoubtedly- adds to the national capacity building of researchers and other team members in relation to expertise and information exchange.*
- ❑ *The research done contributes to the international debate on questions related to evolving RH issues like reproductive morbidity, youth, and dignity in health care.*
- ❑ *The research does also contribute to national problems especially those raised by the national RH sub-programme.*
- ❑ *The research done is culturally sensitive, relevant, and timely.*

The compiled research will be addressed along these characteristics:

V.1.1. STI/HIV/AIDS Research

The National AIDS Program (NAP) in Lebanon supported by the WHO had initially carried out a series of baseline studies attempting to identify the sociocultural status of AIDS. These studies addressed in the first place random samples of high risk groups and culminated in a national sample. Knowledge, attitudes, behaviors, and practices of those groups were carefully examined and recommendations were issued in a way to orient the NAP to the most appropriate tools in the most demanding population. This is an essential endeavor that was shown later and after lucid feedback and reinforcement, to be the leading measure in dissemination and prevention efforts.

Other studies from AUB and the Family Planning Association-Lebanon had again revealed respondents' awareness of AIDS, but this was not commensurate with crucial knowledge regarding transmission, HIV sero-positive prevalence, and life-style changes like safe sex practice. The high degree of awareness might be related to the immensity of the programme launching in the media that made everyone aware about the term AIDS. Studies show a need for intense in-depth intervention. In addition, many of the findings revealed in the aforementioned studies call for more focused research that shall investigate determinants of these findings and their corresponding correlation.

V.1.2. Reproductive Morbidity

Reproductive morbidity is essentially a basic component of reproductive health which came to the interest of researchers in the early nineties and more so from 1994 and on. The work done at AUB is novel in studying for the first time in Lebanon, reproductive health issues. In fact, the study " Beirut: A Health Profile 84-94", AUB, was the first to include reproductive gynecological morbidity indicators in a population-based survey. These indicators were analyzed in relation to selected socio-demographic indicators. This and other studies tried to describe and understand the nature, magnitude, and determinants of reproductive behavior. This included assessment and perception of risk, biomedically defined versus self-provided and reported reproductive morbidity, and socioeconomic and demographic characteristics of those affected by ill health, towards having a morbidity database. This will call for further studying the prevalence of other reproductive ailments that will help later on to concentrate efforts at the levels of policy and services in a way that suits and impacts women well-being.

V.1.3. Safe Motherhood

Accumulated studies carried out by several institutions attempted to examine the basic indicators of safe motherhood, by looking into the pregnant perception of service delivery, the health care provider and the type of care provided, and the hospital policies implemented for maternity wards. Some other studies examined risk factors in pregnancy like maternal age, depression, smoking, and nutrition. All these findings will assist in interventions that are evidence-based, at the level of the service and of the health care provider, in addition to educating women about pregnancy and childbirth. It is hoped that these efforts will congeal towards a national network that will make pregnancy safer.

V.1.4. Youth

Youth is considered to be one of the under-served groups that deserve attention. The accumulated national work concerning youth is exiguous as it carries certain limitations attributed to country and community specificities. In addition, these studies –except the one of family planning- are sample-specific (schools, universities) and so not representative nationally. The family planning study on youth albeit national, is so general and descriptive of a certain level of knowledge and attitudes, delivered through a closed response self-answered questionnaire. Nonetheless, the available studies had definite research questions addressing knowledge, attitudes, behaviors, and practices of youth in issues related to reproductive health including sexual health. Besides, few studies addressed reproductive and sexual issues along with other life style ailments like drug abuse and injuries. This is important because it tries to look into cluster behaviors-common in youth- and thus examine determinants of behavior in their true perspective. This undoubtedly fills a research gap about a marginalized sector that needs vast investigation. These studies have a practical relevance as they can contribute-albeit minutely to date- to formation of guidelines and frameworks to help design the most effective research and intervention for youth.

V.1.5. Family Planning and Fertility

Studies performed in this domain addressed two main themes: fertility trends and contraceptive prevalence. The work on fertility trends reflects or includes wartime effects and one of them is national, while the rest are community-based. The other studies focusing on the contraceptive prevalence aim to examine unmet need in family planning. They are mainly community-based KAP studies. Although this research adds a lot of information about contraceptive prevalence, it came short of in-depth analysis relating this prevalence to other conditions like morbidity, services, and other socio-cultural factors. Nonetheless, the research had enlightened programme managers and services to the size of the needs in family planning.

V.1.6. Gender and Information, Education and Communication

The majority of the compiled data are gender-sensitive in that analysis examines prevalence and perception by gender. This in addition to studies examining gender as a research question. However other studies did not include male component or contribution to the

formation of results. The studies examine the sociocultural background dictating gender discrimination at the levels of policy, legal aspects, delivery service and health care provider, and consumer level.

V.2. Research Constraints

The mission document for the national RH sub-programme recommends that the government should conduct sociocultural research on attitudes of men, women, youth and adolescents toward RH/FP issues to compliment the existing research in this area. The mission also recommends conducting sociocultural research aimed at improving quality and ensuring safety of RH/FP services. Research should also focus on measuring programme impact by selecting priority areas for study to assess efficiency, examine utilization patterns of current services as well as determine satisfaction levels of service users.

This clearly indicates that the sub-programme highlighted and marked areas of research priority. However, the delays that thwarted the start and the pace of the sub-programme had definitely affected the research component. Under these circumstances, no efforts have been made to identify research groups and sensitize them to RH research, or even to coordinate between existing groups and teams. This has left researchers without a research agenda that would include relevant and needed topics and areas of research for the sub-programme.

As a matter of fact, the areas of research in RH are vast and demand several levels of study and assessment. These areas are also continuously evolving and so breed more research. All this makes it difficult and time demanding to researchers to keep up with it, especially to make the desired impact. This again requires several research teams that will coordinate to exchange expertise to complement each other; a case that is believed to be totally missing.

V.3. Areas of Duplication

The fact that reproductive health research in Lebanon is still burgeoning minimizes the likelihood of duplication of research. At the same time, this budding research in trying to address national issues that are rooted in RH definitions could lend itself to duplication with respect to research questions, community-specificity, or practical relevance. For example, in certain situations the AIDS KABP surveys done by the NAP and the Family Planning ask similar questions to similar samples. Likewise, studies related to antenatal and childbirth care. Some times several studies have the same type and would not have an additive answer to some national problems. One might argue that some of the similar studies done may have a clearer research questions and more representative sample. Even few studies are particularly done as situation analysis to assess a service or to implement one.

It worth mentioning that the almost absent dynamic interaction between national RH research groups and the feckless dissemination of their results could lead to duplication. In general, the available compiled research indicates that the majority of studies – done or ongoing – are original and unique.

V.4. Areas of Future Research

The National Sub-Programme on RH starting in 1997 together with the National AIDS Program had fueled sociocultural RH research in Lebanon. Unfortunately, this research is not utterly coordinated and guided to cope with existing research gaps. Besides and as aforementioned, research teams in different institutions failed to have a joint agenda or common perspectives for prioritizing and complimenting research topics. This has dictated

that completed and ongoing researches are planned based on several factors related to researchers interests, funder preference, and academic considerations with no reference to the sub-programme needs.

One of the mainstays of sociocultural research is humanization of health care. This stems partly from the consideration that technology, interventions and services should be modified to suit people, rather than the other way around. The fact that sociocultural research has both a biological and a social/cultural component demand providing insights into an array of research questions. These considerations necessitate conducting many research activities that would permeate all the echelons of reproductive health from epidemiology of reproductive conditions to reproductive and sexual behavior to services to national policy-makers.

Future research needs to be identified in the context of specific activities that should meet RH sub-programme demands. It should also abide by certain guidelines. Some of these guidelines aim at:

- ❑ Identifying and defining reproductive health problems by measuring the magnitude and nature of reproductive/sexual behavior and reproductive ill health.
- ❑ Investigating its determinants and consequences.
- ❑ Improving and supporting intervention programmes which attempt to prevent or treat reproductive health problems through health, family planning, and educational and other services.
- ❑ Understanding, informing and influencing the policy, legal or social arena in which reproductive health concerns arises.

Despite the practical relevance of the outcome of the compiled completed and ongoing research, this review calls for the following suggested areas of future research:

V.4.1. Epidemiology

It essential for the implementation of the RH sub-programme to conduct research that will quantify the prevalence of various reproductive morbidities and their determinants. This has been started and shall continue through community-based surveys that will help design and implement interventions to meet needs of local women and men.

V.4.2. Reproductive and Sexual Behavior and Reproductive Morbidity

Sociocultural research into the determinants and consequences of reproductive behavior and morbidity is essential. In this regard, adolescents should receive special attention. This may address the following:

- ❑ Sexual behavior and negotiation in relation to gender issues and sexual practices stressing women's vulnerability to unwanted outcomes;
- ❑ Individuals' experience of reproductive health problems and their desired solution;
- ❑ Burden of reproductive health problems in terms of physical, psychological, cultural, social, and economic terms;
- ❑ Socioeconomic and demographic characteristics of under-served groups affected by unwanted reproductive outcomes, emphasizing adolescents.

V.4.3. Service-Based Approaches

Future sociocultural research should examine service-based approaches in both the preventive and curative aspects. It may look into:

- ❑ The degree of accessibility and acceptability of services.
- ❑ Estimation of the magnitude of various costs of services in terms of economic, social, and labor considerations.
- ❑ Dynamics of services regarding compliance and continuation.
- ❑ Prioritizing content of services regarding seriousness of the complaint in terms of

prevalence or consequence. This will clarify priority problems in each service and for each geographical area.

- ❑ Culturally appropriate methods for promoting behavior change, including communication strategies for achieving them.
- ❑ Technical and managerial quality of care.
- ❑ Risk perception and motivation for utilization of preventive services.

V.4.4. Policy and Legal Aspects

Good reproductive outcome implies working to impact policy and legal arenas that impinge on the determinants and consequences of RH problems. Future research might consider the following:

- ❑ Effectiveness of different types of services and providers.
- ❑ Identifying best systems for service delivery.
- ❑ Assessing the value of integrated services.
- ❑ Policy barriers to reproductive change and to examination of sexual behaviors and practices, especially of adolescents.
- ❑ Identifying agents of social change.
- ❑ Mechanism for creating demand for services.

V.4.5. Evaluation of the Reproductive Health Programme Impact

An essential tool to examine the sub-programme achievements and to identify future needs is to conduct research that will look into the impact of the sub-programme outputs. This includes the following components:

- ❑ Service utilization, by looking at interval changes in the number and category of beneficiaries, and assessing the type of services utilized/not utilized.
- ❑ Quality of care, by examining the guidelines governing service delivery, RH information system, client-provider communication, and service setting.
- ❑ Capacity building, by assessing competence of health providers, training impact and needs, and case management and referral.
- ❑ IEC activities. This refers to all types of activities related to information provision in terms of their quality, need, and adequacy for clients and other potential beneficiaries within and outside service setting.

These are some of the issues that can be addressed. Throughout all these tasks, the gender issue should be crosscutting in a way to sensitize all the involved elements in the sub-programme to gender, and contribute to a comprehensive understanding of the role of gender in all the details of implementation.

VI. Limitations

In this document, all the available and accessible RH research work was reviewed and classified. Some of the research work may have not been included, being either non-disseminated or not registered, or even unfinished.

The absence of consensus with respect to a national research agenda have led to the absence of a need-oriented research, which should address RH issues like maternal mortality and morbidity, contraceptive use, women's perception of RH care, and many others. This situation necessitated that the available research be dictated by mostly academic and university program initiatives, in addition to international and regional directives concerned with RH issues. On the other hand, it was not possible to meet all researchers to discuss with them the

potential barriers to research as well as the factors that govern research initiatives. This might help understand current research trends, and allow for adequate and timely future recommendations. Nevertheless, two meetings concerning research dissemination and research topics identification were held at AUB in the presence of the national RH sub-programme representatives, which dwelt on research priorities. However, the outcomes were never formulated into a national research agenda.

It remains crucial to work with the various stakeholders (national sub-programme, universities, providers, NGOs, and grassroots) towards a research agenda that will be comprehensive towards better understanding the RH situation and needs.

VII. Conclusion and Recommendations

This review has attempted to compile all the available research work on RH issues. This work covers most of RH topics and it sets grounds for different types of investigation and analysis. It is apparent that most of the accomplished research was carried either by regional working groups, or by certain research teams within few universities. There was no substantial research carried by, or under the RH sub-programme, an issue that could affect its planning and execution, although research is emphasized in the sub-programme documents.

This review shows the difficulties that RH research is facing in Lebanon at several levels including, lack of research agenda, feeble networking, weak qualitative and operational research, in addition to the lack of organized national research teams that keep abreast of the evolving RH concepts.

The evolving nature of RH concept generates areas of research that deserve prompt consideration and demand lots of efforts. This brings the sub-programme managers, the stakeholders, and RH researchers face-to-face with several challenges that constrain the national sub-programme. A timely and serious collaboration with the academic and other research institutions is called for to up-grade and create long-term research activities, and undertake the necessary steps for that.

This and many other challenges had been mentioned several times in the bearing of this review, and serious actions and measures must be taken to deal with them. Some of these actions and measures have to do with the following:

- Initiate a research committee from all involved sectors to work with the RH sub-programme on identifying and prioritizing areas of research. This task demands proper understanding of the Lebanese situation and of the donor interests, as well as problems and issues that impede the sub-programme performance.
- Advocate for RH matters among researchers dealing with RH-related topics, as well as other closely related field of specialization. This will help create interests and thus empower and diversify RH research teams. This implies that the sub-programme will provide those researchers with up-to-date papers and documents related to RH , as well as link them to other researchers and donors in other parts of the world.
- Encourage formation of research teams with different RH interests in a way to compliment other ongoing research work. This should respond to the issue of RH integration and to the holistic approach to RH as being inter-related. Formation of multidisciplinary teams enable researching RH from the various perspectives of the different

medical, health, anthropology, and social science fields, truly reflecting RH concept.

- Ensure coordination between existing research groups that will help sharing expertise, exchange information, and exposing data for additional treatment. In this respect, the sub-programme can call for research meetings on a bi-annual basis for research dissemination and exchange of expertise, as well as identifying research topics and needs. This can also be an opportunity to also build different skills in different domains.
- Create a mechanism for impact assessment through research. It is crucial at this stage to ensure that ongoing and accumulated research is being properly used to serve policy levels and other planning activities for the RH su-programme, like RH indicators, impact assessment, and qualitative research.

This is the first document of its kind trying to compile and analyze the existing RH research, and also trying to identify potential obstacles and future demands pertinent for the country. It reflects the enormous efforts needed to be exerted to strengthen the research aspects in order to plan and effectively direct the activities of the sub-programme towards promoting quality RH services.

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