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**REVIEW OF RH COMPONENTS  
IN  
MEDICAL / POST MEDICAL / PARAMEDICAL  
CURRICULA**

by:  
**Faysal El-Kak, M.S., M.D.**

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# **REVIEW OF RH COMPONENTS IN MEDICAL / POST MEDICAL / PARAMEDICAL CURRICULA**

## **Outline**

### **I. Introduction**

### **II. Methodology**

#### **PART ONE: COMPILATION AND REVISION OF RH COMPONENTS**

### **III. Revision by Universities**

1. Lebanese University
2. Université Saint Joseph
3. American University of Beirut
4. University of Balamand
5. Beirut Arab University
6. Lebanese American University

### **IV. Evolution of RH Concept**

1. Type, Source, and Content of RH in Curricula
2. Place of RH in Curricula
3. Efforts for Standardizing RH in Curricula

### **V. Application of RH Theory**

1. Clinical Setting
2. Social Setting

#### **PART TWO: ASSESSMENT OF RH SITUATION AND INTEGRATION**

### **VI. Requirements for RH Integration in Curricula**

1. Role of Curricula
2. Actions for Universities
3. Negotiation
4. Identification of Areas of Integration

### **VII. Teacher's Experience**

1. In-Training
2. Researchers
3. Core Faculty

### **VIII. Training Needs**

1. Technical
2. Material

## **IX. Gender and IEC**

## **X. Concluding Remarks**

### **TABLES**

Table I: Place of RH-related material in the Curricula of Reviewed Universities

Table II: Type, Source, and Content of RH-related material by Area of Study

Table III: Concentration of RH-related Material by Area of Study

## **REVIEW OF RH COMPONENTS IN MEDICAL / POST MEDICAL / PARAMEDICAL CURRICULA**

by: Faysal el-Kak

The main goal of the national sub-programme on Reproductive Health (RH) is to assist the Government of Lebanon achieve its national RH goals through improving access to quality RH services and information, especially to the displaced, and to those living in the underserved areas. It also aims at integrating comprehensive and sustainable quality Reproductive Health including Family Planning (FP) and Sexual Health (SH) services and information within the framework of the Primary Health Care system at both theoretical and practical levels. In order to achieve those tasks, the overall stated outputs emphasized the necessity of addressing National Capacity and Capability Building, and strengthening the Management Component of the PHC system. Similarly the development of Human Resources behooves to be upheld in order to respond to RH sub programme needs. To help achieve this, the national sub-programme recommends the following activities:

- Integration of RH concepts in all existing medical and paramedical academic curricula aiming at standardizing the information in pre-service education. In this regard, the sub-programme calls for the formation of a National Committee on Curricula to be lead by MOPH and WHO to revise the existing curricula and to come up with recommendations.
- Institutionalize in-service training with the aim of a better assessment of the needs and of designing, conducting and evaluating training events. Efforts should be spent towards creating a cadre of Master Trainers at the central level to strengthen training at the *qadaa*' levels. Consistency should be ensured between pre-service curricula and in-service training.
- The curriculum of the National Accreditation Exam should be **modified** to overcome the problem of diversified health professional graduates and trainees.
- Dialogue between academic institutions and service delivery institutions should exist, aiming to improve cooperation, linkages and to promote continuous dialogue among different pre-service institutions.
- Staff-development activities should be supported in the form of conducting continuing medical education seminars and workshops for service providers. In addition, it is important to support efforts to establish and/or expand post-graduate programmes for nursing and midwifery education.

The above mentioned activities clearly demonstrates the important role of academic institutions in contributing to RH concept at several levels. This anticipated contribution can immensely impact the pre-clinical or pre-training, the training, and the practice stages, in addition to the sustainability of quality RH services. This quintessential mission can be

best started through an open and direct dialogue with education policy-makers in Lebanon. **The initiation of this dialogue demands adequate knowledge of the existing curricula and their thematic indicators, and also of all the key steps involved in curricula reform and update.** Several successful patterns of this dialogue/cooperation like the Nursing and Mid-wifery training programmes, can represent cases for initiating and strengthening modules in other disciplines. This review aims at documenting all the available academic material that are directly or indirectly related to RH concepts post the International Conference on Population and Development (ICPD), held in Cairo, Egypt, 1994. It also aims to investigate the possibility of integrating RH concepts into the existing curricula.

In this aspect Lebanon can be rather an intricate case. In this country, higher education systems are diversified and enjoy vast degree of liberty and privacy pertaining to type, content, and language. In Lebanon, there are one public university, the Lebanese university, around 10 private ones, and many other colleges and institutes. Their curricula is set by their own private boards within the context or spirit of the system of education of their affiliates or charters, and in agreement with the needs and demands of the country. Throughout this endeavor, only universities with medical schools, nursing and mid-wifery programs, social sciences, public health, and related fields will be eligible for the review of the RH content of their programs. The RH components that will be identified are those stated by the Chapter VII of the ICPD Programme of Action, in Paragraph 7.6 which says:

“Reproductive Health Care in the context of Primary Health Care should, inter alia, include:

- Family planning counseling, information, education, communication and services;
- Education and services for prenatal care, safe delivery and postnatal care, especially breast
- Feeding and infant and women’s health care;
- Prevention and appropriate treatment of infertility;
- Abortion as specified in paragraph 8.25, including prevention of abortion and the management of the consequences of abortion;
- Treatment of reproductive tract infections;
- Prevention of STD’s, including HIV/AIDS and other reproductive health conditions;
- Information, education and counseling, as appropriate, on human sexuality, reproductive - health and responsible parenthood;
- Treatment for complications of pregnancy, delivery and abortion; and discouragement of harmful practices including FGM”.

## **II. Methodology**

In attempting to compile all the existing RH-related material in the existing curricula, I will try to go by University first. Then under each University, Schools and Departments will be listed with their respective courses that are RH-related. Each relevant course is briefly described in terms of load (credits as cr, and hours as h)and content, whenever possible. In cases of repetition, or when little information available, or even when the courses have

similar contents, the description will be lumped in one paragraph followed by course listing. In listing the applicable courses, there might be inclusion of certain topics that are not strictly within the core of RH concept post ICPD. This is because some of these courses might contain material on general health concepts and applications, or are related to sociocultural and psychological issues, and issues in health promotion and communication, that could contribute to RH dissemination. Moreover, content and load of the same topic can vary from one specialty to the other. For example, pregnancy and childbirth material vary from Medicine to Midwifery to Nursing with respect to load and student exposure. On another track, the text will be using general RH terms to refer to topics of study, like using Safe Motherhood to include all components of Pregnancy and Postpartum Care, FP, and Post Abortion care. Like wise, using Reproductive Morbidity to refer to Gynecological Conditions of Reproductive Age, Menopause, and Postmenopause.

This review does not in any way pretend comparing curricula or judging program strengths or weaknesses. The selection of courses and their description are based on the consultant understanding of RH concepts. In order to illustrate the place of RH in the curricula, some tables were developed displaying collected material.

## **PART ONE: COMPILATION AND REVISION OF RH COMPONENTS**

### **III. Revision by Universities**

The four major universities having both medical and paramedical education are the following: Lebanese University (LU), Université Saint-Joseph (USJ), American University of Beirut (AUB), Beirut Arab University (BAU). The University of Balamand (UOB) has a Faculty of Health Sciences, including Nursing programme. The LAU has a course on Basic Health, and all have programs in Social Sciences. .

#### **1. Lebanese University**

The formation of the Lebanese University came a result of a long journey of popular, political and national strife. In 1951, the nucleus for the university was created with the Higher Institute for Teachers, and an Institute for Statistics. In 1953, the Center for Financial and Administrative Studies was found. The major achievement came in 1959, with the decree no. 2883 stating “the Lebanese University is an official institute of higher education in various fields and levels”. Following that, the university expanded gradually – over 20 years – to house to this day 14 schools and departments, including the faculty of medical sciences and the faculty of public health that contains among others the divisions of midwifery, MLT, medico-social assistance and nursing.

#### ***Faculty of Medical Sciences***

In 1983, the decree for the initiation of a Faculty of Medical Sciences was issued. It offers degrees in Doctor of Medicine, most medical specialties, and in Dentistry specialties. The faculty cadre is about 460 instructors, where around 290 faculty belong to the faculty of medical sciences. Courses are taught in English and French, and students are trained in selected medical centers contracted by the university.

*courses - file*

The curriculum of the faculty of medical sciences does not specify any course material that directly addresses Reproductive Health concepts as a comprehensive, well-defined topic. Nevertheless, there are several chapters and sections containing material that are consistent with the core definitions and descriptions of RH. These are included within the following courses.

- Anatomy (192h). In this course, medical students learn about general human anatomy including both female and male reproductive systems, and the significant correlation between their different organs in contributing to reproductive health wellness and ailment conditions. Consequences of disease processes are stressed (STD, tubo-ovarian problems, tubal damage, congenital anomalies, etc.). Students also learn how various organs are supposed to function to maintain reproductive health and achieve reproduction.
- Introduction to Psychology (40h). It studies medical psychology, psychoanalysis, and development of personality from birth to adolescence and to adulthood. It also studies psychosomatic illnesses and patient-doctor communication.
- Physiology of Metabolism (60h). The hormonal milieu of the human body is addressed in-depth in this course. In part, hypothalamic-ovarian function, menstrual cycle, and ovulation are extensively studied in terms of their contribution to women's reproductive functions and well being as well as in terms of disease situations (menstrual irregularities and infertility).
- Embryology (32h). The basics of the reproductive cycle and the ovarian functions during fetal life are covered. In addition, essential anatomical setup for adequate reproductive functions is described with the possible occurrence of congenital malformation that might have ill effects on future fertility and childbearing.
- Sociology (40h). It tackles development of sociology, socialization, delinquency, social role and status, and social regulation.
- Bacteriology and Microbiology (40h). It includes epidemiology of infectious diseases, and bacterial infections affecting the genital tract (STD's).
- Virology (30h). It covers viral infections, including STD's and AIDS.
- Psychopathology and Psychiatry (50h). Includes sections on infant psychology and psychology and psychoanalysis of the pregnant women.
- Epidemiology and Social and Preventive Medicine (80h). It studies the causes and the prevention of infectious diseases including STD's. It also covers components of health care and health Manpower.
- Obstetrics and Gynecology (60h). This course includes the bulk of the material that makes up RH issues and concepts. Topics of the components of safe motherhood, ovulation, infertility, family planning, reproductive morbidity, menopause, and STD's are covered.

Adolescent gynecological and reproductive health are also dealt with in chapters on puberty, STD, contraception, and menstrual irregularities. In addition, this course includes topics on infertility work up, therapeutic abortion, and sterilization. It also covers all the medical processes affecting the reproductive system. There seems to be insufficient teaching in topics of antenatal care, high-risk pregnancy, and urogynecology. In addition, there are 2 months of practice in Obstetrics and Gynecology in areas of delivery and surgery, with minimal exposure to clinical application.

- Pediatrics (70h). Topics on the well being of the newborn and child are covered.
- Post-M.D. Training. Medical residents in the Obstetrics and Gynecology specialty are trained over 5 years, in various practical disciplines of the specialty in various assigned hospitals. Residents are trained in labor and delivery, clinical and surgical skills of reproductive and menopausal problems. Interns and residents in this program are less exposed to Outpatient Clinics and intensive clinical rounds and seminars. Residents in Endocrinology are also trained (2 years) in cases related to puberty and development and infertility. Also Pediatric residents are trained over 4 years in part on cases of newborn and child care.

### ***Faculty of Health Sciences***

It was started in 1981, and includes the following disciplines: Nursing Sciences, Medical Laboratory, Medico-social Assistance, Physiotherapy, Mid-wifery, Orthophony, and Handicapped Rehabilitation. There are around 400 faculty members, teaching in both English and French..

**Nursing:** It is a 4-year program, and available in all the branches of the Faculty.

- Anatomy and Physiology (105h). Students are theoretically exposed to the anatomy of the various organs of the reproductive systems, as well as to certain physiological phenomena that governs reproductive system functions.
- Psychology (45h). This course is an introduction to certain psychological principles related to the patient in a health care setting, and the way to understand it and deal with it.
- Sociology (30h). Introduction to methods of individual socialization.
- Microbiology (30h). It includes study on morphology and physiology of HIV.
- Public Health (75h). It is about health education, social dilemmas and their relation to health. School health, epidemiology, and health economics are also discussed.
- Gerontology and Geriatrics (60h). Concepts relative to aging and consequent bio-psycho-social changes. Approach and practical evaluation of aging persons.
- Pediatrics (60h). Care of the newborn and child in wellness and disease, including 15 hours practice.
- Gynecology and Obstetrics (60h). Introduction to the components of safe motherhood and gynecological problems of reproductive age and menopause, with 15hours practice..
- Infectious diseases and AIDS (60h). Students are exposed to general notions of STD's and AIDS occurrence and prevention, including 15 hours practice.



- Statistics (60h). Introduction to statistical methods and its use in health settings.

Training of Nurses covers 1050 hours in general rotation, inclusive of Obstetrics and Gynecology.

**Mid-wifery:** It is a 4-year program. The bulk of the curricula covers topics in safe motherhood, contraception, pregnant and couple education and counseling. The courses are:

- Genital Systems (30h). Study of the anatomy, physiology, embryology, and pathology of both the female and male genital systems.
- Psychology (45h). Introduction to general human psychology with focus on therapeutic aspects. Study of the psychology of the family, couple, pregnant women, and the postpartum period. Psychology of the infant and aspects of infant psychology, human communication, and psychology through reproductive age are all discussed.
- Public Health (75h). Similar to the Nursing course.
- Obstetrics (225h) and Gynecology (30h). Anatomy, physiology, and embryology of the placenta and fetal surroundings are introduced. Clinical and para-clinical studies of pregnancy, normal vaginal delivery, and gynecological diseases and cancers are addressed. Students are enabled with skills on the use of actual methods and techniques in pregnancy, childbirth, and gynecology.. These courses also cover fetal presentations, induction of labor, and complications of labor and delivery, in addition to obstetrical maneuvers and surgical interventions. Students are enabled with skills on the use of actual methods and techniques in pregnancy, childbirth, and gynecology.
- Nursing Care in Gynecology and Obstetrics (45h). Role of the mid-wife in normal obstetrics and neonatology. It also addresses psychology of pregnancy.
- Pediatrics (45h). Study of neonatology, prematurity, and pediatric consequences of traumatic delivery.
- Preparations for Pregnancy (75h). Psychological preparation and education of the couple about pregnancy and what to expect. Group dynamics and communication. Prevention of postpartum problems and means to cope with tragic outcomes, including 60 hours of practical work.
- Contraception- Birth Control (15h). A survey of the different methods of contraception, and the role of mid-wife in birth spacing counseling.
- Sexology (15h). Introduction to sexuality. Normal sexuality of infant, adolescence, and pregnant women are all addressed in addition to problems of sexual dysfunction.
- Reproduction and Sterility (15h). Students are exposed to physiological conditions of reproduction, sterile couple. It also focuses on ethical aspects of sterility.

Graduate Mid-wives are enrolled in a training program of 1410 hours including issues of Safe Motherhood and Family Planning.

**Department of Medico-social Assistance:** In this program, students are partially exposed to RH-related problems to help them acquire skills that would allow them to counsel and assist patients, couples, and families in crisis. It focuses on the importance of the social

dimension in medical situations. Special attention is given to maternal and infant protection.

- Anatomy and Physiology (60h) The anatomy and the physiology of genital systems are studied in terms of normal and abnormal functions.
- Maternal and Infant Protection (45h). Introduction to skills of guidance for mother and infant.
- Psychology of Development (60h). Introduction to psychology of personality at different stages of life until death.
- Public Health (75h). As appears in the previous curricula.
- Social Intervention (60h). Introduction to social means of interventions at the level of the individual and the family, and principles of counseling with 30 hours of practical work.
- Psychology of Family Life (45h). Choice of partner, the marital couple, its role and functions. Issues of masculinity and femininity. Triangular relationships and fragilities that affect marital life..
- Special Topics. Among many topics, this course addresses the sexual life of the grown ups and forms of help in this regard. Issues for handicaps and elderly.
- .
- Medical Genetics and Sexology (30h). This course studies normal human karyotype, congenital anomalies and mutations, prenatal diagnosis, genetic counseling, and treatment of hereditary diseases.
- Sexual Education (30h). Introduction to sexuality, sexual evolution, sexual acts with age, role of parents in sex education and sex problems.
- Statistics. Introduction to the understanding of indices and variables in health setting.. This discipline includes theoretical and practical material on social psychology and group dynamics, communication, and family sociology (135h).

**Institute of Social Sciences:** Founded in 1959, it has 5 branches in the 5 Muhafaza of Lebanon. The Institute offers degrees in Sociology, Social Sciences, and Demography. In this institute certain courses on Population Issues are RH-related. They include material on essentials of Demography, and indicators of birth, fertility, mortality, and population trends. Studies on population growth and the related indicators. Women and work, obstacles and restrictions and its relation to fertility. Psychoanalysis in terms of gender roles and its relation to the social upbringing, in addition to applications in Social Psychology with focus on the woman's cause from woman and man perspectives. A Diplome in Demography is also offered(75h), with focus on Fertility trends.

These courses are: Principles in Demography (25h), Introduction to Psychology (50h), Issues in Demography (25h), Social Psychology (125h), and other seminar courses.

**Psychology Major:** In this major, there is stress on issues of gender and psychological well being of the individual and the family. The related courses are:

- Ethnology (2cr) . Differences based on age and gender, and other cultural and traditional issues.
  - Emotional Life (2 cr). Introduction to essentials of emotions dynamics and emotional well being.
  - Family Life (2 cr). This course is about family: its evolution, forms, marriage dynamics, childbirth and offspring identity, family relations, family roles. It also discusses family intervention means.
- There are also courses on Guidance and Counseling (7cr)

## **2. University Saint Joseph**

This University was found in 1875. It is a Lebanese private University for higher education. It houses 10 Faculties (Medicine, Pharmacy, Dentistry, Nursing Sciences, Engineering, Law and Political Sciences, Economics, Business and Management, Arts and Human Sciences, and Sciences), and a Mid-wifery School. The University has branches in North Lebanon, the South, and the Bekaa.

### ***Faculty of Medicine***

The Faculty of Medicine started in 1883. Currently there are about 200 faculty in different departments. The duration of study of medicine is 7 years. The curricula include many courses that address RH-related material.

Students are exposed to reproductive system anatomy and physiology in an extensive and detailed manner (4wks), focusing on the pathological situations and functional derangement's that lead to clinical problems and reproductive morbidity. They also learn about the basic principles of reproduction and sexual functions, with special attention to issues of puberty, development and behavior (64h). In the courses of Obstetrics and Gynecology (4wks), topics in normal and problem pregnancy, reproductive morbidity (including cancer), infertility, and STD's are taught in seminars. Students also learn about the clinical situations facing the neonate and infant (4wks). Topics in Public Health, Epidemiology and Biostatistics (4wks) covering disease causation and behavior, and courses in Legal Medicine, Sociology, Ethics, and Psychology (134h) addressing role of Doctors in health and disease, patient counseling, and family disruptions are all detailed in the curricula.

In Post-M.D. Here interns and residents in the specialty of Obstetrics and Gynecology spent all their times learning in theory and practice all about the issues related to safe motherhood, infertility, reproductive problems, STD's, and others. To a lesser extent, fellows in the specialty of Endocrinology are exposed to hormonal problems leading to reproductive problems and infertility.

**Faculty of Nursing Sciences:** In 1922, Nursing studies were part of the programs of Mid-wifery and Medicine. In 1942, the School of Nursing was created within the Faculty of Medicine. In 1981, it gained the status of a Faculty. Currently, it groups 3 departments: Basic Formation, 1st cycle: Superior Formation, 2nd cycle, and Permanent Formation. The Faculty includes around 170 faculty, and it has 3 branches outside Beirut. The RH-related courses are:

- Sociology, Psychology, Psycho-sociology, Education, and Ethics (350h). Study of the process of socialization, cultural diversity, and the dynamism of change and adaptation. Students are also exposed to the necessary notions needed to address individuals and groups in a health setting. Capacities of health education are addressed.
- Community Health (200h). It addresses the elements of amelioration and prevention of diseases, and promotion of effective health services. It includes 150 hours of practicum.
- Anatomy and Physiology (100h). Students are introduced to the notion of general human anatomy of body systems including the reproductive system. They are also exposed to the normal processes governing body functions.
- Medical and Surgical Pathology (250h). Different aspects of abnormal physiological functions are explained including infectious diseases, HIV, and endocrine disease situation.
- Family Health and Nursing Care (50h). It addresses issues of prevention and promotion at family level, accounting for the social and psychological dimensions of different family individuals and their interactions. In specific, it addresses health of couples, mother, infant, nursing mother, and family education.
- Nursing Care of Mother and Child (390h). It addresses the biopsychosocial dimensions of health problems of the mother (covering all obstetrical, gynecological, endocrinological, and sterility issues) and the infant (neonates, childhood, adolescence). It includes 240 hours of practicum. .

There are also courses addressing the mental health in general with emphasis on biopsychsocial factors, and the topics of Statistics (50h), Public Health and Epidemiology (50h) focusing - from different perspectives- on essentials of promotion and protection of quality health and causes and behavior of community disease. A 50 hours course that addresses health administration and organization is present.

In Superior Studies, students are introduced to courses on Dynamics of Human Relation, Communication, and Sociology of Health. There are also additional optional specialized studies in several topics like Infant Care and Obstetrics and Gynecology

**School of Mid-wifery:** Founded in 1922 and had transformed over years until 1984, when its program is made up of 14 month of study after the Nursing program formation. There is also a program of graduate study in Mid-wifery. The 14 month study include the following courses:

- Obstetrics, Gynecology, and care of Mother (800h). These courses cover the phenomenon of reproduction, physiology of pregnancy, delivery and postpartum period. Pathophysiology of infectious diseases, surgical and obstetrical conditions during pregnancy, labor, delivery, and postpartum are all discussed, with clinical applications. Surveillance of mother care through different stages. Different gynecological morbidity are studied. In these courses, means and methods to prepare (psycho-prophylactic) and educate the mother about pregnancy and postpartum are taught. Introduction to anesthesia and analgesia in obstetrics. It includes 400 hours of practical work.
  - Family Health (50h). This is about health education, primary health care, sexual education, couple infertility, and different methods for birth spacing.
  - Pediatrics, Neonatology, Child Education, and Infant Care (350h). Physical maturation and development of infant to adolescence. Newborn and child care until adolescence, including prenatal period. It includes 200 hours of practical work.
  - Psychosocial approach to couple (25h): marriage and psychological maturity. Integration of new socio-cultural norms. Adapting to parental role, and dynamic infant-parent interaction. Effects on family issues on the individual, and impact of health problems on the family.
  - Epidemiology (50h). Introduction of the principal methods of epidemiology, with application on health situations in Lebanon and the region.
- There are also courses on Dynamics of Human Relations (50h) and Psychology and Intervention of the Mid-wife in familial milieu (25h).

**Departments of Sociology, Anthropology, and Psychology:** These departments offer undergraduate and superior studies. Their curricula include several courses on general issues on socialization, social psychology, and communication. They also address issues pertaining to counseling and guidance. These are topics that might touch upon IEC and Gender components of RH.

### **3. American University of Beirut**

The American University of Beirut (AUB) is a private, non-sectarian institution of higher learning, founded in 1866, which functions under a charter from New York. It is administered by a private, autonomous Board of Trustees. The University has five Faculties: Arts and Sciences; Medicine (which includes School of Nursing); Engineering and Architecture; Agricultural and Food Sciences, and Health Sciences. In addition, there is a Division of Educational Programs. The purpose of AUB is to share in the education of the youth of the Middle East, in the services of its peoples, and in the advancement of knowledge.

#### ***Faculty of Medicine***

The School of Medicine was started in 1867. The Hospital was opened in 1905. The Faculty of Medicine endeavors to provide opportunities for its undergraduate students to

develop individual initiative, creative abilities, and professional leadership through participation in extracurricular seminars, discussion groups, research projects, and student organizations. It offers a degree of Medical Doctor (M.D.), and postdoctoral programs including an MS (Basic Sciences), internship, residency, and fellowship training programs. The residency program was inaugurated in 1946, including training in the main medical specialties. Clinical teaching is carried out in the Outpatient Department, in the University Hospital, which has the capacity of 421 beds, in the Family Medicine Practice Center and in the affiliated hospitals.

The curricula lacks any definite course or cluster of material that directly addresses RH issues in a comprehensive manner. However, RH issues might be present as a cross-cutting topics in several courses, or part of courses, but with no conceived focus on RH themes. These courses are:

- Gross Anatomy (127h). This course is about a regional dissection of the entire human body supplemented by embryology and clinical lectures. Students are introduced to reproductive organ anatomy, their relation to each other and the clinical implications of cases of wellness and disease. In this course students have the chance to get exposed to the anatomical structure of both, the female and the male reproductive systems, and the physiological and clinical correlation's that ensure proper reproductive functions.
- Physiology of Metabolism (56h). This course covers in part the physiology of reproduction, and its importance in maintaining reproductive health. Physiological processes that govern puberty, menstruation, ovulation and reproduction are discussed.
- Social and Preventive Medicine (80h). An integrated course stressing psychological and sociological aspects of medicine.
- Epidemiology and Biostatistics (48h). It consists of lectures and practical experience on the descriptive and analytic methods involved in the study of disease behavior and the determinants of that behavior in human population. It illustrates the role of epidemiology in disease prevention and control.
- Microbiology (180h). Includes material on STD's and AIDS.
- Public Health (68h). Disease behavior and its determinants in human population.
- Clinical Clerkship in Ob/Gyn (407h). A 2-months clerkship offered to third year medical students consisting of daily seminars in normal and abnormal Obstetrics and Gynecology. It covers clinically and in seminars, topics in safe motherhood, reproductive medicine, family planning, appropriate management and treatment of infertility, STD's treatment and prevention, and reproductive morbidity. Students are to lesser degree exposed to IEC issues, and skills of patient-doctor communication. It includes 360 hours of clinical work.
- Internal Medicine. This is an extensive course, where all principles of internal medicine are discussed. Some of the relevant topics to RH concept are included like, STD's, HIV, AIDS, besides reproduction and menopause.
- Clinical clerkships in Pediatrics (755h). Introduction to essentials of newborn and child care. It consists of seminars and daily work (720h) in the hospital and Outpatient Department.

- Clerkship in Preventive Medicine and Public Health (90h). Includes team work projects on Public Health issues where students learn the application of principles of Preventive Medicine.
- Elective courses in Endocrinology, whereby reproductive cycles, ovulation, menstruation, infertility, and other reproductive health related topics are covered clinically and by seminars.

### **Post M.D. Training:**

- Mixed Internship. It includes 2-months training in OB/Gyn where topics are covered at greater depth clinically, as in the clinical clerkship.
- Straight Internship in Ob/Gyn (11 months). This is followed by 3 years residency training. It includes mainly rotations in the Department of Obstetrics and Gynecology covering all aspects of the specialty; safe motherhood (preconception counseling, antenatal care, labor and delivery, postpartum care, and post-abortion care), family planning, reproductive morbidity, Gynecological cancers, menopause, treatment of infertility, general and urogynecology. To a certain extent, residents are trained to patient-doctor communication, patient education and provision of information. There are also rotations in the nursery exposing residents to health care of the newborn as a vital part of MCH. Interns and residents are supposed to prepare resident education conferences on topics pertaining to the rotation. This continues into a 3-year residency program, where residents take increased responsibilities in clinical work and Outpatient services, in addition to serious involvement in ward rounds, chairperson's round, medical chart review, specialty conference, journal club, grand rounds, and other activities. All these activities address directly or indirectly issues in RH, and they empower residents and increase their skills and competence which reflect on service quality and delivery.
- Fellowship in Endocrinology (2 years). Fellows in this program are trained to approach clinical situations that at times are related to reproductive health matters (infertility, hormonal imbalance, human development, problems of menopause). They are also responsible for expanding their theoretical knowledge in these topics.
- Specialty in Family Medicine (3 years). Again, medical residents are trained in several disciplines of internal medicine, and obstetrics and gynecology. In this program, they are exposed to reproductive health matters including, Safe Motherhood, General Gynecology, Family Planning, Ethics, Counseling Skills, and issues of Patient Education and Information Provision.

**School of Nursing:** The School of Nursing, founded in 1905, was the first school in the Middle East. The five-year Bachelor of Science in Nursing program, established in 1936, was replaced in 1964 by a four-year program leading to the Bachelor of Sciences in Nursing degree. The core faculty includes 15 members. The main objective of the School is to provide learning opportunities, which will enable the student to develop into a highly qualified professional as well as a civic-minded and concerned citizen. It also emphasizes

building personal skills and nurse-patient relationship in the best way possible. Many of the core concepts of RH are present in the curricula of this school.

- Anatomy and Physiology (160h). A course on gross anatomy. In part, it exposes nursing students to reproductive anatomy and its clinical correlates. Students are exposed to physiological processes governing reproductive health by learning about hormonal function.

- Microbiology (64h). Infectious diseases are discussed including STD's and AIDS.

- A course on Human Growth and Development (48h). It emphasizes the environmental determinants of development from the prenatal period. Theories of development are studied. Content includes discussion of factors that affect development at various age levels. Relationships between the physical, cognitive, emotional, and growth and behaviors are studied.

- Nursing care of Adults. Based on the framework of health status, it then looks into several bodily dysfunction among which are the metabolic and the endocrine processes, showing how can they disrupt processes related to reproductive health. Students are provided an opportunity to have a clinical application of the knowledge of concepts stated in these courses.

- Nursing Care of the Expectant Family (192h). This course focuses on the reproductive health of the family, from conception to the neonatal period. In its practical component, the course focuses on women in the childbearing cycle, newborns and families as clients in the hospital and outpatient service setting. Theoretical content stresses the nurse's role in reproductive health and reproductive risk. It includes 144 hours of clinical application of the knowledge are done, focusing on the nursing process to enable students to provide acute care and promotes reproductive health.

- Nursing Care of Children (192h). Based on the knowledge of normal growth and development, this course focuses on the individual within the family setting from infancy through adolescence. Coverage includes mainly primary care and could extend to secondary and tertiary care. Hence students will be able to function effectively in the health care delivery system. Clinical practicum amounts to 144 hours.

- Maternal-Child Nursing (for Registered Nurse Degree) (192h). Focuses on human development from conception to birth, following through infancy to child-hood. It examines the behavior of mothers and their families throughout the childbearing experience with emphasis on preventive health care and its delivery in the community. In this regard, the course stresses education and services for prenatal care, safe delivery and postnatal care, especially breast-feeding and infant and women's health care in consistent with 144 hours practicum.

- Mental Health and Psychiatric Nursing (192h). The holistic philosophy of clients as bio-psycho-social entities is stressed in both mental health and illness. Opportunities are provided to students to work collaboratively with multi-disciplinary health teams to assess plan and implement relevant nursing interventions. Clinical work amounts to 144 hours.

- Community Health Nursing (192h). Provides knowledge in the broad area of the field of nursing, public health, and primary health care. The levels of prime concern are the family



and its individual members as well as the community, through maintenance and promotion of high levels of health and well being and prevention of illness and disability. Clinical work amounts to 144 hours.

**Radiological Technology Training Program:** This is a 2-year theoretical and clinical training in all diagnostic modalities. It offers courses in anatomy and physiology and principles of diseases that expose generally students to the notion of reproductive organs, reproductive physiology, and some cases of reproductive diseases.

### *Faculty of Health Sciences*

The Faculty of Health Sciences was started in 1954. It serves to educate and train professionals to help meet the needs of the developing world for competent leaders in the field of health. It emphasizes currently environmental health, epidemiology and biostatistics, population studies, health services administration, health education and promotion, and medical laboratory technology. FHS also serves as a department of preventive medicine for the faculty of medicine. There are around 45 faculty members.

### **Department of Epidemiology and Biostatistics**

It includes the following:

- Essentials of Epidemiology (3cr). This course covers epidemiological principles and methods. Distribution and causation of diseases and their public health importance are illustrated using specific examples of infectious and non-infectious diseases.
- Epidemiology, Prevention, and Control of Infectious Diseases (2cr). It focuses on infectious diseases that are common and of importance in developing countries.
- Biostatistics (3cr). Description of all statistical indicators. Sources of vital and health statistics, rates, mortality measures, standardization, the life table techniques, fertility measures and health statistics. Further advanced topics are also presented.
- Health Determinants in Population (3cr). This course addresses the wider framework in health of population groups, with special concern for Arab societies. It introduces basic sociological theories of development and discusses elements of the socio-cultural context as they impact health. There is a special focus on issues of child health and reproductive health within a family context.
- Epidemiology of Birth Defects (3cr). This course aims at introducing students to epidemiological methods in genetic diseases and birth defects.

**Department of Health Behavior and Education:** Students are introduced to the field of health behavior and education to facilitate a process of behavioral change. The courses are:

- Health Awareness (3cr). It aims at increasing understanding of the nature and definition of health and to the factors that relate to healthy living. It tackles common health problems with a main focus on the components of reproductive as they relate to our well being. The

course covers issues like prenatal care, safe delivery and postnatal care, approach to and management of infertility, abortion, post abortion care, STD's, human sexuality, adolescent sexual and reproductive health, and others in a comprehensive manner within the scope of RH concept according to the ICPD definitions.

- Socio-cultural Factors in Health and Illness (3cr). Students are introduced to social and behavioral theories and concepts that apply to the analysis of health-related behaviors. Emphasis is placed on core concepts relating to health and illness, and on the main models relating to the study of health behavior at the personal, familial, institutional and cultural levels.

- Theories and Methods of Health Education (6cr). These courses introduces students to the major theories of health behavior and health education. Emphasis is placed on the application of health behavior theories to health promotion and education practice. Practical skills are provided for students for planning, implementing, and evaluating health education teaching-learning activities in schools, communities, and patient-care settings.

-Determinants of Health Behavior (3cr). The course introduces students to sociological perspectives, which are necessary to understand the influence of the social environment on people's health and health behavior. It discusses sociological interpretations of people's lives and how these affect their understanding of health and illness. Social aspects, such as culture, gender, class, family and community influences as well as concepts of health and illness are discussed. Through analytical and critical thinking, major concepts and theories guiding public health and health promotion are reconsidered within a sociological framework and dealt with in a Lebanese context. It dwells on means to understand social structure and its link to health and health behavior, stressing the issue of gender and health, and IEC.

- Effective Communication and Group Process in Health Profession (3cr). This course introduces students to the fundamentals of health communication. It overviews the functions of communication in health followed by applications. Introduction is made to the major role of interactive social support systems on health and disease behavior of the individual. Review and critical analysis of theoretical aspects of how family changes affect community health.

- Practicum in Health Behavior and Education (10cr). Students are given the opportunity to practice their skills in program design and implementation in a selected settings (schools, community, and health care institution)

**Department of Population Studies:** Students are trained to be highly skilled in population and demographic issues.

- Population and Development. The course describes trends and prospects. Determinants and consequences of fertility, mortality, and population growth. Linkages with development and health are discussed. Population and development in Arab countries. Social and economic aspects of fertility, Gender, family, and household structures. Migration, population distribution, and development. Aging.

- Mother and Child Health/Family Planning (3cr). It covers data sources and indicators. Several topics in relation to RH issues are discussed: healthy pregnancy and delivery, maternal and child health service, intended and unintended pregnancies, maternal, infant and child morbidity and mortality, adolescent sexuality and fertility, contraceptive methods, adoption and use. It also addresses rationale, scope, design, and evaluation of family planning programs. Provision of reproductive health services.
- Population and Health (3cr). Demographic measures of health levels. Health and fecundity in different developmental contexts. Determinants of primary and secondary sterility. Frequencies of pregnancies and health of mothers and children. Health education and family health standards. Mother and child health programs.
- Seminars on Contemporary Population Issues (3cr). The subject of this seminar varies from year to another to reflect major regional and global population concerns.

**Department of Hospital Service Administration:** In this department, there is no specific course addressing RH directly or indirectly. The main focus of the program is on basic principles and methodologies of organization and administration in the field of health, including the nature of management, planning, health worker training, and health economics. This could impact capacity building and management in setting related to RH. In other universities, separate courses exist on general principles in management of human resources and health care settings.

**Concentration in Medical Laboratory Technology:** In this program, students are exposed to essentials of human physiology including reproduction and related hormonal interactions. They are also introduced to the causation of STD's through Microbiology, and to Essentials of Epidemiology where epidemiological principles and methods are covered. Distribution and causation of diseases and their public health importance are illustrated using specific examples of infectious and non-infectious diseases

### **Division of Education**

- Introduction to Guidance and Counseling. An introduction to the field of guidance and counseling. The role of the counselor in school and community settings is emphasized.
- Theories and methods of Health Education (6cr). Principles and practice with applications to school community and patient-care settings including determinants of health behavior, behavioral diagnosis and assessment of health actions, health behavior change, interpersonal and communication skills, and instructional health education materials. Practical skills for planning, implementing, and evaluating health education teaching-learning activities in schools, communities, and patient-care settings. Application into actual field experience.
- Seminars in Human Development (3cr). Growth and development of the child and adolescent; problems of learning and adjustment as they relate to counseling...

- Theories and field experience in Guidance and Counseling (3cr). A study of supervised counseling experience in the schools settings, observing, interviewing, and testing as needed for IEC purposes to meet pupil needs.

**Department of Social and Behavioral Sciences :** This department covers disciplines of sociology, anthropology, and psychology.

Psychology:

- Social Psychology (3cr). This course focuses on the study of behavior of the individual in relation to social stimulus situations.
- Psychology of Development (3cr). Psychological developments from before birth to adulthood, and how they affect behavior, including health-seeking behavior.

Sociology-Anthropology:

- Family and Kinship (3cr). This course is about relationships between kinship systems and family organization; the interplay between marriage and divorce, family and household; comparative analysis of family institutions, roles and statuses; the family and other social institutions; economy, polity, religion.
- Mass Media and Society (3cr). It examines the role of mass media in the society as applied in the Middle East area.
- Communication Theory (3cr). In part this course includes practical exercises and fieldwork on issues of communication.
- Intercultural Communication (3cr) A study of the cultural dimension of the intercultural processes. An analysis of those aspects of culture, which determines the differences, encountered in intercultural communication: value and value systems, beliefs, modes of behavior, and patterns of thinking.
- Seminars in Communication (3cr). Open for selected topics on the role of communication in society and national development.
- Counseling and Psychotherapy (3CR). Theories and practices of psychological counseling and guidance.

#### **4. Balamand University**

Licensed by the Lebanese government in 1988, the University of Balamand is a private, independent, non-profit educational institution. It is dedicated to the study of the arts, the sciences, and the professional fields that serve the interests of the community of Lebanon and the Arab East. It has five Faculties: Arts and Social Sciences, Business and Management, Sciences, Engineering, and Health Sciences, in addition to the Saint John of Damascus Institute of Theology and Academie Libanaise des Beaux-Arts.

The Faculty of Health Sciences in this university offers B.S. degrees in Nursing, Health Promotion, Medical Laboratory Technology, and Public Health and Development Sciences. Reproductive Health topics are not addressed in the curricula as a discipline on their own,

but are present as cross-cutting material through relevant courses. In addition, IEC and Gender issues are also present as part of specific courses.

**Nursing Program:** This is a 3-Year Program leading to B.S. in Nursing.

- Human Anatomy (2cr). Students in this course are exposed to RH through the anatomical characteristics of the reproductive organs, the role of each specific organ, and the derangements that affect the function and the well being of the reproductive system.
- Human Growth and Development (3cr). A survey of principal cognitive, social and behavioral processes that operate across the life span...DEVELOP....
- Introduction to Human Physiology (4cr). Physiology of reproduction represents a good section of this course. This section introduces students to basic material on all the components of reproduction and the factors affecting it. Hypothalamic, pituitary, and ovarian functions are discussed as processes leading to fertility (menstruation, menopause...).
- Introduction to Sociology (3cr). It provides students with the basic concepts in social sciences, and helps them understand the different social manifestations, and their interactive relations, as an entry port to understand the characteristics of the society they are living in. It also train students on the use of social research methods and on carrying a field survey. Students are exposed to various socio-cultural variation...DEVELOP.....
- Principles of Epidemiology and Biostatistics (3cr). This course covers methods of organizing and summarizing data, the normal distribution, methods of inference: estimation, testing hypotheses, analysis of variance, and measures and tests of association. In addition, this course includes basic principles of epidemiology for B.S. students. Important epidemiological principles and methods are covered. Distribution and causation of disease and their public importance are illustrated, including those related to the reproductive system and reproductive health.
- Nursing care of Perinatal Family (3cr). This course deals with the reproductive family and women's health throughout the life span. The student focuses on physical, psychological and emotional needs of mother, infant and family. The process involves health promotion, maintenance and restoration of family health (IEC)
- Community Health Education and Mobilization (3cr). This course introduces the students to principles and practice of health education with emphasis on determinants of health behavior. It addresses the importance of community mobilization as a means of generating resources and ensuring commitment to change
- Nursing in the community (3cr). It provides students with the opportunity to study nursing in different setups, outside the hospital. It gives the opportunity to learn about the health and psychosocial needs of individuals, families and communities on the full health trajectory, including reproductive health.
- Practicum in Nursing (3cr). Students gain hands-on experience in transferring their skills and know-how to the clients in their own milieu. This is an example of bringing theory into practice, and stressing the importance of health promotion.

- Nursing Care of Adults (4cr). This course emphasizes health promotion, health restoration and rehabilitation of adults with medical and surgical problems.

### **Medical Laboratory Technology**

-Courses on Human Anatomy, Physiology, Epidemiology and Biostatistics, and Sociology and Psychology. Similar to Nursing program courses.

- Clinical Bacteriology (2cr). This course covers the characteristics of bacteria of medical importance. It focuses on the clinical implication of these microorganisms in infectious disease including their causation of STD's and the means available to diagnose them. The students are also exposed to the ill-health consequences of STD's.

- Research in Health Care Sciences (3cr). The course emphasis is on problem identification, hypothesis development, survey planning and design, methodology of data collection and analysis, and result communication. Issues of funding and implementation of research policies and agendas at institute, national and international levels are addressed. State-of-art research topics are discussed in seminars, tutorials and journal clubs.

### **Public Health and Development Sciences**

- Introduction to Microbiology (3cr). In part, this course focuses on the infectious diseases, including STD's (cause, clinical behavior, and ill effects).

- Epidemiology of Public Health Issues (3cr). This course addresses the different concepts and methodologies of the study epidemiology utilized in the field of public health.

- Community Health Education and Mobilization

- Introduction to Anthropology (2cr). Studying human being with respect to their nature, origin, physical characteristics, classification, distribution, relationship of races, and social, cultural and environmental relations. Issues of gender within a socio-cultural settings are discussed.

- Issues in Community Health (3cr). In this course, factors affecting health of the rural and urban communities in developing and developed countries are discussed.

- Family Health (3cr). The course leads to the understanding of how family dynamics affect community health. It also casts light on the developmental stages and needs of the growing child, as well as maternal and child health at various stages, including vaccination and family planning.

In addition, there are introductory courses in Sociology and Epidemiology.

### **Health Promotion**

The courses included in this program that could relate to RH concepts as described previously and include: Sociology, Introduction to Epidemiology and Biostatistics, Epidemiology of Public Health Issues, Introduction to Anthropology, Lifestyle Illnesses and Diseases, Kinesiology and Health, Issues in Community Health, and Family Health.

## 5. Beirut Arab University

This University is a Lebanese private institution of higher education, which was established by the Lebanese Society “Al Birr Wal Ihsan” in 1960, supported by Alexandria University in Egypt, with which it is academically affiliated. The University has 9 Faculties: Arts, Law, Commerce, Architectural Engineering, Engineering, Science, Pharmacy, Medicine, Dentistry. Beirut Arab University is concerned with all facets of higher education and scientific research. Its aim is to contribute to the progress of knowledge, development of human values and advancement of civilization in Lebanese society.

### *Faculty of Medicine*

Similar to other programs of Medicine, medical students are introduced to basic human anatomy and the knowledge of female and male reproductive systems and the physiological mechanisms governing the normal physiology of these two systems. The courses on Microbiology and Venereal Diseases give students an opportunity to learn about STD's, HIV, and AIDS. The bulk of RH-related material lies in the courses of Obstetrics and Gynecology, where various women's health topics are covered coupled with clinical exposure.

There are also another set of courses in Community Medicine Division offered in different disciplines that take RH concepts as per ICPD into consideration, as it starts from birth to adolescence, to reproductive age until old age. These topics cover adequately the following issues over around 60 hours:

- Health Problems of Children from neonate, infant, preschool, school age, youth, and the factors behind these problems (ecological and biological), and the health care available to prevent these problems.
- **Females in Reproductive Age.** This a general overview of women's health in the reproductive age, and the contributing factors. It describes the most common reproductive morbidity (Reproductive Tract Infections) and the factors leading to their occurrence.
- **Primary Health Care-** Preventive care for females in reproductive period, with special care to pre-marital females, antenatal care, labor and delivery, and postnatal care including pregnancy problems. Health Education issues and Communication Skills are also addressed, with emphasis on special nutrition for pregnant mothers and vulnerable groups (neonates and infants). It also introduces students to importance of Services for Occupational Health, Working Mothers, and the needed birth control methods including breast-feeding. Prevention and management of STD's.
- **Demography.** The course also includes material on population size, structure and distribution. It describes population trends and indices, and exposes students to principles of Biostatistics and Epidemiology as they relate to RH.

## **6. Lebanese American University**

Initially the American School for Girls. In 1927 it became the American Junior College for Women (AJCW). Ultimately, and in 1992 what was known as Beirut University College (BUC), became a University named Lebanese American University (LAU). Its objective is to serve the educational needs of Lebanon and the Middle East. There are 4 Schools (Arts and Sciences, Business, Engineering and Architecture, and Pharmacy) and special programs and supporting facilities and programs. It has around 150 full time faculty in 3 campuses.

### ***Faculty of Arts and Sciences***

Several courses are offered to students that give remotely some insights on RH-related material. In specific, a course on Basic Health (1cr) includes material on elements of well being, STD's, and sexual health in an elementary way, offered one hour a week. In other disciplines like Human Development, topics related to the psychology and education of the infant and the young are addressed. In Art majors, students are exposed to material on basics of communication and counseling, family and child welfare, and psychological and social problems of the individual and the community.

## **IV. EVOLUTION OF RH CONCEPT**

The curricula of various programs reviewed in this document are set down according to several criteria. These criteria are related to factors like: university policy, university affiliation, and system of education, field of specialty, research, and others. These curricula, except in few situations, are not specifically focused on RH as a concept, but rather address various topics that are essentially related to issues of Woman's Health, Gender, IEC, , Youth, Family and Community within a Primary Health Care (PHC) framework. These topics are at the core of RH concepts.

### **1. Type, Source, and Content of RH in Curricula**

The type of material present in the above-mentioned curricula includes almost all aspects of RH-related material within PHC. Again, the material might be presented as a course, or part of a course, or even within a chapter, all depending on the specificity's of each and every curriculum.

#### ***Adolescence***

This issue is discussed in terms of clinical, socio-cultural and psychological perspectives. In the curricula of medical sciences (medicine, nursing, mid-wifery), the subject of adolescence is covered through sessions on growth, development, and puberty, and the contributing clinical factors to normal and abnormal conditions, that affect the reproductive system as well. Topics on morbidity related to reproductive behavior, risk-taking behaviors, and components of sexual health and its consequences are all addressed as they relate to



adolescent well being. This subject is also dealt with in areas of health sciences and social sciences.

### ***Safe Motherhood***

This is a general term used in this document to include the various topics presented at different academic settings and levels that will ultimately impact Safe Motherhood. In all the medical sciences programs (Medicine, Nursing, Midwifery), and at the pre-clinical stage or basic science stage, anatomical and physiological concepts pertaining indirectly to safe motherhood, students learn about reproductive organs and their anatomical correlations, in addition, to the physiological principles that are all vital to pregnancy and childbirth. At the clinical, training, and practical levels, the concept of safe motherhood is studied in an academic continuum in 1-2 courses on Obstetrics or Mother and Child Health Care. Here students are exposed to normal pregnancy and childbirth and the essential components needed to achieve it. This is followed by all the high risk situations that disrupt or endanger this safety, like medical problems of pregnancy, lack of antenatal and delivery care, complications of labor and delivery, abortions, and others. In addition, students are provided with competent skills about safe antenatal care and delivery, operative delivery procedures and their complications. Postpartum care is also emphasized as to its importance in reducing the potential dangers like, bleeding, infections, and depression; problems that disrupt safe motherhood drastically. To a much lesser extent, Safe Motherhood is addressed in Health Sciences.

### ***Gynecological Morbidity***

The bulk of this material is present in the curricula of medical schools, and to a lesser extent in the other medical disciplines (Nursing, Mid-wifery). It looks into all sorts and types of ailments that affect the reproductive system: general gynecological problems, infectious conditions, cancer, menopause, related psychological disorders, and urogynecological situations. At the basic science level, basic physiological principles guiding the proper function and wellbeing of the reproductive system are taught, in addition to extensive course on organ disease (pathology) studying the basis of diseases, including gynecological ones. At the clinical and practical levels, medical students and residents deal with all the gynecological morbidity in specialized clinics within the medical centers (Oncology, Urogynecology, STD, and FP Clinic...)

### ***Newborn and Child Care***

This is covered in the curricula of medical and paramedical programs. It is also present in Social Science fields in regard to psychology, counseling and education of young child

### ***Family Planning***

Basic material on reproduction, hormonal functions and anatomical and physiological principles, constitute a solid ground for learning about family planning methods and how they work. Later, students are exposed to various hormonal, barrier and surgical methods in

family planning, and how they function. This is mainly restricted to medical and mid-wifery students, and nursing students to a lesser extent.

### ***Infertility***

The degree of exposure to this topic again varies with specialty and year of study. Basically, students in all medical and paramedical specialties are exposed to basic principles governing the physiological and hormonal processes that ensure reproduction on the side of males and females. However, the study of all derangement's leading to infertility problems are mainly reserved to medical students, and at a more sophisticated levels to residents in Ob/Gyn. Specialty clinics are available for medical students and residents at the clinical level to approach and manage couples suffering from infertility, in addition to performing all the needed procedures. In other disciplines, the problem of infertility is addressed from socio-cultural and anthropological perspectives.

### ***STD***

This topic is addressed in several courses and in many ways. In the courses of Microbiology, pathology, and infectious diseases, all students in medical and paramedical domains are exposed to STD's material. At a higher levels, this material is displayed more in-depth, especially in clinical programs and medical specialties ( Internal Medicine, Infectious Diseases, Ob/Gyn, and Dermatology).

### ***Menopause***

Presented as one of the major women's health problems, and is mainly addressed in medical courses, and to a lesser extent in paramedical specialties. In few times, certain seminars in Health Sciences might address the sociocultural aspects of Menopause.

### ***Gender***

Although present scarcely in medical and paramedical curricula, it is mainly addressed in Social Sciences and Health Education domains.

### ***IEC***

All revised curricula contain some sort of material that deals with issues of Information Provision, Patient Education, and Communication at the level of Health Care Provider. In particular, disciplines of Mid-wifery, Health Behavior and Education, Nursing, and Social Sciences.

In addition, topics related to Family Dynamics, Human Resources, Management, and Community Health are present.

### **Sources of RH information**

As mentioned previously, the content of any curriculum follows certain rules and policies that are specific to each university. Some of the curricula are influenced by certain modules

present in French, American, and Arab universities and programs, and all of them are formed initially long before the appearance of RH as a concept. The main source of all the material in these curricula is the scientifically solid textbooks, journals, and articles that are based on research and are evidence-based. With respect to topics related to RH, they also come from the aforementioned sources. Some of these programs may not have been updated in a way to cope with new concepts in women's health and health services pertaining to RH concept post ICPD. This varies from one program to the other. In the programs of Mid-wifery and Nursing in USG and UL, program directors in charge are continuously aware of the evolving RH concept, and the RH material that exists are based on the recommendation of International Conference of Midwife (ICM), Federation International of Gynecologist and Obstetrician (FIGO), International Planned Parenthood Federation (IPPF), UNFPA, UNICEF, and others.

### Contents of RH Information

The majority of the reviewed curricula contain medical, paramedical, and social science materials that include RH-related topics. These topics might even stretch out to encompass concepts and themes that can contribute to overall goals of RH. For each course, the time allocated, the expected learnt skills, and depth and load of its material depend on the area of study and the formation of specialty. Looking into the various components of RH as per ICPD and as appearing in different curricula, it is clearly noticed that the content of these RH-related topics vary; in the discipline of Medicine, each and every topic is studied extensively and in-depth in the different courses mentioned in previous sections of this review. Series of lectures, conferences, and clinical rotations are prepared to teach these topics. The references use standard world known textbooks, scientific journals, and in certain cases international groups recommendations (IPPF, Specialized Societies). This is mainly at the level of medical students, while at the level of medical residents, especially those in Obstetrics and Gynecology (Ob/Gyn), Infectious Diseases, Family Medicine, Pediatrics and Dermatology, there are more concentration of RH-related theory and practice. Topics like STD's and AIDS are studied in details with clinical applications and research. Similarly, in Ob/Gyn, all issues of woman's reproductive health from birth to death are thoroughly studied in theory, clinically, periodical seminars, literature review, and research. However, in these fields students are too immersed in the biomedical model of learning and education, and this had negatively affected their exposure to other topics of IEC, Counseling, and Gender sensitivity. These topics are not properly addressed or given enough attention.

Regarding Mid-wifery students, being the first care-givers to females in pregnancy and childbirth mainly and in cases of birth control, their curriculum is very opulent in number and in content of topics. These topics address the Mother during various stages from Pre-pregnancy to Postpartum and FP. They also dwell amply on the psychological well-being of the woman within her couple and family life. There is plenty of exposure to issues of patient education, information provision, and counseling. None the less, the content of other

RH-related topics on reproductive morbidity and cancer, infertility work up, and high risk pregnancy is very minimal, as these topics are not part of the formation of the mid-wife.

In case of Nursing, the content of RH-related material is more focused on the biopsychosocial aspects of expectant mother, perinatal family, and maternal-child nursing, in addition to basic principles governing reproductive health, all are needed to assure safe motherhood and woman's and family well-being. Also the role of the nurse in IEC is addressed in the content of Nursing curriculum.

In other disciplines, certain aspects of RH-related topics are addressed. In Demography and Population programs, content is more focused on certain population trends related to fertility, morbidity, and mortality, with the effect of socio-cultural factors in this regard. Most RH issues are addressed in a context of population indicators, while the other RH issues of Adolescents, IEC, Gender, Health Promotion, and High risk Behavior are extensively present and in several courses in the area of Health and Social Sciences.

## **2. Place of RH in Curricula**

In the majority of the curricula, there is no place for a clearly defined course on RH. These curricula (Medical and Paramedical) are dominated by the biomedical model whose application has rendered health care increasingly effective in cure and repair. As a result, the perspective and the focus of existing curricula do not include the motif and elocution of RH as defined by the ICPD. Nevertheless, most of the subjects and themes that make the core concepts are present as separate academic entities within PHC principles, and dealt with according to major and year of study. There are strong arguments backing PHC as the most appropriate framework for general health care, including RH. It seems that the national sub-programme -and after 4 years- did not succeed in exposing the existing curricula to emerging RH concepts. It worth mentioning few situations where RH is taught as a comprehensive concept in a couple of courses at some universities (AUB, BAU). This is solely related to personal efforts and interest of the teachers.

## **3. Efforts for Standardizing RH in Curricula**

The national sub-programme on RH has emphasized the importance of working towards standardizing RH material in the form of strategy, guidelines and protocols. It is well known that health care providers in Lebanon are graduates from more than 70 professional schools, and thus have different approaches to health settings. As a result, remarkable efforts are spent in programs of Mid-wifery and Nursing in both the LU and USG to standardize RH material. The mid-wifery association in Lebanon, part of the International Committee of Mid-wives (ICM) is continuously recommending modifications and updates, on a yearly basis, based on periodical publications from ICM, FIGO, UNFPA, UNICEF, IPPF, and other International Groups. For example, following the ICM Congress in 1999 in Manila, Philippines, Research component on RH was recommended in all programs of

Mid-wifery. These and other recommendations and updates are introduced into the curricula in two ways: at the level of courses, and at the level of training which includes teachers and mid-wives, and follow up training and continuous education sessions later.

At AUB, the Faculty of Health Sciences is housing the RH Working Group (RHWG) which is involved in providing continuous updated resources and research materials. This represents a setting that would get RH into the curricula through seminars, elective courses, or part of assignment for under-graduate and graduate students. The RHWG works in the realm of ICPD recommendations, and is in continuous communication with other RH Working Groups.

The BAU, the concerned staff at the Faculty of Medicine is regularly updating RH material following all the recommendation stated in this regard by International and UN agencies. The LU, being the national university, is subjected to certain political and administrative policies that make procedures of curricula renewal lengthy and slow. After all, the education policy-makers are open to discuss any potential addition to the curricula, training of teachers and students that will give them more skills and experience.

## **V. Application of RH Theory**

In both clinical and social setting, and depending on the formation of each and every specialty, the RH theoretical topics are applied in several patterns: clinical, training, field work, workshops, counseling, and research projects. It emphasizes technical, clinical, communication, and analytical skills. It also adds to the comprehensive concept of looking at women's health as a whole. These activities are scheduled by assignments and credits:

### **1. Clinical Setting**

#### ***Family Planning Clinics***

In a hospital and a primary health care setting, medical students and residents, and student mid-wives are trained to approach couple seeking family planning and birth-spacing, and to provide those couples with adequate counseling on the various methods available, the choices they have, and the possible health effects they should expect. Also, students of Public Health, Medical-social Assistance are trained on counseling skills in general that can have applications in those clinics. However, more efforts should focus on re-emphasizing the importance of patient-health provider communication, especially in the case of doctors.

#### ***STD Clinic***

Exposure to various STD's / AIDS in terms of causation, diagnosis, prevention, and means of treatment are being practiced. Medical students and residents learn how to approach and manage these cases. Prevention means and counseling are also practiced, and are regularly being addressed by Doctors and Mid-wives.

#### ***Infertility Clinic***

Here again medical students and residents encounter all sorts of infertility cases and they are taught skills to manage them. Residency programs for medical students have weekly infertility clinics and rounds that afford adequate experience. However, those residents deserve more training in counseling skills to cope with the psychological situation of the infertile couple.

### ***Reproductive Morbidity Clinic***

This clinic exposes students and residents to various woman's health problems of Reproductive Age, Menopause and Old Age, in addition to all the needed management techniques.

### ***Safe Motherhood Clinic***

The training in this topic is extensive and diverse. Students of medicine and mid-wifery are exposed to all components of safe motherhood: pre-conception counseling, antenatal care, labor and delivery, operative deliveries, and postpartum for a big part of their programs. Obstetricians are trained to perform medically-indicated abortion, and to offer post-abortion care. Mid-wives are more exposed and more trained on issues of pregnant and couple counseling. To a certain extent, nursing students are trained on providing counseling support to expectant families.

It remains to be mentioned that these programs lack any proper training on *adolescent issues*, mainly Sexuality and Counseling. Also more efforts should address the biopsychsocial aspects of Health Care and Patient-Health Care Provider Communication in a clinic setting.

## **2. Social Setting**

In this setting, application of RH concepts is carried out mainly in the domains of Social Sciences and Health Sciences. Students are involved in activities like fieldwork projects, training rotations, and community work. The assignments cover topics in Health Education and Promotion, Counseling, Communication, and Management. The settings may include PHC centers, Schools and Universities, Hospitals, and community.

## **PART TWO: ASSESSMENT OF RH SITUATION AND INTEGRATION**

### **VI. Requirements for RH Integration in Curricula**

The RH concept has evolved to encompass all the various components pertaining to women' health in a comprehensive manner. The introduction of this concept being relatively new might take lot of effort to integrate it into the academic and training arenas. The reviewed curricula contain in most of its courses RH-related topics in varying quality and quantity. Some of these curricula are deeply rooted in a highly technical grounds bound with rigid scientific rigor. They stress dexterity and skills leaving it to other curricula

(Health Sciences, Social Sciences, and Paramedical) to tackle other surrounding and affluent non-medical and non-clinical psychosociocultural factors. In that sense, the holistic approach – which is at the heart of RH – remains deficient

### **1. Role of Curricula**

Several large-scale studies of comprehensive health education curricula have found that high quality health education contributes to significant improvements in student's health knowledge, skills, and practices. Recent reviews of several studies found that curricula can positively affect students' health-related behaviors. Any *effective curricula* should have the following characteristics:

- research-based and theory-driven,
- include basic, accurate information that is developmentally appropriate,
- allows students to model and practice relevant social skills,
- address social and media influence on behaviors,
- strengthen individual values and group norms that support health-enhancing behaviors,
- be of sufficient duration to allow students to gain the needed knowledge and skills,
- include teacher training that enhances effectiveness.

### **2. Actions for Universities**

Implementation and maintenance of a material in a curriculum require a variety of resources such as *staff time, money, and logistical support*. There is also a need to integrate comprehensive health education with other components of a coordinated health program. Effective communication with health services, health promotion sites, physical education services, nutrition services, clubs, families and communities are essential for effective collaboration and implementation. The following are suggested *actions for* universities to consider in case of RH education:

- support and implement policies and plans that include RH education as a core academic subject,
- provide and advocate for adequate financial support for implementation
- recruit professional RH-trained educators,
- provide pre-service and in-service professional preparation, boost sessions, and technical assistance to prepare administrators, instructors, and other staff to support and teach RH education,
- develop guidelines and materials to assist in implementation and assessment of RH topics.
- support use of Information Technology (IT),
- conduct or support continued research in RH,
- devote adequate resources to provide technical assistance and material support,
- establish and maintain, and utilize communication systems for ensuring that universities have access to current information, technical support, and training opportunities.

### **3. Negotiation**

Although it may appear very difficult to implement all the above mentioned recommendation, however it is very important to negotiate all the possibilities with the concerned institutions. There are several limitations that have to be tackled like, the existing curricula, university policy, financial and technical resources, training opportunities, and research facilities.

In this regard, the education policy-makers in the Universities are more than willing to negotiate all the possibilities of introducing and sustaining RH-related topics in curricula. Negotiation will include advantages of this step, its support and the limitations related to it. For example, at the UOB, the FHS although keen on exposing the students to all topics that are under RH concept, is willing to negotiate all the possibilities and the needs for integrating RH into the curricula.

#### **4. Identification of Areas of Integration**

With respect to areas of possible RH integration, the following entities could represent potential areas:

**Teachers:** In order for the future health care provider to deliver RH care in a comprehensive manner, the teacher involved in the training needs to be addressed and exposed to the evolving concepts of RH. This might require access to information, workshops, and continuous education in this regard. This is to follow the previous negotiations and guidelines mentioned above.

**Students:** Addressing students in various disciplines, with comprehensive RH concept is an effective way to integrate RH into in-service training. In addition, working with students to have professional clubs, to hold workshops, and to get continuous education are also important.

**Services:** The settings where students apply their health knowledge and work to gain skills and expertise are essential area to integrate many RH-related topics. Health services are prone to receive more attention in Medical and Paramedical curricula, and thus are more productive and efficient for any attempts of RH integration.

**Communication:** This is one of the few topics that need to be re-visited in the in-service training. Efforts should focus on skills in patient-health provider communication, counseling, and information provision in all aspects of RH. Health clients should be given more options and enough knowledge to make sound decisions about their health. Adequate time and credit must be allocated to the teaching of communication skills in RH.

#### **VII. Teacher's Experience**



The national sub-programme on RH in its first cycle demands several training activities for different health care provider specialists. This has led, in the first place, to the formation of a core of trainers, where some of them are academicians or part of the staff of a certain university. In terms of experience, it seems that teachers fall in 3 categories:

### **1. In-Training**

This is the category of teachers are actively involved in training and other activities of the national sub-programme, and may be part of an academic program (nursing, mid-wifery, medicine, public health). This category have acquired sufficient understanding of RH concepts, and as a result gained competent skills and expertise enabling them to communicate RH concepts as per ICPD. They are also able to provide the needed technical support for teaching and training purposes.

### **2. Researchers**

Those are involved in research and other RH-related activities. Again, those teachers are researchers and experts in the domain of reproductive health. Yet, they may not be involved in teaching RH material due to certain academic circumstances (curricula, work load, no courses).

### **3. Core Faculty**

This group of teachers has minimal or no idea of RH concept and evolution. Although, they are indirectly aware of certain RH material that crosses in certain courses, but unlikely to have the proper perception of the comprehensive approach and the application of RH definition. This may be related to several factors like, lack of advocacy, lack of interest, not part of the curricula, or not present in their academic interests. It looks from the review and from other interviews done that teachers have no special experience or training or extra interest in RH topics, except the staff of mid-wifery and nursing programs who are trained to teach RH topics. The task of having trained teachers for RH topics will be thoroughly addressed in the overall endeavor of implementing RH in the existing curricula.

## **VIII. Training Needs**

### **1. Technical**

Development of a training material is closely related to the type of technical assistance offered in the field of RH, and to the quality of the ongoing training activities on RH topics. In this review, the current training sessions that involve nurses and midwives were claimed to be satisfactory, regarding theoretical material and practical exposure and demonstrations. Although satisfactory, need arises with respect to certain theoretical training modules. There is also a need to standardize the educational material, procedures and protocols

towards creating a dynamic and typical course putting RH concepts into the exact perspective, as the diversity of health professional graduates is immense. In this regard, the UNICEF has developed a booklet about labor and delivery protocols for mid-wives to be adopted in all centers. There is also ample need for training material on counseling, especially peer counseling, and for periodic RH publications to help students and teachers understand adequately RH evolving concepts, and the various RH topics, and to help them maintain this understanding.

## **2. Material**

Regarding material assistance, it should follow the technical one. This depends on the scope of the curricula examined, and on the decisions of the concerned academic committees after discussing the technical assistance. Although most likely the majority of the material assistance will be similar in terms of demonstration tools like videos, anatomical forms, posters, and material on IEC and Gender issue It is of paramount importance to review and asses the existing training packages in the light of RH evolving material, and the impact of training.

## **IX. Gender and IEC**

Gender is a cross-cutting issue that should appear in all disciplines. The main themes of the existing curricula is not sufficiently sensitive to Gender issues. Gender is a newly introduced term in Social Sciences and it is not yet main-streamed in the medical and paramedical curricula. It appears that the term Gender is not brought to the attention of the academicians and is not even addressed clearly and systematically. In few occasions, the Nursing and Mid-wifery programs seem to include Gender term, but very superficially and hazy. However, in both programs there are courses addressing family and couple issues that might relate to Gender.

In other domains like Social Sciences and Health Sciences, Gender is addressed in several courses and in different perspectives, but not obviously related to RH. On the other hand, teachers and health care providers are not being academically or in-training sensitized to Gender. Still for many other health trainers, the exact definition and meaning of Gender is not made simple and clear, and hence they find a lot of difficulty introducing the term. Gender as a cross-cutting issue needs to be vigilantly introduced into the existing curricula as it relates to RH concept.

Regarding the place of IEC in the existing curricula, it is present across several courses as an applied tool of specific disciplines. There is extensive elaboration on the importance of IEC in areas of health behavior education and social sciences, in regard to high risk behavior, health promotion, and emotional well-being. These are not technically connected to RH concepts, but thematically might intersect with RH components. In more specific situations, certain curricula (Mid-wifery, Nursing, Medico-social Assistance) address IEC

in relation to safe motherhood and responsible parenthood, and to a minimal extent in relation to human sexuality. With respect to RH concept, the specific place of IEC in the curricula is not patent.

## **X. Concluding Remarks**

Over all, the review indicates that the place and RH concept in the existing curricula and in the formation of teachers and students is far from satisfactory. The process of RH concept evolution did not impact the related courses in the curricula, despite the promotion and advocacy of the concerned agencies especially UNFPA. These activities may have effectively infiltrated RH issues in the agendas and activities of research groups, organizations, associations and policy makers at the community level. However, they did not reach the attention of academicians or educational policy-makers. In addition, the RH sub-programme failed so far to bring RH concepts to the academic fields. Several steps can be recommended that might be helpful to push RH into curricula. These steps must be attempted by the national RH sub-programme in the first place.

1. Negotiate. It is of paramount importance to set down an agenda for negotiating RH integration with the concerned Universities. The agenda must include clear ideas about the advantages of RH integration, means of this integration and its sustainability through technical and material assistance.
2. Health Professionals. The challenge for all professionals is to collaborate with each other and with other groups, in order to establish an expertise and skills in their fields and then to participate in developing and sustaining long-term interventions. Efforts should address teachers for training and capacity building in the short and medium terms, towards creating a core of experts who can assist in teaching and advocacy..
3. Students. This active category constitute an optimal climate and setting to introduce RH in pre-service and service levels. Support and assistance should be given to students to help them form RH clubs, hold RH activities (summer schools, workshops), and develop networks with other entities. Students can many a times influence education policy-makers and convince them in introducing certain topics or assignment in curricula.
4. Research. The sub-programme should encourage research-based initiatives and activities that will help theory-driven RH material to get into curricula.
5. Services. This is an area of growing interest and importance. It seems that health services as an organization should be studied from all facets (management, evaluation, cost) and tied to outcomes of care. A lot of work can be achieved at this level.
6. Advocacy. All the above mentioned points needs advocacy. Advocacy should be able to reach all concerned players: education policy-makers, program directors, politicians, teachers, and students. Its means should be properly identified.
7. Stay Abreast. The RH sub-programme staff should stay aware of all the potential academic events taking place, and try to be part of those events.

## TABLES

**Table I: Place of RH-related material in the Curricula of Reviewed Universities**

	<b>AUB</b>	<b>USJ</b>	<b>UL</b>	<b>Balamand</b>	<b>BAU</b>	<b>LAU</b>
<b>safe motherhood</b>	Med. Nur.	Med. Nur. Mw.	Med. Nur. Mw.	Nur. PH	Med.	A&S
<b>STD/HIV</b>	Med. Nur.	Med. Nur. Mw.	Med. Nur. Mw.	Nur.	Med.	A&S
<b>FP</b>	Med. Nur. FHS	Med. Nur. Mw.	Med. Nur. Mw.	Nur. PH	Med.	A&S
<b>infertility</b>	Med. Nur.	Med. Nur. Mw.	Med. Nur. Mw.	Nur.	Med.	
<b>reproductive morbidity</b>	Med. Nur.	Med. Nur. Mw.	Med. Nur. Mw.	Nur.	Med.	
<b>sexual health</b>	Med. Nur.	Med. Nur. Mw.	Med. Nur. Mw. FHS	Nur. PH	Med.	A&S
<b>Gender</b>	FHS A&S	Nur. Mw. A&S	Nur. Mw. A&S FHS	Nur. PH A&SS	Med.	
<b>IEC</b>	Nur. FHS A&S	Nur. Mw. A&S	Nur. Mw. A&S FHS	Nur. PH A&SS	Med.	

Legend: Med.: Medical School; Nur.: Nursing School; FHS: Faculty of Health Sciences; A&S: Faculty of Arts and Sciences; Mw: Midwifery School; A&SS: Faculty of Arts and Social Sciences; PH: Department of Public Health.

Note: This table aims to show the presence of RH material without any quality or quantity assessment.

**Table II: Type, Source, and Content of RH-related material by Area of Study**

	<b>Medical Schools</b>	<b>Mid-wifery Schools</b>	<b>Nursing Schools</b>	<b>Health Sciences</b>	<b>Social Sciences</b>
<b>Type</b>	Safe motherhood Gynecological morbidity Family planning Infertility STD's	Safe motherhood General gynecology Family planning Infertility Sexology IEC	Maternal-child health General Gyn. IEC Perinatal family	General RH information. IEC Gender Family health Family planning Health promotion	IEC Gender Counseling Guidance
<b>Source</b>	Curricula modules Research Scientific publications	Curricula modules Scientific publication Research Recommendations (ICM, FIGO, IPPF, UNFPA, UNICEF)	Curricula modules Research Scientific publications	Curricula modules RH Research Scientific Publication Community work	Curricula modules RH Research Scientific Publication Community work
<b>Content</b>	Moderate	High -Moderate	Moderate	Moderate	High-Moderate

Legend: The classification of contents takes into account the load of credits/hours, number of courses, and field of study. Moderate: students are exposed in a sufficient manner; High: students are exposed in most of the curriculum.

**Table III: Concentration of RH-related Material by Are of Study**

	Medical School	Mid-wifery	Nursing	Health Sciences	Social Sciences
<b>Maximal</b>	Safe motherhood Gynecological morbidity and cancer Family planning Infertility STD's	Safe motherhood Family planning Sexology IEC Counseling	Maternal-child health .IEC Perinatal family Family dynamics	IEC Gender Family health Family planning Trends	General notions in IEC Counseling Psychosocial wellbeing Gender Family issues
<b>Minimal to None</b>	Gender IEC Counseling	Gynecology Infertility Reproductive morbidities and cancer	Gynecology Infertility Reproductive morbidities and cancer	Other RH components	Other RH Components

Legend: This table attempt to reflect on the main focus of the curriculum on specific topics. Maximal implies relative maximal concentration of certain RH-related topics versus Minimal concentration of others.