Until 2020
- To decrease (IMR) below 20 in a thousaund
- To decrease death under the age of 1 below 30 in a thousaund
- T o decrease LBW rate by 20%
- To increase antenatal care to 100%
- To decrease (MMR) by 50%
- To increase effective use of contraseptives to 70%

When the perinatal problems in Turkey are investigated, it can be seen that is possible to overcome the problems and the aims are possible to be reached. In solving these problems the personnel having the most effective role are the nurses and midwives. The developed countries have carry out effective policies in the mother and child health since 1930's and have educated nurses and midwives.
Parallel to the changes and trends in general health care in the 21 th century the role of nurses and midwives have changed and widened. It was wanted from the nurses and midwives, who will plays a key role in perinatal medicine in the modern health care, to be specialised, to gain the abilities to critical thinking, to give desicions and the solve problems. The care plans are being applied according to the standarts developed and an influence is given to the quality control and accreditation studies.
increased Mcloney defended that the nurse practitioners were useful in chronic illnesses, search of physical health, specialised care, counselling, research, care of newborn and rehabilitation
The problem is related to the distribution of the doctors, nurses and midwives among the regions, being unbalanced in Turkey more then the insufficiency in the number of the health associations and the health personnel. The characterstics of the cities and provinces are not being taken in consideration for the distribution

L13

PREVALENCE AND DETERMINANTS OF ANEMIA AND IRON DEFICIENCY: AMONG JORDANIAN WOMEN 15-49 YEARS OF AGE: A NATIONAL STUDY
Abdel Wahed, *Jordan*

Introduction :
Anaemia affects over 2 billion people worldwide, causing tiredness, poor quality of life and low productivity. Over half the pregnant women in the world are vulnerable to these consequences because they are anemic. The consequences of anemia can be devastating in pregnant women. It can result in maternal mortality and stillbirth if Hemoglobin level is less than 7 gm/10ml. Moderate anemia (7-11 gm/100ml) can lead to stillbirth and low birth weight and maternal death if the pregnant woman suffered another maternal complication.
The Great majority (99%) of maternal deaths occur in developing countries. In response to the enormity of the problem, the Safe Motherhood initiative (SMI), an interagency effort to reduce maternal mortality and morbidity, was launched in 1987 in Nairobi. Its target is to reduce levels of maternal deaths by at least half by the year 2000 and to achieve substantial reduction in maternal morbidity.
Contribution of anemia to maternal mortality
A number of hospital-based and community-based studies that were carried out in developing countries have shown that anemia contributed from a low (4-5%) of maternal deaths in Senegal and Bangladesh to a high of 16% in Ambala, North India. Many other countries reported figures somewhere in the middle (about 9%).
Anemia sequelae
In pregnancey, severe anemia can lead to cardiac failure. Moderate anemia is associated with decreased maternal well being and contribute to maternal deaths from hemorrhage or infections. The sequelae of anemia are not limited to maternal complications but also contribute to perinatal morbidity and mortality by increasing the likelihood of intrauterine growth retardation and pre-term delivery.
The effects of anemia on maternal and perinatal mortality are largely preventable with appropriate treatment. However, in developing countries, there are as yet few MCH programs that successfully implemen-

ted comprehensive control strategies. This meager intervention comes as a surprise when it is known that the epidemiology of anemia, the knowledge and technical means of preventation treatment are distributed worldwide.

Common Causes
- nutritional deficiency
     - iron
     - folate
     - vitamin B12
- blood loss
     - menstruation
     - repeated child birth
     - hookworm infestation
- infections
     - malaria
     - HIV infection
- genetic defects
- sickle cell disease
- thalassemia
- metabolic disorders

The most common causes of anemia are iron and folate deficiency, malaria and hookworm infestation. It has been found that these common causes of anemia can be managed in a cost effective manner through the primary health care system.
This national study of 1801 Jordanian women in the child bearing age is the first and only study of the prevalence and determinants of anemia and iron deficiency among Jordanian women. In November of 1995, UNICEF in cooperation with the Ministry of Health, launched this study that aimed at examining the prevalence and determinants of anemia among Jordanian women in the child bearing age. UNICEF Jordan country program and the Ministry of Health were the first among five other countries in the MENA region to respond positively to a call by UNICEF regional office to participate in a multi-center study. Based on a randomly selected sample, prepared in cooperation with the Department of Statistics, women were interviewed in their homes to obtain a comprehensive data on their reproductive experiences, nutritional status, and demographic information that would help explain their hematological status. Blood samples were also drawn for all study subjects. Hemoglobin level and complete blood picture were determined for all study participants. Serum ferritin levels were analyzed for all women who were found to be anemic and an equivalent controls of non-anemic women.
The study results have shown that, on average, study women were 28 years old, married (68%), married at the age of 19 years, have been pregnant (5.6 times), and delivered (4.9 babies), have on average (4.6) living children, and pregnant in the sixth month. On average, a study woman has a mean hemoglobin of 12.4 gm/100 ml (+ 1.45) with a minimum level of 5.7 gm/100 and a maximum of 16.7 gm/100ml. Serum ferritin values had a mean of 18.8 (+21) with a minimum value of 0.1 and a maximum of 165 ng/ul. A WHO recommended values were used as cust off points to estimate the proportion of women who were anemic and/or iron deficient. Among the study participants there were 28.6% anemic women and 55.3 % iron deficient women. In comparison to prevalence figures published by the WHO Maternal Health and Safe Motherhood Program (.), Jordanian figures are better than the world average of 37% anemic women. The prevalence of anemia in Jordan is also far better than developing countries in Africa (44%), Asia (45%), Latin America (31%).
Mean hemoglobin, serum ferritin, proportion of anemic, and iron deficient women were further analyzed by examining the contribution of socioeconomic well being, reproductive health practices and indicators of nutritional status into current hematological status of study women. Out of the studies determinant factors, reproductive health indicators were very closely related to mean hemoglobin level, prevalence of anemia and iron deficiency. We were unable to demonstrate a definitive and consistent relationship between women hematological status and the studied indicators of socioeconomic and nutrition indicators. The report also concludes by a set of recommendations that feed into programming ef-

forts of UNICEF and Ministry of Health with regards to strengthening of existing maternal health services.

L14

FETAL OXYGEN PULSE OXIMETRY: PRELIMINARY DATA
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The monitoring of fetal oxygen saturation (Sat O2) has been conceived to improve the surveillance of fetal conditions as a complement to FHR tracing (CTG). We have tested this method in our Institute in pregnant women, in order to validate the efficacy of pulse oxymetry. Normal term pregnancies were considered with the following inclusion criteria: at least three ultrasound scans in pregnancy for the confirmation of gestational age and placental situation, spontaneous labor and not assuming medicines able to influence the results of the analysis.

The average of the gestational age at birth has been of 40.3 ± 1.0 (39-42 weeks), the average of the neonatal weight has been of 3468 ± 163 g. We have used for this study the fetal oxygen monitor OBS-500 (OB Scientific, Inc.), a compact pulse oxymetry device that appraises in contemporary the signal of the Sat O2 and the fetal cardiac frequency by means of a flexible sensor (OBS-900) situated on the shoulder of the fetus during labor. Umbilical cord blood sampling was obtained at birth after double clamping and before the first neonatal breath and subsequently performed the umbilical blood gas analysis (UBGA) of the artery and the umbilical vein.

We have inserted the probe to laboring women, when the cervix showed a dilation between 4 and 8 cm (average 6.6 ± 2.2 cm). In one case the probe has been inserted with entire membranes, under ultrasound guide (for checking placental situation). The average of the umbilical artery pH has been of 7.28 ± 0.06, and of the umbilical artery pO2 15.4 ± 3.4 mmHg. The average of the values of Sat O2 to 5, 10 and 15 minutes from birth were 50.0, 55.0 and 51.1 respectively. The median of Apgar scores to 1 and 5 min has been respectively 8 and 9.

From our data it emerges that a value of Sat O2 > 50 corresponds to an Apgar score and to UBGA values at birth within normality.

These are preliminary results to ascertain the reliability of the method in one cluster of normal pregnancies at term. A harvest of cases is in progress including alterations of CTG tracing in labor, with the aim to evaluate the utility of pulse oxymetry in the decision of "timing" and modalities of birth.

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ROUTINE ULTRASOUND IN THE SECOND TRIMESTER
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Historically, first attempts on fetal screening were held on Northern Europe in 70's. Ultrasonographic evaluation of the pregnancy has advanced rapidly in the past decades. However, the routine use of ultrasound in the second trimester of pregnancy was controversial. In addition, indications, timing and quality of machine were the main debates. In 80's and early 90's, routine use of the ultrasound was not recommended especially in western countries because of lack of evidence on the improvement of perinatal outcome. While there are still great differences on the detection of fetal anomalies because of the skill of the operator and quality of the machine, routine use of ultrasonography is now well-accepted as a standard obstetrical care in many centers around the world.

Not only verification of gestational age and viability, but also investigation for entire fetal anatomy should be done. Other main purposes of the ultrasound screening are to allow timing and transporting to referral center for delivery, alternative options, for antenatal and/or postnatal therapy.

Principles of investigation consist cardiac activity, number of fetuses and presentation, amniotic fluid volume, placental localization and structure, measurements of BPD, HC, AC and FL, examination of the