

Fetal & Infant Mortality Review Project

City of Chicago, Illinois

Submitted by
FIMR Project Staff
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Overall Reduction in Infant Deaths

Over the past several years, there has been an overall reduction in the rate at which infants do not survive until their first birthday. Within the City of Chicago, in 1993 approximately 14 in every 1,000 infants born died. By 1997 that number was decreased to 11 in every 1,000 infants that did not survive until their first birthday. Infant mortality rates in Chicago fell from 9.0 in 2001 to 8.6 in 2002, the lowest rate ever recorded by the city. The increase in infant mortality for 1999 was largely attributed to the increased rates for short gestation/low birth weight*. This is represented in neonatal mortality rates, which are defined as deaths that occur within the first 28 days of life per 1000 live births.

There are several indicators that can predict the health of Chicago's residents and evaluate maternal-child health outcomes. Prematurity (Short Gestation) is defined as infants born alive before 37 completed weeks of gestation, (full term is 40 weeks). Prematurity is the number one contributor to infant mortality. Low Birth Weight infants, born 5.5 pounds or less, also contributes to infant mortality rates, especially those with very low birth weights.

Racial Disparities Persist

Unfortunately, not all racial/ethnic groups have benefited from the reduction in deaths equally. Despite the declining pattern of Black and White Infant Mortality Rates (IMR), a substantial gap between Black and White for Chicago residents continues to exist although it has narrowed over the years. Mortality rates for the overall Chicago Hispanic and Non-Hispanic White communities have increased slightly over the years.

Percent of Low Birth Weight*

All Births - 1993	11.2	All Births - 1999	10.1
Non-Hispanic White	6.8	Non-Hispanic White	6.5
Non-Hispanic Black	16.4	Non-Hispanic Black	15.1
Total Hispanic	6.6	Total Hispanic	6.8
All Births - 2000	10.5	All Births - 2001	9.0
Non-Hispanic White	5.4	Non- Hispanic White	6.0
Non-Hispanic Black	11.3	Non-Hispanic Black	11.7
Total Hispanic	5.2	Total Hispanic	5.9

All Births - 2002	8.6
Non-Hispanic White	6.5
Non-Hispanic Black	11.4
Total Hispanic	5.3

Percent of Births with Short Gestations *

All Births 1998	14.8	All Births 2000	
Non-Hispanic White	10.4	Non-Hispanic White	10.3
Non-Hispanic Black	19.6	Non-Hispanic Black	19.4
Total Hispanic	12.3	Total Hispanic	11.7
All Births 2001		All Births 2002	
Non-Hispanic White	10.9	Non-Hispanic White	11.4
Non-Hispanic Black	19.4	Non-Hispanic Black	19.5
Total Hispanic	12.3	Total Hispanic	12.3

Infant Mortality Rates*

All Races – 1993	13.7	All Races – 1999	11.5
Non-Hispanic White	7.8	Non-Hispanic White	7.5
Non-Hispanic Blacks	20.4	Non-Hispanic Black	17.5
Total Hispanic	7.2	Total Hispanic	7.9
All Races - 2000	10.5	All Races - 2001	9.0
Non-Hispanic White	5.7	Non- Hispanic White	6.2
Non-Hispanic Black	15.8	Non-Hispanic Black	14.9
Total Hispanic	8.1	Total Hispanic	5.3
Total Births – 2002	8.6		
Non-Hispanic White	5.1		
Non-Hispanic Black	14.8		
Total Hispanic			

Neonatal Mortality Rates*

All Races - 1993	8.5	All Races – 1999	7.7
Non-Hispanic White	5.4	Non-Hispanic White	5.3
Non-Hispanic Black	12.4	Non-Hispanic Black	11.2
Total Hispanic	4.4	Total Hispanic	5.7
All Races - 2000		All Races - 2001	
Non-Hispanic White	4.6	Non-Hispanic White	5.3
Non-Hispanic Black	9.7	Non-Hispanic Black	8.8
Total Hispanic	5.4	Total Hispanic	3.5

Fetal Mortality Rates**

All Races- 2000	9.4	All Races - 2001	8.7
Non-Hispanic White	7.1	Non-Hispanic White	6.3
Non-Hispanic Black	13.3	Non-Hispanic Black	12.5
Total Hispanic	5.8	Total Hispanic	5.1
All Races - 2002	7.4		
Non-Hispanic White	6.3		
Non- Hispanic Black	9.7		
Total Hispanic	5.5		

* (City of Chicago, Department of Public Health, Epidemiology Program Reports, March 2002 and March 2004)

** (IDPH/CHS/Schmidt, April 26, 2004)

Overview of the Fetal & Infant Mortality Review Program (FIMR)

FIMR, a nationwide program supported by the American College of Obstetricians and Gynecologists (ACOG), Healthy Start and the Department of Human Services, is designed to identify the non-medical factors that contribute to adverse pregnancy outcomes. Once identified, FIMR empowers the community and its leadership to develop and implement solutions and systems to breakdown the barriers to optimize perinatal outcomes.

Illinois' FIMR Program is a voluntary program supported by a federal grant in collaboration with the Illinois Department of Human Services and the Chicago Department of Public Health. It identifies fetal deaths, (infants born dead after the 20th week of gestation) and neonatal deaths, (any live born infant regardless of gestational age and weight), who dies within the first 28 days of life. These parameters were chosen for the following reasons:

- There is an Illinois state mandated process in place within the hospitals to review these cases from a medical perspective
- The social and economic factors are rarely available during the state mandated medical reviews
- As per the statistics above, early losses, whether fetal or neonatal deaths, are prevalent within the City of Chicago

The program consists of case identification (residents within the 606 zipcode are eligible to participate), outreach to enroll women/family's into the program through an informed consent process, an in-home interview, medical record abstraction, and case reviews by a multidisciplinary team.

Case identification consists of:

- Neonatal deaths reported to The Adverse Pregnancy Outcome Reporting System (APORS), a statewide reporting system to identify infants born with birth defects, neonatal deaths and infants requiring specialized nursing follow-up – 933 cases referred
- Fetal death (stillborns) referrals through a reporting form generated by the individual hospital and sent directly to the FIMR office – 345 cases referred

The case review process includes:

- Summarization of in-home interview and medical record abstract
- Case presentation with input from interviewer
- Discussion by the team as to factors that impacted pregnancy
- Dispositions, either unavoidable (everything was done to promote a positive outcome) or potentially avoidable (issue arose, either for the patient or health care system that if changed, may have had a different outcome), are assigned to each case reviewed by committee consensus.
- Factors and recommendations, both general and individual, are also defined for each case reviewed.

This report represents a summary of the individual case findings, documented dispositions, along with a summary of the factors and recommendations identified through the review process. See Appendix C for ZIP Code specific participants.

Findings and Recommendations

The chart below represents all of the cases reviewed by the Case Review Team, categorized by type of death and disposition.

Summary of Total Cases Reviewed by FIMR Case Review Team

	Total		Fetal deaths	Neonatal deaths
Potentially Avoidable	23		9	14
Unavoidable	42		19	23
	65		28	37

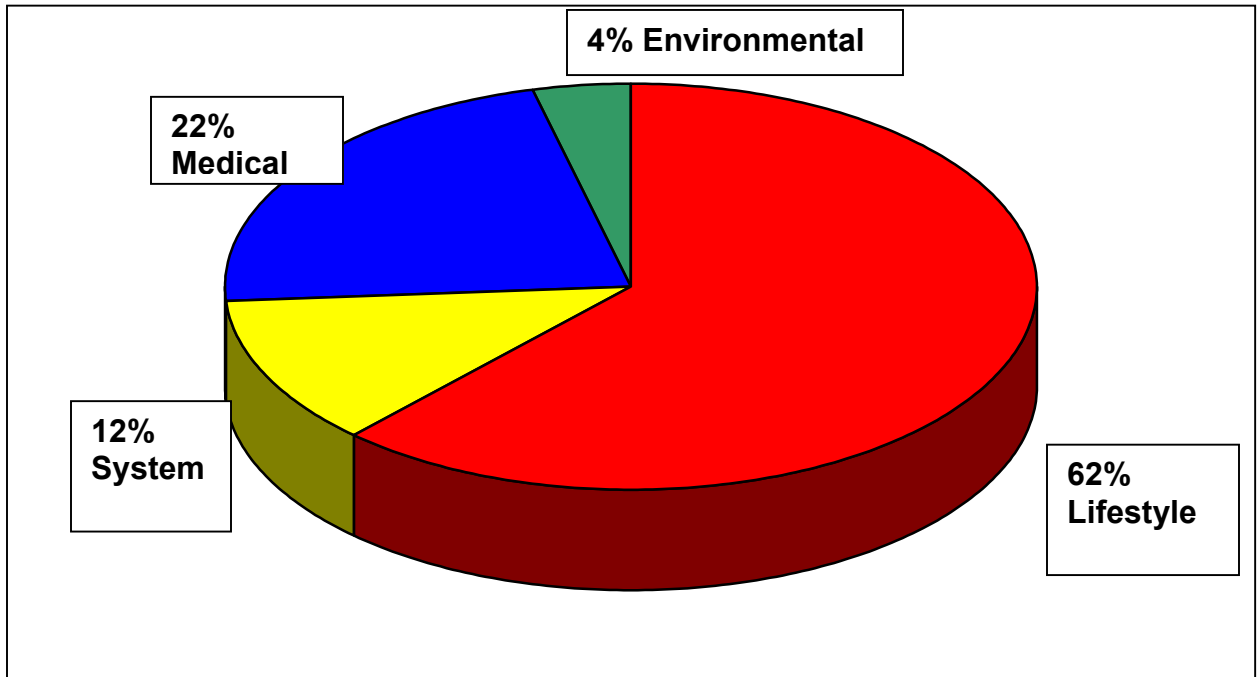
Categories of Cases

After several Case Review Team meetings and at the completion of approximately thirty reviews, the team met to identify categories of like factors that possibly contributed to the adverse outcomes. These like factors were collapsed into four general categories and apply to all of the 65 cases. The following are the categories identified by the review team:

- Lifestyle Issues – individual behaviors that impacted the pregnancy
- Systems Issues – communication breakdowns between agencies and providers, lack of appropriate referrals or knowledge of available resources, and education issues related to providers, clients and the community
- Medical Issues – management of pre-existing medical conditions and issues related to current pregnancy or post partum period
- Environmental Issues – issues related to the individual’s immediate environment, including family and social support systems and physical environment including chemical and toxin exposures.

(See chart for category breakdown)

Categories of Cases



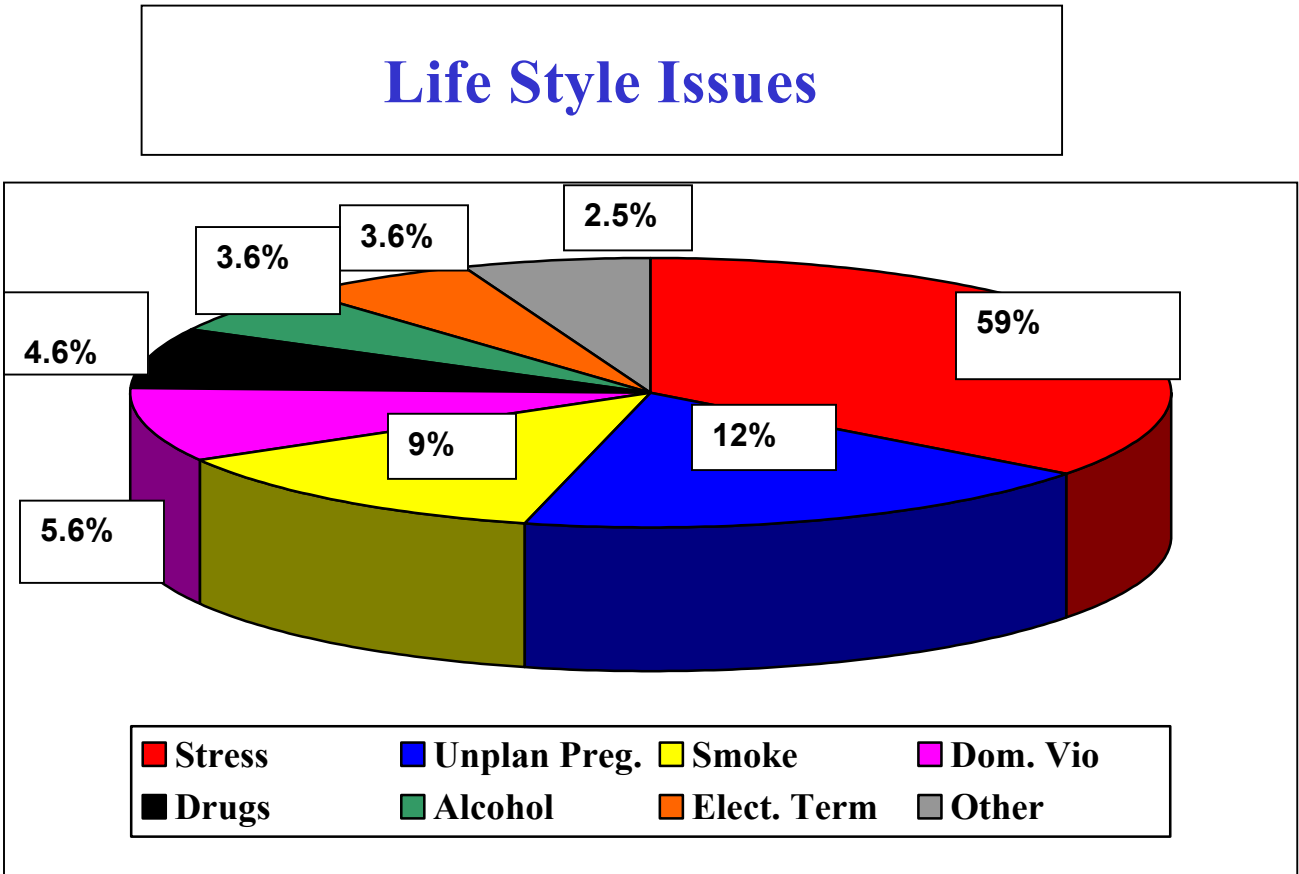
The category of Life Style Issues contains factors related to individual behaviors that impact pregnancy. These factors were identified by clients and or interviewer during the in-home visit and were evaluated by the review team as to their impact on the pregnancy outcome.

Below is a list of the factors identified within this category:

- Self Reported Stress During Pregnancy
- Unplanned pregnancy
- Smoke/smoke exposure
- Alcohol/drug usage
- Domestic Violence
- Teen Pregnancy
- No consumption of Folic Acid prior to pregnancy
- Short pregnancy intervals
- Became pregnant while taking contraceptives
- Homelessness

- No prenatal care or late prenatal care
- Utilizes ER for primary health care
- Lack of follow through with post partum check-up
- Late presentation for care at delivery
- Multiple elective pregnancy terminations

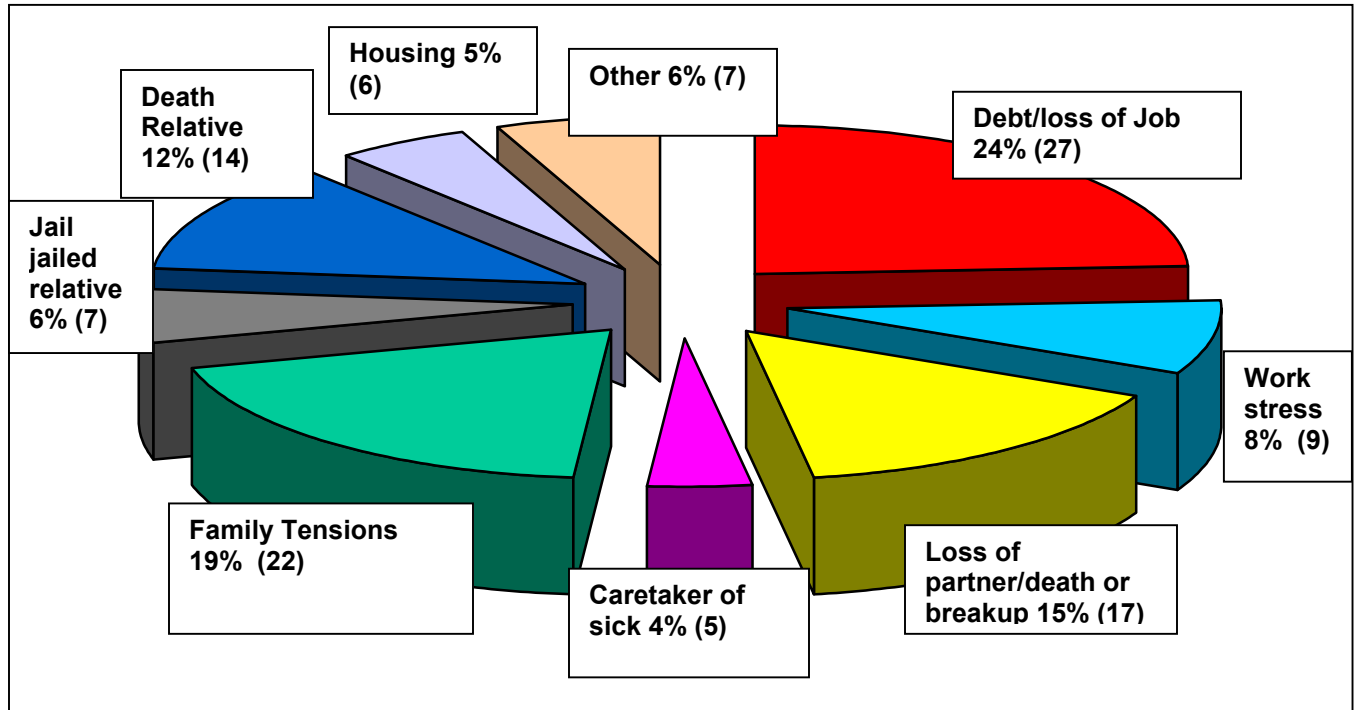
See chart below for breakdown



Life Style Issues and related factors were cited more often than any other category. As a sub-section of the larger category, Self Reported Stress had the highest percentage rate. This category identifies stressors perceived by the client during her pregnancy and discussed during the interview.

To further analyze the sub-category of “Self Reported Stress”, the chart below represents the breakdown of factors within this sub-category.

Stress During Pregnancy



Systems Issues

The second category is systems issues, which relate to:

- Communication breakdowns between agencies and providers
- Lack of coordination between Medicaid and SSI
- Lack of appropriate referrals or knowledge of available resources
- Education issues related to providers, clients and the community
- Lack of WIC and/or Case Management
- Lack of consistency when seeing multiple providers for Prenatal Care
- Insurance issues – change in carrier or loss of insurance
- Lack of case management intervention
- Lack of school intervention

Medical Issues

The third category, Medical Issues, relates to management of pre-existing medical conditions and issues related to current pregnancy or post partum period. Below are the factors within this category:

- Congenital anomaly
- Depression
- Family Planning issues
- Lack of risk assessment
- Infections
- Incompetent cervix
- Previous pre-term labor
- Pre-term labor
- Maternal pre-existing conditions
- Medical conditions related to current pregnancy
- Multiple birth pregnancy
- Lack of pregnancy evaluation during sick physician visits

Environmental Issues

The last category, Environmental Issues, relates to:

- Housing issues and perceived unsafe environment
- Lack of family and social support systems
- Physical environment including chemical and toxin exposures
- Social violence

Recommendations

The review of 65 cases by the multidisciplinary Case Review Team listed 126 recommendations over the past two-year period. Each case reviewed generated specific recommendations. In cases with similar factors recurring, there was repetition of the same recommendations. The recommendations listed in this report are the result of collapsing and combining the original 126 recommendations. Emerging from these, the recommendations were placed in the following categories:

Community/Agency/Systems Recommendations

- Provide referral for obstetrical evaluation and services for homeless women
- When women are arrested or incarcerated, provide health/pregnancy evaluations
- Evaluate provision of services in health care settings, especially in areas of communication and consistency
- Recommend more frequent case management contacts with patients during pregnancy, especially those identified as high risk
- Provide reproductive education in schools
- Recommend schools identify pregnancy early and make appropriate referrals
- Educate Emergency Room staff on need for comprehensive obstetrical assessments
- Increase local agency outreach for:
 - Case finding and refer to appropriate social or medical agency
 - Educate community on expanded medical coverage for women during pregnancy
 - Heighten community awareness of housing, safety and environmental issues

Education Recommendations

Provide educational programs for providers for the following areas:

- Domestic violence assessment multiple times during pregnancy
- Depression assessment
- More effective family planning instructions with assessment of client understanding
- Kick Count education with assessment of patient understanding

- Risk assessment/general health evaluation with referral to higher level of care
- Understanding of cultural differences
- Providing information at a level that the client can understand and evaluate client understanding
- Need for non-judgmental assessment and provision of services for clients with risk behaviors
- Evaluation of pregnancy status during routine or sick visits
- Resources available for social and community services and how to access the services

Provide educational programs for client's concerning:

- Identification of sign and systems of problems during pregnancy
- Sexually transmitted diseases and HIV
- Importance of kick counts and assessment of fetal movement to avoid fetal deaths
- Importance of Well Baby Care
- Reproductive health issues for all ages
- Nutritional issues and weight management
- Need for routine general health follow-up
- Need for grief counseling and social support systems
- Importance of providing good reproductive history to medical providers for current and future pregnancies
- Necessity of early, consistent prenatal care and post partum follow-up
- Stress management skills before, during and after pregnancy
- Adverse effects of drugs/alcohol and tobacco on overall health

Funding and Policy Recommendations:

- Develop linkage between Medicaid and SSI coverage to trigger case management/WIC referral
- Increased community resources for:
 - Preconceptual counseling
 - Family planning resources
 - Genetic counseling
 - Smoking cessation programs specific for pregnant women
 - Counseling for drug/alcohol usage
 - Counseling for mental health issues and depression

Community programs for job training
Parenting classes
Home health and hospice services within the community
Domestic Violence
Provide services for anger management and aggressive behaviors issues
Bereavement counseling and support

Conclusion:

The strength of the FIMR Program is its ability to look at individual cases with a holistic view and make recommendations that transcends various disciplines, organizations, systems and specialties. A unique feature of the Illinois FIMR Program is the in-home interview, which allows the client to share her individual perspective of her adverse pregnancy with the interviewer. She also has the opportunity to accept referrals, when the need is identified. This approach gives the Case Review Team members both the client's and medical providers perspective on the events that lead to the adverse outcome.

This report is the summary of the factors and recommendations of the Case Review Team. It is their expectation that this will be reviewed by community, local, and state leadership and innovative, comprehensive community based programs will be developed to improve overall perinatal outcomes.

Appendix A

Case review Team Members

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Appendix B: Glossary of Terms, Diagnoses and Procedures

This appendix contains basic information to assist non-medical members of the case review team to understand common terms, diagnoses and procedures that they might encounter in review of individual cases

Please do not feel that these terms need to be memorized. Use this document as a dictionary and refer to it as needed. Experience tells us that after a year or so of reviewing cases, all team members will naturally come to an understanding of these terms, as well as others, without making any special effort.

Abruptio Placentae - A condition in which the placenta separates from the inner wall of the uterus before the baby is born.

AFP (also MSAFP) - See alpha-fetoprotein.

Active Labor - The stage of labor during which the cervix steadily dilates from 4 to 10 centimeters.

Alpha-Fetoprotein - A substance, mostly fetal in origin, which can be found in elevated levels in the maternal blood serum with some abnormalities of pregnancy including open neural tube defects (NTD) of the fetus.

Amniocentesis - Involves obtaining a sample of amniotic fluid from the sac surrounding the fetus. The amniotic fluid contains fetal cells that can be analyzed for chromosomal and biochemical studies.

Amnionitis - See Chorioamnionitis.

Amniotic Fluid - water in the sac surrounding the fetus in the mother's uterus.

Amniotomy (AROM)- Artificial rupture of the membranes.

Analgesia - Relief of pain by loss of pain sensation, e.g. narcotics or regional anesthesia.

Antibiotics - Drugs that kill microorganisms that cause infection.

Anomaly - A malformation or significant deviation from the norm.

Anencephaly- A congenital malformation of the fetus in which the brain and skull do not develop above the brain stem.

Antibody - A substance that is produced by the body when exposed to infection or foreign materials and triggers a response to fight the infection or to destroy the foreign material .

Apgar Score - A measurement of a baby's response to birth and life on its own, taken at one and five minutes after birth.

Apnea - failure to initiate breathing in a newborn or the cessation of breathing in an infant, child or adult.

Apnea Spells - Infant stops breathing for more than 20 seconds. Seen more commonly among sick or preterm infants.

Appropriate for Gestational Age (AGA) - The weight or a measurement of the fetus or infant falls between the 10th and 90th percentile based on the average of a large number of pregnancies of the same gestational age.

Auscultation - A method of listening to the fetal heartbeat, either with a special stethoscope or the use of an ultrasound device.

AROM - Artificial Rupture of Membranes. See Amniotomy.

Atresia - Congenital absence or closure of a normal body opening or tubular structure.

Atypical - Development of abnormal cells.

Biophysical Profile (BOP) - A means of measuring fetal breathing, muscle tone, body movement and amount of amniotic fluid along with an NST to check on the fetus during labor.

Bishop Score - A scoring system indicating the likely success of inducing labor.

Bradycardia - Slow heart rate.

Breech - The positioning of the fetus's buttocks or feet presenting at the top of the birth canal instead of the fetal head.

Bronchopulmonary Dysplasia (BPD) - A chronic, progressive lung disease in infants that follows prolonged mechanical ventilation with high concentrations of oxygen.

C & S - Culture and sensitivity, as in a urine or blood specimen sent to the laboratory because of a suspected infection. The test will determine if infection is present, the type of bacteria or microorganism causing the infection and the antibiotic most likely to cure that particular infection.

Cephalo-Pelvic Disproportion (CPD) - A condition in which a baby is too large to pass through the mother's pelvis during delivery.

Chorioamnionitis - An infection of the membranes surrounding the fetus.

Colposcopy - Visualization of the cervix through the vagina for detection of abnormalities using a special microscope.

Congenital Disorder - a condition that affects a fetus before it is born.

Continuous Positive Airway Pressure (CPAP) - Delivery of oxygen-enriched air to the lungs under pressure. Oxygen, humidity and positive pressure help keep the air sacs (alveoli) open.

Cord Accident - Refers to a diminished or absent flow of fetal blood through the cord due to a knot in the cord, a very tight cord around the neck, etc.

CPAP - See Continuous Positive Airway Pressure.

Corticosteroids - High potency steroids which when given to the mother which may help to accelerate lung development in the fetus of less than 32 weeks gestation when labor and birth appears inevitable.

Diabetes - A condition in which levels of sugar in the blood are too high.

Down Syndrome - A genetic disorder caused by the presence of an extra chromosome (21) and characterized by mental retardation, abnormal facial features and medical problems such as heart defects.

DPT - combined diphtheria, pertussis and tetanus immunization.

Dubowitz Examination - A standardized physical examination of newborns that establishes their gestational age at birth.

Dysplasia - The development of abnormal tissue.

Dystocia - Difficult labor - a generic term that may be used to describe no progress or slow progress in labor.

Ecchymosis - A discoloration of the skin (a bruise) caused by leakage of blood into the tissues under it.

Ectopic Pregnancy - A pregnancy in which the fertilized egg begins to grow in a place other than inside the uterus, usually a fallopian tube.

Edema - Swelling caused by fluid retention.

Electronic Fetal Monitoring - A procedure in which instruments are used to record the heartbeat of the fetus and contractions of the mother's uterus during labor.

Estimated Date of Delivery (EDD) - Initially calculated using the date of the first day of the last menstrual period (LMP), subtracting 3 months and adding 1 year and 7 days.

ETOH - Ethyl alcohol.

Fetal Alcohol Syndrome (FAS) - A constellation of congenital malformations seen to varying degrees in infants born to mothers using alcohol during their pregnancy.

Fibroids - Benign smooth muscle growth on the inside of the uterus, on its outer surface, or within the uterine wall itself.

Forceps - Special instruments placed around the baby's head to help guide it out of the birth canal.

Gastroschisis - A congenital defect in the wall of the abdomen, which remains open at birth.

Gestational Diabetes - Diabetes that arises during pregnancy; it results from the effect of hormones and usually subsides after delivery (See Diabetes).

Gestational Age (GA) - The number of completed weeks of gestation elapsed from the first day of the last menstrual period and the date of delivery, irrespective of whether the gestation results in a live birth or fetal death.- See also AGA, LGA and SGA.

Glucose - A sugar that is present in the blood and is the body's main source of fuel.

Glucose Tolerance Test (GTT) - A standardized blood test of glucose metabolism used to diagnose gestational diabetes (GDM).

HepB - Hepatitis B

Herpes Culture - A viral culture done late in pregnancy to diagnose shedding of Herpes II virus from the vulva, cervix, or vagina.

HIB - Haemophilus influenza type B immunization.

HMD - See Hyaline Membrane Disease.

Human Chorionic Gonadotropin (hCG) - A hormone produced by the placenta; its detection is the basis for most pregnancy tests.

Hyaline Membrane Disease (HMD) - Acute respiratory disorder occurring shortly after birth, mostly in preterm infants, due to insufficient lung surfactant. Also known as respiratory distress syndrome (RDS).

Hyperbilirubinemia - Excessive levels of bilirubin (a break-down product of red blood cells) in the blood and tissues. Causes jaundice -(yellow appearance) in the newborn and other problems.

Incompetent Cervix - A weakened cervix due to inherent deficiencies, injury, etc. that results in repeated painless spontaneous abortions during the second trimester.

Insulin - A hormone that controls the levels of glucose (sugar) in the blood.

Insulin-Dependent Diabetes - Diabetes requiring insulin for control of blood sugar, usually occurs with juvenile or long-term diabetes and with onset prior to conception. See also Diabetes.

In Vitro Fertilization - A procedure in which the egg is removed from a woman's ovary, fertilized in a dish in a laboratory with the man's sperm, and then reintroduced into the woman's uterus to achieve a pregnancy.

Integument - Skin.

Intra-Uterine Growth Retardation (IUGR) - condition when the weight of a fetus or newborn is below the tenth percentile of mean weight for gestational age.

Intrapartum - Time during labor and delivery.

Intraventricular Hemorrhage (IVH) - Hemorrhage from fragile blood vessels in the brain, especially in preterm infants.

Jaundice - A build up of bilirubin that causes a yellow appearance.

Karyotype - The chromosome pattern of an individual.

Kick-count - A record kept during late pregnancy of the number of times a fetus moves over a certain time period.

Laparoscopy - A surgical procedure in which a slender, light-transmitting instrument is used to view the pelvic organs.

Large for Gestational Age (LGA) - The weight of the fetus is greater than the 90th percentile of all fetuses at the same stage in pregnancy. Macrosomia (greater than 4500 grams) is also a term used to describe large babies.

Last Menstrual Period (LMP) - The first day of the last menstrual period that the woman had before she became pregnant. Used to calculate gestational age.

Lecithin/Sphingomyelin Ratio (L/S Ratio) - Surfactant measurement determined by analysis of amniotic fluid usually obtained by amniocentesis. It is one way to evaluate fetal lung maturity in near term pregnancy. See also Phosphatidylglycerol.

Mascrosomia - A fetus or infant weighing more than 4500 grams. See also LGA.

Meconium Staining - Amniotic fluid stained by brownish-greenish substance that builds up in the bowels of the fetus and may be released in utero.

Methadone - A drug used to treat heroin addicts.

Microcephaly - An abnormally small head often associated with genetic disorders or congenital infections of the fetus.

MMR - combined measles, mumps, and rubella immunization.

Multiple Pregnancy - More than one fetus, i.e., twins, triplets, etc.

MSAFP - See alpha-fetoprotein.

Necrotizing Enterocolitis - Bacterial invasion of the bowel wall which can lead to perforation. Predominantly seen in preterm babies, as a very serious complication.

Neural Tube Defect (NTD)- An defect in development of the brain or spinal cord (spina bifida, anencephaly). May be relatively mild to very severe. See also alpha-fetoprotein abnormality.

Non-Stress Test (NST) - A test in which fetal movements felt by the mother or noted by the doctor are recorded, along with concurrent changes in the fetal heart rate.

Oligohydramnios - A smaller than normal amount of amniotic fluid.

Omphalocele - Congenital hernia of the navel.

Oxytocin - A drug used to help bring on uterine contractions.

Oxytocin Challenge Test (OCT) - An assessment of fetal well-being measuring fetal heart rate with an external electronic monitor when the uterus is induced to contract by nipple stimulation or IV oxytocin. Also known as Contraction Stress Test (CST).

Pelvic Inflammatory Disease - Usually caused by a sexually transmitted infection of the female reproductive organs.

Persistent Pulmonary Hypertension of the Newborn (PPHN) - Constriction of pulmonary vessels in the newborn, which results in insufficient blood circulation to the lungs and may cause persistent fetal circulation (PFC).

Persistent Fetal Circulation (PFC) - Circulation of blood continues to follow the fetal pattern which results in inadequate oxygen supply for the newborn.

Persistent Ductus Arteriosus (PDA) - A condition in which an open vessel connecting the pulmonary trunk and aorta persists after birth, allowing for abnormal blood circulation.

Phosphatidylglycerol - A surfactant component of amniotic fluid which, when present, indicates a high likelihood of fetal lung maturity.

Placenta - Tissue that connects mother and fetus and provides nourishment to and takes away waste from the fetus.

Placenta Previa - A placenta that is implanted in the lower uterine segment and covers all or part of the cervical os.

Pneumomediastinum - Abnormal accumulation of air in the center of the chest cavity which reduces the return of blood to the heart.

Pneumothorax - Rupture of air sacs (alveoli) in the lung, which allows air into the chest cavity collapsing the lung.

Pudendal Block - an injection given in the perineum that relieves pain during delivery but not during labor.

Polydactly - Extra fingers or toes on a newborn.

Polyhydramnios - Greater than normal amount of amniotic fluid, often associated with some congenital anomalies or maternal diabetes.

Preeclampsia - high blood pressure during pregnancy. Severe pre-eclampsia may lead to seizures (called eclampsia).

Premature Rupture of Membranes (PROM) - Spontaneous rupture of the membranes at any time before the onset of labor.

Pyelonephritis - A kidney infection (with or without a concurrent bladder infection) which occurs more frequently in the second and third trimesters of pregnancy.

Respiratory Distress Syndrome (RDS)- See Hyaline Membrane Disease.

Rubella (German Measles) - A viral infection. The fetus of a mother infected in the first weeks of pregnancy may have multiple -defects of the heart, eyes, ears, CNS and other organ systems.

Sexually Transmitted Disease (STD) - Any infection spread during sexual contact. Includes AIDS, herpes, gonorrhea, syphilis, chlamydia, papilloma virus (genital warts) and a number of others.

Shoulder Dystocia - A problem during birth in which the head is born but the shoulders become wedged in the pelvis.

Small for Gestational Age (SGA) - The weight of the fetus is below the 10th percentile for fetuses at the same stage in pregnancy. SGA babies may occur as a result of abnormal placental function, cigarette smoking, infections, nutritional deprivation, genetic disorders or multiple gestations. See also IUGR.

Spina Bifida - A neural tube defect in the spinal column which may result in bulging membranes (meningocele) or bulging membranes and spinal cord (meningomyelocele) and sensory-motor dysfunction below the lesion.

Spinal Block - A form of anesthesia that numbs the lower portion of the body.

Spontaneous Abortion - A miscarriage prior to the 20th week of gestation.

Stenosis - The narrowing or stricture of a structure.

Stridor - Harsh sounds during respiration; high-pitched and like the blowing of the wind due to obstruction of air passages.

Sudden Infant Death Syndrome (SIDS) - The sudden death of a baby for no apparent reason.

Surfactant - A substance normally contained in the amniotic fluid near term or a pharmaceutical replacement drug instilled into the lungs of some at risk newborns to prevent RDS .

Syndactyly - Webbed or fused fingers or toes.

Tachycardia - Rapid heart rate.

T.E. Fistula - An open tract (fistula) connecting the esophagus and the trachea (must be surgically repaired).

Teratogens - Agents that can cause birth defects when a woman is exposed to them during early pregnancy.

Tocolytic Agents - Any of a number of drugs used to try and suppress premature labor such as beta agonists (e.g., ritodrine and terbutaline) or magnesium sulfate.

TORCH - An acronym for the infections of toxoplasmosis, other organisms or viruses, rubella, cytomegalovirus and herpes simplex.

Transient Tachypnea of Newborn (TTN) - Very rapid respirations in newborns. Thought to be due to fluid in the lungs. Oxygen administration may help. Generally resolves in 36-72 hours without long-term problems.

Trimester - Any of the three 3-month periods into which pregnancy is divided.

Tubal Ligation - A method of female sterilization in which the fallopian tubes are closed by tying, banding, clipping or sealing with electric current.

Ultrasound - A test in which sound waves are used to produce images to examine the fetus or view internal organs.

Umbilical Cord - A cord--like structure that connects the fetus to the placenta.

Urinary Tract Infection - An infection in the kidney or bladder or both.

Vacuum Extraction - The use of a special instrument attached by suction to the baby's head to help guide it out of the birth canal during delivery.

[Definitions from the American College of Obstetricians and Gynecologists Guide to Planning for Pregnancy, Birth and Beyond 1990. pp. 247-250.](#)