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#### **Foreword**

Women and children's health is the precondition and foundation of sustained human development. Women and children's health indicators are not only the most fundamental world-recognized health indicators, but also the important comprehensive indicators to measure socioeconomic development and human development.

Under the leadership of the Chinese Communist Party and the Chinese government, the health of women and children in China has kept improving. During the "Eleventh Five-Year Plan" period, the national maternal, infant and under-five child mortality rates decreased respectively from 47.7/100,000, 19.0 % and 22.5% in 2005 to 30.0/100,000, 13.1% and 16.4% in 2010. However, there are still significant gaps in women and children's health between urban and rural areas, between different population groups and between different regions, problems threatening the health of women and children are still serious, and there is a relative lack of service capacity in the grassroots women and children's health system.

Meanwhile, there are also huge opportunities for women and children's health development. Major indicators on women and children's health have been incorporated into the "Twelfth Five-Year Plan". The Plan has specific demands for comprehensively strengthening women and children's health. The State Council has promulgated the guidelines on women and children's development for 2011-2020, painting a blueprint on the development of women and children's health for the next 10 years and providing a strong policy guarantee for the development of women and children's health. The ongoing health care system reform has brought a significant opportunity for women and children's health development. The Chinese Government's commitment to achieving the United Nations Millennium Development Goals has provided favorable conditions for gaining more support.

Women and children's health development has bearing on the well-being of every household. To promote such development and protect women and children's health, the joint efforts of the whole society are needed. The Report on Women and children's health Development in China (2011) is compiled and released in the hope of reflecting the whole picture of the health status of women and children and the women and children's health development in China, to guide all circles in the society and the international community to pay more attention to the health of women and children, and create a good atmosphere favorable to women and children's health development. It is also hoped that the large number of medical and health workers, in particular the women and children's health workers recognize the situation, build up confidence, overcome difficulties and continue making efforts to promote the sound and rapid development of women and children's health, and make greater contribution to maintaining women and children's health, family happiness and social harmony.

Zhu Chen, Minister of Health

August 15, 2011

#### **Preface**

Women and children's health is the precondition and foundation of sustained human development. Women and children's health indicators are not only the most fundamental world-recognized health indicators, but also the important comprehensive indicators to measure socioeconomic development and human development. With its huge population, China has the largest group of women and children in the world, numbering 860 million, about 2/3 of the total population. The women and children's health work in China is mandated with the major responsibilities of decreasing infant mortality rate and maternal mortality rate, and improving average life expectancy and new-born population quality. Such work has a significant social influence and benefits a wide coverage. The success in women and children's health work is of overall strategic significance to enhance all citizens' health, to promote sustainable socioeconomic development, and to build a harmonious socialist society.

Having always been highly committed to the subsistence and health of women and children, the Chinese government has signed many international conventions on the protection of women and children, and formulated guidelines on women and children's development, law on maternal and child health care and juvenile protection law, etc., rendering legal guarantee for Maternal and child health work. Over the years, with the goal of protecting women and children's health rights and interests and improving their health, the core work of implementing the Law on Maternal and Child Health Care, Guidelines on Women's Development in China, and Guidelines on Children's Development in China (One Law and Two Guidelines), women and children's health legislation and policies have been gradually improved, health service systems continuously enhanced, and efforts have been made to improve the equity and accessibility of women and children's health service. The national maternal mortality rate and child mortality rate have kept falling markedly,

and women and children's health status has improved remarkably. Maternal Mortality Rate (MMR) has decreased from 1500/100,000 when the People's Republic of China was founded in 1949, down to 30.0/100,000 in 2010, Infant Mortality Rate (IMR) from 200% down to 13.1% for the same period. The outstanding performance has got world attention. In 2010, there were 3025 women and children's health institutions, 398 gynecological and obstetric hospitals, and 72 children's hospitals. There were about 500,000 women and children's health workers, 245,000 of whom work in women and children's health institutions, where there were 134,000 beds and 160 million annual visits. They have become an indispensable force in maintaining women and children's health.

The improved women and children's health status has contributed greatly to China's socioeconomic development. "Strategic Research on Healthy China 2020" indicates that during 1990-2005, the average life expectancy of the Chinese people increased from 68.6 to 73 years, 48% of which is attributed to the decrease of under-five mortality rate. Among the 20 or so age groups of the population, the investment return for the 0-4-year-old age group is the biggest. The decrease of every 1 per thousand point in under-five mortality rate benefits several hundred thousand of people directly and indirectly. The improved women and children's health service has decreased and avoided the negtive results of a large quantity of birth defects, child disability and injury. This has directly reduced social development cost, decreased compensatory births, and thus increased the stocking of healthy human resources, and indirectly created fortune for socioeconomic development.

The year 2011 is the starting year of the 12<sup>th</sup> 5-year plan. It is also the critical year for key tasks in the health care system reform. Women and children's health is one of the important areas in the reform. It is a key link in providing equalized essential public health and realizing the goal of essential health service for all. The release of the Report on Women and Children's Health Development in China is aimed at fully demonstrating China's women and children's health development to the public and the international community, to gain from the whole society more attention and support for this undertaking, to enhance the timely realization of the United Nations (UN) Millennium Development Goals (MDG), and to further improve Chinese women and children's health.

#### I. Women and children's health status

#### (I) Women's health status

Chinese women's health status has greatly improved since the founding of the People's Republic of China. Average female life expectancy increased to 75.2 in 2009. The MMR kept falling markedly. Some common diseases and frequently-occurring disease threatening women's health have been effectively controlled. Yet women's health is still faced with severe challenges.

#### 1.MMR keep falling markedly.

The national MMR in 2010 was 30.0/100,000, a decrease of 66.3% and 43.4% from 1990 and 2000 respectively.

The gap between urban and rural MMR is gradually narrowing. The urban and rural MMR in 2010 was 29.7/100,000 and 30.1/100,000 respectively. The urban-rural gap narrowed from 2.4 times down to 1.01 times (Figure 1). The decreasing speed for rural MMR is markedly higher than urban. The rural MMR had decreased by 56.8% since 2000. The urban MMR has waved by a small margin in recent years.

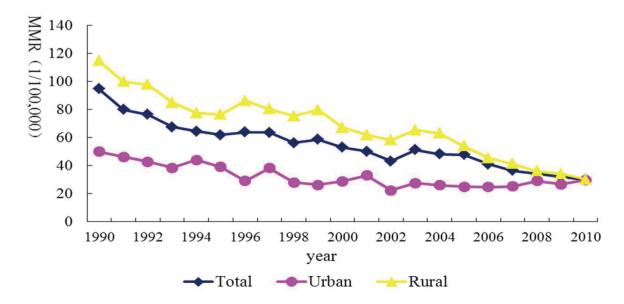


Figure 1 National urban and rural MMR 1990—2010 (1/100,000) (date resource: national women and children's health surveillance system)

Although the MMR gaps between different regions have been reduced, they are still obvious. The overall trend is still that the rate in the western region is higher than that in the central and eastern regions, the rate in the central region is in between. The MMR in the eastern, central and western part of China was respectively 17.8/100,000, 29.1/100,000 and 45.1/100,000 in 2010, a respective decrease 16.0%, 44.1% and 60.7% than the year 2000. The rate in the western region was 5.4 times of that in the eastern region in 2000, and down to 2.5 times in 2010 (Figure 2).

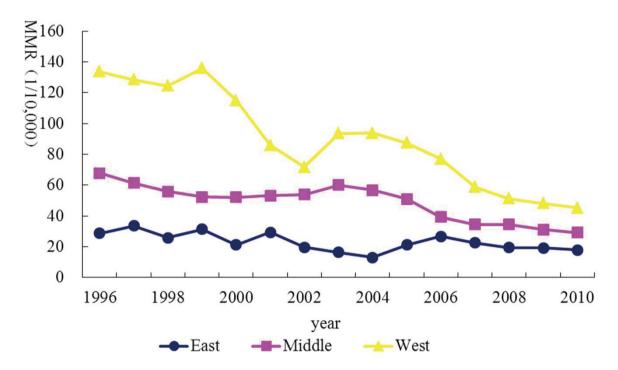


Figure 2 MMR in different regions (1/100,000) 1996—2010 (date resource: national women and children's health surveillance system)

The rank order of the first 5 causes of maternal death is obstetric hemorrhage, hypertension during pregnancy, heart disease during pregnancy, amniotic fluid embolism, and pneumonia during pregnancy, accounting for 68.7% of the total. Among them, obstetric hemorrhage is on the yearly decrease from 20.8/100,000 in 2000 to 8.3/100,000 in 2010, by the margin of 60.1%. 25.8% of the maternal deaths still occurred at home in 2010.

The gap in MMR with developed countries is gradually narrowed. The rate in China is lower than most developing countries. Compared with some developed countries, it was markedly higher than the United States, Japan and South Korea in 2000. By 2008, the rate had been reduced by a large margin, the gap from the three countries being gradually narrowed. Yet it was still at the level of the

United States in 1965 (31.6/100,000) [1,2]. Compared with other BRICS countries, the rate in China in 2008 was markedly lower than that in Brazil, India and South Africa, and roughly the same as that in Russia<sup>[2]</sup> (Table 1).

According to World Health Organization (WHO) data, China's MMR decreasing ranking rose from the 97 th in 1990 to the 109 th in 2005. It's at the medium level in the world.

Table 1: Comparison of maternal and under-five mortality rate in some countries

Commen	MMR (/100,000)		Under-five mortality rate (%)	
Country	2000	2008	2000	2008
United States	13	17	9	8
Japan	8	7	5	3
South Korea	14	11	5	5
Brazil	69	55	30	22
India	318	254	91	69
Russia	45	34	20	11
South Africa	155	237	74	67
China	53	34.2	39.7	18.5

According to the UN MDG, by 2015 the MMR should decrease by 3/4 from the year 1990. This means that in the coming 5 years, China's MMR should fall to 22/100,000 to reach the goal, which is a quite daunting task.

#### 2. The situation of common gynecological diseases allows no optimism

The overall prevalence of common gynecological diseases in China over the decade has not changed much. It was 28.8% in 2010. Vaginitis had the highest prevalence of 13.2%, followed by cervicitis, 12.1%. The prevalence of female genital warts was 33.8/100,000. There was high prevalence in some western provinces. The prevalence of gynecological tumor was in a trend of increase (Figure 3). From 2000 to 2010, the prevalence of cervical cancer increased from 9.6/100,000 to 15.1/100,000, the prevalence of breast cancer increased from 7.9/100,000 to 10.1/100,000 (Figure 3).

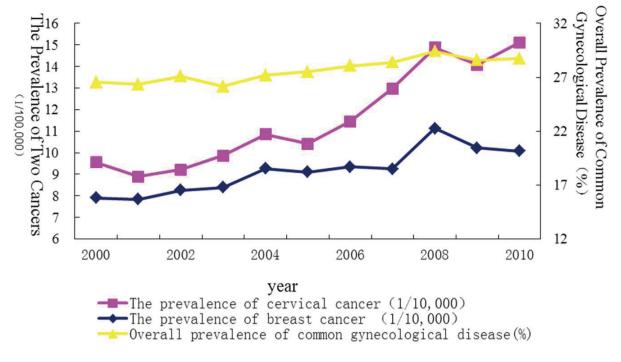


Figure 3 Overall prevalence of common gynecological disease and the two cancers 2000~2010

(data resource: national annual report system in women and children's health)

#### (II) Children's health status

Since the founding of the People's Republic of China, Chinese children's health status has improved remarkably, infant mortality, and under-five mortality rate continued to decline, relative indicators in the UN MDG have been reached ahead of schedule, and children's growth and development has improved. Childhood pneumonia, diarrhea, anemia are still major threats to child health in some areas; the incidence of birth defects is rising; childhood obesity, injuries, psychological and behavioral problems have become increasingly prominent; and special attention need to be given to migrant children and children left behind by migrant-worker parents.

#### 1.IMR and under-five mortality rate keep falling

The IMR in 2010 was 13.1%, down by 73.9% and 59.3% respectively from 1991 and 2000. The under-five mortality rate was 16.4%, down by 73.1% and 58.7% respectively from 1991 and 2000.

The urban-rural gap in under-five mortality rate is gradually narrowed and yet still distinct. The

urban and rural under-five mortality rate was 7.3% and 20.1% respectively in 2010, down by 47.1% and 56.0% respectively from 2000. The urban-rural gap was narrowed from 3.3 times in 2000 to 2.8 times in 2010 (Figure 4) .

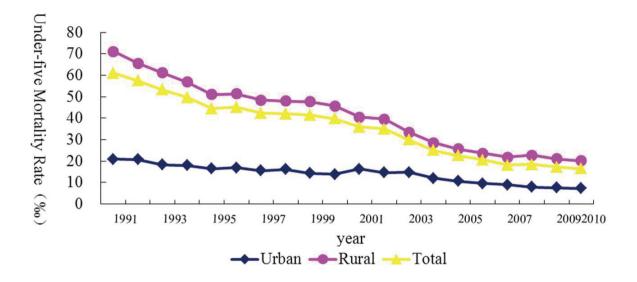


Figure 4 National under-five mortality rate (‰) 1991~2010

(date resource: national women and children's health surveillance system)

The regional gap in under-five mortality rate has been narrowed and yet still distinct. In 2010, the under-five mortality rate in the eastern, central and western regions was respectively 9.7%, 14.8% and 21.1%, down by 47.0%, 62.1% and 65.3% respectively from 2000. The western-eastern gap in under-five mortality rate went down from 3.3 times in 2000 to 2.2 times in 2010 (Figure 5).

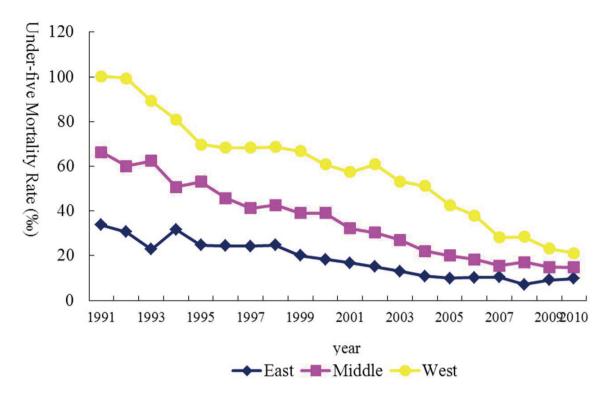


Figure 5 Under-five mortality rate (%) in 3 regions of China 1991~2010 (date resource: national women and children's health surveillance system)

With a huge population base, the number of annual child deaths is large in China. In 2010, the total numbers of infant deaths and under-five deaths reached 209,000 and 261,000 respectively, implicating that on average 573 infants and 715 under-five-year-old children die every day. The first 5 ranking causes of under-five mortality are early birth or low birth weight, pneumonia, birth asphyxia, congenital heart disease and accidental asphyxia, accounting for 60.7% of the total. Due to multiple factors such as financial, transport or medical conditions and health-seeking behavior, 36.3% of the deceased children still died at home in 2010, and 11.6% didn't get medical treatment before death.

The gap with developed countries in under-five mortality rate is gradually narrowed. China's under-five mortality rate was distinctly higher than the United States, Japan and South Korea in 2000. By 2008, it decreased by a large margin, the gap with the three countries were being gradually narrowed. Compared with other BRICS countries, it is markedly lower than Brazil, South Africa and India, and yet higher than Russia [1] (Table 1). China's IMR in 2010 was at the level of the United States in 1979 (13.07‰)<sup>[2]</sup>.

According to United Nations Children's Fund (UNICEF) data, in 2007, China's under-five mortality rate ranked 107 th among 193 countries in the decreasing order. It was the medium world level, Thailand (156 <sup>th</sup>) and Viet Nam (126 <sup>th</sup>) were both better than China.

#### 2. Birth defect problems are increasingly severe

China has a high incidence of birth defects. According to nation-wide hospital surveillance data for birth defects (surveillance period is from 28-week pregnancy to 7 days after delivery). The incidence of birth defects is on the increase, from 87.7/10,000 in 1996 to 149.9/10,000 in 2010, up by 70.9% (Figure 6).

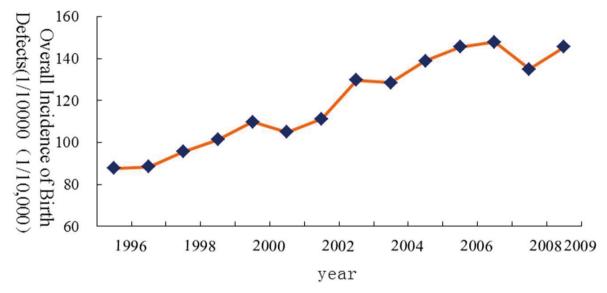


Figure 6 Overall incidence of birth defects in hospital surveillance 1996~2009 (date resource: national women and children's health surveillance system)

In 2010, the top five types of hospital-monitored birth defects were congenital heart disease (32.7/1 0,000), polydactylism (16.4/10,000), cleft lip with or without cleft palate (12.8/10,000), congenital hydrocephalus (6.0/10,000) and neural tube defects (5.7/10,000), altogether accounting for 49.1% of all birth defects. The incidence of neural tube defects has been declining, from 13.6/10,000 in 1996 down to 5.7/10,000 in 2010. The incidence rate congenital heart disease and polydactylism was on the rise. It is estimated that every year there were at least 260,000 cases of congenital hearing impairment, 7840 cases of congenital hypothyroidism and 2200 cases of phenylketonuria among the newborns. The incidence of thalassemia is one of the major birth defects in some areas. The challenges are still formidable.

#### 3. Children's growth and development has improved

Childhood is a critical period in life development. The nutrition in this period is directly related to the lifelong health. The findings in child growth and development surveillance indicate that Chinese children's height and weight increased in 2005 from 1995 to various extents regardless of residence and gender, and the increased margin was bigger than that from 1985 to 1995. The growth difference between urban and rural children is being narrowed. The physical development of the children in the 9 surveillance cities has reached the level of their counterparts in developed countries<sup>[3]</sup>.

Rural children's nutrition allows no optimism. It is particularly serious in the western poverty-stricken areas. According to the national food and nutrition surveillance data, in 2005, urban and rural under-five growth retardation rate was 3.1% and 16.3% respectively, the rural rate being 5.3 times of the urban; urban and rural under-five low weight rate was 1.4% and 6.1% respectively, the rural rate being 4.4 times of the urban. From 1992 to 2005, the under-five anemia rate of China's urban and rural children was within 12%-20%, with no major improvement. The rural western part of China has a high prevalence of child anemia [4]. The urban child obesity rate is on the increase, and has become the major health problem for urban children. Survey has indicated that in 2006, 0-7-year-old children's obesity rate was 7.2%, close to that in developed countries [5].

#### II. Women and children's health service situation

Since the founding of the People's Republic of China, women and children's health care service has expanded gradually from specific items of service to the overall service covering the whole life cycle of women and children. Particularly in recent years, with gradually expanded service, enlarged quantity of service, and increasingly improved quality, more and more women and children enjoy quality women and children's health care service.

#### (I) Women's health care service

1. Pre-marital and preconception care being vigorously scaled up

Since the 1980's, pre-marital health care clinics started to be established in some cities to provide pre-marital consultation and health check-up, and pre-marital health work was conducted extensively across China. The Law on Maternal and Child Health Care came into force in June 1995, providing that pre-marital medical examination as one of the specific items in maternal and infant health service, and thus identifying its legal status. Pre-marital health care service has been vigorously conducted by law all over the country. In 2010, the national rate of pre-marital examination had risen to 31.0%. 6,258 million people got examined. The disease detection rate was 10.0%, 630,000 people were found to be ill, 134,000 of whom had infectious diseases, 8099 had severe hereditary diseases. Preconception health care is an important primary preventive measure to birth defects. It is the continuation of pre-marital care, and the preceding stage of maternal care. Preconception care service includes health education and consultation, health check-up and guidance. The Ministry of Health formulated Working Protocol on Preconception Health Care in 2007, to vigorously promote preconception care service.

#### 2. Vigorously promoting maternal health care

Systematic maternal health care management is an important measure to improve the quality of maternal care and to protect maternal and infant health. The model of systematic maternal health care management was proposed and started to be trial implemented in China in 1978. So far a complete set of service of systematic maternal health care has been formed, including prenatal care, prenatal screening and diagnosis, screening and management of high-risk pregnant women, hospitalized delivery, newborn care and postpartum visits.

The maternal health care in China has been increasing over the years. In 2010, the national rates of prenatal examination, postpartum visits, and systematic management were respectively 94.1%, 90.8% and 84.1%, an increase of 5.2%, 5.3% and 8.9% over 2000; the rate of high-risk pregnant woman management reached 99.2%. The indicators in urban areas are better than in rural areas. According to a UNICEF report, from 2000 to 2007, the prenatal care rate in China reached 90%, significantly higher than the average for developing countries (77%) <sup>[6]</sup>. The network of prenatal screening and prenatal diagnosis gradually improved, the capacity continuously enhanced. By 2010, prenatal screening and prenatal diagnosis service was provided at 511 health facilities in 29

provinces (autonomous regions and municipalities) across the country.

Hospitalized delivery is the key in decreasing maternal and child mortality rate. In recent years, China's health authorities have taken many measures to enhance advocacy and worked closely with relevant ministries and agencies to increase hospitalized delivery rate, and have seen remarkable results. In 2010, the national hospitalized delivery rate reached 97.8%, the rural rate being 96.7%. With the incessant increase in the national rural hospitalized delivery rate, the rural MMR is on the gradual decrease (Figure 7).

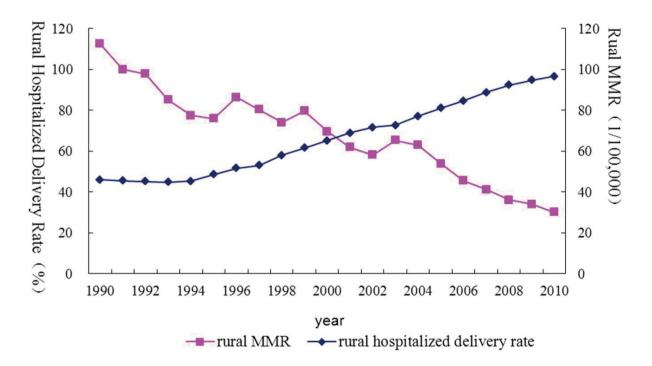


Figure 7 National hospitalized delivery rate (%) 1990~2010 and MMR (1/100,000) (data resource: national annual report system in women and children's health)

#### 3. Marked results are obtained in the "Decreasing and eliminating" project

In order to reach the goal of decreasing MMR in the two Guidelines and the UN MDG, since 2000, the Ministry of Health, the National Working Committee on Women and Children, and the Ministry of Finance cooperated to implement the project of "Decreasing MMR and eliminating neonatal tetanus" ("Decreasing and eliminating" in short). The women and children's health service capacity in the central and western part of China has been improved greatly with such measures as subsidizing poverty-stricken rural women in their hospitalized delivery, ensuring

smooth "green channels" for maternal emergency care, capacity building in maternal emergency care, improving specialized capacity of pediatric workers, sending experts to counties for on-site training, and conducting health education and social mobilization. As a result, the MMR and the incidence of neonatal tetanus in the project areas have fallen markedly. The pragmatic measures to ensure women and children's health have been greatly applauded by the general public, and got high praise from the international community. After 11 years of efforts, the project expanded to 2297 counties of 22 central and western provinces, autonomous regions, municipalities and Xinjiang Production and Construction Corps, covering 830 million population. The accumulated direct investment from the central government budget is 2.13 billion RMB yuan. The MMR in the project provinces (regions, cities) decreased from 76/100,000 in 2001 to 31.3/100,000 in 2010, down by 58.8%. The neonatal tetanus incidence rates per province all reached the goal of below 1%. The maternal mortality decrease in the project areas has brought about the continuous decrease of the national rate.

#### 4. Common gynecological disease tests are incessantly conducted

Common gynecological diseases are a serious factor harming women's life safety and quality. The screening and treatment of gynecological diseases have always been one of the major aspects of female health work. Sexually transmitted diseases were basically eliminated in China in the early 1960s. In the 1970s, the screening and treatment of gynecological diseases were conducted across China, leading to the marked decrease of the incidence of Uterine prolapse and urinary fistula, cervical cancer, menstruation related diseases, and trichomoniasis vaginitis. In recent years, however, due to the complication of various factors, the incidence of common gynecological diseases is on the increase. Some eliminated diseases came back, posing new challenges to the control of common gynecological diseases. In 2010, 84,947,000 women were examined across the country, 24,425,000 were found to be ill, disease detection rate being 28.8%. 12,812 of them were found to have cervical cancer, 8,546 breast cancer.

#### 5. Other reproductive health care service for women is vigorously expanded

Adolescent health care and menopausal and aged health care are becoming the major work of women's health care. The specific work includes vigorous advocacy and education on sex

knowledge and HIV/AIDS prevention, improving female adolescents' knowledge on sexual health so as to enhance their capability of self-protection. Various approaches are adopted to advocate scientific health care knowledge and to provide menopausal and aged women with more health consultation and service, so as to continuously improve their life quality. Vigorous efforts are made on the guidance and consultation on contraception and technical service for family planning. 22,157,000 family planning surgeries were conducted in the medical institutions across China in 2010, and the service quality kept increasing. The HIV/AIDS control in women keeps being strengthened. The prevention of mother-to-child transmission (PMTCT) of HIV/AIDS, syphilis and hepatitis B has become routine women and children's health care work, and free interventions are conducted. Care is given to infected pregnant women and their babies. Intervention models and experience in China's context are vigorously explored. More attentions is paid to protecting women and children's rights and interests in reproductive health when women and children's health care service is provided.

#### (II) Child health care service

#### 1. Neonatal care keeps being strengthened

The neonatal period is an important period in the infant growth and development. About 60-70% of the infant deaths occur at this period. Since the 1980s, neonatal care service featuring mainly follow-up visits started to be carried out across China. In the 1990s, neonatal resuscitation technology and neonatal disease screening were gradually scaled up, neonatal death evaluation was conducted. With the incessant expansion of neonatal care service, the health authorities update the service protocols in a timely manner, and organize technical training, so that the neonatal care work is in line with new situations and demands, and the service standardized. Currently, as one of main service items of the systematic child care, neonatal follow-up visit keeps being standardized. Neonatal resuscitation technology is popularized across the country and has become one of the key technologies in saving neonatal life. Neonatal death audit is conducted to improve pediatric service.

Remarkable progress has been made in neonatal disease screening. The "Neonatal Screening Management Regulation", screening plans and related technical protocols were formulated

and issued. Nationwide neonatal screening service is conducted focusing on congenital hypothyroidism, phenylketonuria, and newborn hearing screening. More than 8.51 million newborn babies were screened for inherited metabolic disease in 2009, accounting for 57.5% of the total number of births. Among them, 623 children with phenylketonuria and 4172 children with congenital hypothyroidism received timely treatment and avoided physical and mental damage. The number of infants that get newborn hearing screening increases rapidly year by year. In 2010 the national rate of neonatal visits reached 89.6%, an increase by 4.4% from 85.8% in 2000.

#### 2. Care for infants and preschool children is well conducted

Child nutrition is the basis for healthy growth and development. It is also an important part of infant and preschool care. To improve the nutritional status of children in China, since the 1990s, extensive work has been done to promote breastfeeding and develop baby-friendly hospitals. A total of 7329 baby-friendly hospitals have been developed. The health authorities strengthen regulation on baby-friendly hospitals, developed the "Chinese Infant Feeding Strategy", taking it as infant feeding strategies and measures to protect, promote and support breastfeeding, rationally add complementary food, provide the right knowledge and methods of feeding, and strengthen health advocacy and education. It carries out health-care management for children under the age of 7 and systematic management for children, under the age of 3, regular medical examination and growth monitoring for children, integrated management of childhood illness, timely diagnosis and treatment of common childhood diseases and frequently-occurring disease. Close cooperation with the education sector is conducted to make clear requirements on health care nurseries' sanitary installations, nutrition and food, physical exercise, health screening, health care personnel qualifications, training, etc., to ensure that children's health there. In 2010 national systematic management rate for under-3-year-old children and health care coverage rate for children under 7 years of age reached 81.5% and 83.4% respectively, increasing by 10.4% and 13.7% respectively from 2000.

#### 3. Ongoing work of immunization programs

Since China launched the nationwide immunization program for children in the 1950s, smallpox has been eradicated, the polio-free target has been reached, and such diseases as diphtheria and

tetanus have been effectively controlled. In 2007, the national implementation of expanded program on immunization turned the past "4 vaccines against 6 diseases" to "14 vaccines against 15 diseases". Fully implemented in 2010 to expand national immunization programs, continue to maintain polio-free status in the nationwide measles immunization activities, continue to implement the 15 years of age replant hepatitis B vaccine program. Currently, the incidence of most vaccine-preventable infectious diseases is at historically low levels.

#### 4. Other child health services are vigorously developed

The content of child care service is vigorously expanded at all levels of medical and health institutions across the country to meet service demands at different levels, centering on protecting child subsistence and promoting healthy child development as the basic strategy, to actively expand. The service is continuously expanded on the basis of basic child health. Efforts are made to carry out such service as integrated early childhood development for 0-3-year-olds, rehabilitation exercise for children with deviated development, early intervention in high-risk children, early intervention in food allergy, intervention in sleep problems, early intervention in the harm of environmental pollution on children health, and adolescent health care. At the same time, high attention is paid to the physical and mental health of such special groups as stay-behind rural children whose parents go to work in cities, migrant children, and disabled children.

## III. The development of women and children's health work

Since the founding of the People's Republic of China in 1949, in particular since the "Law on Maternal and Child Health Care" was promulgated in 1994, the "One Law and Two Outlines" have always been the core of women and children's health work, women and children's health legislation and policies are continuously improved, the women and children's health service system is gradually improved, and efforts are made to improve service levels and quality. Focusing on major problems impacting women and children's health, service for the full life cycle is carried out, women and children's health informatization is continuously strengthened, extensive

international cooperation and exchanges are conducted and the healthy development of women and children's health is promoted.

#### (I) Women and children's health legislation and policies are gradually improved

China attaches importance to women and children's health laws and regulations. In October 1994, the National People's Congress Standing Committee passed the "Law on Maternal and Child Health Care", symbolizing that the women and children's health work in China has entered a new stage of legalized administration. The "Law on Maternal and Child Health Care", with "the Constitution" as the basis, is a basic law to protect the health of women and children. The law and "the Law on Marriage," "Women's Protection Law," "Law on the Protection of Minors", "Provisions on Female Workers' Protection" and other laws and regulations provide a legal guarantee for the protection of women and children's health.

In August 2001, the State Council promulgated the "Implementation Guidelines of the Law on Maternal and Child health", making specific provisions on implementing the Law on Maternal and Child Health Care. It also provides that women and children's health work should be based on the policy of "centering on care, aimed at safeguarding reproductive health, integrating care and clinical work, group-oriented, grassroots-oriented and prevention first".

In order to fulfill its solemn commitment to the World Summit for Children and the international community's solemn commitment, the Chinese government has formulated and implemented the guidelines on women and children's development for 1995-2000 and 2001-2010, incorporating women and children's health into the national economic and social development plan as one of the priorities for development. In 2000 the Chinese government solemnly promised to achieve UN MDG, of which to reduce maternal and child mortality is an important part.

To better implement the "One Law and Two Outlines", to achieve "Guidelines" target and UN MDG, the Ministry of Health has formulated the a series of supporting regulations and documents, such as "Regulations on Technology Licensing And Personnel Qualification in Women and Children's Health", "Basic Standards of Special Technical Services in Women and children's health Care "," Working Standards on Pre-Marital Health Care ", "Preconception Health Service Standards ", "Regulations on Prenatal Diagnostic Technology Management", "Neonatal

Screening Management Regulation"," Guidelines on Further Strengthening Women and children's health Work", "Maternal and Child Health Institution Management Regulations", "National Working Standards Child Health Care", "Regulations on Health Care Work in Nurseries and Kindergartens", so that there is legal basis for all aspects of women and children's health service including administration, supervision and inspection and other technical specifications.

#### (II) The women and children's health service system is continuously improved

The women and children's health system was one of the first public health service systems that China has established. It is a system with Chinese characteristics, independent from the medical treatment and epidemic prevention systems. It takes maternal and child health professional institutions as the core, urban and rural primary health care facilities as the basis, and medium and large general health care facilities and related research and teaching institutions as the technical support. With the feature covering the vast urban and rural areas, having the roots at the primary level while focusing on different work at different levels of responsibility, it provides women and children from birth to old age with a full range of healthcare services covering the entire life cycle.

Professional maternal and child health institutions on are the core of women and children's health service system. All levels of maternal and child health institutions are government-organized, not-for-profit public institutions with public health nature. They are the organizers, managers and service providers in women and children's health work in its catchment area. Maternal and child health institutions adhere to the development direction of centering on health care, integrating care and clinical treatment, and being based on population care. They provide women and children with such public health service as health education, preventive health care, family planning counseling, screening for common diseases of women and children and women and children's health information management. While conscientiously implementing public health functions, they also carry out basic medical service closely related to women and children's health such as appropriate diagnosis and treatment of common diseases of women and children to, midwifery services, family planning services, and diagnosis and treatment of maternal complications. Community health service facilities, township hospitals and village clinics as a three-tier network of women and children's health, undertake such responsibilities as reproductive health related

service including women's basic care, child care and family planning, and the collection of basic information in women and children's health. Maternity hospitals, children's hospitals, and the obstetrics and gynecology department and pediatric department of general hospitals mainly provide such medical care service as maternal health care, midwifery services, family planning services, and the diagnosis and treatment of women and children's diseases.

As of 2010, there were 3025 maternal and child health institutions, 398 maternity hospitals, 72 children's hospitals, 33,000 community health service centers (stations), 38,000 township hospitals, and 648,000 village clinics. From 2005 to 2010, the number of practicing (assistant) doctors in obstetrics and gynecology and pediatrics grew from 224,000 to 360,000. The number of staff at maternal and child health institutions grew from 188,000 to 245,000. There are part-time and/or full-time staff in women and children's health at community health service facilities, township hospitals and village clinics. The coverage of women and children's health insurance is gradually expanded, and the level of insurance has increased.

#### (III) Women and children's health information technology has been strengthened

China established the annual report system of women and children's health information in the early 1980s. In 1986 the National Birth Defects Monitoring Network was established. A national maternal mortality monitoring network and an under-five child mortality monitoring network were established 1989 and 1991 respectively. To pool resources and improve efficiency, since 1996, the monitoring networks on birth defects, maternal deaths and under-5-year-old deaths were integrated into one. The new network now covers 336 counties with the population of 140 million. There are 783 hospitals for birth defect monitoring, and population-based birth defect monitoring is carried out in 64 counties. This is the world's largest network of women and children's health surveillance. The national monitoring and information system on the operation of maternal and child health institutions was established in 2005. With the development of electronic information technology, the means of monitoring and reporting have been greatly improved. All women and children's health information except annual reports can be reported directly online. The quality and efficiency of reported information has been greatly improved. Over the years, data from the national women and children's health surveillance has been adopted by the National Bureau

of Statistics, Nation Working Committee for Women and Children, and relevant international organizations. The women and children's health information has provided scientific evidence for all levels of government in develop health policies, especially those on women and children's health.

#### (IV) The women and children's health is strengthened in the health care system reform

Since the health care system reform was launched in 2009, women and children's health as an important public health component, has increasingly become the focus of attention and work to improve people's livelihood. Based on the "Decreasing and elimination" project and other key projects, the national program on basic public health services and the key program on women and children's health services were launched. The investment in women and children's health was increased through the programs, focusing on key issues affecting the health of women and children. In 2009-2010, the central government invested 29.1 billion RMB yuan for the implementation of the two programs. Since 2010, through the integration of the new rural cooperative medical scheme and financial medical assistance, pilot projects on major rural child diseases are conducted to improve the level of children's medical care.

#### 1. Program on subsidizing rural women for hospitalized delivery

Since 2008, the Ministry of Health began to implement the program on subsidizing rural women for hospitalized delivery, to subsidize women in the central and western regions. In 2009 the project was strengthened as a major public health service program in the health care system reform, being extended to all the rural areas in China. In 2009-2010, the central government invested 7 billion yuan. Altogether 17,488,000 rural pregnant women were subsidized. The implementation of the project, significantly increased the rate of hospitalized delivery, effectively protected the safe motherhood, and helped shaping a good atmosphere for hospitalized delivery.

#### 2. Pilot program on examining "two cancers" among rural women

Targeting at the gradual upward trend in the cervical and breast cancers incidence among Chinese women, in 2009, the Ministry of Health and the All-China Women's Federation jointly launched and implemented the pilot program on examining cervical and breast cancers (referred to as "two

cancers") among rural women, as a major public health service program in the health care system reform. In 2009-2010, a total of 220 million RMB yuan was invested. Cervical cancer screening projects were conducted for rural women in 221 counties (cities, districts), and breast cancer screening projects were conducted for rural women in 200 counties (cities, districts). A total of 7,681,000 age-appropriate rural women were screened for cervical cancer, and 907,000 rural women were screened for breast cancer.

#### 3. Program on folic acid supplement to prevent neural tube defects

In 2008 the Ministry of Health launched the birth defect prevention program in six central and western provinces. Birth defect interventions were conducted in the areas with high incidence of neural tube defect through the implementation of free folic acid supplement and health education before pregnancy and during early pregnancy. In 2009 the program was scaled up to all the rural areas in China as one of the major public health service programs in the health care system reform. In 2009-2010, the central government invested 190 million RMB yuan in providing 13,181,000 age-appropriate women with folic acid in rural areas.

### 4. Program on the prevention of mother-to-child transmission of HIV/AIDS, syphilis and hepatitis B

In recent years, there has been a rapid rise in the number of women infected with HIV in China. Children's health is harmed by mother-to-child transmission of AIDS. In 2002, the Ministry of Health launched the PMTCT pilot project in eight counties (cities, districts) of five provinces (regions). In 2010, the project was scaled up 1156 counties (cities, districts) across China. In 2009-2010 the central government invested 920 million yuan to support the PMTCT work in the project areas. As of the end of 2010, more than 13.9 million pregnant women had been provided with HIV counseling and testing service in the project areas. Mother-to-child transmission rate of HIV decreased from 34.8% to 7.9%. About 77% of HIV mother to child transmission had been avoided. Meanwhile, the prevention of AIDs, syphilis, hepatitis B from mother to child transmission was conducted in an integrated way. And comprehensive PMTCT intervention services were given to pregnant women infected with HIV, syphilis or hepatitis B and their children.

#### 5. Basic public health services

From 2009 onwards, the central government began to provide 15 yuan per capita subsidy with the standard to implement nine categories of national programs in basic public health service including maternal health care, 0-3-year-old children's health care, immunization programs and health education. The programs are provided to all citizens free of charge through the urban and rural primary health care institutions. In 2009-2010, the central government invested 21.21 billion yuan worth of subsidies. It is an important measure to promote equitable access to health services for women and children, the large number of women and children truly enjoy the benefits brought by the health care system reform, and urban and rural women and children health and safety has been effectively protected. In 2011, the per capita subsidy standard was raised to 25 yuan for basic public health services, the covered child population was expanded to 0-6 years old, and maternal health service items were added.

#### 6. Pilot work on improving medical insurance in major diseases for rural children

In June 2010, the Ministry of Health and the Ministry of Civil Affairs jointly launched the pilot work on improving medical insurance in major diseases for rural children. It started with 0-14-year-old children's two types of major diseases, i.e. acute leukemia and congenital heart disease. Six specific diseases were first chosen in the pilot work. By significantly improving the reimbursement proportion of the new rural cooperative medical scheme and the subsidy amount in the financial medical assistance, rural children's economic burden of major diseases has been effectively alleviated. As of the end of January 2011, a total of 4859 pediatric patients had been treated, including 4296 children with congenital heart disease, and 563 children with leukemia. The total compensation for medical expenses was 77,270,000 RMB yuan, 68,440,000 yuan of which was from the new rural cooperative medical scheme, 8,750,000 yuan from financial medical assistance. While many children received timely medical treatment, the pilot work also had a positive demonstrative effect for the reform in promoting clinical path management and payment based on Disease Related Groups.

### (V) Extensive international cooperation and exchanges in women and children's health are conducted

To protect women and children's health, the Chinese government is actively involved in international health exchanges and cooperation. Over the years, the Chinese government has conducted fruitful cooperation and exchanges with the WHO, UNICEF, UNFPA, World Bank and other international organizations in such areas as women's health, children's health, reproductive health and family planning. Thanks to the implementation of a series of cooperative projects, installations and equipment at women and children's health institutions and primary health care facilities have been improved. A number of women and children's health professionals have been trained. Advanced management and service concepts and appropriate technology have been introduced, the capacity to provide primary women and children's health service at the grassroots level has been improved, particularly in poverty-stricken areas. International cooperation and exchanges in women and children's health has deepened, communication and understanding between China and the international community, has played a positive role in protecting the health of women and children in China and the world. China's women and children's health development model and achievements have provided useful experience to the many developing countries, and has won praise from the international community.

#### **Postscript**

After decades of unswerving efforts and exploratory practice, Chinese women and children's health has improved remarkably, and the achievements in women and children's health work are well-known. However, it should still be made clear that China's women and children's health care development is lagging behind its socio-economic development, and cannot meet the increasing health demands of women and children. There are still many difficulties and challenges. Firstly, there are big gaps in women and children's health between urban and rural areas, between different regions and between different population groups. It has become the key and difficult work to improve women and children's health status in the western region and rural areas and among the migrant population. Secondly, the development of women and children's health system is lagging behind. The service network is not sound enough, and the overall personnel quality needs to be improved. Grassroots women and children's health service capacity is not strong, quality not high.

Particularly in the poverty-stricken areas, remote areas and areas populated with minority ethnic groups, the accessibility of women and children's health service is poor, the usage not enough. Thirdly, women and children's health problems are still serious. Such major diseases as breast cancer, cervical cancer, HIV/AIDS and syphilis still threaten the physical and mental health of the large number of women. Early birth, pneumonia, congenital heart disease, etc. are still major causes of child death. With the decrease of child death, birth defect becomes a more and more severe public health problem. Fourthly, a stable mechanism of women and children's health investment and compensation has not been established.

There are both difficulties and hope, both challenges and opportunities. China's women and children's health work is now faced with valuable domestic and international opportunities for development. Domestically speaking, the health care system reform is a significant opportunity to comprehensively strengthen women and children's health work. On the one hand, the work will get more and more attention as an integral part of public health, and there will be more and more budget for it. On the other hand, health system reform policies and measures have provided more favorable environment and conditions for women and children's health work. With improving people's life as the core, China's 12<sup>th</sup> five-year plan incorporates major women and children's health indicators into the economic and social development plan. It clearly proposes increasing average life expectancy by 1 year to 74.5, decreasing MMR to 22/100,000, under-five mortality rate to 14%, IMR to 12%. The State Council is has just released the guidelines on women and children's health development for the new decade (2011-2020), also incorporating women and children's health as an important part to protect people's life. Internationally speaking, the international community pays high attention to women and children's health, creating important opportunity and good atmosphere for the women and children's health work in developing countries. The "Global Strategy for Women's and Children's Health" was launched at the UN Summit for the MDG in September, 2010, to improve global women and children's health, decrease maternal and under-five mortality rate, and to promote the reaching of the MDG. Premier Wen Jiabao made the solemn commitment again on behalf of the Chinese government that China will continue implementing international obligations, actively participating in international cooperation that helps improve women and children's health, trying our best to safeguard women and children's health, and performing the government's due duty.

During the 12<sup>th</sup> five-year period, there are huge responsibilities in women and children's health work to reduce MMR, IMR and under-five mortality rate, to safeguard reproductive health, improve new-born population quality, enhance women and children's health, and to realize the MDG. With the lofty mission and daunting task, there must be a correct ideology in developing women and children's health work. First, the policy on women and children's health work must be adhered to, so as to ensure the correct direction for development. The women and children's health work policy of "centering on care, aimed at safeguarding reproductive health, integrating care and clinical work, group-oriented, grassroots-oriented and prevention first", is the summary of theory and practice, experience and lessons in the decades' of women and children's health work in China. It is the guideline for the reform and development of women and children's health work in China nowadays and for some time to come, and must be implemented unswervingly. Second, the "One Law and Two Guidelines" must be implemented and development by law promoted. The "One Law and Two Guidelines" are the important guarantee to promote women and children's health development and protect women and children's health. It is the important responsibility of governments at all levels and relevant departments to implement them well. Third, different categories must be guided separately so as to reach coordinated development. Grassroots should be prioritized in women and children's health work. More medical and health resources should be allocated to the grassroots level and poverty-stricken areas. More attention should be given to such special groups as the migrant population. The coordinated health work and development between the urban and rural areas and between different regions should be promoted. Fourth, capacity building should be enhanced to improve service. The women and children's health service system should be further improved, the infrastructure and personnel should be strengthened, and the service should be improved to meet the increasing health demands of women and children.

Women and children's health work is a lofty cause concerning national quality, family welfare and economic and social development. China will take good advantage of the favorable international and domestic development opportunity, comprehensively implement the 12<sup>th</sup> five-year plan, promote the health care system reform, endeavor to reach the MDG, and to create a new stage

for maternal and health work. Meanwhile, the government will still take the lead, multy-sectoral cooperation will be strengthened, the society will be mobilized, and the social atmosphere to protect and promote women and children's health will be nurtured, so as to make greater contribution to enhance women and children's health in an overall way.

#### Annex 1

#### **List of Acronyms**

AIDS Acquired Immunization Deficiency Syndrome

IMR Infant Mortality Rate

MDG Millennium Development Goals

MMR Maternal Mortality Rate

MOH Ministry of Health

NWCWC National Working Committee for Women and Children

UN United Nations

UNICEF United Nations Children's Fund

UNFPA United Nations Fund for Population

WHO World Health Organization

#### Annex 2

#### **Glossary**

- 1. Maternal mortality rate: the number of maternal deaths related to childbearing divided by the number of live births in that year. It is a critical indicator on maternal and infant safety, and an important indicator to measure the socio-economic development in a country or area. It is one of the UN MDG.
- 2. Infant mortality rate: the number of children dying under a year of age divided by the number of live births that year.
- 3. Under-five mortality rate: the number of children dying under 5 year of age divided by the number of live births that year. Together with infant mortality rate, it is a critical indicator on maternal and infant safety. It is also an important indicator to measure the socio-economic development in a country or area. It is one of the UN MDG.
- 4. Common gynecological diseases: common diseases in female reproductive organs or breasts, mainly including cervical diseases, breast diseases, reproductive tract infection and other reproductive system diseases. They are an important factor harming women's life safety and impacting their life quality.
- 5. Birth defect: abnormality in the body structure, function or metabolism at an infant's birth. It is a disease severely impacting children's physical growth and mental development.
- 6. Premarital care: premarital health guidance, counseling and medical check-up service provided for the man and woman that are going to be married. It is the first line of protection for maternal and infant safety to prevent birth defects and improve new-born population quality.
- 7. Maternal care: medical and health care service from pregnancy preparation until 42 days after delivery including the examination, monitoring, health care guidance and child delivery handling.
- 8. Neonatal care: service from birth until 7 days after birth such as the systematic examination, monitoring and health care guidance including neonatal follow-up visit and neonatal disease

screening.

- 9. Infant health care: physical examination, growth and development evaluation, and guidance and service on psychological and behavioral development, breast feeding, complementary food, injury prevention and the prevention and treatment of common diseases for 0-3-year-old children.
- 10. Pre-school-age child health care: periodic physical examination and health evaluation for 4-6-year-old children, and health care service such as the prevention and treatment of common diseases, the care of eyes, ENT and teeth, and injury prevention. It is mainly conducted at child-care facilities.

#### Annex 3

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