Health of Adolescents in China

China spans a wide expanse with large variations in health status between the more developed coastal areas and the growing central and western regions. The risk of natural disaster in less-developed regions is also five times higher than the national average.1 Some key adolescent health issues that China is concerned with include sex and reproductive health education, an increasing trend towards being overweight in certain parts of the country, psychological problems faced by adolescents and a high suicide rate, with women in the 15–24 year old age group being particularly vulnerable.2

**POPULATION**

The World Population Prospects estimates that in 2010, Chinese adolescents (10–19 years) made up about 14.8% of the total population, with males outnumbering females in all age groups.3 (Table 1)

**EDUCATION**

**Legislation:** China mandates nine years of compulsory education.

**Student enrolment:** By the end of 2009, primary net school enrolment rate was 99.4% (99.4% for boys and 99.4% for girls). The gross enrolment rate in junior secondary education reached 99% and the nine-year compulsory education retention rate was 90.8%.4

**Educational attainment:** China’s 2005 youth employment report stated that 72% of the employed population aged 16–19 years had a junior high school education, 19% had primary school, 6.7% had senior high school and 0.5% had a college education; 1.8% were illiterate.5

Table 1: Estimated number and percent of young people by age and sex in China, 2010

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number (000s)</td>
<td>(% of Total Pop)</td>
<td>Number (000s)</td>
<td>(% of Total Pop)</td>
</tr>
<tr>
<td>10–14</td>
<td>51 390</td>
<td>3.8</td>
<td>43 162</td>
</tr>
<tr>
<td>15–19</td>
<td>56 886</td>
<td>4.2</td>
<td>49 231</td>
</tr>
<tr>
<td>20–24</td>
<td>64 150</td>
<td>4.7</td>
<td>58 396</td>
</tr>
<tr>
<td>Total</td>
<td>172 426</td>
<td>12.7</td>
<td>150 789</td>
</tr>
</tbody>
</table>


Figure 1 shows that 21% of urban youth had a university education compared with 6% of rural youth. A 2004 survey revealed that only 17% of migrants had a high school education and only 18% had received skills training.6


Gender parity index (GPI): In 2009, the five-year primary school retention rates for boys and girls were 99.4% and 99.3%, respectively, which indicates that gender disparities had been eliminated. The GPI for the three-year retention rate of junior middle schools was 102%, also suggesting that there was no gender disparity.\(^7\)

The number of girls in senior middle school reached 46.4 million, accounting for 46.9% of the total number of senior middle school students. The number of women attending college/university was 10.83 million, accounting for 50.5% of the total. These figures indicate that China has made remarkable progress in achieving gender equality at all levels of education.\(^8\)

**ECONOMICS**

**Legislation:** Chinese law bans the employment of minors under age 16.

**Employment:** By the end of 2009, the employment rate for 2009 college graduates was 87.4%.\(^9\)

In 2000, of the 370.37 million women of working age (16–54 years), 14.8% (54.8 million) were employed and aged between 16 and 24. Of the 415 million men of working age (16–59 years), 14.0% (58.1 million) were employed and aged between 16 and 24.\(^10\)

Adolescents (16–19 years) made up 6.0% of the total number of females (6.03 million) and 3.7% that of males (4.86 million) employed in urban areas. In the rural areas, adolescents (16–19 years) made up 6.4% of the total number of females employed (13.85 million) and 6.0% of males (15.08 million).\(^11\)

**Nonemployment:** In 2000, of the male and female nonemployed population aged 16–19, 80.9% and 79.1%, respectively, were students. However, 12.4% of the female nonemployed population aged 16–19 years registered themselves as unemployed, as did 13.7% of males.\(^12\)

**Unemployment:** According to 2000 figures, in urban areas, there were 9.88 million females and 10.79 million males unemployed. The 16–19 age group made up 13.4% of the total female unemployed population and 15.8% of the total male unemployed population. This age group also had the highest unemployment rate (17.8% of female adolescents and 25.9% of males).\(^13\) (Table 2.) In a 2005 report, more than 60% of unemployed young people aged 15–29 agreed that low educational level was one of the main causes for their unemployment.\(^14\)

**Migrant labour force:** China has the world’s largest migrant population estimated at 145.33 million, of whom 34.9% are women.\(^15\) Although the employment rate for migrant workers was 97% in 2009, informal employment is a concern as this

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\(^8\) Ibid.

\(^9\) Ibid.

\(^10\) Ibid.

\(^11\) Ibid.

\(^12\) Ibid.


In 2004, 45% of the rural migrant workers were 16-25 years old.\(^\text{16}\) (Figure 2)

In 2006, there were about 132 million rural migrant workers.\(^\text{17}\)

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In 2006, there were about 132 million rural migrant workers.\(^\text{19}\)

Regardless of educational level, most women tended to marry between the ages of 20 and 24. Among women with a primary level education, 52.7% got married between the ages of 20 and 24; for women with a college or higher education, 56.9% had their first marriage between the ages of 20 and 24. This was similar for men, except for those with a college education. More than half (53.8%) of men with a college or higher education married later, between the ages of 25 and 29.\(^\text{20}\) The rate of early marriage for young women aged 15–19 years fell from 4.6% in 1990 to 1.2% in 2000 and from 1.8% to 0.3% for young men.\(^\text{21}\)

**Contraceptive knowledge and use:** In a 2003 survey of 8400 women aged 15–49 years, the knowledge of any contraceptive method among never-married women was 58.2%, most of whom (92.4%) were between 15 and 24 years old. The awareness of condoms among never-married women was 40%.\(^\text{22}\)

Means that workers do not have adequate social protection.\(^\text{16,17}\)

Data from 2002 indicated that 5% were covered by a pension scheme, less than 2% by unemployment insurance and 3% by medical insurance.\(^\text{18}\)

**SEXUAL AND REPRODUCTIVE HEALTH**

**Legislation:** (i) The Criminal Law revised in 1997 states that the legal age of consent for sexual activity is 14 years. (ii) The Marriage Law of 1981 stipulates that the legal minimum age of marriage in China is 22 years for men and 20 years for women. (iii) Induced abortion was legalized in China in 1957. The Regulation on Prohibiting Fetal Sex Identification and Selective Termination of Pregnancy for Non-medical Reasons of 1999 prohibits abortion if women have a planned pregnancy, except in cases where the fetus has a serious hereditary disease or deficiency, where continuing the pregnancy endangers the health or life of the pregnant woman and in special cases is approved by the family planning departments of the local government above the county level.

**Sexual behaviour:** Preliminary findings of China’s First National Youth Reproductive Health Survey in 2009 indicated that about 60% of unmarried youth aged 15–24 were open to having sex before marriage and 22.4% had sex, with over half of them not using any contraceptive method during their first sexual act.\(^\text{23}\)

In a 2001 study of unmarried young people aged 15–22 in Shanghai, 31% of girls and 44% of boys were sexually active. The mean age of sexual debut was just under 19 for girls and just under 20 for boys.\(^\text{24}\)

**Marriage:** Figures from 1999 showed that the female’s mean age at marriage was 23.1 years and 24.8 years for males.\(^\text{25}\) In 2002, young Chinese were found to have their first marriage at about age 25 years.\(^\text{26}\)

**Health of Adolescents in China**

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16 Ibid.
17 Zhao, L. and Huang, Y. Unemployment problem of China’s youth. East Asian Institute Background Brief No. 523. Published: 28 April 2010.

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**Figure 2: Age break-down of rural migrant workers, 2004**

The 2009 National Youth Reproductive Health Survey found that only 4.4% of youth were well informed about reproductive health. About 60% of youth’s need for counselling and more than 50% of their need for reproductive health services were not met.28

In one report, unmarried young female migrant workers were found to have mistakenly thought that family planning distribution centres were only for married women. They also felt embarrassed about obtaining contraceptives and feared that their sexual activity status would be exposed.29

According to the 2001 National Family Planning and Reproductive Health Survey, the contraceptive prevalence rate among adolescents aged 15–19 years was 30.9%, lowest among all age groups.30

**Childbearing:** From the 1990s to 2005, the median age at childbearing of Chinese women had been about 25 years.31

**Adolescent birth rate:** According to the 2008 National Demographic Change Sampling Survey, the birth rate of adolescents aged 15–19 was 5.3 per 1000 women.32 In 2006, the adolescent fertility rate was at 4.6 per 1000 women aged 15–19 years, lower than in 2004 (5.6 per 1000 women aged 15–19) and in 2005 (6.3 per 1000 women aged 15–19).33

**Abortion:** The 2009 National Youth Reproductive Health Survey found that among female youth who have had sex, 20% had unplanned pregnancies and 91% had resorted to abortion.34

According to the 2001 Almanac of China’s Health, as many as 10 million induced abortions were performed annually in China and about 20%–30% were provided to unmarried young women.35

In China, the proportion of induced abortions appeared stable at about 27 among per 100 known pregnancies.36

**Sexually transmitted infections (STIs):** In 2010, 358 534 syphilis cases and 105 544 gonorrhoeae cases were reported in China, with an increase of 17% for syphilis and a decrease of 11.9% for gonorrhoeae compared with cases reported in 2009.37

In a 2000 cross-sectional survey of 505 sex workers, more than half were under 25. The most prevalent STI was Chlamydia Trachomatis (58.6%) followed by Trichomonas Vaginalis (43.2%) and Neisseria Gonorrhoeae (37.8%). The highest prevalence of Chlamydial infection or gonorrhoea was among the 15–19 and the 20–24 age groups.38

**STI knowledge:** A 2003 survey of 8400 women aged 15–49 years found that 60% of never-married females, most of whom were between 15 and 24 years old, who have heard of STIs did not report awareness of any symptoms associated with STIs.39

**Adolescent-Friendly Health Services (AFHS):** The National Population and Family Planning Commission and the Ministry of Health, with support from the United Nations Population Fund, have implemented a reproductive health/family planning project in 30 counties with one in each of the 30 provinces (municipalities and regions). The project components were to promote adolescent reproductive health, emphasize reproductive health and sex education for teenagers and pilot the provision of youth friendly services at the county service delivery points for maternal and child health care under the Ministry of Health. Currently, there is no standardized system to provide young people or the unmarried with reproductive health information, services and education. Recommendations have been made for strategies to be formulated and implemented, including promoting the provision and access of services within the migrant population and in the central and western parts of China.40

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31 Ibid.


37 Online Case reporting system of Infectious Disease (by the end of December 2010)


**HIV prevalence and infection:**
Data from 2010 showed that adolescents aged 10–19 accounted for 3.9% of cumulative reported HIV infections, 1.6% of cumulative reported AIDS cases and 1.7% of cumulative reported AIDS-related deaths (Table 3). Of the estimated 740 000 people living with HIV/AIDS by the end of 2007, 44.3% were infected by heterosexual transmission, 32.2% through intravenous drug use and 14.7% through men having sex with men.41

**HIV knowledge:** A 2008 report stated that about half of young men and women (15–24 years) could correctly identify ways of preventing the sexual transmission of HIV and reject major misconceptions about HIV transmission.42 The 2009 National Youth Reproductive Health Survey found that only 14.4% of youth aged 15–24 had correct knowledge on how to prevent HIV infection.43,44

**NUTRITIONAL STATUS & PHYSICAL ACTIVITY**
The Global School-based Student Health Survey (GSHS) showed that across four survey sites in China, the percentage of students aged 13–15 years who were overweight ranged from 7.9% to 19.2%; those who were obese ranged from 1.5% to 9.5%. Levels of physical activity ranged from 10.7% to 21.0%.45 (Table 4)

An October 2009 survey of rural boarding schools in Ma Shan County in Guangxi’s Nanning Municipality found that the average height and weight of secondary school boarding pupils in every age group and primary school pupils aged 6–16 in poor towns and villages was lower than that in the region as a whole. The average height of boys was 5.7 cm lower than the norm while that of girls was 5.5 cm lower. The average weight of boys was 2.4 kg lower than the norm while that of girls was 2.0 kg lower.46

**MENTAL HEALTH**
More than 30 million children and adolescents under 17 years old had behavioural and emotional problems, of which about 50%–70% needed mental health services but remained untreated.47

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**Table 3: Percentage distribution of HIV infections, AIDS cases and AIDS-related deaths by age, China, 2007**

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>2007 HIV Infections Reported (%)</th>
<th>Cumulative reported (%)</th>
<th>2007 AIDS Cases Reported (%)</th>
<th>Cumulative reported (%)</th>
<th>2007 AIDS-related Deaths Reported (%)</th>
<th>Cumulative reported (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–19</td>
<td>1.3</td>
<td>1.1</td>
<td>1.6</td>
<td>1.6</td>
<td>1.7</td>
<td>1.6</td>
</tr>
<tr>
<td>20–24</td>
<td>3.0</td>
<td>3.5</td>
<td>2.2</td>
<td>1.8</td>
<td>1.6</td>
<td>2.3</td>
</tr>
<tr>
<td>30–39</td>
<td>35.9</td>
<td>38.2</td>
<td>37.7</td>
<td>34.0</td>
<td>35.8</td>
<td>33.3</td>
</tr>
<tr>
<td>40–49</td>
<td>15.3</td>
<td>12.2</td>
<td>20.1</td>
<td>20.3</td>
<td>21.2</td>
<td>19.2</td>
</tr>
<tr>
<td>50–59</td>
<td>5.2</td>
<td>4.4</td>
<td>10.1</td>
<td>9.3</td>
<td>11.3</td>
<td>9.5</td>
</tr>
<tr>
<td>60–69</td>
<td>4.2</td>
<td>2.2</td>
<td>7.3</td>
<td>3.2</td>
<td>7.3</td>
<td>4.2</td>
</tr>
<tr>
<td>Unknown</td>
<td>0.0</td>
<td>0.0</td>
<td>14.2</td>
<td>4.9</td>
<td>10.4</td>
<td></td>
</tr>
</tbody>
</table>

*HIV infections, AIDS cases and AIDS-related deaths reported during January to October 2007; **Cumulative HIV infections, AIDS cases and AIDS-related deaths by end of October 2007.


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**Table 4: 2003 China (Beijing, Hangzhou, Wuhan, Wurumqi) Global School-based Student Health Survey results for students aged 13–15 (boy-girl) (%)**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Beijing</th>
<th>Hangzhou</th>
<th>Wuhan</th>
<th>Wurumqi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of students who were hungry most of the time or always during the past 30 days because there was not enough food in their home</td>
<td>2.4 (2.9 &amp; 1.9)</td>
<td>2.6 (3.3 &amp; 1.9)</td>
<td>1.9 (1.9 &amp; 2.0)</td>
<td>2.3 (2.6 &amp; 2.0)</td>
</tr>
<tr>
<td>Percentage of students who were overweight</td>
<td>18.6 (24.2 &amp; 13.0)</td>
<td>7.9 (10.1 &amp; 5.6)</td>
<td>19.2 (25.0 &amp; 12.8)</td>
<td>9.1 (13.7 &amp; 4.4)</td>
</tr>
<tr>
<td>Percentage of students who were obese</td>
<td>5.9 (8.8 &amp; 3.0)</td>
<td>2.1 (2.7 &amp; 1.4)</td>
<td>9.5 (10.8 &amp; 8.1)</td>
<td>1.5 (2.4 &amp; 0.6)</td>
</tr>
<tr>
<td>Percentage of students who were physically active for a total of at least 60 minutes per day on all 7 days during the past 7 days</td>
<td>21.0 (24.9 &amp; 17.2)</td>
<td>10.7 (12.1 &amp; 9.0)</td>
<td>14.6 (18.6 &amp; 10.0)</td>
<td>15.9 (20.7 &amp; 10.7)</td>
</tr>
</tbody>
</table>

Source: China (Beijing, Hangzhou, Wuhan, Wurumqi) 2003 Fact Sheet. Global School-based Student Health Survey. World Health Organization.
The GSHS revealed that 14.3%–21.3% of students aged 13–15 years across the four survey sites had seriously considered attempting suicide during the past 12 months and 5.0%–8.8% of those surveyed had experienced loneliness and had reported no close friends.48

Depression is a major risk factor for suicide in China. In 2002, the suicide mortality in the 15–29 age group was more than 50 000.49 (Figure 3) Someone takes his or her own life in China about every two minutes.50 Women in China have a suicide rate that is twice that of women in other parts of the world.51 Easily accessible toxic pesticides contributed to high suicide burden in rural areas of China, with 166 000 people having used this method.52

**SUBSTANCE USE**

**Legislation:** In 2006, China implemented the alcohol circulation management regulation, which prohibits alcohol vendors from selling alcoholic drinks to minors under the age of 18.53

**Tobacco use:** The GSHS found that between 3.5% and 8.7% of students aged 13–15 across four survey sites had smoked cigarettes in the past month.54

The 2005 Global Youth Tobacco Survey data in Table 5 also offers insights into the prevalence of current cigarette smoking among young adolescents, which ranged from 1.9% to 2.6% across the four survey sites. In the World Health Statistics 2010, city figures extrapolated into country figures indicated that about 7.1% of male and 4.1% of female students aged 13–15 were current tobacco users.55

**Alcohol use:** WHO’s Multi-Country Survey Study 2000–2001 showed that the rate of heavy episodic drinking for youth aged 15–19 years was 1.3% (male 2.5% and female 0.0%) and for youth aged 15–24 years, the corresponding rate was 2.1% (male 3.9% and female 0.3%).56

The GSHS results showed that across the four survey sites, 13.0%–18.1% of boys and girls aged 13–15 were consuming alcohol and 8.4%–13.5% of them have “even consumed so much till they were drunk”.57

**VIOLENCE AND INJURIES**

**Leading causes of death for young people:** According to the World Health Report 2005, surveys conducted in 2003 showed that the leading causes of death among 5–29 year olds in China were injuries followed by noncommunicable diseases and communicable, maternal, perinatal and nutritional diseases. China has one of the highest mortality rates for injury in the Western Pacific Region.58 For people aged 15–24, the leading causes of death in urban areas were traffic injuries, suicide and drowning in urban areas and traffic injuries, drowning and suicide in rural areas.59
Physical violence: The GSHS data from the four survey sites showed that 15.8%–22.0% of students had engaged in a physical fight one or more times in the past year, 16.4%–24.7% had been seriously injured one or more times in the past year and 20.2%–33.2% had been bullied on one or more days in the past month. For those aged 15–29, homicide was estimated to be the fourth leading cause of death. An estimated 38 000 people died from homicide-related injuries in 2002.

Domestic violence: Figure 4 shows that those aged 5–14 and 15–29 accounted for 41% of violent deaths (more than 15 000) in China in 2002.

Drowning: WHO estimated 112 000 deaths from drowning each year in China. Half of all drowning deaths (about 56 000) occurred among children under 15 followed by those in the 15–29 year age group (19%). The drowning mortality rate in rural areas for children aged 10–14 years was 14.0 per 100 000 population; in urban areas, the rate was 1.4 per 100 000 population. Risk factors for drowning were widespread. A 2004 survey estimated that 80% of urban Chinese children could not swim.

List of Legislation and Conventions that Impact Adolescent Health and Welfare

Employment
- Labour Act, 1994

Education
- Compulsory Education Law, 1986

Health and Welfare
- Marriage Law, 1981
- Law on the Protection of Minors, 1992
- Road Traffic Safety Law, 2004

Sexual and Reproductive Health
- Criminal Law, revised 1997
- Population and Family Planning Law, 2002
- Law on Maternal and Infant Health Care, 1995
- Termination of Pregnancy for Non-medical Reasons, 1998

Substance Use
- Alcohol circulation management regulation, 2006
- Regulations for alcohol advertising, 2006

Crimes, Violence and Injuries
- Law on the Protection of Rights and Interests of Women, 1992

Conventions
- World Health Organization Framework Convention on Tobacco Control, 2005
- International Labour Organization’s (ILO) Convention No. 182 "Worst Forms of Child Labour Convention", 2002
- ILO Convention No. 138 "Minimum Age for Admission to Employment", 1999

Table 5: 2005 China (Shanghai, Tianjin, Zhuhai) Global Youth Tobacco Survey Results for students aged 13–15 (boy-girl) (%)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Shanghai</th>
<th>Tianjin</th>
<th>Zhuhai</th>
<th>Puyang</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage who currently smoked cigarettes</td>
<td>2.0</td>
<td>1.9</td>
<td>4.3</td>
<td>4.9</td>
</tr>
<tr>
<td></td>
<td>(3.3 &amp; 0.9)</td>
<td>(3.8 &amp; 0.0)</td>
<td>(7.8 &amp; 1.0)</td>
<td>(10.6 &amp; 0.5)</td>
</tr>
<tr>
<td>Percentage who currently used tobacco products other than cigarettes</td>
<td>4.2</td>
<td>2.6</td>
<td>5.0</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>(4.7 &amp; 3.7)</td>
<td>(5.6 &amp; 3.3)</td>
<td>(6.5 &amp; 3.8)</td>
<td>(5.0 &amp; 3.8)</td>
</tr>
<tr>
<td>Percentage who lived in homes where others smoke in their presence</td>
<td>50.0</td>
<td>48.3</td>
<td>47.1</td>
<td>36.9</td>
</tr>
<tr>
<td>Percentage who ever received help to stop smoking</td>
<td>-</td>
<td>-</td>
<td>56.6</td>
<td>38.0</td>
</tr>
<tr>
<td>Percentage who desired to stop smoking</td>
<td>42.1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: China (Shanghai, Tianjin, Zhuhai, Puyang) 2005 Fact Sheets. Global Youth Tobacco Survey. Available upon request from the Tobacco Free Initiative, World Health Organization Regional Office for the Western Pacific, Manila, Philippines.
• Convention on the Rights of the Child, 1992
• Convention on the Elimination of All Forms of Discrimination against Women, 1980

GOVERNMENT RESPONSES
Note: This is not meant to be a comprehensive list of all relevant government initiatives.

Economics
• 12th Five-Year Plan (2011–2015)

Employment
• Series of policies to promote the employment of college graduates and women

Education
• National Development Through Science and Education
• National Medium and Long Term Education Reform and Development Plan Outline (2010–2020)
• In 2009, the central Government allocated US$ 316.9 million to fund compulsory education for children of migrant workers.65
• By 2012, the Government intends to allocate 4% of China’s national gross domestic product (GDP) to education.66

Sexual and Reproductive Health
• Ministry of Education’s Guideline to Health Education for University Students
• “Subsidies for Rural Women Delivering in Hospitals in Key Central and Western Areas” was implemented in 2008 and expanded to include all rural areas in 2009

Basic public health service: All pregnant women are entitled to five free antenatal visits during their pregnancies and postpartum women are entitled to two free postnatal visits; provision of free folic acid supplements during the preconception and early pregnancy periods. The Government has increased the amount of public funds dedicated to the new cooperative medical scheme in rural areas.67
• The State Council announced its “Regulations on Provision of Family Planning Services to the Migrant Population” in May 2009.
• Management Regulations for Technical Services in Family Planning

HIV/AIDS
• Regulations on HIV/AIDS Prevention and Treatment
• “Four Free One Care” Policy
• Notice of the State Council on Further Strengthening HIV/AIDS Response
• China’s Action Plan for Reducing and Preventing the Spread of AIDS (2006-2020)
• China’s National Mid- and Long-term Strategic Plan for HIV/AIDS Prevention and Control 1998-2010

NUTRITION
• Outline for the Development of Food and Nutrition in China (2001–2010)
• Formulating “Outline for the Development of Food and Nutrition in China (2011–2020)

MENTAL HEALTH
• National Mental Health Project (2002–2010)

INJURY PREVENTION
• 2008–2009 Ministry of Health/WHO Cooperation Plan
• Plan of Action for Women and Children 2006–2010

Sources:
66 Ibid.
67 Ibid.