The grand opening of the National Taiwan University (NTU) Children’s Hospital takes place on the 27th of December 2008, marking a milestone in the history of child health care in Taiwan. On this epoch-making occasion, I would like to extend my cordial congratulations and best wishes to all the staff of the Hospital. Children under the age 18 in Taiwan, totalling 5,311,421, at the end of 2007, represent one quarter of Taiwan’s population.1 Children today are the masters of tomorrow. They are entitled to our special care and assistance.2,3 It is timely, therefore, to discuss the mission of the NTU Children’s Hospital and explore some current and future child health issues.

NTU Children’s Hospital

In 1984, all the staff of the Department of Pediatrics, NTU Hospital, gathered and signed a petition for founding of a children’s hospital. The preparatory works and construction of the children’s hospital spanned 24 years. Though belated, the children’s hospital is now complete, and ready for operation as the first national children’s hospital in Taiwan. It is ironic however, that this children’s hospital is being required to operate as a hospital within the NTU Hospital, mainly because of a shortage in government funding.

It is well recognized that children’s hospitals are not-for-profit organizations. The higher the intensity of service, the greater the financial deficit.4-6 A formal letter written to me, dated October 6, 2004, from Prof. M. Yanagisawa, Director of the National Center for Child Health and Development, stated that in Japan the government appropriated 25.0% to 47.6% of hospital expenses to their national medical centers. The National Center for Child Health and Development received the highest subsidy from the government (Table).

Mission: Patient-Care, Teaching, Research and Advocacy

In the United States, there are approximately 250 children’s hospitals, of which 50 to 55 (20%) are the freestanding children’s hospitals, with their own governing board for human resource allocation and financing.6 One

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hundred to 125 (44%) are non-freestanding children’s hospitals, also known as children’s hospitals within larger hospitals, and 90 to 100 (36%) are of other specialties, such as orthopedic, rehabilitative and psychiatric children’s hospitals. Philanthropic support plays an important role in children’s hospital financing. NTU Children’s Hospital should be encouraged to operate, with governmental and philanthropic support, as a freestanding children’s hospital, so that it may develop and function as an authentic national children’s hospital and achieve its mission of providing quality, quaternary patient care; teaching pediatricians, subspecialists and child health related workers; conducting research on child health issues in Taiwan; and advocating children’s safety and welfare.

Unprecedented Fertility Transition

The quantity and health of children in Taiwan has dramatically changed in the past few decades (Figure 1). The number of babies born in 2007 was only 204,000, less than half of that of 1962, 420,000. The total fertility rate (TFR), the average number of children born per woman through her reproductive life from age 15 to 49, was highest in Taiwan, in 1951, 7.2, and declined to the population replacement level of 2.1, in 1984. It started to drop more rapidly after 2002, down to 1.10 in 2007.

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<th>Table</th>
<th>Budget of Six National Medical Centers, Japan, April 2004–May 2005*</th>
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<td>1. National Cancer Center</td>
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<td>2. National Cardiovascular Center</td>
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<td>3. National Center of Neurology and Psychiatry</td>
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<td>4. International Medical Center of Japan</td>
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<td>5. National Center for Child Health and Development</td>
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<td>6. National Center of Geriatrics and Gerontology</td>
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*From Prof. M. Yanagisawa, Director National Center for Child Health and Development.

Figure 1  The decline of total fertility rate (TFR) in Taiwan since 1950 to 2007. The TFR was the highest, 7.2 in 1951 and declined gradually but steadily after 1960, reaching the population replacement level of 2.1, in 1984. It started to drop more rapidly after 2002, down to 1.10 in 2007.
Countermeasures to Low Fertility

The countermeasures adopted in Japan, France and most industrialized countries have varied and proved to be difficult tasks to fulfill. Child rearing is often viewed as a burden, therefore free medical care for pregnant women, financial assistance for child birth, and a better system of maternity leave have to be studied and implemented. Encouragement of reporting pregnancy in Japan, once only confirmed by a physician, has been widened to include health stations. This has been viewed an development in women’s rights and implemented to provide proper preparatory learning about pregnancy, prenatal care and breast feeding. Even provision of awards and or cash has appeared to be effective in Japan. The number of births increased nearly 50,000 in 1994, and the TFR rose from 1.46 in 1993, to 1.50 in 1994.9

Abortions to be Discouraged

The Taiwan National Health Insurance database indicated that, in 2006, of 5,374,345 women of
reproductive age (15–44), 114,498 (21.3‰) underwent abortions, and of 4,598,770 adolescent (15–19) girls, 5,726 (0.12‰) had abortions. These figures were possibly underreported, as 300,000 to 500,000 abortions could be, however, being carried out annually in Taiwan. The world average abortion levels among women of reproductive age including adolescent girls were estimated to vary from 8 to 100 per 1000. It is also reported that one of four pregnancies in the world ended in abortion. It is urgent and mandatory, that the real situations should be clarified by further studies, and some effective countermeasures be taken.

**Unduly High Mortality Rates**

Child mortality rates of Taiwan and of seven developed countries, Japan, Singapore, France, Sweden, Germany, Australia and the Netherlands, during 1965 to 2007 were plotted and compared (Figures 2, 3, 4, and 5). The infant mortality rate in Taiwan,
jumped up in 1995, and remained high thereafter, indicating that there had been underreporting before the implementation of National Health Insurance in 1995 (Figure 2). In Taiwan, the infant mortality rate reported in 2007 was 5.45‰, ranking the 185th of 222 countries in the CIA World Factbook. The levels of the child mortality rates in Taiwan and the average of the seven countries in four age groups, 0–4, 1–4, 5–14 and 15–24 years, during 1988–2007, were compared using the Kolmogorov-Smirnov two sample (Z) test. It is quite obvious that the child death rates of Taiwan were higher than those of the seven developed countries. Unduly high child mortality rates in Taiwan were also reported by Wu JCL and Chiang TL. It is important to point out that there have been shortages of government funding and inadequate medical and social support and this has resulted in unsatisfactory child health care in Taiwan for more than 20 years. The advent of NTU Children’s Hospital would function, we hope, as a trigger to help improve the child health care levels and achieve the highest attainable child health.

Conclusion

The opening of the long awaited NTU Children’s Hospital will be met with gratitude. Current and future child health issues, such as extremely low fertility, high abortion rates, and unduly high child mortality rates should be studied, improved, and ideally, even solved. We believe that the health of children is the overall reward for the effort and interaction of parents, family and society, reflecting the culture and standards of a given country. While the number of children has decreased, the health of children has become even more important to us all. It is much hoped that the NTU Children’s Hospital will contribute to the fulfillment of our goal: health for all children in Taiwan.

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References