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2007 Annual Report

BUREAU OF HEALTH PROMOTION

Cherish Life Promote Health

Bureau Of Health Promotion,
Department of Health, R.O.C. (Taiwan)

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CONTENTS

Director General's Preface

In 1986, the World Health Organization (WHO) brought forth five action plans in the Ottawa Charter, namely establishment of healthy public policies, creation of a supportive environment, strengthening of community actions, development of personal skills and reorientation of health services, to achieve an ultimate goal of national health. In 2005, the Bangkok Charter for Health Promotion was announced to call upon the whole world to take seriously the challenges brought by emerging epidemics and chronic diseases (including cancer, heart disease, stroke and diabetes), so as to emphasize the commitment and obligations of governments, international organizations, civil societies and private corporations to health promotion.

For the part of the Bureau of Health Promotion(BHP), we are closely monitoring the health status of our citizens, establishing underlying policies for health promotion, providing preventive healthcare services and health education to create a healthy quality of life and prolong life expectancy. While promoting health, BHP is also pursuing equality in health, that is, regardless of differences in gender, location, income, size of group, disparities in health are minimized.

Within the Top 10 leading causes of death in Taiwan, chronic diseases are a major threat to our nation's health. Lifestyles, dietary habits, and knowledge and skills about health are the major determinants of a nation's health. Major public health issues introduced by the WHO, such as physical activity, obesity and excess weight, tobacco control, accident and injury prevention, sexual education, and healthy environments, are all closely related to BHP activities. Public health is facing multi-faceted challenges, including an aging society, decreasing birth rate, and globalization, among other political, social, economic, environmental, and cultural changes. On the other hand, the increasing demands of our people for health further recognizes health as a universal human right. The complete care and support provided by BHP from the womb to the tomb shows our respects of the value of life.

In 2007, BHP faced three major challenges in policy decision-making and was able to overcome them eventually:

1. Promotion of new Acts. The Artificial Reproduction Act was announced by the President and enacted on March 21st 2007. Within the next six months, four sub-regulations were established and 73 artificial reproduction institutions were approved. The Tobacco Hazards Prevention Act Amendment was reviewed and approved by the Legislative Yuan, and announced on July 11th 2007.

Revision to eight regulations in the Tobacco Hazards Prevention Act was proactively embarked on, among which the "Regulations of the Tobacco Health and Welfare Surcharge Distribution and Utilization" were announced on October 11th, 2007 and shall take effect from the effective date of Article 4, the Tobacco Hazards Prevention Act.

2. Gender equality: The new "Women's Health Policy Draft" was completed and passed unanimously among commissioners of the Women Rights Advancement Council of the Executive Yuan in preliminary negotiations before its 28th council meeting on November 30th 2007.

3. Preventive health services: In line with diverse policy fine tuning, preventive healthcare services are planned and implemented. The "Review Guidelines for Preventive Health Services Authorized by the Bureau of Health Promotion, Department of Health, Executive Yuan" were amended to address insufficient NHI budgets and proactively control utilization of budgets. The 2008 enforcement plans and future preventive healthcare policies are planned to be adjusted. In addition, the necessity of health and welfare surcharges on tobacco are stressed and a surcharge adjustment proposal is planned. The "Five-Year Prevention Plan of Health Hazards on Betel Quid Chewing" and "Five-Year Cancer Prevention and Control Program" are completed. The consolidation of the foregoing policies requires joint promotion and implementation by central and local government departments and authorities. The BHP also encourages involvement of non-governmental organizations (NGOs), communities, and people. Through strong partnerships and cooperation from communities and NGOs, it is hoped that limited resources can bring about optimal benefits, so that the people can have access to better health services, and so that their life quality, health and welfare can be boosted at the same time.

Operations of the Bureau of Health Promotion cover planning, establishment, implementation, audit and review of health promotion policies. It is my hope that through the Bureau of Health Promotion Annual Report 2007, readers can get to know our actual operations in this regard and it can inspire more people to share opinions and give feedback. Improvement and reforms are the driving forces for BHP to gain further momentum in management. It is my sincere hope that this annual report will help both our citizens and friends understand the accomplishments of Taiwan in health promotion. BHP is more than willing to share experiences with other countries around the world so we can learn from each other, and also fulfill our obligation as a member of this global village.

Director General

November 2008

Chapter 1

Introduction

I. History

To integrate health promotion efforts and consolidate the dream of our citizens to be healthy, the Department of Health (DOH) restructured its organization and reformed the former Bureau of Health Prevention and Protection under DOH, the Institute of Public Health, the Institute of Family Planning, and the Institute of Women and Children Health (Figure 1-1), and established the Bureau of Health Promotion (BHP) on July 12th, 2001.

II. Organization divisions

The BHP Director General supervises the work of all the divisions. Beneath her are two deputy director-generals and one secretary general. The organizational structure is classified mainly according to human life cycles and the establishement of supporting environment and health information databases. There are two centers and five divisions for business promotion and the administrative units are responsible for planning and enforcing all-around health promotion policies (Figure 1-2). The missions of BHP include promoting health by using the most updated national health database and scientific evidence to make health policy decisions that are suitable for our nation, reinforcing basic health protection and creating a supportive living environment by the empowerment of community actions. Two approaches can be used simultaneously to encourage individual health management through health education and to combine all public health units in cities and counties, together with all levels of hospitals and clinics and NGOs. Both have been utilized to accomplish effective outcomes and create high quality living environments for all.

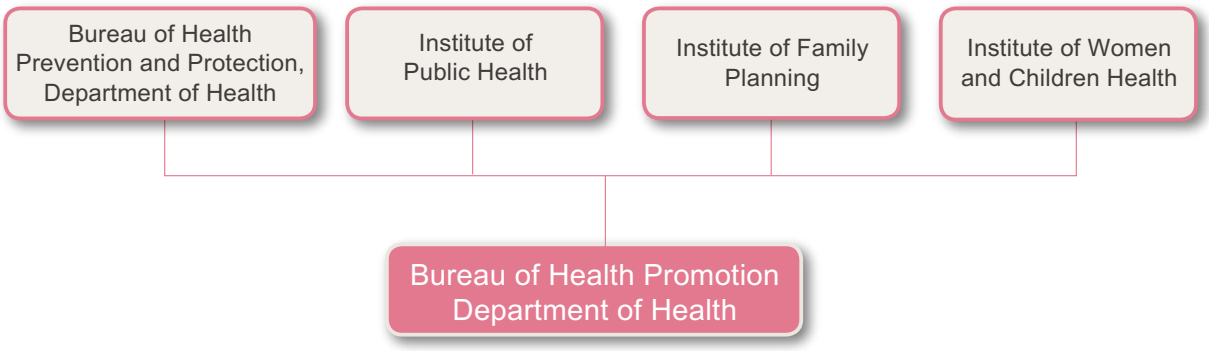


Figure 1-1 Bureau of Health Promotion, DOH reform before and after

Major operations of BHP include

1. Stipulation of national health policies and drafting of regulations,
2. Planning and promotion of community health,
3. Planning and promotion of national nutrition,
4. Planning and promotion of cancer prevention and control,
5. Planning and promotion of maternal and infant health and genetic health care,
6. Planning and promotion of child and adolescent health care,
7. Planning and promotion of adult and elderly health care,
8. Planning and promotion of special injury and disease prevention and control,
9. Supervising and auditing of local health authorities in the implementation of affairs governed by BHP,
10. International cooperation and information exchanges,
11. Planning and promotion of tobacco hazard prevention,
12. Other national health-related promotions.

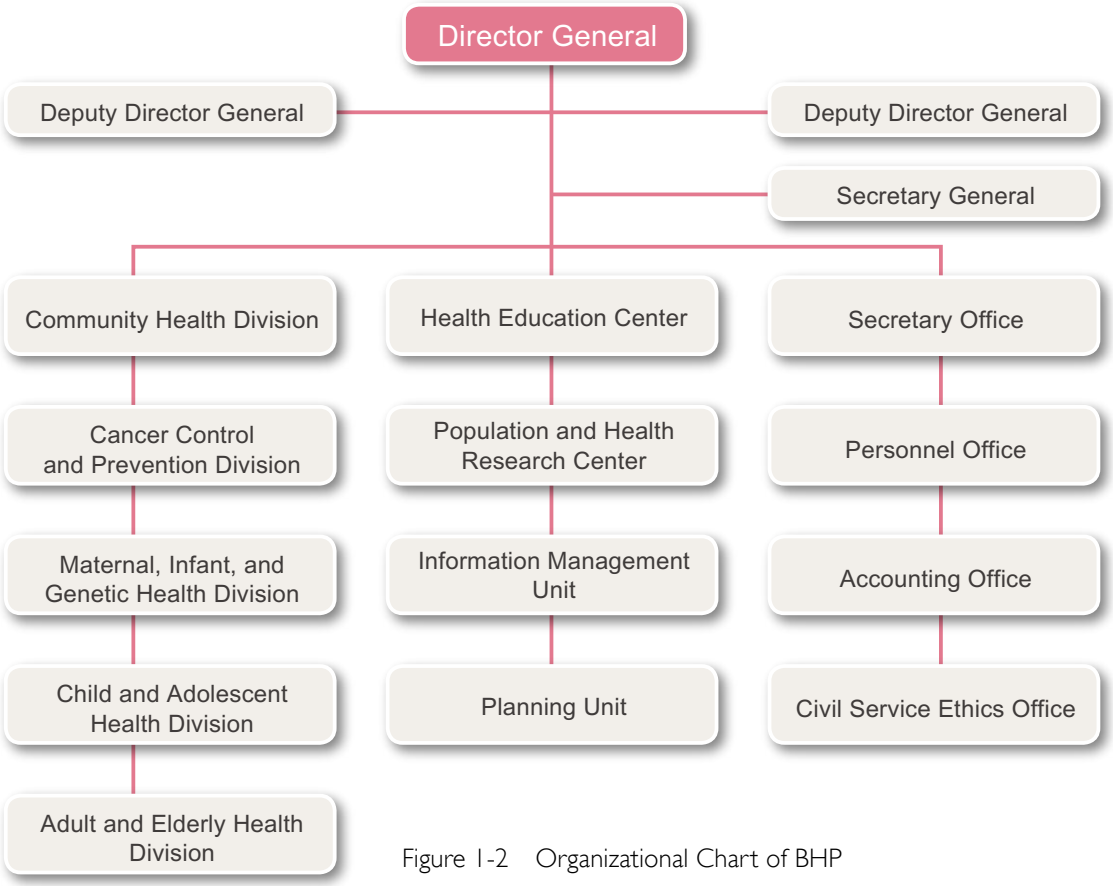


Figure 1-2 Organizational Chart of BHP

III. Health promotion targets and challenges

To respond to social changes such as an aging society, declining birthrates, and immigration and to develop localized national health indexes to accurately evaluate the health of our citizens, BHP has conducted many kinds of health surveys and researches and established indigenous empirical data and information to keep in perspective current national health status and changes over the long term and accordingly develop a health promotion model that best suits our country. In light of the encompassing scope of health promotion, it is not possible to rely only on the government to promote health. Instead, all of the people and all corporations and enterprises should partner with the government and appropriate international cooperation should be engaged so as to effectuate health promotion tasks.

Dr. Gro Bruntland, former Secretary-General of World Health Organization (WHO), emphasized in the 2000 World Health Report that the best strategy to improve public health efficiency is to integrate current medical providers with the public health system. By consolidating and empowering communities, health promotion work can be extended to areas, including the workplaces, schools, military, and hospitals. This answers to the WHO strategy to promote health equality. BHP has accomplished a lot in the past and will continue its efforts in the future.

It is our hope that by promoting a tobacco-free environment and reinforcing cancer prevention and control, the health rights of the Taiwanese people can be protected. By constructing healthy reproductive health services, our national health can be enhanced. Diseases can be prevented and minimized by building healthy families, schools, workplaces, hospitals, communities, and cities, and promoting health education and healthy lifestyles. This is also our vision – "Cherish Life and Promote Health".

Health is one of the major measures of an advanced country. Healthy, productive people are the most valuable asset of our nation, with regard to its competitiveness and ability to achieve sustainable development. In the future, we need to tackle the four major health problems of the future: the declining birthrate and increasing in immigrants, an aging society, diversified lifestyles and living environments, women's health and social inequity. BHP's policies, visions, goals, and strategies are presented in Figure 1-3.

1. Healthy birth and development

(1) Establish a high quality maternal and child health service network to continue screening of newborns, and promote cares to enhance the quality of childbirth health services.

(2) Work cooperatively with other ministries to build up a breastfeeding-friendly environment at workplaces and a supportive breastfeeding environment.

(3) Provide pregnant women with prenatal checkups, preventive health examination for children, and topical fluoridation of teeth and other preventive health examination services to discover abnormalities early for timely treatment and ensure health of both mother and the child.

(4) Work together with the Ministry of the Interior and Ministry of Education to construct safe campuses and promote healthy physical and mental development of our children and adolescents.

2. Healthy aging

(1) Construct a service network for chronic disease prevention and control and enhance people's knowledges and self-care abilities.

(2) Strengthen health promotion against chronic kidney diseases at the grassroots level and establish a chronic kidney disease care resource integration system.

(3) Encourage cities and counties to combine local medical resources with adult preventive health services and cancer screening, among other existing screening items, and offer integrated screening services in the community to help with detection, referral and follow-up on patients with chronic diseases and cancer, enhancing the efficacy of preventive health services.

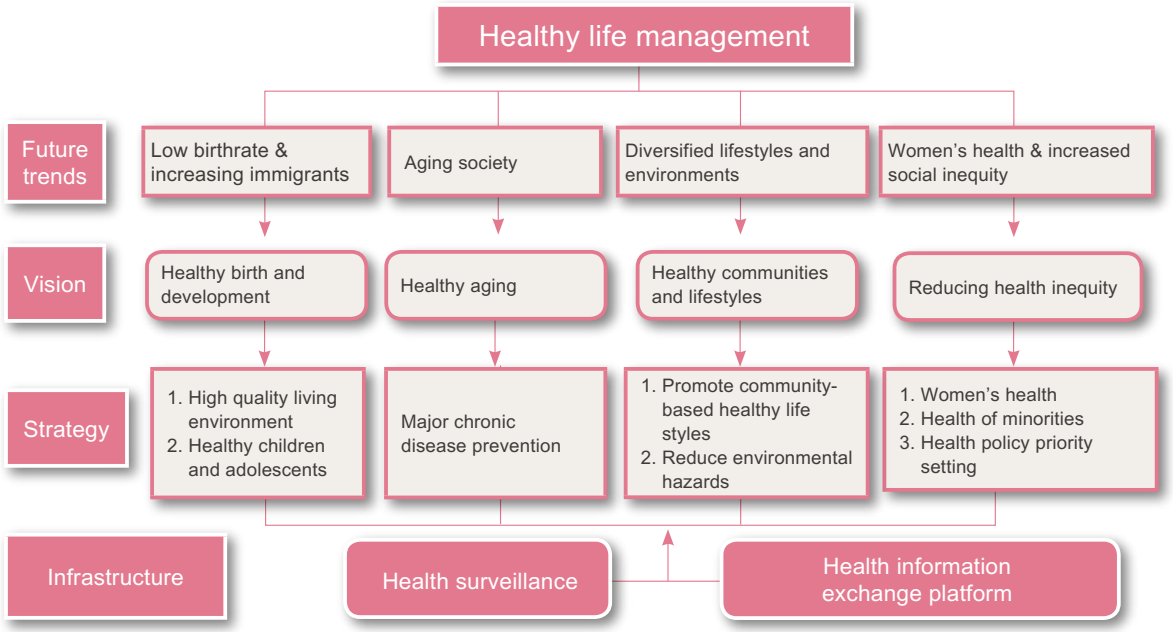


Figure 1-3 BHP vision and strategies

(4) Promote screening of major cancers and enhance quality of cancer diagnosis and treatment; use grassroots resources to strengthen cancer patient support groups and actively promote hospice care in order to improve patients' life quality.

3. Healthy communities and lifestyles

(1) Promote community-based healthy lifestyles by improving the service quality of public health centers. Address community health problems through community health activities. Create a nation-wide network for healthy cities, safe communities, healthy workplaces, and health promoting hospital network.

(2) Construct crosstalks of cross-ministry and departmental administrative systems in central and local governments to jointly handle health-jeopardizing environmental pollution and promote communication of health risks.

(3) Plan health education and communications on major health issues to educate people to lead a healthy life.

(4) Amend the Tobacco Hazards Prevention Act and related regulations, provide multiple smoking cessation services, subsidize and evaluate local governments in the promotion of tobacco control and betel quid hazards prevention. Promote education on smoking and betel chewing hazards to construct a tobacco and betel-quid-free supportive environment.

4. Eliminating health Inequity

(1) Establish menopause health promotion by providing correct and useful information through healthcare facilities, NGOs, and inquiry hotlines.

(2) Enhance health care services for minorities or special groups to bridge health disparities.

(3) Evaluate health policy priorities and resource allocation.

5. Health promotion infrastructure

(1) Establish health indicator surveillance systems to monitor health status and trends of specific populations (infants, children, adolescents, women, elderly, etc.), develop survey reserch technology and improve data quality.

(2) Develop health promotion and health service models. Conduct health promotion policy evaluation and studies on specific population groups.

(3) Establish health information network as a channel or platform for communication.

(4) Promote international cooperation and communication.

Chapter 2

Healthy Birth and Development

UNICEF, in its Convention on the Rights of the Child, emphasizes, "Children are not yet physically and mentally mature; therefore, they should be specially protected, cared for, and secured by law; they have the right to live in an environment full of happiness and love." The World Health Organization also indicated in 2004, "Every child has the right to live in a healthy and secure family, school, and community; live, learn, and play under such supportive environments that would enable them to grow, develop, and avoid disease." Therefore, providing healthy birth and development for our children is a prioritized and highly concerned issue for the government, parents, and the general public.

Social transition and multi-culturalism have led to changes in social patterns, family structures, and functions, which are reflected in healthcare reforms, economy, transportation, social and physical environments, international marriages, diverse cultural interactions, high divorce rates, children raised by grandparents, fast food culture, and entrance examination pressures, etc. These result in even more complex health problems for infants, children, and adolescents. Problems such as child developmental delay, premature birth, child obesity, child abuse, teenage smoking, AIDS, substance abuse, suicide, malnutrition, and out of wedlock pregnancy are becoming more and more serious. Therefore, BHP is planning policies specifically meant to facilitate the physical and mental development of infants and children as well as to facilitate healthcare systems to create a healthy and safe environment.

Section 1. Healthy infants and children

Current status:

Neonatal and infant mortality rates are two important indicators of the quality of healthcare for women and children in a certain country or a region. The neonatal mortality rate in Taiwan has dropped from 3.1‰ in 1981 to 2.9‰ in 2007 and the infant mortality rate from 8.9‰ in 1981 to 4.7‰ in 2007 (Figure 2-1). Certain conditions originating in the perinatal period are the major cause of death for newborns and infants. Although neonatal and infant mortality rates are declining, incidence of premature birth does not show any sign of resolution. Instead, it has increased from 3.8% in 1989 to 9.53% in 2007. Incidence of low birth weight (birth weight less than 2500g) premature birth climbed from 4.4% in 1989 to 8.4% in 2007. In 1995, National Health Insurance was implemented and premature births were listed as one of the catastrophic illnesses. The survival rate for very low weight births (birth weight less than 1500g) has increased from 60.0% in 1995 to 83.2% in 2006.

Child developmental delay is often associated with a low birth weight or congenital metabolic disorders. Early treatment may reduce the risk of long-term disability or mental handicaps. Currently, the screening rate for congenital metabolic disorders is greater than 99%. However, the number of children reported with delayed development is relatively low. In 2007, there were 14,250 children between 0-6 years old suffering from delayed development, a majority of whom were reported by medical institutions (7,637 children), followed by social welfare institutions (2,410 children). Fifty-one percent of reported cases were 3-5 year-old children. Moreover, prevalence rate of congenital neonatal hearing impairments was approximately 3%. In September 2007, 1248 (568 with delivery services) National Health Insurance medical institutions that provide pregnancy women with pre-natal services were inspected. One hundred and sixty-three

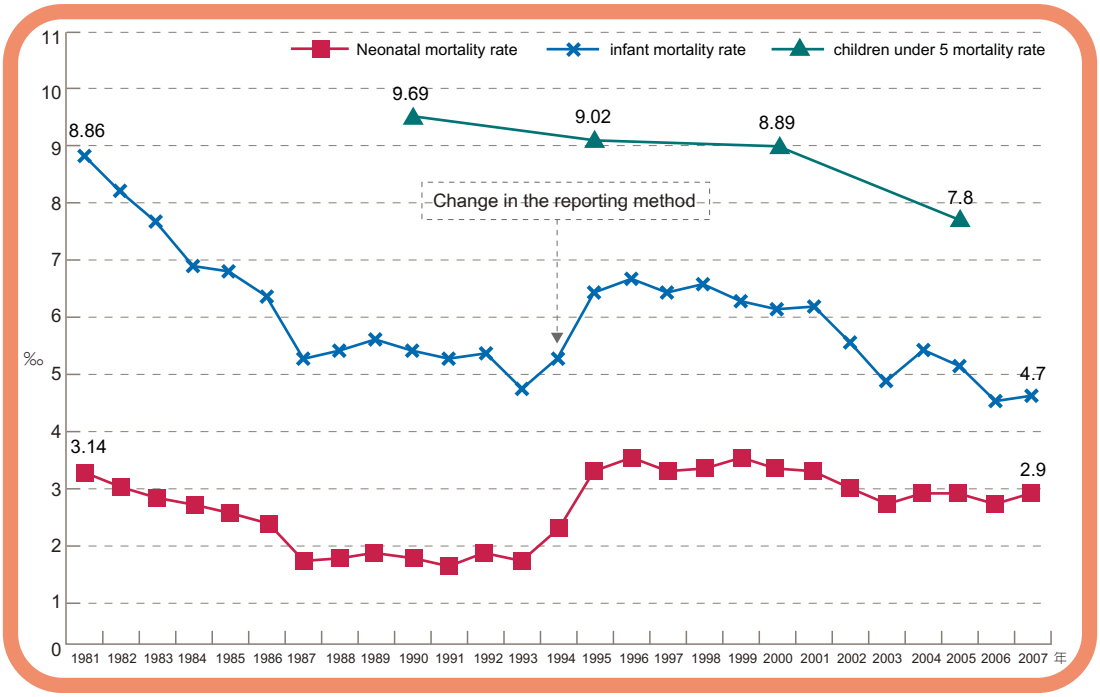


Figure 2-1 Neonatal mortality rates and infant mortality rates in recent years

Source: 1. Statistics Office of the Department of Health

2. 2010 Health Index White Paper (for children Under 5 mortality rate)

hospitals provided neo-natal hearing screening services, comprising 28.69% and the pre-school children hearing screening rate was 76.2% of that upon birth. To improve infant and children development, breast feeding policies were promoted. The percentage of exclusively breastfed babies has increased from 5.4% in 1989 to 33.2% in 2004 and within one month of birth from 30.8% in 1989 to 54.2% in 2004. Therefore, it is both important to identify any early abnormalities for better chance of treatment and to maintain a complete health network system in order to ensure healthy infant and child development.

Policy implementation results:

In light of the diversity and complexity of health problems in infants, children, and adolescents, the characteristics of each demographic should be taken into consideration during policy planning. Related proposals should be brought forth in different aspects, such as resource integration, healthy policy planning, establishment of a complete health care service system, and building of a healthy and safe supportive environment.

1. Integrating organizations and resources

On March 29, 2006, the Children's Health Promotion Council of the Department of Health was established to evaluate prospective policies in the promotion of children's health and assist with integration of communications between related government authorities and NGOs. The primary goals of the Council include discussing children's health policies, infant development and children's physical and mental development policies, coordinating between ministries and departments regarding children' s health policies, reviewing children's health priorities, reviewing improvements in children's health and safety network and children's health education promotion, and discussing children's health technology research and development.

2. Constructing complete healthcare services

Major health policies for children in our country are compiled and summarized in Figure 2-2.

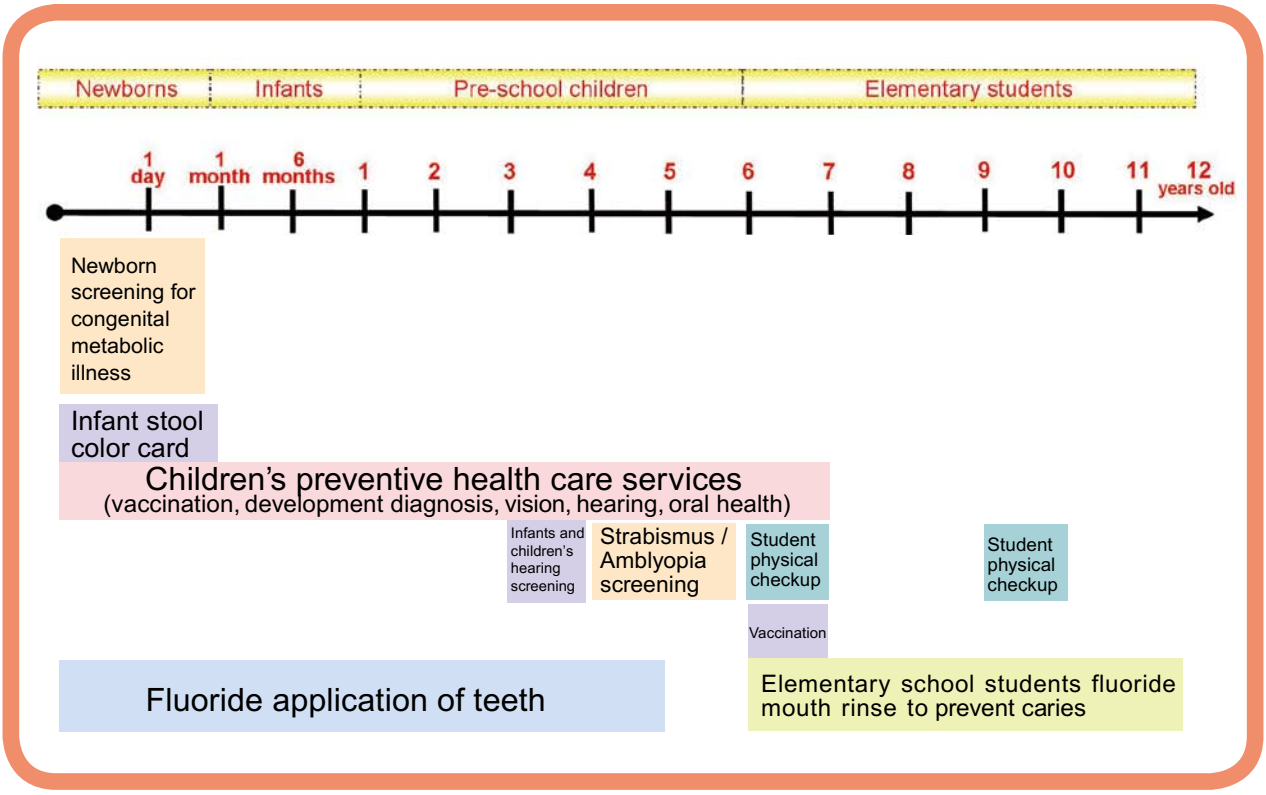


Figure 2-2 Major children's health policies in Taiwan

Table 2-1 Abnormal cases reported in 2007 Newborn screening (203,394 newborns screened)

Screening item	Incidence	Number of abnormal cases
Glucose-6-Phosphate Dehydrogenase deficiency (G-6-PD)	1：60	3,801
Congenital hypothyroidism (CHT)	1：2,135	162
Congenital adrenal hyperplasia (CAH)	1：13,598	12
Phenylketonuria (PKU)	1：31,371	6
Homocystinuria (HCU)	1：128,402	6
Isovaleric acidemia (IVA)	1：81,590	3
Maple syrup urine disease (MSUD)	1：203,974	2
Galactosemia (GAL)	1：324,780	1
Methylmalonic acidemia (MMA)	1：135,983	1
Type 1 glutaric aciduria (GA 1)	1：81,590	1
Medium-chain acyl-CoA dehydrogenase deficiency (MCAD)	Domestic incidence still under investigation Incidence in Europe and America 1: 15,000	0
Total		3,995

(1) Newborn screening services

Newborn screening services have been promoted nationwide since 1985. From 1997 to the end of 2007, screening rates were higher than 99.5% per year. Newborns diagnosed as positive cases will be referred for treatment and genetic counseling to prevent serious sequelae. In 2007, there were 203,394 newborns screened (a screening rate of 99.5%) and 3,801 (1.7%) cases of G6PD (so-called favism), 162 cases of congenital hypothyroidism (0.1%), 12 cases of congenital adrenal hyperplasia, 6 cases of phenylketonuria, 6 cases of homocystinuria, 3 cases of Isovaleric acidemia, 2 cases of maple syrup urine disease, 1 case of galactosemia, 1 case of methylmalonic acidemia, and 1 case of Type 1 glutaric aciduria. There were no cases of MCAD (Table 2-1).

(2) Preventive health examinations for children

Hospitals and clinics are subsidized to provide children below seven years old with nine preventive health examinations to establish continuous health management and health care guidance for early treatment of early detected abnormalities. Since 2002, the service utilization rate has been maintained at around 70%, among which about 50% are implemented in grassroots clinics while the other 20% are done in medical centers, regional hospitals and local hospitals. In 2007 around 1.23 million person-times received this service, accounting for 66.3% of qualified examination headcounts.

(3) Delayed development screening and suspected abnormality follow-up management

Since 2003, county and city departments of health have been authorized to conduct a "Delayed Development Screening and Suspected Abnormality Follow-up Management Program" and set a target screening figure. In 2007, the target figure was set to be over 30% of current 0-3-year-old child residents in

Table 2-2 Baby-friendly hospital initiative results

Item \ Year	2001	2002	2003	2004	2005	2006	2007
Accredited	38	58	74	77	81	82	94
One-month total breastfeeding rate (%)	65.63☆	69.02	69.81	77.30	79.73	82.13	82.20
One-month exclusive breastfeeding rate（%）	24.32☆	27.39	22.82	35.13	36.98	39.89	41.78
Coverage rate for the number of births at accredited hospitals（%）	—	—	—	39.18	40.83	41.27	47.4

Note: ☆ represents the breastfeeding rate at 52 healthcare facilities participating in accreditation program

the county or city in order to provide early detection of abnormality with early treatment. In 2007 a total of 263,299 person-times were screened with 3,519 abnormal cases and 2,985 reported referrals. In addition, the "Study of Community Health Group Participation in Child Development Screening Rates and Improvement Measures" was piloted to enhance participation of grassroots healthcare facilities in child development screening and improve the screening service quality.

(4) Complete services for premature births with a very low birth weight – establishment of very low birth weight premature births database and post-discharge follow-up management system.

BHP provides complete services for premature births with a very low birth weight by combining both hospital care and public health care systems. The Society of Neonatology of the Republic of China was authorized to establish database and registry systems for very low birth weight premature births between 2006 and 2007. Hospitals register live premature births with a birth weight between 400g and 1,500g by completing items such as status of birth during hospitalization, care method, complications, and condition upon discharge. By the end of August 2007, a total of 2,115 premature births were registered with an average birth weight of 1,099g and term of pregnancy was 29 weeks on average. For surviving births, the average number of days hospitalized was 67.93 days. The post-discharge care service network consisted of public health nurses at the local public health center taking over each case and following up on subsequent development. By August 31, 2007, a total of 1,306 premature births were enrolled.

(5) Establishment of a breastfeeding-friendly environment to raise breastfeeding rate

a. Baby-Friendly Hospital Initiative. Through a ten-step implementation process, practices of healthcare facilities were transformed. Supply of free and low-cost formula milk from aforementioned health care facilities was terminated in order to aid in the development of an environment where breastfeeding becomes the norm and to provide each newborn with an optimal start. The number of healthcare facilities that have passed the baby-friendly accreditation has increased from 38 in 2001 to 94 in 2007 and the total breastfeeding rate one month after birth in the accredited healthcare facilities has jumped from 69.0% in 2002 to 82.2% in 2007 (Table 2-2).

b. Baby-friendly accreditation counseling program. This program was implemented to enhance the preparations of each healthcare facility to take part in the accreditation program. In 2007, a total of 34 healthcare facilities were counseled, amongst which 29 applied for accreditation and 17 passed.

c. Consultation hotline 0800-870870 was configured to answer people's questions about breastfeeding. In 2007, a total of 6,315 calls were answered. In addition, a breastfeeding website was established to provide related healthcare professionals and the general public with necessary information and education on breastfeeding. In 2007 a total of 404,233 person-times browsed the website. Four updates and electronic newsletters were published in one year. Ninety-four seed instructors completed training and 41 finished the consultation hotline specialist training.

d. Counties and cities are encouraged to cultivate community breastfeeding education volunteers and establish support groups to consolidate the community support network and provide correct information and support. In 2007, there were 95 supporting groups in all counties and cities. Sixty-five leaders completed a total of 330 rounds of activities organized by support groups. In addition, 1,699 volunteers were recruited, trained, and assigned to serve in townships and cities.

e. Cross-ministry and departmental cooperation continues to be reinforced to establish breastfeeding-friendly workplaces through provision of breastfeeding rooms in the workplace with the guidance of county and city public health bureaus. Workplace breastfeeding promotion workshops are organized with the joint effort of the Council of Labor Affairs to strengthen support and assistance from employers and human resource managers given to breastfeeding employees.

Section 2. Healthy adolescents

I. Sex education

Current status:

As socio-economic conditions improve, information is transmitted ever more rapidly and values change. Adolescents in our country are under threat from numerous forms of health-undermining behavior, such as smoking, teen pregnancy and abortion, drug abuse, sexually-transmitted diseases and obesity as a result of improper diet. BHP is the contact window for the "Teenager Affairs Promotion Task Force of the Council of Social Welfare of the Executive Yuan" and handles adolescent health together with other ministries and departments and are also the authority in charge of adolescent health and smoking.

Open sexual attitudes and pregnancies amongst teens have become important health issues in the past few years. Investigations conducted in 1995 and 2000 highlighted sexual knowledge, sexual attitudes, and health-undermining behavior and Internet usage of students in senior high schools and vocational schools in Taiwan. Results showed that the percentage of students having sexual intercourse on campus increased from 10.4% to 13.9% for males and from 6.7% to 10.4% for females. In addition, 27% of male and 34% of female students did not use contraception. A 2006 survey on sexual experience of senior high and vocational school students in Taipei County and City showed that 19.2% of male and 18.1% of female students were sexually experienced. In addition, among those with sexual experience, the average first-time intercourse age for male students was 16.1 years old and for female students, it was 16.2 years old. According to statistics of the Ministry of the Interior in 2007 the child-bearing rate among teenage girls

between 15 and 19 years of age was 5.6‰, which compared to 14.1‰ in 2000 was already a significant decline. Teenagers are physically and mentally not mature enough, neither are they financially stable; therefore, when they have children, there is an adverse effect on both families and the future careers of these young mothers. Thus underage pregnancy is an important adolescent health issue that cannot be ignored.

Policy implementation results:

As teenagers become adults, they experience both physical and mental changes. In light of this, to reduce the underage adolescent fertility rate, it is important to provide teenagers with complete physical and mental health care diagnosis, referral, consultation and counseling services so that health care professionals can attend to the health and development of adolescents. Related strategies and results are briefed in the following.

1. Adolescent health consultation service: Through 14 hospitals and service sites of the Teacher Chang Foundation in eight counties and cities, a total of 5,746 person-times of teenagers were provided with physical and mental healthcare diagnosis, referral, consultation, and counseling services. About 139,864 person-times attended 641 rounds of community health education.

2. Teenage reproduction health consultation services – "Teen's Happiness No. 9": There were a total of seven healthcare facilities, including Wen-Lon Chen Gynecological Clinic that provided 720 teenagers with outpatient services and 666 with services over the phone.

3. "Community Pharmacy Adolescent Sexual Education Consultation Service" program: Pharmacists from 150 community drug stores are chosen to receive "adolescent sex education consultation" training and the symbol of "Community Pharmacy Adolescent Sex Education Consultation Service" is indicated on the drug stores to provide teenagers with consultation services on the correct use of condoms, drugs, and other sex education related information.

4. Sex education seed instructors and personnel training: "Life skills" sex education seed instructors training was organized, consisting of two stages. The first stage was aimed at enhancing knowledge of teachers to teach students necessary life skills for healthy sexual relationships. During the second stage, the teachers that have completed the first stage returned to their schools to teach and share their teaching curriculum and reflection. Three rounds of training were offered in northern, central, and southern parts of Taiwan and 394 junior high school teachers were trained (Figure 2-4). In addition, to increase the working knowledge of teenager sex education health workers at county and city departments of health, "teenage sex education seminars" were arranged and 48 people participated in these seminars.

5. Teaching materials production: A "Tackling pornography and controlling desire" online survey was completed and based on the survey, sex education materials for elementary school, junior high school, and senior high school students, a parents handbook and promotional bookmarks were produced.

Figure 2-4 "Life-Skill" Sex education teaching materials production

6. Education and promotion on contraceptive case management for underage pregnant women: 2,808 rounds of teenage sexual education activities were organized with participation by 463,350 people. The implementation rate of contraceptive case management for underage pregnant women nationwide was as high as 90.0%.

7. Hsing-fu e-campus – website for teenagers (http://www.young.gov.tw/): Approximately 900,000 person-times have visited the website with 1,527 persons having engaged in online consultation and received responses. A visual consultation service website for teenage pregnancy has been configured. A Flash media competition on teenage sex education was organized with 112 works selected and the six award winning works are posted on the teen website for download if necessary.

II. Smoke-free campuses

Current status:

In teenage smoking, the percentage of junior high school student smokers in 2006 was 7.5% (9.7% for males and 4.7% for females) and the percentages for the seventh to the ninth grades were 5.3%, 7.9%, and 9.3%, respectively. The significant difference among different grades shows that the higher age, the higher the current smoking rate. For senior high and vocational schools, the percentage of current smokers in 2005 was 14.0% (20.7% for males and 7.8% for females). Currently, the smoking rate among senior high and vocational school students is obviously higher than that among junior high school students (Figure 2-3).

Policy implementation results:

1. Smoke-free campus program through health promoting schools:

In 2007, 773 schools (20.0% of all senior high, vocational, and other lower-grade schools) participated in this program, among which 521were elementary schools (19.6% of all elementary schools), 214 were junior high schools (28.9% of all junior high schools), and 38 were senior high and vocational schools (8.0% of all senior high and vocational schools). Strategies in the promotion of tobacco hazards prevention on campus included：

(1) Establishing school tobacco control policies: Organizing cigarette hazards prevention promotion task forces, and prohibiting students, faculty, and other individuals from smoking on campus.

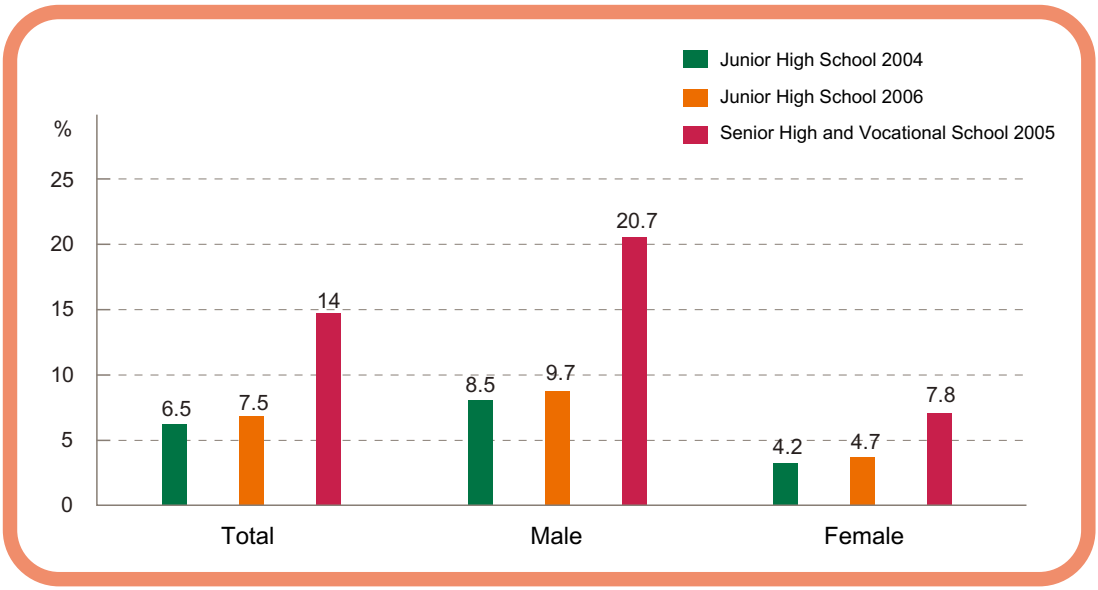


Figure 2-3 Comparison of historical records on smoking rates of teenagers

(2) Establishing tobacco control health services on campuses: Providing students and faculty with information on quitting smoking and services.

(3) Tobacco hazards health instruction and activities: Encouraging instructors whose specialties are in related areas to develop teaching materials and aids for teaching tobacco hazards prevention and to design antismoking curriculum for their schools to be incorporated into the teaching of different subjects.

(4) Working with the community: Caring businesses forming alliances to not sell tobacco products to young people, parents teaching and encouraging tobacco hazards prevention, promoting smoke-free homes, and the forming of community alliances.

(5) Physically establishing tobacco control on campuses: Posting "No smoking" signs on campuses, smoke-free bathrooms, and setting up tobacco control education databanks to supplement instruction.

(6) Supportive environments on campuses to promote tobacco hazards prevention: Establishing student antismoking clubs and organizations, advancing the idea of antismoking ambassadors, and enhancing counseling and support in individual smoking cases.

2. Results: Analysis of data by health promoting schools, monitoring and evaluation center in 2007 shows that the smoking rate among health promoting schools was 3.0% for elementary schools, 4.1% for junior high schools, and 5.9% for senior high and vocational schools. The nationwide junior high school students smoking rate was 7.5% and that for senior high and vocational students was 14%, lower than the nationwide teenage smoking rate. In addition, comparison between before and after implementation of the program shows that the elementary smoking rate has decreased from 4.8% to 3.0%, and that for senior high and vocational students has also dropped from 9.1% to 5.9%, showing a significant change. In terms of the junior high school smoking rate, it is gradually dropping. About 80% to 90% of the schools promoted smoke-free campus through changes to the overall campus policy and integration of related resources. Student awareness of reduced in campus smoking and knowledge of elementary school students regarding the harm that smoking will bring to health have increased from 89.2% to 90.4%. It shows that the program as a whole has driven schools to comprehensively emphasize and enhance campus tobacco hazards prevention. From establishment of campus tobacco control policies to integration into the curriculum, the change in smoking behavior of students and their knowledge of the hazards of tobacco products have all proven the significant accomplishments brought about by the program.

▲ Poster for "Tobacco Control Training Camp".

Chapter 3

Healthy Aging

From 1993, when people over 65 years old in Taiwan accounted for 7.1% of the total population, our society officially became an aging one. By 2007, there were more than 2.3 million old people, 10.21% of the total population, in our country. The rapid growth of the elderly and the rising number of middle-aged people will have heavy impacts on other aspects of life. Therefore, the issue of health promotion and disease prevention for the middle-aged and elderly has gained prominence. It is hoped that by decreasing the incidence of disease amongst this middle-aged and elderly population, the threats and other negative influences brought about by disease can be controlled or reduced and the quality of life for middle-aged and elderly people can be enhanced so that they can continue to make a contribution to the society.

Mortality as a result of aging should receive special attention because death as a result of chronic diseases, such as malignant neoplasms, heart disease, cerebrovascular diseases, diabetes, nephritis, nephritic syndrome and hypertensive diseases, are the most common problems (around 60% of total mortality) encountered in the aging process of our citizens according to Ten Leading Causes of Death in 2007 (Table 3-1). The following are some strategies, such as health screening services that can help in early diagnosis of diseases, prevention of major chronic diseases, and cancer prevention and control, to proactively build a healthy aging environment.

Table 3-1 Ten Leading Causes of Death in 2007

Rank	Cause of death	Number of deaths	Grude mortality rate*	Percentage difference from last year
1	Malignant neoplasms	40,306	175.9	5.6%
2	Heart disease	13,003	56.7	5.4%
3	Cerebrovascular disease	12,875	56.2	1.8%
4	Diabetes mellitus	10,231	44.6	5.2%
5	Accidents	7,130	31.1	-11.4%
6	Pneumonia	5,895	25.7	8.8%
7	Chronic liver disease and cirrhosis	5,160	22.5	1.8%
8	Nephritis, nephritic syndrome and nephrosis	5,099	22.2	7.8%
9	Suicide	3,933	17.2	-11.1%
10	Hypertensive disease	1,977	8.6	8.4%

＊：Mortality rate is measured in per 100,000 people
Source: Statistics Office, Department of Health

Section 1. Health screening services

I. Screening for major chronic diseases

Current status:

Health examination or disease screening is an effective strategy to discover diseases early. For people who have contracted diseases but have not felt any physical discomfort, they can detect disease early through appropriate health examinations and thus receive early treatment. To provide the screening service, BHP has been promoting the community-based three-in-one (blood pressure, blood glucose and blood cholesterol) screening and integrated screening care service model. National Health Insurance was implemented in 1995 and adult preventive health care services were organized on April 1st 1996 in order to screen chronic diseases such as diabetes, hyperlipidemia, hypertension, liver disease and renal disease as early as possible to facilitate early treatment and minimize serious disease complications and the mortality rate. According to the Executive Yuan directives of February 18th 2005, budgets for notifiable infectious diseases, preventive health care and teaching appropriated to promote public health should be gradually included in the publically financed budget listing year by year. Therefore, adult preventive health examination services have been paid with the public financed budget of the Bureau of Health Promotion since 2007.

Policy implementation results:

In order to achieve early detection of chronic diseases, early referral and treatment, the "Elderly Health Examination, Health Care and Follow-up Service Guidelines" were announced and adult preventive health examination, integrated screening services care model and blood pressure measurement services, amongst other policies, were promoted. Results of each service item are explained in the following:

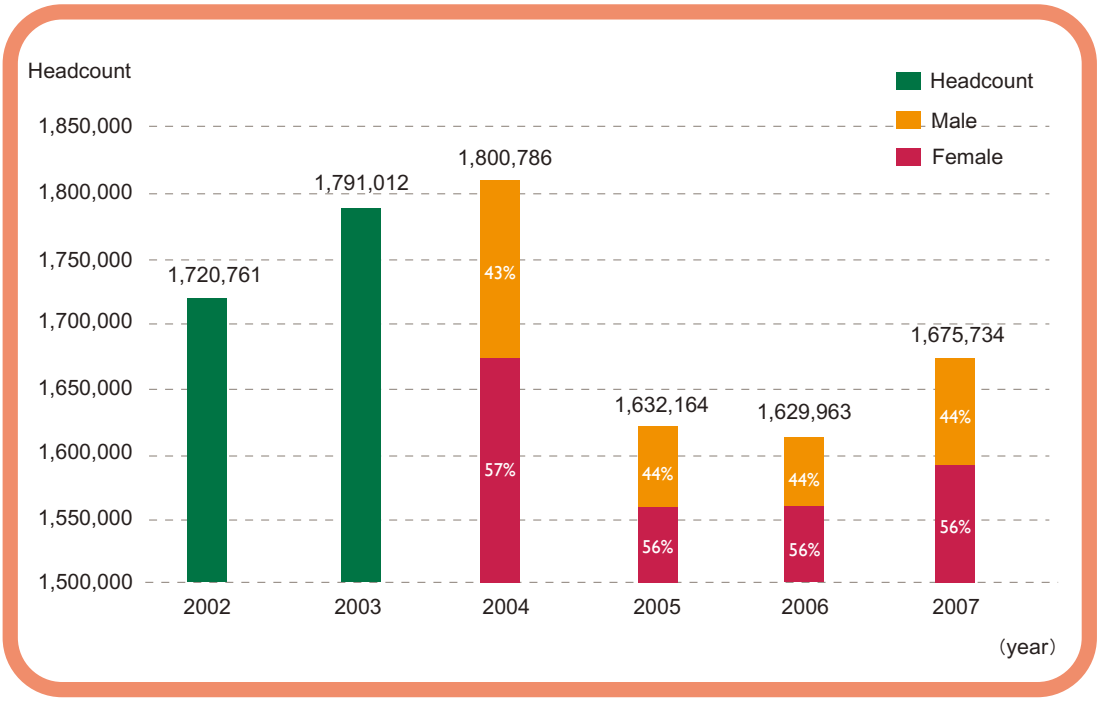
1. Laws and regulations: To enact "Regulations on Health Examination, Health Services and Follow-up Servces for the Elderly" with the Ministry of the Interior on July 31st 2007 in accordance with the amended Senior Citizen Welfare Law of 2007.

2. Adult preventive health examination: Free services are provided to people aged between 40 and 64 once every three years and people over 65 years old once a year. Services include physical examination, blood test and urine routine test and health education. In 2007 around 1.68 million people received the services (Figure 3-1) and ratios of new detection of abnormal blood pressure, blood glucose, and blood cholesterol were 22.5%, 7.8% and 13.1%, respectively.

3. Integrated screening services: Starting from 2002, counties and cities were encouraged to combine local medical and health care resources with the adult preventive health examination, cancer screening and other existing health screening items to promote integrated onsite community screening services. In 2007 around 20 counties and cities joined the service crew and about 212,000 people participated.

4. Blood pressure measurement service: To provide community residents with more accessible blood pressure measurement services, health bureaus in counties and cities were mobilized to combine local resources and establish 395 blood pressure measurement stations at different locations in each community (e.g. administrative institutions, community centers, community drug stores, shopping malls and workplaces). During the implementation period, around 90,000 headcounts of people on average received the service and 43,022 people were found with abnormal blood pressure, among which 12,330 people noticed that their blood pressure was abnormal for the first time, accounting for 28.7% of the people with this abnormality, indicating that the establishment of the blood pressure stations have indeed helped people to detect abnormal blood pressure, if any, early.

Utilization of adult preventive health examination by sex



Utilization of adult preventive health examination by age

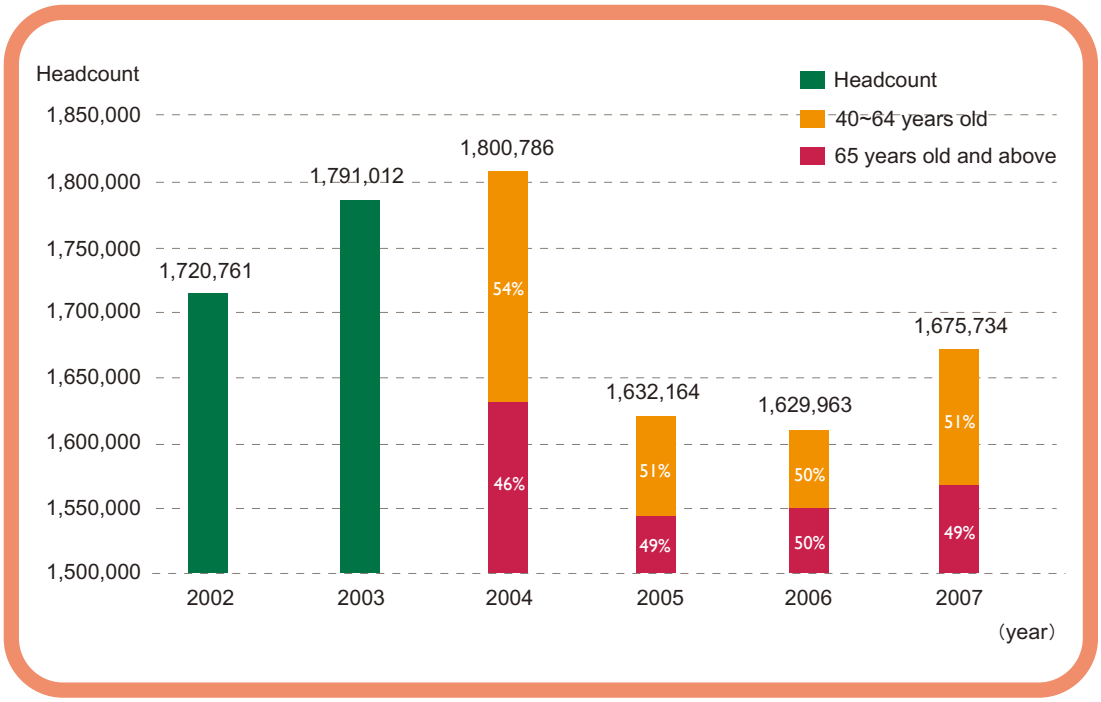


Figure 3-1 Utilization of adult preventive health examination

II. Cancer screening

Current status:

The rapidly aging demographic and uprising cancer incidence and mortality rate on a yearly basis indicate the increasing threat that cancer poses to the life and health of our citizens. To effectively drive down cancer incidence, cancer prevention should be prioritized. According to the experience of developed countries in the promotion of cancer screening, cervical cancer, breast cancer, colorectal cancer and oral cancer, among others can be detected and treated early through screening in order to minimize their incidence and mortality rate. BHP has also continued to work with local public health bureaus and NHI affiliated hospitals to provide the foregoing screening services. It is our hope that through early detection and treatment of cancer, patients can have a better chance of being cured and a better prognosis.

Policy implementation results:

1. Providing cost-effective cancer screening services

To honor the theme stated in Article 13 of the Cancer Control Act, BHP provides people with cancer screening services for cervical cancer, breast cancer, colorectal cancer and oral cancer, including pap smear once a year for women over 30 years old, mammography once every two years for women between 50 and 69 years old, fecal occult blood test once every two years for people between 50 and 69 years old and oral cancer screening once a year for people over 18 years old who chew betel quids or smoke. These four service items are the forms of cancer screening found to be more effective. Pap smear screening can lower incidence and mortality rate of cervical cancer by 60-90%. Mammography for women between 50 to 69 years old can decrease the breast cancer mortality rate by 20-30%. The fecal occult blood test can reduce the colorectal cancer mortality rate by 15-33% while oral cancer screening can reduce the oral cancer mortality rate by 43%.

Figure 3-2 Breast cancer and cervical cancer screening flyer

Among all the screening services mentioned in the foregoing, cervical cancer screening has appeared to be the most effective. Results of a 2007 national telephone survey showed that 68% of the women over 30 years old interviewed had undergone pap smear within the past three years. The standardized incidence for cervical cancer dropped from 24.3 out of per 100,000 people in 1995 to 14.7 out of per 100,000 people in 2005 and the standardized mortality rate for cervical cancer decreased from 10.9 out of per 100,000 people in 1995 to 5.8 out of per 100,000 people in 2007 (based on the standard world population structure of the World Health Organization in 2000). It shows that success of the long-term promotion of Pap smear screening has correlation in the reduction of cervical cancer

incidence and mortality rate. In addition, in 2007 there were about 236,000 women between 50 and 69 years old having received mammography in the past two years with a screening rate of 10.3% (Figure 3-2). In 2007, around 480,000 people ages 50 to 69 received the fecal occult blood test in the past two years. The coverage rate was 11.2%. Meanwhile, for the oral cancer screening provided to high risk groups (people chewing betel quids or smoking), 370,000 people received the service in 2007, among which 286 were diagnosed to have oral cancers. It is estimated that around 40% of the high risk groups in Taiwan received the oral cancer screening services (Figure 3-3).

2. Enhancing the accessibility and quality of cancer screening

To enhance the accessibility of screening services, besides affiliated healthcare facilities, local public health bureaus also set up screening sites at community activities and campaigns to provide screening services. In terms of Pap smear, hospitals were assisted to set up an automatic reminder information system in outpatient departments so that medical staff can remind women that have not received pap smear to take one. In 2007, BHP joined hands with the Taiwan Society of Healthcare Management to organize a hospital assessment and counseling program regarding the automatic Pap smear outpatient reminder system. A total of 88 hospitals participated in the assessment and 59 were certified as cervical cancer prevention and control health care hospitals. A press conference was held to recognize those with outstanding ratings (Figure 3-4).

In addition, to promote the quality of each cancer screening item, BHP authorized the Taiwan Society of Pathology to organize cervical cytopathology diagnosis unit certification and a Pap smear quality enhancement program. The Radiological Society Republic of China was commissioned to organize a mammography medical institution certification and mammography image quality enhancement program, and the Breast Cancer Society of Taiwan was authorized to organize a mammography quality enhancement program. Besides, the Association of Laboratory Medicine was commissioned to organize a fecal occult blood test quality enhancement program. To improve oral cancer screening quality, the Taiwan Dental Association was authorized to organize a screening training program for dental and paramedical personnel in order to enhance accuracy of screening.

Section 2. Prevention of chronic diseases

Current status:

Metabolic syndrome is a phenomenon in which related risk factors cluster of hypertension, diabetes, and cardiovascular diseases. According to the report from the "2002 Survey of the Prevalence of Hypertension, Hyperglycemia, and Hyperlipidemia in Taiwan", the prevalence rate of metabolic syndrome in our citizens between 20 and 79 years old was 17.6% (20.4% for males and 15.3% for females). The possibilities for these metabolic syndrome people to contract diabetes, hypertension, hyperlipidemia,

Figure 3-3 Oral cancer screening and health education counseling

Figure 3-4 Press conference to recognize outstanding "cervical cancer prevention and control hospitals

and heart disease and stroke are six, four, three, and two times that of ordinary people, respectively. In addition, chronic diseases like fatty liver and kidney diseases will occur as well. The "three high" prevalence rates, based on the foregoing survey, for the population over 45 years old were 39% for hypertension, 14.7% for hyperglycemia, and 18.3% for high cholesterol. The prevalence rates for the population over 65 years old were 56% for hypertension, 20.7% for hyperglycemia, and 21.5% for high cholesterol. In the National Health Interview Survey done by BHP in 2005, the prevalence rate of kidney diseases among those 40 to 64 year-old interviewees who claimed that they were verified by medical staff as having the disease was 5.1% and 8.3% among those over 65 years old. The prevalence rate of chronic respiratory tract diseases among those 50 to 64 year-old interviewees who claimed that they were verified by medical staff as having the disease was 3.0% and 7.8% among those over 65 years old.

Policy implementation results:

The rapid growth of the middle-aged and elderly population in our country has also brought about an increase in the number of patients with chronic diseases. The causes of chronic diseases are complex and diversified, and the occurrence is usually a gradual process. They can happen during any point in the life cycle and physical restrictions or disorders usually appear after onset of the disease and would undermine life quality. Chronic diseases will affect long-term health and progress with time. They are the primary cause for early death even though they do not pose an immediate threat to life. In response to the afromentioned aspects of chronic diseases, BHP has established goals in the prevention of chronic diseases as follows:

1. To enhance and maintain health of middle-aged and elderly people,
2. To prevent and delay occurrence of chronic diseases, and
3. To increase the life quality of patients, their families and caregivers.

To achieve the goals set forth in the foregoing, important chronic disease prevention policies were proposed in accordance with the concept of three levels of public health and five stages of prevention and health promotion. Except for necessary health education and investigatory studies, preventive policies in other major issues are described in the following.

1. Metabolic syndrome prevention and control:

(1) To enhance public knowledge and promote "waist circumference within a target range to prevent metabolic syndrome."

(2) To enhance the knowledge of campus medical staff in elementary, junior high, and senior high schools in the prevention and control of metabolic syndrome.

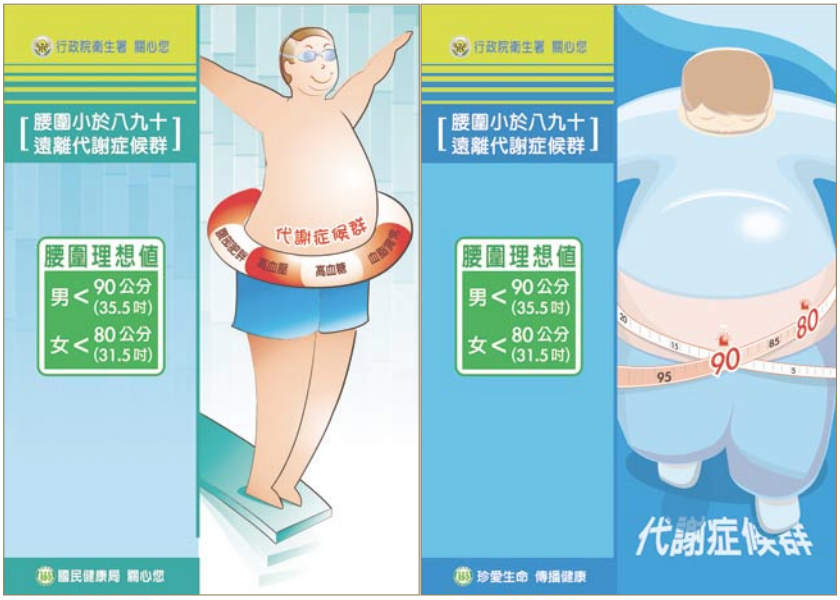


Figure 3-5 Metabolic syndrome poster

Figure 3-6 Taipei 101 Light-up and activities on the first World Diabetes Day

2. Diabetes prevention and control by promoting the diabetes share care network

(1) To assist counties and cities in the promotion of the diabetes share care network,

(2) To enhance the quality of diabetes medical professionals by establishing a certification system,

(3) To organize diabetes health promotion institutions and enhance self-management knowledge of diabetic patients, and

(4) To construct a nationwide diabetes patients self-help groups network.

3. Cardiovascular disease prevention and control

(1) To combine community resources and extensively establish blood pressure measurement stations so that people can access blood pressure measurement services easily,

(2) To enhance knowledge and self-management ability of patients with cardiovascular diseases, and

(3) To develop an innovative working model by establishing a stroke registration system and organizing an integrated community care pilot model centered on patients to prevent stroke recurrence.

4. Chronic kidney disease (CKD) prevention and control

(1) To enhance health educaton of kidney disease prevention,

(2) To improve early detection and intervention treatment of high-risk groups and cases, and

(3) To strengthen CKD patients' self-care abilities, control their diseases and fully prepared and successfully receive the dialysis therapy.

5. Promotion of elderly health

(1) To work with the Ministry of the Interior and enact related regulations,

(2) To enhance ability and knowledge of the elderly in health promotion, and

(3) To organize a resource-integrating elderly health promotion pilot program.

Implementation results for each item:

1. The promotion of public health knowledge

(1) Diversified health education – Development of health education materials and manuals.

The BHP developed flyers, posters, self-care manuals, cardboard cutout human figures, and DVDs, to promote prevention and control of metabolic syndrome, diabetes, coronary artery disease, hypertension, kidney disease, asthma, and chronic obstructive pulmonary disease. "Successful aging" learning materials were developed to be utilized by medical staff when conducting health education and to be referenced by the general public (Figure 3-5).

(2) Diversified promotion channels

On international chronic disease days, including World Diabetes Day, World Heart Day, World Kidney Day and World Asthma Day, public health bureaus, NGOs and community resources were mobilized to hold press conferences and large promotional activities.

Figure 3-7 Female Heart Disease Prevention and Control Promotion Plan – Love the Heart of a Woman Campaign

Campaigns were done through schools, communities, internet, magazines, radio stations, television channels, buses and convenience stores. Important activities included:

a. On the first World Diabetes Day of the UN in 2007, the BHP organized Taipei 101 Light-up, fairs and 246 hiking activities (Figure 3-6) with the Diabetes Association of Republic of China and announced the Taiwan Declaration on Diabetes. The results were posted both on the global websites of the UN and the International Diabetes Federation.

b. To emphasize female health, the "Female Heart Disease Prevention and Control Promotion Plan – Love the Heart of a Woman" series of campaigns were organized (Figure 3-7) to encourage women to look at heart disease seriously, and teach them how to care for their heart when signs and symptoms of a heart attack appear, so that they can conduct self-diagnosis for early detection and treatment.

c. To arouse people's awareness of the importance of stroke prevention and control, fairs were held simultaneously in northern, central and southern parts of Taiwan on the 2007 Taiwan Stroke Prevention Day (Figure 3-8). Minister Hou and local government heads were invited to be the spokespersons. A total of 3,000 people participated in the fairs.

d. The Bureau of Health promotion, DOH and the Taiwan Society of Nephrology held World Kidney Day campaign to prevent kidney disease in four cities on the island on March 4th, Kaohsiung was the main platform (Figure 3-9). Taiwan's national project for the prevention of CKD and the campaign on the World Kidney Day were posted on the global website (http://www.worldkidneyday.org), together with 47 other countries.

Figure 3-8 Fair on Stroke Prevention Day

Figure 3-9 The "Love Your Kidney and Lead a Successful Life" campaign were held on World Kidnly Day.

2. High-risk group health promotion and enhancement of healthy behavior and self-health management ability

(1) Metabolic syndrome

The "Metabolic Syndrome Determination Criteria" were announced to be amended to promote "waist circumference within a target range to prevent metabolic syndrome" on all fronts. A telephone survey showed promotion results as follows: 39.6% of interviewees over 15 years old answered the "target adult male waist circumference value" question correctly, 42.4% for the "target adult female waist circumference value" question, and 86.4% for the "large waist circumference is susceptible to metabolic syndrome and chronic diseases like diabetes and heart diseases question".

(2) Diabetes high risk group

Diabetes high-risk group health promotion was carried out in 175 communities, 136 diabetes health promotion institutions, 454 diabetes patient self-help groups in 25 counties and cities. A total of 51,841 (9,527 early-stage diabetics) participated. Around 2,000 patients improved their diet, exercise or weight, respectively. Around 2,500 improved their fasting blood glucose and blood cholesterol, respectively and 3,189 people improved their blood pressure.

(3) Kidney disease high risk group

Public Health Bureau in Changhua County, Chiayi City and Tainan City were subsidized to organize community-based renal disease case management program, which used the integrated preventive health care service platform to find 1,744 out of the 13,431 people from the existing screening information with renal function test abnormalities (13.0%), all of whom were given adequate health education and early care. Among the 691 members of unions for special industries in these communities (e.g. printing industry) and high risk groups (e.g. people with hepatitis C, diabetes or hypertension), 294 were found with abnormalities (42.5%) and 283 were referred for treatment (referral rate 96.3%).

(4) The elderly

Important issues regarding elderly health promotion were handled, including smoking abstention, fall prevention, chronic disease prevention, vision care, and colorectal cancer prevention and control. In addition, the "Elderly Health Promotion Model Program" with local public health centers as the basis was piloted in Changhua County and Taichung City.

3. The promotion of patient self-disease management and skills

(1) Diabetes

Counties and cities were counseled to promote the diabetes joint care network (Figure 3-10). A total of 352 townships and 1,256 healthcare facilities (984 grassroots healthcare units) participated. Based on the established certification system, 6,913 medical staffs were certified as well as 3,255 teachers. Meanwhile the certifying "professional knowledge" course computer test system was established to enhance the standard of care provided by medical staff. Later, 136 diabetes health promotion institutions participated in the enhancement of care provided to diabetics. A total of 8,159 people participated in the case discussion. Moreover, 454 diabetes patients self-help group networks were configured and 383 people were trained as seeds. Incentive contests were organized (aerobics for improvement of glycated hemoglobin) and outstanding groups were selected. A total of 11,230 patients were empowered. In terms of behavioral improvement, 3,793 people took part in weekly self-blood glucose monitoring, 6,556 people exercised, 5,345 people changed their diet, which resulted in 3,593 people (32% of the total) having achieved HbA1c of 7% or less, 612 people more than before empowerment. In total, 1,813 people had HbA1c of 9.5% or greater, also 403 people less than before empowerment. For records of the development of diabetic groups, please refer to Table 3-2.

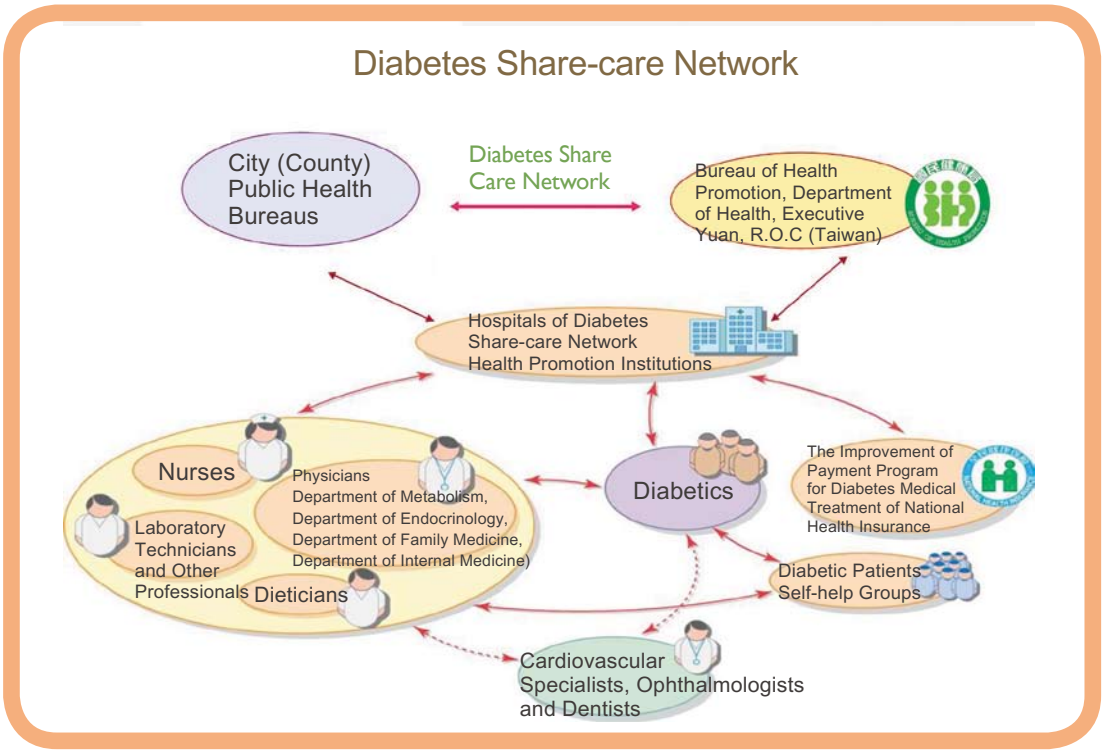


Figure 3-10 Diabetes share-care network

Table 3-2 Records of development of diabetes patient self-help groups

Year	Stage	Content
2003	Encouragement	24 outstanding diabetic groups were recognized in public
2004	Conceptualization	The Catholic Sanipax Socio-medical Service & Education Foundation was authorized to carry out the diabetic group counseling program. Leaders and seed counselors for diabetic groups were developed and diabetic group operations were promoted.
2005	Establishment	1. Survey and information on the current status of diabetics was established. 2. Elite groups for seeds training were established. 3. Cross-level coordination were established (intra-group coordination, inter-group, group to administration, academia, and healthcare units interactive networks).
2006	Empowerment	1. Knowledge of group functionality and evaluation indicators 2. Empowerment of group counselors and leaders
2007	Implementation	1. Organization of counseling teams was promoted to establish local resources. 2. Team operations were consolidated to exercise teamwork.

(2) Cardiovascular diseases

a. A stroke registration system was established, which encompassed configuration of the stroke registration platform, the registration standard flowchart and the registration information quality mechanism. Between 2006 and 2007 a total of 35 contact hospitals participated in online registration and more than 16,000 patients completed registration (Figure 3-11). Analysis of 7,043 stroke patients followed for six months found that the percentage of stroke patients who did not return for follow-up visits regularly after they were discharged from hospitals increased with time. The one-month, three-month, and six-month percentages were 1.4%, 20.8%, and 34.6%, respectively. In addition, 2.6% of those stroke patients experienced another stroke within six months after they were discharged from hospital, indicating the necessity to reinforce regular follow-up visits among stroke patients.

b. Twelve coronary artery disease patient self-care learning groups were established in northern, central, southern and eastern parts of Taiwan. A total of 278 patients and their family members participated. Through the operation of these learning groups, patients can not only access information about their disease but also enhance their self-care knowledge and skills through support from other patients and medical staff.

(3) Kidney diseases

The BHP set up health promotion institutions which consisted of doctors, nurses, dieticians and other medical professionals to implement the integrated health management on CKD patients. The interdiciplinary, multi-professional care team model (Figure 3-12) enhanced patients' self-caring abilities, slowed down the progression of chronic kidney diseases and helped patients get fully prepared for dialysis therapy. There were 81 kidney health promotion institutions, which have 9,693 newly enrolled patients and 20,821 patients followed

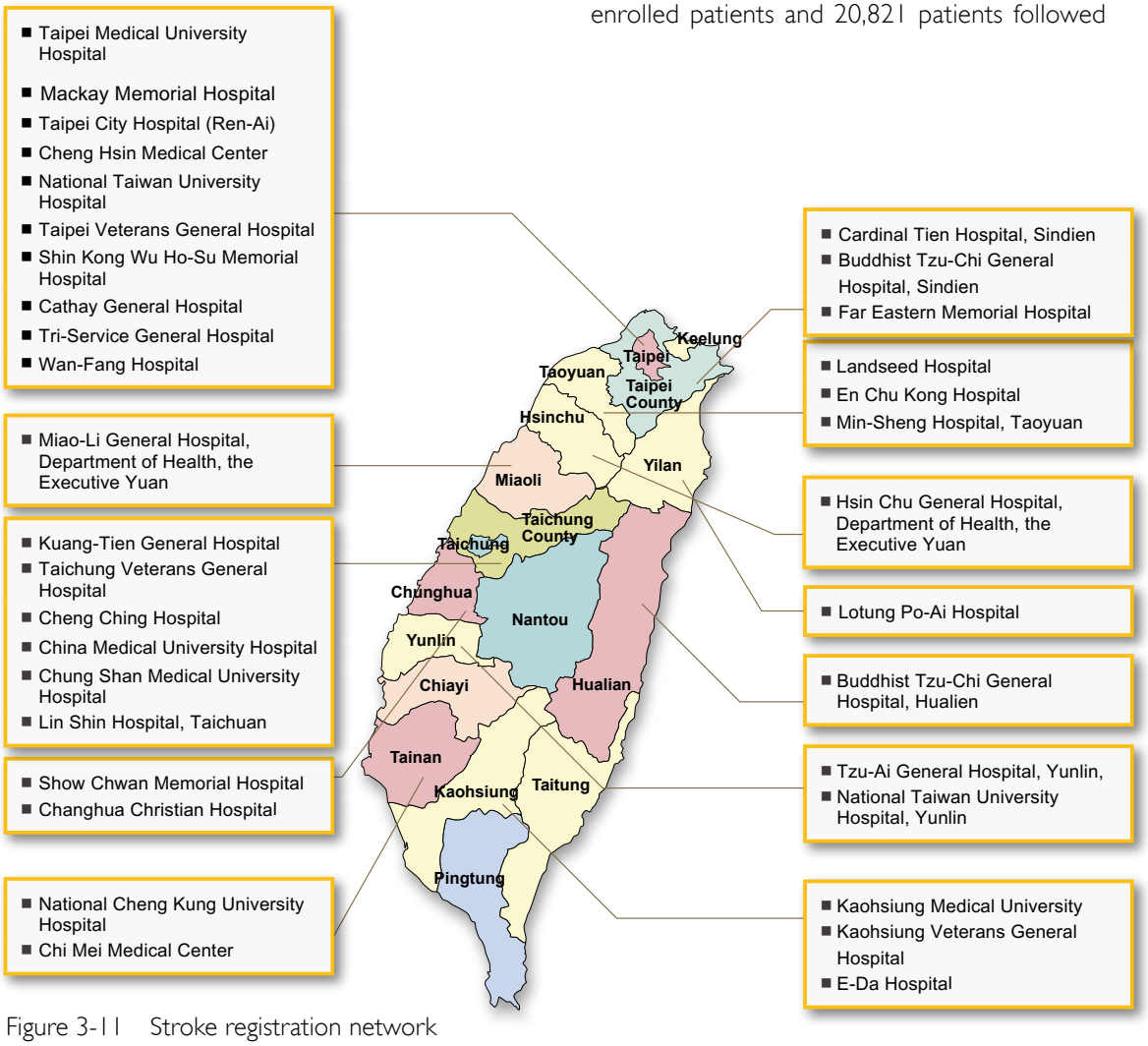


Figure 3-11 Stroke registration network

through outpatient vistits. There were 1,374 patients who received hemodialysis, peritoneal dialysis, and kidney transplant and 26.6% of the patients received peritoneal dialysis. There were 315 patients who received hemodialysis for the first time through outpatient service instead of hospitalization or emergency care, which are 126 more than those in 2006.

4. To development of partnerships and resources on all fronts and cooperation with NGOs in the implementation of all projects

To prevent occurrence of chronic diseases and minimize their damage to our citizens' health, BHP established good partnerships with industry, other government authorities, and academic circles and located related local resources in order to join hands in the organization of chronic disease prevention programs or activities. For example, BHP worked with the Health Foundation of Millenary Love to jointly promote waist circumference measurement activities and encouraged enterprises to include measurement of waist circumference in the physical checkup for their employees to help them prevent metabolic syndrome. BHP worked with the Taiwan Heart Association to jointly promote prevention and control of female heart diseases and remind women to take good care of their hearts. BHP also joined hands with grassroots diabetic groups in the promotion of the diabetes prevention and control plans. BHP encouraged diabetics, their friends and high risk groups in the community to take part in patient group activities in order to increase their knowledge and skills in the prevention and control of diabetes and strengthen their ability to take care of themselves in order to delay occurrence of diabetes or reduce its seriousness.

5. The promotion of disease prevention and control efficacy by organizing related investigations and studies on major chronic diseases

(1) The 2007 follow-up investigation and study of hypertension, hyperglycemia, and hyperlipidemia in Taiwan, a two-year investigation plan, was carried out to target primarily the 6,600 interviewees, who completed the 2002 Survey on the

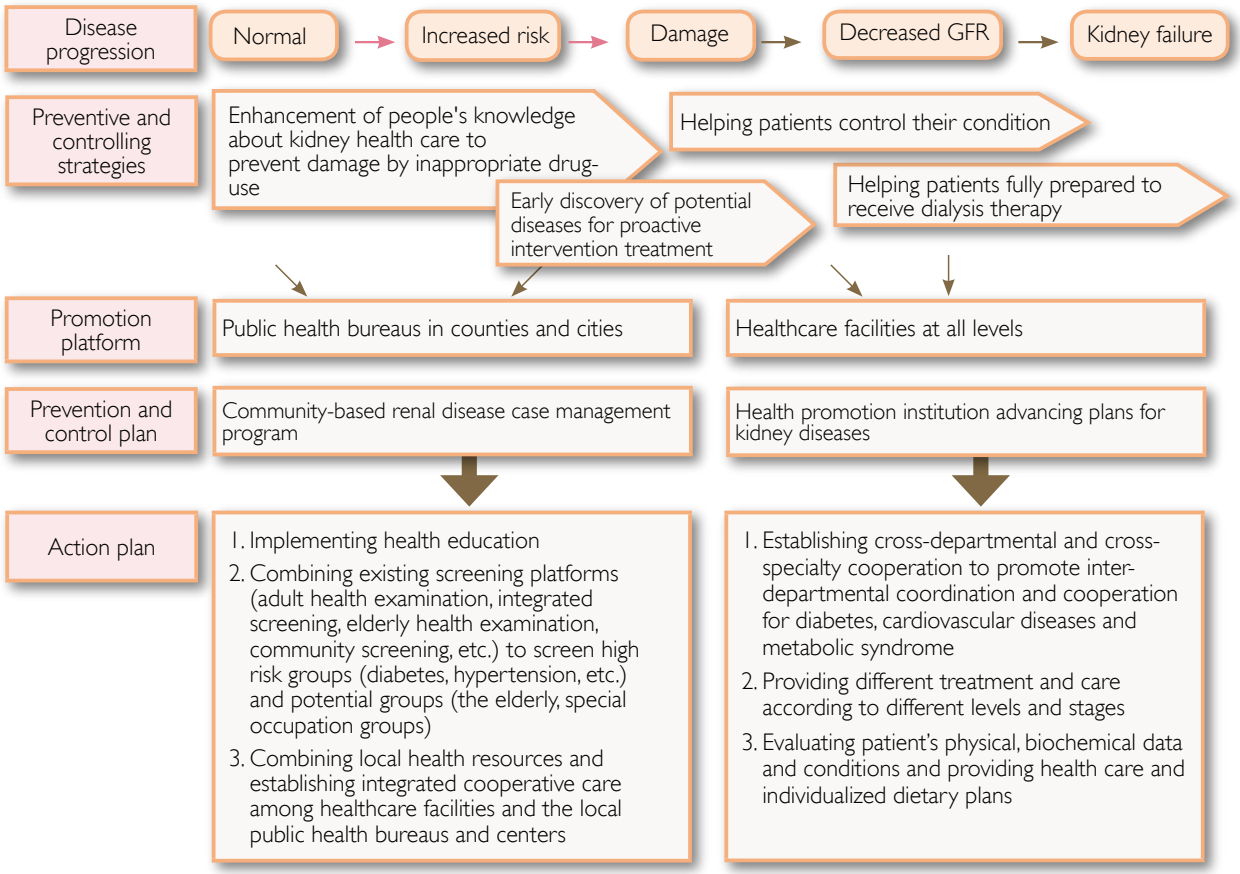


Figure 3-12 Development of chronic kidney diseases and intervention model for prevention and control

Prevalence of Hypertension, Hyperglycemia, and Hyperlipidemia in Taiwan, in order to evaluate the incidence of the "three high" between 2002 and 2007 and status of patients seeking treatment and their health behaviors. The investigation consisted of questionnaire, measurements of blood pressure, waist circumference, and hip circumference, collection of blood and urine samples, and connection to patient health insurance information for analysis. So far, information collection has been completed for 3,763 patients and preliminary analysis has been carried out on the results of connection with health insurance information.

(2) The " Exploring of the quality and the cost-effectiveness of NHI adult health examination", a two-year study plan was carried out. As the research results suggested, the doctors' opinions and feedback regarding the content of implementation and adequacy of the adults' preventive health examination were brought forth. It also showed the ratio of the discovered abnormalities in blood pressure, blood glucose and blood cholesterol, indicating that provision of the adults' preventive health examination are substantially helpful for early discovery of those abnormalities.

(3) A "Localized study of evaluation on the efficacy of diabetic groups in Taiwan" was organized and 397 diabetic groups comprised the study sample. The questionnaire survey results showed that the highest number of diabetic patient groups in Taiwan were located in Pingtung County (10.0%), community-based (75.5%), in downtown areas of townships (23.8%), and with a chairman (64.0%). The average length of time for the establishment of the groups was four years with an average of 74 members of an average of 60 years old. An average of 38 people were frequent participants. Research results showed that those actively taking part in group operations had better self-care behavior and better group identification, and received more social support and empowerment. The relationship between group operations and participant's disease control has not shown statistical significance. However, HbA1c control is found to be relevant to the exercise behavior variant of self-care behavior; that is, the higher the score of physical exercise behavior, the more ideal the HbA1c control. The results are consistent with the assumption that adequate exercise can burn calories and will help control diabetes. The distribution and operation status of diabetic groups and related factors can be referenced in policy planning.

(4) The pilot program for chronic obstructive pulmonary disease (COPD) health promotion institutions was carried out in Taichung Veterans General Hospital and the National Cheng Kung University Hospital, and 164 patients were enrolled in the case-oriented integrated care model to take part in the pulmonary function rehabilitation exercises, and the life quality for the patients was effectively enhanced.

Section 3. Cancer prevention and control

Current status:

Since 1982, cancer has continued to be the No. 1 cause of death among our citizens. In 2007, 40,306 people died of cancer, accounting for 28.9% of total deaths and the crude mortality rate was 175.9 per 100,000 people, and was standardized to 142.6/10^5 using the year 2000 standard population. The Top 10 cancer causes for death among our citizens (Table 3-3) in 2007 were (1) lung cancer, (2) liver cancer, (3) colorectal cancer, (4) female breast cancer, (5) stomach cancer, (6) oral cancer (including oropharynx and hypopharynx), (7) prostate cancer, (8) cervical cancer, (9) esophagus cancer, and (10) pancreatic cancer.

The age standardized incidence of cancer by per 100,000 people for the past 10 years has increased from 187 to 263 in 2005 and hence continues to be the biggest threat to the health of our citizens. The latest cancer registry data

shows that there were 68,907 people newly diagnosed with cancer nationwide in 2005 (excluding cancer in situ), among which 39,431 were males and 29,476 were females. The crude incidences for males and females were 341 per 100,000 people and 263 per 100,000 people, respectively. If standardized by the world population of year 2000, the standardized incidences for males and females were 299 and 223 out of per 100,000 people, respectively. Tables 3-4 and 3-5 list the most common Top 10 cancers for males and females.

Comparison of the age standardized incidences for male and female cancers in the past five years (2001 to 2005), females appeared to increase by 2.1% in all cancers, among which breast cancer increased by 22% and hence requires imminent prevention and control. Meanwhile, cervical cancer dropped by around 31%, indicating the success of early screening through cervical Pap smear (Figure 3-13). On the other hand, overall cancers increased by around 3.7% for males, among which oral cancer surged by 18%, and was caused by behavior such as chewing betel quids and smoking (Figure 3-14).

Policy implementation results:

The Cancer Control Act, which came into force in 2003, facilitated the "National Cancer Control Five-Year Program" in 2005, whose long-term objective is to reduce cancer incidence and mortality rate. With comprehensive prevention and control strategies as well as strategies to enhance the quality of life of patients, this Five-Year Program also allocated resources to maintain and improve the cancer monitoring system.

1. Reduction of cancer risk

According to the "National Cancer Control Programs 2002" published by the World Health Organization, primary prevention of cancer can reduce at least 30% of cancer cases. Therefore, minimizing the chance of exposure to carcinogens and establishing related strategies for a healthier life style are important parts in the programs. Besides utilizing public media, BHP works with local health authorities, healthcare facilities, schools, communities, workplaces, media, and NGOs to promote health education on common cancers among our citizens. Among all common cancers, male oral cancer has been significantly increasing for the past few years. Therefore, BHP have been

Table 3-3 Top 10 cancer causes of death in 2007

Rank	Cancer site	Deaths	Crude mortality rate*	Age standardized mortality rate*
1	Lung	7,993	34.9	27.9
2	Liver	7,809	34.1	28.1
3	Colorectum	4,470	19.5	15.6
4	Female Breast	1,552	13.7	11.1
5	Stomach	2,474	10.8	8.5
6	Oral Cavity	2,312	10.1	8.3
7	Prostate	1,003	8.6	6.7
8	Cervix	833	7.4	5.8
9	Esophagus	1,438	6.3	5.2
10	Pancreas	1,354	5.9	4.8

* : Mortality rate is measured in per 100,000 people.

Source: Statistics Office, Department of Health

Table 3-4 Incidence of top 10 cancers for females in 2005 (excluding cancer in situ)

Rank	Primary site	Number of cases	Crude incidence rate*	Age-standardized incidence rate*
1	Female breast	6,593	59	49
2	Colon and rectum	4,107	37	31
3	Liver and intrahepatic bile duct	2,757	25	21
4	Lung, bronchus and trachea	2,746	25	21
5	Cervix	1,977	18	15
6	Stomach	1,292	12	10
7	Thyroid gland	1,146	10	9
8	Skin	1,039	9	8
9	Uterus	987	9	7
10	Ovary, fallopian tubes and broad ligament	894	8	7
	Other	5,938	-	-
Total		29,476	263	223

* : Incidence rate is measured in per 100,000 people.

Table 3-5 Incidence of top 10 cancers for males in 2005 (excluding cancer in situ)

Rank	Primary site	Number of cases	Crude incidence rate*	Age-standardized incidence rate*
1	Liver and intrahepatic bile duct	7,159	62	55
2	Colon and rectum	5,497	48	42
3	Lung, bronchus and trachea	5,566	48	41
4	Oral cavity, oropharynx and hypopharynx	4,310	37	32
5	Prostate	2,704	23	20
6	Stomach	2,288	20	17
7	Esophagus	1,403	12	11
8	Bladder	1,363	12	10
9	Skin	1,139	10	9
10	Nasopharynx	1,123	100	8
	Other	6,879	-	-
Total		39,431	341	299

* : Incidence rate is measured in per 100,000 people

focusing on encouraging the general public to abstain from chewing betel quids. A cooperative mechanism was established with other ministries and departments (e.g. Ministry of Education, Ministry of National Defense, Council of Agriculture, Council of Labor Affairs, Ministry of the Interior, etc.) to develop a culture without betel quids. For more information on betel chewing prevention and control, please refer to Section 2 of Chapter 4.

2. Early discovery of cancer through screening

BHP organizes screening services for common cancers (cervical cancer, breast cancer, colorectal cancer and oral cancer) that are easily accessible by the general public and analyzes screening hindrance factors and establishes related strategies in order to enhance the quality of these screening services. Related information has been covered in Section 1. Health Screening Service in this chapter.

3. Enhancement in cancer diagnosis, treatment and care quality

BHP carried out plans to comprehensively enhance cancer diagnosis and treatment quality, established cancer core measurement indicators and piloted the cancer diagnosis and treatment quality certification program in order to consolidate the Regulations for Cancer Care Quality Assurance Measures, establish a diagnosis and treatment quality evaluation system, and accordingly enhance the quality of medical care received by patients.

(1) Program to comprehensively enhance cancer diagnosis and treatment quality

To promote cancer diagnosis and treatment quality in the nation, the Regulations for Cancer Care Quality Assurance Measures were drafted according to Article 15 of the Cancer Control Act and announced on March 10th 2005. In addition, 21 hospitals were subsidized in 2006 to conduct a "Cancer Prevention and Control Center Project–Comprehensive Enhancement of Cancer Diagnosis and Treatment Quality", which mainly included cancer prevention, screening, diagnosis, treatment, patient care, hospice care, and construction of a cancer diagnosis and treatment information database to prompt these hospitals to fully implement the Regulations for Cancer Care Quality Assurance Measures. To keep track of the program accomplishments and facilitate inter-ministry experience sharing and learning through observation, the "Cancer Prevention and Control Center Project–Benchmark Results Release" press conference was held on November 18th and 19th in 2007 to recognize hospitals with outstanding performance (Figure 3-15).

(2) Establishment of cancer core measurement indicators

For the part of cancer core measurement indicators, besides the six cancers that had already been covered in the measurement, namely cervical cancer, breast cancer, lung cancer, colorectal cancer, oral cancer, and liver cancer, development of further core measurement indicators was embarked on in 2007 for stomach cancer, esophagus cancer, prostate cancer, and bladder cancer and is expected to be completed in 2008, which will serve as reference for hospitals conducting periodical quality monitoring.

(3) Piloted cancer diagnosis and treatment quality accreditation

To consolidate the Regulations for Cancer Care Quality Assurance Measures and establish an accreditation system for cancer diagnosis and treatment quality, BHP cooperated with the National Health Research Institutes in 2007 and conducted evaluation on 10 hospitals in order to establish accreditation criteria based on the evaluation results. Such criteria were announced on October 4th 2007 and the cancer diagnosis and treatment quality accreditation will be carried out for hospitals with 500 or more cancer patients per year from 2008. Accreditation results will also be included in the hospital overall evaluation and medical center task indicator evaluation.

4. Enhancement of cancer patient's life quality

To enhance quality of life for cancer patients, BHP works with medical institutions, associations and patient groups to provide

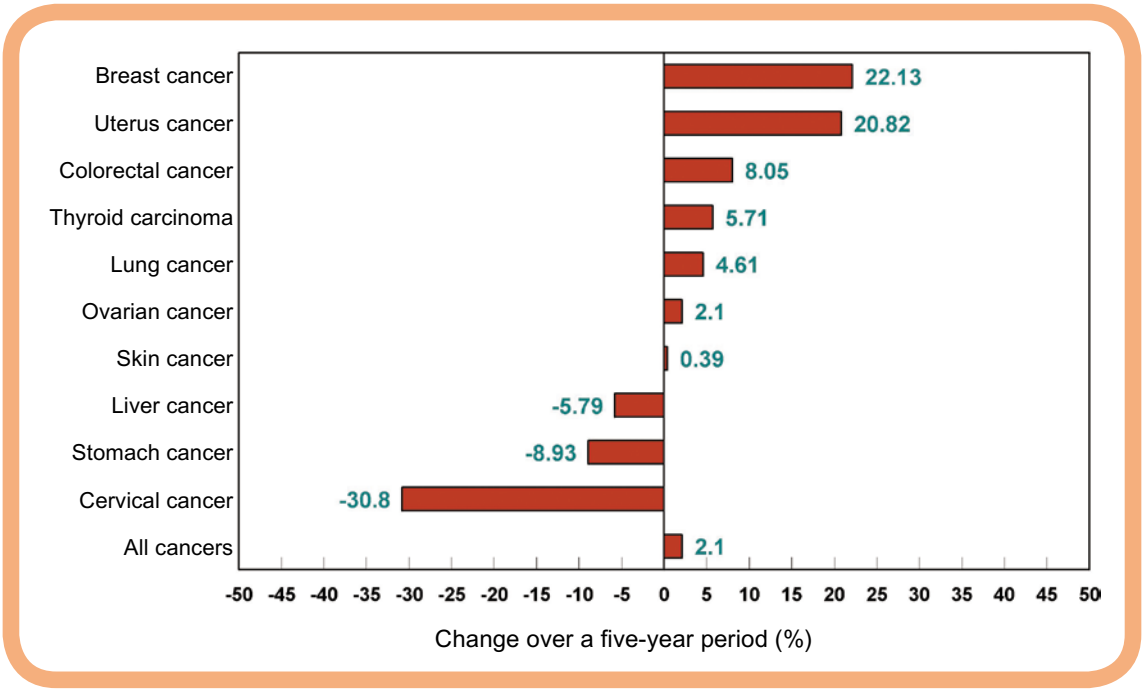


Figure 3-13 Age-standardized incidence of Top 10 cancers for females in a five-year period (between 2001 and 2005)

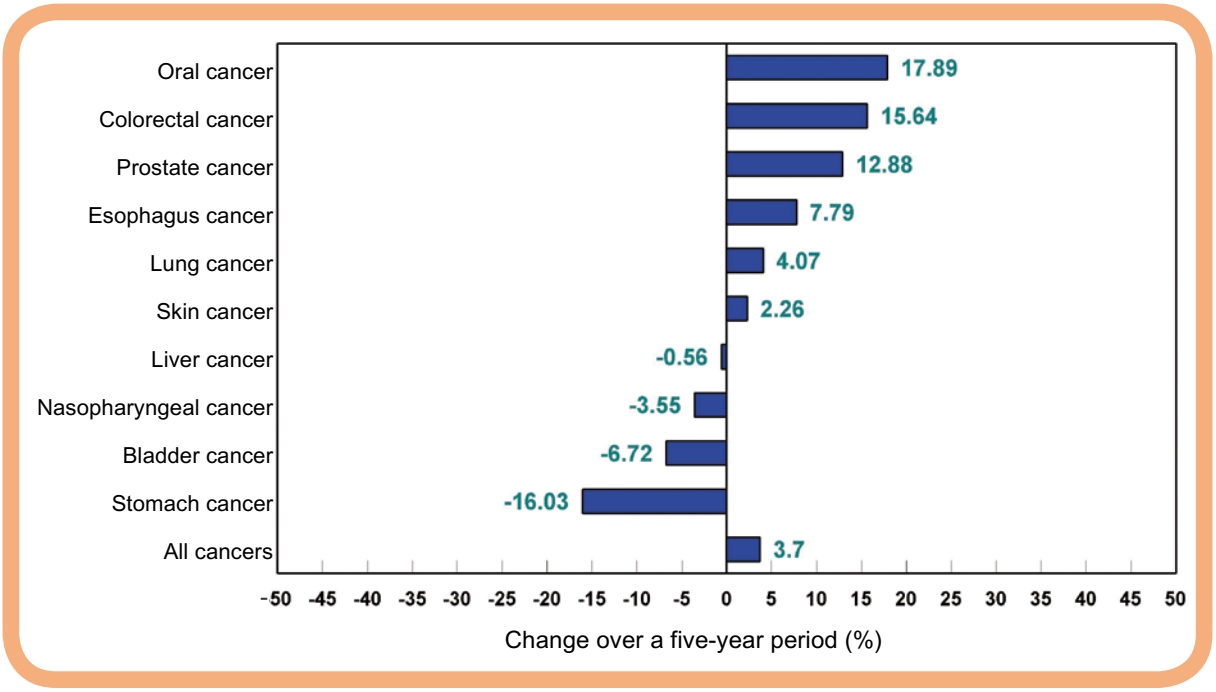


Figure 3-14 Age-standardized incidence of Top 10 cancers for males in a five-year period (between 2001 and 2005)

Figure 3-15 Cancer Prevention and Control Center – Comprehensive Enhancement of Cancer Diagnosis and Treatment Quality Benchmark Results Release Conference

cancer patients with necessary assistance. Meanwhile BHP promotes the concept of hospice care and has established a hospice care network to help cancer patients access optimum care to successfully complete treatment, recover and return to society.

(1) Services to cancer patients

In order for cancer patients to receive complete and continuous care both during and after hospitalization, BHP subsidized NGOs and hospitals that provided cancer patients with direct services. In 2007 around 60,000 patients with newly diagnosed, recurrent cancer or their family members have access to free telephone consultation services, hospital visits, physical and mental health workshops, psychological counseling, case management, rentals of all rehabilitation necessities, among other services provided by BHP.

Breast cancer is a successful example of international cooperation among service items provided to cancer patients. So far, we have successfully joined hands with NGOs and organized the 2nd Conference of the Global Chinese Breast Cancer Groups Alliance, with participation from 20 overseas Chinese breast cancer groups and 15 domestic breast cancer organizations. Besides strengthening the mutual understanding and friendship between Chinese breast cancer groups in international society, this alliance also contributes to international groups' understanding of Taiwan and enhances Taiwan's international image.

(2) Hospice care services and quality enhancement

To alleviate the pain and symptoms of patients with advanced cancer and enhance their life quality, 34 hospitals provided hospice hospitalization services and 59 hospitals provided hospice home care services in 2007. To encourage patients with advanced cancer to receive hospice health care services, BHP subsidized 38 hospitals to organize a hospice care program, which has provided hospice care services to around 9,000 patients with advanced cancer but not in a hospice ward, accounting for around 23% of the cancer deaths in the same year.

To enhance people's knowledge of hospice care, BHP worked with NGOs and organized hospice care education. On the World Hospice and Palliative Care Day, BHP recognized 24 hospice angels, volunteers who devote themselves to hospice care (Figure 3-16). In addition, to comprehensively enhance the quality of hospice care, BHP authorized the Taiwan Academy of Hospice Medicine to organize hospice care institution accreditation and hospice care program evaluation and counseling.

5. Reinforcement of the cancer prevention and control system

(1) Implementation of five-year prevention and control program and amendment of cancer control related acts

To actively promote cancer prevention and control, besides holding central-level cancer prevention and control briefing sessions with the Cancer Control Policy Committee periodically to discuss major cancer prevention and control issues, BHP stipulated and consolidated all action items and strategies of the National Cancer Control Five-Year Program. On the whole, the standardized mortality rate for cancer has dropped to 142.6 in 2007 from 143.1 in 2001 out of every 100,000 people. In addition, the Cancer Control Act is undergoing amendment. In the future, care for patients and their family will be more emphasized and will be included in the regulations of the Cancer Control Act. Results of the cancer diagnosis and treatment quality accreditation will also be included in the hospital evaluation, which is likely to solve the problem of insufficient manpower to conduct cervical Pap smear in remote areas.

(2) Keeping track of national cancer status

In light of the fact that definitely control over our national cancer status, screening and diagnosis/treatment status are the foundation for cancer prevention and control, BHP has established a cancer registry system and organized related studies on cancer prevention and control as well as personnel training in order to strengthen the cancer prevention and control system. Currently BHP have the cancer registry system and screening information system for major cancers (cervical, breast, oral, colorectal) in place in Taiwan to serve as the basis for planning of the cancer prevention and control program, monitoring evaluation and academic researches.

a. Cancer registry system in Taiwan

In 1979 the Department of Health encouraged hospitals with over 50 beds to establish a cancer registry system. In addition, to emphasize evidence based medicine that helps enhancement of cancer diagnosis and treatment quality, BHP has gradually established diagnosis and treatment information for six common cancers, namely cervical cancer, breast cancer, oral cancer, colorectal cancer, liver cancer and lung cancer since 2003, which includes information on the diagnosis, stage of the cancer, detailed treatment and follow-up, etc. By 2007, 33 hospitals had participated in the system and over 80% of the cases with any of these six cancers in Taiwan were reported. The information can be used to analyze and compare the care outcome, follow-up and prognosis among cancer cases in the whole nation and participating hospitals.

b. Major cancer screening system

Cancer screening services were promoted gradually between 1995 and 2004 and the screening information system for cervical cancer, breast cancer, oral cancer and colorectal cancer was established at the same time. Besides being used to monitor the results and quality of cancer screening services, the system also served as the basis for subsequent follow-up on the diagnosis status of positive cases, on the monitoring of screening status and for screening efficacy evaluation.

Figure 3- 16 Hospice angel recognition on World Hospice and Palliative Care Day

Chapter 4

Healthy Life

Prevention is more important than treatment. Factors affecting the health of our citizens include genetics, physical and social environment, personal lifestyle, and health care. In terms of personal lifestyles, no smoking, no chewing betel quids, regular exercise, healthy dietary habits and periodical screening are positive factors in personal behavior that can achieve the purpose of disease prevention.

In Taiwan, handing someone a cigarette and sending cigarettes as a gift is a social etiquette and smoking and chewing betel quids are common habits for Taiwanese people. However, researches show that more than 188,000 people die of diseases caused by smoking each year. On the other hand, chewing betel quids is a primary cause of oral cancer. Each year around 4,500 people contract oral cancer and 2,100 people died accordingly. A research points out that the risk of smokers contracting oral cancer is 18 times that of normal people. If a person both smokes and chews betel quids, his/her risk to contract oral cancer is 89 times that of normal people. If he/she also drinks alcohol, then his/her risk to contract oral cancer is 123 times that of normal people.

In fact, it can be very easy to stay healthy. As long as one pays attention in his/her daily life, avoid highly health risky behavior, e.g. smoking, chewing betel quids, make it a habit to exercise, avoid accidents and injuries, and strengthen vision, hearing and oral care, one can effectively prevent diseases. To build a healthy life, practice healthy behavior and achieve the purpose of staying healthy, requires joint effort and engagement from government authorities concerned, NGOs, and the general public.

Section 1. Tobacco control

Current status:

Tobacco control in Taiwan was set in action by the private sector beginning in 1984. Then in 1987, the Department of Health offically promoted tobacco control as a health policy. In 1997, the Tobacco Hazards Prevention Act was approved and implemented.

In 2007, the percentages of male and female smokers over 18 years old were 38.9% and 5.1%, respectively. Historical records show that the percentage of male smokers is declining while that of female smokers is still under close observation (Figure 4-1). The percentage of individuals exposed to second-hand smoke in indoor public areas is 34.9% (Figure 4-2). In terms of teenager use of cigarettes, the percentage of smoking in junior high school

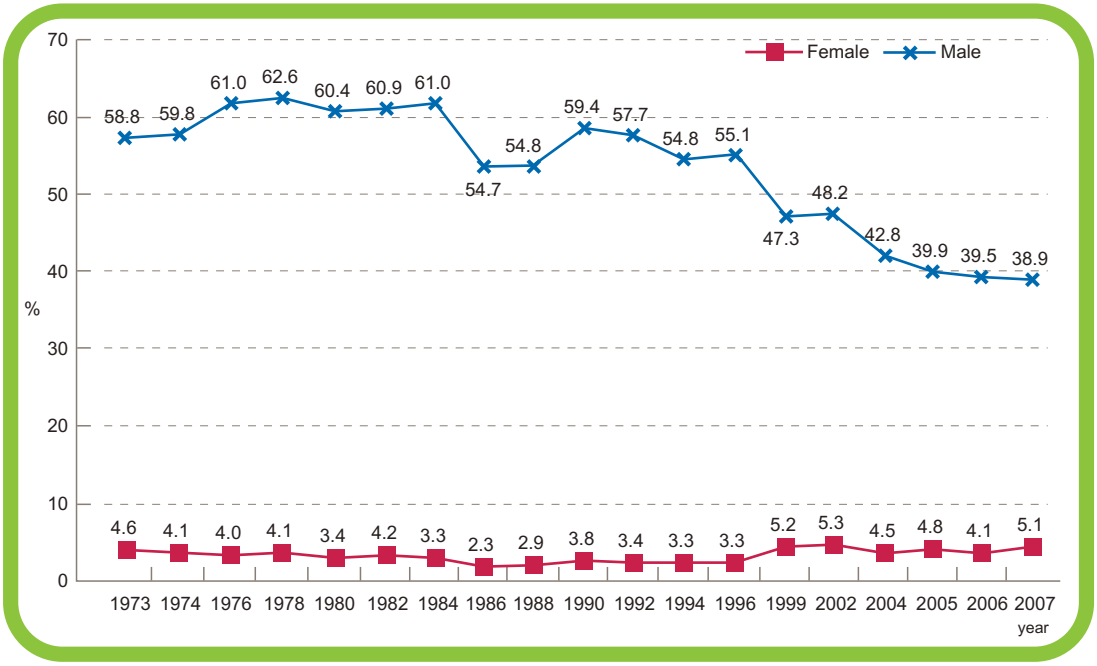


Figure 4-1 Smoking rates of adults aged over 18 years old by year

Note: 1. 1973-1996 data are from the Taiwan Tobacco & Liquor Corp. statistics

2. 1999 data are from Professor Lan Lee's investigation.

3. 2002 data are from the Bureau of Health Promotion "2002 National Health Promotion Knowledge, Attitude and Behavioral Survey in Taiwan"

4. 2004-2007 data are from the Bureau of Health Promotion "Adult Smoking Behavior Telephone Survey"

5. From 2002 to 2007, in a smoker was, by U.S. CDC definition, someone who has smoked over 100 cigarettes (5 packets) in this period and has used tobacco products within the past 30 days.

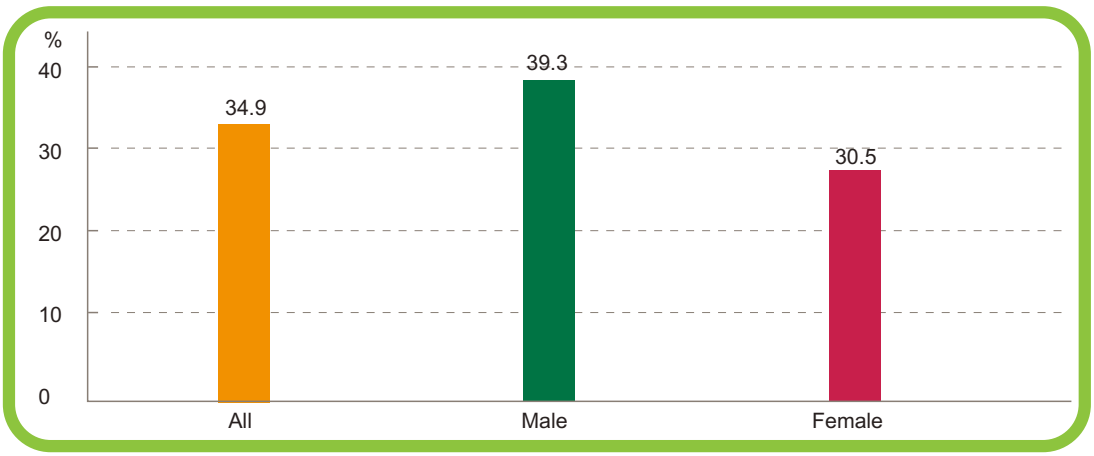


Figure 4-2 Percentage of adults exposed to second-hand smoke in indoor public areas

Note: The source is the 2007 Bureau of Health Promotion "Adult Smoking Behavior Telephone Survey".

students between 13 and 15 years old in 2004 was around 6.5% (8.5% for males and 4.2% for females) while that in 2006 was around 7.5% (9.7% for males and 4.7% for females). The percentage of smoking in senior high and vocational school students between 16 and 18 years old in 2005 was around 14.0% (20.7% for males and 7.8% for females), indicating that the percentage of teenage smokers is increasing by year and by age.

Policy implementation results:

In compliance with Article 22 of the Tobacco & Alcohol Tax Act, collection of the tobacco health and welfare surcharge started in 2002, which contributed to the legal budget needed to comprehensively promote tobacco hazards prevention in Taiwan. Action items in 2007 included active development and amendment and passage of the Tobacco Hazards Prevention Act Amendment, consolidation of local tobacco hazards prevention, reinforcement of tobacco hazards prevention human resources and training programs, promotion of smoke-free environment, comprehensive tobacco hazards education, provision of highly accessible diversified smoking cessation services, development of international exchanges and multilateral cooperation channels, and organization of tobacco hazards prevention-related surveillance and research in order to fulfill the goals of minimizing the smoking rate among our citizens, enhancing the smoking cessation rate, and reducing exposure to second-hand smoking.

1.Amendments of tobacco hazards prevention-related laws and regulations

(1) Tobacco health and welfare surcharge

The Tobacco & Alcohol Tax Act Amendment was passed on January 3rd 2006 and the tobacco health and welfare surcharge was increased to NT$10 from the original NT$5 per packet and it was distributed that 90% of the surcharge income would be used as preparation for the safety reserve fund of National Health Insurance. By the Regulations of the Tobacco Health and Welfare Surcharge Distribution and Utilization, 3% will be used in central and local tobacco hazards prevention. The other 3% will be used in central and local health promotion. Another 3% will be used in social welfare while the remaining 1% will be used to confiscate illegal tobacco products and prevent tobacco tax evasion.

(2) Completion of Tobacco Hazards Prevention Act Amendment

With environmental changes, to protect the general public from second-hand smoking hazards and minimize exposure of smokers to tobacco products, the Tobacco Hazards Prevention Act was proactively amended with reference to the World Health Organization Framework Convention on Tobacco Control. With cooperation between the government and NGOs, the amendment passed at the Legislative Yuan on June 15th, 2007 and was announced by the President on July 11th, 2007. In light of the numerous changes to related articles and the buffer period for tobacco industry to prepare for product marketing as well as the general public's understanding of the Amendment, it was to be enacted 18 months from the day of the announcement, that is, January 11th, 2009. (Figure 4-3) The Amendment primarily encompasses labeling of pictorial health warning, eradication of misleading words, disclosure of tobacco ingredients, additives and toxicological


菸害防制法修正 18個月後施行

室內公共場所擴大禁菸

立院三讀設排除條款 違規吸菸可直接開罰

Figure 4-3 The Tobacco Hazards Prevention Act Amendment passed the third reading at the Legislative Yuan on June 15th, 2007.

Source:
1. Liberty Times, June 16th, 2007
2. Medical Information Edition, China Daily News, June 16th, 2007

information, comprehensive prohibition of advertisements, basically a comprehensive smoking ban in indoor public areas, establishment of smoking areas in some outdoor public areas as well as a comprehensive smoking ban, to strengthen protection of the health of fetuses, children, teenagers, and non-smokers.

2. Tobacco control research and surveillance

A surveillance system for adult and teenager smoking behavior and tobacco consumption in Taiwan has been established and implemented simultaneously with international society. The undergoing investigation surveillance encompasses the Adult Smoking Behavior Telephone Survey once a year, the Junior High School Students, Staffs Smoking Behavior Survey every other year, and the Senior High and Vocational Students, Staffs Smoking Behavior Survey every other year, etc. Related smoking behavior survey information has been gradually established in the Smoking Behavior Online Search System, so people who need to access the information can search in real time on the Internet (http://tobacco.bhp.doh.gov.tw/sboss/).

Other surveillance tasks also include testing on nicotine, tar and carbon monoxide concentrations in domestic and imported tobacco products as required by the Tobacco Inspection and Research Development Program, maintenance of tobacco hazards prevention policies and databases, and collection of domestic and international tobacco hazards prevention information. In terms of research, efforts have been focused on guided smoking cessation, tobacco consumption, policies and regulations, and organization of programs and studies such as Tobacco Information Surveillance Program, Evaluation and Study on the Impact of Increasing the Tobacco Product Health Surcharge on the Tobacco Consumption Market, Tobacco Hazards Prevention Secondary Data Analysis and Webpage Configuration Three-Year Program, and Evaluation of the Efficacy of the Enacted Tobacco Hazards Prevention Act, etc.

3. Tobacco Hazards Prevention Promotion and Education

To strengthen the awareness of the importance of combating and refusing tobacco, BHP developed promotion strategies targeting different sectors in 2007. By means of wireless and cable TV, broadcasts, local radio stations, internet, magazines, outdoor media and non-for-profit channels, integrated promotion at different stages was facilitated to educate people on the dangers of second-hand smoke, the contents of the newly amended Tobacco Hazards Prevention Act and related tobacco hazards or usable resources to quit smoking. In addition, to create the Smoke-Free Environment, the feature of the 2007 World No Tobacco Day, our 2007 promotion was focused on a "comprehensive smoking ban in indoor public areas and workplaces" (Figure 4-4). The BHP also organized a Tobacco Free Art Creation Exhibition, the online No Second-hand Smoke in Public Areas for selection of tobacco rejection pictures, and the No One Knows Better than Me about the Tobacco Hazards Prevention Act Amendment online test and lottery drawing, among other activities. In addition, the BHP compiled the Taiwan tobacco hazards prevention manual in Chinese/English. In an awareness survey carried out among the general public after the probation period of the Tobacco Hazards Prevention Act Amendment, 79% of those interviewed were aware of the tobacco ban regulation in indoor public areas and public transportation, etc. 74% were aware of the fact that pregnant women and those under 18 years old should not smoke and 50% knew that smoking was not allowed in a workplace with more than three people.

4. Establishment of a supportive tobacco-free environment

To cut down the exposure of the general public to second-hand smoking and provide them with a life, job, schooling and leisure environment without smoke, BHP continued to promote enforcement of Tobacco Hazards Prevention Act and establishment of supportive smoke-free environments on campuses, workplaces, in the military and restaurants.

Figure 4-4 Tobacco Hazards Prevention Act new regulations priority promotion

Figure 4-5 Logo of the Tobacco hazards complaints center

BHP also established the "Tobacco Hazards Complaint Hotline 0800-531-531" (Figure 4-5) to provide people with access to file a complaint and inquire on related laws and regulations, realizing a tobacco-free environment. In 2007 BHP handled 450 tobacco hazard cases reported by the general public.

5. Diverse smoking cessation services

To provide smokers with help to quit smoking and enhance the smoking cessation rate, BHP has been promoting diversified smoking cessation services since 2002. The service consist of outpatient smoking cessation pharmacotherapy, toll-free hotlines for smoking cessation consultation, and community smoking cessation classes, etc. By the end of 2007, over 300,000 people had received drug therapy at outpatient clinics. As many as 2,306 healthcare facilities in 357 districts and townships (97%) were contracted to provide this service and the success rate of smoking cessation within six months was around 22%. In addition, the Smokers' Helpline service is done through telephone consultation provided by professional psychological counselors in Mandarin, Taiwanese, Hakka, and English. The toll-free telephone smoking cessation consultation service (0800-636363) is available 12 hours a day and six days a week (Figure 4-6). About 263,476 person-times had called for consultation by the end of 2007 and the six-month smoking cessation success rate for those having received consultation service multiple times was 26%. Meanwhile, to answer a changing society and new communications media, BHP introduced an online Skype telephone number, VIP rooms, and Email, among other diversified and innovative online smoking cessation services on November 1st, 2007.

Figure 4-6 Poster for the Smokers' Helpline

6. Manpower development and promotion of international cooperation for tobacco control

By continued training to professionals and enhancing service quality of the professional attainments of tobacco hazards prevention manpower, BHP continued to hold various training programs in 2007 and organized "Training on Laws and Regulations for Law Enforcement to Personnel of Tobacco Hazards Prevention Act" to reinforce related capability, practical inspection tactics and law enforcement concepts. A total of 716 people participated in the training from 2005 to 2007. Meanwhile, BHP also organized the "Workshop on Health Project Planning for County and City Health Units" to enhance the local personnel's practical capabilities to make action plans. At the same time, to consolidate the outpatient smoking cessation treatment program, BHP also enhanced the knowledge and skills of medical specialists regarding smoking cessation treatment services by the continuously organized "Medical Specialist Outpatient Smoking Cessation Treatment Training". A total of 4,088 accredited doctors provided smoking cessation treatment services from 2002 September to 2007.

For the promotion of international cooperation in tobacco control, please refer to Section 3: International Cooperation in Chapter 7: Health Promotion Infrastructure.

7. Complete implementation of tobacco control from local government

To promote local tobacco control, BHP appropriated in 2007 an amount of NT$ 220 million for health departments in counties and cities to consolidate law enforcement and inspection, expand local smoking cessation service networks, continue tobacco control education for specific groups, and enhance tobacco control dissemination and promotion. The accomplishments includ enrichment for around 110 workers recruited for implementing local tobacco control, 331 rounds of training for tobacco control volunteer workers, which has cultivated a total of 5,063 volunteers to combat tobacco hazards. In addition, BHP also promoted smoke-free environmental plans that were specific to localities, which brought about 1,593 smoke-free campuses, 8,281 smoke-free restaurants and 1,219 smoke-free workplaces, and 8,597 rounds of related promotion and education activities. With the proactive enforcement of the Tobacco Hazards Prevention Act, as many as 600,000 inspections were carried out around the nation with 11,430 violations found.

Section 2. Betel quid control

Current status:

The International Agency for Research on Cancer has confirmed that areca nut is a Category I carcinogen. Domestic scholars also warn that compared to smoking and drinking, the risk for contracting oral cancer by chewing betel quids is even higher. In Taiwan, there are as many as 1.5 million betel quid chewers and this is one of the causes that male oral cancer has become one of the most rapidly increasing cancers in Taiwan. For the past five years, it has grown by 18% and both the standardized incidence rate and mortality rate have continued to climb as well (Figure 4-7). It is also the most common cancer for males between 25 and 44 years old, whose average age upon death is at least 10 years younger than patients with other cancers. Out of estimation that oral cancer will become an increasing threat for our national health, BHP included betel quid control and oral cancer prevention as a prioritized policy for the first time in 2007 and has been devoted to lower the betel quid chewing rate among our citizens.

Policy implementation results:

In the past, to prevent all aspects of hazards brought about by areca nut, government ministries and departments implemented a five-year Management Plan for the Control of the Betel Quid Problem simultaneously in 1997. Meanwhile, the Executive Yuan adopted suggestions from NGOs to set December 3rd as "Betel-Chewing Control Day". In 2007, the 10th anniversary since the establishment of this special day (Figure 4-8), related media coverage and control tasks carried out in all fields through

cooperation with government ministries, departments, and NGOs are briefed in the following.

1. Promotion of abstinence of betel quid chewing

(1) Soft promotion through patients sharing their stories in person

To reinforce people's knowledge that chewing betel quids can result in cancer, Director Lin Yu-Hsien, who was also the director of Exit No. 6, Jump! Boys, was invited to make a documentary "The Lost Smile", which records the stories of cancer patients. By using clips from the life of a typical betel quid chewer in Taiwanese society, patients shared their feelings and the changes in their lives as a result of oral cancer caused by chewing betel quids. This film has been distributed to healthcare facilities, schools, communities and national defense posts for screening. Compared to the year of 2006, the successful invitation of patients with oral cancer to endorse for BHP activities in 2007 has brought about a 50% increase in the news reports on betel quid chewing.

(2) Close connection with the community and the application of new communication channels

Promotion went deep into townships with high betel quid chewing rates. From 2005 to the end of 2007 around 45% of the Top 100 betel quid chewing townships were approached. In addition, to touch base with more target groups, BHP started to use chewer-friendly channels (e.g. gas stations around the nation) in 2007 to hand out promotional flyers.

Figure 4-8 Betel-Chewing Control Day 10th anniversary special release

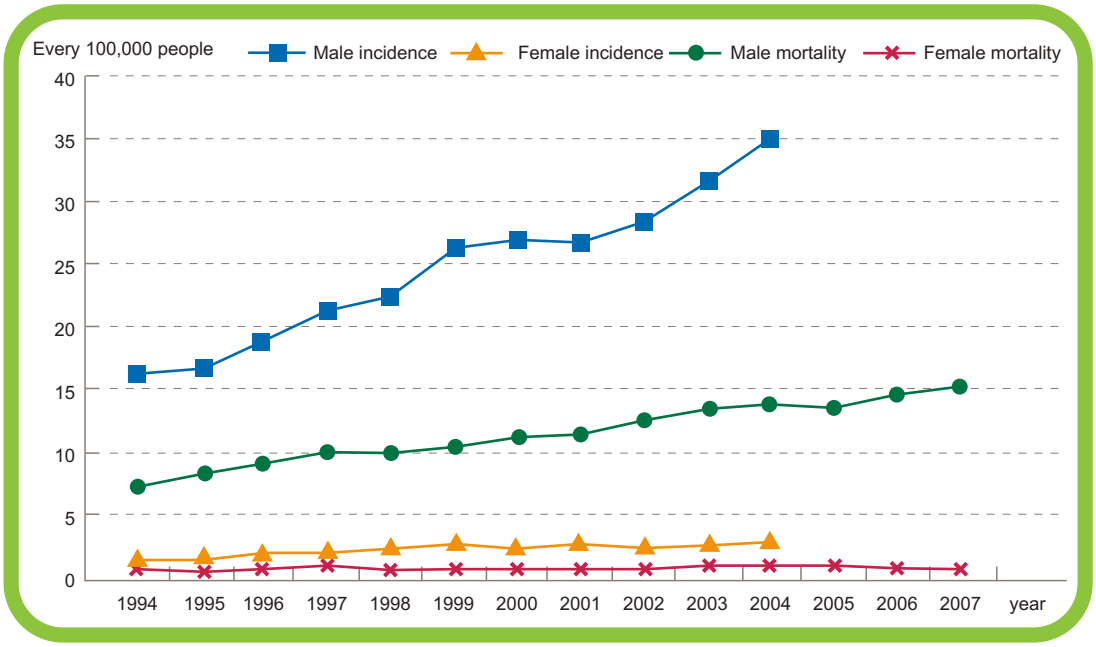


Figure 4-7 Long-term trends for standardized incidence rate and mortality rate of oral cancer between 1994 and 2007

Figure 4-9 Oral cancer patients sharing their stories in person

Figure 4-10 Community life agreement in Longchi Township, Tainan County

2. Building Betel-Quid-free communities

(1) Consolidation of abstinence tasks through partnership with NGOs

In 2007 supportive environments were established in communities in collaboration with organizations devoted to preventing and controlling hazards brought about by betel quids (e.g. Sunshine Social Welfare Foundation, Taiwan Cancer Society, Kimma Chang Foundation, etc.). More than 30 other community organizations participated in this work using strategies such as implementing study circles and setting community life agreement (Figure 4-9, Figure 4-10)

(2) Promotion of inter-sectoral action and trial application of betel-quid-free workplaces (Figure 4-11)

Besides continuing to work with the Ministry of Education and implementing strategies through the health promotion school platform, more than 700 schools took this issue as their priority, BHP also worked with the Ministry of National Defense to construct supportive environments. According to surveys done by the Ministry of National Defense on new recruits and retiring soldiers, the betel quid chewing rate has dropped by around 20%. The Ministry has also started to develop an in-service betel quid abstinence model.

Besides communities, schools and military bases mentioned in the foregoing, in order to respond to the betel-quid-free workplace program to be promoted in 2008, BHP chose traditional industries and the transportation industry in central Taiwan as the model for intervened development and promotion.

In order for all authorities concerned to learn from their colleagues' successful examples of community and workplace promotion, BHP have organized experience sharing seminars (Figure 4-12) and produced digital learning materials, which are posted on BHP website to be referenced by others and for exchange purposes.

(3) Helping betel-quid chewers abstain from chewing betel quids

The 2nd betel quid abstinence competition was held by BHP. Betel quid chewers were invited to take part. There were a total of 3,700 people participating in this nationwide competition, a growth of around 20% from 2005, the first competition. The success rate for abstinence in these two events within four weeks was around 7%.

Figure 4-11 Betel-quid-free workplaces promoted in the transportation industry

Figure 4-12 Organization of seminars on community betel quid hazards prevention and control

3. Oral cancer screening service for high risk groups (betel quid chewers or smokers)

Please refer to Section 1: Health screening services in Chapter 3.

At present around 17% of adult males are chewers. The work items mentioned in the foregoing will help reduce the overall threat brought about by oral cancer. The Bureau has also established a five-year program to control this health hazard from all aspects in 2007.

Section 3. Physical activity

Current status:

The World Health Organization has brought up global strategies concerning diet, physical activity, and health. The WHO listed lack of physical activity and inadequate diet as two major causes for non-communicable diseases. Lack of exercises is one of the major risk factors for cardiovascular diseases and stroke. It not only compromises personal health to a great extent, but also results in overall national expenditure on health care and social costs, placing a heavy burden on public health expenses.

In 2007, the Health Behavioral Risk Factor Survey showed that among people over 18 years old in Taiwan area, 51.54% of those interviewees did exercises in the past two weeks and 48.46% did not. This result indicates that citizens in Taiwan are significantly inadequate in terms of exercise activity. Therefore, BHP devoted itself to promoting a healthy activities and a dynamic life style for Taiwan citizens. In order to reduce the incidence of chronic diseases, BHP encourages everyone to bring up a regular and healthy exercise habit as well.

Policy implementation results:

The BHP's goal of national healthy exercise is to increase a ratio of 0.5% population to take part in physical exercise each year. The results of implementing are as follows.

1. Promotion of dynamic life concept

(1) BHP worked with the Ministry of Education in 2007 to promote an agenda concerning "health promotion schools." There were 483 schools in total to promote the "healthy physical status" (including physical activity and healthy diet) among elementary school students and teenagers for them to learn the knowledge and skills related to physical activities, and to form good dietary and exercise habits through school activities.

(2) Broadcast tapes were produced to be played on TV and radio stations. The programs included healthy walking, aerobic exercises for people at work, and thoughtful pedometers. Through printed media, TV and radios to broadcast, the programs disseminated extensively.

◀ Walking event on the 6th anniversary of Bureau of Health Promotion

▲ Physical activity promotion materials

2. Combinition of government and NGOs to promote physical activities

(1) The Round Table Conferences for Walking" and "Love the Earth by Taking a Healthy Walk" were held to encourage people to share their walking experiences in enterprises, communities and governments. These activities were aimed at building a consensus among the groups walking promotion.

(2) A total of 105 community groups were subsidized through healthy community program in 2007 to widely promote physical activities.

(3) "The International Healthy Walking Master Forum" was sponsored by BHP. Mr. Luc Henau, former chairman of the International Health Walking Association, W. Ron Sutton, aka Mr. Pedometer, and Mr. Yoshiro Hatano, Doctor of Ten-thousand Walking Steps, were invited from different countries to share their walking experiences .

3. Promotion a supportive environment for healthy physical activities

(1) BHP joined the Executive Yuan's program "1000 km bike paths and 10,000 km hiking paths" to consolidate a supportive environment and community walking paths. People were encouraged to take part in physical activities in their local surroundings. In 2007, a total of 713 rounds of walking activities were held in counties and cities nationwide. There were 311,346 people to join these activities.

(2) In response to the Executive Yuan's "National CO_2 Emissions Reduction and Energy Saving Movement" project, BHP encouraged people to take advantage of the walking paths in their local environment and communities and integrate walking into their daily lives.

(3) BHP assisted local workers governments to promote "aerobic exercises for office workers," "household aerobics," and all kinds of physical activities.

4. Improvement of personal skills

(1) In order to promote exercise, BHP issued 100,000 copies of pamphlets entitled "Exercise Tips for Senior People – The More You Exercise, the Happier You Are".

(2) The 192 walking paths in communities were recommended by public health bureaus in counties and cities, and was announced on the BHP website. The information of community walking paths will be updated in the Healthy Energy Convenience store website.

5. Establishment of empirical data

The results of " Health Behavioral Risk Factor Surveillance Survey" in 2007 showed that 51.5% of those interviewees did exercises in the past two weeks while 48.5% did not. In the future, BHP will complete a "Future Policy Recommendation and Literature Review on the Contemporary Physical Activity Policy Promotion of the World in various nations", and plan to understand the current promotion in other countries.

Section 4. Accident and injury control

Current status:

The accident and injury mortality rate in Taiwan started to drop on a yearly basis since 1989. Except for a slight surge as a result of the 921 Earthquake in 1999, it has been dropping for the past few years. Although a rising trend appeared in 2004, the reduction continued in 2005 by $36.8/10^5$ persons and $35.1/10^5$ persons in 2006. Despite accidents and injuries ranking No. 5 in the cause of death among our citizens, they are the No. 1 killer of children and teenagers (Table 4-1) and the mortality rate continues to be higher than a majority of developed countries. The mortality rate from accidents and injuries for children between 0 and 4 years old in 2006 was more than two times those between 5-9 and 9-14 years old (Figure 4-13). The Top 5 accidents that caused deaths were traffic accidents, drowning, falling, fire, and poisoning (Table 4-2). In addition, the 2005 National Health Interview Survey found that 13.2% of children between 0 and 12 years old sought medical treatment as a result of accidents and injuries. By sequence of incidence, major accidents included falls, traffic accidents, burns and scalds (Table 4-3). As for the rate of deaths caused by accidents and injuries for people between 15 and 24 years old in 2006, it was $29.3/10^5$. The Top 5 accidents that caused death were traffic accidents, drowning, falling, poisoning, and fire (Table 4-2). According to the 2006 Taiwan Youth Health Survey, causes for accidents for which medical visits were made by junior high school students in the past year were primarily sports injuries, followed by falls, traffic accidents, and fights with other students by sequence. In addition, the 2005 National Health Interview Survey showed that the prevalence rates for falls among age groups between 12 and 14, 15 and 19, and 20 and 24 year old were 8.8%, 8.6%, and 5.6%, respectively, in the past year.

A 2003 survey conducted by BHP showed that the ratios for Taiwanese senior people to suffer from at least one chronic disease were 82.1% for those between 65 and 75 years old and 87.8% for those over 75 years old, respectively. Around 50% of those interviewed indicated that they experience slight body pain on an average day. For those over 75 years old, as high as 50% of them had difficulty in bending or squatting. Around 7.2% of those between 65 and 74 years old had difficulty in performing at least one daily activity (ADL, Activities of Daily Living) and the ratio surged to 20.2% for those over 75 years old.

In addition, around 26.4% of the elderly over 75 years old in Taiwan needed a stick as a walking aid. In terms of psychological and mental health, a survey on the stress condition of the elderly showed that the older the person, the less their stress is. However, females experience higher stress levels than males of the same age. The 2005 National Health Interview Survey found that around 20% of Taiwanese senior people met the definition of depression, with 17% of males and around 23% of females. As people grew older, their cognitive functionality became worse. Around 77% of the

Table 4-1 Major causes for death among children ages 1 to 14 between 2001 and 2006 (mortality rate per 100,000 people)

Sequence \ Year	2001	2002	2003	2004	2005	2006
1	Accidents and injuries (10.08)	Accidents and injuries (7.86)	Accidents and injuries (8.79)	Accidents and injuries (6.94)	Accidents and injuries (6.89)	Accidents and injuries (6.46)
2	Malignant neoplasm (3.26)	Malignant neoplasm (3.10)	Malignant neoplasm (3.34)	Malignant neoplasm (3.55)	Malignant neoplasm (2.98)	Malignant neoplasm (3.32)
3	Congenital anomaly (2.56)	Congenital anomaly (2.76)	Congenital anomaly (2.25)	Congenital anomaly (2.25)	Congenital anomaly (2.09)	Congenital anomaly (1.62)
4	Heart disease (0.70)	Heart disease (0.57)	Murder (0.63)	Heart disease (0.88)	Heart disease (0.66)	Murder (0.75)
5	Pneumonia (0.57)	Pneumonia (0.57)	Heart disease (0.60)	Pneumonia (0.66)	Pneumonia (0.66)	Heart disease (0.55)

Source: Statistics Office, Department of Health

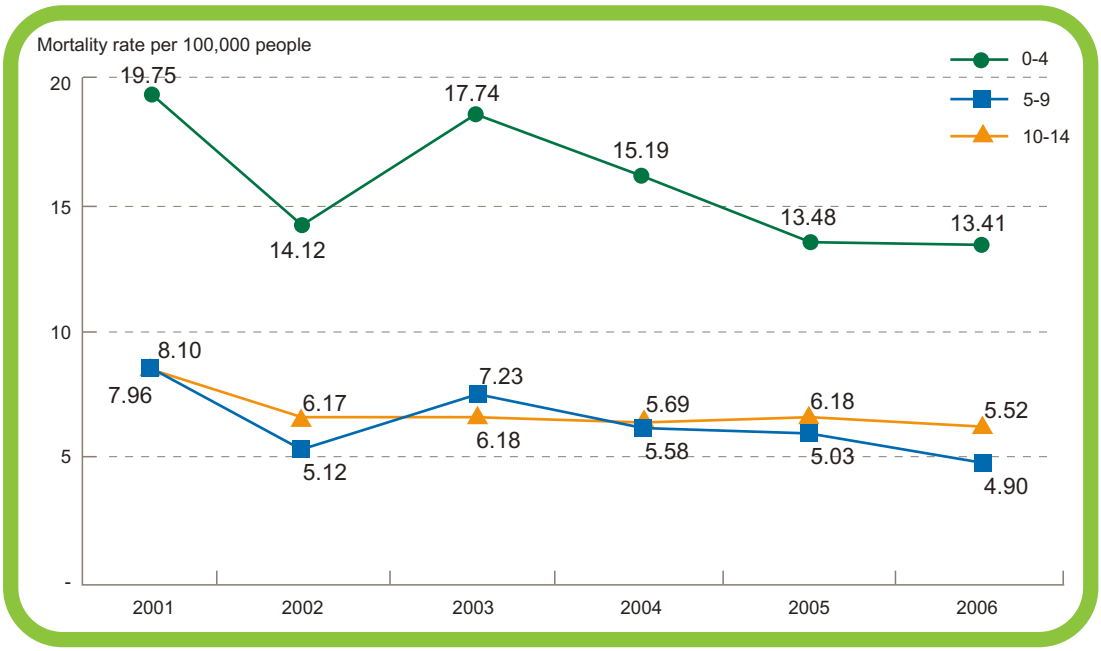


Figure: 4-13 Historical mortality rates for accidents and injuries for children ages 0 to 14 in Taiwan

Source: Statistics Office, Department of Health

Table 4-2 Major accidents that caused death among children, teenagers and youths below 24 years old in Taiwan in 2006

Sequence / Age (years old)	1	2	3	4	5
0-4	Traffic accident	Drowning	Fire	Fall	Poisoning
5-9	Traffic accident	Drowning	Fire	Fall	Poisoning
10-14	Traffic accident	Drowning	Fall	Fire	Poisoning
15-24	Traffic accident	Drowning	Fall	Poisoning	Fire

Source: Statistics Office, Department of Health

Table 4-3 Prevalence rate for accidents and injuries of children ages 0 to 12 seeking medical treatment in Taiwan in 2005 – by category

Category	Total	
	n=3,675	%
Fall	286	7.8
Traffic accident	53	1.4
Burn and scald	39	1.1
Sprain and strain	18	0.5
Choked by a toy, fish bone, and food	15	0.4
Cut	11	0.3
Scratch	9	0.2
Clamping injury	6	0.2
Trauma	6	0.2
Hit by a falling object	6	0.2
Food poisoning	5	0.1
Wrong medicine	3	0.1
Animal bite	2	0.1
Chemical agent burn	1	0.0
Smoke inhalation	0	0.0
Other	26	0.7

Source: 2005 National Health Interview Survey

elderly in Taiwan had normal cognitive ability; 18% had slight impairment; 5% had moderate impairment and less than 1% had serious impairment.

Because the aforementioned are risk factors of falls in the elderly, it implies the importance of falls prevention to face the challenge of a rapidly aging population.

Policy implementation results:

In light of the threat of accidents and injuries posed to our national health and in order to effectively guard against them, a nationwide registration and surveillance system for external causes for injuries was needed to collect information on accidents, injuries and epidemiology, so as to plan effective intervention strategies for prevention and evaluate the outcome of such strategies. Traffic accidents, falls, and children injuries in new immigrant family have been BHP's prevention priorities for the past few years, in particular.

1. Establishment of a nationwide registration and surveillance system for external causes of injuries

To understand the causes behind each injury, BHP collected fundamental information needed to monitor injuries, planned effective preventive strategies and methods, and continued to evaluate the outcome of injury prevention intervention programs to gradually establish a nationwide registration and surveillance system for external causes of injuries. As long as a code for external causes of injuries is added to emergency care filed for NHI, regional or higher-level hospitals are asked to add a code for external causes of injuries to their emergency care information through the hospital accreditation mechanism. The external cause accident registration system can automatically translate it to an external cause of injuries. It is expected that a nationwide registration and surveillance system for external causes of injuries will be established. Thirty-three regional or higher-level hospitals participated in the pilot program in 2007 with around 11,011 enrollments. Their epidemiological information was analyzed to serve as the basis for establishment of accident and injury prevention strategies.

2. Prioritized injury prevention

In terms of prevention of individual prioritized injuries, the intervention strategies so-called three Es, namely education, engineering, and enforcement, are often quoted. However, the efficacy of any single strategy is limited. Only when all the three elements are appropriately alternated with consolidation and promotion in communities can the result be successful.

(1) Reduction of roadway traffic accident casualties

Past intervention measures to reduce roadway traffic accidents have brought about significant results. The motor vehicle traffic accidents mortality rate has dropped to 20 from over 30 out of every 100,000 people. However, the reduction has not been able to continue after 2002. Reasons may include 1) Enforcement of the regulation that requires motorcyclists to wear a helmet has not been consolidated in some townships and 2) Efficacy of drunk-driving preventive DUI test is limited and 3) Roadway environments and road utilization have changed, e.g. increase in cyclists in urban areas, among others, which can keep traffic accident fatalities high. Besides continuing to reinforce existing roadway safety measures (helmet policy for motorcyclists and prevention of drunk driving), the following measures should be carried out as soon as possible.

a. Mandatory seat belts for people in the back seats of automobiles by legislation, encompasses legislation and enforcement (enforcement), promotion (education), and addition of seat belts in the back seats of automobiles (engineering).

b. Bicycle safety: To adapt to an era of energy-saving and CO2 emission reduction, the cycling population has been on the rise. Therefore, it is necessary to take care of bicycle lane planning and improvement (engineering), enforce helmets for cyclists (enforcement) and promotion (education). In addition, to enhance recreational safety in green corridors in communities for cyclists, schools, policemen and bicycle rental units must join hands and work together to reduce occurrence of cycling accidents and injuries.

c. Efforts from communities were combined to increase the helmet wearing rate from the original less than 5% to over 70%. In addition, a taxi call service proposal was introduced that required restaurants to call a taxi to take drunk customers to their next stop, which helped reduce the number of DUI cases.

(2) Decrease in falling accidents and deaths

The mortality rate of our children and teenagers aged 10 to 24 from falls increased to 0.88 people per 100,000 persons in 2006 from 0.67 in 2004 and the percentage is climbing. In addition, the standardized prevalence rate for elderly falls also surged to 20.5% in 2005 from 18.7% in 1999. Therefore, to ensure a safe household environment for children and prevent elderly falls, health and firefighting volunteers can be combined to comprehensively inspect household safety and carry out counseling services for more significant results.

a. Fall prevention at schools and in public areas: Fall prevention facilities (engineering) and management (enforcement) can be reinforced to enhance people's vigilance (education) in a highly fall-prone environment.

b. Improvement of the living environment
Floors can be designed and arranged to be skid-free and prevent falls or trips (engineering). Floors in institutions (hospitals, nursing homes, shelters) or business sites (hotels, restaurants) should be included as an item in safety inspections (enforcement). Floors in ordinary household settings should be improved with assistance through promotion (education). To build a safe household environment, local health authorities and community health building centers in 25 counties and cities conducted household safety inspections and environmental improvements for 12,293 families with children.

c. Prevention of elderly falls
Elderly fall prevention strategies were planned. The strategies center on life cycles and abide by the five action plans of the Ottawa Charter and were combined with the overall elderly health promotion strategies. The strategies consist of three levels and five periods.

(a) The "Elderly Multi-factorial Fall Prevention Intervention Model Development and Promotion" was consolidated and the "Elderly Fall Handling Standard Operation Manual" was established. The elderly fall risk scale was used to evaluate the risk of falls for the elderly and strengthen grassroots fall prevention services provided to the elderly. Based on the needs and risk factors of target groups, intervention was given to multiple factors, e.g. balance and gait training, muscle strength and endurance training, vision correction, medication adjustment, physical transfer movement training, elimination of environmental hazards, etc., in order to establish the Elderly Fall Prevention Management and Service Model in our nation.

(b) County and city governments and social groups were combined to organize elderly fall prevention, provide classes in communities through local volunteers and promote fall prevention education and tai chi teaching. A total of 71 community operation sites in the nation (in northern, central, southern, and eastern parts of Taiwan and offshore islands) and 2,426 people participated.

(c) Elderly and family/caregiver fall prevention education and training were given to enhance their knowledge and ability to prevent falls.

(3) Prevention and control of child injuries in new immigrant families

a. Survey on the safe care and accidents and injuries among children of new immigrants

(a) Interviewers accompanied by an interpreter interviewed mothers and completed 1,872 valid copies of the questionnaire.

(b) Interviewees were mostly from Vietnam (62.0%), followed sequentially by China (19.0%), Indonesia (12.2%), Cambodia (2.8%), the Philippines (1.4%), Thailand (1.0%), and other nations (1.5%).

(c) The survey found that falls were the most prevalent accident and injury among children of those interviewed in the past year at

65.2%, followed sequentially by trauma (including cuts, scratches, clamping, animal bites, and burns and scalds) at 50.4%, traffic accidents at 27.0%, and foreign substance obstruction at 10.8%.

b. Twelve Children Safe Care and Accident and Injury Prevention and Control Seminars and one accomplishments presentation ceremony were held to help prevent and control accidents and injuries among children in new immigrant families.

c. Media marketing was carried out to familiarize the general public with related knowledge and skills and 30 episodes in a series were produced to be played in broadcasted programs.

Section 5. Visual, hearing and oral health

Eyes, ears and the mouth are three of the five sense organs and are all indispensable in the assurance of life quality. These three senses develop gradually from birth and pre-school children are at the optimal stage for intervention. In addition, the loss of vision, hearing, and teeth in old age will all result in inconvenience in life and therefore, early prevention through screening and early treatment are crucial to these three senses.

I. Community visual health

Current status:

Myopia has been a major health problem for Taiwanese children. A 2006 nationwide survey shows that despite the fact that the prevalence rate for myopia among elementary school students (≧ -0.25D, that is, 25 degrees) has eased, high myopia (≧ -6.0D, 600 degrees) continues to be higher than that in other countries in Southeast Asia, Europe and America. (Table 4-4). In light of the fact that high myopia will increase the incidence rate of all kinds of ophthalmologic complications, myopia prevention and control for children in communities and their visual health should start with early screening in order to discover impaired vision among children early for referred treatment. On the other hand, as the population is aging and chronic diseases increase, elderly vision problems and eye diseases appear to be particularly important in visual health care and hence related care should be established as early as possible.

Policy implementation results:

Together with the Ministry of Education and the Ministry of the Interior, BHP promoted a pre-school children and students visual health program in order to reduce the myopia rate among students, avoid other eye diseases caused by early onset myopia, delay the age of students developing myopia, and prevent kindergarten and elementary school students from developing myopia. Meanwhile, through strabismus and amblyopia screening for pre-school children, subnormal vision can be detected early for referred treatment and correction to avoid permanently compromised vision.

To respond to the "Vision 2020--the right to sight" initiative of the World Health Organization and blindness prevention groups around the world that integrate international governmental, industrial, academic, and community resources to eliminate a majority of preventable eye diseases and avoid vision impairment or blindness by the year 2020,

Table 4-4 Status of high myopia in all regions

Region	Age	Prevalence rate %
Europe and America Countries	Whole population	2
Hong Kong (2006)	High school students	6
Singapore (2001)	University students	15
Taiwan (2006)	18 years old and above	16.8

it is necessary to provide communities with blindness preventive screening services to prevent vision impairment, delay aging of eye functions, and enhance vision related life quality and daily life management ability.

To carry out community visual health for children, middle-aged, and elderly people, screening services, environmental improvements, educational promotions, and research and training were provided for prevention and control. The results of related strategies and action items are described in the following:

1. Pre-school children eye care service: Pediatricians and family doctors conducted an examination of the eyes of children in the nine preventive health care services provided by BHP to children, which consisted of evaluation of the pupils, eye position and visual fixation.
2. Future prevention: The Visual Health Advisory Commission of BHP thinks that besides genetic reasons, environmental factors are also key to the development of myopia. In the future, prevention and control will be focused on developing care strategies for caregivers of pre-school students, including how to prevent myopia from worsening, and how to enhence health education of parents.
3. Information education integrated with eye protection knowledge: Through information education, parents were able to know the hazards of long-term use of computers. In light of the increasing popularity of computers percentage of myopia among children and teenagers increases. In order to minimize the myopia rate and avoid early onset myopia and complications of worsened vision, BHP worked with computer information professionals to combine information education with visual health concepts and knowledge for the first time and included visual health into the information program when community digital education was organized. Through the "Digital Phoenix Visual Health Program", 20 rounds of visual health courses were organized in northern, central, and southern parts of Taiwan, where 427 volunteer mothers participated in the training and a set of screen saver and eye protection equipment were developed and given away to the 600 care-givers in order for them to bring correct eye protection knowledge back home and educate their family to care for the health for their own vision.

4. Pre-school children screening service: For early discovery and early correction, BHP proactively promoted vision and strabismus and amblyopia screening services for pre-school children aged 4 to 5 in 25 counties and cities around the nation and reinforced follow-up on cases with subnormal vision and their correction. The visions of pre-school children are at the development stage and hence their vision problems must be treated as quickly as possible. If treated timely, their vision can still return to normal. About 344,787 children received the screening service in 2007 and 42,881 were found with abnormalities. The referral and follow-up rate for abnormal cases was as high as 99%.

5. Through cooperation among industry, government, and academia, a diversified health promotion platform was established. Child visual health promotion activities were disseminated through TV, radio broadcasts, newspapers and magazines and the Internet. To respond to the WHO campaign in which the second Thursday of October was set as World Sight Day, BHP and The Ophthalmological Society of Taiwan organized the "Healthy Eyes – National Eye Protection Movement" series of activities with related ophthalmologic associations and grassroots charity groups, including press conferences, "Take to the Mountains to Save Your Eyes" event and ophthalmologic free visits, eye protection workshops, among other promotional activities.

6. Two community visual health centers and nine community visual health service networks were established to provide vision screening services in remote and mountainous areas, and second opinion and consultation services for pre-school child strabismus and amblyopia and subnormal vision cases. Meanwhile community resources were combined to promote eye health promotion and care models that could ensure the health of children's eyes. Accomplishments of the 2007 community visual health centers and service networks included 112 rounds of eye disease screening at mountainous and remote areas, where 7400 people attended, 24 rounds of diabetes retinal examination with participation by 1,427 people, 160 rounds of visual health promotion participated by 13,840 people, 109 media promotion events, and 23 rounds of personnel training, where a total of 1,479 people attended.

II. Hearing health

Current status:

On average 26.89% of hospitals in Taiwan have newborn hearing screening services, which still falls short of meeting the recommendation of the U.S. Joint Committee on Infant Hearing that all newborns should receive hearing screening. The U.S federal government passed legislation that required comprehensive implementation of newborn hearing screening. By 2006, 95.7% of newborns in the U.S. received hearing screening. Related domestic and international studies show that around 3‰ of newborns have congenital bilateral hearing impairment, which if calculated by the 200,000 births each year in Taiwan, means that around 600 newborns have hearing impairment. If detected early and infant rehabilitation is carried out within six months after birth, these infants' future development and their average language ability by the age of three is nearly the same as that of a normal child. In addition, the incidence rate for preschool hearing impairment (including that caused by otitis media) is 2%. Therefore, to detect early and correct early, reinforcement of hearing care by enhancing the infant and children hearing screening rate in Taiwan is one of contemporary priorities.

Policy implementation results:

Despite the efficacy in the promotion of newborn hearing screening in Taiwan, the screening rate continues to be lower than that in the U.S. Therefore, it is necessary to establish regional hearing care resource centers, continue to promote newborn hearing screening to all grassroots healthcare facilities, consolidate the "Newborn Hearing Screening Website Registration and Hearing Screening Database System" and follow up with subsequent diagnostic confirmations and hearing rehabilitation arrangements. In addition, hearing

and language impairment integrated services for pre-school children must be reinforced to investigate early noise-induced hearing impairment among teenagers.

1. A pilot program for hearing care resource centers in southern and northern parts of Taiwan was promoted between 2006 and 2007 to help grassroots healthcare facilities get involved in newborn hearing screening. A total of 58 hospitals in 21 counties and cities provided the screening service. The screening rate was 63.0% (15,837/25,131) with 5.9% (937/15,837) of referral rate at discharge. The return rate was 70.3% (659/937).

2. A pilot program for hearing and language impairment integrated with screening, follow-up, and correction among pre-school children in remote areas was organized. About 4,558 children in 129 kindergartens in Taitung County were surveyed and results showed that 460 children were suspected as having a speech articulation disorder, among which 81.2% were determined by the language therapist to require follow-up correction after thorough evaluation.

3. The infant and children hearing screening consultation service program was organized. The lines 0800-800-832 and 0800-889-881 were set up with an average of around 223 people making inquiries each month and hearing health care promotion was also organized.

4. An early onset noise-induced hearing loss prevalence rate survey was carried out among school teenagers in junior and senior high schools in southern Taiwan. Results showed that 8.4% had unilateral or bilateral noise-induced hearing loss and 23.8% showed signs of changes in their hearing threshold as a result of noise. This will help future planning of health education policies in noise-induced hearing impairment.

5. A "Preschool Children Hearing Screening Promotion and Service Program" was organized and the screening subjects were children between three and four years old. Those who failed the preliminary screening would be referred to a hospital for a second screening and children confirmed with abnormalities would be followed up and corrected (Table 4-5).

Table 4-5 Results of "Preschool Children Hearing Screening Promotion and Service Program" between 2002 and 2007

Year	Number of children screened	Screening rate(%)	Failure rate in preliminary screening(%)	Second screening rate (%)	Verification rate(%)	Treated and corrected rate(%)
2002	66,470	30.3	4.8	87.0	19.8	96.5
2003	111,239	41.6	3.9	78.7	22.1	96.5
2004	150,315	50.3	3.0	95.6	20.7	87.7
2005	156,049	62.0	3.2	95.7	19.7	88.4
2006	154,214	64.2	3.9	97.6	21.6	95.4
2007	172,520	77.9	3.0	98.0	21.6	90.7

Note: 1. Screening rate = number of children screened / number of births
2. Second screening rate = Number of children in second screening / number of referrals
3. Verification rate = Number of abnormalities verified in second screening/number of children in second screening

III. Oral health

Current status:

Results of an oral health status survey show that the prevalence rate of tooth decay among Taiwanese children and teenagers had significantly dropped thanks to the promotion of related public health policies between 2001 and 2006. Nonetheless, the DMFT index (Decayed, Missing, Filled Teeth Index) for permanent teeth of children at 12 years of age in 2006 was 2.58, still far away from the less than 2 DMFT (WHO global goal by 2010) for 12-year-old children compared to other countries in the world (Table 4-6, Figure 4-14). On the other hand, in light of the fact that missing teeth and impaired teeth function caused by tooth decay, periodontal disease, and systemic diseases of middle-aged and elderly people will have a certain impact on their life quality. With the aging trend of Taiwanese population, the issue of oral health has also gradually gained prominence.

Policy implementation results:

The passage of the Oral Health Act in 2003 made our government more active in national oral health promotion related tasks and the "Phase-I Five-Year Program for National Oral Health" was enacted in 2006 in order to enhance our citizens' knowledge and skills in oral health, lower the prevalence rate of oral disease among our people, and hopefully achieve the oral health objective set by the WHO by 2010. Related strategies and their success are briefed in the following:

Table 4-6 DMFT index among 12-year-old children in different countries in the world

Country	Year	DMFT index for Permanent teeth
Taiwan	2006	2.58
U.S.	2004	1.19
Japan	2005	1.71
Korea	2006	2.2
Hong Kong	2001	0.8
Singapore	2002	1.0

Source: WHO data

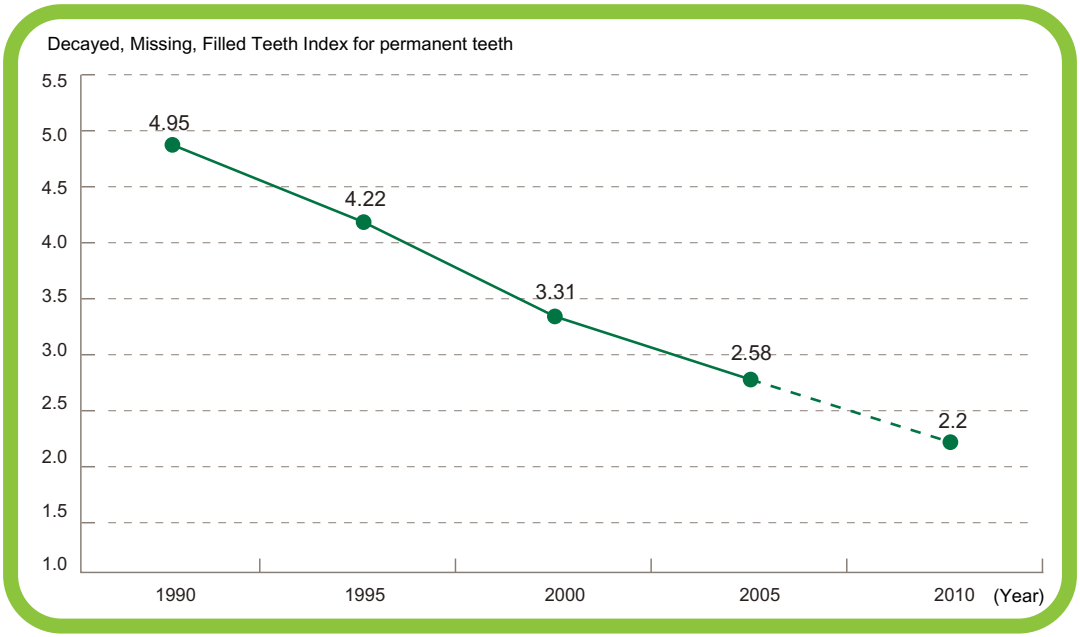


Figure 4-14 DMFT Index for permanent teeth among 12-year-old children in Taiwan (1990-2010)

1. Fluoride application of teeth for children under five years old

Fluoridation is considered by the WHO the most economic, safest, and most effective way to prevent tooth decay. International literature also points out that topical fluoridation for children can effectively decrease tooth decay by 28%. In light of the irreversibility of tooth decay and to effectively bring down the tooth decay rate among children, BHP provided children under five years old with free topical fluoridation service. A total of 200,000 people received the service in 2007 with a 10.5% utilization rate, a 1.5% increase from 2006.

2. Comprehensive fluoride mouth rinse program for school children

A total of 2,651 schools and 1.8 million students participated in the program in 25 counties and cities. The participation rate was 98.5%, among which all schools in remote and mountainous areas around the nation participated. In addition, BHP worked with dentist associations in counties and cities to help dentists visit the schools to monitor their implementation quality. Post-meal tooth brushing, decay prevention through fluoride, and oral health education were promoted at schools, too.

3. Periodontal condition survey

Academic institutions were commissioned to carry out the "Periodontal Condition and Health Behavioral Investigation and Study on People over 18 Years Old in Taiwan", which was the first large-scale periodontal condition investigation in the nation to understand the severity, oral health care habits, risk factors of periodontal disease in Taiwan and the rate of periodontal disease for people over 18 years old.

4. Periodontal disease and diabetes-related risk factors and clinical treatment intervention evaluation

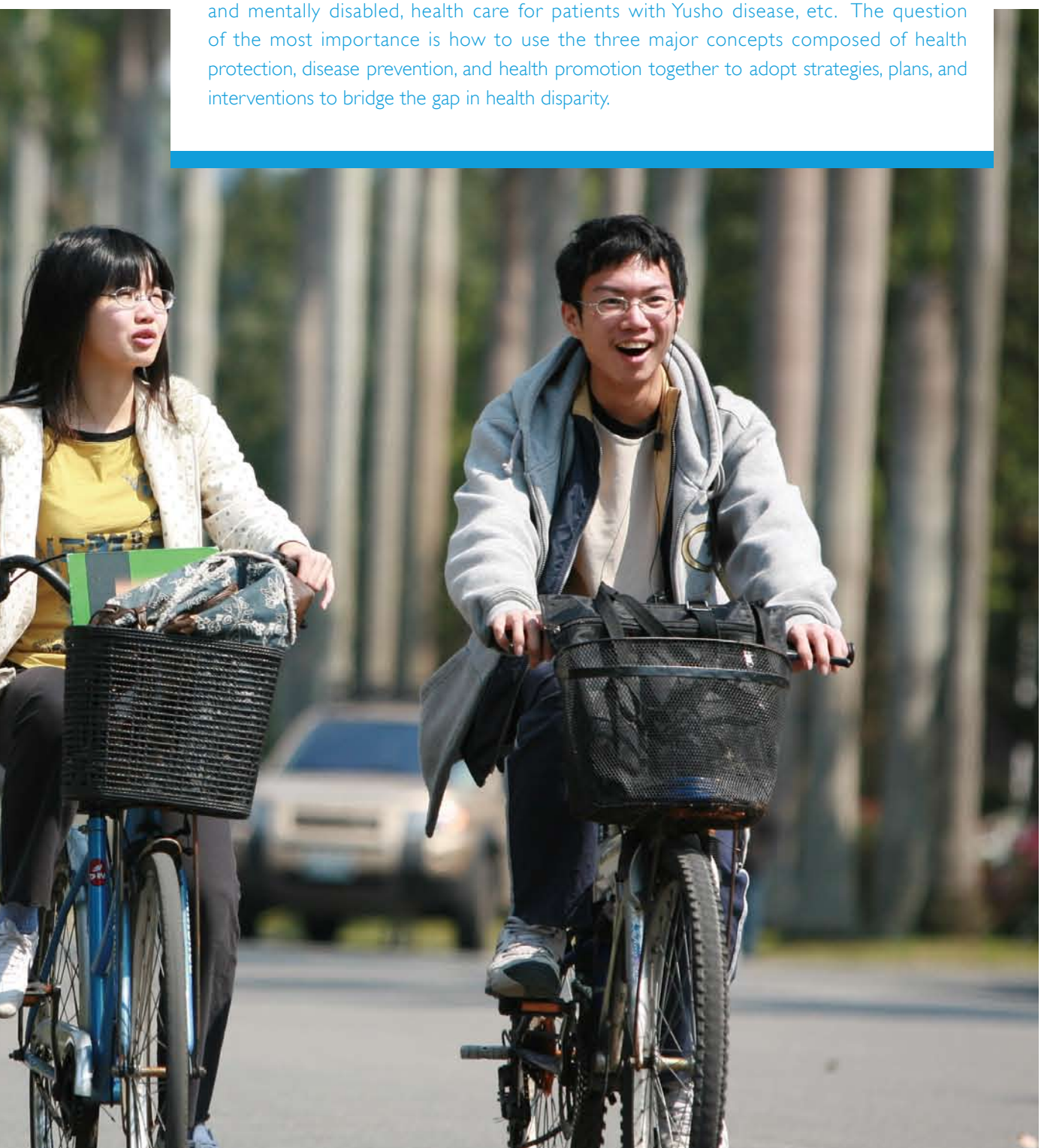
To explore periodontal disease and diabetes and other related risk factors, academic institutions were commissioned to carry out the "Study of a Prevention and Control Model that Combines Diabetes and Periodontal Disease." Through adjustment, risk factors that are related to diseases like gum disease and diabetes were analyzed and patients with high blood glucose and diabetes after the screening were further enrolled in the periodontal disease clinical treatment intervention evaluation.

5. The review of the draft of the Five-Year Program for Oral Health of People with Disability by the Committee on Dental Medicine.

Bridging the Gap in Health Disparities

WHO mentioned health equality in The World Health Report 1998, which brings up equity issues like gender, race, poverty, etc. More and more evidence based results have shown that there should be diverse approaches and patterns toward health risk factors and associated disease prevention behaviors towards people with different gender, races, income levels, and physical and mental disabilities.

Special health demands and unequal social status for women or minorities cause special health issues, such as breast cancer, cervical cancer, hormone therapy related to menopause, osteoporosis, and incontinence for women. For minorities, such issues include prenatal examinations for foreign spouses, insufficient attendance rate for children's preventive health examinations, difficulties to obtain medical information and poor accessibility, difficulties in obtaining therapeutic drugs for rare disease patients, oral health problems for the physically and mentally disabled, health care for patients with Yusho disease, etc. The question of the most importance is how to use the three major concepts composed of health protection, disease prevention, and health promotion together to adopt strategies, plans, and interventions to bridge the gap in health disparity.



Section 1. Women's health

In the World Health Report 1998 – Life in the 21st Century of WHO, health equality was mentioned and issues like gender, race, and poverty were given equal emphasis (1998). In 2002, a gender policy was approved and the Department of Gender and Women's Health was established in order to promote worldwide knowledge of, and attention to, the influence of society and culture on women's physical and mental health. In response to the concept of gender mainstreaming of the United Nations and health equality of the World Health Organization, BHP promoted and established a new women's health policy. This policy was established through bottom-up extensive participation with inclusion of opinions from grassroots women and guidance and interaction with three sessions of the Commission on Women's Rights Promotion in total. It is hoped that through execution and consolidation of this draft, the health disparities as a result of discrimination and bias toward women from traditional society can be resolved and the basic idea of equal participation for joint governance and joint decision making can be consolidated.

I. Reproductive health

Current status:

The average age of women giving first birth has risen from 23 years old in 1980 to 28.5 years old in 2007. The trend for late pregnancy is obvious. In addition, the maternal mortality rate in 2007 was 6.8 out of every 100,000 live births. According to the 8th Women's Health, Family and Fertility Survey in 1998, 28.6% of married women, aged 20 to 59, have undergone induced abortion and the average number of abortions was 0.1. For unmarried women of the same age group, it was 5.8% and 0.1. The ratio of abortions increased with age. Although surveys show that teenage girls have lesser sexual experience than boys, the percentage has increased from 6.7% in 1995 to 10.4% in 2000, which poses a cause for concern. On the other hand, the percentage for teenage girls aged 15 to 19 giving birth dropped to 5.6‰ in 2005 from 17‰ in 1994.

Policy implementation results:

1. Establishment of systemic reproductive health services

(1) Prenatal examinations for pregnant women

Ten prenatal examination services are available through affiliated national health insurance healthcare facilities in order to detect complications that may occur at any point of the pregnancy as early as possible and to ensure the health of both pregnant women and their fetuses. Since 2001, when the services became available, the utilization rate has been maintained at over 90%, among which around 40% are done in grassroots clinics. The others are carried out in medical centers, regional hospitals and local hospitals. The rate in 2007 reached 97.1%.

(2) Comprehensive genetic services

With reference to experiences in advanced countries, the idea of preventive medicine has been integrated in genetic services in the field of public health and primary prevention, prevention through reproductive options or secondary prevention. Among other preventive and control measures, planned checkups and proper consultation and treatment are provided from before marriage, pregnancy and delivery to infancy and even adulthood to enable early diagnosis and treatment and further minimize the chance of congenital abnormalities. The prevention and control network for related hereditary diseases is shown in Figure 5-1. Results in the promotion of genetic services during the child-bearing stage are explained in the following.

a. Thalassemia screening for pregnant women: If blood tests show abnormality during a prenatal examination, the spouse will be examined, too. If both appear to be abnormal, the blood

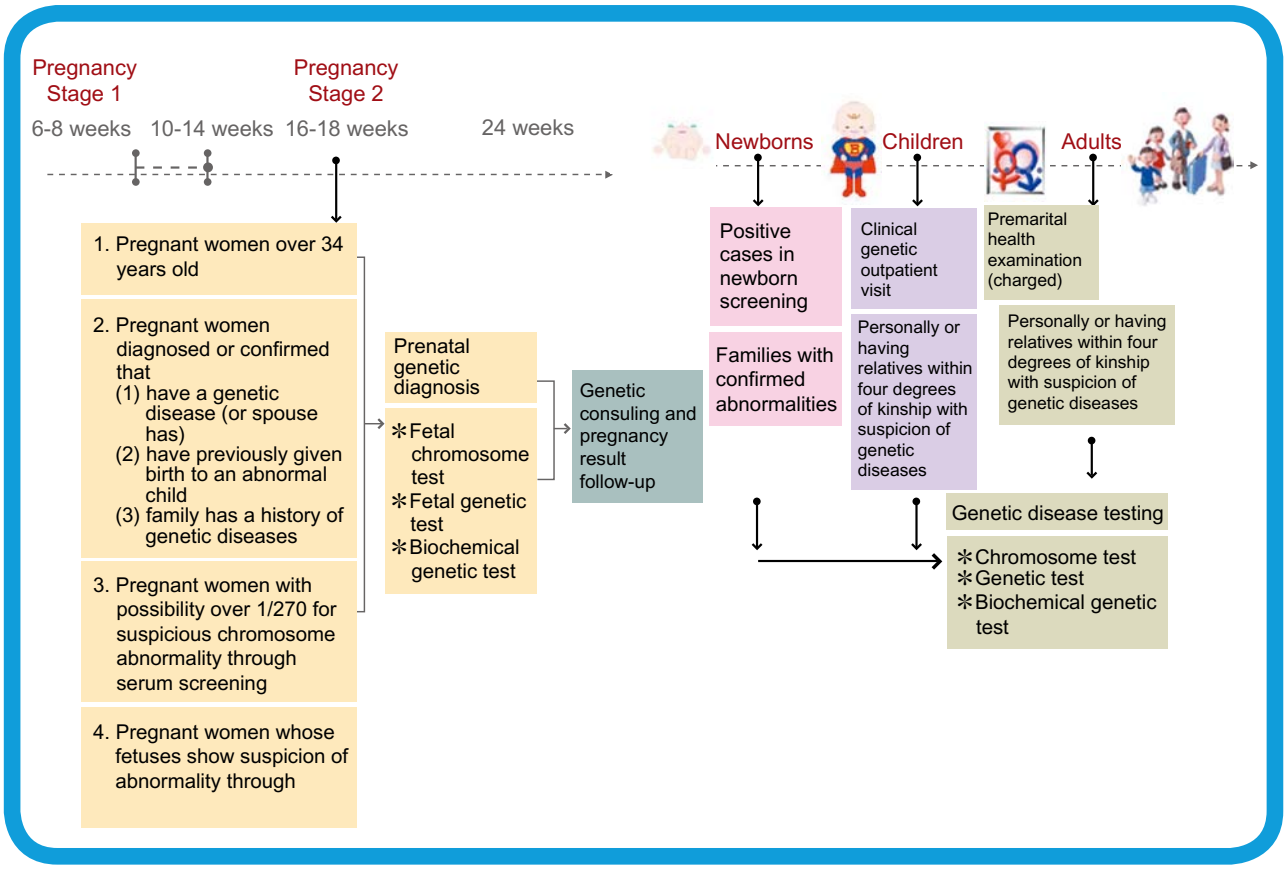


Figure 5-1 Prevention and control network for genetic diseases

samples will be sent to one of the six genetic laboratories approved by the Department of Health for verification. Once both husband and wife are confirmed to be alpha or beta thalassemia carriers, villi or amniotic fluid or fetus cord blood will be collected during pregnancy if necessary for prenatal genetic diagnosis. Last year there were 936 people receiving thalassemia screening and 325 fetuses receiving gentic diagnosis, for which appropriate prenatal care was provided according to the mothers wishes.

b. Prenatal genetic diagnosis for high risk pregnant women: In compliance with the Reduction and Exemption or Subsidy for the Fees of Genetic Health Measures, the prenatal genetic disease examination fees for high risk pregnant women (over 34 years old with abnormality found in current pregnancy or past pregnancies or with history in her or her spouse's family) were waived or subsidized.

In 2007, a total of 32,073 people were subsidized, among which 22,737 pregnant women over the age of 34 received prenatal genetic disease examinations. The examination rate was around 87.3% (Figure 5-2). A total of 775 people were found through this service with abnormalities in 2007, accounting for 2.45% of the total number of people receiving the service in the same year, among which the abnormality rate for two indications, women of advanced maternal age and women with abnormal serum test result in the 4th to 6th month of pregnancy, was the highest (Table 5-1). In order to provide maternal women with appropriate care at appropriate times, cases with abnormal test results were followed immediately by sample collecting healthcare facilities or public health systems. Consultation was given or they were referred to genetic consulting centers or related facilities for treatment.

c. Child-bearing-related genetic disease examination and genetic consulting: Genetic disease examination and consulting were provided to people with genetic diseases that might compromise healthy births and

Table 5-1 Analysis of indications subsidized for genetic disease prenatal genetic diagnosis in 2007

Indication	Number of persons	%
Advanced maternal age	22,737	70.9
Pregnant women with abnormal serum test results (four to six months pregnant)	4,621	14.4
Abnormal ultrasound image	3,112	9.7
Abnormal serum test results (0 to three months pregnant)	481	1.5
Possibility of giving birth to a congenital anomaly this time	385	1.2
Family history of abnormality	353	1.1
Past births of congenital anomalies	192	0.6
Neural tube defect or elevated MS-AFP	160	0.5
Parents with chromosome balanced rearrangements	32	0.1
Total	32,073	100.0

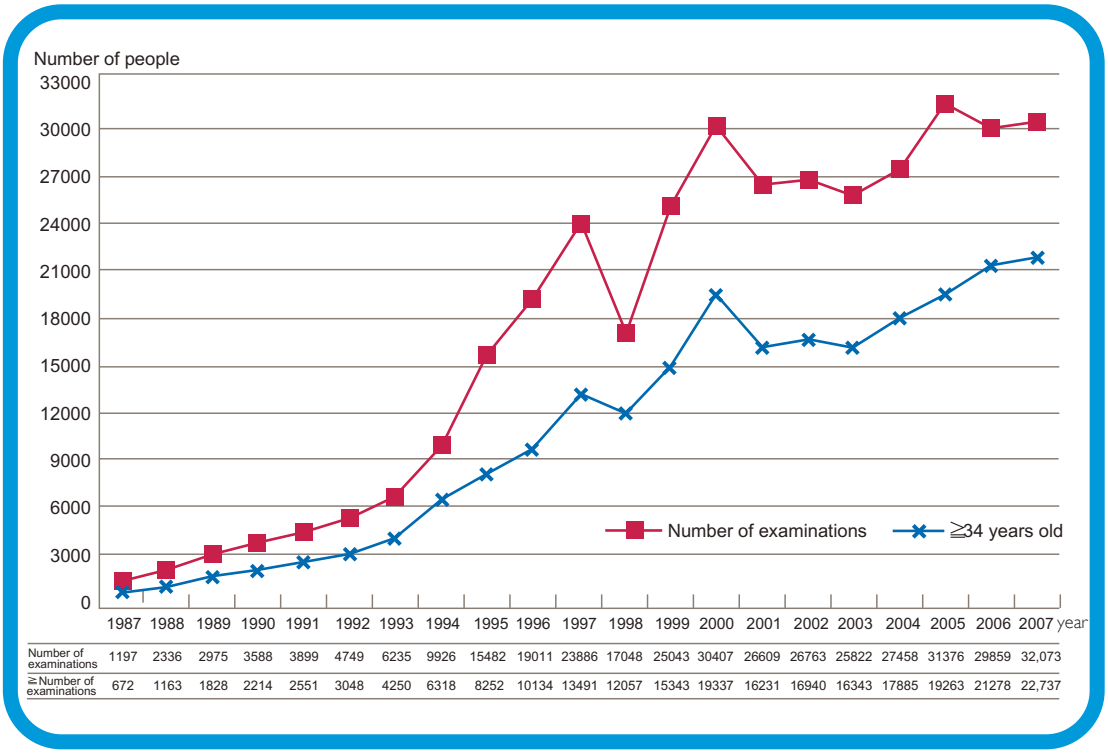


Figure 5-2 Statistics of genetic disease prenatal genetic diagnoses subsidized between 1987 and 2007

Note: including cases subsidized in Taipei and Kaohsiung

their family, and to newborns with abnormal congenital metabolic disease screening results and suspected of genetic diseases. In 2007, 11,749 people received examinations, among which 3,157 were found with glucose-6-phosphate dehydrogenase (G6PD), 489 were found with chromosome abnormality, 715 were thalassemia carriers, and 110 were found with other abnormalities.

2. Normalization of healthy birth regulatory laws and systems

(1) Establishment of the Artificial Reproduction Act

In 1985 the first test tube baby was born in our country, which brought hope that infertile people can still have children. To ensure the correct application and development of this assisted reproductive technology and protect rights of infertile couples, children artificially reproduced and donors, the Artificial Reproduction Act was announced and enacted on March 21st 2007 and related guidelines like the "Regulations for Query on Kinship of Artificial Reproduction Children", "Regulations for Artificial Reproduction Institution Permit", "Regulations for Verification on Kinship of Sperm/Oocyte Donors and Receptors", "Regulations for Artificial Reproduction Information Notification and Administration" were announced one after another and 72 artificial reproduction institutions were approved.

(2) Proposal of Genetic Health Act Amendment Draft

To promote reproductive health and ensure health and safety of pregnant women and their fetuses, amendment of the Genetic Health Act began in 2000 and the name of the Act was changed to the "Reproductive Health Act", to which genetic preventive services requirements were added. It was established in the Act that healthcare facilities should provide pregnant women with consultation services and the induced abortion regulations were amended. The Amendment was sent to the Legislative Yuan for review on October 20th 2006.

(3) Construction of birth friendly and supportive environments

The National College of Nursing was authorized in 2007 to conduct a "friendly childbirth program for women". This child-birth plan was established and provided pregnant women with greater delivery options. The program was piloted in seven hospitals. The child-birth plan served as the communication platform between the medical staff and pregnant women to create possible delivery experiences for women and enable them to take part in the medical decision-making process. The "Breastfeeding Community Support Network Construction Program" has continued to be promoted, where business owners were invited to take part in the creation of favorable breastfeeding environments and help reduce anxiety of working women by enabling them to take care of both work and their babies.

(4) Provision of termination of pregnancy consultation services

In the "Building a Counseling Model and Mechanism of Induced Abortion" program conducted by the National College of Nursing between 2005 and 2006, termination of pregnancy consultation services were piloted in seven hospitals in Taipei County and City and Hsinchu County and City. Based on the experiences obtained in the training of medical staff, social workers and psychology consultants as well as consultation services provided to 273 pregnant women before and after induced abortion, the program of building a package of measures for an induced abortion counseling mechanism and resource integration and application model was continued in 2007, in which the consultation mechanism and work flow for induced abortion adopted in healthcare facilities of different levels were amended; an operation manual was developed; indicators and related training programs were established; and a resource network and referral system were configured to be referenced by piloting healthcare facilities in the future.

3. Enhancement of child-bearing health service quality

To ensure good quality prenatal genetic disease examination institutions, BHP follows the "Guidelines for the Evaluation of Genetic Disease Examination Institutions" to carry out evaluation on examination institutions on a regular basis. Those having passed the evaluation must receive subsequent evaluations every three years. A total of 26 clinical cytogenetics test institutions and 17 genetic laboratories were approved by BHP in 2007. In addition, Guidelines for Accreditation of Genetic Consulting Centers were established to be followed in the accreditation of and periodical evaluation on genetic consulting centers in the nation in order to ensure quality of genetic consulting, diagnosis, and treatment, and maintain child-bearing health.

II. Female menopausal health care

Current status:

The average natural menopausal age for Taiwanese women is 49.3±3.8 years old. At present, middle-aged women aged between 45 and 64 years old occupy 8.72% of the total population. As society ages, the average life expectancy of our women has reached 81.9 years old. A majority of women spend one-third of their lifetime post-menopause. This has added to the importance of establishing a positive attitude and behavior by providing menopausal women with correct health information.

Policy implementation results:

1. To provide menopausal women with considerate services, the "0800-00-5107" (Ring! Ring! I Want Youth!) direct line was set up to answer menopause-related questions (Figure 5-3). A total of 9,386 persons received the consultation service, who primarily asked physiological questions (38.4%) and referrals (31.9%) (Figure 5-4) and 119 consultants completed training and provided online services.
2. On Mother's Day, World Osteoporosis Day, and other important holidays, related news information on menopausal topics like osteoporosis and incontinence was published.
3. A round of menopausal care workshop was organized in northern, central, southern, and eastern parts of Taiwan, respectively, to enrich knowledge and skills of local personnel in menopausal health care and care work. Furthermore, a series of nationwide media was implemented to promote positive life attitude about menopause and care and respect for menopausal women.
4. The public health bureaus in counties and cities were subsidized to integrate local resources with the program of incontinence prevention and control in the communities and to enhance women's knowledge and skills regarding relevant problems.
5. A "Women's Incontinence and Pelvic Health Curricular Model and Teaching Materials Program" was organized, in which systematic teaching materials were developed to strengthen the efficacy of health education about female pelvic health, so as to assist women to reinforce their self health care knowledge and skills and their ability to practice a healthy lifestyle.

III. Cancer prevention and control for women

Current status:

The average life expectancy for Taiwanese women in 2007 was 81.9 years, 6.8 years older than that of Taiwanese men. The female population, 11,317,206, accounts for 49% of the total population in Taiwan and the causes for death between men and women vary in ranking. Malignant neoplasm was the No. 1 cause of death for women in 2007, followed by heart disease, diabetes, cerebrovascular disease,

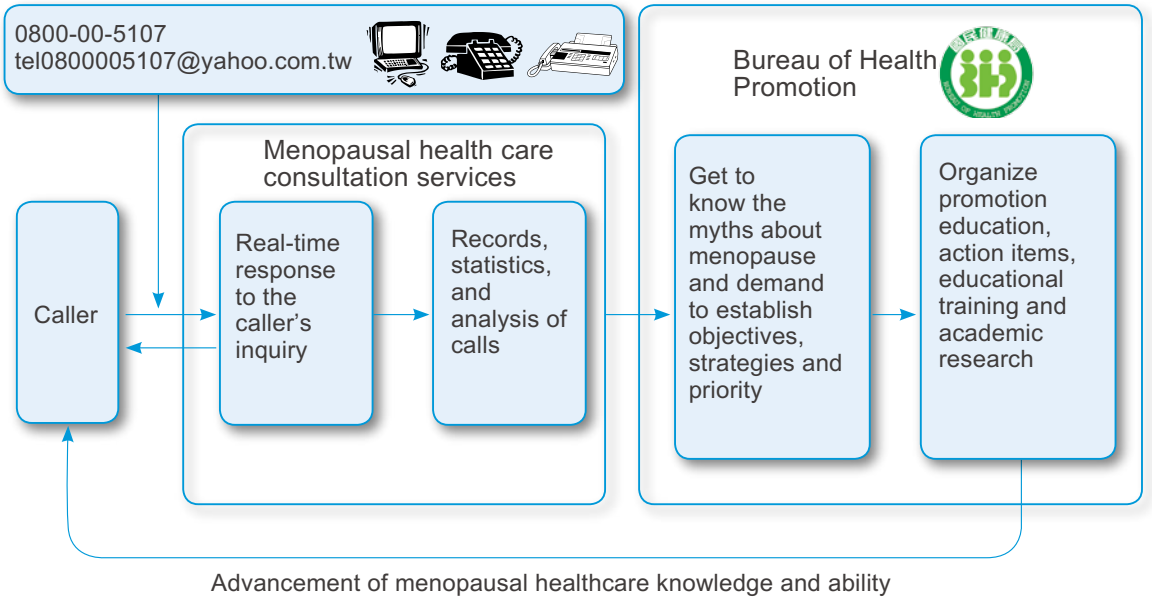


Figure 5-3 Menopausal health care consultation services conceptual framework

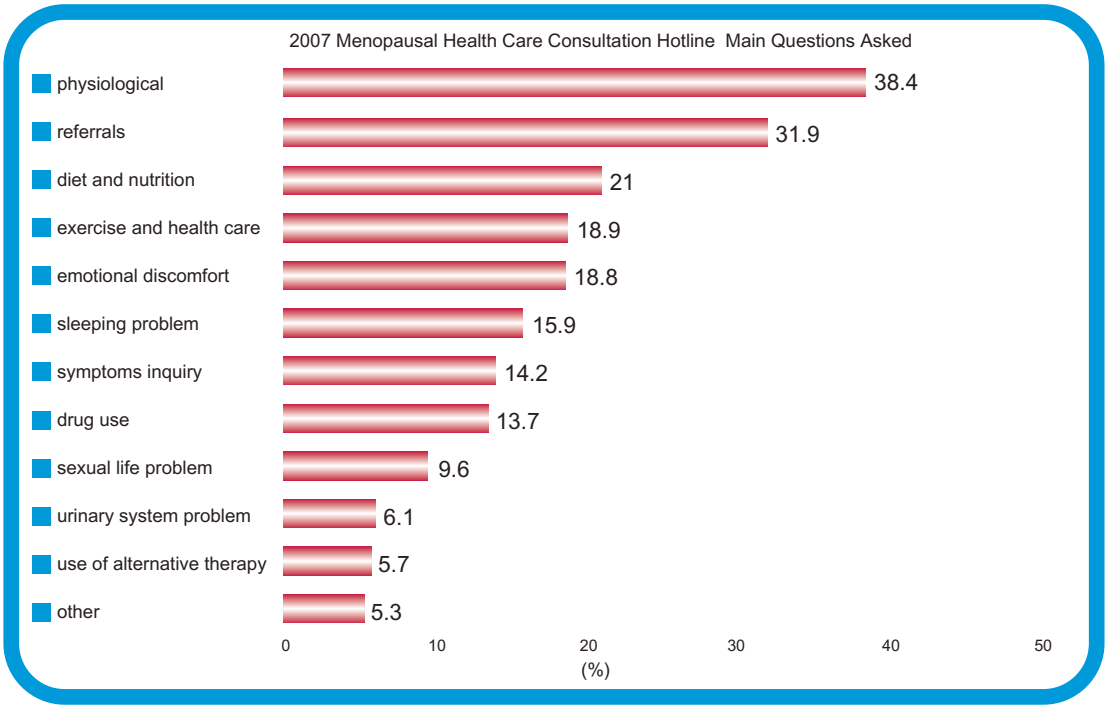


Figure 5-4 Main questions asked during 2007 menopausal health care consultations through the hotline

Table 5-2 Percentage of women having received Pap smear and mammography screening

Year	Percentage of women over 30 years old having received Pap smear (%)	Percentage of women aged 50 to 69 having received mammography (%)
2002	68	0.4
2003	71	2.8
2004	74	4.9
2005	76	7.4
2006	78	11.5
2007	79	15.5

Source: BHP statistics

nephritis, nephritic syndrome, and nephropathy. The major cancer causes of death for females were sequentially lung cancer (17.5%), liver cancer (14.9%), colorectal cancer (13.2%), female breast cancer (10.7%), stomach cancer (5.8%), and cervical cancer (5.7%). By end of 2007 there were still nearly 21% of women over 30 years old who had not received Pap smears (Table 5-2) and only 15.5% of women aged 50 to 69 had undergone mammography.

Policy implementation results:

To reduce the mortality rate from cervical cancer and breast cancer, NHI provides women over 30 years old with one Pap smear a year. In July 2002, the two stage breast cancer screening program for women aged 50 to 69 was piloted, in which high risk groups were screened through questionnaire first and then referred to receive mammography. Effective from July 2004, women ages 50 to 69 were covered by NHI with one mammography once every two years in order to minimize the threat of cancer to women's health. In response to the diversified micro-adjustment of NHI, preventive Pap smear and mammography were changed to be financed by BHP with appropriations from the public budget.

A 2007 telephone survey showed that 79% of women over 30 years old had received Pap smear in the past and 15.5% of women aged 50 to 69 have undergone mammography. After the HPV vaccine was approved and marketed in October 2006, in light of the insufficient knowledge of the public on human papillomavirus (HPV) and its vaccine, BHP started to reinforce health education in order to enhance public knowledge (Figure 5-5) so that people can choose freely whether or not to purchase the vaccine with their own money.

Section 2. Health of minorities

I. Reproductive health care for foreign spouses

Current status:

By the end of 2007, the number of foreign and mainland Chinese spouses had reached 399,000, among which 136,000 were foreign spouses, accounting for 34.2% and 262,000 were from mainland China, Macau and Hong Kong, accounting for 65.8%. The number of births from this source reached 10.2% of the total births in 2007 (Figure 5-6). By the end of 2007, foreign spouses with valid alien registration by nationality were primarily Vietnamese (61.5%), followed by Indonesians (20.4%) and then Thais

Figure 5-5 Human Papillomavirus and Cervical Cancer Health Education Pamphlet

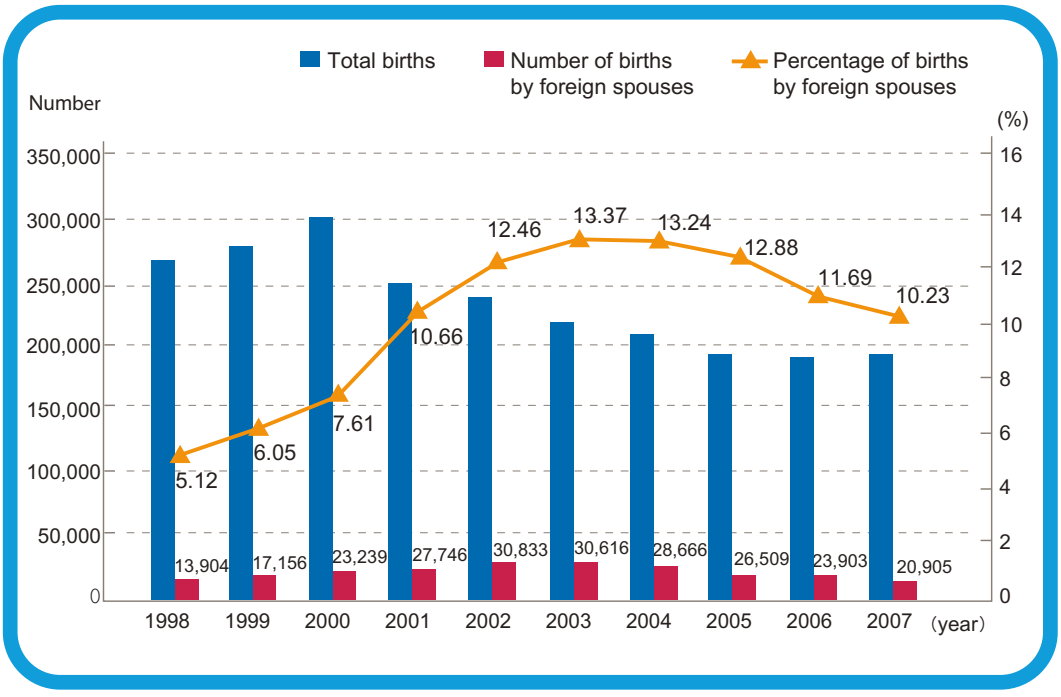


Figure 5-6 Structural analysis of births given by female foreign spouses and mainland Chinese spouses

(4.9%) (Figure 5-7). Studies found that both the marriage age and age at first child birth of foreign and Chinese spouses were lower than those of Taiwanese women. However, due to their socioeconomic status, language and cultural barriers, they tend to experience insufficient access to prenatal examinations and child health examinations, facing difficulties in obtaining medical information and in seeking medical care.

Policy implementation results:

Under globalization and internationalization, cross-national immigration has become a common phenomenon. International marriages encompass not only possible adaptability issue but also potential risks like unhealthy births and education problems as a result of differences in culture and age as well as language barriers. And this kind of phenomenon is not just a family problem. It is also the responsibility of society. Therefore, it is necessary to include this sector in health management. As such, BHP brought a "Foreign Spouse Childbirth Health Management Program" into practice in 2003, for which the following health management objectives were established:

1. To construct a complete healthy child-bearing environment,
2. To prevent congenital defects and premature births, and
3. To promote and maintain health of foreign spouses and their children.

In order to achieve the foregoing objectives, reproductive health management for foreign spouses was proactively implemented with the following accomplishments.

Analysis of original nationality of foreign spouses (Unit: %)

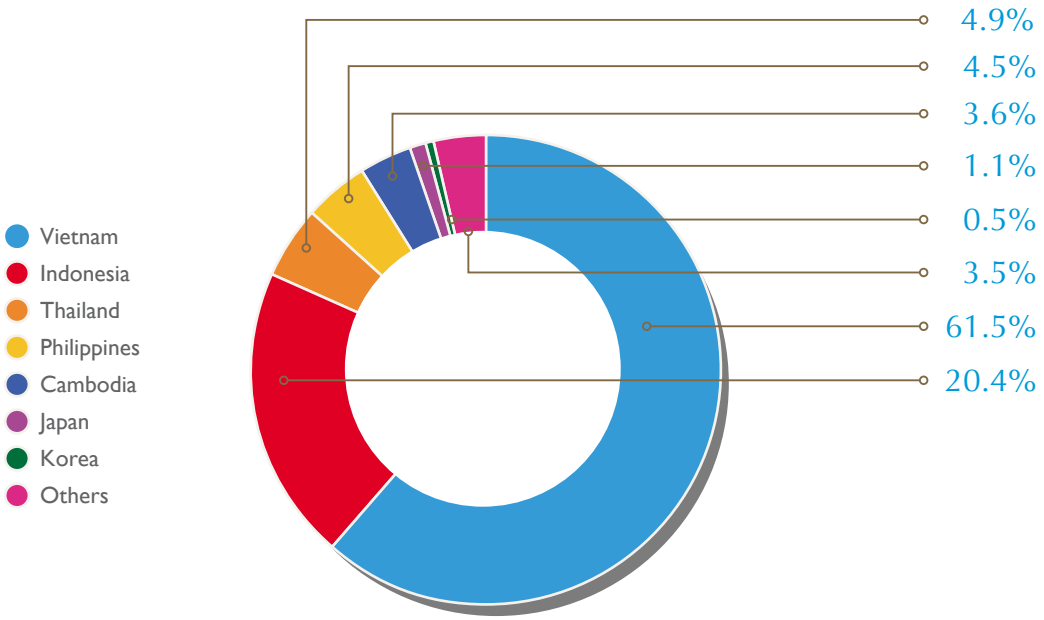


Figure 5-7 Original nationality distribution for female foreign spouses (excluding mainland Chinese spouses)

Source: Statistics Office, Ministry of the Interior

1. Consolidation of card management and reproductive health instructions

In light of the fact that nearly half of all foreign spouses and mainland Chinese spouses become pregnant soon after they get married and enter Taiwan and all the family and social problems associated with foreign and mainland Chinese spouses, BHP established a "Foreign Spouse Childbirth Health Management Program" in 2003 targeting foreign spouses of child-bearing age (15 to 44 years old) and mandated that health authorities in counties and cities actively key in health cards for foreign and mainland Chinese spouses and their children in order to provide them with family planning, prenatal, and postnatal genetic health care and disease prevention measures, among other health management, and follow up on abnormal cases to enable early discovery of abnormality and early referral for treatment. The card execution rate for foreign spouses in 2007 was 98.8% and that for mainland Chinese spouses was 99.3%.

2. Organization of health education interpreter training courses

To reduce the difficulties for foreign spouses newly admitted to the country in seeking medical treatment due to language barriers, a "Program to Train Volunteers in the Assistance of Promoting Foreign Spouse Childbirth Health Care Services" was organized in 2004 to train foreign spouse childbirth health care interpreters to accompany staff from local health departments on visits to the homes of foreign spouses and on outpatient visits.

Through the "Foreign Spouse Childbirth Health Care Interpreter Operation Regulations and Training Materials Application" workshop organized in 2006, 63 seed teachers successfully completed the trainging. Later, health departments in counties and cities trained locally recruited foreign spouses, for which the Fund to Care for Foreign Spouses of R.O.C. Citizens of the Ministry of the Interior approved in 2006 to appropriate interpretation subsidies for a period of three years. By the end of 2007, there were already 18 counties and cities signing up for the subsidies.

3. Organization of prenatal examinations and contraception medical subsidies

To provide foreign spouses just admitted to the country without enrollment in NHI with complete reproductive medical care, the Fund to Care for Foreign Spouses of R.O.C. of the Ministry of the Interior approved in 2005 to fully subsidize prenatal examination and contraception service costs for foreign spouses before they complete household registration and health insurance in Taiwan. In 2007 a total of 9,842 persons were subsidized with pre-registration and pre-enrollment prenatal examinations; 866 people were implanted with an intrauterine device; 251 females and 6 males underwent ligation.

4. Development and publication of health education materials in multiple languages

To overcome the language barriers of foreign spouses, childbirth health care materials were developed in multiple languages to enhance self-care abilities of foreign spouses through diversified information communication. In 2007 a foreign spouse childbirth health care series of films were made in five different foreign languages and the "Maternal Health Handbook" and "Child Health Handbook" were translated. In addition, the "Foreign Spouse Childbirth Health Care Useful Glossary Handbook", "Manual for Raising a Child", and the "Health for Child-raising DVD" were edited and printed in Vietnamese, Thai, Indonesian, English, and Cambodian, to be referenced.

II. Prevention and control of rare diseases

Current status:

A total of 3,026 cases of rare diseases were reported between the end of August 2000 and the end of 2007. Because the number of cases for rare diseases is small, there is not enough market incentive for the production of their drugs. Under the operation of the free market mechanism, the manufacturer does not have an incentive to produce, import, and distribute drugs for rare diseases and this has caused difficulties for patients with rare diseases in obtaining necessary treatment drugs.

Policy implementation results:

Patients with rare diseases have different problems and demands in medical care and social adaptation. The drugs and special nutrients they need are produced in low quantities and are often expensive. Therefore, long-term medical expenses are a heavy burden to both the patients and their families. To prevent rare diseases from occurring, facilitate early diagnosis of rare diseases, enhance care provided to patients with rare diseases, and assist patients in obtaining suitable rare disease drugs and the special nutrients they need to maintain their lives, the "Rare Disease Control and Orphan Drug Act" was announced and enacted in 2000, making our country the fifth in the world to protect patients with rare diseases through legislation. Related services and measures were provided in compliance with the Act.

1. Assistance to patients with rare diseases in obtaining proper medical services

(1) Protection of rights of patients with rare diseases to seek medical treatment

Since September 2002, announced rare diseases have been included in NHI coverage for major diseases and injuries whose co-payment can be waived. This solved the difficulties for these patients to seek medical treatment. In addition, for diagnosis, treatment, and drug cost for rare diseases that are not covered under the National Health Insurance Act, Article 33 of the Rare Disease Control and Orphan Drug Act is followed and BHP will appropriate budget as subsidies.

(2) Establishment of the Committee for the Review of Rare Diseases and Orphan Drugs

By end of December 2007, 164 rare diseases, lists of drugs for 81 rare diseases and their indications, special nutrient supplements for 40 rare diseases and their indications have been reviewed, established, and announced and medical cases to be subsidized have been reviewed.

2. Construction of complete medical service networks for genetic and rare diseases

(1) Establishment of a logistics center for rare disease special nutrient supplements and drugs (Figure 5-8)

Twenty-nine items were reserved and supplied in 2007 to 17 hospitals and used in 285 patients with rare diseases. The subsidized budget reached over NT$27.4 million. In addition, 10 items of emergency drugs for patients with rare diseases were reserved and supplied to hospitals for diagnostics and treatment. In 2007 eight patients used these drugs and the budget subsidized was NT$350,000.

(2) Establishment of rare diseases reporting database and single-window inquiry services

By the end of 2007, a total of 3,026 cases of rare diseases had been reported from hospitals and genetic consultating centers were established in northern, central, southern, and eastern parts of Taiwan (10 medical centers) to provide necessary assistance.

(3) Providing international medical laboratory referral services for rare disease cases

Figure 5-8 Online logistics center for rare diseases

Figure 5-9 Huntington's disease care manual

Information in Taiwan about referrals of samples to international laboratories was integrated and established to provide international medical collaboration channels for rare diseases. The government and the Taiwan Foundation for Rare Disorders subsidized 40% of the referral test costs, respectively. Between 2000 and 2007, a total of 273 cases were subsidized. In addition, rapid review principles for 12 rare diseases were formulated to shorten the review process for international laboratory referrals.

3. Organization of rare disease prevention and control promotion

Campus workshops were organized and a collection of academic theses on "genetic health care and prevention and control of rare diseases" and parent manuals for Huntington's disease and osteogenesis imperfecta were edited and printed. Meanwhile leaflets on rare diseases and disease care manuals have been developed on a yearly basis (Figure 5-9) for those needed.

III. Oral health for people with disabilities

Current status:

By the end of 2007, there were 1,020,760 people with disabilities in Taiwan, accounting for 4.4% of the total population, among which 590,000 were males, higher than the 430,000 females. A total of 704 people had disabilities caused by rare diseases. According to a nationwide survey in 2004, the oral health of people with disabilities was generally worse than that of ordinary people and their common oral health problems were lack of medical attention, bad oral hygiene, insufficient tooth cleaning and lack of intervention with preventive health care.

Policy implementation results:

Thirty years ago in Japan, Europe and the USA, the oral health status of the disabled was also worse than those of the same age group and it was even common for disabled persons to lose all of their teeth. However, with efforts from the government and grassroots organizations, oral care programs were promoted and good medical systems were established to greatly improve the oral health

of the disabled. The oral health of people with disabilities surpassed that of the same age group. In light of successful examples in those advanced countries in the support of the disabled through promotion of preventive health care and early intervention, BHP has continued to promote the "Oral Preventive Health Service Program for People with Disabilities", "Fluoridation Anti-Cavities Program for the Disabled" and "Fluoride Mouth Rinsing Programs for Prevention of Dental Cavities for Disabled Elementary School Children" since 2006 with the hope of establishing a service model for use of fluorides for people with disabilities in Taiwan and to improve the oral health of people with disabilities through a service network consisting of dentists, health educators, social workers, and parents groups.

1. The Oral Preventive Health Service Program for People with Disabilities was organized to teach caregivers how to help the disabled clean their teeth and increase knowledge of oral care. A total of 144 dentists and 902 healthcare personnel were trained to provide people with disabilities with oral preventive care. One hundred sessions of oral preventive care services were provided to 38 disability institutions and 2,800 personnel in the institutions were taught how to care for oral health. Meanwhile an Institutional Tooth Cleaning Operational Manual for the Disabled was produced in order to build a service network consisting of dentists, health educators, social workers and parents groups (Figure 5-10.)

Figure 5-10 Observation of tooth cleaning as part of preventive care for the oral health of people with disabilities

Figure 5-11 The International Conference of Oral Care for People with Disabilities 2007

2. To reduce the rate of tooth decay for children with disabilities, a fluoride tablet program for disabled children was introduced. 400 institutionalized children were provided with fluoride tablets. Promotion of fluorides and oral health education were provided to caregivers. In addition, around 20,000 physically disabled children were provided with fluoride rinse anti-cavity services and both the children and their caregivers reinforced their knowledge of oral care.

3. A Conference on Oral Care for People with Disabilities 2007 was organized to present results of efforts in the health care of oral cavities of people with disabilities in Taiwan and share experiences of advanced countries. A total of 743 people and 22 international experts and scholars from 20 countries attended the event (Figure 5-11).

4. An Observation of Tooth Cleaning as Part of Preventive Care for the Oral Health of People with Disabilities and Feedback Sharing Seminar was organized. Students and caregivers from five advanced disability institutions in the Oral Preventive Health Care Services Program for People with Disabilities were asked to perform and observe tooth cleaning and superintendents or responsible people from domestic nursing institutions were invited to observe and share their experiences. It was hoped that through experience sharing, the trial and error stage can be skipped and the promotion timeframe can be shortened.

IV. Yu-Cheng "Oil Disease"

Current status:

In April, 1979, people in Lugang and Fuhsing, Changhua County, were hit by an unknown skin disease. About the same time teachers and students in Huei-Ming School in Daya Village, Taichung County and people in Shengang and Tanchi Villages were also diagnosed with the same skin disease. The investigation of the previous Provincial Health Bureau located 2025 cases, who were kept on record. The investigation also found that the skin disease was caused by intakes of rice oil contaminated by polychlorinated biphenyls. Therefore, the disease is known internationally as Yu-Cheng. Following implementation of NHI, Yu-Cheng was included as a chronic disease. Yu-Cheng patients attending contracted medical care institutions could waive the co-payment fees of medical OPD visits as long as they showed their Yu-Cheng Patient outpatient Waiver Card. Regulation and control over these patients by local public health bureus including periodical physical checkups, follow-up visits, health education, etc., have continued on a yearly basis.

Policy implementation results:

For Yu-Cheng patients, BHP provides free health examinations every year and subsidizes co-payment fees of medical consultation. In 2007 a total of 1496 Yu-Cheng patients were recorded for management and 540 people volunteered to receive health examination services. A polychlorinated biphenyls health care manual was completed and announced on the website of BHP in order to provide Yu-Cheng patients with information on self health management and health care.

Chapter 6

Healthy Environment

In 1997, the World Health Organization issued the "Jakarta Declaration", in which health promotion programs in different settings, including healthy communities, healthy cities, healthy workplaces, and healthy schools, among other evidence-based health promotion models, were outlined. In light of this, the Bureau of Health Promotion hopes to integrate grassroots resources and strengthen community actions to establish a diversified infrastructural network. Through a both bottom-up and top-down development model, health issues are discovered, analyzed, and resolved. The health setting approach is used to reach the goal of healthy environment. It is hoped that through sustainable management, local models can be developed for health promotion in Taiwan.

An environment conducive to leading a healthy life should be setting-specific and have participation from families and individuals. Meanwhile accessible and useful healthy lifestyles are encouraged for people based on the characteristics of each setting. People should be provided with the information and skills necessary to practice a healthy lifestyle. And supportive environments should continue to be developed in order to support healthy behavior.

For many years, the BHP has been encouraging health promotion communities, healthy cities, health promoting hospitals, healthy workplaces, and health promoting schools, among other programs. By integrating resources in public and private departments, BHP hopes to maximize public participation, cultivate health knowledge and skills, and enable people in all health promoting settings of life to discover local health issues, reach consensus, and establish an autonomous health building mechanism so that individuals are not working alone but with support from a friendly environment in their pursuit of health and healthy lifestyles. The ultimate goal is to perfect people's social functionality and enable them to fulfill their role in the human life cycle.

Section 1. Healthy cities

Current status:

In 2007, upon authorization from the BHP, a Healthy City Program was carried out in Miaoli County, Hualien County, and Taipei County. Because the program has been promoted for years and has become quite popular, many counties and cities also appropriated local government budget funds to devote to the development of healthy cities; for example, Daan District, Shihlin District, and Beitou District of Taipei City established the "Taipei City Daan Health Promotion Association", "Taipei City Shihlin Health Promotion Association", and "Taipei City Beitou Health Promotion Association", respectively, and proactively applied to join the Alliance for Healthy Cities (AFHC) of WHO and compete for the AFHC Award for Healthy Cities.

Policy implementation results:

1. Promotion of the Healthy City Programs

The Healthy City Programs will continue to be promoted in Miaoli County, Hualien County, and Taipei County in order to combine government and grassroots power and integrate the execution mechanism horizontally across departments and vertically to examine the health demands of counties and cities. The promotion steps of Healthy Cities Program of the WHO will be referenced in order to establish healthy public policies.

The priorities for Miaoli County in 2007 were to increase awareness of residents about health, promote execution strategies, vitalize cross-departmental actions, develop community participation and demonstration plans, construct indicators for healthy cities, set up goals and substantially promote and achieve integration of county-government-related budgets, stipulate the healthy city white paper, apply for membership of the WHO Alliance for Healthy Cities, and develop substantial evaluation mechanisms, etc.

In Hualien County, a framework for the public to take part in the discussion of public issues was established and so was a collaboration platform between industry, the government, and academia. Preliminary indicator collection has been completed. Currently the healthy city white paper has been combined with the promotion of county projects and the county has successfully become a member of the WHO Alliance for Healthy Cities (Figure 6-1).

On the other hand, environmental sustainability and healthy life continuance are the two major priorities in Taipei County. In the promotion of healthy cities, all projects in process in the county government were integrated and local indicators for healthy cities in Taipei County were sorted. Through joint participation, the project goals and strategies were formed and feasible official, unofficial, internal and external resources were located. By means of demonstrating an established substantial and feasible operation model in townships and integrating manpower and resources in the government and communities, the goal of a healthy city can be gradually achieved.

2. Organization of healthy cities in Taiwan

The Healthy Cities Organization in Taiwan was initiated by executive heads or directors of local health bureaus from 15 counties and cities, scholars and representatives of NGOs from 9 counties in Taiwan. Examples of state-level healthy city associations in European countries were referenced. The purpose of the organization in Taiwan was to combine related departments and ministries, county and city governments, scholars and experts, NGOs, community organizations and city residents to

Figure 6-1 Certificate for Healthy Cities for Hualien

jointly assist in establishing quality healthy cities and to enable mutual exchange and learning among different cities in the nation to facilitate their accession to the WHO Alliance for Healthy Cities.

In August 2007, the Alliance for Taiwan Healthy Cities was established and healthy city indicator forums were held in the north and south of Taiwan in order to complete stipulation of nationwide healthy city indicators and the Taiwan Healthy City Information Network. National workshops for healthy cities were organized in September to promote exchanges on successful experiences in the construction of healthy cities among domestic counties and cities.

At present, the Alliance has completed establishment of national healthy city indicators and the Taiwan Healthy City Information Network, where information on healthy cities can be communicated. It is hoped that through establishment of the Taiwan Healthy Cities Organization, the promotion of healthy cities in our nation can run more smoothly and that through comprehensive experience sharing, a new era of a healthy Taiwan can be realized.

Section 2. Healthy communities

I. Safe communities

Current status:

In 1989 the WHO Collaborating Centre on Community Safety Promotion was established at the Karolinska Institute in Stockholm, Sweden, to assist communities worldwide in the prevention and control of accidents and injuries and promotion of safe communities through a strict evaluation system and public certification in order to form the worldwide Safe Communities Network. For the past more than ten years, hundreds of communities have applied for certification with the center and as of 2008 there are a total of 133 certified communities.

The community safety program in Taiwan was promoted in 2002, where Neihu District of Taipei City, Dungshr Township of Taichung County, Alishan Township of Chiayi County, and Fongbin Township of Hualien, representing four different categories of communities –– urban, agricultural, mountain, and coastal, respectively, were chosen to follow the WHO safe community guidelines and promote all kinds of community-based necessary safety promotion

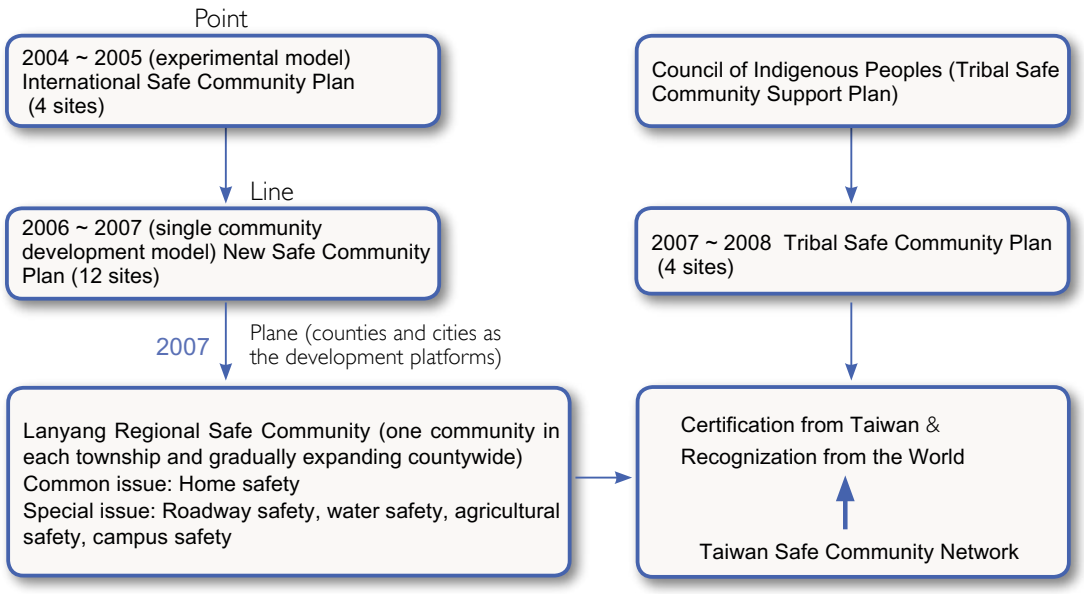


Figure 6-2 Step-wise development of safe communities in Taiwan

Figure 6-3 Construction of safe waters in the Lanyang Regional Safe Communities

programs. The four communities passed international accreditation in 2005 and joined the ranks of the world's top 100 certified safe communities.

To develop a community safety program in Taiwan, the international promotion model was adopted in 2006 and the Taiwan Community Safety Promotion Center and Community Safety Support Centers in the northern, central, southern, and eastern parts of Taiwan were established to help 9 new communities develop community safety programs.

In 2007 through experience sharing, another four communities were helped with their operations following the certification of the four safe communities and the magnitude of participation has been gradually expanded. BHP cooperated with the Council of Indigenous Peoples in the promotion of a community safety program for four aboriginal tribes and proactively promoted a regional community safety demonstration plan in the Lanyang (Yilan) region with county and city public health bureaus as the platform. The plan covered communities in 12 townships throughout the county and the Taiwan Community Safety Network has been gradually taking shape (Figure 6-2).

Policy implementation results:

1. Development of community characteristics based on international successful examples and with innovative health and safety promotion concepts

(1) With the introduction of international health and safety promotional strategies, community setting was the first platform, based on which an organizational promotional framework was established and then according to the demands of each community, subject and issue-oriented diversified accident and injury prevention and control and safety promotion were initiated.

(2) Integration with other health promotion programs was gradually developed. For example, the Fongbin Safe Community has been working with the authorities engaged in the health promotion hospital program to jointly work on drug administration safety for the elderly; the community safety program in Hualien is included as one development item for healthy cities; campus safety is promoted in the Dungshr Safe Community with health promotion schools as the platform to help Dungshr Elementary School pass international safe schools certification.

(3) The attitude and method in promotions take into consideration both bottom-up autonomy of community residents and top-down engagement and promotion from governmental departments.

(4) Support of government policies and cross-departmental and cross-field cooperation matrix were combined with resources for effective application.

(5) Support also comes from academic institutions. The Taiwanese Injury Prevention and Safety Promotion Association was established with assistance from Tzu Chi University.

2. Current developments

Currently, issues prioritized to be handled include inspection of game facilities in parks and environmental safety in shopping malls, safety of residential surroundings, promotion of roadway safety (including no drunk driving, helmets, and roadway improvement plans), agricultural safety (pesticide and agricultural tool and machinery safety), children's safety on campus, building safe waters and prevention of drowning accidents, private lodging electricity safety inspection, senior safety (including protection for alone and fragile elder people and fall prevention plans), and others like promotion of mountain climbing safety or prevention and control of heat-induced diseases in the environment.

3. Promotion outcome in representative communities

(1) Neihu Safe Community

The incidence rate for roadway and traffic accidents and injuries has decreased from 293 persons/10^5 in 2006 to the current 197 persons/10^5; the incidence rate for collision, compression, clamping, stabbing, cutting, grinding accidents and injuries has lowered from 271 persons/10^5 in 2006 to the current 205 persons/10^5; the incidence rate for tripping and falling accidents and injuries has dropped from 203 persons/10^5 in 2006 to the current 123 persons/10^5.

(2) Dungshr Safe Community

The incidence rate for accidents and injuries in Dungshr Township has dropped by 8% in total between 2002 and 2007, among which agricultural injuries dropped by an impressive 30%.

(3) Alishan Safe Community

Between 2005 and 2007, hitting, compression, and collision injuries accounted for 35%, followed by falling, 18%, and then roadway and traffic injuries, 16%. Improvement is still in progress through continuous monitoring.

(4) Fongbin Safe Community

Construction of a safe environment in the community is still undergoing. In 2007, households of 100 senior people were improved with skid-proof construction and nearly 300 agricultural goods vehicles throughout the township were installed with reflector devices and vehicles were serviced to greatly enhance the safety of community residents when driving agricultural goods vehicles.

(5) Lanyang Regional Safe Communities

a. Construction of accident and injury surveillance systems

All safe communities have synchronized registration systems for community accidents and injuries. A total of 334 cases have been registered. Results of the surveillance for the first year show that 11% of the cases were children younger than six years old, 35% were seniors over 65 years old. Other people aged 7 to 64 accounted for 53%. If categorized by location of injuries, the top 3 were streets or highways (33%), living rooms (24%), and sports or recreational places (15%), and the top 3 causes for the injuries were trips (falls, 60%), impacts (hit by something or compression, 22%), and motorcycle accidents (17%).

b. Development of locality-specific diversified safety promotion plans as follows:

(a) Residential safety inspection: 2,000 households were evaluated and improved if necessary.

(b) Fall prevention plans for the elderly: 565 sets of rails and 2,500 night lamps were installed in bathrooms for elderly people living by themselves throughout the county and 54 exercise courses and fall prevention promotion sessions were held.

(c) Drowning accident prevention and construction of safe waters (Figure 6-4) were enhanced as follows:

(ⅰ) Protective measures at fishing ports: Wharves were installed with iron chains and cables. In addition, 50 pieces of safety concrete were paved in front of the boat parking center.

(ⅱ) Seventeen warning signs were setup and simple rescue equipment (life buoys and life lines) were configured.

(ⅲ) Water safety life guard training was organized and life guards were set up to provide rescue services.

(ⅳ) Safety shops were established to help promote water safety.

(d) Advancement of agricultural safety

(ⅰ) The year-around analysis on agricultural safety knowledge was enhanced from 86.6% to 100%.

(ⅱ) Sixteen safety shops were established to be recycling stations for pesticides and assist in the recycling of used pesticide bottles.

(e) Promotion of roadway safety

(ⅰ) Construction of reflection mirrors was completed in 18 places.

(ⅱ) Helmet plan for children under six years old on a scooter: The compliance rate increased from 24.7% to 32.5%.

II. Building healthy communities

Current status:

Since 1999, the Department of Health has been promoting health community building in multiple facets and different settings, such as communities, schools, workplaces, hospitals, cities, and all areas.

In additon to the available resources from the existing healthcare system, the "Community-based Healthy Life Plan" aims at transforming the attitude of the general population toward healthy life styles, to change from passive acceptance to active participation. Through the operations of community organizations, BHP has been devoted to raising community awareness on health issues on their own places, and encouraging them to collaborate with other

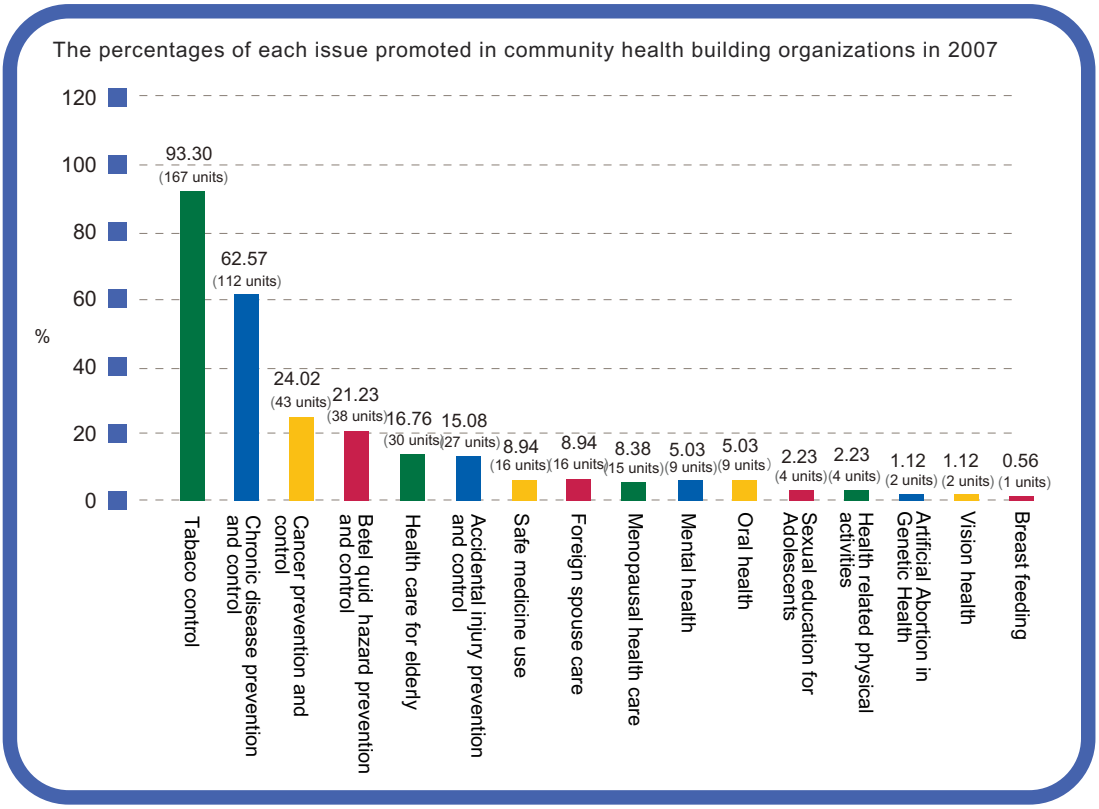


Figure 6-4 Distribution of community health building organizations and health promting issues (179 in total)

▲ 2007 community health building results presentation

organizations to solve those problems and to support them in achieving and maintaining a healthy lifestyle.

Policy implementation results:

1. Continuous promotion of community health building programs (including Community Health Elite Promotion Program)

The BHP made an open solicitation for proposals from local public health bureaus regarding health promotion in order to combine community resources to promote necessary health advancement in communities and to build a supportive environment in communities. Local public health bureaus were encouraged to prioritize their health promotion based on local demands. In 2007, local public health bureaus in 20 counties and cities were subsidized to organize 179 community health building programs (including 16 community health building elite programs) on topics like tobacco hazards prevention, mental health, cancer prevention and control, betel quid health hazards prevention, and chronic disease prevention and control, etc. The distribution of health promotion issues of community health building are tallied in Figure 6-4.

The promotion results include construction of 13,843 tobacco-free environments and 280 betel-quid-free places, establishment of 164 smoking abstention groups, 473 exercise groups and 267 healthy diet groups. A total of 922 health workshops were held with participation by 49,911 people. Also, 12,859 community health building volunteers were recruited, who, along with 3,484 community groups, joined hands in health building.

2. Reinforced counseling in community health building

Assistance to communities in community health building was reinforced. The BHP and 20 local public health bureaus with 103 local experts and scholars to provide counseling services through the establishment of 45 community health building demonstration sites, 134 community health building communications meetings and the organization of 1,741 seminars or workshops. A total of 942 field and over-the-phone counseling and visiting were made, and 114 rounds wrap up presentations and demonstration conferences were held.

III. Grassroots health care authorities –– public health centers

Current status:

Taiwan is equipped with perfect grassroots health care and medical systems to provide its people with all necessary services. Currently, there are 372 public health certers under 25 counties and cities, with a total of 4,455 service people, including 3,690 (82.8%) females and 765 (17.2%) males, providing local residents with grassroots medical and health care services.

According to the Local Government Act and the Regulatory Standards of Local Government Organizations, the organization of local public health center is the responsibility of local governments and the personnel quota established by BHP for local health authorities in the Reference Guidelines for Establishment of Personnel Quotas in Public Health Centers

is for county and city governments' reference only. Each local government can take charge of the establishment of quotas depending on the actual situation. In the central government, related bureaus of the Department of Health are in charge of supervising operations of public health centers in order to enhance the quality of services offered. County and city public health centers are encouraged to develop programs that best suit their needs and reflect their local characteristics. Through organization of quality competitions among local health departments, top quality service flows and operation models in different health departments are presented and observed by counterparts.

Policy implementation results:

1. Consolidation of quality of services provided by public health centers

In order to establish a standard process flow for public health centers emphasizing different facets and strengthen the professionalism of personnel at public health centers, the second public health center Awards were organized. Within the award topic, i.e. adult health care and space management, nine public health centers were selected from Danshui and Sanchong Townships of Taipei County among others, for their outstanding standard operation procedures and management experience to assist with pre-employment training and in-service education, and were recognized in the outcome demonstration so that other public health centers could learn from their successful experiences.

2. Improvement of service space quality at health centers

To provide people with refreshing and safe community health service environments, the renovation and expansion of health centers in 2006 was included in the central government's scheme of Reimbursement for Basic Services: Reconstruction for Public Health Center. Between 2006 and 2007, BHP supervised public health centers in a total of 14 counties in processing 36 public health center renovation and expansion projects (excluding mountain areas and offshore islands).

3. Organization of the operation program for outpatient medical care systems at public health centers

Public health centers in 23 counties and cities were included in the joint procurement to expand their outpatient medical care services and maintain their medical care information systems. This procurement successfully helped maintain outpatient medical health care of 333 public health centers and three chronic disease prevention and control centers around the nation.

4. Development of health education services at public health centers

Sansia Township of Taipei County piloted the program. The old look of the local health department was overhauled. In addition, two topics, women's and children's health and infectious disease prevention and control, were demonstrated through real objects and media to present the development and changes in the field of public health. Meanwhile, interactive activities were carried out to enable children to learn while playing, increase knowledge of residents in the community about the past and present of public health, and promote health care knowledge and skills.

5. Organization of related research projects for public health centers

(1) A "Discussion on Manpower Demand and Personnel Arrangement to Evaluate Manpower and Allocation at Public Health Centers" was organized to investigate services in public health centers and their demand for manpower.

(2) An "Administrative Review Requirements Manual for Public Health Centers" was compiled to enhance the ability of public health centers in provision of professional services.

(3) A "Pilot Study on an Integrated Care Model Combining Grassroots Health and Social Welfare Authorities for Disadvantaged Groups" was organized in 2007 and will run till 2008. By combining grassroots health and social welfare authorities and community resources and through consensus meetings and focus groups, evaluation on the health demands of minorities was completed.

6. Update of "2006 Annual Report of Public Health Centers in Taiwan"

Announced on the BHP website, this annual report provides integrated information on the manpower, year of construction, size of service space, and preventive health care provided, among others, at each local health department in the nation.

7. Establishment of healthy supportive environments

Community supportive environments were established to encourage public health centers to take part in health building in communities, combine efforts of community volunteers and medical resources, to collectively promote health.

IV. Health risk

Current status:

In light of the health risks from environmental pollution that confront the Taiwan people, a Health Risk Working Group was set up under the National Council for Sustainable Development (NCSD). The Department of Health was in charge of convening group meetings while BHP served as the correspondence window. The Environmental Protection Agency, the Council of Labor Affairs, the Council of Agriculture, and the Ministry of Economic Affairs were enlisted to tackle the problem. The missions of the Health Risk Working Group include health risk evaluation and management and protection of health for special populations. Two out of its six major tasks, i.e. to monitor certain substances and media that will cause health risks and discuss and address health risk problems caused by environmental pollution in certain areas, are to monitor in advance environmental substances proven scientifically to be harmful to human bodies and take care of environmental pollution problems that have already occurred.

Policy implementation results:

In 2007 panel discussions were held by the Health Risk Working Group to discuss related issues regarding health risks (e.g. electromagnetic waves and recycling and processing of empty waste bottles and containers used with agricultural pesticide). In addition, the health of those affected in the duck egg dioxins pollution incident in Changhua County also continued to be followed and cared for. For environmental substances with unclear scientific evidence regarding their threat to human health, e.g. health hazards caused by electromagnetic waves, cross-ministerial and cross-departmental cooperation mechanisms were established.

1. Dioxin polluted duck eggs in Changhua County

In 2007, BHP worked with the Public Health Bureau in Changhua County and organized health examination services in Shengang, Lugang, Fuhsing, and Hsian hsi, the four major coastal townships in the county affected by the duck egg dioxins pollution. A total of 1,530 people received the examination services.

2. Health risk evaluation and management against electromagnetic waves

To enable the public to gain correct knowledge of non-ionized radiation and to evaluate its safety, the WHO began the "International EMF Project" in 1996, in which more than 54 countries and 8 international organizations participated. BHP continues to translate real-time reports issued by the WHO regarding the health harzards of electromagnetic waves to human and post them on the BHP website in order to strengthen communication of health risks to the public. For example:

(1) In March 2007, the Electromagnetic Field Task Force Team (EMFTT) was established underneath the Health Risk Working Group of the Council for Sustainable Development, Executive Yuan, to join efforts from ministries and departments in tackling electromagnetic fields-related problems. By the end of 2007, three meetings had been convened. The working group's current priority is to combine efforts in ministries and departments and establish simulated monitoring over the 24-hour electromagnetic fields at base stations and electric substations.

(2) A "Talks about Electromagnetic Fields (EMF) Manual" health education manual on non-ionized radiation was edited and posted on the BHP website to provide the public with correct health information regarding non-ionized radiation.

(3) A project exploring "the relationship between childhood leukemia and household extremely low frequency electromagnetic fields in Taiwan" was carried out based on data kept at medical centers in southern Taiwan regarding childhood leukemia. This case-control study traced the relationship between exposure to extremely low frequency electromagnetic fields in households and possible factors that cause the disease. However, results did not show any relationship between the two.

(4) The Center for Health Risk Assessment and Policy of the National Taiwan University was invited to cooperate with BHP in the organization of different levels of communications on the health risks caused by electromagnetic fields.

a. Telecommunication industry associations and related business groups were invited to take part in seminars on health risks associated with electromagnetic fields.

b. The media was invited to attend a press conference on "Health Risks and Precautionary Principles Regarding Electromagnetic Fields."

c. Visits were made to Cigu Township in Tainan County to communicate with residents in the neighborhood of the weather radar station regarding their health risks.

d. Environmental protection groups were invited to communicate messages on health risks associated with base stations and the weather radar station in Cigu Township of Tainan County.

Section 3. Healthy schools

I. Health promotion in schools

Current status:

A student smoking behavior survey conducted by the BHP shows that smoking has become a more and more serious problem among teenagers. For related information, please refer to 2. Campus tobacco control, Section 2 Healthy adolescents in Chapter 2 Healthy birth and development. In terms of substance abuse and mental health, the "Junior and Senior High School Students Drug Abuse Survey in Taiwan" conducted in 2004 showed that as many as 1.6% of junior and senior high students abused drugs. In terms of teenage mental health, suicide ranked 12th and 2nd respectively among children aged 1 to 14 and teenagers aged 15 to 24.

To tackle the complex and numerous health problems associated with children and teenagers, besides strategies and plans established for special health problems, the World Health Organization also introduced the concept of health promoting schools to integrate health and education resources because students spend most of their time socializing, learning, playing and resting in a school setting. To create a consensus between teachers and students, promote participation

▲ Group pictures of the health promoting school conference

from communities, and construct a healthy and safe campus environment are prioritized strategies in Taiwan in promoting children and teenagers' health. A lot of countries in the world have been able to effectively improve children and teenagers' health, enhance education efficiency, and promote public health as well as socio-economic development with adoption of the health promoting school program.

Policy implementation results:

1. Promotion of health promoting schools with the Ministry of Education through integration of resources in ministries and departments

The Ministry of Education and the BHP integrated resources in ministries and departments to jointly introduce the Health Promoting School Program. In 2005 there were 318 schools taking part in the program. By the end of 2007, the number had grown to 773. The responsibilities and division of work were defined between the central government, local governments, and grassroots authorities. The Ministry of Education and the Department of Health are the two central government authorities, whose responsibilities include collaborative stipulation of policies, establishment of network resources and organization of personnel training. The education and public health bureaus were the two local government authorities to integrate related issues, hold periodical meetings, establish localized counseling and support systems, and take part in decision making. Grassroots authorities include health institutions and schools. Health institutions encompass grassroots healthcare facilities, public health centers, and community health building centers, etc. Schools are comprised of principals, teachers, students, and parents. Education and health authorities cooperate with each other from the central, local governments to grassroots levels so that related resources can be combined and health promoting schools can be sustainable.

2. Results of the Health Promoting School Program

For senior high and vocational high schools or schools lower in the hierarchy, the World Health Organization suggests six categories: school health policy, physical environment, social environment, community relationship, personal health skills, and health services, for health promotion on campus in order to construct a healthy and safe campus and promote and maintain the physical, mental, and social health of the faculty and staff and students on campus.

In 2007, a total of 773 schools participated in the Health Promoting School Program, accounting for 20.0% of the total number of senior and vocational high schools and other schools lower in the hierarchy, among which 521

Table 6-1 Distribution of issues chosen by health promoting schools in Academic Year 2007

Health issue	Number of schools	Percentage
Tobacco control	773	100.0
Betel quids prevention	773	100.0
Physical fitness (physical activity and healthy diet)	483	62.5
Oral health	230	29.8
Vision health	176	22.8
Safety education and first aid	100	12.9
Sex education (including AIDS prevention and control)	49	6.3
Promotion of mental health	50	6.5
Drug administration safety and drug abuse prevention and control	23	3
Infectious disease prevention and control	26	3.4
Consumer health	5	0.7

Figure 6-5 Teaching materials for health promoting schools

(19.6%) were elementary schools, 214 (28.9%) were junior high schools, and 38 (8%) were senior and vocational high schools. Campus tobacco control and betel nut prevention were required issues to be handled by each school. In addition, the schools could, based on their individual needs, select between oral health, vision health, physical fitness (physical activity and diet), sex education (including AIDS prevention and control), safety education and first aid, promotion of mental health, drug administration safety and drug abuse prevention and control, infectious disease prevention and control, and consumer health, etc. The top 3 issues selected by schools to focus on were physical fitness, oral health, and vision health (Table 6-1).

3. Establishment of health promoting school support systems to facilitate sustainability of the program

(1) Counseling and support network for health promoting schools

To integrate central and local authority and construct a complete counseling and support network, 59 experts and scholars formed a professional counseling team in 2007 to help 25 counties and cities establish counseling and support groups. Administration and resource seminars were held for counselors in health promoting schools in seven counties and cities with participation from about 700 people. A total of 300 people participated in the two rounds of visits made to model schools in northern and southern parts of Taiwan. A counseling manual was completed to guide counselors while assisting schools with the promotion plan. There are also other diversified counseling channels available, such as on campus, over-the-phone, and website "Q&A" counseling services.

(2) Teaching resource development center

Teaching materials for elementary school, junior and senior high school teachers were completed (Figure 6-5). A total of 55 articles from international health promoting school literature were translated and compiled. The action plans for 10 health issues, including tobacco control, betel quids prevention, and vision care were established to be used by schools during program implementation. A single-window service hotline, 02-23693105, for teaching resources was set up. Related materials and lesson plans were made into CDs and sent to participating schools besides being posted on the health promoting schools' website.

(3) Manpower training center

Educational training is the only way to consolidate the concept of health promoting schools and familiarize school faculty and staff, students, parents, and community representatives with life skills. A total of more than 550 related people participated in a series of life skill trainings held for teachers and parents. For the part of training for teachers, life skill result press conferences were also organized. In addition, schools were helped with development of localized life skills and integration of such skills into their curricular design. As the teachers combine related skills in their teaching and transform routine daily life events into learning content, students will

be able to handle different scenarios in daily life in a timely and appropriate manner with the consolidated life skills acquired in school learning.

(4) Website of Health Promoting Schools (http://www.hps.pro.edu.tw/)

This website encompasses updates on health promoting schools in Taiwan, related policies, laws and regulations, list of schools in the program, supportive systems, resources, counseling services, teaching games, articles published by health promoting schools and links to related websites for comprehensive integration of related online resources among health promoting schools in Taiwan, and also links to the World Health Organization and health promoting schools' websites in other countries around the world.

(5) International cooperation and media marketing

Health promoting schools were promoted in Taiwan and to other parts in the world through international conferences, press conferences, award presentation ceremonies, and marketing manuals for the Health Promoting School Program. The first Health Promoting School Awards was organized in 2007 to recognize health promoting schools, administrative staff, teachers, parents, and NGOs with outstanding performance. A total of 37 schools received awards. Award winning schools were covered in the print media, four radio stations and TV news (Figure 6-6). It is hoped that besides recognizing the efforts made by health promoting schools, this award ceremony can encourage more schools, social groups and families to take part and ideas associated with the Health Promoting School Program can be consolidated in daily life.

During our participation in the 19th International Union Health Promotion and Education (IUHPE) conference organized in Canada in June, 2007, health promotion posters, health promoting schools' English manuals, advertisements and manuals, English CDs, among other promotional materials and the results of health promoting schools in Taiwan were displayed. Taiwanese representatives interacted with delegates from more than 40 countries and were covered by the Sun Newspapers of Canada, the World Journal, and the Channel-A in Canada, successfully promoting the accomplishments of health promoting schools in Taiwan. In addition, the Taiwanese delegation visited health promoting schools as well as education and health departments in Canada to collect information on health promotion and health education in other countries (Figure 6-7, 6-8).

Figure 6-6 County and city public health bureaus award ceremony for outstanding health promoting schools

Figure 6-7 Advertisements and materials were provided to inquiring delegates at IUHPE to facilitate international exchanges

Figure 6-8 Picture with the assistant deputy minister during a visit to the BC Ministry of Health in Canada

On October 19th 2007, Kangle Elementary School in Hualien County, Sinsing Elementary School in Taitung County, Shenkeng Elementary School in Taipei County, and Gengliao Elementary School in Taipei County signed an alliance for health promoting schools in Taiwan and Hong Kong with Yan Chai Hospital No. 2 Secondary School and P.L.K. Fong Wong Kam Chuen Primary School, symbolizing another step forward among health promoting schools in Taiwan, and also with a beginning of exchanges between health promoting schools in Taiwan and Hong Kong (Figure 6-9).

Figure 6-9 Picture with health promoting school group from the Chinese University of Hong Kong

(6) Monitoring and assessment center

A monitoring center was established in July, 2006. So far, central and local education and health system resources have been analyzed, as have the cost-effectiveness evaluation of all support systems and need assessments from schools for involvement of governmental authorities.

Based on the six major categories for health promoting schools, an online questionnaire prepared for the monitoring and assessment program was available for promoting teachers and students in the schools to evaluate indicators regarding health promotion issues. The performance of the schools in health promotion was shown in a chart form and compared with county, city, and even national averages so that the characteristics of each school and areas for improvement could be presented for the schools' reference.

In October, 2007 the Centre for Health Education and Health Promotion of the Chinese University of Hong Kong was invited to Taiwan (Figure 6-10) to take part in the monitoring and assessment program. They provided their experiences and related information on international assessment indicators, gave guidance and suggestions regarding the monitoring and assessment method adopted in Taiwan, and helped us complete an annual report on health promoting schools in Taiwan.

Figure 6-10 Picture with Professor Albert Lee during the health promoting school development, monitoring, and assessment workshop

II. Safe schools

Current status:

Accidents and injuries are a major cause of death for people aged 1 to 44 in countries around the world and schools are the setting students spend most of their time in. In the past, schools often placed emphasis on career development and academic performance of students and little attention was paid to safety and protection of life. Accidents and injuries have been a major cause of death among our citizens aged 1 to 34 for many years. Victims are mostly teenagers and young adults and their deaths often traumatize their families and society. Besides possible death, accidents and injuries can also have all kinds of sequelae, such as serious disability, trauma, and psychiatric consequences, which often exhaust medical

and social resources, including emergency care, outpatient visits, hospitalization, rehabilitation, and psychological therapy, among others, and generate a large amount of expenditure. Indirectly, it will also result in damage to the socio-economy and productivity as well as pain and burden to the victims themselves and their family. Vosskuhler (2003) organized literature on how to reduce accidents and injuries and pointed out that schools with control over accidents, injuries, and violence can increase the life satisfaction of their students and students' academic performance. Therefore, safe schools are an issue starting to gain prominence in the World Health Organization.

The term "safe schools" has not been officially used in related promotions in our country yet. Instead, it is shown as "campus incidents" in statistics to encompass related items, for which a reporting system is in place. Based on the campus incident classification by the Ministry of Education in 2006, the events reported in the same year could be divided into eight categories, namely accidents, campus safety maintenance events, student violent crimes and deviant behavior, disciplinary conflict, children and teenager protective custody incidents, natural disasters, other incidents, and diseases, a total of 126 items. Related statistics are shown in Figure 6-11. There were a total of 5,869 (39.64%) accidents, accounting for the largest percentage, followed by diseases (2,983 cases, 20.14%), and then children and teenager protective custody incidents (1,923 cases, 12.98%), violent crimes and deviant behavior (1,841 cases, 12.43%), campus safety maintenance events (1,282 cases, 8.65%), others (434 cases, 2.93%), natural disasters (276 cases, 1.86%), and disciplinary conflicts (206 cases, 1.39%) (Ministry of Education, 2005), indicating that accidents and violence control continue to be the primary concern in terms of student safety.

How can the percentages for these incidences be lowered? According to the Guidelines for Safe Schools (International Safe Schools Committee, 2003), the three Es, i.e. Environment, Education, and Enforcement, should be followed by safe schools in the prevention of related injuries and violence.

1. Environmental strategies: e.g. safety airbags, safe environmental facilities, refraining from carrying of weapons, etc.
2. Educational strategies: Individuals should be taught to change their personal

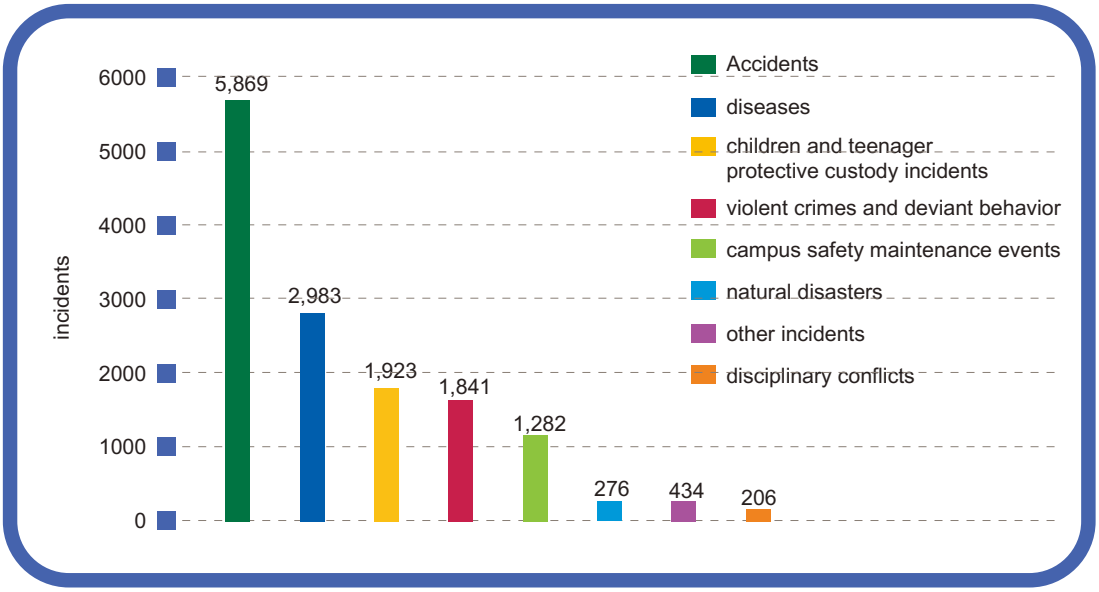


Figure 6-11 Campus incidents statistics, Ministry of Education, 2005

behavior in resolving conflicts and that bullying behavior is intolerable. Helmets and seat belts should be used to enhance safety.

3. Policy strategies: Policies are enforced to minimize danger factors that will result in injuries, e.g. implementation of anti-bullying policies, school transportation safety plans, and requirements for schools to have qualified playground facilities.

Therefore, in the promotion of safe schools, first of all the danger factors must be located and then the 3E principles can be followed to prevent accidents from happening. Equally important are joint efforts between schools and communities in order to carry out related tasks. For many years, our nation has been devoted to the promotion of friendly campuses, traffic safety, human rights education, and reduction of accidents and injuries, only lacking a integration mechanism, logistical assessment and community empowerment. The purpose for promoting the safe schools program in Taiwan is to establish a localized promotion model for safe schools in accordance with the 49 indicators established by the International Safe Schools Committee so that our next generations can learn and grow in a safe setting.

Policy implementation results:

A localized promotion model for safe schools was established according to the WHO accreditation standards for international safe schools in order to minimize accidents and injury rates. In 2007 six schools, namely Dungshr Elementary School in Taichung County, Chengde Elementary School in Taipei City, Dongao Elementary School in Yilan County, Hualien Senior High School, Fongbin Elementary School and Kangle Elementary School in Hualien, became the fifth to tenth internationally designated safe schools in the world.

Section 4. Healthy hospitals

Current status:

In compliance with the Ottawa Charter for Health Promotion and the Budapest Declaration on Health Promoting Hospitals, the World Health Organization developed the Health Promoting Hospitals Project in order to introduce the concept, purpose and application of health promoting hospitals, which will not only change the medical model and functionality of hospitals that were disease-treatment-oriented but also integrate the concepts, values, and principles of health promotion into hospital organization, culture and routine tasks, and influence hospital employees, patients and their families, and communities to improve the quality of health care and maintain or promote healthy hospital staff, patients and their family, and residents in surrounding communities. A health promoting hospital will proactively introduce the concepts of disease prevention and health promotion and value its patients' life quality and satisfaction with results of medical treatment, service quality, efficiency, and efficacy.

Since 2003, the BHP has worked with hospitals and organized a Workplace Health Promotion Program. In 2006, a seminar on the efficacy of hospital health education and health promoting hospital programs was organized. In addition, share-care for diabetics, outpatient smoking abstention, breastfeeding-friendly hospitals, among other health promotion issues have been included in policy discussions in order to promote health in a hospital setting.

Policy implementation results:

1. In 2007, a Health Promoting Hospital Network Construction Program was organized and a Health Promoting Hospital Network was established. A localized

Figure 6-12 Health promoting hospital conference and certificate conferring

Figure 6-13 Health Promoting Hospital Membership Certificate

manual for health promoting hospitals was developed. Counseling services were provided to hospitals applying for health promoting hospital certification. The BHP also established membership with the WHO Collaborating Centre for Health Promotion in Hospitals and Health Care.

2. In 2007 a total of 17 hospitals, including Tzu Ai General Hospital, received counseling services and passed WHO-CC certification. In addition, a National Health Promoting Hospital Seminar was held on August 19th with participation from a total of 56 hospitals, 23 other institutions and 184 people. (Figure 6-12, 6-13) By the end of 2007, there were already 22 hospitals in Taiwan that had passed WHO-CC certification.

Section 5. Healthy workplace

Current status:

Faced with rapid industrial transformation and the globalization of corporate life and diversity in employment patterns, the health emphasis in workplaces also needs to be adjusted. Therefore, promotion of occupational health in Taiwan has shifted from the passive reduction in the occurrence of occupational diseases in the past to the current proactive promotion of health in workplaces. By means of health promotion programs in workplaces, employees are provided with more effective prevention, health education, and consultation on possible occupational hazards that may occur in workplaces. Moreover, it is hoped that employees can take part in the development of workplace-specific health promotion issues based on the existing occupational operation model and organizational culture to construct healthy workplaces and enhance employee health.

Policy implementation results:

Since 2006, BHP has combined workplace health promotion and tobacco control, among other issues, and been authorized to establish Centers for Workplace Health Promotion and Tobacco Control" in northern, central and southern areas in order to provide counseling services, help establish healthy workplaces, build occupational health and tobacco control service networks, and provide workplace-related consultation, health education, and training services. In 2007 Self-Certification of Healthy Workplace was promoted and standards for the autonomous accreditation were established. Recognition ceremonies for outstanding healthy workplaces were organized to encourage business groups to proactively consolidate tobacco-free measures and promote health (Figure 6-14, 6-15, 6-16).

To enhance quality of health examinations for people engaged in potentially dangerous work, BHP completed and printed the "Health Examination Guide for Potentially Dangerous Work" in accordance with the 25 special operations of health hazards established in the Regulations on the Protection of Labor

Figure 6-14 Self-Certification of Healthy Workplace poster

Smoke-free Workplace Badge

Healthy Workplace Badge

Figure 6-15 Self-Certification of Healthy Workplace badge

Health to familiarize medical staff with the health management classification definitions and interpretation of results of health examinations. In addition, BHP worked with the Council of Labor Affairs and organized six occupational health seminars for medical staff, in which a total of 635 occupational health professionals were trained. Between 2006 and 2007 the Centers for Workplace Health Promotion and Tobacco Control in northern, central, and southern areas made physical visits to 413 workplaces to help them establish smoke-free or tobacco-refraining policies (among which 147 workplaces were synchronized in health promotion) and assisted 13 occupational or industrial unions with tobacco control and health promotion in workplaces. In 2007 the first Self-Certification of Healthy Workplace was organized. A total of 673 workplaces passed the certification and 115 outstanding healthy workplaces were recognized (Figure 6-17). Complete counseling tools were established and workplace health promotion-related manuals were developed. The three books "The Practice Guideline for Workplace Health Promotion", "A Practical Mannual of Job Stress Management", and "A Practical Manual of Employee Health Exam" were completed.


推動健康職場
國健局有請企業

Figure 6-16 Healthy workplace news clips, the Commons Daily, September 17th 2007

Figure 6-17 Self-Certification of Healthy Workplace recognizing assembly

The Annual nationwide survey on workplace tobacco control was conducted and results showed that the smoking rate for employees in workplaces in 2007 was 21% (1.8% lower than that in 2006) and that the second-hand smoke indoor exposure rate was 25.9% (3.5% lower than that in 2006). Results of previous workplace tobacco hazards surveys are shown in Figure 6-18. The nationwide workplace health promotion and tobacco control survey results showed that 66% executives started to pay more attention to the issue of tobacco control and health promotion. About 93.1% of the facilitators in these workplaces knew how to utilize external resources to increase their abilities in autonomous health promotion.

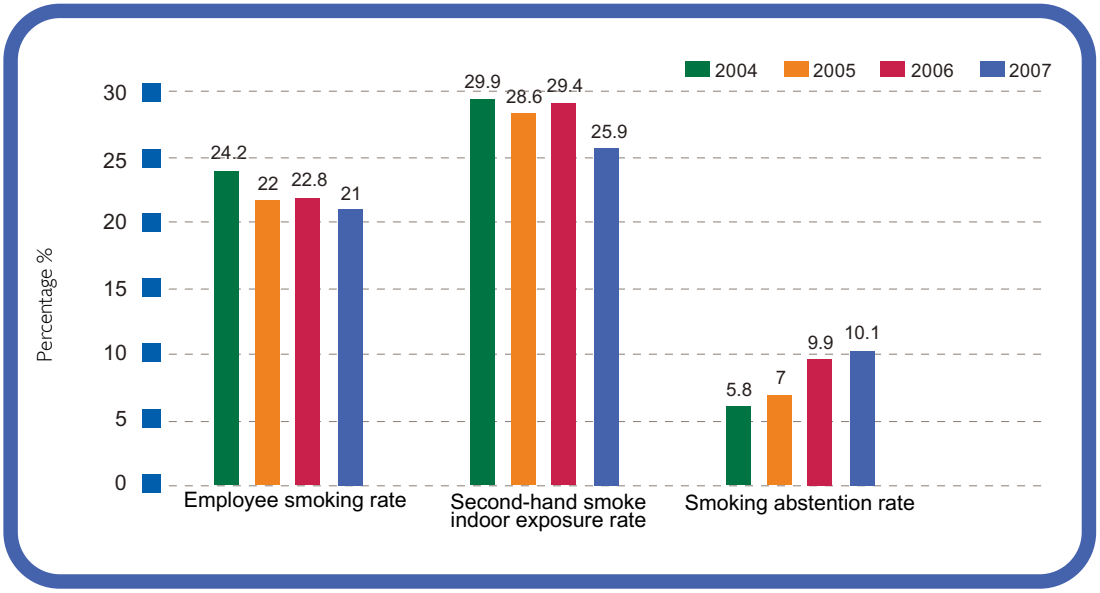


Figure 6-18 Results of workplace tobacco hazards surveys

Chapter 7

Health Promotion Infrastructure and Network

For public health services, factors like quality, availability, accessibility, time efficiency, and cost effectiveness, among others, must be taken into consideration. To accomplish this objective, timely control, communication, and utilization of health information are crucial parts of the infrastructure. The rapid advancement of online information technology has resulted in dramatic impact on the world's health systems. The collection of health information has transformed from the passive reporting of the past to the current active monitoring and multi-party on-line interaction for more effective control. Thanks to the bilateral communication of information made possible by the Internet and mass media, BHP has been able to systematically provide the public with accurate health information through clear and vivid broadcasting means and help people manage and promote their own health. In addition, to respond to changes in society, such as the gray revolution, fewer children and increased immigrants, BHP has established domestic empirical databases as well as a research data sharing mechanism to serve as an important quality basis for policy making and program assessment. When implementing major international cooperation plans, more creative and diversified methods are used to establish an appropriate international interactive model, increase possibilities for mutual communications, and eventually connect with the world to fulfill our country's obligations as a member of the global village by sharing the successful health promotion experience of Taiwan.

Figure 7-1 Health 99 Education Resource (http://health99.doh.gov.tw)

Section 1. Health communications

Current status:

The advancement of contemporary broadcasting media, such as TV, radio, newspapers, magazines, outdoor media and the Internet, gives the public more diversified and rapid communication channels to obtain information on health. On the other hand, the fact that the Internet and media communicate diversified health information without limits of time and space can also have a negative influence on public health if inappropriate or inaccurate health concepts are believed and practiced. Therefore, how to provide accessible, convenient and accurate health information and help the public manage their health is also BHP's vision –– "Cherish Life – Promote Health".

Policy implementation results:

1. In order to provide the public and health education personnel with accurate and timely health education information and information channels, the Health 99 Education Resource website was established in 1998 (http://health99.doh.gov.tw) (Hereinafter referred to as "Health 99", Figure 7-1). On this website, one can watch and download health education materials and browse audio-visual information. In addition, it provides delivery services of physical materials. Moreover, the "Outstanding Health Reading Materials" competition event is organized to encourage publication and promotion of health books so that the public knows where to purchase health books and get timely and accurate information on health.

2. Content of the Health 99 is collected proactively from healthcare facilities, health authorities and NGOs and sorted and organized into different categories. Currently, there are 1,127 items available online for browsing and downloading. The Health 99 website was rated an outstanding health website in 2005 and 2006. To encourage interaction between website users and Health 99, online activities, including "Health Detector", "Healthy KUSO Pictures Collection", and "Star Baby Anti-Tobacco Challenge" were organized and an e-news issuing system was established, to which "Life Without Accidents: Safe and Wonderful" and

"Betel Quids Health Hazards Prevention", two theme sections were added. Currently, there are 35,376 members and the click rate for the website has achieved 1.84 million visits. Over 70,000 people have downloaded materials. About 29,000 people have subscribed to the e-news bulletins. With a simple click of the mouse, the general public or health education personnel can search for the health materials they need on line by the type of material, age group, type of media, keyword, publisher, and full context and get the physical materials through logistics services as well.

3. Other than the above, Health 99 also provides all-around health education information through health headlines, latest news, the Cherish Life and Health Education Theme Pavilion, Game 99, audio-visual theater, Q&A, and online health examination, etc. Meanwhile, a health education blog was established to provide members with a space for creating and sharing, including sharing their working journals, electronic albums, lesson plans, and exchanging online messages and ultimately keeping the health education team together through sharing of teaching resources. Experts are also invited to provide free online consultation services on the website. Currently, rumors spread on the Internet regarding health are also collected and experts are invited to explain and clarify the rumors in order to make our website a source of the most credible information in the health information network.

4. To encourage publication and promotion of outstanding health books, an "Outstanding Health Reading Materials" screening event has been organized since 2002. In the 2007 event featuring "Healthy Books – Fun and Healthy Reading", 20 books on children and teenager health, 20 books on women's health, 18 books on middle-aged and senior people's health, 17 books on healthy diet and exercise, 24 books on psychological health, and seven books on cancer and tobacco hazards prevention, a total of 106 books were selected, for which a catalog was made and provided to the general public through county and city public health bureaus, schools at all levels, and libraries for their reference when purchasing books on health.

5. Abiding by the concept of "Cherish Life and Promote Health" and to serve the general public, BHP provides an even friendlier diversified single portal, the Health Information Network (See Figure 7-2), whose content is presented by different topics and categories in order to integrate, communicate, and market credible and reliable all-around health information.

Figure 7-2 Health Information Network (http://www.bhp.doh.gov.tw)

6. The Health Information Network was rated a "Good Health Information Website" in 2006 and 2007 and passed the AA non-barrier inspection. The website is available in alternative versions (English, Children's, and PDA). The content includes "Mommy & Baby", "Breast Feeding", "Infant Hearing", "Vision Care", "Oral Care", "Teenage Health Care", "Middle-aged and Elderly Health Care", "Cancer Prevention and Control", "Physical Activity", "Community Health", "Occupational Health", "Psychological Health", "Tobacco Hazards Prevention", "Health Education", "Surveys and Researches", "Birth Reporting", and "Preventive Health Care", to facilitate information search for the general public. In 2007 alone, the number of visitors to the website reached 505,509 (Figure 7-3).

Section 2. Health surveillance

Current status:

As a result of rapid social changes, the scope of health promotion is constantly expanding. In order to optimize utilization of limited resources, evidence-based policies and program assessment are gaining prominence. In light of the increasing threat that chronic diseases pose to human health, the World Health Organization suggests that countries should establish a non-communicable disease surveillance system. Guidelines for a stepwise approach that covers mortality rates, morbidity rates or risk factor prevalence can be followed depending on resources available in each country. Since the establishment of BHP, a systematic population and health surveillance

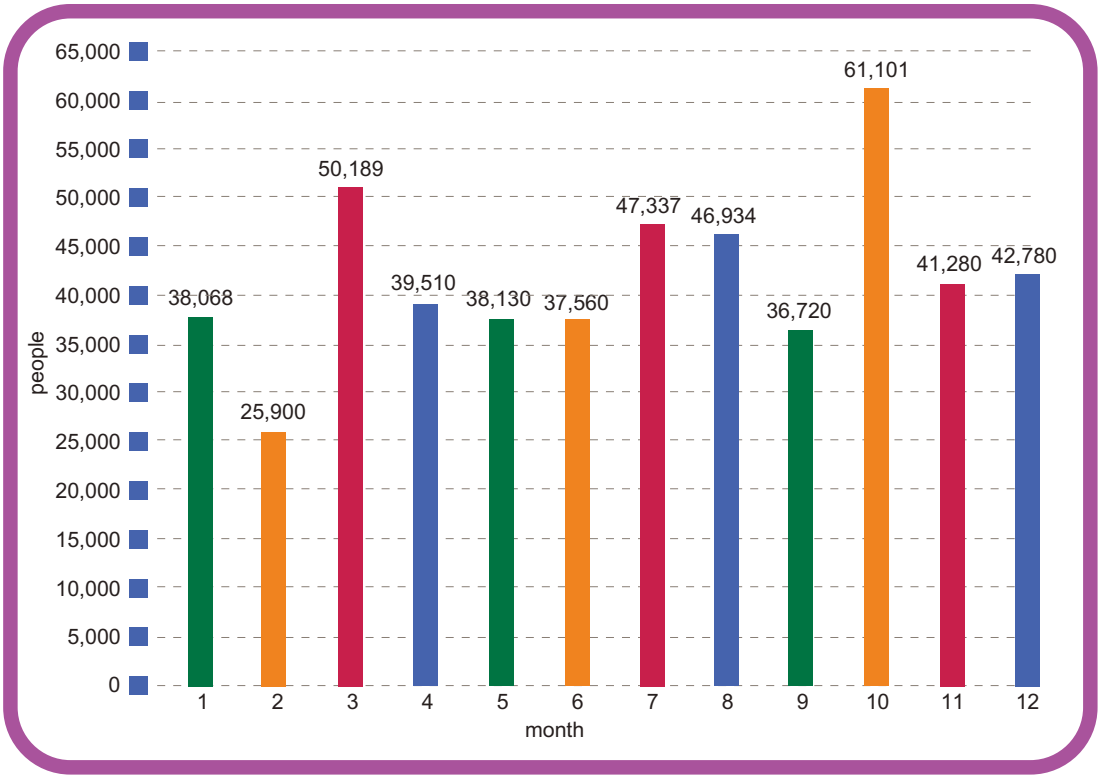


Figure 7-3 BHP portal visitors statistics in 2007

system has been developed gradually with the intention to collect policy relevant information through a variety of routine and periodical health surveys. This survey based health surveillance system aims to collect health indicators that cannot be obtained through vital statistics or disease reporting systems and will further strengthen the evidence basis of policy development and implementation.

Policy implementation results:

In order to provide central and local health departments with the objective data necessary for policy making, program planning and assessment, BHP conducts health surveys of the whole population and specific sub-groups (infants & children, teenagers, middle-aged to the elderly, and women) every year and gradually establishes its survey–based empirical databases for policy making. Each survey is meant to be policy relevant and aims to meet the contemporary need for policy development and implementation. Different survey modes, including community-based face to face interviews, school-based self-administered questionnaires and telephone interviews are applied according to content of the survey, target population, and efficiency of data collection. All the surveys are carried out under strict supervision to ensure fieldwork protocol compliance and data quality.

A timeline for the series of surveys that have been or are to be conducted in the coming years is shown in Table 7-1, among which surveys completed in 2007 included the "Taiwan Longitudinal Study on Aging" and "Taiwan Birth Cohort Study", the "Taiwan Youth Health Survey" on senior high, vocational high school and junior college students, and the telephone survey-based "Behavioral Risk Factor Surveillance System" on adults aged 18 years and above.

Table 7-1 Overview of important health surveys

Survey series	● Cross-sectional survey → Longitudinal survey											
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
【Community-based face to face interview survey】												
National Health Interview Survey	●	●			●				●			
Taiwan Longitudinal Study on Aging			→				→				→	
Women Health, Family, and Fertility Survey			●	●				●				●
Taiwan Birth Cohort Study					→	→	→	→		→		
【School-based self-administered questionnaire survey】												
Taiwan Global Youth Tobacco Survey				●	●	●	●	●	●	●	●	●
Taiwan Youth Health Survey						●	●	●	●	●	●	●
【Telephone interview survey】												
Adult Smoking Behavior Survey							●	●	●	●	●	●
Behavioral Risk Factor Surveillance System							●	●	●	●	●	●

The goal of the survey-based surveillance system is to appropriately analyze data collected, and properly interpret and transform the survey results into information that can be used for policy making, program planning and assessment. To enhance visibility and applicability of the survey results, reinforcement on data analysis and result application are crucial. The utilization of multiple channels and platforms are essential for a timely and appropriate dissemination of survey results to health promotion related sectors. Outcomes for 2007 are listed as follows:

1. Taiwan Longitudinal Study on Aging

This longitudinal study follows a cohort of middle-aged and elderly residents in non-aboriginal townships in Taiwan and has been running since 1989. This year's survey is the sixth round of follow-ups. A total of 4,534 middle-aged and elderly persons were interviewed. Content of the survey includes health status of middle-aged and elderly people, health behavior and medical service utilization. The information will be used to project future needs of the elderly population in medical care services and living support. The data collected will serve as a reference for central and local health authorities while designing and planning health policies for middle-aged and elderly people and will be useful for resource allocation and program assessment.

2. Taiwan Birth Cohort Study

The aim of this study is to understand the norms of early childhood growth, development, health and illness, and to investigate health status and health care demands of specific groups. A national representative sample that consists of 24,664 sampled newborns in 2005 was randomly selected for the follow-up survey. After the baseline survey was completed at the six-month-old mark, the samples were followed up in 2006 at 18 months old. A database of the infant's and children's physical and mental development and important health information was set up. Reference information generated from this study can be applied by health sectors to develop appropriate preventive strategies and early life health policies. A total of 20,559 subjects were successfully followed up.

3. Taiwan Youth Health Survey

Since 2004, BHP has been using the protocol of the Global Youth Tobacco Survey (GYTS) developed by the World Health Organization and the U.S. CDC to plan and conduct surveys to monitor smoking-related behavior amongst teenagers in Taiwan. Starting from 2006, the BHP went further to follow the Youth Risk Behavior Survey (YRBS) of the U.S. CDC and the Global Student Health Survey (GSHS) organized by the WHO to initiate a new series of school-based surveys. This survey focuses on major health behavioral risk factors that might lead to death, diseases, disability or social problems. The scope of the survey was also extended to cover more health related issues. Meanwhile, a biennial rotating mechanism to conduct surveys on junior high school students in one year and on senior high, vocational high school and junior college students the following year was established. In accordance with the timeline for this series of surveys, in 2007, students investigated were senior high, vocational high school and junior college students. Data is collected to monitor smoking and health behavior trends prevalent in the youth population.

4. Behavioral Risk Factor Surveillance System

In order to investigate people's behavioral risk factors in a timely manner, BHP set up its Call Center in 2003 and conducts telephone interviews on a yearly basis to collect data required for health program evaluation. In 2007, besides the continuation of the existing "Adult Smoking Behavior Survey", the Taiwan Behavioral Risk Factor Surveillance System for adults aged

Figure 7-4 Online Analytical Processing (http://olap.bhp.doh.gov.tw)

18 and above was launched. It was developed by adopting the experience of the U.S. Behavioral Risk Factor Surveillance System (BRFSS). The series of surveys will continue every year and data collected in 2007 will be treated as the baseline for trend analysis on people's health behavior changes in Taiwan. The annual sample size of the two series of telephone surveys were around 16,000 respectively.

5. Expansion and Revision of the "Online Analytical Processing" Website

To share all health survey data and birth reporting data with health professionals, the general public or related academic personnel in need of such information, BHP has made the data publically accessible by constructing an Online Analytical Processing (OLAP) website. The function of the website was expanded and revised in 2007 (Figure 7-4). The updated website has been open for public use since June 2007. Workshops and advocacy activities were organized and held in different regions through various approaches. The expected benefit of the website is to reinforce the accessibility of health professionals and the general public to health indicator data and reduce manpower demands on conducting descriptive statistical analysis of the survey data. In addition, enhancement of accessibility of survey and birth reporting data will facilitate their adoption in policy making processes.

6. Management of Birth Reporting System

For rapid and accurate comprehension of the status of births in the population, for efficient delivery of health services to women and children, and for improvement of the accuracy of newborn-related population information, birth reporting was implemented in 1995 and online reporting of birth information has been available since 2004. To ensure safeguarding of data and to minimize the possibility of system invasion, the HCA certification system was added to the Online Birth Reporting System. Since the initiation of the birth reporting system, not only has the birth reporting rate been effectively enhanced (99.9%), the reported information can also serve as reference for healthcare-related parties while planning childbirth and healthcare policies, strategies, and services.

Section 3. International cooperation

Current status:

Continuing the success in international cooperation of the previous authority, BHP has been devoted to promotion of foreign contacts and has worked with the U.S. Centers for Disease Control and Prevention to embark on cross-border health-related projects. We participate in major international conferences on behalf of Taiwan and share our practical experiences in health promotion with other countries in the world.

Policy implementation results:

1. Co-operation on population, family, and children between Taiwan and Vietnam

Cooperation and exchanges on population, family, and children's care-related issues between Taiwan and the Vietnam Commission for Population, Family and Children (VCPFC) continued in order to provide Vietnamese health personnel with the successful health experiences and technology of Taiwan and help them promote exchanges on skills and experiences in related operations. The cooperation and exchange program in 2007 included:

(1) Vietnamese VCPFC delegation visit to Taiwan

The Vietnamese government sent personnel involved in population, family planning, and women and children's care to Taiwan for observation and training. The delegates came at three different times and received practical training in related government authorities or grassroots institutions. Prioritized items to be observed included population and development policies, population quality control (newborn screening, early intervention to prevent congenital defects in children, care and rehabilitation services for physically and mentally disabled children), management of social welfare and development, and related laws and regulations on sexual equality as well as their implementation difficulties and impacts.

(2) Professional technical guidance provided by BHP during visits to Vietnam

In 2007 the Vietnamese government underwent restructuring and the number of ministries and departments was cut from 26 to 22. Starting from August, VCPFC personnel and operations were consolidated to three different ministries and departments. In the same year, a delegation lead by BHP visited Vietnam and its National Institute of Gerontology, the National Obstericio-Gynaecological Institute and the Vietnam Family Planning Association, and participated in two "Upgrading Population Quality" workshops in Vungtau to share Taiwan's long-term care, newborn screening, and foreign spouse childbirth health care policies and implementation experiences. During the visit, Taiwanese delegates also got to know the challenges facing the Vietnamese government in the midst of population transformation, status of population quality upgrade and newborn screening program as well as future development.

(3) Experience Sharing

The Vietnamese delegation was invited to assist health authorities by reviewing Vietnamese health education materials developed by BHP regarding prenatal genetic diagnosis and childbirth health care during their visit to Taiwan in order for the materials to be utilized by Vietnamese spouses in Taiwan.

2. Study of Social Environment and Biomarkers of Aging

To meet the demand for policy development and implementation of an aging society, BHP collaborated with Georgetown University and Princeton University and initiated the Social Environment and Biomarkers of Aging Study (SEBAS). The study is an extension of the "Taiwan Longitudinal Study on Aging" that has been conducted since 1989 by BHP and its predecessor (the Institute of Family Planning, Department of Health, Executive Yuan). Through

questionnaire interviews, home visit health assessment, health examination, and laboratory test on blood and urine samples, information on the health and well-being of the sampled middle-aged and elderly was collected to elucidate the relationship among life stress, social environment, and health status of the elderly and enable further understanding of the factors that influence the health of middle-aged and elderly people in Taiwan. The Stage I five-year program was carried out from 1999 to 2004. The Stage II five-year collaborative research program started in 2005 and will be completed in 2009. Two waves of fieldwork were conducted in 2000 and 2006, respectively. Priorities in 2007 include data archiving, document compiling, and planning for preliminary analysis. A preliminary report can be expected in 2008.

3. Study of Sexual and Reproductive Health Among Adolescents and Young Adults in Three Asian Countries

This study aims to understand adolescents and young adults' attitudes towards gender, marriage, childbearing, family, and to understand their sexual behavior after exposure to information communicated through media, the Internet, and to western culture. The study was designed with joint efforts from scholars based at John Hopkins University, and researchers in China and Vietnam. Fieldwork was completed in 2006 and data were analyzed in 2007. A study group meeting was held in Bangkok from December 4th to December 7th to update progress of the study and exchange ideas. The group member of BHP was invited to present research findings and take part in the discussion. Topics and timeline of data dissemination were proposed. In addition, discussion was also focused on research methods and future prospects of the study. The research findings will be provided to collaborative institutions for adolescent and young adult health related policy development and service program planning.

4. Tobacco control activity

To link with international tobacco control, in addition, to continue to collaborate with U.S. Centers for Disease Control and Prevention on surveys of smoking behavior, BHP has been proactively seeking opportunities to hold related international conferences in Taiwan so that we can share successes in tobacco control in Taiwan and enhance exchanges and interaction with international society on the issue of tobacco control. Moreover, BHP has also continued to help developing countries promote tobacco control through domestic NGOs by establishing communication networks and maximizing international resources and channels for tobacco control. Important achievements include:

(1) International exchange and cooperation

a. With joint efforts from NGOs, international symposiums and workshops on different topics were held in Taipei, Taiwan in October, 2007. Content of the events is briefed as follows:

(a) Asia Pacific Quitline Workshop: Held from October 15th to October 17th, 2007 experts and scholars from the U.S., Australia, and the Asia Pacific region, were invited to come to Taiwan for the workshop. A total of 10 countries and 43 participants took part in the workshop. Topics discussed included international development trends for quitline, operation models for smoking cessation hotlines in other countries, and a field trip to the Taiwan's Smokers' Helpline Center.

(b) Asian Youth against Tobacco Advocacy Training Workshop: Held between October 16th and October 20th, 2007, a total of 39 young advocates from 12 countries participated in the research, policy-making, legislation of tobacco control, and an "Asian Youth against Tobacco Advocacy Declaration" was drafted and released (Figure 7-5).

Figure 7-5 Teenage representatives participated in the youth forum during the 8th Asia Pacific Conference on Smoking or Health

(c) The 8th Asia Pacific Conference on Smoking or Health: A total of 519 delegates from 43 countries around the world attended the conference from October 18th to October 20th, 2007, which consisted of seminars, topic discussion, and workshops. Topics discussed included smoke-free environments, laws and regulations, tobacco tax, and anti-smoking status in the Asia Pacific region. The meeting went beyond the Asia Pacific region and was the largest-on-scale Asia Pacific Conference on Smoking or Health with the most number of participants in history.

(d) International Symposium on Tobacco Litigation and Tobacco Control in Public Areas: Organized on October 21st, 2007, domestic and international scholars were invited to take part in this symposium and share their experiences on two aspects, namely, legal background for tobacco control in a public space and medical evidence in tobacco hazard lawsuits. A total of 190 participants attended the meeting.

b. BHP continued to work with international NGOs in Cambodia in order to help promote the passing of a local Tobacco Hazards Prevention Act and enhance local residents' awareness, develop a smoke-free hospital guide, and construct smoke-free settings, e.g. promoting smoke-free workplaces in 46 healthcare facilities. In addition, the BHP also help provide smoking cessation services, expand smoke-free tricycle project in cooperation with Phnom Penh Tricycle Center, and produce fact sheets and letters to persuade policy makers.

2. Proactive participation in international conferences and visits to related health institutions

BHP participated in global or regional tobacco control meetings and seminars, including the "Global Youth Tobacco Survey Workshop", the "Second Meeting of the Conference of the Parties (COP2) to the WHO Framework Convention on Tobacco Control", the "19th IUHPE World Conference on Health

Promotion and Health Education", and the "Global Health Professional School Students Smoking Survey Workshop", etc. In addition, BHP delegates visited the U.S. Department of Health and Human Services, the Maryland Department of Health and Mental Hygiene, and Centers for Disease Control and Prevention. Through visits and exchanges, we can learn the successful experiences of other countries.

5. Internationalization of the safe community network

(1) Continued construction of a community safety promotion network in Taiwan and proactive connection to the International Safe Community Movement

Besides establishing safe community promotion centers in Taiwan to handle international safe community exchanges, a Lanyang Safe Community Model Program is being implemented throughout Yilan County. Currently, there are four support centers in the northern, central, southern, and eastern parts of Taiwan engaging in the sustainable management of four internationally certified safe communities in terms of accident prevention and safety promotion. Another four safe communities will be established. It is expected that there will be five communities applying for international safe community certification in 2008. In addition, a horizontal cooperative mechanism between ministries and departments is being consolidated in order to work with the Council of Indigenous Peoples in the joint promotion of the four safe indigenous communities program.

(2) International connection and cooperative exchange activities

a. Increased membership in the International Safe Community Network

Neihu of Taipei City, Dongshr Township of Taichung County, Alishan Township of Chiayi County and Fongbin Township of Hualien County are the four safe communities accredited by the World Health Organization in June 2005 and members of the International Safe Community Network. Following this, the Dungshr Safe Community helped Dungshr Elementary School pass the international safe schools certification from the International Safe Schools Committee of the World Health Organization to become the first international safe school in Taiwan.

b. Participation in international safe community seminars

In November 2007, a Taiwanese delegation of around 45 representatives from safe communities went to Thailand to take part in the 4th Asian Regional Conference on Safe Communities, in which 25 posters were presented and four oral reports were given.

c. Invitation of international scholars and experts to visit Taiwan

Mr. Henk Harberts, Chairman of the Australia Safe Communities Foundation, Mr. Zhong-Tang Zhao, Dean of Public Health College, Shandong University of China, Mr. Max L. Vosskuhler, Chairman of the International Safe Schools Committee of the WHO, and Ms. Ellen R. Schmidt, Project Director of the U.S. Children's Safety Network were invited to take part in the "2007 Safe Communities and Safe Schools Development Conference in Taiwan" in November 17th-18th and went on a field trip to Taichung County, Dungshr Elementary School, among others, for visits. A total of six schools were accredited to be the World's No.5 to No.10 safe schools. Experts also went to Dongshan Township of Yilan County, Zhongzheng District of Taipei City, Zuoying District of Kaohsiung City, and Shihkang Township of Taichung County to visit local communities for exchanges.

Appendix 1: 2007 Publications of the Bureau of Health Promotion

No.	Name of Publication	GPN	Month of Publication
1	Metabolic Syndrome Prevention and Control Handbook ※	1009600214	January
2	Healthcare Social Work Cancer Care Practical Handbook ☆	1009600319	January
3	Health Promoting School Handbook	1009600437	February
4	Tobacco Hazards Control and Health Care Fund Utilization ※	1009600655	April
5	Taiwan Health, We Care ※	1009601107	May
6	2007 "Outstanding Health Books — Fun Reading Health" Recommendation Handbook ☆	1009601369	May
7	Health Education Manual for Patients Receiving Breast Cancer Treatment ※☆	1009600874	June
8	Successful Aging — Health Care Manual for the Elderly ☆	1009602624	November
9	Health Examination Guide for Special Health Hazardous Undertakings ※	1009603065	November
10	Clinical Cytogenetics Laboratory Operation Guide ※	1009600120	December
11	Genetic Health Care and Rare Disease Prevention and Control—Academic Theses	1009601602	December
12	Coronary Artery Disease Self Care Handbook ☆	1009602347	December
13	Lifesaving and Fall-prevention Series — Lifesaving and Fall-prevention Code ☆	1009602704	December
14	Lifesaving and Fall-prevention Series — Environmental Safety and Improvement (Practical Handbook) ☆	1009602705	December
15	Adolescent Diabetes ※	1009602886	December
16	Home Safety for Children — Environmental Inspection Guide	1009603193	December
17	Talks about Electromagnetic Fields (EMF) ※	1009603595	December
18	Metabolic Syndrome Learning Handbook — for Community Residents ※	1009603601	December

Note:

- BHP publications are available at the government publications section of Wunan Books (04-2221-0237), Hsiu Wei Information Technology Company (02-2657-9211) and Government Publications Bookstore (02-2518-0207).
- Items marked " ※ " can be downloaded in full text from the BHP website (http://www.bhp.doh.gov.tw/BHPnet/Portal/.
- Items marked " ☆ " can be downloaded in full text from the Health 99 website (http://health99.doh.gov.tw/).

19	The Practice Guideline for Workplace Health Promotion ☆	1009603679	December
20	Bases for Family Planning in Taiwan — an exploration primarily through interview with Professor Lian-Bin Chou	1009603857	December
21	Healthy Communities — 2007 Community Health Elite Promotion Program Exhibition ☆	1009603973	December
22	Goodbye, Tobacco ☆	1009603976	December
23	Metabolic Syndrome Teaching Handbook – for Community Residents	1009604012	December
24	Huntington's Disease Care Handbook for Parents ※	1009604054	December
25	Osteogenesis Imperfecta Care Handbook for Parents ※	1009604059	December
26	Move the Family- Flying Angel Health Fitness Handbook for Parents ☆	1009604079	December
27	A Practical Manual of Job Stress Management ☆	1009604125	December
28	Special Edition on the 10-Year Anniversary of Betel Quid Control––Healthy and LOHAS Life Without Betel Quids ☆	1009604326	December

No.	Name of Periodical	GPN	Month of Publication
1	2007 Taiwan Tobacco Control Annual Report (Chinese) ☆	2009601376	June
2	Taiwan Tobacco Control Annual Report 2007 (English) ☆	2009601377	June
3	Bureau of Health Promotion Annual Report 2006 ☆ (Chinese)	2009602807	November
4	Bureau of Health Promotion Annual Report 2006 ☆ (English)	2009602537	December

No.	Name of DVD	GPN	Month of Publication
1	Baby Development Screening Guide ☆	4509600292	January
2	Health Education Guide for Patients Receiving Breast Cancer Treatment	4509600875	June
3	2007 Taiwan Tobacco Control Annual Report ☆	4709601379	June
4	Foreign Spouse Childbirth Healthcare Series (Chinese, English, Vietnamese, Indonesian, Thai)	4509603946	December
5	The Lost Smile ☆	4509604282	December

Appendix 2: 2007 Chronology of the Bureau of Health Promotion

Date	Events
January 18th	“Amendment to the Metabolic Syndrome Diagnostic Criteria” announced.
January 15th	“Clinical Cytogenetics Laboratory Operation Guide” published.
February 6th	15th inter-departmental panel meeting organized by the Health Risk Working Group of the National Council for Sustainable Development, Executive Yuan.
February 12th	13th meeting of the “Health and Medical Care Working Group” of the Women’s Rights Commission of the Executive Yuan.
March 4th	"World Kidney Day" promotional activities organized in northern, central, southern, and eastern Taiwan. Along with 47 other countries in the world, Taiwan was listed on the 2007 World Kidney Day Agenda.
March 13th	Establish "Oral Health Five Years Strategic Plan for the Disabled" plan.
March 14th	The “1st Health Promoting School Awards Presentation Ceremony” is held.
March 21st	**Artificial Reproduction Act is announced and enacted.**
March 22nd	The first meeting of the “Cancer Prevention and Control Policy Commission” in 2007 is held.
April 4th	Legislalors of the 8th Health Environment and Social Welfare Commission review an amendment to articles of the Cancer Prevention and Control Act in the 5th meeting of the 6th Legislature.
April 22nd	The first delegation of the Vietnam Commission for Population, Family and Children in 2007 visits Taiwan.
May 15th	The 1st meeting in 2007 on the amendment of women’s health draft policies is organized.
May 16th	The “Health Number 123 – Online Analytical Processing” website is renewed.
May 19th	In response to World Hypertension Day on May 17th, a “Healthy Diet to Keep Normal Blood Pressure” fair is held.
May 23rd	Presentation on life skills and outcome of health promoting schools is held.
May 29th	Ceremony for “2007 Outstanding Health Books – Fun Reading Award” is organized and 106 books are rated healthy books.
June 1st	2006 Academic Symposium and Presentation of Health Promoting Schools is held.
June 3rd	The second delegation of the Vietnam Commission for Population, Family and Children in 2007 visits Taiwan.

Date	Events
June 15th	2nd and 3rd readings for the Tobacco Hazards Prevention Act Amendment are completed.
June 23rd	“Regulations for Query on Kinship of Artificial Reproduction Child” are announced and enacted.
July 4th	A cancer prevention and control grassroots personnel training program is held in Taiwan along with the American Cancer Society for advanced educational training and seed plans status reports.
July 11th	**A total of 35 articles amended in the Tobacco Hazards Prevention Act are announced by the President and will take effect on January 11th, 2009.**
July 22nd	The third delegation of the Vietnam Commission for Population, Family and Children in 2007 visits Taiwan.
July 26th	“Regulations for Artificial Reproduction Institutions Permit” are announced and enacted.
July 26th ~ 29th	Participation in the “2007 Taiwan Biotechnology Month” with topics of “Betel Nut Health Hazards Prevention and Control” and “Smoking Abstention Hotline”
July 30th	“Regulations for Verification on Kinship of Sperm and Oocyte Donors and Receptors,” are announced and enacted.
July 31st	“Regulations on Health Examination, Health Services and Follow-up Services for the Elderly" is announced and enacted.
August 8th	“Regulations for Artificial Reproduction Information Notification and Administration" are announced and enacted.
August 19th	The “1st Health Promoting Hospital Seminar” is organized.
September 10th	“Assisted Reproductive Technology Management Measures” are abolished.
September 12th ~ 13th	2007 Taiwan Healthy Cities Organization Meeting and Healthy Cities National Workshop is held.
September 30th	Working with the theme for World Heart Day, “Healthy Families and Healthy Communities,” the slogan “Hand in Hand and Heart for Heart” is advocated in the “Heart Protection” campaign.
October 4th	The “2008 Cancer Diagnosis and Treatment Quality Accreditation Guidelines and Evaluation Explanation” and “2008 Cancer Diagnosis and Treatment Quality Accreditation Operation Procedures” are announced by the Department of Health with accreditation to begin in 2008.

Date	Events
October 11th	“Regulations of the Tobacco Health and Welfare Surcharge Distribution and Utilization" are announced, and shall take effect from the effective date of Article 4 of the Tobacco Hazards Prevention Act.
October 11th ~ 12th	The “4th International Asian Conference on Cancer Screening” is organized with the Taiwan Association of Medical Screening.
October 15th	The “Central Cancer Prevention and Control Briefing” is organized at the Executive Yuan, in which “Oral Cancer Prevention and Control and Betel Nut Control” are discussed.
October 15th ~ 17th	The “Asia Pacific Quitline Workshop” is organized.
October 16th ~ 17th	“Asian Youth against Tobacco Advocacy Training Workshop" is organized.
October 18th ~ 19th	Professor Albert Lee and staffs from Center for Health Promotion at the Chinese University in Hong Kong are invited to share their experiences of a health promoting school.
October 18th ~ 20th	The “8th Asia Pacific Conference on Smoking and Health ” is organized.
October 21st	The “Seminar on International Tobacco Litigation and Tobacco Controls in Public Areas” is organized.
October 24th	The “Round Table Conferences on Walking ” is organized to facilitate experience exchanges among corporations and communities.
October 30th	The 14th meeting of the “Health and Medical Care Working Group” of the Women’s Rights Commission of the Executive Yuan is held.
October 30th ~ November 1st	The National Breast Cancer Alliance is subsidized to organize the “11th Joint Annual Event for Cancer Patients Support Groups in 2007”.
November 6th	Presentation on the results in the promotion of automatic Pap smear outpatient reminder system is organized
November 8th	Presentation on the results in the “Counseling and Evaluation Program for Communities Promoting Betel Quids Health Hazards Prevention and Control” is organized.
November 9th	Hualien County successfully joins the Alliance for Healthy Cities of the World Health Organization.
November 11th	Along with the Sports Affairs Council and 25 county and city governments, the “1111 National Walking Day – Taiwan Marches Forward Happily” is organized.
November 16th	The “Self-Cetification of Healthy Workplace” is promoted for the first time in 2007 and 115 best practice workplaces are recognized in an open ceremony.
November 16th	“Betel-Quid-Free Hospitals” are promoted with joint efforts from the Kimma Chang Foundation.

Date	Events
November 17th ~ 18th	The “2007 Safe Communities and Safe Schools Development Conference in Taiwan” is organized.
November 18th	The premiere for “The Lost Smile” is organized and the “Presentation of Achievements at the 10th Anniversary of Betel Quid Control” is held outside the premiere site, displaying details on the 10-year control process.
November 18th	Presentation on the results of “Cancer Prevention and Control Center – Comprehensive Enhancement of Cancer Diagnosis and Treatment Quality” is organized.
November 18th	To respond to the first World Diabetes Day (November 14th) of the UN, Taipei 101 Light-up, fairs and 246 Walking activities are organized with the Diabetes Association of the Republic of China.
November 19th ~ 20th	The “Communities Promoting Betel Quid Health Hazards Prevention and Control” workshop is organized.
November 21st	The “Tackling Pornography and Controlling Desire” sexual education curriculum presentation and seminar is organized.
November 26th	**"The Review Guidelines for Preventive Health Services by the Bureau of Health Promotion, Department of Health, Executive Yuan" are amended.**
November 26th ~ 30th	The Taichung Kaihuai Association is subsidized to organize the 2nd Conference of Global Chinese Breast Cancer Groups Alliance.
November 30th	**The “Women’s Health Policy” (draft) is passed in preliminary negotiation session before the 28th meeting of the Women’s Rights Commission of the Executive Yuan and is resolved to be presented to the 28th meeting of the Women’s Rights Commission.**
December 1st ~ 2nd	The 2007 nationwide breastfeeding promotion personnel training camp is organized.
December 2nd	The 2007 Taiwan Stroke Prevention Day promotion activities are held.
December 2nd	The 2nd betel quid abstention competition “No Spitting of Betel Quids for a more Blessed Life” award presentation ceremony is held.
December 4th	The “Community Health Building Results Presentation” is organized, and 28 best practice health building communities are recognized.
December 11th	The “2nd Public Health Center Award Presentation Ceremony” is organized, and a total of nine best practice health institutions are recognized for their outstanding adult preventive health services space management.
December 15th ~ 16th	The International Conference of Oral Care for the People with Disabilities is held.
December 16th ~ 22nd	Experts are invited to form a delegation and attend the “Upgrading Population Quality” workshop in Vietnam.

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