ISSN 1999-601-2

Bureau of Health Promotion

Annual Report 2012

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

Cherish Life
Promote Health

Bureau of Health Promotion

Annual Report 2012

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Healthy Centenary, Healthy Taiwan!

Join Together to Safeguard Health!

The Bureau of Health Promotion, or BHP, provides comprehensive health promotion services from the womb to tomb, for all age groups and gender. Services include maternal and child healthcare, chronic disease control, cancer prevention, and obesity prevention. Via advancement at individual, environmental, and policy level, the BHP improve health of the public, prevent disease and extend life expectancy. In turn the Bureau achieves greater social harmony and prosperity by reducing social inequalities.

Changing lifestyle, aging population and increasing prevalence of non-communicable diseases (NCDs) have become major global health threats. According to a 2011 World Health Organization report, 63% of global deaths were due to NCDs (mainly cancers, diabetes, cardiovascular diseases and chronic respiratory diseases). In Taiwan, NCDs accounts for nearly 60% (58.4%) of deaths. The four leading risk factors are smoking, inadequate exercise, unhealthy diet and harmful use of alcohol.

Challenges such as aging population, low birth rate and the increase in NCDs require preventive measures and health promotion from leading public agencies. Only then can the government preserve health and prosperity while making the health insurance system sustainable. By enhancing health education and publicity and gathering support from private groups, the BHP uses these resources to promote healthy cities, communities, schools and workplaces, so it can create a comprehensive health environment where people can learn about health and choose to lead healthy lives. To realize the vision, the BHP launched numerous programs in 2011, including Healthy Centenary, Healthy Taiwan. This nationwide campaign encouraged people to maintain a healthy body weight. The goal was to call on 600,000 people to lose a total of 600,000 kilograms (or 600 metric tons). Joining to promote healthier eating habits and group weight loss were central and local government representatives, led by the president and premier of Executive Yuan. They urged people to eat smartly, exercise happily, and weigh daily while taking steps to reduce obesity-causing factors in the environment. The program exceeded the target when 720,000 people, about 3% of the population participated and lost a total of 1,104 tons of excess weight. It also led to significant increases in the regular exercise rate and counteracted the allure of ill-advised shortcuts, such as risky weight-loss pills and excessive dieting. News of the program's success spread quickly around the world.

Another important part of the BHP's health promotion efforts was tobacco hazard prevention and control. In 2011, the exposure rate to secondhand smoke in public places was under 10% (8.2%), and 90% of people were satisfied with the progress. To achieve greater equality in health rights, the BHP launched the Second Generation Tobacco Cessation Subsidy Program. In the past, clinical cessation treatment subsidies derived from the Tobacco Health and Welfare Surcharge followed a fixed rate plan, but under the new program they began to resemble payments for chronic disease treatment. Co-payments drop to NT$200 or less. Smoking cessation services were extended to local pharmacies and to prisoners. The BHP made professional smoking cessation assistance available to people of all walks of life, including disadvantaged groups, and therefore made it easier to escape the shackles of tobacco addiction. Meanwhile, the BHP is currently launching a certification system for smoking cessation instructors, enhancing the treatment success rate, and helping youths and pregnant women quit smoking as quickly as possible.

The BHP has set a target of reducing the cancer mortality rate by 20% by 2020. To reach this goal, free screenings are offered for the four major cancer types (cervical cancer, breast cancer, colorectal cancer and oral cancer). In 2011, 4.35 million of these screenings were conducted. They uncovered more than 11,000 cases of cancer in patients who had not yet exhibited symptoms and over 32,000 cases of precancerous lesions, saving precious lives and prevent new cases. In addition, 80% of people were aware that the government provides these screenings. Meanwhile, the betel quid chewing rate among adult males has dropped dramatically, from 17.2% in 2007 to 11.3% in 2011 (a decrease of over a third). To reduce the rate of cervical cancer, the BHP subsidizes human-papilloma virus vaccines to junior high school female students from low-income households along with indigenous mountainous areas and offshore islands. For adult health

check-ups, starting from this year, the BHP added hepatitis B and C tests. These can help the infected receive treatment and regular screenings to reduce the risk of chronic liver disease and liver cancer.

As medical institutions seek to improve public health, the BHP plays an important supporting role. Its goal is to shift the focus of medicine from treatment to health promotion among patients, workers and all members of the community. The BHP has adopted the WHO's Health Promoting Hospital model to assist medical institutions in improving their organizational culture, facility, management and service work flow. One of its primary goals is to make preventive medicine the norm so doctors encourage patients to take cancer screenings and use smoking cessation services, along with instructional programs on chronic diseases and breastfeeding. These can help people stay healthy and prevent mental and physical debilitation.

Faced with an aging population, the BHP launched a pair of initiatives: active aging and healthy cities. 9 cities and counties have already joined. They are building inclusive communities accessible to people of all ages and handicaps by focusing on eight key factors: respecting seniors; being close to seniors; making communities safe; easing traffic flow; connecting transportation links; eliminating obstructions; focusing on health and fitness; and making people feel young. These steps encourage community participation by seniors and make them feel healthier. Success allowed the initiatives to spread to 20 cities and counties in 2012. In addition, the BHP researched and developed the Taiwan Age-Friendly Health Treatment Framework. This framework was to build the world's first national age-friendly hospital certification system, which could be expanded across the world.

The BHP also took actions on another challenge Taiwan faces, the long-standing preference of gender imbalance for male children over female. The BHP launched publicity campaigns, monitored data, eliminated illegal advertisements, investigated and advised medical institutions, and amended laws and regulations. The result was a drop in the sex ratio at birth from 1.090 in 2010 to 1.079 in 2011. It was the lowest in 16 years; an estimated 993 female infants were saved. The BHP will continue these efforts to bring the sex ratio down to a natural level (1.06 or below).

The BHP joined and hosted many international events in 2011. For the World Health Assembly, it spoke on prevention of non-communicable diseases along with maternal and child health. At the UN Framework Convention on Climate Change, the Bureau attended the official press conference and on-site side events, marking Taiwan's greatest role at the convention in 17 years and a major step forward for participation in international public health. What could be celebrated is that the BHP welcomed a Vice Chair for the International Network of Health Promoting Hospitals & Health Services, and BHP encouraged cities and counties across Taiwan to join the Alliance for Healthy Cities, Western Pacific Region. For the WHO's 1st International Conference on Age-friendly Cities, the BHP led a local delegation then encouraged 20 cities and counties in Taiwan to sign the Dublin Declaration. Furthermore, the Bureau hosted a parallel forum at the 14th European Health Forum Gastein and the American Public Health Association 139th Annual Meeting and Exposition. Also, the BHP published papers at numerous international conferences and hosted 10 international seminars in Taiwan. These exchanges allowed the world to see Taiwan's achievements and professionalism in health promotion.

The BHP must meet people's expectations in the face of constant health threats and debilitating diseases. With limited resources, it is a daunting task. We hope our work is evidence-based and our love for life serves as the motivating force. By mobilizing society and its constituents while bringing policies in line with international practice, the BHP can pursue effective results and show its regard for fairness and justice. The BHP cooperates with public and private units and sectors, as well as encourages everyone to continue striving forward to achieve its vision of a healthy society.

Director-General , Bureau of Health Promotion,
Department of Health, Taiwan

Shu Li Chiou

December, 2012

Chapter 1

Introduction

Bureau Of Health Promotion

Chapter 1

Introduction

1. Evolution

In 1999 in coordination with the Local Government Act and the downsizing of Taiwan Provincial Government, the Department of Health (DOH), Executive Yuan, absorbed "Taiwan Provincial Health Department" and it was reorganized and became the DOH Central Taiwan Office. The Institute of Family Planning, Institute for Public Health and Institute of Maternal and Child Health, originally under the Taiwan Provincial Health Department, also became DOH subsidiary bodies on July 1, 1999. To integrate health promotion work and achieve health for all, the Department of Health Care, the Institute of Family Planning, Institute of Public Health and Institute of Maternal and Child Health were merged and became the "Bureau of Health Promotion on July 12, 2001, the product of the first administrative agency reorganization after the downsizing of Taiwan Provincial Government, and responsible for health promotion and noncommunicable disease prevention work.

2. Organization and Mission

The BHP aims to do the following: set public health policies that best fit the local population based on its health characteristics; strengthen foundational healthcare and create a supportive environment to strengthen community actions; bolster people's capacity for health decisions and self-management by means of health education; and join forces with public health agencies in all the counties and cities, hospitals and private groups to enforce health policies and bring about a healthy environment for the entire population. In practice, its mission is to map out health promotion policies as well as laws and regulations; build a health-friendly environment; plan and enact measures to promote reproductive health, maternal and child health, adolescent health, and the health of middle-aged and elderly people as well as to advance the prevention and control of health hazards such as smoking and betel-quid chewing, cancers, cardiovascular diseases, and other major noncommunicable diseases; conduct public health surveillance and related research and address other special health topics.

3. Health Promotion – Vision and Challenges

National health is a key gauge of national competitiveness. To increase physical, mental and social health in Taiwan, the BHP has taken its lead from the Alma-Ata Declaration of 1978 and the five action areas for health promotion identified in the Ottawa Charter of 1986. As such, it has been striving to do the following: set health friendly public policies; bring about healthy communities, hospital, schools and workplaces; enhance public consciousness of health to usher in a society where health always comes first; and develop citizens' health skills and readjust health services. The ultimate goal is to achieve health for all enunciated by the World Health

Organization. Meanwhile, clearly defined promotion policies have been mapped out to better cater to maternal infant health, child and adolescent health, the health of middle-aged and elderly people, and women's health, thus keeping health inequalities in different periods of life to a minimum. Equally important are policies laid down to address cancers and chronic diseases, which become increasingly common among local people due to obesity, smoking, betel-nut chewing, unhealthy diets and lack of exercise. The BHP is also called upon to conduct public health surveillance and related research and development, based on which it will set new policy goals and strategies that best meet present needs and future development. In turn, it aims to play a due part in promoting the health of the entire person, society and planet over the long run. (Figure 1-1.)

Figure 1-1 BHP Vision and Strategies

Chapter 2

Healthy Birth and Growth

Bureau of Health Promotion

Chapter 2

Healthy Birth and Growth

Social change and multicultural stimulus have transformed societies as well as family structure and functions. They have brought about changes in the medical treatment and healthcare system, in the economy and transportation, and in the social and material environments. People of different nationalities often must learn to come to divorce, it is mostly grandparents who end up with raising their children. Taiwan's youngsters are used to fast food even as they are subject to tremendous pressure of passing exams for entrance to esteemed high schools and colleges. Combined, these phenomena have aggravated complications for maternal and infant health as well as child and adolescent health. What results is a worsening of such problems as postponement of childbearing, developmental delay among children, premature birth, teenage smoking and extramarital pregnancy. As such, the BHP makes it a point to strengthen the nation's healthcare system and create a healthy and safe environment favorable to the physical and mental development of expectant mothers, infants, children and teenagers.

In addition, hearing loss, myopia, strabismus, amblyopia, and dental caries are common health problems in children, and they can affect life quality into adulthood. Thus, the bureau has promoted early screening, intervention, and the establishment of good living habits and healthcare behavior in order to prevent abnormalities from these three diseases from affecting overall growth and development of children. This provides good assurance for the public in terms of health and life quality.

Section 1 Maternal Health

Status Quo

In 1989, the women of Taiwan had their first childbirth when they were 25.2 years old on average. This was deferred to 29.9 years of age in 2011. Structural analysis of first-time mother age: mothers aged between 20 and 24 fell from 29.5% to 8.9%, between 25 and 29 from 44.6% to 30.3%, between 30 and 34 increased from 17.4% to 41.5%, and between 35 and 39 increased from 3.4% to 15.5%. Apparently in evidence is childbirth postponement.

Moreover, Taiwan's maternal mortality rate came in at 5 per 100,000 in 2011. The figure was lower compared to those in the U.S., New Zealand, the U.K., Canada, Denmark, France, Belgium, Australia, Norway, Germany, the Netherlands, Ireland, about the same to Finland and Japan, but slightly higher than that of Austria and Italy.

Target Indicators

1) To have more than 90% of pregnant women take prenatal examinations and more than 98% take at least one such test.
2) To have more than 90% of pregnant women aged 34 and more take cytogenetic diagnosis; to have more than 94% of abnormal cases of high-risk pregnant women taking prenatal genetic diagnoses are followed up.

Policy Implementation and Results

1) Systematic Reproductive Health Services

1. Prenatal Examinations for pregnant Women

To ensure the health of expectant mothers and their unborn babies and to uncover various possible complications over the course of pregnancy early on, the BHP offers 10 prenatal examinations to pregnant women through medical institutions contracted under the national health insurance program. Since 2001, uses of this service have stayed in the neighborhood of 90%. In 2011, uses of the 10 prenatal examinations averaged 94.0% (figure 2-1), a total of approximately 1.86 million people utilized these prenatal examinations. 98.35% of expectant mothers took at least one prenatal test while 96.85% took at least four tests.

Figure 2-1 Utilization Rate of Prenatal Examinations

Source: Bureau of National Health Insurance/ Bureau of Health Promotion prenatal exam data, birth registrations, subsidies for uninsured new immigrants to receive prenatal exams

Notes: Data for 2002-2005 is taken from the Bureau of National Health Insurance; data for 2006-2011 is based on BHP files submitted.

2. Comprehensive Genetic Testing Services

One hallmark of advanced countries is preventive medicine. In the same spirit, genetic testing is now conducted in various stages-before marriage, pregnancy and childbirth, at birth, and throughout one's adulthood. These practices of primary prevention, prevention through reproduction options, and secondary prevention go prevention and control of genetic diseases can be illustrated as Figure 2-2. A summary of what the various genetic testing services have achieved in different stages of reproductive process is as follows:

A. Screening for Thalassemia in Pregnant Women

If abnormalities are detected in prenatal blood testing, the husband will be brought in for testing as well. If both spouses are found to have abnormalities, the blood samples are then sent to one of six government-certified thalassemia genetic testing centers for re-examination. If both husband and wife are confirmed to be either alpha- or beta-thalassemia carriers, villi, amniotic fluid or umbilical cord, blood is collected depending on the stage of pregnancy, for prenatal genetic diagnosis. In 2011, a total of 406 people underwent thalassemia genetic testing. Prenatal care was provided to those mothers with abnormal fetuses depending on mothers' will.

B. Prenatal Genetic Diagnosis for High-Risk Pregnant Women

In accordance with the "Reduction and exemption or subsidy of Genetic Health Measures" such benefits are accorded to high-risk pregnant women (aged 34 or more, with an abnormality found in a current or past pregnancy, or with a history of genetic disorders in her or her spouse's family) for taking prenatal genetic diagnosis.

In 2011, a total of 47,870 people benefitted from the subsidies; of them, 38,127 were aged 34 or more. That is, some 91% of pregnant women of advanced maternal age took prenatal genetic diagnosis during the year, up from 15.5% in 2000 (Figure 2-3). In 2011, abnormalities were detected in 1060 expectant mothers, or 2.21% of the tested women. Medical institutions or public health centers that conducted the tests were responsible for following up the abnormal cases and offering counseling so that the pregnant women in question could secure timely and proper care. When necessary, they would be referred to genetic counseling centers or other related institutions for treatment.

To ensure the quality of their services, the BHP evaluates institutions that perform genetic disease examinations on a regular basis in accordance with a clearly defined set of criteria. Certified institutions are subject to evaluation every three years. As of 2011, a total of 27 clinical cytogenetic laboratories and 9 genetic laboratories had won BHP certification. Likewise, guidelines are put in place for the periodical accreditation of genetic counseling centers to ensure their quality of genetic counseling, diagnosis and therapy. As of 2011, the BHP had thus accredited a total of 11 genetic counseling centers.

C. Genetic Disease Testing and Counseling in Relation to Reproductive Health

Genetic disease testing and counseling are offered to people with reproductive health concerns: those who are suspected of suffering from a hereditary disease screening. In 2011, a total of 11,670 people took such tests. Of these, 677 people were found to have chromosomal disorders; 961, thalassemia carriers; and 2603, other abnormalities.

Figure 2-2 Network for Genetic Disease Prevention

Figure 2-3 Rates of pregnant women aged 34 and above taking subsidized prenatal cytogenetic diagnosis in 2000-2011

2) Comprehensive Reproductive health Regulations and Systems

1. Enactment of Artificial Reproduction Laws and Regulations

Taiwan has introduced a series of laws to ensure the proper development and use of artificial reproduction technologies and protect the rights of infertile couples, sperm and egg donors, and children conceived through artificial reproduction. The Artificial Reproduction Act, enacted on March 21, 2007, was followed by the Regulations for Query on kinship of Artificial Reproduction Child, Regulations for Artificial Reproduction Institutions Permit, Regulation for Verification on Kinship of Sperm/Oocyte Donors and Receptors, Regulations for Artificial Reproduction Information Notification and Administration as well as the Notice of Maximum Payment Limit of A Donor's Expenses by the Recipient Couple. As of December 2011, a cumulative 71 artificial reproduction institutions had secured accreditation.

2. Draft Revision to the Genetic Health Law

To better ensure the health and safety of expectant mothers and their babies, the BHP set out to revise the Genetic Health Law, renaming it the Reproduction Health Law, in 2000. Alongside newly added provisions on services for the prevention and control of genetic diseases, there are revised regulations on medically induced abortions that specify what consultation services are supposed to be provided by medical institutions to pregnant women. The draft was submitted to the Legislative Yuan, Taiwan's parliament, on February 22, 2008 for deliberation. Separately, the BHP is ready to make it clear in the enforcement rules of the new statute that the gender of an unborn child will not be accepted as a reason when an abortion-seeking woman cites concern for her pregnancy or childbearing adversely affecting mental health or family life. As of December 2011, a cumulative 71 artificial reproduction institutions had secured accreditation.

3. Quality Assessment for Prenatal and Ultrasonography Examinations

The women of Taiwan are now entitled to 10 prenatal examination and one ultrasonography examination with government subsides. The numbers of prenatal examinations are no inferior to those in such industrialized countries as the U.S. and Japan. High-risk pregnant women who require further medical attention are given the option of turning to the national health insurance program. To further enhance the quality of prenatal examinations, the BHP is set to conduct a compensations while the quality of services is upgraded.

In Taiwan, ultrasonography examinations are now part of prenatal examinations. Established studies in the international community have found that an ultrasonography examination taken at an early stage of pregnancy (not recommended later than 24 weeks) is often effective in detecting a multiple pregnancy. As such, low-risk pregnant women are ill-advised to take routine ultrasonography examinations late in their pregnancy (after 24 weeks). In order to further enhance the quality of supersonic examinations, improve subsidy payments, and build consensus over such examinations, the BHP is now conducting an empirical review and gathering and reviewing data from abroad. The objective is to come up with proposals best suited to Taiwan that qualify as useful reference for the obstetrical and gynecological staff of local medical institutions.

Section 2 Infant and Child Health

Status Quo

The infant mortality rate is a key gauge of a country's child health. Taiwan's neonatal mortality rate fell to 2.7 per 1,000 total in 2011 from 3.1 in 1981, with infant mortality rate also decreasing to 4.2 per 1,000 live births in 2011 from 8.9 of 1981 (Figure 2-4). In comparison with industrialized countries, Taiwan's infant mortality rate is lower than that of Canada, the U.K., and the U.S. but higher than that of France and Germany. When compared to surrounding countries in Asia, it is higher than those of Japan and Singapore, roughly the same as that of South Korea, and lower than those of China, Malaysia and the Philippines.

Childbirth-reported Statistics showed that a total of 198,387 births in 2011. Of these, 8.22% were live births with low birth weight (less than 2,500 grams) and 0.90%, extremely low birth weight (less than 1,500 grams), a slight trend of decline what were recorded in 2010. At those rate, Taiwan's readings largely match those of the U.K., the U.S., Japan and Singapore.

Figure 2-4 Neonatal and Infant Mortality Rates

Source: Office of Statistics, Department of Health, Executive Yuan, 2011

Taiwan's total live births fell to 198,287 in 2011 from 217,386 in 2004. In the absence of artificial intervention, the sex ratio at birth came in at about 1.05-1.06. However, preference for males has been a longstanding phenomenon in Asian societies. Many nations have a preference for male heirs and varying degrees of the sex ratio at birth imbalance. The Sex ratio at birth in Taiwan (ratio of male to female newborns) ranked third in the world in 2003. Though the government has repeatedly instructed medical facilities to refrain from gender selection activities, the longtime trend of birth sex ratios has seen only a slight decline (Figure 2-6) due to declining birth rates and people hoping to have male heirs as their first or second born child. From 2006 to 2009, the sex ratio at birth in Taiwan stayed approximately at 1.08 to 1.09, which still showed a sex ratio at birth imbalance. This indicated that some part of the public remains sexual discrimination due to the influence of traditional concepts such as having male heirs and preferring males over females.

On the other hand, about 3% of Taiwan's newborns are found to suffer from congenital hearing defects. In 2011, 290, or 73%, of the island's 399 baby-delivering institutions offered screening services to uncover hearing disorders among the newborns. Meanwhile, preschool children hearing screening rate rose to 91.38%.

Figure 2-5 Live Births Reported

Source: Childbirth-reported Statistics, BHP

Figure 2-6 Sex Ratios of Live Births by Order of Birth

Source: Childbirth-reported Statistics, BHP

Table 2-1 Live Births Reported and Sex Ratios

Year	Live Births	Male (%)	Female (%)	Sex Ratio
2004	217,386	52.55	47.45	1.108
2005	206,925	52.18	47.82	1.091
2006	205,026	52.29	47.71	1.096
2007	203,377	52.33	47.67	1.098
2008	196,373	52.30	47.70	1.096
2009	192,465	52.04	47.96	1.085
2010	166,630	52.14	47.86	1.090
2011	198,386	51.89	48.11	1.079

Notes: Sex ratio at birth (SRB)= total of baby boys delivered divided by total of beby girls delivered (live births only)

Table 2-2 Sex Ratios of Live Births by Order of Borth

Year		First Birth	Second Birth	Third & Later Births	Total
2004	Persons	113,181	77,854	26,345	217,380
	Male	58,878 (52.02)	40,873 (52.5)	14,488 (54.99)	114,239
	Female	54,303 (47.98)	36,981 (47.5)	11,857 (45.01)	103,141
	Sex Ratio	1.084	1.105	1.222	1.108
2005	Persons	104,549	77,163	25,211	206,923
	Male	54,219 (51.86)	39,965 (51.79)	13,788 (54.69)	107,972
	Female	50,330 (48.14)	37,198 (48.21)	11,423 (45.31)	98,951
	Sex Ratio	1.077	1.074	1.207	1.091
2006	Persons	105,700	74,897	24,424	205,021
	Male	54,684 (51.74)	38,976 (52.04)	13,551 (55.48)	107,211
	Female	51,016 (48.26)	35,921 (47.96)	10,873 (44.52)	97,810
	Sex Ratio	1.072	1.085	1.246	1.096
2007	Persons	106,005	74,234	23,136	203,375
	Male	54,940 (51.83)	38,780 (52.24)	12,702 (54.9)	106,422
	Female	51,065 (48.17)	35,454 (47.76)	10,434 (45.1)	96,953
	Sex Ratio	1.076	1.094	1.217	1.098
2008	Persons	102,854	71,565	21,954	196,373
	Male	53,545 (52.06)	37,283 (52.1)	11,872 (54.08)	102,700
	Female	49,309 (47.94)	34,282 (47.9)	10,082 (45.92)	93,673
	Sex Ratio	1.086	1.088	1.178	1.096
2009	Persons	101,338	70,724	20,403	192,465
	Male	52,262 (51.57)	36,780 (52)	11,113 (54.47)	100,155
	Female	49,076 (48.43)	33,944 (48)	9,290 (45.53)	92,310
	Sex Ratio	1.065	1.084	1.196	1.085
2010	Persons	86,656	60,754	19,220	166,630
	Male	44,756 (51.65)	31,694 (52.17)	10,435 (54.29)	86,885
	Female	41,900 (48.35)	29,060 (47.83)	8,785 (45.71)	79,745
	Sex Ratio	1.068	1.091	1.188	1.090
2011	Persons	102,530	75,131	20,724	198,385
	Male	53,036 (51.73)	38,897 (51.77)	11,012 (53.14)	102,945
	Female	49,494 (48.27)	36,234 (48.23)	9,712 (46.86)	95,440
	Sex Ratio	1.072	1.073	1.134	1.079

Source: Childbirth-reported Statistics, BHP

Notes:
1. As the order of birth is not included in birth reporting, this analysis relies on the numbers of live births (including the birth in question) given by the lying-in women.
2. 2004 had six cases of unknown gender: five first births and one third birth.
3. 2005 had two cases of unknown gender: one first birth and one second birth.
4. 2006 had five cases of unknown mothers: three boys and two girls.
5. 2007 had two cases of unknown gender: one first birth and one second birth.
6. Sex ratio at birth(SRB) = total of baby boys delivered divided by total of baby girls delivered (live births only).

To faster the health of infants and toddlers, the BHP proactively promotes breastfeeding. In 2011, the Exclusive breastfeeding rate under 1 month is 68.6%, up from a mere 5.4% in 1989. During the same period, the total rate of breastfeeding also increased to 91.8% from 26.6%.

Early detection and treatment of disorders is vital to nurturing healthy infants and toddlers. Equally important is the establishment of a well-rounded healthcare system capable of serving them consistently. As such, the BHP has set the following objectives:

Target Indicators

1) To screen more than 99% of the newborns for congenital metabolic disorders each year.
2) Raise the utilization rate for preventive health services to 75%; to have more than 98% of infants less than one year old using such services at least 1 visit.
3) Breastfeeding Rate: According to the suggestions of World Health Organization and the United Nation Children's Fund, mothers worldwide should exclusively breastfeed infants the first six months to achieve optimal growth, development and health. Thereafter, they should be given nutritious complementary foods and continue breastfeeding up to the age of two years or beyond. The BHP aims to push Taiwan's Exclusive breastfeeding rate under 1 month up to 69% at the end of 2012.

Policy Implementation and Results

The health of the nation's future generations-infants and children-constitutes a multifaceted, complicated challenge. In the charting of policies, emphasis must be placed on integrating resources in the formulation of a comprehensive care and service system while taking into account the special features of different segments of society. Above all, all endeavors should be geared toward the establishment of a supportive environment conducive to health and safety:

1) Integration of Organizations and Resources

On March 29, 2006, the Department of Health set up a committee charged with promoting child health by mapping out forward-looking policies and facilitating communication and cooperation between government agencies and the private sector. Its duties include drafting policies in relation to child health and safety; promoting public awareness of child health topics; and developing pediatric technologies.

2) Provision of Comprehensive Healthcare Services

A summary of Taiwan's primary policies regarding children's healthcare is presented in Figure 2-7. Here are some highlights:

1. Implementing the birth reporting system

Since 2004, all hospitals fitted with delivery wards have been incorporated into an online birth reporting system. By nationality, birth data reported to the system simultaneously finds its way to the Department of Household Registration, Ministry of the Interior. The latter in turn passes it on to the National Immigration Agency and to various local household registration agencies. The purpose is to make sure that local health and household registration agencies can get hold of birth data quickly and accurately, especially those with regard to high-risk newborns (including those with congenital defects), so that they can render all the needed services early on. To ensure a secure system better protected against hacking, Taiwan's online birth reporting system has now been bolstered by a unique Healthcare Certification Authority program. In 2011, the online birth reporting system registered a total of 200,708 births, of which 198,387 were live births (hence a live birth rate of 98.8%); there were 2,321 stillbirths (a stillbirth rate of 1.2%). The online birth reporting rate was 99.9%. The data and statistics thus collected and compiled can certainly serve as reference for charting policies, strategies and services in the areas of reproduction and healthcare.

Figure 2-7 Policies on Infant and Child Health

2. Newborn Screening

Since 1985 newborn Congenital Metabolic Disorders screening services have made available nationwide. Alongside a screening rate of more than 99% over the past few years, proper treatment and counseling would be provided in the event of confirmed abnormalities to keep any sequelae to a minimum. In 2011, a total of 197,789 newborns underwent the screening (hence a screening rate of 99.7%). Of these, 3650 were tested positive for G6PD-deficiency, commonly known as favism; 204, congenital hypothyroidism; 12, congenital adrenal hyperplasia; 6, phenylketonuria; 1, maple syrup urine disease; and 3, methylmalonic acidemia. There were no detections of homocystinuria, isovaleric acidemia, galactosemia, glutaric acidemia Type 1, or medium-chain acyl-CoA dehydrogenase deficiency (Table 2-3).

Table 2-3 Cogenital Metabolic Disorders screening abnormalities detected among newborns in 2011 (197,789 newborns screened)

Item Screened	Incidence	Number of Abnormalities
Glucose-6-Phosphate dehydrogenase deficiency (G-6-PD)	1:51	3,650
Congenital hypothyroidism (CHT)	1:1027	204
Congenital adrenal hyperplasia (CAH)	1:15,032	12
Phenylketonuria (PKU)	1:24,021	6
Homocystinuria (HCU)	0	0
Isovaleric acidemia (IVA)	1:308,395	0
Maple syrup urine disease (MSUD)	1:106,225	1
Galactosemia (GAL)	1:177,041	0
Methylmalonic acidemia (MMA)	1:73,540	3
Glutaric acidemia Ttype 1 (GA 1)	1:119,503	0
Medium-chain acyl-CoA dehydrogenase (MCAD)	1:956,023	0
Total		3,876

3. **Preventive healthcare Services for Children**

   Through medical institutions contracted under the national health insurance program, the BHP subsidizes preventive healthcare services intended for children aged under 7. The objective is to prevent any interruption in health management and healthcare guidance and to offer early treatment if any abnormality is detected. Since 2002, the utilization rate of this service has stayed in the neighborhood of 70%. Of the total, 65.9% was offered at community clinics and the other 34.1% at medical centers, regional hospital and local hospitals. In 2011, approximate 1,000,000 children made use of this service; the average utilization rate was 80%. The rate of at least one by infants less than one year old came in at 98%.

   The BHP is keen to further enhance the use and quality of the preventive healthcare service for children. A fully revamped program was implemented in 2010. In addition to seeking out less-used items and services, it placed greater emphasis on the screening of child development and integration of medical resources available for primary care with a view to offering a greater diversity of services. Moreover, the BHP authorized county and city public health agencies to offer the preventive healthcare services to kindergarten and preschool children. In addition to monitoring and analyzing what the services might have accomplished, they were supposed to help promote referrals with regard to the screening of child development so that medical institutions under their jurisdiction could deal with any suspected cases of developmental delay in a timely fashion.

4. **Upgrading the Competence of Health Professionals**

   The BHP is keen to enhance the child development screening competence and skills of parents and medical professionals alike. Through subsidizing basic childhood special education training with comprehensive considerations for the family-for early childhood special education related personnel and practical training courses for assessment of developmentally delayed children.

5. **Commissioning a "Child Development Assessment Center" in Hospitals**

   To offer accurate, accessible and comprehensive services, in addition to establishing one Children's Development Assessment Center in each county and city starting in 2010, the BHP has also established 35 Children's Development Assessment Center depending on the number of inhabitant's under the age of 6 and distribution of medical resources in each county and city. In 2011, this number increased to 42 Children's Development Assessment Centers in total.

6. Creating a Friendly Environment Conducive to Breastfeeding

A. baby-friendly hospital accreditation system is implemented to foster positive changes at hospitals. In particular, hospitals are told to stop offering formula for free or at a discount so that breastfeeding can be taken for granted and newborns can have the best possible start in life. In 2011, a total of 158 medical institutions were certified as baby-friendly hospitals. In turn, these baby-friendly hospitals covered 71.4% of Taiwan's total births in 2011, a big jump from 39.2% in 2004 (Table 2-4). During the same period, the exclusive breastfeeding rate under 1 month rose to 68.6% from 46.6%; the exclusive breastfeeding rate under 4 months increased to 52.9% from 28.4%.

B. A toll-free hotline 0800-870870 is installed to address all queries related to breastfeeding. In 2011, the hotline handled a total of 13,350 calls. Likewise, a breastfeeding website is established to cater to both medical professionals and the general public. In 2011, visitors totaled 355,936.

C. A seed instructor training program is put in place so that more medical professionals can acquire the expertise needed to assist in the cause of promoting breastfeeding. In 2011, a total of 7 such training sessions were held, while 48 new seed instructors were certified and 807 medical professionals took part in basic training in breastfeeding.

D. Cross-sectoral coordination is an ongoing task to make the workplace as breastfeeding friendly as possible. In particular, the BHP has joined forces with local public health authorities to help companies set up breastfeeding rooms. In 2011, it also teamed up with the Council of Labor Affairs to hold a series of seminars on the Gender Equality in Employment Act as well as prevention and control of sexual harassment. Some 2,250 people attended a total of 25 such sessions that are also intended to foster a working environment friendly to breastfeeding mothers.

Table 2-4 Accreditation of Baby- Friendly Hospitals

Item / Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Number of certified hospitals	38	58	74	77	81	82	94		113	144	158
Exclusive breastfeeding rate under , 1 month **(%)	—	—	—	46.6	—	—	—	62.7	64.4	65.7	68.6
Coverage rate of certified hospitals(%)	—	—	—	39.2	40.8	41.3	47.4	46.3	53.9	67.2	71.4

Notes: Percentage of breastfeed babies (those relying only on breast milk and those also taking vitamin and mineral supplements or medicines) at least one year old.

7. Promoting Legislation on "Public Breastfeeding Act"

A. In 1989, the World Health Organization and the UN Children's Fund issued a joint declaration on protecting, promoting, and supporting breastfeeding. The following year saw breastfeeding further cited as a key indicator of child survival and development. All countries were thus urged to map out their respective breastfeeding policies and lay down laws to protect women's rights in this regard.

B. In Taiwan, "Public Breastfeeding Act" went into effect upon presidential promulgation on November 24, 2010. In accordance with Paragraph 3, Article 5 of the statute, the BHP made Standards for Establishment and Administration of Public Breastfeeding (Collecting) Rooms on May 11, 2011. On

August 23rd 2011, the definition of total floor area for locations which are legally obliged to set up a breastfeeding (collecting) room was announced to serve as a reference for county and city governments in enforcing the act. On September 28th, the Standards and Certification for Public Locations to Apply not to Establishing Breastfeeding (collecting) Rooms was announced. In 2011, a total of 1,549 breastfeeding (collecting) rooms were due to be set up in public places according to the act.

3) Countermeasures to Rectify Sex Ratio at Birth Imbalances

The government has set out to draft and implement regulations governing the medical industry to uphold the right of all babies to life and eliminate sexual discrimination, thus keeping to a minimum all the social complications that may arise from too drastic an imbalance between the two sexes in the population.

To combat illicit abortions, the BHP and two other Department of Health subsidiaries-the Bureau of Medical Affairs and the Food and Drug Administration-jointly form a sex ratio at birth panel. For its part, the Food and Drug Administration is responsible for the management of medical equipment designed for sex selection as well as for the gathering and tracking of imported testing materials and their sales in Taiwan. The Bureau of Medical Affairs is charged with regulating sex selection undertaken by private laboratories or biotechnological ventures in accordance with the Medical Technicians Law. On January 13, 2011, a new decree went into effect: Any prenatal sex selections as part of diagnosis of non-gender-related genetic diseases or any medically induced abortion performed only for the sake of the unborn baby's sex is considered a banned act of medical care under Paragraph 1, Article 28-4 of the Physicians Law. As such, physicians found to have conducted sex selection or abortions in ways described above are now subject to a fine of NT$100,000-NT$500,000. Serious offenders may even have their physician's license revoked.

Likewise, restrictions have been imposed on technologies that may dictate the sex of babies around the time of conception. For instance, those who employ artificial reproduction technologies in selecting the sex of an embryo face a fine of NT$200,000-NT$1 million, as is specified in Paragraph 3, Article 16 of the Artificial Reproduction Act. The physician in question faces disciplinary action while the hospital involved may have its status as a certified artificial reproduction institution revoked and cannot reapply for a new permit until two years later. To effectively address the sex imbalance among newborns, the BHP has repeatedly instructed medical institutions "neither to conduct prenatal sex selection in diagnosis of nongender-related genetic diseases nor to do so upon the request of the expectant mother and her relatives, let alone perform a medically induced abortion on sex considerations." Offenders will be dealt with according to pertinent laws and regulations, under which they are permitted to conduct tests on fetus sex only as part of diagnosis of sex-related genetic diseases. In addition, it was announced on March 23rd 2012 that medical technicians carrying out prenatal sex selection in diagnosis of nongender-related genetic diseases constitutes illegal and improper behavior as outlined in Paragraph 36, Article 2 of the Medical Technicians Law.

On top of setting and enforcing the aforementioned laws and regulations, the BHP monitors the sex ratio at birth recorded by medical institutions and midwives on a regular basis. From 2010, the sex ratio was made a key indicator in its monthly checkup of medical institutions and midwives in all the counties and cities for any irregularities or advertisements that pitch sex selection services. Local health authorities would be alerted to any offenses. Birth data submitted by artificial reproduction institutions are also analyzed on a regular basis; local health authorities will be notified to take a closer look if certain institutions and physicians have been found to record irregular sex ratios. In fact, the monitoring and checking of sex ratios by public health agencies in the counties and cities weighs heavily in the BHP's evaluation of their overall performance. After dedicated efforts to promote and ban non-medically necessary sex screening and sex selective abortions, the sex ratio at birth fell to 1.079 in 2011, 12th in global rankings and the lowest value in 16 years (since 1996). An estimated 993 female babies were prevented from vanishing. The sex ratio at birth for the third child, which is always much more skewed than that of first born and second born children, fell to 1.134 also in 2011, the lowest value in 18 years (since 1994). In addition, the sex ratio at birth was 1.074 from January to April of 2012, a decreased compared to the ratio of 1.084 from the same period last year (2011).

Section 3 Adolescent Health

Adolescent Sexual Health

Status Quo

As a society moves ahead and becomes increasingly open, it is not uncommon for teenagers to be exposed to a deluge of pornography. In turn, they are often increasingly open in sexual attitudes and pregnancy, random abortions and venereal diseases.

In a BHP health behavior study of high school, vocational, and five-year vocational school students, 12.9% of male respondents aged 15-17 in 2011 and 8.8% of female respondents aged 15-17 said they engaged in sex. Among these students, 74.1% of male respondents and 77% of female respondents said they used birth control in their most recent sexual encounter. In 2009, 13.5% of males aged 15-17 and 13.5% of females aged 15-17 said they engaged in sex, while 68.4% of males and 68.6% of females said they used birth control in their most recent sexual encounter. These results show that the rate of sexual activity among 15-17-year-old students dropped between 2009 and 2011 while the prevalence of birth control in the students' most recent sexual encounter increased. Also Ministry of the Interior population data from 2011 showed the fertility rate of teenage females aged 15-19 in Taiwan was 3.68 per 1,000, a significant drop compared to the 12.61 per 1,000 rate in 2002 (see Figure 2-8). The 2011 fertility rate among this age group in Taiwan was lower than the United States (41.2 per 1,000), the United Kingdom (29.6 per 1,000), Australia (12.8 per 1,000), Sweden (6 per 1,000), and Japan (5 per 1,000), but it was higher than Hong Kong (3.2 per 1,000) and South Korea (2.3 per 1,000).

Premature sexual activity tends to result in unexpected pregnancies among adolescents, who are neither financially stable nor physically, therefore, stands out as an adolescent health issue not to be taken lightly.

Figure 2-8 Taiwan's Adolescent Fertility Rate in 2002-2010(‰)

Target Indicators

1. To reduce the adolescent fertility rate among girl aged 15-19 by 0.05 percentage point annually.
2. To raise the use of contraception among teenagers by 1 percentage point annually.

Policy Implementation and Results

Subtle physiological and psychological changes take place as one moves from adolescence into adulthood. At this point, it is crucial for qualified professionals to provide teenagers with comprehensive services-care for both physical and mental health, diagnosis and treatment, referrals and counseling-and express genuine concern over their wellbeing. This in turn goes a long way toward reducing underage births and increasing the use of contraception among teenagers.

Here is a summary of the strategies adopted by the BHP and what they have achieved so far:

1) Video Counseling for Adolescents

A website (http://www.young.gov.tw) is installed to provide teenagers with all the formation they need that has to do with sexual health. According to the latest statistics, a total of 390,735 visitors have browsed the website. The "Secret Garden", a webpage that provides video counseling on adolescent sexual health has served a cumulative 3,092 visitors.

2) Stations for Promoting Adolescent Sexual Health

With blogs, Microsoft's Messenger (MSN), and the telephone also serving as platforms for counseling, teenagers are referred to psychiatric counselors or medical institutions when the need arises. The latest statistics showed that a total of 693 people have sought counseling by means of the BHP's toll-free telephone or MSN. Separately, a total of 26,264 people attended 113 seminars on adolescent sexual health jointly held by the BHP and 87 schools in 19 counties and cities.

3) Adolescent-Friendly Medical Professionals/Outpatient Services

To date the BHP has teamed up with 31 medical institutions to introduce "No. 9 Outpatient Services for Teens' Happiness." In addition to preventive care and reproductive health services, adolescents are provided with assistance in communicating with parents about their unexpected pregnancies. To date a total of 1,981 such visits have been recorded.

Tobacco Hazards Prevention on Campus

Status Quo

In 2011, the smoking rate among Taiwan's junior high school students was 7.3% (10.5% for males and 3.7% for females). A further breakdown shows that the higher the grade, the higher the rate: 5.4%, 7.7% and 8.9% for seventh, eighth and ninth graders respectively. Pitted against the findings of the World Health Organization's Global Youth Tobacco Survey (GYTS). Taiwan's smoking rate among junior high school students runs lower than those of the U.S. (13.0%), Singapore (9.1%) and New Zealand (14.5%), Malaysia (20.2%), Soviet Union (25.4%) and close to that of South Korea (8.8%). On the other hand, Taiwan's senior and vocational high school students registered a 2011 smoking rate of 14.7% (20.3% for males and 8.1% for females), which no longer pointed to an upward trend. While Taiwan's junior high school students posted a lower smoking rate than most countries, the tally still rose slightly from previous years. Teenage smoking remains a problem not to be taken lightly.

Table 2-5 Adolescent Smoking Rates

BHP Survey		Junior High School Students			Senior and Vocational High		
		2008	2010	2011	2007	2009	2011
Smoking Rate	Overall	7.8%	8.0%	7.3%	14.8%	14.8%	14.7%
	Male	10.3%	11.2%	10.5%	19.3%	19.6%	20.3%
	Female	4.9%	4.2%	3.7%	9.1%	9.1%	8.1%

Source: BHP surveys on adolescent smoking

Target Indicators

Training 150 seed instructors for smoking cessation on campus 2011.

Policy Implementation and Results

1) Both the school Hygiene Law and the Tobacco Hazards Prevention Act stipulate that the campuses of senior and vocational high schools and institutions meant for even younger children are off-limits to smoking. For its part, the BHP has teamed up with the Ministry of Education to devise various programs to lower the smoking rate among students and minimize their exposure to environmental tobacco hazards prevention programs and the two government agencies will make joint on-the-spot checks.
2) The BHP is keen to help schools advance their smoking cessation program and rid their campus of smoking entirely so that students who have already started smoking have a better chance of quitting it. In this spirit it held nice workshops for the training of seed instructors that cultivated 183 primary instructors and 54 advanced instructors. More of the participants endorsed the seed instructor training program as a boost to smoking cessation education.
3) To better appeal to children and teenagers, the tobacco hazards prevention campaign that features the pop singer Jay Chou as its volunteer spokesman continued underway. Supplemented by media reports, the key message of "Don't smoke, be yourself" was relayed far and wide to every corner of the society. As many as 4.6 million students in Taiwan were thus called on to share a common belief that saying no to smoking, either on campus or elsewhere, is part of a lifestyle of self-confidence and honor. More is yet to be done. Quantitative goals and criteria will be set for the BHP's assistance in and evaluation of tobacco hazards prevention endeavors on campus. The BHP is also to train a greater number of seed instructors for smoking cessation education across the campuses islandwide. To be sure, the ultimate goal of tobacco hazards prevention endeavors at the schools is to make every campus free from smoking.

Section 4 Vision, Hearing and Oral Health

Vision Health

Status Quo

In Taiwan, myopia is a major pediatric concern. A 2010 survey showed that the percentage of first graders with myopia rose to 21.5% from 19.6% in 2006 while that of six graders increased to 65.8% from 61.8%.

According to an earlier survey, conducted in 2006, the tendency for the percentage of Taiwan's elementary

school pupils suffering from myopia (-0.25 diopters or less) to increase year after year seemed to have eased somewhat. But the percentage of pupils with high myopia (-6.00 diopters or more) remained higher than those of Southeast Asian and European countries as well as the U.S., as was shown in Table 2-6 and 2-7. As high myopia tends to cause other ophthalmological complications, vision screening among children is crucial for early detection of visual impairments and timely treatment.

Table 2-6 Percentage of Students Aged 6-18 With Myopia

Grade \ Year	1986 (%)	1990 (%)	1995 (%)	2000 (%)	2006 (%)	2010 (%)
First Grade	3	6.5	12.8	20.4	19.6	21.5
Sixth Grade	27.5	35.2	55.8	60.6	61.8	65.8
Ninth Grade	61.6	74	76.4	80.7	77.1	--
12th Grade	76.3	75.2	84.1	84.2	85.1	--

Source: BHP-commissioned epidemiological survey on refractive errors among children and teenagers aged 6-18 that is conducted every five years)

Table 2-7 High Myopia Around the World

Area	Age Group	Prevalence%
Europe & the U.S.	Entire Population	2
Hong Kong(2006)	High School Students	6
Singapore(2001)	University Students	15
Taiwan(2006)	Teenagers Aged 18	16.8

Source: Studies on Refractive Errors in Taiwan and Abroad- A Review of Journals & Documents Concerning Epidemiological Research of Myopia and Its Prevention and Screening, undertaken by Shih Yung-feng and Hsiao Chu-hsing of the Department of Ophthalmology, National Taiwan University Hospital in 2004-2005.

Target Indicators

Reducing the prevalence of myopia among first graders by 0.15 percentage point annually between 2007 and 2010, hopefully to under 19%; reducing the prevalence of myopia among sixth graders by 0.5 percentage point annually between 2007 and 2010, hopefully to under 60%.

Policy Implementation and Results

To ensure early detection and treatment of visual impairments, the BHP offers screening services to preschool children aged 4-5 for detection of myopia, strabismus and amblyopia. Referrals for follow-up management are provided when warranted so that treatment can be rendered in a timely fashion and children's vision health be cured. Separately, the BHP is joined by the Ministry of Education in implementing a vision health program intended for both preschool and school children lest they are inflicted with myopia that readily leads to high myopia later in life. All in all, the BHP strives to establish a comprehensive network of vision health services for preschool children by joining forces with ophthalmology associations and local communities as well as local public health agencies to undertake propaganda, education and screening, as well as offer referrals. A summary of the strategies adopted and their achievements is as follows:

1) Vision Health Services for Preschool Children
   1. The BHP offers various preventive healthcare services that have to do with children's vision health. Pediatricians or family physicians are called on to conduct tests on children's pupils, visual fixation, eye position (screening for strabismus and amblyopia) and corneas, as well as random dot stereograms.
   2. To ensure early detection and treatment of such visual impairments as strabismus and amblyopia, the BHP offers screening services to preschool children aged 4-5 in counties and cities. Referrals and consultation are provided when warranted. In 2011, a total of 352,375 children were screened. More than 98.9% of them were referred to other institutions for remedial action. A total of 352,375 individuals were screened in 2011, with a 98.9% abnormal case referral tracking rate.
2) In order to provide accessible care in order to correct and discover vision problems early on, a myopia prevention work plan for ophthalmologists to intervene in kindergartens and daycare was established in 2011. 59 community ophthalmologists were trained over four sessions. Ophthalmologist school visit services were given a trial run for 60 kindergartens and daycares across 6 counties and cities. 283 children or parents with abnormal vision results participated over 47 correction symposium sessions. Assistance was given to a total of 10 kindergartens and daycares in 5 counties and cities to plan and promote vision protective environments. 542 people from 6 counties and cities took part in training.
3) In 2011, a broadly integrated propaganda initiative was adopted to promote public awareness of myopia prevention. Public service commercials found their way into TV and radio broadcasts, newspapers and magazines. Meanwhile, posters and other promotional materials were made available to the counties and cities.
4) The BHP coordinated with the Ministry of Education to incorporate provision of curricula on and creation of an environment conductive to vision health into the criteria for evaluating childcare institutions.
5) In observing the World Health Organization's World Sight Day (October 13th), a "Colorful" Life press release was issued to remind parents they should take their children on more outdoor activities.

Hearing Health

Status Quo

Hearing plays an important role in young children's linguistic development. Hearing deficiency not only will affect a child's linguistic development and capacity for communicating with the outside world but also may lead to cognitive, social and emotional incongruities. While the first three years of age weigh heavily on children's learning and overall development, their hearing impairments, if any, are difficult to detect. These often fail to attract the attention of parents as young children can hardly express themselves. As such, hearing screening is an effective way to detect hearing impairments among young children.

In 2007, the birth coverage rate of local hospitals that provide newborns with hearing screening services came in at 28.70%, up to 72.68% in 2011, Meanwhile, the percentage of preschool children who underwent hearing screening rate rose to 91.38% in 2011 from 30.30% in 2002.

Policy Implementation and Results

1) Under the BHP's project on Service network of newborn hearing screening and evaluation of its efficacy in 2010-2011, four regional centers (regional hospitals that were already providing such services) were called on to give guidance to medical institutions that had yet to do so. A total of 55 medical institutions activated

screening services accordingly. Separately, the BHP also began extending subsidies to the less fortunate families for their newborns to undergo hearing tests in 2011.

2) In addition to hearing screening, the BHP provides preschool children with follow-up rectification of linguistic impediments. In 2011, a total of 179,898 children were screened , translating into a screening rate of 97.88%. Nearly all clinically verified abnormalities, or Hearing and the screening rate rose to 91.38%.
3) In 2010, the BHP undertook a project aiming specifically at elementary and junior high school students to identify the types and volumes of noises they were exposed to. If hearing impaired children are discovered early on and receive therapeutic education before the age of six months, they can possess normal language cognition and development. By 2011, a total of 90 medical institutions applied and became approved as screening service hospitals.
4) Implemented 2011 Preliminary Procedures for Comprehensive Implementation of Newborn Hearing Screening, announced Standards for Certification of Newborn Hearing Screening Medical Institution Accreditation, and completed Standards for Newborn Hearing Screening Diagnosis Confirmation Medical Organization. Four Overall Implementation of Newborn Hearing Screening symposiums were held in Northern, Central, Southern, and Eastern Taiwan.

Oral Health

Status Quo

According to surveys conducted in recent decades, Taiwan's DMFT index (number of decayed, missing or filled teeth) for children aged 12 rose to 4.95 in 1990 from 3.76 in 1981. It was predicted that a further increase to 7.0 in 2000 would be inevitable if the trend persisted. This prompted the Department of Health to begin setting aside big funds on promoting children's oral health in 1991. The new policy paid off. The DMFT index fell to 3.67 in 1996, 3.31 in 2000 and 2.58 in 2006 (Figure 2-9). But much remains to be done to attain the World Health Organization's goal of a DMFT index fewer than two for children aged 12 by the year 2010. A comparison of DMFT readings of various countries is shown in Table 2-8.

Figure 2-9 DMFT Index for Permanent Teeth Among Children Aged 12

Source: Survery on Oral Health of Children and Adolescents

Figure 2-8 DMFT Index for Permanent Teeth Among Children Aged 12

Country	Year	DMFT Index
Taiwan	2006	2.58
The U.S.	2004	1.19
Japan	2005	1.71
Korea	2006	2.2
Hong Kong	2001	0.8
Singapore	2002	1.0

Source: WHO

In Taiwan, periodontal disease is a common threat to oral health. In more serious cases, it tends to cause alveolar bone loss, loose teeth, and tooth loss. Without timely intervention or corrective treatment, the patient is likely to lose his or her teeth or even oral functionality together. Also victimized is certainly the quality of living. According to BHP's nationwide survey conducted in 2008, 54.22% of people aged 35-44 were found to have developed periodontal pockets (i.e. with CPI scores of 3-4). It also showed that the prevalence of the disease intensified with age, with males more vulnerable than females. Listed in Table 2-9 are prevalence of periodontitis in various countries for people aged 35-44.

Table 2-9 Prevalence of Periodontitis Among People Aged 35-44 by Country)

Country	Year	Prevalence(%)
China	1997	36
Hong Kong	1991	74
Japan	2005	27
Australia	1996	37
New Zealand	1989	48
Norway	1983	65
Italy	1985	48
United Kingdom	1988	75
France	1989	23
Germany	2005	73
Canada	1995	73
Taiwan	2008	54

Source: WHO Oral Health Country / Area Profile Programme.

Target Indicators

Reducing the DMFT index among children aged 12 to 2.2 in 2011.

Policy Implementation and Results

The enactment of the Oral Health Law in 2003 marked a new era of government endeavors in this regard. In 2006, the first five-year plan on the populace's oral health was introduced with a view to enhancing public awareness and decreasing the prevalence of oral decreases.

1) Lowering the rate of tooth decay among children

   1. Free professionally applied fluoride treatment for children aged under five
      The World Health Organization considers fluorides the safest and most economical and effective means of preventing tooth decay. A majority of medical literature also points to the conclusion that application of fluoride gel can reduce the odds of children's tooth decay by 28%. Started in July 2004, children aged under five with fluoride treatment, an oral checkup, and oral hygiene education for free every six months in hopes to develop the habit of parents taking their children to the dentist periodically to learn about oral health and tooth decay prevention. In 2011, the service benefitted a total of 309,118 children. The rate for at least one application per year is 33.3%. As an increased reminder for parents and caretakers to develop the habit of seeking prevention before treatment is necessary, reminders are placed in children's health handbooks for doctors to make referrals to dentists for fluoride treatment. Additional columns were included for parents to check off fluoride treatments every six months, in addition to including healthcare information related to oral health for children.

   2. A nationwide fluoride mouth rinse program for elementary school pupils
      The program was introduced to Taiwan's 25 counties and cities in 2001. With a subsidy, the BHP entrusted to the Taiwan Dental Association the duty of carrying out the program in 2010. It turned out that the 2010 program covered a total of 1.52 million pupils from 2,661 schools, including all those in remote mountainous parts of the island. In the meantime, training courses on children's oral health were introduced for dentists and would-be dentists help monitor implementation of the fluoride mouth rinse program on campus and undertake propaganda on tooth-brushing after meals and on oral health at large across the schools.

   3. Pit and fissure sealant subsidies for disadvantaged children
      The widespread use of fluoride mouth rinse among elementary school pupils has little effect on preventing pit and fissure caries on the chewing surface of their teeth. By contrast, pit and fissure sealants can reduce the odds of these dental caries by 57%. For this reason, the BHP began offering such sealants to first and second graders in aboriginal townships and first graders from low-income households in non-aboriginal townships in 2010. 2,500 students benefitted from the service during 2011. In 2012, the pit and fissure sealant service was expanded to first and second grade elementary school students in offshore regions, indigenous mountainous regions, non-indigenous first and second grade elementary school students from medium low and low income families, and all mentally and physically handicapped first and second grade elementary school students.

2) Establishing a health care model for periodontitis
   In 2011, development of the periodontitis oral hygiene care handbook was completed for promotion and use by seed instructors and communities. 3 seed instructor training sessions were held to train a total of 103 people. The seed instructors trained promoted oral hygiene and proper teeth cleaning methods. 6 sessions were held in remote areas for 166 participants, 14 sessions were held in urban regions for 416 participants, a total of 582 participants.

3) An oral medicine committee and a oral Health care task for the disabled are formed with the purpose of assisting in policy formulation and implementation.

Chapter 3

Healthy Living

Bureau Of Health Promotion

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Chapter 3

Healthy Living

Some of the most formidable threats to human health derive from unhealthy lifestyles. Examples abound: smoking, unhealthy diets, and lack of exercise as well as threats from the external environment such as injuries caused by accidents. Of these mortality risk factors, tobacco stands out as the most easily preventable. Empirical evidence shows that smoking causes respiratory and cardiovascular diseases, cancers, miscarriages, underweight births and sudden infant death syndrome. As many of these conditions show, smokers are not the only victims of addiction: secondhand smoke, or environmental tobacco smoke (ETS), is harmful to nonsmokers. Tobacco hazards prevention and smoking cessation education are both long-term causes. Refraining from smoking will not be recognized as social consensus overnight. Above all, priority should be given to discouraging nonsmokers from ever smoking.

According to the World Health Organization's Global Strategy on Diet, Physical Activity and Health, unhealthy diets and physical inactivity are key risk factors of noncommunicable diseases. To address these issues and discuss four major diseases and four major risk factors, the United Nations convened a High-Level Meeting on NCDs in September 2011. Among the main risk factors targeted were obesity, unhealthy diet and physical inactivity. Taiwan seeks to stem these risks through cross-departmental cooperation and local projects. Government agencies, together with city and county health departments, publicize calorie and nutrition information while reducing environmental factors that contribute to obesity. Officials build a supportive environment that extends across various locations (including hospitals, schools, workplaces, and communities), encouraging the public to embrace healthy diets and regular exercise to avoid the threats caused by obesity and chronic illness.

Children, and in particular toddlers, are heavily reliant on others. Their well-being depends on the attention of caregivers and the safety of the environment. Therefore, the BHP encourages staff of local health departments to assist these caregivers. Officials inspect homes to determine whether they are safe, and they certify safe communities and schools. The goal is to reduce accidental injuries and build a safe and healthy living environment.

Section 1 Tobacco Hazards Prevention and Control

Status Quo

More than three years have passed since new regulations under the Tobacco Hazards Prevention Act went into effect on January 11, 2009. The act focused on expanding the smoke-free environment, such as indoor public spaces and indoor workplaces with three or more people. The results have been impressive. In 2011, the smoking rate among adults aged over 18 was 19.1% (33.5% for males and 4.4% for females), more than a tenth lower than 2008, when the smoking rate was 21.9% (38.6% for males and 4.8% for females, see Figure 3-1). Meanwhile the smoking rate in 2011 among senior/vocational high school students was 14.7% (20.3% for males and 8.1% for females), and the rate among junior high school students in 2011 was 7.3% (10.5% for males and 3.7% for females). Refer to Section 3, Chapter 2 for more details on the smoking rates among junior and senior/vocational high school students.

Generally there has been a significant decline in the smoking rate among adult males in recent years, from 42.9% in 2004 to 33.5% in 2011, while the smoking rate among adult females has remained unchanged. The youth smoking rate among junior high school males and senior/vocational high school females had been increasing since 2004, but was finally suppressed for the first time. Significant progress was made in reducing the secondhand smoke exposure rate in smoke-free public places, from 23.7% before the new regulations went into effect to 8.2% by 2011. However, the secondhand exposure rate at home reached 19.9%, and daily average consumption of cigarettes by smokers failed to decrease (between 2008 and 2011 it was 19.0, 18.0, 18.6 and 18.7 respectively). Many hard works remains.

In 2011 health officials expanded inspections of traditional grocery stores and betel-nut stalls to ensure they were not selling tobacco to minors. Besides curbing supply, the BHP improved training of campus counseling personnel who are tasked with helping students combat the addiction. Various groups joined to launch comprehensive education, supportive environment and network, including toll-free helpline (0800-636363) for smoking cessation, clinical assistance at local medical institutions across the country, and smoking cessation services by pharmacies etc, making it easier for smokers to quit smoking.

Main Tasks in 2011: 1. Enforcement of the Tobacco Hazards Prevention Act, 2. Creating smoke-free supportive environments, 3. Providing diverse smoking cessation services, 4. Surveillance and research, 5. Personnel training and international communications. Details are as follows.

Figure 3-1 Smoking Rates Among Adults

Source: 1. Data for 1990-1996 from the Taiwan Tobacco and Wine Monopoly Bureau.
2. Data for 1999 from Professor Lee Lan.
3. Data for 2002 from the BHP's Survey on Citizen's Knowledge, Attitude, and Behavior Regarding Health Promotion.
4. Data for 2004-2011 from the BHP's Survey on Smoking Among Adults.
5. For 1999-2011 data, current smokers were defined as those who had smoked more than 100 cigarettes (five packs) and had smoked within the past 30 days.

Target Indicators

To Reduce the smoking rate below 18.8% among adults in 2011.

Policy Implementation and Results

1) Enforcing the Tobacco Hazards Prevention Act

Emphasis was placed on carrying out compliance checks, expanding the network of smoking cessation services, bolstering targeted education programs and increasing publicity. Local smoking hazards campaigns reminded people to abide by the Tobacco Hazards Prevention Act so a more comprehensive smoke-free environment could be achieved.

1. Local health departments contributed to enforcement. In 2011, 3.52 million compliance checks took place at over 380,000 locations. There were 10,506 offenses and 9,455 citations issued. More than NT$10.91 million was collected from fines
2. About 125 staffs were added to boost local tobacco hazards prevention. Workshops, seminars and training sessions were held and enforcement guidebooks were compiled to assist staffs.
3. The BHP trains tobacco hazards prevention professionals and volunteers. It held 10,150 educational sessions along with 184 training events for healthcare professionals, and it helped 17,522 people receive qualification. There were 7,854 participants in 447 smoking cessation classes and 650 locations were designated as smoke-free.
4. In December 2008 a toll-free helpline (0800-531-531) was installed to handle queries about smoke-free environments and complaints about possible violations. In 2011, the hotline received 3,119 queries and 816 complaints, the latter of which were passed on to local public health authorities for subsequent actions.

2) Supportive Tobacco-Free Environments

Tobacco hazards prevention involves not only reducing the population's smoking rate but also the exposure to secondhand smoke. To help people stay healthy, the BHP contributes to supportive tobacco-free environments in the community, at restaurants, school campuses, workplaces and in the armed forces. It also promotes tobacco hazards prevention through multimedia education and events.

1. Tobacco-Free Public Places:
   A. On Campus: (1) 4 seed schools were singled out to evaluate campus smoking hazards teaching materials. These materials were introduced and tested among elementary and junior high school students to help them learn more about tobacco hazards. Meanwhile 4 regional workshops were held for teachers to share educational resources, teaching methods and skills. The teachers also received help with guidance and counseling services. (2) Under a program devised for tobacco hazards prevention at universities and colleges, 461 students participated in smoking hazards prevention workshops organized by 44 schools. Also health officials assisted 31 schools in setting specific tobacco hazards prevention plans and guidelines. These covered six main areas, including: 1. Public tobacco hazards strategies, 2. Creating a supportive environment, 3. Bolstering community action, 4. Enhancing personal health skills, 5. Redefining health services, and 6. Diversifying and innovating health promotion. Schools involved in this program registered tremendous improvement in tobacco hazards prevention.

B. The Community: Subsidized 101 smoke-free community plans for cities and counties. These included two smoke-free tourist parks created by the Luodong Township Health Department in Yilan County. The Luodong Forest District Office also worked with industry, government, and academia to conduct tobacco hazards prevention work.

C. Armed Forces: The BHP and the Medical Affairs Bureau of the Ministry of National Defense, through the command headquarters of the Army, Air Force and Navy, set the Armed Forces Tobacco Hazards Prevention Policy. The policy gave health officials greater control over smoking cessation services as well as surveillance and research. The smoking rate among 11,087 recruits fell from 42.2% upon enlisting in 2009 to 39.5% just before their discharge in 2010. Likewise, the rate decreased from 39.2% to 38.6% for the 14,685 recruits enlisted in 2010 and discharged in 2011 (see Table 3-1). The results show progress in the armed forces on the tobacco hazards prevention.

D. Hospitals: The BHP established the first Asia-Pacific network for the Global Network for Tobacco Free Healthcare Services. 53 hospitals received tobacco-free hospital accreditation and 32 reached the Gold Medal standard.

E. The Workplace: Under a voluntary healthy workplace accreditation system, there were 756 workplaces in 2011 that achieved certification for tobacco hazards prevention. On-site guidance was extended to 172 employers, and the smoking rate of employees in the workplaces fell from 17.3% in 2010 to 16.9% in 2011.

Table 3-1 Smoking Rates in the Armed Forces

Subject	People	Smoking Rate (%)
2009 (after enlistment)	11,087	42.2
2010 (before discharge)		39.5
2010 (after enlistment)	14,685	39.2
2011 (before discharge)		38.6

Source: Ministry of National Defense

2. Tobacco Hazards Prevention advocacy: The BHP uses multimedia channels and public communication to promote smoking cessation services and tobacco hazards education.

A. The BHP used various activities and campaigns to raise awareness of smoking hazards among young women. It released advertisements, including a 30-second piece in which a young bride encourages her father to quit smoking. It also handed out 100,000 posters, 300,000 anti-smoking homework calendars and comics. In magazines geared toward young girls, it published antismoking zodiacs, and it held essay contests and encouraged online anti-smoking story submissions.

B. The BHP invited 3 leading entertainers, Hsu Feng, Zhuo Sheng-li, and Sun Yueh, to appeal to smokers by sharing their painful personal experiences. They used 30-second ads, broadcasts, print media, posters and manuals to encourage people to quit smoking early to avoid chronic obstructive pulmonary disease and cancers.

C. The BHP made smoking cessation part of everyday life by holding creative submission contests, interscholastic activities and promotions, and comic contests for youths. It ran ads and events on television and radio broadcasts, in newspapers and magazines, and online. It also sent its message through multimedia channels on outdoor TV walls, shopping district ads, and public transit.

D. The BHP printed and disseminated 500,000 "BHP's smoking cessation handbooks" to local heath departments and centers to provide to smokers. It also used the smokers' helpline service center to follow-up on smokers who signed a quit smoking card.

E. The "2011 Health Reports on Effectiveness and Monitoring Survey" showed that out of all the health advocacy items encountered by people surveyed in 2011, smoking cessation ranked highest (approximately 84.4%). Another 88.5% of the public believed there were improvements in smoke-free environments and 69.7% were aware that the government offered smoking cessation services.

3) Diverse Smoking Cessation Services

Smoking cessation prevents cardiovascular and respiratory diseases along with cancer. It offers individuals, families and societies immediate benefits, effectively reducing high blood pressure, diabetes and hyperlipidemia rates while lowering health expenditures. Those who quit are less likely to need lifelong medications or expensive examinations. Within six months they can easily and effectively bring serious diseases under control, whether they were at risk for heart disease, stroke, cancer, or chronic respiratory disease. Smokers can obtain assistance from smoking cessation clinics, the toll-free smoking cessation hotline, and special classes. These initiatives were launched to help smokers down the path to a healthier life.

1. Services at Somking Cessation Outpatient Clinics: In 2011, there were 2,000 medical institutions contracted to provide outpatient smoking cessation services. Smokers could visit to obtain advice from doctors along with medicine to help them quit (such as patches and gum). To defray costs, the government also offered a weekly NT$250 subsidy. Smokers could check online (http://ttc.bhp.doh.gov.tw/quit/) to obtain for a list of contracted medical institutions near their home. Between 2002 when the service began and 2011, 470,852 smokers took part. In 2011, 48,764 people participated and made 128,420 outpatient visits. The six-month smoking cessation success rate was 23.4%.
2. Smoking Cessation Hotline: The Taiwan Smokers' Helpline Project was launched in 2003 to provide convenient, private and accessible smoking cessation counseling. Users could simply dial 0800-63-63-63 from a local landline, public phone or mobile for a toll-free service. On line there were professionals who provided one-on-one consultations to help callers develop a personal plan to quit. As of 2011, 612,409 calls had been made to the service. In 2011 alone there were 98,486 calls. The six-month smoking cessation success rate was about 35%.
3. The BHP cooperated with the Ministry of Justice in 2011 to conduct a smoking cessation program at correctional facilities. Assistance was provided to 9,706 inmates.
4. By 2011, 1,000 pharmacies had become community counseling stations for smoking cessation.
5. Smoking Cessation Classes: In 2011, 7,854 people took part in 447 classes.

4) Research and Monitoring

The BHP established long-term smoking behavior monitoring systems to determine the effectiveness of tobacco hazards prevention. These included "Adults Smoking Behavior Surveillance", "Global Youth Tobacco Survery" and "Global School Personnel Survey". Authorities also monitored nicotine, tar and carbon monoxide content in tobacco products. In 2011, the BHP studied the effectiveness of smoking cessation services, media publicity, law enforcement, and government policy. It also monitored tobacco ingredient reports and other tobacco product information.

Under its "Program on Testing and Research of Tobacco Products," the BHP tested 50 domestic and imported products for the nicotine, tar and carbon monoxide contents of their mainstream cigarettes, as well as their concentration of heavy metals and N-nitrosamines. All samples were found to be in compliance. The BHP also gathered detailed information on these and other tobacco products to better understand the local tobacco market. The WHO's Framework Convention on Tobacco Control (FCTC) calls for disclosure of information about the toxic constituents of tobacco products (including additives) and the emissions they may produce. In Taiwan, tobacco manufacturers and importers were required to start such filings on June 4, 2009, in accordance with the Tobacco Hazards Prevention Act. As of December 31, 2011, 112 companies had submitted filings on 2,223 tobacco products. These data were gathered on a database and made available to the general public online. To increase compliance, as of December 31, 2011, 10 companies had been fined a combined NT$1 million for failure to make their filing on time or provide the requested testing materials.

5) **Personnel Training and International Communications**

To promote the newly amended Tobacco Hazards Prevention Act, the BHP held Tobacco Hazards Control Exchange Workshops as a platform for local public health staffs to share their experiences nationwide. A total of 184 staffs attended. The BHP also held five training sessions for 216 officials tasked with enforcing the Tobacco Hazards Prevention Act and certified 577 physicians under the smoking cessation clinical training program. In a training program to nurture smoking cessation instructors 756, trainees received elementary certification and 170 advanced certification. In a similar program for pharmacists, 627 trainees received elementary certification and 301 advanced certification.

Surveys conducted since 2011 suggest that close to 90% of the public feels that smoke-free environments improved after the implementation of new regulations. Data showed that the smoking rate among adults had dropped and the smoking population fell by 420,000 people over the last three years. The WHO clearly states that smoking cessation is a crucial part of comprehensive tobacco control policies. Helping smokers quit is vital to reducing the hazards of firsthand and secondhand smoke. In the future, besides encouraging managers of smoking establishments and vendors to fulfill their responsibilities by ensuring full legal compliance, local health departments will be asked to strengthen counseling and inspections of major venues. They will be urged to provide full second generation smoking cessation services to all smokers in their locality and to increase training of professional health education staffs. These staffs will need to conduct smoking cessation education and case management services face to face. In addition, teams will head to workplaces and schools to provide smoking cessation guidance, consultations and education, and a portion of the Health and Welfare Surcharge will go toward smoking cessation. Together, these efforts are expected to raise the smoking cessation success rate that could contribute to lower health insurance fees and turn Taiwan into a smoke-free LOHAS environment.

Section 2 Promoting Physical Activity

Status Quo

The WHO pointed out that physical inactivity is one of the 10 leading risk factors of global mortality and disability. More than 2 million deaths a year can be attributed to an inactive lifestyle. Worldwide, 60-85% of adults lead an inactive lifestyle and two-thirds of children do not engage in sufficient physical activity. They are damaging their health and contributing to a serious public health problem. Insufficient physical activity is the fourth leading risk factor of global mortality and is related to 6% of deaths. The only leading risk factors it trails are high blood pressure (13%), tobacco use (9%) and hyperglycemia(6%). Around 21-25% of breast

and colorectal cancer cases, 27% of diabetes cases and 30% of ischemic heart disease cases are a result of insufficient physical activity. It not only seriously affects individual health but also raises national health expenditures. The severe cost to society causes a significant burden to public health.

Research shows that compared to no exercise, 15 minutes of exercise a day (about 90 minutes a week) can reduce total mortality by 14%, cancer mortality by 10% and cardiovascular mortality by 20% while adding three years to life expectancy. In the 2007 Behavior Risk Factor Surveillance Survey, 51.5% of adults who are 18 years old and above responded they had exercised in the past two weeks. By 2011, this number had jumped to 65.13%, showing that the percentage of the nations who exercise was increasing.

In the 2011 City Sports Investigation, the Sports Affairs Council examined regular exercise rates of the general population. Among nations aged 13 and above who participated in the investigation, 30.4% exercised at least three times a week, 30 or more minutes each time, joining activities that were sufficiently rigorous to induce perspiration and shortness of breath. That represents significant growth compared to 2005 when the number was just 15.5%. But the number of nations in 2012 who did not engage in regular exercise was 69.6%, higher than the United Kingdom (63.3%), Malaysia (61.4%), Japan (60.2%), the United States (43.2%) and France (32.5%). It showed that the percentage of people who do not regularly exercise in Taiwan was high. There was much room for improvement, and promotion of more active lifestyles could foster regular exercise, thereby raising people's physical capabilities and reducing the incidence of chronic diseases.

Target Indicators

The government is committed to increase the rate of regular exercise. It has made doubling the rate one of its policies under the Executive Yuan's "Golden Decade" plan. Targets include increasing the rate from 26% in 2011 to 38% five years later and 52% 10 years later.

Policy Implementation and Results

1) To encourage people to walk 10,000 steps a day, Taiwan designated November 11 as National Walking Day.
2) To build an environment conducive to exercise, 22 cities and counties built 1,035 community walking paths. Among these paths, 138 have signs indicating calories consumption. Trail maps have also been created for 344 townships and cities (for a coverage rate of 93%). These encourage people to use their local environment for physical activities.
3) To encourage more people to exercise and live a healthier life, in 2011 the government launched the "Healthy Centenary, Healthy Taiwan" weight management campaign which convened 3,350 community exercise groups joined.
4) To continue promoting the idea of staying healthy by walking 10,000 steps a day, the government works with non-government organizations and enterprises. It advocates healthy walking events and has worked with each city and county to hold a round-island walk activity. When promoting walking for health, the government encourages people to make walking a greater part of their everyday life. It has also invited foreigners to join Taiwan walking events, thereby bringing the events in line with similar international activities.
5) To help health disadvantaged members of the community, the BHP conducted research on factors affecting physical activity among those groups. Through the research, the BHP developed a plan for the blind to walk, swim and practice tai chi to promote the advantages of physical activity.
6) To make it easier for people to gather information on physical activity, the BHP listed the 192 community walking paths recommended by each of the local health departments on its obesity prevention website. It also

compiled must-know exercise facts along with a sports calculator and info on the different types of exercise. It produced and promoted a 15-minute instructional fitness video geared toward office workers, and compiled 15 types of workout materials produced by various cities and counties. These were placed on the BHP website for free download to help people make exercise part of their daily life.

7) The BHP also provides a free weight management hotline (0800-367-100) so callers can get answers to their exercise questions.

Figure 3-2 Exercise Prevalence among Adults (≧ 18 years old) in Taiwan from 2007-2011

Source: BHP Behavioral Risk Factor Surveillance System (BRFSS) Survey in 2007-2010

Section 3 Obesity Prevention

Status Quo

When the Nutrition and Health Survey in Taiwan was conducted from 1993 to 1996, it suggested that 33% of the nation's adults were overweight or obese. When the survey was conducted again from 2005 to 2008, that number had increased to 44%. The rate of male who were overweight or obese rose from 33% to 51%, and the rate of female went from 33% to 36%. According to the Ministry of Education's Student Health Promotion Survey, the rate of elementary and junior high students who were overweight or obese in 2009 was 25% and 27%, respectively. Among elementary school boys it was 29% and among girls it was 21%. Among junior high boys it was 32% and girls 22%. Of the 10 main causes of death in Taiwan in 2011, 8 were related to

obesity, including cancer, heart disease, cerebrovascular disease, diabetes, chronic respiratory disease, chronic liver disease and cirrhosis, kidney disease, and hypertension. Obesity is also a risk factor associated with degenerative joint disease, metabolic syndrome, and blood lipid abnormalities. Studies show that at least 2.9% of medical expenditures are used to treat cases of heart disease, cerebrovascular disease, diabetes, hypertention and hypercholesterolemia caused by patients being overweight or obese. It is difficult to estimate the loss in production and disabilities.

Obesity is primarily due to the uptake of calories exceeding the expenditure of calories. The causes can be hereditary, physiological, or psychological. They can be related to drinking and eating habits, physical activity, lifestyle habits and the environment. There are increasing numbers of the nations who are overweight or obese due to more westernized foods and lavish meals (with higher calorie counts); television, the internet and other sedentary activities that reduce time spent on physical activity; and increased availability of sugary drinks and high-calorie junk food. Many foods do not include nutritional labels, making it difficult to determine whether they are healthy, and some communities lack mass transit systems or convenient exercise and recreational facilities. Disabled groups continue to have insufficient health education opportunities, and for economic reasons, they tend to buy low nutrition, high calorie foods. Advertisements promoting unhealthy foods packaged with free gifts cause people to sonsume more high calorie, fatty and sugary foods.

To prevent obesity, BHP joined 22 cities and counties to launch the “Healthy Centenary, Healthy Taiwan” weight management campaign in 2011. It gathered 600,000 people who were committed to “Eat Smartly, Exercise Happily, Weigh Daily”. Together, participants lost 600 tons. The purpose of the event was to raise public health and prevent chronic disease by promoting an active lifestyle and increasing the knowledge of calories and nutrition. On January 22, President Ma Ying-jeou urged everyone to work hard toward losing weight. He emphasized the importance of proper nutrition habits and regular exercise. Two days later on January 24, Premier Wu Den-yih hosted a news conference to launch the “Healthy centenary, Healthy Taiwan”. He led officials from the 22 cities and counties along with agency representatives in a pledge to battle obesity. Anyone aged 6 to 64 who was overweight or had excessive body fat levels could form a team and join this weight management campaign. Participants could register with local health departments and health centers by email, fax or phone.

Target Indicators

The government called on 600,000 people to lose 600 tons.

Policy Implementation and Results

1) To Formulate Public Health Policies

   Taiwan remains committed to building healthy cities along with health promoting hospitals, workplaces, schools and communities. It has formulated the draft of a national nutrition act and a health promotion act. On July 6, 2011, it announced adjustments to the daily nutrition guidelines. It also enacted the Statute for Breastfeeding in Public Places to increase breastfeeding and prevent childhood obesity. Lawmakers are considering revising the revised draft food and drug administration act to include rules on advertisements, and the government tracks height and wieght trends among citizens. To target obesity prevention the government also called a task force to propose white paper and clinical guidance.

2) Building a Health Supportive Environment: The government works to eliminate environmental factors that cause obesity. It provides information used to create a supportive environment and has built healthy food systems and a diverse exercise environments.

   1. Building a Health Information Environment: The BHP launched an obesity prevention website and set up the 0800-367-100 obesity hotline. It promotes "Eat Smartly, Exercise Happily, Weigh Daily" as the framework to a healthy body weight, while also providing other valuable related information. In 2011 there were 1,772 calls made to the hotline, and 1,485,719 hits on the website.

2. Preventing Obesity by Recognizing and Improving Environmental Factors: The BHP compiled the "Strategies to Prevent Obesity in Taiwan: Community Implementation and Measurement Guide." Local health departments in Taiwan's 22 cities and counties, together with community leaders and volunteers, can use the guide to determine and improve environmental factors contributing to obesity in the nation's 368 districts, county-level cities and townships.
3. Creating a Supply System for Healthy Food: The BHP wants to turn health into an industry while making industries focus on health issues. It encourages accessible and affordable health foods that are prominently placed in the surrounding environment. To make it easier to choose healthy foods, the BHP promotes clear, easy-to-understand nutrition labels that include calories, and it encourages restaurants to provide calorie data on menus. At schools it checks that school lunches meet daily nutrition guidelines. The BHP's efforts encouraged 72% of all schools at the high school/vocational level and below to offer at least one vegetarian meal a week, and it urges workplaces and hospitals to provide healthy foods and calorie information.
4. Forming an Environment Conducive to an Active Lifestyle: The government aims to build a living environment suited for exercise anytime of the day by anyone, anywhere. It builds safe, comfortable pedestrian walkways, bicycle paths, walking paths, and hiking trails. Along these routes it installs signs that tell people how many calories they burned, and the diversity of routes means there are options suited to people of any gender, age or group. Meanwhile the BHP encourages workplaces to plan exercise times before and after work and it promotes forming exercise groups.

3) Re-orienting Health Services:

The government encourages medical centers to transform from traditional forms of diagnosis and treatment toward health promotion and preventive medicine. It established an alert system that provides preventive care and health maintenance information to patients and other people along with valuable weight management services. It also added health promotion and educational materials to cancer screening reports; promoting baby friendly hospitals, breastfeeding, and providing related healthy body weight information.

4) Strengthening Community Actions:

To strengthen the healthy weight promotions, the BHP relies on organizational action and cross-departmental resources. It forms support teams that help carry out a variety of activities in communities, schools, workplaces and hospitals. There were 57 news where releases to boost healthy weight trends, and where created a social atmosphere where people are motivated to maintain a healthy weight. For its community weight loss program the BHP held news conferences at the launch and after participants shed 100 tons and 600 tons of weight. Of the 22 cities and counties in Taiwan, 16 saw their mayor or magistrate lead the launch news conference and pledge to join the battle against obesity. Enthusiastic participation around Taiwan led "Global Views Monthly" to write a special report calling it a 720,000-person miracle.

5) Deceloping Personal Skills:

The BHP produced the "Move for a Healthy Lifestyle" handbook along with pamphlets and signs that encourage people to eat healthy, exercise happily and weigh daily. It also produced handbooks for local health departments, hospitals, workplaces and schools that teach people how to maintain in a healthy weight. For office workers, the BHP designed and promoted a fitness routine, and it launched an obesity

prevention website and hotline. Through these channels the BHP can increase people's knowledge of calories, nutrition, exercise and maintaining a proper weight, thereby giving them the tools they need to stay healthy. In 2011, the BHP held 12 education and training workshops for local health department and health center officials. Participants shared their experiences and explained how they teach workers to maintain a healthy weight. On January 17 and 18, 2012, the BHP held its Exploratory Meeting on Building Healthy Communities & Obesity Prevention Achievements Conference. At the conference, localities and individual units were honored for helping residents lost weight in 2011, and they had a chance to present achievements in promoting healthy lifestyles. The event also offered an excellent opportunity for each area to share the models it used to promote health and weight loss along with the experiences and innovations it had realized along the way.

6) International Communication and Cooperation:

The BHP hosted an international conference on obesity prevention from February 22-24, 2011, at the GIS MOTC Convention Center. Five main topics were covered: Obesity Prevention: Trans-sectoral Policy Making and Decision; Regulative Policies on Marketing of Children's Food; How to Achieve Obesity Prevention by Improving the Surrounding Environment; School-based Obesity Prevention Program; and Healthy Workplace, Healthy Workforce, Healthy Economy. Health Minister Chiu Wen-Ta along with Boyd Swinburn, co-chair of the International Obesity Task Force and director of the WHO Collaborating Centre for Obesity Prevention; Dr. William H. Dietz, director of the Division of Nutrition and Obesity, US Centers for Disease Control and Prevention; Dr. Timothy Gill, associate professor at the Boden Institute of Obesity, University of Sydney, Australia, Tim Lobstein, director of policy and programmes, the International Association for the Study of Obesity, and Dr. Masaki Moriyama, vice president of the International Union for Health Promotion and Education where invited as speakers to share. Their experiences related to obesity prevention. The experts met with President Ma to discuss national obesity prevention policies after the conference. At the 65th WHA, Kathleen Sebelius, the US secretary of health, asked the Taiwan delegation about progress made in encouraging people to lose weight. BHP Director-General Chiou Shu-Ti replied "Healthy Centenary, Healthy Taiwan". She happily passed on that participants lost a total of 1,100 tons, far exceeding the original goal of 600 tons. The results left a deep impression on Ms. Sevelius. At October 5-8, 2011, Director-General Chiou also joined the European Union's most important health policy meeting of the year, the 14th European Health Forum Gastein. She shared Taiwan's achievements in cancer and obesity control in a speech titled: "Prioritizing and Mobilizing NCD Prevention and Control at Country Level."

7) Weight Loss Achievements

Till the end of 2011, a total of 724,564 people had joined the "Healthy Centenary, Healthy Taiwan". They lost a combined 1,104,058.4 kilograms, or an average of 1.5 kilograms per person. Participants who were overweight or obese fell from 67% to 59.9%, a drop of 7.1 percentage points. Also, surveys conducted before and after the program began showed that knowledge of the program rose from 8.9% to 42.1%.

Section 4 Child Accident and Injury Prevention

Status Quo

Taiwan's accident-related mortality rate has been declining since 1989, besides outliers in 1999 when it jumped to 58.9 per 100,000 due to the 921 earthquake and 2009 when it rose to 31.9 per 100,000 due to Typhoon Morakot. The long-term trend is falling and by 2011 the rate had dropped to 29.0 per 100,000 (see Figure 3-4), making it the sixth leading cause of death in Taiwan. In 1997, new legislation made helmets mandatory for scooter and motorcycle riders. Traffic-related deaths then began to steadily decline annually, falling from 33.4 per 100,000 in 1996 to 16.0 per 100,000 in 2011.

From 1987 to 2011, the leading causes of accidental death were traffic accidents, accidental falls, drownings, accidental poisonings, and fires (see Figure 3-4). Data over the past five years for children and adolescents showed that accidental deaths are relatively high among infants of age 0 and teenagers from 15-19 (see Figure 3-5). The leading causes of accidental deaths in 2011 among the various age groups from 0-19 are: age 0 - accidental falls followed by traffic accidents; ages 1 to 4 - traffic accidents followed by accidental falls; ages 5 to 9 - drownings followed by traffic accidents; ages 10 to 14 and 15 to 19 - traffic accidents followed by drownings (see Figure 3-6).

Figure 3-4 Mortality Tares Due to Accidents and Injuries & Major Causes if Death in 1985-2011

Source: 2011 Health Data Series (1), Causes of Death Online Database, Department of Health, Executive Yuan

Five Leading Causes of Death Among People Under 24, from 1995 to 2011

Rank	Under 1	1-14	15-24
1st	Congenital abnormality, malformation; chromosomal abnormality	Accidental injury	Accidental injury
2nd	Perinatal breathing disorders	Malignant tumors	Self-inflicted bodily harm(suicide)
3rd	Perinatal infections	Congenital abnormality, malformation; chromosomal abnormality	Malignant tumors
4th	Conditions related to childbirth/ length of gestation	Cardiovascular disease (not including diseases related to high-blood pressure)	Cardiovascular disease (not including diseases related to high-blood pressure)
5th	Accidental injury	Pneumonia	Congenital abnormality, malformation; chromosomal abnormality

Source: 2011 Health Data Series (1), Causes of Death Online Database, Department of Health, Executive Yuan

Figure 3-6 Main Causes of Accidental Death Among Minors, 2007-2011

Rank	0	1-4	5-9	10-14	15-19
1st	Accidental falls	Traffic accidents	Drowning	Traffic accidents	Traffic accidents
2nd	Traffic accidents	Accidental falls	Traffic accidents	Drowning	Drowning
3rd	Accidental poisoning/ drowning	Drowning	Fire	Accidental falls	Accidental falls
4th	-	Fire	-	Accidental poisoning	Accidental poisoning/fire
5th	-	Accidental poisoning	-	Fire	-

Source: 2011 Health Data Series (1), Causes of Death Online Database, Department of Health, Executive Yuan

The safety of children (especially toddlers) relies heavily on the watch of their caregivers and a sufficiently safe environment as they can hardly take care of themselves. In 2010, the Executive Yuan adopted a program on the safety of children and juveniles. Its objective is to promote cross-ministerial cooperation in upholding the personal safety of children and giving them a safe environment in the home. Emphasis is placed on upgrading the quality of education and care so that children's safety and health can be further enhanced. The BHP is responsible for monitoring the home safety for children under the age of 6. As such, local public health nurses and counselors were trained to help primary caregivers in the home do their job by enforcing inspections of household safety.

Target Indicators

In 2011, over 15,000 disadvantaged households with children 6 years oldor under participated in the Home Safety Assessment program.

Policy Implementation and Results

1) Laws and Policies

   1. Working with Other Departments: The BHP cooperated with other government deapartments to promote children's safety in the home. It worked with the Ministry of the Interior to enact the ministry's Protection of Children and Youths Welfare and Rights Act along with its Children and Adolescent Safety Implementation Program. Together, officials were able to improve children's education and care, and enhance their safety and health.
   2. Adding Injury Prevention, Safety Promotion to the Healthy People 2020 White Paper: The Department of Health added injury prevention and safety promotion as new themes to its Healthy People 2020 White Paper. Its goals include preventing death and injury caused by traffic accidents, malicious injury, death and injury caused by falls, drownings, and carbon monoxide poisonings. The department also created a national monitoring system for injuries caused by outside factors and used its Safe Communities Program as a response strategy. These steps have gradually reduced the accidental injury and mortality rates.

2) Building a Safe Home Environment Young for Children

   1. Building a Safe Home Enviroment for Children: The BHP created a checklist that people could use to assess whether their home was safe for children. Parents and caregivers could investigate their household, then improve areas deemed unsafe. Also, staffs from local health departments and centers helped investigate the homes of disadvantaged families with children 6 years old or younger. In 2011, they investigated 20,417 such homes and suggested basic improvements.
   2. Making Health Education Part of Children's Preventive Services: To increase knowledge of preventing accidental injury among parents and caregivers, the BHP asked medical professionals to provide guidance during the seven preventive care sessions offered to children 7 years old and under. Doctors and nurses provide age-specific tips for preventing accidental injury. The children's health handbooks they hand out also include a form providing information about accidental injuries among children along with information on basic steps that can be taken to prevent such injuries.
   3. Creating an Intervention Model for Pediatricians to Help Prevent Accidental Injury: The BHP developed a checklist to prevent accidental injuries among children aged 0-4 along with health consultation pamphlets. Pediatricians can use these materials to educate caregivers who come to their clinics.

3) Creating a Network of Safe Communities and Safe Schools

   In 2002, Taiwan started promoting safe communities in accordance with the guidelines laid down by the World health Organization. Between 2005 and 2011, a total of 19 local communities were granted International Safe Communities certification. In a similar vein, a pioneer project on safe schools was introduced yearly since 2006. As of 2011, a total of 46 local schools had been certified as International Safe Schools. These safe communities and schools that conform to international standards have been rightly certified thanks to their contribution in keeping accidents and injuries to a minimum and creating a living environment conducive to both safety and health.

Chapter 4

Healthy Environment

Bureau Of Health Promotion

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Chapter 4

Healthy Environment

In the Ottawa Charter for Health Promotion of 1986, the World Health Organization identified five priority action areas for health promotion: build healthy public policy, create supportive environments, strengthen community actions, develop personal skills, and reorient health services. It is a set of guidelines applicable to health promotion in all fields. These include 1) Healthy Cities: incorporate healthy values and principles into urban planning; Map out healthy public policy by means of vertical cross-level integration and inter-departmental cooperation, in order to inspire citizens of communities to proactively get involved in health promotion; 2) Healthy Communities: incorporate private-sector resources into the public health system while setting up a broadly based infrastructure that gives priority to engaging the community and building partnerships. Enable the community to solve its own health problems, thus ushering in a healthy lifestyle; 3) Healthy Schools: engage schools in the setting of health policy in order to foster consensus across the campus and community alike; 4) Healthy Workplaces: Promote a voluntary workplace health accreditation system through three regional promotional centers around the country. In addition to counseling and training on health promotion and tobacco hazards prevention, these centers are charged with setting up a nationwide service network to advance the health of all employees and thus the health economy; and 5) Health Promoting Hospitals: reorient health service priorities by incorporating clearly defined concepts, values and principles of health promotion into the culture and daily operations of hospitals. In turn, all hospital employees and their families, patients and families, and community residents will be engaged in health promotion.

Section 1 Healthy Cities

Status Quo

The World Health Organization launched its Healthy Cities Initiative in 1986. It aims to engage cross-agency efforts and citizen participation in public health. Echoing the WHO's Healthy Cities Initiative, the Taiwan Public Health Association took the lead to usher in the concept to the country in 1995, by inviting foreign specialist to talk about healthy cities and communities in its annual convention and symposium. While running for mayor of Taipei in 1998, President Ma Ying-Jeou included healthy cities as a feature of his campaign white paper on healthcare. As the mayor of Taipei City, he designated 2002 as the first year of the city's aiming for a healthy city. Drawing on the WHO's five priority action areas, he implemented the "Make Taipei a City of Healthy Longevity by a 100-Ton Weight Reduction" initiative. In 2003, the BHP began a project to make Tainan a healthy city. Specialists were called in to work with the local government in promoting cross-agency, interdisciplinary cooperation among government, industry and academia. The health

needs of local residents were taken into account as parties concerned (cross departmental and cross-sectoral) strove to map out healthy public policies. In 2005, Tainan City became a member of the Alliance for Healthy Cities (AFHC), which was set up in 2003 by the World Health Organization Regional Office for the Western Pacific in Manila, Philippines. This in turn prompted other county and city governments to seek admission as well. Between 2006 and 2007, the BHP commissioned the relevant authorities to adopt the Healthy Cities initiative in Miaoli County, Hualien County, Kaohsiung City and Taipei County. This was followed in 2007 by the establishment of a set of national indicators for healthy cities and a platform for nationwide information exchange. Specialists brought in by the BHP continued to assist the county and city governments in making residents healthy, sharing experiences with one another, and undertaking international exchange. As of 2011, a total of 7 counties/cities, and 11 other local districts in Taiwan had obtained AFHC membership status.

Policy Implementation and Results

1) Policy Implementation and Results

Specialists and scholars were called in to assist 15 counties and cities in carrying out the Healthy Cities programs. They are Keelung City, Taipei City, New Taipei City, Taoyuan County, Hsinchu City, Hsinchu County, Miaoli County, Nantou County, Yunlin County, Chiayi City, Tainan City, Kadhsiung City, Pingtung County, Taitung County and Hualien County.

2) Building Information Exchange Platform Among Healthy Cities

Continues to collect information on healthy cities gathered at home and abroad; advocating the results of domestic healthy city promotion, and using these results as a reference for cities/counties promotion, the BHP held the "2011 Healthy City and Age-friendly City Conference. Dr. Ruth Finkelstein from the New York Academy of Medicine and Professor Takiko Okamoto from the School of Sociology and Social Work of Meiji Gakuin University were invited to the conference. Dr. Finkelstein presented the WHO Age-Friendly City Project and New York City's Experience, and Prof. Okamoto shared her insight on whether Japan is an Age-Friendly society or not. Approximately 200 participants from city and county governments, NGO representatives and scholars attended the seminar. BHP also held the "Third Taiwan Healthy City Awards Ceremony", where President Ma gave the keynote address and presented 2 healthy city excellence awards, 30 innovative achievement awards, and outstanding contribution awards, for a total of 34 award winning cases. A total of 9 city leaders and approximately 3,000 city and county government representatives, experts, scholars, and community workers attended this seminar.

3) Enhancing International Interchange

As of 2011, a total of 7 counties and cities and 10 other local entities in Taiwan had been admitted to the AFHC as NGO members. They are Tainan City, Hualien County, Miaoh County, Chiayi City, Kaohsiung City, Taitung County and Nantou County, as well as Daan District, Shilin District, Beitou District, Zhongshan District, Songshan District and Wanhua District of Taipei City; Tamsui District, Shuangxi District, Pingxi District and Pinglin District of Taipei County; and Pingtung City.

Figure 4-1 Number of WHO AFHC Members from Taiwan, 2005-2011

Source: BHP

Section 2 Healthy Communities

Safe Communities

Status Quo

The concept of safe communities originated in 1970 from three communities in Sweden that had been troubled by an unusually high frequency of injuries. Thanks to a three-year injury prevention project, their injury rate was decreased to 27%. In 1989, the World Health Organization established the WHO Collaborating Centre on Community Safety Promotion (WHO CCCSP) at the Karolinska Institute in Stockholm, Sweden to assist communities around the world in formulating injury prevention plans, to provide a rigorous and transparent system for assessment and certification, to publicize the concept of safe communities, and to from a worldwide "Safe Community" Network. As of 2011, a total of 268 communities around the world had been certified as safe communities.

In 2002, Taiwan started to advance various safety promotion projects that suit community features and needs in accordance with the safe community criteria laid down by the WHO. In 2005, four local communities were certified as safe communities: Neihu District in Taipei City, Dongshi Township in Taichung County, Alishan Township in Chiayi County, and Fengbin Township in Hualien County. In 2006, the BHP set up the Center for

Promoting Safe Communities in Taiwan and four auxiliary centers around the nation. Together, they would assist 12-32 communities in carrying out the safe community program each year. The list of certifications further expanded in subsequent years: Zhongzheng District in Taipei City, Shihkang Township in Taichung County and Shoufeng Township in Hualien County in 2008; Zuoying District in Kaohsiung City, Xingang Township in Chiayi County, Dongshan Township in Yilan County and Heping Township in Taichung County in 2009; and Jinhua Community (South District) in Tainan City, Suao Township and Toucheng Township in Yilan County, and Fengbin Township in Hualien County as well as the districts of Neihu, Wenshan, Nangang, Datong and Xinyi in 2010. In 2011, the Hsiu Feng Community in the Xizhi District of New Taipei City was certified as a safe community, gradually constructing Taiwan's safe community network. To date a total of 19 communities nationwide have been certified as safe communities.

Target Indicators

1) Internationally certified safe communities in Taiwan increased from 18 in 2010 to 19 in 2011.
2) Putting in place a supportive framework conducive to safe communities, strengthening cross-border interchange, and enabling safe communities to prove their capacity for decreasing incident of injuries.

Policy Implementation and Results

1) Development of evidence-based health and safety promoting communities

1. Draw on health and safety promotion strategies already adopted in the international community in setting up a community organization responsible for promotion of the program; take into account community needs while promoting injury prevention and safety promotion in a variety of ways.
2. Adopt a gradual approach toward integrating other health promotion projects, such as collaborating with those responsible for promoting healthy hospitals to focus on the medication safety among the elderly. Incorporate healthy city items into the healthy community program. Use health promoting schools as a platform for safe communities to promote campus safety, thus enabling schools in the community to be certified as safe schools.
3. Adopt a double-pronged approach toward carrying out the safe community program: combining autonomous involvement of community members with input and promotion by the government.
4. Integrate resources and put them to optimal use on the back of policy support from the government and cross-agency, interdisciplinary cooperation.
5. A professional team was gathered to help communities carry out the safe community program.

2) Topics in the Spotlight

Topping the list of health and safety concerns are safety of playground facilities at parks and of shopping malls; safe homes; safe traffic (taxi calling to prevent driving under the influence, safety helmets for motorcyclists, and road improvements); safe agriculture (safety of pesticides and of agricultural tools and machinery); safe school; safe waters and drowning prevention; electricity safety at B&Bs; safe elderly (care for the elderly who live alone or are economically disadvantaged as well as fall prevention for the elderly at large); prevention of carbon monoxide poisoning; recreational and travel safety; prevention of heat-related health problems, etc.

3) Representative Communities in 2011

1. **Jinhua Community in Tainan City - Adolescent Safety Promotion Project**
   Tainan's Jinhua Community cooperates closely with the junior high school in the district. The community organizes a junior high school summer legacy camp during summer vacation which counsels over 100 students every year to enhance adolescents' concepts regarding accidental injury prevention and disseminate basic safe community concepts. It also provides peer care and suicide. In addition, communities enter schools by having the neighborhood chief advocate anti-smoking and smoking cessation at morning assemblies and graduation ceremonies. The community has also received reciprocation from students who use weekends to carry quit smoking signs and pass out quit smoking brochures to raise public awareness of smoking hazards prevention at stores frequently visited by people in the community.

2. **Hsiu Feng Community in the Xizhi District of New Taipei City – New Resident Safety Promotion Project**
   The number of new inhabitants in the Hsiu Feng Community of Xizhi District of New Taipei City increase every year. In order to assist them in integrating into local life, the community combined relevant resources to establish a "New Inhabitants Care Station" in the neighborhood office. It combines local medical institutions, health centers, traffic supervision units, and schools. Services provided include home visits, escort services (such as accompany to medical institutions for medical care or the neighborhood office for business), employment services, social welfare referrals, etc. New inhabitants particularly in need of help are followed up regularly and assisted in understanding traffic regulations and obtaining drivers licenses which reduces traffic accidents. New residents are also taught how to care for infants, the elderly, and various safety knowledge for home security through language courses.

3. **Cijin District in Kaohsiung City – Drowning Prevention Safety Promotion Project**
   Kaohsiung City's Cijin District combined the district office, health center, fire brigade, and Cijin Hospital within its jurisdiction to focus on the frequent tourist drownings that occur during peak swimming season. Thus it planned the promotion of a drowning prevention project strengthening swimming safety awareness at the three routes to Cijin (including the ferry station and tunnel entrance) and coordinated with the fire brigade in increasing manpower and equipment to patrol the Cijin coast. In addition, it cooperated with district restaurants and stores to post drowning prevention slogans. Beverage stores have also printed the "Swim in Safe Waters" slogan on cups and covers, and specialty product stores have printed the slogan on their bags.

Health Promoting Communities

Status Quo

Early on, Taiwan's public health community had taken notice of the fact that natural conditions of a given community, government policy and other artificial factors might have an effect on people's health. Given this awareness, a community hygiene promotion committee would be jointly established by the local public health center and community leaders. This was often the case as early as during the days when the Taiwan Provincial Health Department was still around. Sometimes with the help of volunteers, the committee would discuss health topics relevant to the

community and take action when warranted. In 1996, Yilan County unveiled a three-year community health building program that was intended as a community empowerment project. In 1999, the Department of Health, under Minister Chan Chi-Shean, officially launched the Community Health Building Program. As chairman of the Hsin Kang Foundation of Culture and Education, Chen Jin-Huang happened to be one of the earliest advocates of community health building. In turn, the Department of Health set up Taiwan's first Community Health Building Center at Chen's hometown-Xingang Rural Township, Chiayi County, Over the years a total of 50 such centers had been established nationwide. Drawing on the five action areas for health promotion identified in the WHO's Ottawa Charter of 1986, these centers are given the duty of integrating community resources and bringing together the public and private sectors. With support from other civic groups and community members themselves, the centers work to inspire a greater awareness of health issues and willingness to cultivate healthy behavior in life. The ultimate objective is to confront and resolve whatever threats to community health so that a healthy community is no longer a mere vision.

In 2002, the BHP began to assist all entities set up under the Community Health Building Program in promoting healthy living so that community health can be greatly improved. When the Executive Yuan (Cabinet) introduced the "Challenge 2008: Six-Year National Development Plan" in May 2003, the Healthy Living Community Program was listed as one of the priorities. In order to have communities keep up their health building initiative, the BHP came up with the guidelines and criteria for certification of health promoting communities in 2008. Two areas of emphasis were "stay healthy with exercise" and "healthy diets" The objective is to promote sustainable development of communities by setting up a universally recognized benchmark for healthy communities. As of 2010, a total of 84 local communities had been certified by the BHP as health promoting communities.

Previous Themes Under the Community Health Building Program:

1) 1999-2001: To cultivate healthy lifestyles, the BHP focused on six health themes including: promoting healthy food and drink, physical fitness, tobacco hazards prevention and control, betel nut prevention, personal hygiene, and safe use of medicines. It also encouraged people to regularly receive preventive healthcare services.
2) 2002-2005: The BHP began to let communities determine the health themes they would target based on their own health needs.
3) 2006: The BHP designated physical fitness and healthy food and drink as main themes. Each community could propose other health themes based on its particular needs.
4) 2007: The BHP designated tobacco hazards prevention as a main theme. Each community could also choose other themes to target.
5) 2008: BHP carried out the "Health Promotion Community Certification Trial and Community Integration Project" to promote 5 veggies and fruits a day, staying healthy with exercise, smoke-free communities, betel-nut-free communities, seniors health forever, and the safe communities themes.
6) 2009: BHP carried out the "Health Promotion Community Certification Trial and Community Integration Project" along with the "Health Promotion Community Awards and Subsidies Project" to promote: healthy food and drink, physical fitness, breast and cervical cancer screenings, smoke-free communities, betel nut-free communities, and safe communities.
7) 2010: BHP carried out the "Community LOHAS & Health Promotion Project", "Exercise more and eat healthier" initiative to promote healthy food and drink, physical fitness, screenings of the four major types of cancer, smoke-free communities, betel nut-free communities, safe communities, and senior health promotion communities.
8) 2011: The BHP designated cancer screening promotion for the four major types of cancer and senior health promotion as main themes. Other themes that communities choose for themselves included tobacco hazards prevention (among youths), betel nut prevention (and smoking cessation), and safety promotion. The BHP also promoted the "Healthy Centenary, Healthy Taiwan" healthy weight management campaign.

Policy Implementation and Results

1) The BHP made the community a platform to subsidize 16 cities and counties and 104 community units in promoting a community health building plan in 107 villages, townships, and city districts to conduct screening for 4 major cancers, health promotion for the elderly, betel nut prevention (including smoking essation), adolescent tobacco hazards prevention, safety promotion, and promotion of healthy weight management in conjunction with "Healthy Centenary, Healthy Taiwan" healthy weight management campaign. Results were as follows:
   1. The BHP conducted 1,480 screening promotion advocacies, and 2,059 screening services for 4 major cancers to strengthen public awareness regarding cancer screenings and to enhance the percentage of the public acceptance to cancer screenings.
   2. The BHP partnered with 104 community groups to promote issues related to elderly health promotion and held community elderly health promotion events.
   3. The BHP partnered with 101 community groups to promote smoke free environments, to understand the tobacco selling establishments in the created region, and to promote the tobacco prevention and control advocacy of refusing to sell tobacco to minors.
   4. The BHP promoted 172 betel nut free workplaces and established 125 betel nut cessation classes in workplaces and communities with 1,185 participants, of which, 410 people quit successfully with a cessation rate of 34.6%.
   5. The BHP partnered with 409 community groups to jointly create safe communities and hold safety promotion events in homes, on the road, with leisure activities, and in schools. A total of 1,105 unsafe environments were improved (such as installing handrails and non-slip pads in bathrooms, installing nightlights, adding streetlights and reflectors, repairing recreational equipment, adding bumper strips to school hallways, leveling park trails, etc.).
   6. The BHP partnered with 1,087 community exercise groups to build 735 supportive zones for exercising. There were also 599 restaurants that joined to promote healthy food and drink.
2) The BHP conducted the "Exercise More, Eat Healthy" community LOHAS event project with 13 city and county health departments combined with 6,564 community groups and 938 medical institutions to jointly promote the tasks of "5 Fruits and Vegetables a Day" and "Stay Health with Exercise". They expanded counseling of the 794 restaurants and 1,077 community exercise groups within their jurisdiction to provide diet and exercise consulting, increase public knowledge regarding healthy diets and physical fitness, and created supportive environments favorable to public health. In order to enhance kinetic energy of the community, 9,508 volunteers were trained to strengthen individual skills and the knowledge was widely across communities.
3) The BHP conducted the "2011 Conference of Healthy Workplace, Community Health Creation Plan and 5th Golden Health Center Award " to praise outstanding communities, workplaces, and health centers. A total of 52 health promotion community certifications, 2 safe communities, 27 volunteers, 2 outstanding health centers, 4 excellent health centers, and 40 outstanding healthy workplaces were awarded. Approximately 450 people representing health centers, communities, and workplaces joined this event, which provided cities and communities with relevant promotional strategies, experience, and a platform for exchange and learning.
4) BHP referenced the United States CDC's 2009 "Recommended community strategies and measurements to prevent obesity in the United States: Implementation and Measurement Guide" to devise a set of domestic community obesity environment measurement tool (19 strategies and 39 measurement topics) which has

already been provided to all city and county departments of health and communities for use in assessment of obesogenic environments and subsequent action plans to improvement.

5) The BHP published the "100 Love Stories" in October 2011 to present the outcomes of health promotion in various city locations such as hospitals, schools, communities, and workplaces, as stories of silently working health preachers. It was disseminated to central ministries, city and county libraries, and the 22 city and county health departments to increase viewing of the publication to the health promoting units within their jurisdictions.
6) Till 2012 there were 397 groups that continued to promote health-related themes.

Section 3 Health Promoting Schools

Status Quo

School is an important venue for children to develop a healthy lifestyle. World Health Organization defined Health Promoting School as "a school that is constantly strengthening its capacity as a healthy setting for living, learning and working".Priority has long been given to advancing health promoting schools in the U.S., the U.K., New Zealand, Hong Kong and Singapore. Since 2002, Taiwan has paid special attention to the components and checkpoints for health promoting schools in six components identified by the WHO: school health policies, the school physical environment, the school social environment, community relationships, individual skills, and health services. Through setting health policies, fostering consensus between students and staff, promoting involvement of community members, and providing health services, the ultimate goal is to create a healthy learning environment where children and adolescents' health is ensured.

In order to display the results of health promoting schools, and enhance our country's international visibility, the BHP developed a national accreditation system in 2011 based on key components and checkpoints set by the WHO and current Ministry of Education health promoting school indicators. In addition, the BHP conducted interventions in health issues such as oral health, vision care, healthy body weight, tobacco hazards prevention, betel nut prevention, etc., and held 2011 Conference on Health Promoting Schools in Taiwan to carry out international exchange and enhance the international visibility of our national health promoting schools.

Policy Implementation and Results

1) Advocating Health Promoting Schools with the Ministry of Education

In April 2002, Department of Health Minister Lee Ming-liang and Minster of Education Huang Jong-tsun signed a Joint Declaration on the Health Promoting School Program. This was followed by the two agencies, local governments, and representatives of teacher and parent groups jointly pledging to carry out the program on September 13, 2004. A total of 48 schools were singled out as the first batch to do so and 120 seed teachers were trained. Between 2005 and 2007, the BHP established educational resource development centers, support networks, staff training centers, and the Health Promoting School website and Health Promoting School assistance website. It sought media promotion and provided surveillance and evaluation support systems to provide educators a platform to share health promotion resources and experiences. In 2008 and 2009, the BHP launched the Health Promoting School Promotion Center. It brought together resources amassed since 2005 and gathered 98 scholars and experts into a support team. The team operated centrally and locally, providing local

governments and schools of all levels with uniform assistance. In 2010 the Ministry of Education established the nine national indicators of health promoting schools, including: healthy body weight, oral health, visual health, tobacco hazards and betel nut prevention and control. As of 2011, a total of 3,696 schools (elementary, junior high and senior/vocational high schools) had been engaged in the Health Promoting School Program. In addition, the BHP convened numerous meetings with the Ministry of Education in 2011 and 2012 to study and discuss joint promotion matters in order to conduct the "Health Promoting School Certification and International Convergence Plan" and to promote the health promoting school plan.

Figure 4-2 2003-2012 Number of Health Promoting Schools in Taiwan

2) Strategies and Topics for the Health Promoting School Program

In 2011, the Ministry of Education implemented a new project designed to introduce an empirically oriented next-generation mechanism on the achievement of Health Promoting School Program. A “Health Promoting School Center” was organized with 101 experts and academics as a single resource center to facilitate the sustainable development of Health Promoting School in Taiwan. It laid down a number of indicators for evaluating school performance in the top five health topics: oral health, vision care, healthy BMI, tobacco hazards prevention, betel nut prevention. It also established nine items for the "National Indicators of Health Promoting Schools" and the "Local Indicators of Health Promoting Schools’ Student Health and Behavior." In a similar vein, it came up with a unified set of appraisal tools for assessing the success of health promoting schools in undertaking all the compulsory projects. It is applicable to all levels of schools nationwide.

3)Achievements of the Health Promoting School Program

1. The BHP formulated the health promoting school accreditation program according to the WHO 2008 "Health Promoting Schools A Framework for Action" and the "Community Obesity Preventing Environment Evaluation Tool" indicators set by this Bureau. The health promoting school international certification standards includes 6 standards, 21 sub-standards, and 63 checkpoints as follows:
   Standard 1, School Health Policy (7 checkpoints)
   Standard 2, Physical Environment of Schools (14 checkpoints)
   Standard 3, Social Environment of Schools (Health Culture) (9 checkpoints)
   Standard 4, Health Education Courses and Activities (10 checkpoints)
   Standard 5, Community Relations (9 checkpoints)
   Standard 6, Health Services (14 checkpoints)
2. The BHP completed the health issue intervention research project in 52 schools for health issues such as oral health, vision care, healthy BMI, tobacco hazards prevention, betel nut prevention, sex education, drug safety, etc., with significant results in each health issue.
3. The BHP held the "2011 Conference on Health Promoting Schools in Taiwan" and invited five foreign experts including the WHO health promoting and European healthy school consultant Ian M Young, Professor Albert Lee from the Public Health and Primary Health Care Department of the Chinese University of Hong Kong, Clinical Assistant Professor Noy S Kay from Applied Health Sciences Department of Indiana University, Head of Australian's Deakin University College of Health and Social Development's Public Health Department, Professor Richard Osborne, and Professor Robert F. Valois from the South Carolina School of Public Health's Health Promotion, Education, and Behavior Department to share experiencing in promoting and certifying health promoting schools. A total of 652 people attended the conference, 52 posters and 24 oral presentations were presented, and the "Health Promotion School Accreditation and International Cooperation Program in Taiwan" health issue intervention achievement research schools conducted theses presentations.

Section 4 Healthy Workplaces

Status Quo

After the introduction of five priority action areas in its Ottawa Charter of 1986, the World Health Organization unveiled a new initiative-Healthy Work Approach (HWA)- in the Jakarta Statement on Healthy Workplaces adopted at the 4th International Conference on Health Promotion in 1997. HWA is based upon the following four complementary principles: health promotion, occupational health and safety, human resource management, and sustainable (social and environmental) development. To create a healthy workplace, therefore, means not only to decrease occupational diseases but also to proactively promote the health of the working population.

In 1996, the Department of Health and the Council of Labor Affairs jointly promulgated a set of regulations on physical and health checkups for laborers at designated medical institutions with a view to enhancing their health. Since 2001 the Department of Health established six occupational hygiene and healthcare centers nationwide. Together with the medical and nursing facilities at factories, they formed a service network that provides diagnosis and treatment, counseling, and hygiene education and training. To further enhance workplace health, they helped every county and city set up at least one healthy factory.

In 2003, the BHP launched a program on tobacco hazards prevention at the workplace. With a commission from the BHP, three centers for providing assistance on tobacco hazards prevention at the workplace were established in different parts of the country. In collaboration with local public health agencies, they held workshops and seminars, produced propaganda materials, and extended on-the-spot guidance. In 2006, both health promotion and tobacco hazards prevention were launched. Three regional centers for promotion of healthy workplaces were thus established to provide counseling as well as hygiene education and training. In 2007, a voluntary healthy workplace certification system was initiated with a view to brining about a healthy working environment free from smoking and enabling businesses to perform autonomous management on this front. As of 2011, a total of 7,411 entities had secured voluntary healthy workplace certification (4,356 tobacco hazards prevention labels, 2,026 health initiation labels and 1,029 health promotion labels). In addition, a total of 303 establishments were cited between 2006 and 2011 for their outstanding records as healthy workplaces.

Figure 4-3 Number of Voluntary Healthy Workplace Certifications in 2007-2011

Source: Report on Achievements of Centers for Workplace Health Promotion & Tobacco Hazards Prevention in 2007-2011)

Policy Implementation and Results

1) Advancing health promotion and tobacco hazards prevention at the workplace

With a commission from the BHP, three regional centers for promotion of healthy workplace were established in different parts of the country in 2006 to provide counseling as well as hygiene education and training. In 2007, a voluntary healthy workplace certification system was initiated. In 2011, the system introduced a new criterion of certification in accordance with the newly revised Tobacco Hazards Prevention Act, that is, all indoor workplaces with three or more employees would be henceforth off-limits to smoking. Meanwhile, the BHP makes it a point to commend establishments that have registered outstanding records in keeping smoking out of their workplace and in health promotion.

1. Teams of specialists were called in to provide 172 workplaces and 6 occupational or industrial unions with on-site guidance on health promotion and tobacco hazards prevention.
2. In 2011, a total of 1,888 businesses passed voluntary healthy workplace certification. Certifications granted over the years are shown in Figure 4-3. In addition to giving recognition to 40 excellent healthy workplaces in 2011, the BHP produced a special compilation on healthy workplace, "Healthy Workplace Information"website was updated regularly to provide the latest information and various promotional materials that are free to download. The latest tallies put the cumulative number of visitors at more than 460,000.

2) A nationwide survey on workplace health shows that the workplace smoking rate was 16.9% in 2011, down by 0.4 % from 2010. The workplace smoking rates in 2004-2011 are shown in Figure 4-4.)

3) In 2011, the percentage of indoor workplaces that enforced a total ban on smoking came in at 83.8% (down by 0.3 % from 2010). The trend in the evolution of smoking ban policies for 2004-2011 is shown in Figure 4-5.

Figure 4-4 Smoking Rates at the Workplaces in 2004-2011

Source: 2011 Nationwide Survey on Health Promotion and Tobacco Hazards Prevention at the Workplace

Figure 4-5 Trend in the Evolution of Smoking Ban Policies in 2004-2011

Source: 2011 Nationwide Survey on Health Promotion and Tobacco Hazards Prevention at the Workplace

Section 5 Healthy Hospitals

Status Quo

1) International

In the Ottawa Charter for Health Promotion of 1986, the World Health Organization identified five priority action areas for health promotion: build healthy public policy, create supportive environments, strengthen community actions, develop personal skills, and reorient health services. In particular, "reorient health services" has been taken as an important basis for the development of health promoting hospitals. By definition, a health promoting hospital is one that incorporates clearly defined concepts, values and principles of health promotion into the culture and daily operations of hospitals. In turn, all hospital employees and their families, patients and families, and community residents will thus be engaged in health promotion.

In 1988, the World Health Organization started its Health Promoting Hospitals initiative in Europe, with the first pilot project set up at the Rudolfstiftung Hospital in Vienna, Austria. Intended as a model for reorienting health services, it was also to help advance health promotion in the local community and facilitate reform at large. It was followed in 1990 by the establishment of the International Network of Health Promoting Hospitals. In 1991, the Budapest Declaration on Health Promoting Hospitals was launched as a policy document, with 17 suggestions and goals for hospitals participating in the Health Promoting Hospitals intiative. In 1997, the Vienna Recommendations on Health Promoting Hospitals further introduced six fundamental principles and four strategies for implementation.

In 2006, the International Network of Health Promoting Hospitals published the "Implementing health promotion in hospitals: Manual and self-assessment forms." The manual lists five standards, 24 sub-standards and 40 measurable elements, as well as 18 indicators for health promotion. Not only for the reference of hospitals in assessing the quality of their health promoting structure, system, process and results, the manual is also meant to serve as a basis for hospitals to plan, implement and improve health promoting efforts. As of the end of 2011, over 800 hospitals representing 40 national or regional networks in 37 countries across Europe, America, Asia, Africa and Oceania have joined the International Network of Health Promoting Hospitals and Health Services.

2) Domestic

In 2002, Taipei City took the lead to lay down a set of criteria for assessment of healthy hospitals and made it part of the city's overall evaluation of public and private hospitals. Meanwhile, the BHP commissioned a pilot study on creation of health promoting hospitals using a certain medical center as an example. Alongside the project on promoting workplace health in hospitals, it also collaborated with them to advance community health and undertake health promotion projects at their premises, such as offering joint care for diabetes and outpatient services for smoking cessation and making themselves mother-baby friendly. Taipei Municipal Wan Fang Hospital, which started to work toward a healthy hospital since 2002, was the first hospital in Asia to become a member of the International Network of Health Promoting Hospitals in 2005.

Also in 2005, the BHP included Health Promoting Hospitals in its science and technology research project. In 2006, it commissioned the local academic community to offer assistance to four hospitals, which went on to secure certifications from the International Network of Health Promoting Hospitals.

In 2006, Director-General Shu-Ti Chiou, then an assistant professor at the National Yang-Ming University, applied to the International Network of Health Promoting Hospitals for the establishment of a Taiwan network. Upon signing a cooperative agreement with the HPH Secretariat, the Taiwan Network of Health Promoting Hospitals was established and became the first network member in Asia. The Taiwan network enjoys the same rights and obligations, including those in voting, as those granted to other member nations. It is also authorized to promote and handle membership admissions of local hospitals to the International Network. In 2007, the Taiwan Society of Health Promoting Hospitals was established.

Policy Implementation and Results

1) Proactively engaging in the running of the International Network of Health Promoting Hospitals and Health Services

1. As coordinator of the Taiwan Network of Health Promoting Hospitals and Health Services, BHP Director-General Shu-Ti Chiou was admitted to the HPH Governance Board as an observer in 2008. In addition to facilitating the development of health promoting hospitals in Taiwan and Asia, she is an avid participant in proceedings of both the HPH General Assembly and Governance Board. On top of her role in several HPH journals, she is also a member of several working groups and task forces: Standards for Health Promoting Hospitals, HP for Staff and a Healthy Workplace, and Tobacco Free United. In 2009, Director-General Chiou helped Taiwan to secure the right to host the 20th Internaltional Conference on HPH in 2012. It will be the first time this conference is held outside of Europe. In April 2010, the Director-General Chiou was elected Vice Chair of the HPH Governance Board during the 18th International Conference on Health Promoting Hospitals and Health Services held in Manchester, U.K.

2. Assisting more local hospitals in getting admission to the International Network of Health Promoting Hospitals and Health Services
   As of the end of 2011, the Taiwan Network has 76 member hospitals admitted to the international network. Meanwhile, Taiwan's member hospitals had been keen to present papers at the annual international conferences: the number of paper presentations from Taiwan ranked No. 1 amongst the networks in 2010 and 2011, and No. 2 in previous two years (2008 and 2009).

3. Participation in Important International Network Projects
   From October 22nd to 23rd, 2011, the BHP held the WHO-HPH Autumn School and invited Secretary of the HPH Network, Professor Hanne Tonnesen, to jointly host the workshop on the "WHO Health Promoting Hospital Advanced Recognition Project" together with Director-General Shu-Ti Chiou. The project uses existing HPH self–evaluation tools and standards to assess the efficacy of hospital implementing clinical health promotion activities. The international network expects to recruit 8 nations interested in this project; Taiwan is also one of the countries selected by the international network, with 15 hospitals from Taiwan participating in this pioneering project in 2011.

2) Promoting Low-Carbon Hospitals

1. During the 18th International Conference on HPH and Health services, the Taiwan Network proposed and received approval from the General Assembly and Governance Board to establish the "Taskforce on HPH and Environment", with Director-General Shu-Ti Chiou as the leader of this taskforce. Combining the strengths of the WHO, international NGO Health Care Without Harm, the HPH Network and Taiwan, the task force will work to jointly promote sustainable health care and hospitals.

2. In October of 2010, BHP jointly hosted the "2010 International Conference on Healthy Hospitals & Healthy Environment" with the HPH Secretariat in Taipei. On top of the six invited foreign dignitaries (including the HPH Secretary), the event drew 259 local delegates from 106 hospitals, government agencies and academic institutions. In the spotlight was a rally to pledge commitment to the "Medical Community as Vanguard to Save Earth with Carbon Reduction" campaign. A total of 128 hospitals pledged to reduce their collective carbon dioxide emissions in 2020 by 164,648 metric tons from the 2007 level, an amount equivalent to what would be achieved by creating green areas 445 times as large as the Daan Park of Taipei City, or 34 times the size of New York City's Central Park.

3. Publishing manuals for sharing experiences in promotion of green hospitals
   To encourage the sharing of experiences in promoting environment-friendly healthcare between domestic and foreign healthcare institutions, the BHP published a manual in both Chinese and English, by drawing on the carbon reduction projects undertaken by foreign and domestic hospitals. The Khoo Teck Puat Hospital of Singapore was featured as the representing international medical institution. The manuals covered a full spectrum of topics that hospitals may reference to improve environmental friendliness: energy efficiency, green architecture, alternative energy, transportation, food, waste, water, and the environment education.

4. In 2011, the BHP held a HPH and Environment session during the 19th International Conference on Health Promoting Hospitals and Health Services in Finland, and also held the 3rd Meeting of the Task Force. There were 7 posters and 3 oral presentations during the conference that covered the topic on environment-friendly health care.

5. In 2011, the BHP held five "Environment-Friendly Hospital Workshops" in Northern, Central, Southern and Eastern Regions of Taiwan, communicating knowledge and insights on energy saving and carbon reduction measures to hospitals. A total of 154 attendees came from 112 hospitals across the nation. The workshops also arranged field visits and invited experts to provide counseling on energy saving and carbon reduction. A compilation of Questions and Answers were also made available online after the workshops have concluded.
6. In December of 2011, Director-General Shu-Ti Chiou was invited to attend a series of satellite events during the United Nation Framework on Climate Change Convention 17th Conference of Parties (UNFCCC COP17). She was invited to attend as the Vice Chair of the HPH Governance Board and Director-General of the BHP. Director-General Chiou coordinated with HCWH on a series of promotional activities to disseminate the achievements, successes, and philosophy of the International HPH Network and the Task Force on HPH and Environment to attending nations. Director General Chiou was invited to speak in the Climate and Health Summit, the COP17 satellite meeting (Climate Change and Public Health: Healthy Climate, Healthy People, Healthy Economy), and to join the press conference on Durban Declaration on Climate and Health with head officials from the WHO Department of Public Health and Environment. This marked the first time in several decades that a Taiwanese official has jointly participated in a news conference with an important WHO official. The WHO also dispatched representatives from the Departments of Environment and Health to participate in the above sessions, and reported environment-friendly health issues from UNFCCC on the official WHO website. The level of attention from the United Nation and WHO on the issues of health and environment demonstrated their growing awareness, and also signified the recognition of the hard work from the Task Force and hospitals of Taiwan.

Figure 4-6 Membership Growth for Taiwan Network of Health Promoting Hospitals and Health Services in 2006-2011

Source: BHP

Chapter 5

Healthy Aging

Bureau Of Health Promotion

健康
民健康局
弘道老人

Chapter 5

Healthy Aging

Aging should be a positive experience. The WHO therefore advocates "Active Aging," encouraging seniors to heed not only their physical and mental health but also social, economic and cultural affairs while seeking spiritual growth. The goal is to maintain a dynamic lifestyle.

Taiwan has become an aging society since 1993 when more than 7% of the population was aged 65 or over, with the number rose to 11% in 2011. Given a persistently low birth rate and the aging of postwar baby boomers, 14% of Taiwan's population is expected to be 65 years of age or older in 2017. This would qualify Taiwan as what is generally known as an aged society. If current trends hold, Taiwan will become a super-aged society in 2025 when people 65 years or older account for an estimated 20% of the population. Adding to this challenge, the population of Taiwan appears to be aging faster than any other developed country. Accelerated growth of the senior population, along with a steady rise in the middle-aged population, makes the health of these groups even more important to society. Health promotion and disease prevention are imperative, as is developing a friendly environment that can provide seniors with proper health care. Besides reducing the diseases commonly seen in the elderly and middle-aged populations, it is essential to create a friendly environment capable of maximizing health. These living conditions can control or decrease the risks and adverse effects of diseases while postponing the shortening the effects of aging.

Table 5-1 Taiwan's 10 Leading Causes of Death in 2011

	Cause of Death	Deaths	Crude Death Rate (See Note 1)	Standardized Death Rate (See Note 2)
1	Malignant neoplasms	42,559	183.5	132.2
2	Heart disease (hypertensive diseases excluded)	16,513	71.2	47.9
3	Cerebrovascular disease	10,823	46.7	31.3
4	Diabetes mellitus	9,081	39.2	26.9
5	Pneumonia	9,047	39.0	24.8
6	Accidental injury	6,726	29.0	24.1
7	Chronic lower respiratory tract disease	5,984	25.8	16.2
8	Chronic liver disease and cirrhosis	5,153	22.2	16.5
9	Hypertensive disease	4,631	20.0	12.9
10	Nephritis, nephritic syndrome and nephrosis	4,368	18.8	12.6

Note 1: Deaths per 100,000.

Note 2: Calculated on the basis of the standard world population defined by the WHO in 2000.

Source: Office of Statistics, Department of Health.

According to mortality statistics from 2011 (Table 5-1), the most common problems afflicting Taiwan's aging population include malignant neoplasms, heart disease, cerebrovascular disease, diabetes, hypertensive disease, and nephritis, nephritic syndrome and nephrosis. Combined, they account for nearly 80% of all deaths. Therefore, health screenings for early detection and prevention should play an important role in any government initiative, as well as creating a health support environment that helps the population as it ages.

Section 1 Health Policies for Middle-Aged and Elderly Citizens

Status Quo

Average life expectancy in Taiwan was 79.2 years in 2011, which was 76 years for males and 82.6 years for females. Longer lives presents new challenges, as the 2009 National Health Interview Survey demonstrated that more than 80% (86.2%) of seniors reported having been diagnosed with at least one chronic disease, including more females than males (see Table 5-2). Studies showed that the most common chronic diseases among seniors were hypertension and diabetes mellitus, while women were vulnerable to osteoporosis. To ensure quality of life for senior citizens, health policies regarding elevating health and diseases management for middle-aged and elderly citizens are needed.

Table 5-2 Chronic Disease Diagnoses Among People Aged 65 or Over

Subject	1 Disease	2 Diseases	3 Diseases
Overall	86.2%	66.1%	46.0%
Males	83.7%	60.6%	39.2%
Females	88.5%	71.2%	52.4%

Source: 1. 2009 National Health Interview Survey.
2. 17 chronic diseases were included: hypertension, diabetes, heart disease, stroke, lung or respiratory disease (bronchitis, emphysema, pneumonia, lung disease, and asthma), arthritis or rheumatism, gastric ulcer or stomach illness, liver or gallbladder disorders, hip fractures, cataracts, kidney disease, gout, spinal bone spurs, osteoporosis, cancers, hyperglycemia, and anemia.

Target Indicators

Raised the percentage of seniors who ate at least five servings of fruits and vegetables per day to 32.3% in 2010.
Raised the percentage of seniors who exercised within the past two weeks to 66.4% in 2011.
Reduced the smoking rate among the elderly to 10.1% in 2011.
Raised the percentage of women aged 45-69 undergoing mammograms for breast cancer within the past two years to 29.1% in 2011.
Raised the percentage of people aged 50-69 undergoing fecal occult blood tests within the past two years to 33.4% in 2011.

Policy Implementation and Results

To promote early detection and treatment of chronic diseases, the government provides preventive health care and integrated screening services to adults. Meanwhile the BHP meanwhile incorporates healthy aging policies into other initiatives, such as healthy cities, safe communities, community health building, and the Ministry of the Interior's Community Care Sites program. It emphasizes health promoting topics that address the specific needs of seniors, such as healthy diet, exercise, prevention of falls, medication safety, prevention of chronic diseases, health examinations and blood pressure measurement. Other steps taken to build comprehensive, age-friendly health environments include the promotion of age-friendly health care and age-friendly cities.

A Summary of Achievements

1) Preventive Healthcare

Preventive healthcare service for adults include physical examinations, blood and urine tests, and health consultations. These are provided free of charge to people aged 40-64 every three years and to those aged 65 or over every year. In 2011, 1.77 million people took advantage of these services (including 880,000 people aged 65 or over), which led to a utilization rate of 33.3% (see Figures 5-1 & 5-2). Among subjects screened during this time, the percentages of people with newly detected abnormalities in blood pressure, blood sugar and blood cholesterol were 20.0%, 8.7% and 11.5% respectively (A newly detected abnormality is defined as one detected who previously had not been diagnosed with the condition before).

Figure 5-1 Uses of Preventive Healthcare Service for Adults, by Gender

Source: Bureau of National Health Insurance.

Figure 5-2 Uses of Preventive Healthcare Service for Adults, by Age

Source: Bureau of National Health Insurance.

2) Integrated Screening

To provide comprehensive, on-site screenings in communities, the BHP began to encourage counties and cities to consolidate their medical resources since 2002. This included integrating screenings already used in adult preventive health care services and cancer detection. As of 2011, 20 counties and cities carried out these changes, and 2.217 million people benefited from the integrated services between 2002 and 2011.

3) Health Promotion for the Elderly

1. Integrating Local Resources to Promote Senior Health

The BHP advanced senior health promotion by combining health, medical, and social welfare systems based on the needs of seniors in each community. It also encouraged medical institutions to partner with Ministry of the Interior's Community Care Sites program to hold health promotion events. Beginning in 2011, the BHP made these events an item in its evaluations of health promotion projects conducted by local health departments. Significant progress was achieved in 2011 when 477 medical institutions partnered with 1,333 Community Care Sites to hold health promotion activities, increasing the partnership rate from 26% in 2010 to 83.9%.

2. Health Centenary, Health Taiwan – National Contest for Elderly Health Promotion

To raise community participation among seniors, in 2011 the BHP held the Health Centenary – All Grandpas and Grandmas Taking Up Contest. There were 929 teams with an estimated more than 30,424 seniors who participated in related health promotion contests. From these teams, 26 emerged as winners of local preliminary contests and four regional semifinals. They gathered for the national finals on September 27, in conjunction with Double Ninth Festival. Approximately 1,000 seniors competed for the highest honor - to show a vitality that never fades.

3. Enhancing Preventive Health Care Services for the Elderly

In 2011 among people aged 50-69 approximately, 750,000 of them underwent fecal occult blood testing, approximately 426,000 women underwent mammograms, 537 took advantage of smoking cessation helpline services, and 3,959 used smoking cessation outpatient services seniors.

4. Creating Age-Friendly Cities

In response to the rapid aging of the global population, in 2007 the WHO published "Global Age-Friendly Cities: A Guide." Eight areas of city living were identified as worthy of special emphasis in creating a friendly environment to the elderly. The BHP chose Chiayi as the pilot city in 2010. It also established a set of checklist for cities that take into account eight areas pinpointed by the WHO: outdoor spaces and buildings; transportation; housing; social participation; respect and social inclusion; civic participation and employment; communication and information; and community support and health services. The tools are used to examine the age-friendliness of a city's structure, environment, services and policies. The BHP is also committed to helping localities partner with civic groups and academic institutions in hoping to maximize the health of seniors. It added 8 cities and counties to the effort in 2011, including Taipei City, New Taipei City, Taoyuan County, Hsinchu City, Nantou County, Tainan City, Kaohsiung City, and Taitung County. On September 28 the BHP led experts and academics from Chiayi City and Taoyuan County to the 1st International conference on Age-Friendly Cities held in Dublin, Ireland. The delegation signed the Dublin Declaration to support age-friendly cities. By the end of 2011, 20 cities and counties in Taiwan likewise signed this declaration.

5. **Age-Friendly Healthcare and Health Services**

Based on the 2004 WHO age-friendly principles from the "Active Ageing: Toward Age-friendly Primary Health Care" and the WHO Standards of Health Promoting Hospitals, the BHP developed the "Taiwan's Framework of Age-friendly Hospitals and Health Services" and indicators in 2010, outlining the four major dimensions of Management Policy, Communication and Services, Care Processes and Physical Environment. The framework and indicators serve as references and self-assessment tools for healthcare institutions to implement and continuously monitor the development of age-friendly health services. In August 2010, BHP held the "International Conference on Age-Friendly Health Care", inviting scholars and experts from Taiwan and abroad to share their experiences. In July 2011, BHP held an "Age-Friendly Hospital Workshop" to encourage healthcare institutions to promote age-friendly healthcare and health services. A total of 186 attendees from 105 hospitals participated in this event. In November 2011, BHP held the "Award Ceremony on Age-Friendly Health Care Promotion" to award 10 winning hospitals (Chia-Yi Christian Hospital received the Best Practice Award, and Taiwan Adventist Hospital, Tri-Service General Hospital and St. Martin De Porres Hospital are the respective winners of the Friendly Service Prize, Organization Reconstruction Prize and Friendly Environment Prize), the top 3 places in the age-friendly health care creative slogan contest and the top 3 places in the short essay competition. By the end of 2011, a total of 13 hospitals in Taiwan were recognized as "Age-Friendly Hospitals and Health Services".

Section 2 Prevention and Control of Major Chronic Diseases

Status Quo

According to a survey "Survey on Hypertension, Hyperglycemia and Hyperlipidemia (TwSHHH)" conducted by the BHP in 2007, nearly 40% of the nations aged 20 or above suffered from hypertension, hyperglycemia or hyperlipidemia (the 3Hs). They accounted for 7.85 million people by 2011. Of Taiwan's top 10 leading causes of death, many are related to these three chronic diseases, including heart disease (No. 2), cerebrovascular disease (No. 3), diabetes mellitus (No. 4), hypertensive disease (No. 9), and nephritis, nephritic syndrome and nephrosis (No. 10). Combined, they accounted for 45,416 deaths, exceeding the 42,559 deaths caused by cancers. Moreover, year-on-year increases were registered in the number of deaths attributed to hypertensive disease (457 persons or 10.9%), diabetes mellitus (870 persons or 10.6%), cerebrovascular disease (689 persons or 6.8%), nephritis, nephritic syndrome and nephrosis (263 persons or 6.4%) and heart disease (838 persons or 5.3%).

People tend to become increasingly vulnerable to the 3Hs, nephritic disease and metabolic syndrome as they age. Women over 50 are more susceptible to the 3Hs than males. And people with the 3Hs stand a greater chance of developing cardiovascular disease and nephritic disease or even dying (see Figures 5-3, 5-4 & 5-5). When it comes to prevention and control of chronic diseases, the BHP gives priority to metabolic syndrome, diabetes mellitus, cardiovascular disease and kidney disease. Chronic disease is a significant risk factor of premature death, despite it normally does not pose an immediate threat. On top of the complexity and diversity of their origins, chronic diseases develop gradually and may happen in any given phase of life. When chronic diseases assert themselves, the patient eventually must cope with physiological restrictions or barriers. Quality of life deteriorates over time. To improve the situation, the BHP sets the following goals for prevention and control of chronic diseases:

1) Promote and uphold the health of the middle-aged and elderly population.
2) Prevent and postpone the incidence of chronic diseases.
3) Enhance quality of life for patients, families and caregivers.

Figure 5-3 Prevalence of Hypertension by Gender and Age in 2007

Source: 2007 Survey on Hypertension, Hyperglycemia and Hyperlipidemia
Notes: High blood pressure is defined as having systolic blood pressure ≧ 140mmHg, diastolic blood pressure ≧ 90mmHg, or use of high blood pressure medication.

Figure 5-4 Prevalence of Hyperglycemia by Gender and Age in 2007

Source: 2007 Survey on Hypertension, Hyperglycemia and Hyperlipidemia
Notes: Hyperglycemia is defined as blood glucose test value ≧ 126mg/dL after 8 or more hours of an empty stomach, or use of hypoglycemic agents.

Figure 5-5 Prevalence of Hyperlipidemia by Gender and Age in 2007

Source: 2007 Survey on Hypertension, Hyperglycemia and Hyperlipidemia

Notes: High cholesterol is defined as serum cholesterol ≧ 240 mg/dL after 8 or more hours of an empty stomach, serum triglycerides ≧ 200 mg/dL, or use of lipid lowering drugs.

Target Indicators

Raising adult awareness of ideal waist circumference to above 55% in 2011.

Raising adult awareness of blood sugar levels to above 45% in 2011.

Raising adult awareness of one's own blood pressure reading to above 90% in 2011.

Raising adult awareness of the importance of preventing chronic kidney disease to above 60% in 2011.

Policy Implementation and Results

1) Raising Health Awareness Among the Public

1. Diverse Health Education and Promotion, Production of Teaching Materials and Manuals

The BHP made a variety of health education materials and promotional items available to medical professionals and the general public, including leaflets, posters, self-care manuals, cardboard cutouts and DVDs on metabolic syndrome, diabetes mellitus, coronary artery disease, hypertension and chronic kidney disease. It also produced teaching materials on "Healthy Aging."

2. Diverse Promotion Channels

In observance of special days designated for such chronic diseases as diabetes mellitus, hypertension, heart disease, kidney diseases and asthma, the BHP cooperates with local health departments, civic groups and community organizations to hold press conferences and other publicity events. It also promotes causes through schools, communities, the internet, magazines, radio, TV, vehicle ads and convenience stores. Major events in 2011 including:

A. World Diabetes Day: The BHP advocated diabetes education and prevention with the slogan "Act on Diabetes. Now." It called on the public to emphasize the importance of diabetes prevention and collaborated with the Diabetes Association of the ROC, the Taiwan Association of Diabetes Educators, Formosan Diabetes Care Foundation and the Taiwan Association of Persons with Diabetes in holding a series of internationally synchronized events. These included lighting, sport walking, photography contests, fairs and seminars. Media exposure led to 52 reports and the events totalled over 4,000 participants.

B. World Hypertension Day: To advocate the year's promotional theme of "Know Your Numbers and Target Your Blood Pressure," the BHP held the "Interpreting the 3 Codes of the Body, You are Also a Health Expert" online event from May 10 to 24. About 23,000 people joined the two-week activity.

C. World Heart Day: To advocate the year's promotional theme of "One World, One Home, One Heart," the BHP held a carnival called "Protecting Hearts Worldwide, Everyone United". Joining the BHP as co-hosts were the Taiwan Society of Cardiology and the Taiwan Heart Foundation. Approximately 500 participants joined the activity.

D. World Kidney Day: The BHP held a chronic kidney disease prevention awareness event in March. 10 cities and counties from across Taiwan held kidney care carnivals with a total of 6,725 participants. Also 22 cities and counties held 23 awareness lectures with a total of 2,331 participants, 3 chronic kidney disease care network seminars with a total of 1,802 participants, and 3 chronic kidney disease care benchmark learning demonstrations with a total of 426 participants.

2) Enhancing Health Promotion, Health Behavior and Self-Management Among High-Risk Groups

1. To make blood pressure measuring services convenient and accessible to the general public, local health departments integrated community resources at their disposal to establish 1,987 additional blood pressure measurement stations, in addition to hospitals and clinics, at a variety of locations such as administration agencies, community care sites, activity centers, drugstores, mall and workplaces. In addition, the BHP counseled cities and counties in promoting metabolic syndrome and diabetes prevention, added waistline measurements at blood pressure stations, and promoted metabolic syndrome prevention in 554 communities.
2. The BHP provided additional training sessions on prevention of chronic disease to the faculties of senior and junior high schools as well as elementary schools. In 2011, 536 people from schools attended, including 67 administrators and 469 school nurses and nutritionists. Accumulated attendance between 2007 and 2011 reached 3,395.
3. To enhance care access for groups at high risk of diabetes, the BHP promoted 483 diabetes patient support groups and held healthy diet, weight control, and blood sugar monitoring events. In 2011, 12,056 people from high-risk groups participated. Among them, 5,328 did self-monitoring with the following results: 10.9% improved staple food intake, 50.8% exercised more than 30 minutes each day (an increase of 12.8%), and 15.8% lost 2 or more kilograms. Health promotions focused on high risk of diabetes at 174 Diabetes Health Promotion institutions were also a success. More than half of participants reported improved blood glucose (51.8%), blood pressure (58.4%), and cholesterol (57.0%) readings. Another 58.7% lowered their waist circumference, 60.7% lost 2 kilograms or more and 60.7% exercised at least 30 minutes each day.
4. The BHP added medication safety to the "Protect the Kidneys with 3 Tests and against the 3H (hypertension,hyperglycermia or hyperlipidemia)"campaign, and it made promotion part of its evaluation of local health departments. Each city and county conducted the campaign and the media reported on it. Also in 2011 the BHP produced a pair of one-minute kidney health radio dramas and promoted kidney disease prevention in communities and schools.

3) Empowering Awareness and Self-Management of Illnesses

1. There were 174 diabetes health promoting institutions in 2011 (an increase of 7 from 2010). They provided internships to 928 diabetes health education staff and handled 21,343 cases applicable to the National Health Insurance Coverage for Improving Diabetes Treatment (an increase of 26,290 from 2010). To enhance autonomy and sustainable management of diabetes patient groups, the BHP trained health department (center) staffs, group operators, 87 officials and 38 group counselors while counseling 31 groups. Among the 34,938 patients in these groups nationwide, 16,621 were evaluated with the following results: 10.8% strengthened self-monitoring of blood glucose levels; 11.1% showed improvements in food consumption levels; 55% (an 11.9% increase) exercised daily for at least 30 minutes; 14.5% reduced their weight by 2 kilograms or more, and another 6.6% reduced their HbA1c (glycated hemoglobin) readings to 7%. The BHP accepted group operating fund applications from 71 groups, and at 2 competitions it honored 233 ABCDEFG model diabetes patients.
2. Health officials established a cross-departmental, interdisciplinary model of specialized care to deter the development of chronic kidney disease (CKD) and assist patients preparing for dialysis. In 2004, the BHP entrusted the Taiwan Society of Nephrology with the advancement of health promotion institutions focusing on kidney ailments, and 126 of these institutions accepted 22,228 new patients in 2011. Among patients undergoing dialysis, 1,953 (57.7%) already had a surgically created arteriovenous fistula in place. And 1,331 (35.5%) dialysis first-timers arrived as outpatients rather than as inpatients or for emergency treatment. These were significant improvements.
3. In 2005, the BHP installed a case management and information system for chronic kidney disease to help medical institutions register and retrieve data related to diagnosis, treatment and referrals. Later it integrated the system with other CKD databases. By the end of 2011, 200 hospitals used the system to register 68,472 cases.
4. Managing risk factors for coronary artery disease goes a long way toward reducing the rate of incidence and the risk of recurrence, giving patients a better quality of life. As such, the BHP entrusted Kaohsiung Medical University Chung-Ho Memorial Hospital to develop and evaluate a model of health promoting shared-care for heart disease patients. The hospital's shared-care team for heart disease together with other specialists revised the BHP's manual on self-care of coronary artery disease and developed a universal health promoting shared-care model for heart disease patients. Put into force at Chung-Ho Hospital in 2011, the model is scheduled to be introduced to other medical institutions in 2012-2013.

4) Strengthening Disease Prevention and Chronic Disease Research

Taiwan faces serious problems related to dialysis. Research of methods to prevent disease is urgent. Therefore, in 2006, the Department of Health instructed the BHP to coordinate kidney disease research projects among relevant bureaus and offices (including the Food and Drug Administration, Medical Affairs Office, NHI group, Committee on Chinese Medicine and Pharmacy, and Bureau of National Health Insurance). Together, these agencies planned and promoted the development of chronic kidney disease prevention research. Also in 2008, the BHP commissioned local academic institutions to conduct technology research projects in four additional areas: epidemiology, diagnostic techniques, therapeutic care, and health insurance.

Implementation of the four research projects above was completed in 2011. Researchers compiled results and provided them to Department of Health agencies together with policy recommendations. The agencies then

used the results to direct prevention strategies and work standards. Administrative planning modeled on this empirical evidence includes the Bureau of Health Insurance's "Medical Benefits Improvement Plan for Early-Stage Chronic Kidney Disease," which was launched in 2011. Results also contributed to the development of an improved eGFR formula for domestic cases, which researchers used to set CKD staging criteria for Taiwanese citizens. Scientists will compile data in a large-scale database so it can be used for verification purposes. The Medical Affairs Office used research results to examine the domestic organ procurement system. It planned to provide kidney and liver donors with free health examinations for life, amend the principles for organ allocation, and increase the rate of kidney transplants. Also the National Health Research Institutes will use the integrated kidney disease database to conduct data analysis and other research.

Department agencies also considered results of these four research projects and used them as the basis for a five-year plan to improve care given to chronic kidney disease patients. The plan, jointly developed with experts, academics, kidney patient groups, and department agencies, includes four goals: 1. Reduce dialysis use, 2. Increase the number of kidney transplantation, 3. Increase the five-year survival rate of kidney disease patients, and 4. Increase the implementation rate of peritoneal dialysis. Agencies set implementation strategies that they will conduct based on the duties of each unit.

Section 3 Cancer Prevention and Control

In accordance with the Cancer Prevention Act of 2003, the BHP periodically convenes meetings of the Central Cancer Prevention and Control Conference and the Cancer Prevention and Control Policy Consultation Commission. These meetings help officials achieve horizontal and vertical coordination and communication. For the Five-Year National Program on Cancer Prevention and Control (2005 to 2009), the BHP won a 2010 Taiwan Sustainable Development Award for Excellence in Project Execution from the Executive Yuan's National Council for Sustainable Development. Echoing President Ma Ying-Jeou's campaign pledge to reduce the cancer mortality rate, in 2009 the BHP introduced the 2nd National Cancer Control Programme - Cancer Screening (2010-2013). Its primary strategy was to expand the provision of cancer screening services.

Status Quo

In an administrative order issued in 1979, the Department of Health requested hospitals with 50 beds or more to submit summarized reports on epidemiological details of all newly detected cancers as well as their diagnosis and treatment processes. The objective was to establish a nationwide cancer registration system. In 2003, the Cancer Prevention Act went into effect. Article 11 of the statute stipulates that "to establish a database for cancer prevention and control, medical institutions charged with cancer prevention and control should report data concerning diagnosis and treatment of newly detected cancers and their stages to academic and research institutions entrusted by the relevant central authority."

1) Cancer Incidence

According to registry data, 87,189 people (49,022 males and 38,167 females) were newly diagnosed with cancers in 2009. The crude cancer incidence rate was 377.1 per 100,000 (421.3 for males and 332.4 for females) while the standardized incidence rate was 293.4 per 100,000 (336.3 for males and 253.5 for females). The median age was 63 (65 for males and 60 for females). Based on standardized incidence statistics, men were 1.3 times more likely than women to develop cancer. In particular, men were more than 11 times more vulnerable to esophageal and oral cancer, a phenomenon attributable to their higher tendency to smoke cigarettes and chew betel quid (see Figure 5-6).

In 2009, the 10 leading cancers for the local populace by standardized incidence rate were: 1. female breast cancer, 2. colorectal cancer, 3. liver cancer, 4. lung cancer, 5. prostate cancer, 6. oral cancer, 7. stomach cancer, 8. cervical cancer, 9. corpus uteri cancer and 10. skin cancer. The rankings were the same as the year before (for more data on cancer incidence rates see Tables 5-3, 5-4 & 5-5).

Figure 5-6 Sex Ratios in Age-Standardized Incidence of Major Cancers, 2009

Source: BHP, DOH cancer registries from 2009.

Table 5-3 Incidence Rate of 10 Leading Cancers from 2009.

Rank	Primary Site	Number of Cases (Persons)	Age-Standardized Incidence Rate (per 100,000)
1	Female Breast	8,926	59.9
2	Colorectal	12,488	41.4
3	Liver and intrahepatic bile ducts	11,080	37.3
4	Lungs, bronchus, and trachea	10,643	34.8
5	Prostate	4,013	26.9
6	Oral cavity, oropharynx, hypopharynx	6,480	22.0
7	Stomach	3,848	12.4
8	Cervix	1,796	11.9
9	Corpus uteri	1,496	9.9
10	Skin	2,928	9.5
	Overall	87,189	293.4

Notes: 1.Ranking is based on age-standardized incidence rates.
2.Age-standardized rates were calculated using the WHO's world population age-structure in 2000.
3.Source: BHP, DOH cancer registries from 2009

Table 5-4 Incidence Rate of 10 Leading Cancers Among Men in 2009

Rank	Primary Site	Number of Cases (Persons)	Age-Standardized Incidence Rate (per 100,000)
1	Liver and intrahepatic bile ducts	7,747	53.6
2	Colorectal	7,151	48.7
3	Lungs, bronchus, and trachea	6,737	45.1
4	Oral cavity, oropharynx, hypopharynx	5,927	40.8
5	Prostate	4,013	26.9
6	Stomach	2,404	15.9
7	Esophageal	1,898	13.0
8	Skin	1,589	10.7
9	Urinary bladder	1,419	9.4
10	Nasopharyngeal	1,205	8.5
	Overall	49,022	336.3

Source: BHP, DOH cancer registries from 2009

Table 5-5 Incidence Rate of 10 Leading Cancers Among Women in 2009

Rank	Primary Site	Number of Cases (Persons)	Age-Standardized Incidence Rate (per 100,000)
1	Female Breast	8,926	59.9
2	Colorectal	5,337	34.5
3	Lungs, bronchus, and trachea	3,906	25.2
4	Liver and intrahepatic bile ducts	3,333	21.7
5	Thyroid	1,846	13.2
6	Cervix	1,796	11.9
7	Corpus uteri	1,496	9.9
8	Stomach	1,444	9.2
9	Skin	1,339	8.4
10	Ovary, fallopian tubes, or uterine broad ligament	1,113	7.7
	Overall	38,167	253.5

Source: BHP, DOH cancer registries from 2009

2) Cancer Mortality

Department of Health mortality statistics showed that 42,559 people died of cancer in 2011 (including 27,045 males and 15,514 females), accounting for 28 percent of all deaths. The crude mortality rate was 183.5 per 100,000 people (232.3 for males and 134.3 for females), and the age-standardized mortality rate was 132.2 per 100,000 people (173.7 for males and 93.4 for females). The top 10 cancers causing deaths of 2011 were: 1. lung cancer, 2, liver cancer, 3. colorectal cancer, 4. female breast cancer, 5. oral cancer, 6. stomach cancer, 7. prostate cancer, 8. pancreatic cancer, 9. esophageal cancer, and 10. cervical cancer (for more data on cancer mortality rates see Tables 5-6, 5-7 & 5-8).

Table 5-6 10 Deadliest Cancers in 2011

Rank	Cancer	Number of Cases (Persons)	Crude Mortality Rate (per 100,000)	Age-Standardized Mortality Rate (per 100,000)
1	Cancers of trachea, bronchia and lung	8,541	36.8	26.0
2	Liver cancer	8,022	34.6	25.3
3	Colorectal cancer	4,921	21.2	15.0
4	Breast cancer	1,852	16.0	11.6
5	Oral cancer	2,463	10.6	7.9
6	Stomach cancer	2,288	9.9	6.8
7	Prostate cancer	1,096	9.4	6.4
8	Pancreatic cancer	1,607	6.9	4.9
9	Esophageal cancer	1,507	6.5	4.7
10	Cervical cancer	681	5.9	4.1
	Overall	42,559	183.5	132.2

Source: Office of Statistics, Department of Health, Causes of Death.

Table 5-7 Top 10 Cancers Causing Deaths Among Men in 2011

Rank	Cancer	Number of Cases (Persons)	Crude Mortality Rate (per 100,000)	Age-Standardized Mortality Rate (per 100,000)
1	Cancers of trachea, bronchia and lung	5,740	49.3	36.3
2	Liver cancer	5,633	48.4	37.0
3	Colorectal cancer	2,875	24.7	18.2
4	Oral cancer	2,308	19.8	15.2
5	Stomach cancer	1,482	12.7	9.1
6	Esophageal cancer	1,415	12.2	9.2
7	Prostate cancer	1,096	9.4	6.4
8	Pancreatic cancer	907	7.8	5.7
9	Non-Hodgkin's lymphoma	613	5.3	4.0
10	Nasopharyngeal cancer	570	4.9	3.8
	Overall	27,045	232.3	173.7

Notes: 1. Positions based on crude mortality rates.
2. Age-standardized rates were calculated using the WHO's world population age sructure in 2000.
3. Source: Office of Statistics, Department of Health, Causes of Death.

Table 5-8 Top 10 Cancers Causing Deaths Among Women in 2011

Rank	Cancer	Number of Cases (Persons)	Crude Mortality Rate (per 100,000)	Age-Standardized Mortality Rate (per 100,000)
1	Cancers of trachea, bronchia and lung	2,801	24.2	16.5
2	Liver cancer	2,389	20.7	14.3
3	Colorectal cancer	2,046	17.7	11.9
4	Breast cancer	1,852	16.0	11.6
5	Stomach cancer	806	7.0	4.7
6	Pancreatic cancer	700	6.1	4.1
7	Cervical cancer	681	5.9	4.1
8	Ovarian cancer	445	3.9	2.8
9	Non-Hodgkin's lymphoma	358	3.1	2.1
10	Leukemia	338	2.9	2.2
	Overall	15,514	134.3	93.4

Source: Office of Statistics, Department of Health, Causes of Death.

3) Increase/Decrease in Annual Cancer Incidence and Mortality

Department of Health statistics on causes of death showed that cancer has been the leading cause of death in Taiwan since 1982. Calculated based on the WHO's world population age-structure in 2000, the age standardized cancer mortality rate in Taiwan rose from 118 per 100,000 in 1982 to highest of 144.3 in 1997. Over the next decade it hovered between 138 and 144, and by 2011 it was 132.2. The age standardized incidence rate of cancer during the same period rose from 111 per 100,000 in 1982 to 293.4 per 100,000 in 2009 (see Figure 5-7).

Figure 5-7 Standardized Cancer Incidence and Mortality Rates Over the Years

Notes 1. Source for Cancer Incidence and Mortality Rates: BHP, DOH cancer registries from 2009 and cause of death data from the Statistics Office.

2. Age-standardized rates were calculated using the WHO's world population age-structure in 2000.

Based on 10-year analysis of the standardized cancer incidence rate from 2000 to 2009, cancers among men increased by an average of 15.7%. Oral cancer (50.8%) and prostate cancer (50.5%) rose the most while stomach cancer (16.3%) fell the most. Cancers among women increased by an average of 13.2%, with corpus uteri cancer (78.4%) and thyroid cancer (58.3%) rising the most and cervical cancer (53.3%) falling the most (see Figures 5-8, 5-9).

Table 5-8 Age-Standardized Incidence Rates for the 10 Most Common Cancers Among Men, 10-Year Change, 2000-2009

Figure 5-9 Age-Standardized Incidence Rates for the 10 Most Common Cancers Among Women, 10-Year Change, 2000-2009

Target Indicators

Enhancing Cancer Screening Rates

1) Achieve a cervical cancer screening rate of 62% among women aged 30-69 within the past three years.
2) Achieve a breast cancer mammogram screening rate of 29.3% among women aged 45-69 within the past two years.
3) Achieve a colorectal cancer screening rate of 33.5% among people aged 50-69 within the past two years.
4) Achieve an oral cancer screening rate of 40% among betel quid chewers and smokers aged 30 or over within the past two years.

Policy Implementation and Results

1) Betel Quid Hazards Prevention and Control

The International Agency for Research on Cancer has listed betel quid as a Group 1 carcinogenic agent to humans. In Taiwan, betel quid chewing is a primary cause of oral cancer. Some 88% of oral cancer patients are found to have the habit of betel quid chewing. In comparison with smoking and excessive use of alcohol, betel quid chewing carries higher risks for oral cancer.

In Taiwan, there are around 1.39 million regular betel quid chewers. The standardized incidence rate of oral cancer among males reached 24% in the past five years and was a common threat to men aged 25-44. To reduce the threat of oral cancer in Taiwan, a major publicity campaign was undertaken in 2011 that sought to discourage people from chewing betel quid.

Success in getting men to quit betel quid has been achieved in recent years. From 2007 to 2011, Taiwan's overall betel quid chewing rate fell by 34% (see Figure 5-10). However, the rate for adolescents remains the same (see Table 5-9). In a breakdown by county and city, Hualien and Taitung registered the highest betel quid chewing rates nationwide. High rates were also reported in central and southern Taiwan, while metropolitan areas posted much lower rates (see Figure 5-11).

Figure 5-10 Betel Quid Chewing Rate Among Adult Males, 2007-2011

Betel Quid Chewing Rate: Refers to those who have chewed within the past six months.
Source: Behavioral Risk Factor Surveillance System (BRFSS) Survey, Adult Smoking Behavior Survey.

Table 5-9 Betel Quid Chewing Rate Among Adolescents

Subject	Senior/Vocational High School Students (%)				Junior High School Students (%)			
year	2005	2007	2009	2011	2006	2008	2010	2011
Betel Quid Chewing Rate	3.4	3.5	3.8	3.8	1.9	1.8	2.0	1.5

Betel Quid Chewing Rate: Proportion that chewed less than 1 per day, 1-5, 6-10, 11-15, 16-20, and over 20
Source: Global Youth Tobacco Survey (GYTS).

Figure 5-11 2011 Betel Quid Chewing Rates Among Adult Males by County/City

Figure 5-11 2011 Betel Quid Chewing Rates Among Adult Males by County/City
Source: Behavioral Risk Factor Surveillance System (BRFSS) Survey, Adult Smoking Behavior Survey.

A milestone in Taiwan's campaign against the hazards caused by betel quid arrived when an interdepartmental, five-year initiative was adopted in 1997: Program for Managing Problems Related to Betel Quid. In accordance with a proposal by NGOs, December 3 was designated as "No Betel Quid Chewing Day." In 2011, rigorous efforts were made by all levels of government to strengthen betel quid prevention and control through media promotions. Government agencies and NGOs also joined forces to create betel quid free communities, workplaces, schools and barracks. The efforts paid off: the chewing rate among men aged 18 or above fell to 11.3% in 2010 from 17.2% in 2007.

A summary of efforts to prevent and control betel quid hazards is as follows:

1. Publicizing No Betel Quid Chewing Message

A. Adopting a Soft Approach and Having Patients Share Their Experiences

The BHP developed and produced a variety of promotional materials that feature stories of oral cancer patients. These gently and directly get the message across to people who have the habit of chewing betel quid. "The Lost Smile" is Taiwan's first documentary on people inflicted with oral cancer because of betel quid chewing. "Happiness of Rebirth" is an audio book featuring the voices of oral cancer patients and their families. Both highly rated among not only oral cancer fighters but also the general public. To gain wider public attention to the topics of betel quid chewing and oral cancer, the documentaries were played throughout 2011 on the internet and broadcast media, as well as hospitals, schools, communities, workplaces and barracks. The objective was to have patients and families share their personal experiences to raise greater awareness of betel quid hazards among chewers and the general public.

B. Developing and Promoting a Comprehensive Service System to Help Cessation of Betel Quid Chewing

The BHP urges people to quit betel quid chewing to reduce their likelihood of oral cancer. It put a comprehensive service network in place, with teaching materials and seed instructors developed for offering cessation classes. To reach people with a high tendency of betel quid chewing, the BHP has been distributing tissue boxes printed with oral cancer and betel quid warnings since 2007 at gas stations. The campaign elicited a positive response among local health authorities and the general public. Besides emphasizing the carcinogenic nature of betel quid, additional information on oral cancer screenings was also printed on tissue boxes and distributed at nearly 130 gas stations nationwide in 2011.

C. Starting Out with Schools

In 2011, the BHP partnered with NGOs to promote prevention and control of betel quid hazards at 50 schools. Courses were designed to help students learn about the threats posed by betel quid, so hazard prevention education could take root from childhood. Strategies for combating the habit were adopted at schools in areas with a high percentage of betel quid chewers. Emphasis was placed on the capacity of teachers and other faculty members to promote betel quid hazards prevention.

2. Fostering a Culture of No Betel Quid Chewing in the Community and Workplace

A. Bolstering Cooperation with NGOs to Combat Betel Quid Chewing

To put community resources to optimal use, local health departments serve as the platform to integrate private organizations that also seek to promote prevention and control of betel quid hazards. These include the Sunshine Social Welfare Foundation, the Cancer Prevention and Education Foundation, and local hospitals such as Hualien Armed Forces General Hospital and Cardinal Tien Hospital Yungho Branch, as well as more than 80 community groups. To create communities and workplaces free from betel quid chewing, these groups work together in conducting publicity, setting conventions and regulations, starting cessation classes and offering support services to oral cancer patients.

Moreover, special courses are available to local health officials to enhance their capacity for promoting prevention and control of betel quid hazards. Emphasis is placed on teaching strategies, tools and communication techniques so the officials can establish an environment free from betel quid chewing in their community and increase the effectiveness of betel prevention.

B. Promoting Interagency Coordination of Oral Cancer Screenings

Thanks to collaboration between the BHP and the Council of Labor Affairs, oral cancer screenings were added to labor health checkups. The council agreed in 2009 that hospitals designated for labor health checkups provide oral cancer screenings to high-risk workers aged 30 or over. In 2010, the BHP was further joined by the Ministry of the Interior, Ministry of Education and Council of Agriculture in mapping out a program for keeping betel quid away from children and adolescents. In 2011, the program was continued to reduce the harm caused by betel quid and keep children and adolescents healthy.

2) HPV Prevention and Control

Studies have confirmed that cervical cancer is caused by infection of human-papilloma virus (HPV). In Taiwan, government approval was given in 2006 and 2008 for two HPV vaccines, Gardasil and Cervirax. They were perceived as effective in preventing the infection of HPV type 16 and 18, thus reducing cervical cancer incidence and mortality rates. To extend subsidies for HPV vaccination to junior high school female students from low-income households, mountainous areas and offshore islands, the BHP undertook the following measures in 2011:

1. Educating the Public About HPV Vaccines and Cervical Cancer Prevention and Control
   A. The BHP raised awareness of cervical cancer prevention and control as well as HPV vaccines by means of TV and radio broadcasts, newspapers and magazines.
   B. The BHP used local health departments and centers to distribute two booklets: "Intimate Notes for Women" and "Staying Away From HPV," and the DVD "Cervical Cancer - Tips About Sex" that explains the relationship between cervical cancer and HPV, introduces HPV vaccines, and talks about ways to prevent cervical cancer.
2. Training Specialized Personnel
   The BHP undertook an educational program on HPV vaccination, which was attended by 295 nurses from schools and public health centers in remote areas and offshore islands. It also posted training materials on the BHP website for download by specialized personnel in the field.
3. In 2011, the BHP created a plan to subsidize HPV vaccinations for teenage girls from low-income households, remote areas and offshore islands. It also mailed brochures on the vaccinations along with letters of consent to low-income households with junior high school female students.

3) Promoting Screening for Leading Types of Cancers

The incidence of cervical cancer, breast cancer, colorectal cancer, and oral cancer account for about a third of all cancer cases combined. Evidence shows that widespread screening greatly reduces the incidence and mortality rates. In particular, Pap smears can lower the incidence and mortality rates of cervical cancer by 60-90%; mammograms reduce breast cancer mortality rates by 20-30%; fecal occult blood tests reduce the colorectal cancer mortality rate by 20-30%; and oral mucosa tests reduce oral cancer mortality rates for men aged 35 or over who smoke and drink by 40%.

In 1995, 1999, 2002 and 2004, the government began to offer Pap smears to women aged 30 or over. This was followed by the introduction of oral cancer screenings among people aged 18 or over who smoke or

chew betel quid, breast cancer mammograms among women aged 50-69, and fecal occult blood tests among people aged 50-69. From July 2002 to June 2004, doctors conducted breast cancer screenings in two stages: high-risk women were identified by means of questionnaires before they underwent mammograms. The government has incorporated these screenings into preventive health care services for women aged 50-69 since July 2004, and it expanded the scope to include women aged 45-49 in November 2009. It went a step further in January 2010 by adding women aged 40-44 who have relatives within a second degree of kinship who suffered from breast cancer. Also in 2010, the government incorporated screenings for colorectal cancer and oral cancer into preventive health care services. Screenings for oral cancer were made available to people aged 30 or over who smoke or chew betel quid.

In 2011 the BHP widely promoted four cancer screenings with the following strategies and achievements:

1. **A Soft Approach and Diverse Publicity**

   To familiarize people with state-sponsored cancer screenings, in 2011 the BHP joined local health departments (centers), medical institutions and NGOs in publicity campaigns. Emphasis was placed on producing materials that feature the stories of cancer patients and their families, with the aim of inspiring the public to undergo regular screenings. Pop singer Elva Hsiao, whose mother died of cervical cancer in January 2010, was invited to serve as a spokeswoman. Upon completion of a public health TV commercial, she made an appearance at a press conference to urge women to undergo Pap smears regularly. She also reminded everyone to show love for Mom by taking her to such tests. Hsiao's convincing performance and the well-executed production led the Government Information Office to cite the campaign as worthy of emulation

   The BHP conducted a telephone survey of people aged 30-69 in 2010. It suggested that 71%, 81%, 89% and 98% of the populace were aware of the effectiveness of screening in prevention of oral cancer, colorectal cancer, breast cancer and cervical cancer, respectively. However, ther was still fewer people knew about free cancer screenings provided by the government to specific population segments. The survey showed that 72% of respondents knew about free annual Pap smears offered to women aged 30 or over. But only 53%, 43% and 33% were aware of the criteria regarding government subsidies for mammograms, fecal occult blood tests, and oral mucosa tests, respectively (see Figure 5-12).

Figure 5-12 Public Awareness of Cancer Screenings and Government Subsidies

Source: Evaluation of Cancer Screening Promotions in 2010

2. Subsidizing Hospitals for Making Screening for Cancer Part of Their Culture

In 2010, the BHP subsidized more than 200 hospitals that register 5,000 or more outpatients aged 30 or over, so they could undertake a special project to enhance quality of cancer care. Hospitals were required to establish an outpatient screening reminder system and a one-stop referral system for positive tests. In addition to helping local health departments conduct community screenings, they also introduced on-site educational programs and classes on quitting betel quid. The BHP further contributed by following the WHO's "Health Promoting Hospital" model in assisting local hospitals in promoting cancer screenings. In a departure from prior emphasis on treatment over prevention, hospitals were encouraged to overhaul their organizational culture and workflow. These 232 hospitals accounted for about 92% of all outpatient services. In 2011 they conducted 2.319 million screenings for the four main cancers, an increase of 1.8 times compared to 2009 (colorectal cancer increased 12.1 times, oral cancer 4.7 times, breast cancer 2.1 times, and cervical cancer 1.1 times). The screenings represented 54% of all such services rendered nationwide. The BHP will continue to subsidize hospitals in 2012.

3. Screening Results for Main Cancers

In 2011, 4.355 million screenings were carried out for cervical cancer, breast cancer, colorectal cancer, and oral cancer. Of the total, 11,000 cases of cancer and 32,000 cases of pre-cancer were detected; more than 44,000 lives were thus saved. Details are listed below (Table 5-10)

Table 5-10 Screening Results in 2011

Item	Subject	Screening Policy	Results in 2011
Cervical Cancer	Women aged 30 or over	At least 1 Pap smear every 3 years	62% of women aged 30-69 had at least 1 Pap smear within the past 3 years
		Screening for HPV	
Breast Cancer	1. Women aged 45-69 2. Women aged 40-44 who have relatives within second degree of kinship who suffered from breast cancer	1 mammogram every 2 years	29.3% of women aged 45-69 had at least 1 mammogram within the past 2 years
Oral Cancer	People aged 30 or over who chew or smoke	1 oral mucosa test every 2 years	40% of people aged 30 or over who chew betel quid or smoke were screened for oral cancer within the past 2 years
Colorectal Cancer	People aged 50-69	1 fecal occult blood test every 2 years	35% of people aged 50-69 had fecal occult blood tests within the past 2 years

A. Cervical Cancer

In 2011, 2.15 million Pap smears were given to females aged 30 or over, pushing the percentage of women aged 30-69 who had undergone screening for cervical cancer within the past three years to 62% (a BHP telephone survey suggested it was 70%). Separately, local health departments were called to provide HPV self-sampling services to women aged 36 or above who had not undergone any Pap smears in the past six years. A total of 37,350 women completed their HPV tests. Of 2,955 positive cases, 1,907 (65%) had Pap smears, and 219 of them were found to have low-grade squamous intraepithelial lesions (LSIL) or high-grade squamous intraepithelial lesions (HSIL). There were 149 women underwent biopsies, with 88 diagnosed with HSIL and 17 with cervical cancer. In addition, the BHP collaborated with the Ministry of Justice to provide Pap smears to 1,640 female inmates.

In 1995, the Department of Health began to provide women aged 30 or above with annual Pap smears. The standardized cervical cancer mortality rate fell by 63% between 1995 and 2011, from 11 to 4.1 persons per 100,000. The standardized cervical cancer incidence rate also decreased by 52%, from 25 per 100,000 in 1995 to 11.9 per 100,000 in 2009.

B. Breast Cancer

In 2011, 559,000 mammograms were conducted on females aged 45-69, 2.3 times more than the 245,000 recorded in 2009. The percentage of women aged 45-69 who had undergone mammograms within the past two years also rose to 29.3% from 11.6% in 2009. Close to 3,000 cases of breast cancer were detected in 2011. Nearly 90% of them were second stage or earlier, with a five-year survival rate of 90%. Also the percentage of carcinoma in situ, or early-stage tumors, was 37% in 2010, much higher than the 10% recorded in cancer registries from 2004-2008. This shows the effectiveness of screenings in the early detection of breast cancer.

The BHP is committed to making screening more accessible by adding mammography systems where they are needed most. In 2010, subsidies were extended to Yilan County, Miaoli County, Taichung City, Chiayi County, Tainan City and Taitung County for procurement of mammography vans, and to Kaohsiung County, Lienchiang County and New Taipei City for installation of mammography detectors.

C. Colorectal Cancer

In 2010 screenings for colorectal cancer were incorporated into preventive health care services for the first time. Hospitals contracted under the National Health Insurance program can provide people aged 50-69 one fecal occult blood test every two years. The test was conducted 772,000 times in 2011, 2.7 times higher than the 290,000 in 2009. The percentage of people aged 50-69 who had taken such tests within the past two years also rose to 33.5% in 2010 from 10% in 2009. Among the subjects, 18,000 were found to have developed polyps and 1,892 were diagnosed with colorectal cancer in 2010.

D. Oral Cancer

In 2010, screenings for oral cancer were incorporated into preventive health care services for the first time. Hospitals contracted under the National Health Insurance program could provide people aged 30 or over who smoke or chew betel quid one oral mucosa test every two years. To provide the public with more convenient screening services, the BHP entrusted the Taiwan Dental Association to train otolaryngologists at local public health centers. Local health departments were also authorized to provide training on oral mucosa tests to otolaryngologists

The screenings were conducted 874,000 times in 2011. The percentage of people aged 30 or over who smoked or chewed betel quid and had taken such tests within the past two years rose from 10% in 2009 to 28% in 2011. In 2011, these tests detected oral premalignant lesions in 3,829 patients and oral cancer in 1,438 patients.

4. Improving Quality of Cancer Screening Services

To enhance cancer screening services, the BHP entrusted the Taiwan Society of Pathology to certify institutions that offer cervical pathological diagnoses. By December 2011, it had certified 112 institutions, and it conducted 37 certifications and follow-up inspections in 2011. Similarly the BHP commissioned the Radiological Society ROC to certify mammography institutions. By December 2011, it had certified 179 institutions, and it conducted 26 first-time certifications and 164 follow-up inspections in 2011. For institutions conducting fecal occult blood tests, the BHP entrusted the Taiwan Society of Laboratory Medicine, which had certified 111 entities by December 2011. It also completed two external quality control tests and extended on-site assistance to institutions that failed to meet standards. The BHP commissioned the Taiwan Dental Association and the Cancer Prevention and Education Foundation to provide training on oral mucosa tests. They taught 3,377 doctors (623 dentists, 308 otolaryngologists and 2,446 specialists in other fields) how to conduct oral cancer screenings.

4) Quality of Cancer Care

1. Accreditation of Cancer Care Quality

In accordance with the Cancer Prevention Act, in 2005 the BHP introduced a set of guidelines to improve the quality of cancer care. These were incorporated into the BHP's subsidy program for hospitals. In 2010, 49 hospitals received grants for related programs. Subsidies were extended mainly to items not covered by National Health Insurance but crucial to the quality of cancer care, including cancer registries, case management and one-stop services for cancer patients.

Survival of cancer patients hinges on the quality of treatment and care they get. For this reason, in 2005 the BHP commissioned the National Health Research Institutes to devise an accreditation system for cancer care quality at hospitals. On October 4, 2007, the BHP unveiled a list of criteria for grading and certification of cancer diagnosis and treatment as well as a clearly defined set of procedures. The accreditation system is applicable to hospitals that register 500 or more newly detected cases of cancer with a view to upgrading their quality of cancer diagnosis and treatment and providing patients with a safe and effective environment. By December 2011, 47 hospitals had been certified nationwide, including 8 in 2011. The accreditation results, a compulsory element in the evaluation of any institution seeking medical center status, are posted online (see Figure 5-14).

The first batch of accreditation criteria was drawn up mainly to help hospitals set up a patient care framework and a standard model of diagnosis and treatment. This involved the establishment of a cancer committee to oversee pertinent operations throughout the hospital, a database of cancer registries, and a set of regulations on quality control. Hospitals were also required to set up an interdisciplinary cancer team, map out clinical guidelines and lay down SOPs for the care of cancer patients. In 2010, accreditation criteria were revised and adopted in the trial evaluation of 8 hospitals. Newly added items included radiological therapy, diagnostic imaging, and re-education of case managers and other specialists.

Figure 5-14 Hospitals Certified for Quality of Cancer Diagnosis and Treatment as of 2010

2. Enhancing Diagnosis and Treatment of Cancers

Pathology and imaging reports are crucial to cancer diagnosis and treatment. Therefore, in 2007 and 2010, the BHP set mandatory items to be included in pathology and imaging (computer tomography and magnetic resonance imaging) reports meant for cancer diagnosis and treatment. To date, 17 items are mandatory for pathology reports and 8 for imaging reports. Also, the growing popularity of target therapy for cancers has brought greater attention to the quality of molecular pathological tests that precede treatment. For this reason, in 2010 the BHP started to devise ways to improve quality of these tests. It began to hold seminars focused exclusively on these tests and it launched a pilot program to determine the capacity of institutions performing such tests.

Also since 2010 the BHP has commissioned the Oncology Nursing Society of Taiwan to develop cancer care quality indicators and care guidelines. By 2011 it had developed 66 cancer care quality indicators and 4 clinical care guidelines, and 2 hospital conferences were held.

5) Cancer Patients and Palliative Care

1. Services for Cancer Patients

Advanced medical technologies have made it possible for cancer patients to survive longer. This creates a greater need for integrated, continuous and multifaceted care services. To help cancer patients cope with physical, mental and social strains, the BHP has run a cancer patient service program since 2003.

In 2011, the BHP extended subsidies to 5 NGOs for providing services to cancer patients and their families. These include education and consultation over the phone, hospital visits, psychiatric counseling, study groups for new patients, team work, patient-oriented travel packages, volunteer training, and handing out cancer-related educational materials. Such services have been provided on 150,000 occasions.To build a comprehensive service network aimed specifically at cancer patients, the BHP extended its subsidies to hospitals with ≥450 newly detected cases of cancer a year. Using these subsidies, 52 such hospitals established one-stop centers for cancer services. With resources inside and outside the hospital fully integrated, veteran nurse practitioners, social workers and psychiatrists are dispatched so cancer patients and their families can quickly enjoy the resources and services they need. Against the impact of what must be a tremendous shock, patients and families can thus regain their sense of reality and start treatment as soon as possible. These experts also ease communication between patients/families and hospital medical teams, and they help the patients return to a normal life soon after treatment. The BHP also commissioned the Hope Society for Cancer Care to train personnel tasked with one-stop cancer services as well as volunteers. In addition, it holds regional awareness conferences to understand the needs and obstacles of hospitals and provide them with expert suggestions.

2. Hospice and Palliative Care

The Department of Health began promoting hospice and palliative care in 1996. Alongside a 2000 pilot program to incorporate hospice care into National Health Insurance, Taiwan became the first country in Asia with legislation on natural death when it adopted the Hospice and Palliative Care Act. In 2004 the BHP teamed up with the Taiwan Hospice Organization to provide share-care to cancer patients outside hospice wards at eight hospitals on a trial basis. Hospitals subsidized to conduct these services increased to 34 in 2005. As of the end of 2011, 69 hospitals were offering shared-care, 50 were providing inpatient service, and 77 offered home care services. In 2011 about 20,000 cancer patients benefited from hospice and palliative care, a significant increase from previous years. Analysis of official death records and national health insurance claims reveals that the percentage of cancer patients who availed themselves of hospice care (including inpatient service, home care services, and shared-care) in the year before their death rose to 41.8% in 2010 from 7% in 2000.

"The Quality of Death: Ranking End-of-life Care Across the World" is a study conducted by the Economist Intelligence Unit and the Singapore Lien Foundation. Following interviews with doctors, experts and service staffs in 40 countries, Taiwan ranked 14th for end-of-life care services. It was top in Asia.

To further enhance the quality of hospice and palliative care, the BHP entrusted academic societies to offer guidance on provision of shared-care services and training for cancer prevention staff. A total of 406 attending physicians involved with cancer diagnosis and treatment joined 25 three-hour workshops. Another 124 doctors, nurses, social workers and other specialists attended four other sessions. The BHP also provided subsidies to NGOs for helping with hospice care publicity by holding 60 seminars in schools, hospitals and nursing homes.

Chapter 6

Special Health Topics

Bureau of Health Promotion

Chapter 6

Special Health Topics

In "The World Health Report 1998—Life in the 21st Century: A Vision for All," the WHO underscores health equity and treats gender, race and poverty on the same footing. A growing number of studies have also shown that health behaviors related to prevention of risk factors and diseases should involve different strategies and courses of action as are appropriate to people's gender, race, income, along with mental and physical disabilities, if any. Example: Given their specific health needs and inequality in socioeconomic status, various segments of the population often have unique health problems. Women, for instance, often have to worry about breast cancer, cervical cancer, osteoporosis and incontinence, as well as the need for hormone replacement therapy. High on the list of health concerns confronting disadvantaged groups are the reproductive health of foreign spouses and oral health of people with physical or mental disabilities as well as the care for rare diseases, including oil disease. To achieve health equity, it is vital to adopt a variety of strategies, plans, measures and interventions in accordance with the principles of health promotion, health protection and disease prevention.

Section 1 Women's Health

Status Quo

Taiwan has become an aging society. In 2011 female life expectancy was 82.6 years, and the average menopausal age was 49.3±3.8 years. Women aged 50 or over accounted for 15.5% of the entire population. In the Nutrition and Health Survey conducted by the Department of Health from 2004 to 2008, 241 people aged 50 or over were found with osteoporosis. Of them, 12.6% were women suffering from lumbar osteoporosis and 12.1% women suffering from femoral neck osteoporosis. The corresponding percentages for men were 4.3% and 10.7%, respectively. Moreover, severity among women increased with age. The 2009 National Health Interview Survey also found that prevalence rates of osteoporosis and incontinence tended to increase with age. Of women aged 50 or over, roughly a fourth suffered from osteoporosis. The percentage was even higher among women 65 or over, at 32.7%. Among women 55 or over, 23.9% were troubled by incontinence. Women particularly at risk were those who were over 45 years old, had a body mass index (BMI) greater than 27 or less than 18.5, had given birth to four children, or had been diagnosed with hypertension, diabetes or stroke. Therefore, it is important to provide middle-aged and elderly women with accurate health information to help them establish a positive attitude toward life and healthy behaviors.

Target Indicators

Enable women to learn more about menopause through the media and seminars. Launch a nationwide, toll-free hotline to offer one-on-one consultations on menopause. At least 350 such consultation phone calls are to be provided each month.

Policy Implementation and Results

1) The BHP is committed to helping women through the changes that come with menopause. Its contributions include: 1. Establishing a toll-free hotline (0800-00-5107) to serve postmenopausal women: In 2011, the helpline registered 10,511 calls, with the majority (64.7%) coming in the form of physiological queries, followed by emotional and sleep problems. 2. Holding public forums: Two forums were attended by 289 people. 3. Holding menopause counselor training sessions: In three sessions 60 counselors were taught how to serve on the hotline and hold menopause events at service sites. 4. Conducting menopause camps: 48 camps were joined by an average of 45-50 people each. 5. Publishing newsletters: A total of 6,000 copies of two newsletters were distributed to medical institutions nationwide, and printing posters and other materials, conducting radio and TV broadcasts, and soliciting essays to promote menopause education.

2) Efforts to preserve bone health, build bone strength and prevent osteoporosis should begin at childhood. Besides publicizing these ideas at chronic disease camps on school campuses, the BHP uses the internet, newspapers and magazines. In observance of World Osteoporosis Day, the BHP issued news releases encouraging people to bolster bone health through weight-bearing exercise and strength training, consuming a balanced diet, and preventing falls. It also provided a one-minute, osteoporosis risk self-assessment. To enhance public knowledge of menopause and osteoporosis and improve self-treatment, the BHP compiled preventive health and education materials. In order to provide medical staff with tools for the prevention, diagnosis, and treatment of osteoporosis so patients can receive the best care, the BHP partnered with the National Health Research Institutes, Taiwan Osteoporosis Association, Taiwan Evidence-Based Medicine Association, and other experts and academics. Together they used evidence-based medicine to compile a set of clinical guidelines on osteoporosis treatment.

Section 2 Health of Disadvantaged Groups

Reproductive Health Care for New Immigrants Spouses

Status Quo

In 2011 Taiwan posted 165,327 marriage registries. Of the newlyweds, 143,811 persons (86.99%) were native-born; 13,463 (8.140%) were from mainland China, Hong Kong, or Macau; and 8,053 (4.87%) were foreign-born. By the end of 2011, there were an estimated 459,000 foreign and mainland Chinese spouses. Foreign spouses accounted for 151,000, or 32.84%, of the total while mainland Chinese, Hong Kong and Macau spouses accounted for 308,000, or 67.16%. Couples with a foreign or Chinese-born spouse contributed 7.83% of Taiwan's total births (see Figure 6-1). Of all the spouses who held valid alien registration at the end of 2011, Vietnamese accounted for the largest percentage at 57.17%. They were followed by Indonesians at 18.07% and Thais at 5.47%.

Figure 6-1 Percentages of Births With a Foreign or Mainland Chinese Parent, 1998-2011

Source: Department of Statistics, Ministry of the Interior

Target Indicators

To have reproductive health guidance and consultations reach 95% or more of new immigrant spouses.

Policy Implementation and Results

Taiwan has witnessed a steady, increasingly diverse inflow of immigrants in recent years. The majority of these immigrants are spouses of ROC nationals from cross-border marriages. In 2003, the BHP implemented the "Foreign and Mainland Chinese Spouses Childbirth Health Management Program" to not only uphold their reproductive health, but also help them to adapt to a new life in Taiwan. The following goals were set:

1) To create a sound environment conducive to reproductive health.
2) To prevent congenital defects and premature births.
3) To promote and safeguard the health of foreign spouses and their children.

A summary of achievements from efforts to promote the reproductive health of foreign spouses is as follows:

1) Implementation of Reproductive Health Care and Health Education

In collaboration with local health departments and centers, the BHP created reproductive health care cards designed specifically for foreign and mainland Chinese spouses as well as their children (see Figure 6-2). It also offered services and guidance on family planning, prenatal and postnatal care, reproductive health care, and inoculations. High-risk or abnormal cases were given referrals for treatment. In 2011, 6,953 new health cards were issued. Of these, 2,253 were given to foreign spouses (99.73% of foreign newlyweds registered during the year) and 4,700 were given to mainland Chinese spouses (99.79% of mainland Chinese newlyweds registered during the year).

Figure 6-2 Health Care Management for Foreign-Born and Mainland Chinese Spouses, 2003-2011

Source: Deparment of Statistics, Ministry of the Interior

2) Training Interpreters and Offering Interpretation Services

To help foreign spouses cope with language barriers when receiving medical treatment, in 2004 the BHP launched a program to train volunteers in assisting with foreign spouse childbirth health services. Foreign spouses who have lived in Taiwan long-term were trained to serve as interpreters for health officials who visit the households of newly admitted foreign spouses. Interpretation services were also often called for when pediatric outpatient services or instructions for reproductive health care were being rendered. By the end of 2011 the Ministry of the Interior's Fund had subsidized 210 health departments in 17 counties and cities for Caring for and Helping Foreign Spouses. These appropriations helped provide interpretation services for reproductive health care.

3) Subsidizing Prenatal Care Examinations for Those Not Covered by Health Insurance

Since 2005 the BHP has drawn on appropriations from the Ministry of the Interior's Fund for Caring for and Helping Foreign Spouses to subsidize prenatal examinations for foreign mothers not yet covered by National Health Insurance. In 2011, subsidies worth NT$6.08 million were provided for 10,461 prenatal exams.

4) Producing Health Education Materials in Multiple Languages

To help foreign spouses overcome language barriers, the BHP developed reproductive health learning materials in multiple languages. Publications in 2010 included "Health Handbook for Expectant Mothers" and "Health Handbook for Child Health" in Vietnamese, Khmer, Thai, Indonesian and English languages. A series of films on reproductive health care and a parenting handbook are also available in the five languages listed above for use by foreign parents and medical specialists. In 2011 the BHP commissioned new translations of its "Maternal Health Handbook" and "Child Health Handbook" into five languages.

Prevention and Treatment of Rare Diseases

Status Quo

In 2000 Taiwan launched a reporting mechanism for rare diseases that by the end of 2011, 3,187 cases were reported. Rare disease patients face a unique set of challenges: their numbers are few and the market for their drugs is small. These factors make pharmaceutical companies reluctant to develop, manufacture, import or sell what are generally known as orphan drugs. Rare disease patients therefore often find it difficult to secure the treatments they need.

Target Indicators

The objective is to build a comprehensive treatment network aimed at rare diseases, thus helping patients to secure the care and subsidies they need.

Policy Implementation and Results

To encourage early diagnosis and treatment of rare diseases and help patients get the drugs and nutritional supplements they need to stay alive, in year 2000 Taiwan promulgated the Rare Disease and Orphan Drug Act. Taiwan is the fifth nation in the world to introduce legislation specifically to protect rare disease patients (see Table 6-1).

Table 6-1 Legislation for Protecting Rare Disease Patients by Country

Country	The U.S.	Japan	Australia	EU	Taiwan
Year of Legislation	1983	1993	1998	2000	2000
Name of Legislation	US Orphan Drug Act modified the Federal Food, Drug and Cosmetic Act	Partial Amendments Law amended two previous Laws	Additions made to the Regulations to the Therapeutic Goods Act 1989	Regulation (EC)No. 141/ 2000	Rare Disease and Orphan Drug Act
Definition of Rare Disease Prevalence Rate	75/100,000w	40/100,000	11/10,000	20/100,000	1/10,000
Legal Protection	1. Drug R&D 2. R&D on medical equipment and foodstuffs meant for rare disease patients	1. Drug R&D 2. R&D on medical equipment meant for rare disease patients	Drug R&D	Drug R&D	1. Promotion of rare diseases prevention and treatment 2. Provision of drugs

1) Making Treatment Available to Rare Disease Patients

1. Protecting the Rights of Rare Disease Patients to Secure Medical Attention
   Since September 2002, designated rare diseases have been included in a list of major injuries and illnesses entitled to special claims under the National Health Insurance program. This means patients can receive treatment without making a co-payment. Also the BHP is charged with appropriating funds in accordance

with Article 33 of the Rare Disease and Orphan Drug Act. These funds subsidize the diagnosis and treatment of rare diseases along with orphan drugs not covered by National Health Insurance.

2. Establishing a Committee for the Review and Examination of Rare Diseases and Orphan Drugs
   By December 2011 the committee had reviewed, certified and announced 193 rare diseases (an increase of nine from a year earlier). It also had listed 78 orphan drugs and 40 nutritional supplements, determined the conditions they were suited for, and reviewed applications for treatment subsidies.

2) Building a Comprehensive Medical Network for Genetic and Rare Diseases

1. Establishing a Rare disease drugs and special nutrients distribution center
   In 2011 subsidies of about NT$40 million, up by more than NT$3 million in 2010, were extended for the storage and supply of 31 nutritional supplements and nine emergency drugs.

2. Referrals for international medical coopration projects for laboratory testing
   The BHP not only provides referrals for international medical coopration projects for laboratory testing, but also offers grants equivalent to 80% of expenses. Between 2000 and 2011, subsidies were extended in 431 such cases, including 31 in 2011. Also to speed up screening applications for referrals to foreign labs, in June 2006, the BHP created special guidelines for reviews of 12 rare diseases.

3. Subsidizing costs for rare disease diagnosis, treatment, pharmaceuticals, for all mentioned above are not reimbursable according to the regulations of the National Health Insurance Act.
   In accordance with revisions to the Rare Disease and Orphan Drugs Act that went into force on December 8, 2010, the BHP modified regulations governing rare disease subsidies. New subsidies cover rare disease confirmation tests in Taiwan, nutrition consultations for metabolic rare diseases, and home-care equipment not covered by National Health Insurance. Subsidies were increased for nutritional supplements required for life sustenance, referrals for international medical coopration projects for laboratory testing, and other non-covered expenses. The BHP fully subsidizes expenses incurred by patients from middle- to low-income households. Other rare disease patients have a medical subsidy limit of 80%.

3) Research, Education and Publicity to Prevent Rare Diseases

The BHP is committed to promoting prevention of rare diseases. It draws on media resources, produces leaflets and care handbooks, and holds campus seminars. Also it joins with the Taiwan Foundation for Rare Disorders and other NGOs to organize international conferences.

Oral Care for People with Disabilities

Status Quo

According to a 2004 nationwide survey, oral health of the disabled was mostly inferior to that of the general public. Common problems included a lack of medical restoration treatment, poor oral hygiene, deficient tooth cleaning, and lack of preventive health care intervention (see Table 6-2). Generally speaking, the oral health of Taiwanese children and adolescents with disabilities is inferior to that of their counterparts in Singapore. The gap with European countries, the United States and Japan is even greater. As a remedy, the Executive Yuan adopted the Five-Year Oral Health Program for People with Disabilities on May 26, 2008.

Table 6-2 Oral Health of People Aged over18 Adults and Those with Disabilities

Subject	DMFT index	Rate of Caries in Permanent Teeth	Filling Rate
Disabled People Aged 18 or Above	12.1	94.6	30
People Aged 18 or Above as a Whole	7.84	86.61	40.22

Source: Survey on Oral Health of People With Disabilities (2004)
Survey on Oral Health of Adults and Senior Citizens (2004)

Target Indicators

Raise the percentage of institutionalized disabled people covered by preventive oral care services to 80% in 2012.

Policy Implementation and Results

1) Providing Preventive Oral Care Services to the Disabled

1. In 2011 the BHP trained 367 counselors specializing in oral care for people with disabilities, 46 seed dentists, 189 volunteers and 2,032 workers at institutions that served people with disabilities. It also provided oral care services to 6,964 people with disabilities at their homes and 22 specialized institutions. The objective was to develop long-term, localized services.
2. At its "2011 5th Oral Care Campaign for People with Disabilities," the BHP offered oral care seminars, documentaries and creative teeth cleaning songs. It also hosted visits by Japanese academics and an oral heath seminar for long-term caregivers. At the seminar Taiwanese and Japanese long-term caregivers could share their experiences in providing oral care to the disabled.

2) Oral Care for Children with Delayed Development

The BHP commissioned Taipei's Shuang Ho Hospital, Kaohsiung Medical University Hospital and Hualien's Tzu Chi General Hospital to provide oral care to children with delayed development in northern, central and southern Taiwan. The hospitals linked 44 care providers and 27 early assessment and intervention units to provide support to 697 children. They taught children and their caregivers teeth cleaning and oral hygiene techniques and established oral care points and a treatment network for children with delayed development.

Health Care for Oil Disease Patients

Status Quo

In 1979, some residents of Taichung and Changhua counties began to experience a skin ailment of unknown origins. It was later determined that these patients had been consuming rice bran oil contaminated with polychlorinated biphenyls, or PCBs. Their illness was called oil disease, or Yusho in Japanese. Since 2004, the BHP has been providing oil disease patients with free health examinations and co-payment subsidies for

outpatient and emergency services. It has also been assisting local health bureau in follow-up management of the patients, including home visits and health education. Because PCBs can be transmitted through the placenta or breast milk, in 2005 the BHP made children of female oil disease patients (born after January 1, 1980) eligible for the services listed above.

Target Indicators

Establish a health care system for oil disease patients to secure medical care.

Policy Implementation and Results

To provide oil disease patients with comprehensive health care services, the BHP issued the "Health Care Service Implementation Guidelines for PCB Patients." These provide the following health care services:

1) Fully subsidized co-payments for hospitalization of first generation oil disease patients regardless of the department they seek treatment.
2) Oil disease patients can use their annotated National Health Insurance Card or their oil disease patient treatment card to gain clinical or emergency services in any medical department without copayment.
3) Free annual health examinations.
4) Continued health follow-up management (visits and care).

   As of December 2011, 1,541 oil disease patients were listed for management. Of these, 1,308 were first generation and 233 were second generation. In 2011, 604 of these patients used health examination services, and patients who used health examinations at least once between 2004 and 2011 totaled 977 (approximately 65.4%). In 2011, co-payment subsides were provided 10,601 times.

   Oil disease patients are concentrated in Taichung and Changhua. To provide comprehensive, convenient treatment, starting from December 1, 2009, the BHP commissioned the Department of Health's Feng Yuan Hospital along with Changhua Christian Hospital to hold special oil disease clinics. In 2010, the BHP partnered with the Bureau of National Health Insurance to include oil disease patient status on NHI IC cards, so the cards could be used in conjunction with oil disease patient treatment cards. By December 2011, 1,277 oil disease patients had issued their cards.

Chapter 7

Health Promotion Infrastructure

Bureau Of Health Promotion

衛生署國民健康局
二代戒菸
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Chapter 7

Health Promotion Infrastructure

With the rapid advancement in media and web technologies, the acquisition and distribution of health information has been transformed from a passive to an active pursuit. To provide public health services geared toward health promotion, local health centers must serve the public while emphasizing quality, availability, accessibility, timeliness and cost efficiency. Only then can they meet public needs. They must regularly and systematically undertake health surveillance, constantly collect data on public health and risk factors, and make optimal use of health communication channels. These actions provide a foundation for health promotion strategies.

Taiwan is eager to share its accomplishments in health promotion with the international community. The BHP draws on various media, including the internet, to facilitate international communication and cooperation, thus making real its vision of a global village.

Section 1 Public Health Centers-The Foundation of Public Health

Status Quo

Taiwan has a comprehensive network of grassroots health care units. At the end of 2011, 22 cities and counties governed 371 public health centers that employed 4,324 people. Of these staff members, 84.1% were female and 15.9% male. Main responsibilities of public health centers include smoking prevention, women's and children's health, building healthy communities, outpatient services, administrative inspection, preventive immunization, monitoring and reporting, epidemic prevention, management of psychiatric patients, long-term care services, emergency medical services, and other fundamental medical and health care services.

Policy Implementation and Results

1) Achievements of Public Health Centers

1. Provided 1,202,341 immunizations, or 33.70% of the nations.
2. Provided preventive health care services to children 150,314 times, or 13.68% of the nations. Provided preventive health care services to adults 298,359 times, or 9.06% of the nations.
3. Gave 27,531 pap smear examinations, or 7.18% of the nations.
4. Offered smoking cessation clinics at 297 public health centers. They provided service 25,318 times, or 19% of the nations. The smoking cessation success rate was 27.5%.
5. NHI medical clinic served a total of 4.3 million cases, approximately 1.7% of cases in NHI authorized clinics.
6. Issued 25,994 death certificates, or 17.1% of the nations.

2) Education and Training of Public Health Center Staffs

The BHP developed 20 hours of digital teaching materials covering four major themes: smoking hazards prevention, obesity prevention, healthy aging, and application of health center statistics. These materials provide staffs of public health centers with varied, interactive ways to learn and improve their professional knowledge and service quality. The BHP also held four educational and training workshops for public health center staffs, topics such as obesity prevention and healthy aging were included.

3) Maintaining Clinical Treatment Systems at Local Health Centers

In conjunction with 20 city and county health departments, the BHP completed purchasing agreements to improve local health center medical care information systems. The agreements, which expanded functionality of clinical treatment procedures and provided system maintenance, covered 307 health centers and 2 chronic disease prevention centers. Required maintenance areas for normal operations include clinical medicine systems, management of chronic disease patient cases, screening record management, and report forms. System settings must also be updated regularly based on National Health Insurance reporting needs could report successfully every month to ensure local health center.

4) Hosting the 5th Annual Golden Center Award Competition

To enhance public health center service quality, increase efficiency of staff, and provide motivation, the BHP has hosted the Golden Center competition since 2006. By selecting public health centers which provide excellent health care, the BHP offers health centers across the nation with a benchmark to learn from as they refine work protocols and the service environment. The ceremony also increases morale among health center employees by recognizing their achievements. For 2011, the themes of the 5th Golden Center Award were promoting senior health and periodic, comprehensive whole person health management. In the category of promoting senior health, the top award went to Hsinchu City's north district public health center. Excellence awards were given to health centers in Yunlin County's Gukeng Township and Miaoli County's Dahu Township. The top award for periodic, comprehensive whole person health management went to the health center in Changhua County's Ershui Township. Excellence awards were given to health centers in Yilan County's Yuanshan Township and Chiayi County's Zhuqi Township.

Section 2 Health Communication

Status Quo

With the dramatic proliferation of the mass media, people can quickly secure health information through a variety of channels including TV, radio, newspapers, magazines, outdoor media and the internet. Boundaries of time and space no longer exist for health information as it is transmitted over the web and broadcast media. There is a potential pitfall; however, it is easy for improper or incorrect information to spread quickly, thus undermining public health and safety.

Health communication is intended mainly to collect and share health information. It involves the dissemination of information on health promotion, disease prevention and other health-related topics. To extend its footprint of health online, the BHP provides the following websites:

Website	Hompage	Description
Bureau of Health Promotion, Department of Health http://www.bhp.doh.gov.tw/		1. The Bureau of Health Promotion website is designed to: (1) Explain duties of the BHP's various units, the services they offer, and contact information; (2) Announce BHP news and activities; (3) Provide information on health topics that cater to different segments of the population, such as parenting, infant hearing, oral care, adolescent care, care for the middle-aged and elderly, cancer prevention, community health, tobacco hazards prevention, health education, preventive health care services, health surveys, and birth reporting; (4) Accommodate different audiences and browsing preferences by offering an English version and a children's version. The site is accessible in PDA format and RSS subscription is also provided. 2. The Department of Health cited the BHP website as an excellent health information website in 2005 and 2006. 3. Featuring prominently on the homepage are info and flash movies covering key topics of the year. Browsers can easily get related messages at a page. 4. The website includes special sections available to research and academic institutions, including Data for External Use, Health Surveys and Health Education.
Web Services for Genetic Disease: http://gene.bhp.doh.gov.tw/		1. The website consolidates hereditary-related knowledge and resources as a reference for medical Specialists and public health personnel. The objective is to help professionals secure the information they need to deliver fast, quality services when handling genetic disorders, including rare diseases. 2. The Department of Health cited the website as an excellent health information website in 2006.

Website	Hompage	Description
Mammy Website http://www.bhp.doh.gov.tw/breastfeeding/		The Mammy Website provides valuable pregnancy and breastfeeding information. It advances the idea that breast milk contains nutrition indispensable to newborns and therefore should not be replaced by formula.
Health 99 Website http://health99.doh.gov.tw		1. This website allows the public and health education staffs to conduct searches using keywords, open items, categories, types, upload date, and full text. 2. The DOH cited this website as it an Excellent Health Information Website in 2005 and 2006. 3. Content includes the latest health news, promotional resources, health columns, Q&A, tips and links.
Website of Tobacco Hazards Prevention http://tobacco.bhp.doh.gov.tw/		1. The Website for Tobacco Hazards Prevention is devoted to promoting tobacco hazards prevention and presenting achievements. It is intended as a one-stop platform for public health officials, instructors and the general public to search and download information. 2. It comprises the following sections: News, Tobacco Hazards, Tobacco Hazards Prevention Act, Tobacco Hazards Prevention Strategies, Cessation Services, Smoke-Free Taiwan, Previous Activities, Download, Smoking Behavior Surveys, Research Results, Activities Info, Local Tobacco Hazards Prevention, Smoking Cessation Handbook, etc.
Website of Management Center for Outpatient Cessation Services http://ttc.bhp.doh.gov.tw/quit/		This website provides information on clinically effective ways to quit smoking, including drug therapies. It also provides a list of medical institutions contracted to provide outpatient cessation services.

Website	Hompage	Description
Website of Smoking Cessation Helpline Service Center http://www.tsh.org.tw		This website is an information platform on psychiatric counseling to help people quit smoking. Besides updated information and answers to frequently asked questions, visitors can get info on smoking cessation activities.
Website for Disclosure of Ingredients in Tobacco Products http://tobacco-information.bhp.doh.gov.tw/		This website provides information on the constituents, additives, emissions and toxins of tobacco products that manufacturers and importers are required to make public under the Tobacco Hazards Prevention Act.
Health Indicator 123—Interactive Online Query System for Health Indicators https://olap.bhp.doh.gov.tw/		1. The website provides health statistics to the general public. 2. It is based on the BHP's national health surveys and birth reporting database.
Website for Adolescents (Sexual Health e-Academy): http://www.young.gov.tw		1. The Website for Adolescents provides information related to sex education for adolescents. 2. Confidential online consultations are available to adolescent visitors.
Obesity Prevention Information Website http://obesity.bhp.gov.tw/		1. Provides local health departments, public health centers, venues, and the public with a convenient online platform for health education. 2. Collects national weight loss information to administer weight management compaign.

Website	Hompage	Description
Health Energy Cottage: http://www.exavision.biz/house/ (Integrated into BHP website)		Packaged as Virtual convenience store that offers 24-hour services to help the entire household stay healthy, the website promotes the cause of doing exercise whenever and wherever possible. (Integrated into BHP website)
Website for Healthy Workplaces http://health.bhp.doh.gov.tw/		1. This website is devoted to informing people that smoking is banned in indoor workplaces and encouraging them to get involved in the voluntary healthy workplace accreditation system. 2. It comprises the following sections: Healthy Workplace Accreditation Area, Workplace Health & LOHAS, No Smoking/Yes to Health, Tips for Goodies Download, Online Learning, Related Websites, etc.

Section 3 Health Monitoring

Status Quo

As the threat of non-communicable diseases grows, the World Health Organization (WHO) has suggested that every nation/country should establish surveillance systems for non-communicable disease (NCD). In light of the difference in resources of every nation/country, WHO proposed a stepwise strategy to build the NCD surveillance systems by considering mortality, morbidity, and prevalence of health risk factors. In Taiwan, the BHP has developed a comprehensive health surveillance system progressively, which encompasses population from different life-courses, to fulfill requirements of various health indicators necessary for policy implementation. Through routine, periodic health surveillance, the BHP collected national health data, which cannot be simply obtained through vital statistics or public reporting and registration systems, to strengthen the evidence-based health promotion policy-making and evaluate the efficacy of projects implemented.

Policy Implementation and Results

In order to provide objective figures required to form policies and to evaluate the effectiveness of policies implemented, series of surveys that target on population of different life-course, such as infants and children, adolescents, adults, the middle-aged and the elderly, and the child-bearing aged women, are conducted regularly. Three modes of survey administration, including community-based face to face interview, telephone interview and school-based student self-administered questionnaire, are used for step by step construction of the databases to facilitate evidence-based decision making. Surveillance data on non-communicable disease are collected, analyzed and disseminated.

Various surveys that the BHP has conducted over the years and is planning to undertake in coming years are listed in Table 7-1. Of them, three projects centering on face-to-face interviews across communities launched in 2011—"Taiwan Birth Cohort Study", "Child and Adolescent Behaviors in Long-term Evolution", and "Taiwan Longitudinal Study on Aging"—would be carried forward into 2012. Based on self-administered questionnaires, the BHP completed two surveys on the health and smoking behaviors of junior high school students in 2011. Meanwhile, two telephone surveys on the smoking behaviors and behavioral risk factors among adults aged over 18 were completed as well.

1) Taiwan Birth Cohort Study

Recognizing the significance of children's living condition during a period of rapid social change and the potential consequences throughout the life course, the Taiwan Birth Cohort Study (TBCS) was initiated in 2003 under the auspices of the BHP. The study has three main goals: (1) to record and assess health and developmental trajectories of children in Taiwan; (2) to examine the early origins of adult health; (3) to investigate the impact of social environment on children's wellbeing.

To gain experience for planning and implementation of the large-scale birth cohort survey, a random small-scale sample that comprised children born in November and December, 2003 were selected. This pilot sample was surveyed at age of 6 months, 18 months, 3 years and 5.5 years. In 2011, the fourth wave has been carried out at age 5.5 years with a response rate of 93.2%, as well as a telephone interview at 7 years of age as planned for the large-scale sample. The full-scale TBCS enrolled a nationally-representative sample of more than 20,000 children born in 2005 (sampling rate:11.7%). As with previous waves, data collection was based on face-to-face interviews with mothers or primary caregivers. In addition, the first and second wave of results was performed for the publication of "Health Profile for Children of the 21st Century in Taiwan: from Birth to 18 Months". The full content of the book can be free downloaded from the BHP website (http://health99.doh.gov.tw/educZone/edu_detail.aspx?Catid=21708).

2) Child and Adolescent Behaviors in Long-term Evolution

Based on the ecological model and the multilevel influences from personal, family, school and community facts on child and adolescent health and lifestyle, the " Child and Adolescent Behaviors in Long-term Evolution (CABLE)" study was initiated in 2001 by the National Health Research Institutes (NHRI). The results can provide information related to student's health for education and health authorities policymaking. Subjects were selected in 2001 among the first and fourth graders who attended 18 public elementary schools in Taipei City and Hsinchu County. During 2001 to 2006, the NHRI team undertook the project by self-administered questionnaires collected from the subjects who were either elementary or junior high school students. As the participants got older, they would disperse throughout Taiwan due to schooling or employment. In turn, the NHRI began collaborating with the BHP to combine the efforts of research and administrative units. Follow-up surveys and studies are thus made possible on the BHP's platform of community surveys. This collaboration has also facilitated the utilization of the research findings in policymaking. The 11th survey of the project was conducted during October 2011 and February 2012 (response rate: 89.0%).

Until the end of 2011, the project had accumulated longitudinal data for 10 years. These data have been further analyzed and interpreted for policy making and program evaluation.

3) Taiwan Longitudinal Study on Aging

In response to the potential impact which population aging may have on the economy, medical services, families,

and society aspects, and to collect reference data for related government units to establish health services and social welfare plans for older adults, the Taiwan Longitudinal Study on Aging (TLSA) was conducted. In1989, one of the former institutes of the Bureau of Health Promotion, the Institute of Family Planning, conducted the baseline survey of TLSA on a national representation sample of adult residents aged 60 and above in non-aboriginal townships. The respondents were followed every three to four years. Two refresh samples were selected in 1996 and 2003 to maintain representativeness of the younger age cohort and to extend representation of the sample to the population aged 50 and above. The 6th wave follow-up was completed in 2007.

In order to follow-up the cohort and be used as reference data to understand middle-aged and older adult population's living status, physical, psychological and social health, the 7th follow up of the TLSA was launched in September, 2011. The data collection of this study included face-to-face interview, home visit health assessment and computer assisted cognition function testing tool developed by the BHP (Taiwan), Georgetown University (USA) and Princeton University (USA). Data collection process was last to 2012 and completed in April.

4) Surveys on Health and Smoking Behaviors among Adolescents

Since 2004, the BHP has followed the protocol of Global Youth Tobacco Survey, developed by the World Health Organization (WHO) and the United States Centers for Disease Control and Prevention (US CDC), to monitor current situations and trends of the tobacco use and health behaviors of adolescent in Taiwan. In 2006, the BHP further adopted the U.S. CDC's Youth Risk Behavior Survey (YRBS), and the WHO Global School-based Student Health Survey (GSHS) to initiate the Taiwan Youth Health Survey (TYHS).To address health behaviors that lead to death, disease, disability, or social problems, these surveys including the adolescent substance use such as smoking, drinking, and betel quid chewing, and a variety of the lifestyles and health-related behaviors.With many years of experiences on student's health survey and supports from the U.S. CDC, the BHP transited the TYHS to GSHS for better international comparison in 2012.

The two surveys mentioned earlier of GYTS and GSHS were conducted on junior or senior high school in every other year rotation. An anonymous self-administered questionnaire was completed by students of sampled classes. For timely monitoring and better use on policy making reference, since 2011, the GYTS was carried out on both junior and senior high/vocational school in the same year.Two surveys had been completed on June 2011, 38,267 students completed the GYTS and the response rate is 91.99%, 4,985 students completed the GSHS and the response rate is 90.93%.

5) Surveys on Health and Smoking Behaviors among Adults

In 2004, BHP has launched the Telephone Survey on Adult Smoking Behavior (ASBS), which were taken a reference from the U.S. Behavioral Risk Factor Surveillance System (BRFSS), National Health Interview Survey (NHIS) and Global Adult Tobacco Survey (GATS). Since then, the ASBS conducted annually to establish a sustainable national and county/city representative database for monitoring current smoking behaviors and trends of behavioral changes over time.

Referring to the Behavioral Risk Factor Surveillance System (BRFSS) in U.S., BHP has launched the Taiwan Behavior Risk Factor Surveillance System (TBRFSS) that is objected on the prevalence of behavior risk factors of non-communicable diseases. In 2007, BHP completed its first baseline survey and has since launched the survey annually to monitor the current situations, changes and tendencies of behavior risk factors among people in Taiwan.

In 2011, using the Computer-Assisted Telephone Interviewing System (CATI) conducts the ASBS and the TBRFSS. These two surveys were completed at the end of 2011. To sum up, the ASBS and the TBRFSS had completed interview 16,905 cases, and 16,985 cases. All cases interviewed of all confirmed eligible units that actually contracted and has been completed are defined as Cooperation Rate. The Cooperation Rate was 68.75% in ASBS and 60.7% in TBRFSS.

6) **Promotion of the "Online Health Indicators Data Query"**

By adopting applicable information sciences and internet technology, the BHP set up an online health indicators data query system in 2004. This data query website (https://olap.bhp.doh.gov.tw/) serves as a platform to reduce manpower requirement for descriptive analysis and provision of the health data for general public and the media as well as healthcare personnel, to disseminate the survey results and health statics generated from the birth reporting database.

Currently the data from 8 health surveys—National Health Interview Survey, Taiwan Youth Health Survey of Junior High School Students, Taiwan Youth Health Survey of Senior High School Students, Global Youth Tobacco Survey of Junior High School Students, Global Youth Tobacco Survey of Senior High School Students, Adult Smoking Behavior Survey, Behavioral Risk Factor Surveillance System, and Taiwan Longitudinal Study on Aging, and Birth Reporting Database— is querying accessible on the website. It provides services for queries into a total of 450 health indicators for the general public, and the number of visitors average over 10,000 each year.

In order to improve the website's accessibility and user-friendliness, it was first upgraded in 2007 to enhance capabilities of backend management, allow flexible inclusion of more inquiringly database or health indicators, and enable multi-year and geographic comparison. With expectation on better quality and utilization the online services, this website was upgraded again in 2009 by adding dual-language interfaces for data query, strengthening user-friendly design, as well as improving its function of geographic comparison. The third upgraded of the website in 2011 was to make it more useful and user-friendly, strengthening the overall visual effect of the website, introducing a new variety of query paths for different indicators, and to provide personalized query services so as to further upgrade its service quality and frequency of use.

7) **Applications of Survey and Research Data**

The aim of the NCD surveillance is to provide the data for policy-making, program evaluation and strategy planning. To increase the utilization of these survey data, the BHP not only publishes the results by annual or survey reports, but also conducts issue-specific analyses and researches. In 2011, a total of 38 news based on surveillance data were released to enhance public awareness of health-related issues. Moreover, conference and journal papers are channels to disseminate the health concept to health sectors, academic or professional society. Furthermore, the website - Health Indicators 123 - provides descriptive statistical analysis for public use.

For wider application of the data and to encourage value-added utilization of the survey data, the BHP makes survey raw data accessible through a well-established data access mechanism. Currently the accessible datasets include three reporting database (the Birth Reporting Database, Rare Disease Reporting Database, Assisted Reproduction Database) and nine surveys (Taiwan Physical Activity Monitoring System, Family and Fertility Survey, Taiwan Longitudinal Study on Aging, Taiwan Survey on the Prevalence of Hypertension, Hyperglycemia, and Hyperlipidemia, Tobacco Hazards Control Research and Work Plan, Global Youth Tobacco Survey of Junior High School Students, Global Youth Tobacco Survey of Senior High School Students, Adult Smoking Behavior Survey, Taiwan Youth Health Survey of Junior High School Students). It is hoped that domestic and overseas scholars or research institutes can conduct in-depth analysis and publish pertinent academic papers based on their fields of specialization, thus increasing the overall utilization of the database and optimizing the value of the survey resources.

Table 7-1 Overview of Important Health Surveys

	● cross-sectional survey → longitudinal survey														
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Community-Based Face-to-Face Interview Survey															
National Health Interview Survey	●	●			●				●				●		
Taiwan Longitudinal Study on Aging			→				→				→				→
Taiwan Fertility and Family Survey			●	●				●				●			
Child and Adolescent Behaviors in Long-Term Evolution							→	→	→	→	→	→	→	→	→
Taiwan Birth Cohort Study					→	→	→	→		→	→	→		→	
School-Based Self-Administered Questionnaire Survey															
Global Youth Tobacco Survey of Junior High School Students				●		●		●		●	●	●	●	●	●
Global Youth Tobacco Survey of Senior High School Students					●		●		●		●	●	●	●	●
Taiwan Youth Health Survey of Junior High School Students						●		●		●		●		●	
Taiwan Youth Health Survey of Senior High School Students							●		●		●		●		●
Telephone Interview Surveys															
Adult Smoking Behavior Survey				●	●	●	●	●	●	●	●	●	●	●	●
Behavioral Risk Factor Surveillance System							●	●	●	●	●	●	●	●	●
Surveys on Health Care Issues				●	●	●	●	●	●	●	●	●	●	●	●

Section 4 International Cooperation

Status Quo

Healthy citizens are vital to national prosperity. To enhance public health, policies are formed through international cooperation and interchange. In 2011 the BHP joined the 64th annual WHA Assembly, giving lectures and shared Taiwan's experience on topics such as prevention and control of non-communicable diseases, nutrition for mothers and infants, prevention of childhood injury, and adolescent health risks. Taiwan also kept pace with world health trends by promoting a diverse range of international health cooperation models. Throughout, it adhered to international standards and kept up to date on the implementation of health promoting tasks.

Policy Implementation and Results

The BHP takes an active role in international cooperation and interchange. It works with units such as the US CDC, Georgetown University, and Princeton University on vital health projects, and it contributes to visits and training through Taiwan government and private organizations. Such hospitality was on display in 2011 when it welcomed Vietnam's General for Population and Family Planning, Ministry of Health, as part of the Taiwan-Vietnam Population, Family Planning, and Childcare Cooperation project. When hosting and participating in important international conferences, the BHP serves as Taiwan's voice. It shares Taiwan's health promotion experiences with various nations around the world, hosts international guests, holds international experience exchanges, and showcases Taiwan's accomplishments in health promotion. Key achievements include:

1) Fertility and Growth

From October 29 to November 2, 2011, Professor Yaung Chih-liang (on behalf of DOH Minister Chiu Wen-ta) led BHP Director-General Chiou and other representatives in attending the 139th annual American Public Health Association (APHA) assembly in Washington DC. The delegation contributed to the Taiwan forum of the assembly: Promoting Health from Cradle to Grave: Case Studies of Taiwan's Reform and Comprehensive Approach to Care. Experts gave a series of reports on health care experiences in Taiwan. The BHP reported on two topics: 1. Universal coverage of preventive services to reduce child mortality: Taiwan's experiences, and 2. Health care reform with payment incentives to increase cancer screening coverage in Taiwan. It also was responsible for setting up a booth marketing Taiwan.

Another special event conducted by the BHP in 2011 was the Love from Taiwan, Lighting Up the Hope of Peace - Donation of Delivery Equipment to the Solomon Islands. On September 19 Deputy Minister Chiang Hung-che and BHP Director-General Chiou Shu-ti acted as representatives in the donation of 60 sets of delivery instruments suited to the birth and delivery environment in the Solomon Islands (including Autoclaves and Obstetric Kits). Along with the donation of instruments, Taiwanese experts provided training so health and delivery personnel in the Solomon Islands could follow correct sterilization and disinfection techniques.

In addition, the BHP hosted the Asia-Pacific Conference on Baby-Friendly Hospitals and Breastfeeding Promotion from November 8 to 9, 2011. Three foreign experts and scholars, including WHO official Randa Jarudi Saadeh, visited Taiwan to share an evidence-based foundation applicable to baby-friendly hospitals, including info on international trends, room-in protocol, and early skin contact. They also discussed implementing and monitoring "International Code of Marketing of Breast-milk Substitutes", postpartum

breastfeeding and emotional adjustment, doctor breastfeeding education, and more. Approximately 250 people in related fields from around the world participated.

2) Tobacco Hazards Prevention

Besides continuing smoking behavior studies with the USA CDC, in 2011 the BHP sought opportunities to host international conferences, share its experiences in promoting tobacco hazards prevention work, and promote international interchange and communication. The BHP has also made continued efforts to support tobacco hazards prevention work in developing countries through non-governmental organizations. Key accomplishments are outlined below:

1. Since 2008 the BHP has adhered to the Multi-Faceted International Cooperation Plan - East Asian Nations Tobacco Hazards Prevention Cooperation Project. Together with Cambodia and Mongolia, Taiwan assists other nations in establishing legal regulations, strengthening tobacco hazards prevention policies, setting up tobacco monitoring systems, and promoting tobacco free environments.
2. Taiwan signed the Tobacco Hazards Prevention Global Information Network Project with the Union for International Cancer Control (UICC) at Geneva, Switzerland, in April 2011. The project allows tobacco hazards prevention information to quickly be disseminated via the GLOBALink - international tobacco control network.
3. From March 26 to April 3, 2011, the BHP joined the 5th annual European Conference on Tobacco or Health and the Extraordinary General Assembly 2011 Meeting of ENSH Network members and potential members. It learned from other nations' experiences about adjusting tobacco surcharges, prohibiting canvassing by tobacco manufacturers, offering smoking cessation service strategies, and promoting tobacco-free hospital networks.
4. The BHP participated in the Asia Pacific Quitline Workshop from June 6 to 11, 2011. The workshop presented a valuable opportunity to share experiences on the operation, planning, implementation, service provision, efficacy evaluation, and research findings of smoking cessation helplines found in the Asia-Pacific region. The dialogue aided in building future cooperation networks and resources.
5. The Tobacco-free, Quality, Qualia and Innovation International Conference was held on August 16 and 17, 2011. Experts from Austria, Germany, Ireland, Spain and other nations shared their experiences, and health experts from Taiwan presented success stories from local medical organizations. Participants who had the chance to learn more about Taiwan's tobacco hazards control programs were deeply moved. More than 400 people attended the conference.
6. The BHP subsidized the John Tung Foundation in hosting the 5th Annual Cross-Strait Tobacco Hazards Prevention Exchange Symposium on September 5 and 6, 2011. Symposium records fell when 500 representatives from both sides of the Taiwan Strait attended and 77 papers were presented.
7. The Medical Personnel Smoking Cessation Service Symposium: A Word for a Life was held on October 28 and 29, 2011. Domestic and foreign medical experts from New Zealand, Korea, Hong Kong, etc. were invited to share their practical experiences in providing smoking cessation services. They suggested revisions to the smoking cessation rules outlined in the WHO Framework Convention on Tobacco Control (WHO FCTC) to enhance participation in tobacco hazards prevention activities and smoking cessation services for medical professionals. Approximately 210 people joined the symposium.

3) Healthy Cities, Safe Communities and Schools

The BHP hosted the 2011 Conference on Healthy and Age-Friendly City on July 26 and 27. US and Japanese experts were invited to visit Taiwan and share their experiences in promoting the WHO age-friendly cities project. They conducted lectures and offered opinions on eight major areas: 1. Handicap friendly and safe public spaces, 2. Transportation and transit, 3. Residence, 4. Social participation, 5. Respect for elders and social integration, 6. Work and voluntary service, 7. Communications and information, and 8. Community and health services. Approximately 200 attendees from related county and city government bureaus, academic experts, and community health promoters were present.

In addition, the BHP held the 2011 Taiwan Safe Community Visit Training and Symposium from April 9 to 12, 2011. Approximately 150 local community representatives and 28 foreigners from Japan, Korea, Thailand, the US and China attended. They toured communities with special developmental traits and showcased accomplishments by health and education organizations in joint promotion of health promoting schools. The BHP also commissioned Fu-Jen University to organize the 2011 Health Promoting Schools Results Release and International Symposium from November 16 to 18, 2011, and it held the 2011 Taiwan International Safe Schools forum on November 30, 2011. By June 2012, 19 communities had been certified as International Safe Communities and 70 schools had been certified as International Safe Schools.

4) Health Promoting Hospitals and Environmental Sustainability Development

BHP Director-General Chiou took part in the 19th International Conference on Health Promoting Hospitals and Health Services held in Finland from June 1 to 3, 2011. During the conference the Director-General promoted the 20th International Conference to be held in Taiwan in 2012, and she mentioned that expert meetings would include the HPH and Environment Symposium as well as the Task Force on HPH and Environment.

The BHP also held the WHO Health Promoting Hospitals Autumn Training Camp on October 22 and 23, 2011. Secretariat Hanne Tonnesen of the International Network of Health Promoting Hospitals was invited to Taiwan. The professor jointly hosted an international project guidance workshop for advanced certification of WHO health promoting hospitals, attended by 15 health promoting hospitals in Taiwan.

In December 2011 Director-General Chiou was invited to attend the 17th Conference of the Parties (COP17) to the United Nations Framework Convention on Climate Change (UNFCCC) held in Durban, South Africa. Her joint titles were deputy chairperson of the Health Promoting Hospitals Network and Director-General of the Bureau of Health Promotion. She also gave lectures as the deputy chairperson of the Health Promoting Hospitals Network at the 1st Annual World Climate Summit in Durban on December 4, 2011, and the UN Framework Convention on Climate Change peripheral conference on December 8. The Director-General shared Taiwan's progress with health-promoting hospitals and discussed the environmental friendliness promotion committee, requested by the WHO to become part of the health promoting hospitals international network. Dr. Chiou also gave a report on joint accomplishments in promoting energy conservation and carbon emissions reductions by Taiwan's medical field. On December 6, Dr. Chiou was invited to a Health Care Without Harm (WCWH) press conference at the main site of the UNFCCC. She gave a joint speech with Dr. Maria Neira, the director of the WHO's Public Health and Environment Department, along with Josha Karliner, the international team coordinator at Health Care Without Harm, and other international

representatives. This was the first time a Taiwan government official had been present at a UNFCCC press conference in 17 years. Since Taiwan's withdrawal from the WHO, it was a rare occasion where a Taiwan official participated in a press conference together with a supervisor from the world health body.

5) Healthy Aging

On March 8, 2011, Director-General Chiou visited Washington DC to take part in the APEC-Health Policy Dialogue. In a speech on the topic Proactive Approach towards Healthier Aging and Healthier Community, she shared Taiwan's policies, implementation strategies, and results in promoting healthy aging and sculpting a leadership position internationally. After the conference, she visited the US Department of Health and CDC to discuss cooperation on health-related topics.

In addition, 21 delegations included Dr.Chiou, representations from Chiayi City and Taoyuan County and experts participated in the first annual International conference on Age-Friendly Cities hosted in Dublin, Ireland, by the WHO Global Network of Age-friendly Cities and Communities. Chiayi City Mayor Huang Min-huei and Taoyuan County Department of Health Director Liu Yi-lien (on behalf of county commissioner Wu Chih-yang) signed the Dublin declaration to support age-friendly cities, alongside other international cities. After the conference, the BHP helped various counties and cities in Taiwan sign this declaration. By the end of 2011, 20 of these localities had been added.

The BHP also jointly carried out the "Social Environment and Biomarkers of Aging Study (SEBAS)" with Georgetown University and Princeton University. The aim of the project is to investigate life stress, social environment, and related factors of the elderly in Taiwan, and to provide policy relevant information for planning of health services and social welfare for the elderly.

6) Prevention and Treatment of Obesity and Non-Communicable Diseases

One of the key points of the September 2011 UN High-level Meeting on Non-Communicable Diseases (NCD) was that NCDs account for 63.5% of deaths globally. They severely affect the economic development of each country. Experts also mentioned that alcohol, tobacco, and obesity (contributors to unhealthy diets and lifestyles) were primary risk factors. Therefore evidence-based, cost-effective strategies through cross-departmental and public-private cooperation to lower the impact of these risk factors are needed. Reflecting on these international trends, the BHP realized it needed to fortify social awareness and action. One step it took was hosting the 2011 International Conference on Obesity Prevention-Team Up! Let's Fight Against Obesity, on February 22-24.

Among the experts who attended the conference to share their experiences regarding obesity prevention were Professor Boyd Swinburn, the chairman of the WHO International Obesity Prevention Committee and the director of the Collaborating Centre for Obesity Prevention; Dr. William H. Dietz, the CDC director of the Division of Nutrition and Physical Activity; Dr. Timothy Gill, of the University of Sydney Institute of Obesity, Nutrition and Exercise; Tim Lobstein, director of Policy and Programmes for the International Association for the Study of Obesity; and Dr. Masaki Moriyama, the deputy chairman of the International Health Promotion and Education Alliance. They met with President Ma Ying-Jeou and emphasized the importance of obesity prevention from a national administration perspective. More than 700 members of industry, government and academia attended this conference to discuss, exchange and interact with international experts and scholars. They examined the current international situation and trends of obesity prevention from the perspectives of policy, regulation, and practical application. Through these kinds of international interactions and exchanges, Taiwan can draw from successful global experiences to fortify its obesity prevention efforts, raise awareness of world health topics throughout Taiwan, and keep pace with international trends.

7) Cancer Prevention

The BHP held the 2011 Cancer Care Quality and Evaluation International Symposium on September 16 and 17. Foreign experts and scholars in cancer diagnosis and care fields were invited to visit Taiwan and share their practical experiences, to help Taiwan's cancer diagnosis and treatment quality progress.

Equally important to Taiwan advancing the treatment environment was the sending of officials and delegations abroad. Director-General Chiou was invited to participate in the Cancer Prevention and Care Specialized Committee at Harvard Medical School in Boston on October 28, 2011. She used the theme of Innovative National Financing Mechanisms to share Taiwan's cancer prevention experiences with public health and cancer care researchers and policymakers as well as representatives of international and private organizations.

The World Cancer Leadership Summit is a high-level conference attended by leading decision makers from each country. It has been held since 2006, and Taiwan was invited to participate for the first time at the fourth summit, which took place from November 15 to 20, 2011. Approximately 200 high level officials attended the summit in Dublin, Ireland, including state governors, health ministers, UN officials, international cancer leaders and related partners in private groups. They discussed policy planning related to global cancer prevention and international health.

8) Participation in the APEC Forum and European Health Forum Gastein

On September 16 and 17, 2011, Health Minister Chiu Wen-Ta led Director-General Chiou and other representatives to attend the APEC Health Working Group's Health Systems Innovation Policy Dialogue. Minister Chiu gave a speech on stage alongside the US secretary of health and human services, Kathleen Sebelius and various other department heads. He shared Taiwan's experiences in chronic disease prevention, inspiring passionate discussions and responses among the participants.

The European Health Forum Gastein is the most important health policy forum of the European Union and also one of the world's most important health leadership conferences. From October 5 to 8, 2011, the BHP held a parallel forum during the 14th European Health Forum Gastein in Austria. The theme was "Non-Communicable Diseases – Global Priority Decisions and Solutions," to match the United Nation's non-communicable disease (NCD) high-level meeting. Professor Yaung Chih-liang (on behalf of Health Minister Chiu Wen-ta) and Director-General Chiou gave two lectures: "UN Summit and Beyond: an Asian Perspective" and "Prioritising and Mobilising NCD Prevention and Control at the Country Level." They also communicated with leading personnel from the EU's political and health fields.

9) Hosting International Visitors

1. On April 18, 2011, Dr. Ung Phyrun, Cambodia's deputy minister of health, led eight experts to visit the BHP. They wanted to learn more about the history of Taiwan's Tobacco Hazards Prevention Act and the experiences of increasing the tobacco surcharge. The Cambodian delegation also shared the current state of its tobacco hazards prevention work.
2. Nine members from the Christlich Demokratische Union Deutschlands and Sozialdemokratische Partei Deutschlands, including the MP Mr. Johannes Singhammer, visited the BHP on April 19, 2011. The BHP introduced health promotion efforts in Taiwan and gave a briefing on its operations.

3. Tennessee Department of Health Commissioner Susan Cooper, Ohio Department of Health Commissioner Dr. Melvin Kohn, New Hampshire Department of Health Commissioner Dr. Jose Montero, Washington Department of Health Commissioner Ms. Mary Selecky, and Maryland Department of Health Commissioner Dr. Joshua Sharfstein visited the BHP on May 6, 2011. They were accompanied by two professors from Duke University. During the visit, the BHP introduced Taiwan's preventive health care services. Exchanges were also held on topics such as surveillance and study on non-communicable diseases, cancer prevention, maternal and child health, healthy aging, and creating healthy communities.
4. On May 26, 2011, Professor Ted Chen, head of the Health Education/Communication Section at Tulane University, led graduate students from Asia University and Tulane University to visit the BHP. Besides introducing BHP's missions, and tasks, students' impressions were also interchanged in the visit.
5. On June 17, 2011, Professor Yaung Chih-liang led eight international students from Asia University to visit to the BHP. The BHP gave briefings and discussions on important health topics such as cancer prevention, tobacco hazards prevention, healthy aging, creating healthy communities, prevention of chronic disease, obesity prevention, and maternal and child health.
6. Mariel Pullman from Georgetown University visited Taiwan from October 2 to 7, 2011. She helped out at the BHP's Social Environment and Biomarkers of Aging Study (SEBAS) work information meeting for interactive learning. Dr. Pullman explained field research items and provided practical training, while also assisting in briefing interviewers.
7. Professor Albert Lee from Hong Kong paid a visit on October 5, 2011, to direct the BHP in conducting field evaluations for the Health Promoting School Certification and Globalization Project. His contributions were a wonderful resource.
8. To extend a 13-year bilateral cooperation on population, family planning and child health care, Deputy Director Tran Van Chien of Vietnam's General Office for Population and Family Planning, Ministry of Health, led a mission group of senior and mid-ranking officials for a field visit to Taiwan from November 20 to 27, 2011.
9. The Global Tobacco Hazards Prevention Information Network Expert Panel was held from November 21 to 22, 2011. Three experts from the International Tobacco Control Policy Evaluation Project (ITC) joined the discussion concerning Taiwan's future participation in the ITC project.
10. The BHP held a special lecture on December 13, 2011: "Sharing the Experience of Promoting National Obesity Prevention in Australia and Singapore." Australian representative Mark A. Williams and Singaporean government representative Cheong-Lim Lee Yee visited the BHP to share their experiences in promoting obesity prevention.

Appendix

Bureau of Health Promotion, January to December 2011

Date	Timeline of Significant Events
January 1	Screening subsidies for Group B streptococcus were expanded for pregnant women from mid- to low-income households or who live in mountainous or remote areas along with offshore islands.
January 4	Introducing a new variety of query paths for different indicators on the Health Indicator 123 – Interactive Online Query System. (https://olap.bhp.doh.gov.tw/).
January 22	President Ma Ying-jeou served as a spokesman for the BHP's "Healthy Centenary, Healthy Taiwan" weight management campaign. The goal of the campaign was participants nationwide to lose a total of 600 tons. On January 24 Premier Wu Den-yih hosted the launch news conference and welcomed agency representatives and officials from local health departments to join and make a pledge.
February 22-24	Held the 2011 International Conference on Obesity Prevention. Experts from around the world were invited to give speeches and share obesity prevention experiences.
March 3	The Health Indicator 123-Interactive Online Query System (http://olap.bhp.doh.gov.tw/) began to offer dual-language interfaces for data query.
March 6-8	Director-General Chiou Shu-Ti was invited to speak at a health policy forum in Washington DC for the APEC Health Working Group.
March 24	A news conference was held for the nationwide launch of the Hospitals Promoting Obesity Prevention program. Hospital networks from all different levels pledged to lead the 129 hospitals they oversaw in encouraging people to lose a total of 135 tons of weight.
March 26	The Award Presenting Ceremony and Experience Sharing Session for Excellent Performance of Hospitals in Cancer Prevention was hosted to honor hospitals with excellent achievement in the field of cancer screening in 2010.
March 30, 31	A national awards ceremony was held in Kaohsiung to honor local health departments for excellent performance in 2010 in providing health care.

Date	Timeline of Significant Events
April 7	An amendment to the Regulations on Medical Subsidization for Rare Diseases was announced. Besides continuing to provide rare disease sufferers with special nutritious foods, subsidies for International Medical Coopration Projects for Laboratory testing fees of rare diseases and home medical devices essential to the maintenance of life were increased.
April 9-11	The Travelling Seminar on Safe Community Programs was held to promote international safe communities. Participants visited Hualien's Fengbin and Shoufeng communities, Taipei's Wenshan community and Tainan's Jinhwa community.
April 11	A subsidy program was launched to provide the human papillomavirus vaccine to junior high school girls in years one through three who were from mid-low income and low income households or who lived in mountainous areas or on offshore islands.
April 18	The Birth Reporting System added a "real-time monitoring of sex ratio at birth" function.
April 19	The Ministry of Foreign Affairs arranged members of the Christian Democratic Union of Germany and the Christian Social Union of Bavaria to visit BHP to discuss health promotion issues.
April 29	The Taiwan-Japan Conference on Oil Disease Health Care was hosted, and experts and victims were invited to give speeches.
May 6	An amendment to Articles 10 and 13 of the Regulations for the Testing of Yields of Nicotine and Tar Contained in Tobacco Products and the Labeling of Cigarette Containers was announced and went into effect.
May 13	An amendment was announced to the Preventive Care Items for Medical Care Providers. More specialties of physician were declared qualified to provide adult preventive healthcare services. Subsidies offered for pre-natal check up and screenings for colorectal and oral cancers were increased. Starting from August 1 the Added-Value program for adult preventive healthcare services was launched. Waist measurement and other new exams were added.
May 27	The 6th Central Cancer Prevention & Control Conference was held. The Ministry of the Interior, Council of Agriculture, Ministry of Education and BHP reported on betel quid hazards prevention.
May 31	The newsletter "Health Promotion Watch" was published. It aims to disseminate new information on health promotion, to promote communication, and to enhance cooperation between health departments, bureaus, DOH hospitals and private organizations.
May 31	The 10th Taiwan Fertility and Family Survey report was published. The main focuses of this survey are women's attitude and practice on marriage and child-bearing experiences, fertility related issues and medical utilization.

Date	Timeline of Significant Events
June 14-20	Local health officials joined the Accreditation Program of the Organization of European Cancer Institutes (OECI) and the European Society of Mastology (EUSOMA) Certification for Breast Units.
June 20	Began to offer a Healthy Weight Management Hotline service at 0800-367-100.
June 26	The Conference for the Promotion of Mental Health During Pregnancy and Childbirth was held.
June 28	The first meeting of the Department of Health, Executive Yuan, Tobacco Hazards Prevention Strategy Working Group was convened.
July 14-17	Attended the 9th Asia-Pacific Hospice Conference in Penang, Malaysia, held by the Asia Pacific Hospice Palliative Care Network. At the conference it gave a presentation called: The Results to Implement Hospice Care for Terminal Cancer Patients in Taiwan was presented during the conference.
July 26, 27	Held the 2011 Conference on Healthy and Age-Friendly City. Experts were invited to share their experiences in promoting age-friendly cities including Dr. Ruth Finkelstein from the New York Academy of Medicine and Professor Takiko Okamoto from Meiji Gakuin University.
August 10	The Regulations Governing Care of Patients Suffering from PCB Poisoning were issued. Free annual health checkups for oil disease victims and subsidies for clinical and emergency fees were provided continually.
August 12, 13	Held the Organized Cancer Screening (Treatment) Standard Seminar.
August 16, 17	Experts from Austria, Germany, Ireland and Spain were invited to attend the 2011 Tobacco-free, Quality, Qualia and Innovation International Conference to share their tobacco control experiences with members of local medical organizations. The successful experiences of promoting Taiwan's tobacco control in medical institutes were also been shared.
August 18	The Accidental Injury Surveillance Consultation Task Force was established to promote the Accidental Injury Surveillance System.
September 5	An amendment to the Regulations of the Tobacco Health and Welfare Surcharge Distribution and Utilization adjusted the distribution contribution ratios for to cancer prevention and subsidies to areas with insufficient medical resources. It also improved the quality of preventive and clinical care and raised insurance premium subsidies for those struggling financially.
September 5, 6	Taiwan hosted the 5th Cross-Strait Conference on Tobacco Control.
September 8	In reply to the amendment to Article 33 of the Rare Disease Control and Orphan Drug Act on December 8, 2010, the Regulations for Revenues, Expenditures, Safeguard and Utilization of the Tobacco Hazards and Health Care Funds were announced.

Date	Timeline of Significant Events
September 8	As of September 8, 2011, participants of "Healthy Centenary, Healthy Taiwan" weight management campaign had lost more than 600 tons combined. A news conference was held for the campaign at October 26 2011.
September 19	Deputy Minister of Health Chiang Hung-che, BHP Director-General Chiou Shu-Ti and the superintendent of Kaohsiung Medical University Chung-Ho Memorial Hospital Wu Jiunn-Ren, together donated medical equipment for childbirth to the Solomon Islands.
September 21	The first meeting of the Department of Health, Executive Yuan, Tobacco Hazards Prevention Strategy Conference took place.
September 23	Held the Healthy City 10-Year Celebration - 3rd Taiwan Healthy City Awards Ceremony and the 100 Love Stories activities.
September 27	The National Finals of the "Health 100 All Grandpas and Grandmas Moving On" took place at Taipei Arena. Among the officials who spoke at the event and gave a greeting to participating seniors were Premier Den-yih Wu and Minister Wen-Ta Chiu.
September 28-30	Director-General Shu-Ti Chiou led a delegation including Chiayi Mayor Ming-hui Huang and Taoyuan County Health Commissioner Yi-lien Liu to Dublin, Ireland, to attend the WHO's 1st International Conference on Age-friendly Cities. Delegation members were invited by the Dublin mayor to join an internet meeting along with the signing ceremony of the Dublin Declaration.
October 5-8	The 14th European Health Forum Gastein took place in Bad Hofgastein, Austria. In line with an UN summit on non-communicable diseases, a theme of the forum was NCD - Top Global Policies and Solutions. Reports were given by former Health Minister Yaung Chih-liang and the Director-General of the BHP.
October 12	Taiwan hosted the International Accidental Injury Surveillance Conference. Experts from the United States, Australia and China were invited to share their experiences and to give suggestions as Taiwan is building an accidental injury surveillance system.
October 17	Participants in 22 cities and counties met the weight loss targets in the "Healthy Centenary, Healthy Taiwan" weight management campaign. Together they lost 660 tons.
October 20	In reply to the Ministry of the Interior announced the Regulations Governing Application and Management of Degree of Relationship Records, an amendment was made to Article 3 and Attached Form 1 of Article 2 of the Regulations for Query on Kinship of Artificial Reproduction Child.
October 22, 23	Taiwan hosted the WHO-HPH Autumn School 2011. Professor Hanne Tonnesen, the international secretariat for the network of health promoting hospitals, was invited to join Director-General Chiou Shu-Ti in hosting the school. Together they offered an advanced course on the WHO-HPH Recognition Project.

Date	Timeline of Significant Events
October 26	Held a news conference for the "Healthy Centenary, Healthy Taiwan" weight management campaign to announce that a total of 938 tons of weight loss in the campaign nationwide.
October 28, 29	The Medical Personnel Smoking Cessation Service Symposium: A word for A Life was held. Medical experts from Taiwan, New Zealand, South Korea and Hong Kong were invited to share their practical experiences in helping people quit smoking.
October 29 - November 2	The 139th Annual Meeting of the American Public Health Association was held in Washington DC. Former Health Minister Yaung Chih-liang led a delegation of health officials and experts to the meeting on behalf of Health Minister Chiu Wen-ta. They shared Taiwan's key health policy achievements with countries around the world.
October 31	The "Health Profile for Children of the 21st Century in Taiwan: from Birth to 18 Months" was published, using data from the first two waves survey of the Taiwan Birth Cohort Study. The book shed new insight into health profile of children growing up in Taiwan at the start of 21st century.
November 4	The 7th Central Cancer Prevention & Control Conference was held. The Ministry of the Interior, Council of Agriculture, Ministry of Education and BHP reported on betel quid hazards prevention.
November 8, 9	BHP held the Asia-Pacific Conference on Baby-Friendly Hospitals and Breastfeeding Promotion. Experts from around the world were invited to share erudition and implementing experiences for BFHI the evidence-based strategy and the challenges of rooming-in and early skin-to-skin contact.
November 9-12	A subsidy was provided to the Taiwan Breast Cancer Alliance to hold the 16th Reach to Recovery International Breast Cancer Support Conference. The international support conference was founded in 1980, and this was the first time it was held in an area consisting primarily of ethnic Chinese.
November 15	The Achievements in Promoting Age-Friendly Medical Care Summit was held at the NTUH International Convention Center. Age-friendly certification and awards were distributed.
November 16	The Hope Foundation highlighted its achievements over the years in promoting walking for health. Local and foreign walkers were invited to experience the beauty of Taiwan on their own feet. President Ma Ying-jeou gave a speech at the event and led a group of walkers.
November 16-18	Fu Jen Catholic University was commissioned to hold the 2011 Conference on Health Promoting Schools in Taiwan. Before the event, experts from around the world were invited to assess progress at Taipei's Gong Guan Elementary School. They also joined a consultation meeting to discuss plans for the 2012 international certification plan for schools.

Date	Timeline of Significant Events
November 17	In reply to the Ministry of the Interior announced the Regulations Governing Application and Management of Degree of Relationship Records, an amendment was made to Article 3 of the Regulations for Verification on Kinship of Sperm/ Oocyte Donors and Receptors.
November 19, 20	The National Children and Youth Conference was held at the NTUH International Convention Center.
November 24	The second meeting of the Department of Health, Executive Yuan, Tobacco Hazards Prevention Strategy Working Group was convened.
November 20-27	Mid- to high-level officials from the General Office for Population & Family Planning, Ministry of Health, Vietnam, GOPFP came to Taiwan on an inspection visit and share their international experiences.
November 21, 22	Dr. Geoffrey Fong, the principal investigator of the International Tobacco Control Policy Evaluation Project, ITC, visited Taiwan for an experts meeting. Fong discussed the feasibility of Taiwan joining the ITC. He also held a workshop at the NTU Alumni Club Building to invite tobacco hazards control experts to learn about the ITC current status and future development. They also discussed the potential areas of cooperation.
November 30	The "National Health Interview Survey" report was published by the Bureau of Health Promotion, the National Health Research Institutes and the Food and Drug Administration. The main focuses of this survey are health status, health behavior, and medical and preventative care utilization of the citizens.
December 4-8	Director-General Chiou Shu-Ti attended the United Nations Framework Convention on Climate Change (UNFCCC) 17th Conference of the Parties meeting in Durban, South Africa. At the event Chiou became the first Taiwan official in decades to join a news conference with high-ranking health officials from the UN. Chiou gave a speech on Taiwan's promotion of the WHO-HPH initiative and the energy-saving, carbon cutting accomplishments of an environmental task force assigned to reforming Taiwan's hospitals. Chiou also participated in the WHO Durban Declaration.
December 29	An amendment to Articles 3 and 4 of the Regulations on Medical Subsidization for Rare Diseases was announced. The amendment fully subsidized special nutritious foods for rare disease sufferers.
December 30	Walkers were invited to attend a round-Taiwan health walk. President Ma Ying-jeou gave a speech and led the walkers at the start. At the end of the island-wide journey, a special ceremony took place.

Bureau Of Health Promotion

Name of Publication	2012 Annual Report of the Bureau of Health Promotion
Publishing Organization	Bureau of Health Promotion (BHP), Department of Health
Publisher	Chiou Shu-ti
Address	2, Changqing St., Xinzhuang District, New Taipei City
Website	http://www.bhp.doh.gov.tw/
Telephone	(02) 29978616

Editing	Bureau of Health Promotion (BHP), Department of Health
Design & Printing	4Point Design
Date of Publication	December 2012
Date of First Publication	October 2007
Nature of Publication	Annual Report

This annual report is also available on the BHP website:
http://www.bhp.doh.gov.tw/

Price	NT$250

For sale at:

Government Bookstore	1F, 209, Songjiang Rd., Taipei City 02-25180207
Government Online Bookstore	http://www.govbooks.com.tw
Wu-Nan Culture Sauare	6, Zhongshan Rd., Taichung City 04-22260330 http://www.wunanbooks.com.tw

GPN:2009602537
ISSN:1999--601-2

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Letting Our Love for Life Shine Through
Widespread Health Promotion

The Bureau of Health Promotion is dedicated to comprehensive health dissemination
and helping people achieve prosperity through health.
Hand-in-hand with the people it serves,
the bureau uses a loving,
caring approach to implement health policies.
Every day its professionalism and devotion shine through,
guarding people's physical and mental health, and making life's journey rich and varied.
Throughout, the bureau's efforts create an excellent living
environment intertwined with health in time and space.

GPN 2009602537
Price:NT$250