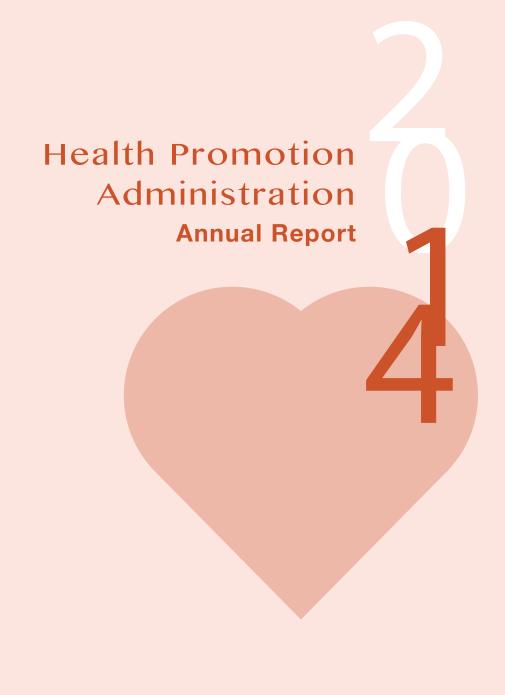
Health Promotion Administration Annual Report Promoting Your Health





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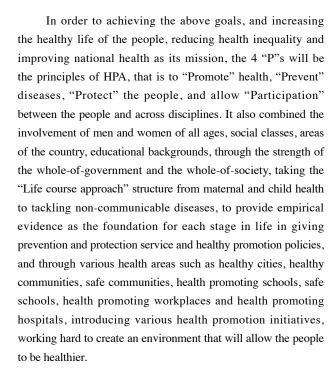
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Promoting Whole-of-government and Whole-of-society New Health Promotion Campaign for the Next 12 years

Since its inception on July 12th 2001 till July 23rd 2013 when The Bureau of Health Promotion reformed to The Health Promotion Administration, Ministry of Health and Welfare (HPA) was a period of exactly 12 years. During this time, by continuously striving for improvement, we completed constructing the foundation of the national health promotion system by formulating laws, arranging financial resources, policies and strategies, research and development and information system. However, in the face of the new waveaging population, it is estimated that by 2025, 20% of the total population will be aged, and Taiwan will reach the "superaged society". The work done on the promotion of health, the prevention and cure of non-communicable diseases appears to have had a significant influence on the health of the Taiwanese people. So we must grasp the next 12 years starting from now until 2025, and from the system of foundation on national health laid over the past 12 years, quicken the pace in the race against the tide of aging, upgrade the efficiency of all projects which elderly and tackle non-communicable help the

diseases, and, furthermore,

aiming to let Taiwan take the lead internationally by being at the forefront in the prevention and cure of these diseases.



In 2013, the HPA has achieved the following in maternal and child health, and health promotion work.

The screening rate of hearing tests for newborn babies, reached 97.3% in 2014 from 89.4% in 2012. 684 newborn babies with hearing impairment were found. Starting on the 1st of July, two guidelines on health have been provided for children under the age of 1. Doctors educated the parents to improve their ability to care for newborn babies; the application of dental fluoride for children to every 6 months has been extended from children under 5 to under 6. Apart from this, the HPA has continued to help disadvantaged child age under 12 by providing free application of dental fluoride every 3 months. Efforts to cultivate the friendly breastfeeding environment have seen the percentage of babies under 6 months being only breastfed rising to 48.7%, surpassing the global average of 38%, and approaching the WHO's 2025 global target of 50%.

In response to the aging population, the HPA's screening against the four cancers has continued to be expanded by providing 4.8 million people with this service. Definite diagnoses were made in approximately 11,000 instances of cancer and up to approximately 40,000 instances of precancerous cases. To further popularize preventive medicine, 131 hospitals have acquired



ing Your Health

WHO certification as Health Promotion Hospitals, becoming the world's largest network. Active aging has been advocated, and over 80,000 elderly people took part in the Grandma and Grandpa Get Moving Competition in 1951 teams; "Agefriendly Cities" have been promoted across all 22 counties and cities in Taiwan, and 64 hospitals have received "Age-friendly" certification, becoming the first country where all counties and cities have signed up to the WHO plan of "Age-Friendly Cities".

In smoking cessation, the number of adults who smoke has fallen to 18%. Funded by health and welfare surcharge on tobacco, the number of people taking part in the second generation smoking cessation program and using various antismoking services has reached 386,488, with 30% of people stopping for 6 months or more. Also, hospitals which have participated in promoting no-smoking have gained international accreditation, with 147 hospitals achieving this status, and of the 7 hospitals around that world that received gold medals, Taiwan is the country that won the most prizes with 4 hospitals receiving gold medals.

In obesity prevention, through the "Taiwan 2013 invites you to love your health" healthy bodyweight management plan, citizens lost a total of 1,089 tons by implementing a healthy diet, an active lifestyle and through adopting healthy habits. Compared to the results from the 2013 and the 2005-2008 investigation showed that the prevalence of obese males had declined from 51% to 46%, and in females it was down from 36% to 33%. The percentage of people in Taiwan engaging in exercise increased from 26% in 2010, to 33% in 2013. Empirical data showed that the three years of promoting the healthy bodyweight management plan had had an outstanding effect.

In the globalized world, the HPA has actively cooperated and connected with international academic institutions, organizations and governments in countries from all over the world. I personally attended the International Hospital Federation (IHF) in 2013, and had face to face talks with Margaret Chan, Secretary of the WHO, participated in the International Union for Health Promotion and Education (IUHPE) conference, and been elected as a Vice President of the IUHPE. Also in the role as Director General of the WHO's Health Promotion Hospital (HPH) network, Dr. Shu-Ti Chiou, hosted the network's Supervising

Members meeting, and been invited to be the opening speaker of the 21st HPH annual meeting. It is obvious the standard of professionalism in Taiwan's health promotion, which is increasingly receiving and approval internationally.

The Taiwan Global Health Forum held in November 2013 echoed the spirit and importance of the WHO's Health in All Policies. Together with the Director General of the European Public Health Association, Prof. Martin McKee, I drafted the Global Health Project Taipei Declaration, which was supported by the international health leaders and experts and scholars present, calling for global cooperation and political leader promises and action to achieve health and happiness for all.

In 2014, the HPA is echoing the WHO's 25x25 target to reduce premature deaths from the four main non-communicable diseases by 25% before 2025. Also, according to national health 9 targets, it wants to expand the non-smoking living environment, begin a navigation plan for those receiving treatment for cancer, increase the rate of those receiving appropriate treatment, a rise in control of the "three highs" among sufferers through the disease management service, a health knowledge evaluation tool plan, strengthening of public health knowledge, promoting online eHealth information, reinforce the weak areas in treatment and subsidies in maternity care, establish partnerships with city/county governments, cultivate aged friendly cities and communities, actively promote the passing of the National Nutrition Act and promote a health inequality policy.

In the face of more kinds of challenges from health problems in the future, the HPA will continue to connect with international partners, enthusiastically take up the newest development trends, continuously innovate, continue to investigate deeply and expand all kinds of health policies for the Taiwanese people, and work with all its citizens to jointly guard and promote the health of every person.

Director-General, Health Promotion Administration

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November, 2014





Introduction

Evolution

Health Promotion Administration is formerly known as Bureau of Health promotion, Department of Health, its history goes back when 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, responsible for health promotion and non-communicable disease prevention work. In accordance with the government organizational restructure, Bureau of Health promotion became Health Promotion Administration in July 23rd 2013. It holds greater responsibility, and the spirit of "prevention is better than cure." We reinforce preventive medicine and community health, especially in response to the change of population structure, and more closely integrate social welfare and cross-department resources. The Health Promotion Administration, or HPA, provides comprehensive health promotion services from the womb to tomb, for the health promotion from families to communities. The goal is to prolong healthy expectancy, reduce health inequality, so the citizens can live longer and better regardless of wealth, region, gender, and ethnic group.

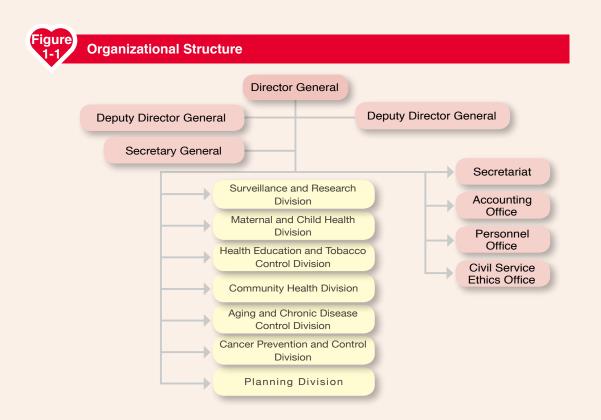
Organization and Mission

The HPA is headed by the Director General, who is aided by two Deputy Director Generals and the secretary general. The HPA's responsibility of guarding public health is further divided among seven divisions and four offices(Figure 1-1). The major assignments include:

- 1. Planning, coordinating, and implementing health promotion policies and mapping out such policies as well as laws and regulations.
- 2. Planning, executing and supervising the matter of cancers, cardiovascular diseases, and other major noncommunicable diseases prevention and control.
- 3. Planning, executing and supervising the matter of ensuring a healthy lifestyle.
- 4. Planning, executing and supervising the matter of tobacco hazards prevention.
- 5. Planning, executing and supervising the matter of nutrition.
- 6. Planning, executing and supervising the matter of reproductive health.
- 7. Planning, executing and supervising the preventive care of oral, hearing, and vision.
- 8. Planning, executing and supervising the matter of public health surveillance, research and development.
- 9. International cooperation relative to health promotion and noncommunicable disease prevention affairs.
- 10. Other relevant administrative matters of health promotion.

Organizational Mission of HPA

The HPA gives priority to enhancing health literacy and promoting healthy lifestyle; spreading preventive healthcare services and promoting effective prevention and screening; upgrading the quality of healthcare and improving chronic disease control and prognosis; creating a friendly and supportive environment and bolstering healthy options and



equality. In practice, it is called upon to 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 use, cancers, cardiovascular diseases, and other major non-communicable diseases. It is also charged with the duties of conducting public health surveillance and related research and addressing other special health topics. Moreover, the HPA joins forces with all the public health agencies of the country's counties and cities, hospitals and other medical institutions, and private groups to enforce health policies, thereby bringing about a healthy environment for the entire population (Figure 1-2).



The HPA Logo Design Concept

The concept behind the design of the HPA's logo comes from shows an open hand with four fingers and a thumb across the palm. This configuration symbolizes that the HPA will "safeguard" all citizens look after and cares for you wherever you are in Taiwan, regardless of age, gender, occupation or ethnic group. Furthermore, the plan behind using "green" colour is specifically chosen because it has the most gentle effect on people's eyes, and so having green will make people feel relaxed, calm and comfortable. It represents growth and vitality, and symbolizes constant renewal and growth in the natural world.



Logo Of HPA

Four upright fingers

- People of both genders, all ages, all walks of life, all parts of the country; government, industry, academia, citizenry
- Promotion, prevention, protection, participation

Tightly pressed thumb

Keeping watch over the health of the populace

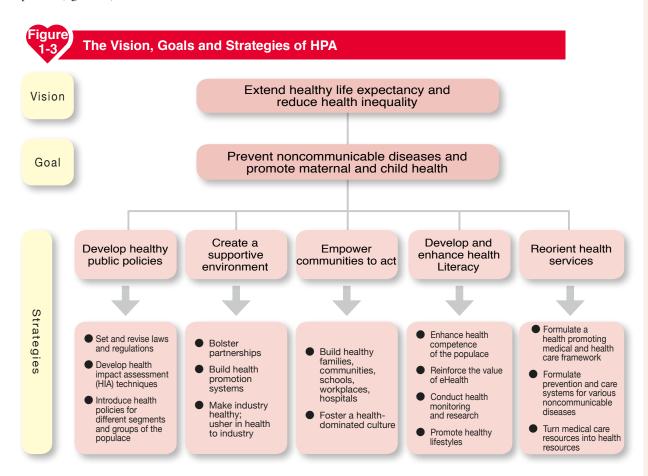
Steady, solid palm

- Symbol of a fair and just foundation shared by all segments and groups of the populace
- Symbol of health communication as a medium of joint participation by government, industry, academia and citizenry

Health Promotion – Vision and Challenges

Based on the Alma-Ata Declaration of 1978 and the Ottawa Charter of 1986, the HPA proactively promotes Health in All Policies (HiAP). It is "an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts." The ultimate goal is to achieve health for all enunciated by the World Health Organization while gradually rectifying health inequality.

When it comes to health promotion action strategies, the HPA adopts an ecological model that is increasingly considered preferable to other approaches across the international community. That is, government agencies and local authorities work together in improving social and organizational systems so that healthy behaviors and choices can become more readily within reach, thereby fostering collective changes en masse. Opportunities and momentum are made available to empower people in different settings, thus making the pursuit of health a fad and enhancing the status of health promotion in the setting of public policies (figure 1-3).







Healthy Birth and Growth

Healthy Birth and Growth

Due to the impacts of social changes and multicultural developments that have transformed society, as well as family structures and functions, they have brought about changes in the in the economy, transportation, and the social and material environments, in cross-border marriages and cultures, divorce rates, grandparents' roles in families, fast food culture and exam stress. These issues have made maternal and infant health more complicated, 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 premarital pregnancy. As such, the HPA makes it a point to reinforce the nation's healthcare system and create a healthy and safe environment conducive 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 can affect quality of life into adulthood. Thus, the HPA promotes early screening and intervention, and the development of good lifestyle and healthcare habits in order to prevent abnormalities resulting from these 3 areas from affecting overall growth and development in children. These measures provide 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 child when they were 25.2 years old on average. This was deferred to 30.4 years of age in 2013. Structural analysis by mothers' age reveals that: mothers aged between 20 and 24 fell from 29.5% to 8.6%; mothers aged between 25 and 29 fell from 44.6% to 26.0%; mothers aged between 30 and 34 increased from 17.4% to 41.9%; and mothers aged between 35 and 39 increased from 3.4% to 19.1%. A trend towards later childbirth is thus evident. Taiwan in 2013 maternal mortality ratio was 9.2/100,000. Compared to the OECD countries (2013), Taiwan's maternal mortality ratio (2013) was lower than that of Mexico, United States of America, Republic of Korea, Chile, Turkey, Hungary, Canada, Estonia, Luxembourg, equal to France, Ireland, and higher than New Zealand, United Kingdom, Portugal, Slovakia, Slovenia, Germany, Switzerland, Australia, Belgium, Netherlands, Japan, Greece, Denmark, Czech Republic, Spain, Austria, Italy, Iceland, Finland, Norway, Sweden, Poland, Israel.

Target Indicators

- 1. To have more than 90% of pregnant women take prenatal examinations and more than 98% take at least one such exam
- 2. More than 94% of women with high-risk pregnancies undergo prenatal genetic diagnoses and follow-ups.

Policy Implementation and Results

- 1. Establishing Systematic Reproductive Health Services
- (1) Prenatal Examinations for Pregnant Women

In order to promote the health of expectant mothers and their unborn babies, and to discover various possible complications early, the HPA offers 10 prenatal examinations and 1 ultrasound examination for pregnant women through

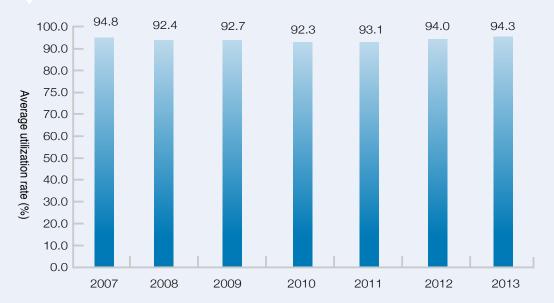
medical institutions contracted under the National Health Insurance program. The uses of this service have been in the vicinity of 90%. In 2013, use of the 10 prenatal examinations by live births in pregnant women averaged 94.3% (Figure 2-1), and approximately 1.77 million pregnant women used these prenatal examinations. At least 1 visit antenatal care coverage is 98.5%. At least 4 visits antenatal care coverage is 97.5%.

(2) Provision of Comprehensive Genetic Testing Services

The HPA offers genetic testing in various stages – pre-marriage, pre-pregnancy, pre-birth, newborn, and throughout one's adulthood. These practices of primary prevention, prevention through reproduction options, and secondary prevention go prevention and control of genetic diseases are illustrated in Figure 2-2. A summary of what the various genetic testing services have achieved in different stages of reproductive process follows:

Figure 2-1

Utilization Rate of 10 Prenatal Examinations for Pregnant Women



Source: Data from 2006-2013 Prenatal Examinations and 2007-2013 Birth Reports

A. Screening for Thalassemia in Pregnant Women

If abnormalities are detected in prenatal blood testing, the patient will be brought in for testing. If both spouses are found to have abnormalities, blood samples are then sent to one of 6 government-certified thalassemia genetic testing centers for re-examination. If both husband and wife are confirmed to be either alpha- or beta-thalassemia carriers, then villi, amniotic fluid, or umbilical cord blood, depending on the stage of pregnancy, is collected for prenatal genetic diagnosis. In 2013, a total of 373 people underwent thalassemia genetic testing, of whom 74 were found to be carriers of thalassemia major.

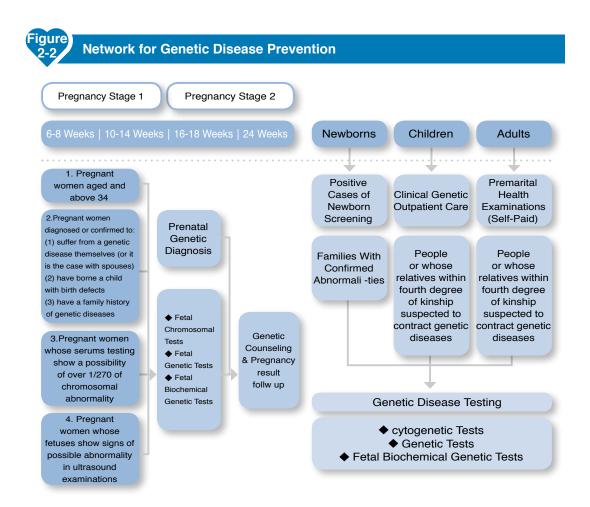
B. Prenatal Genetic Diagnosis for High-Risk Pregnancies

The HPA provides subsidies for prenatal genetic diagnosis for high-risk pregnancies (mothers over age 34, with an abnormality found in a current or past pregnancy, or with a history of genetic disorders in her or her spouse's family). In 2013, a total of 48,764 people benefitted from the subsidies; of them,39,995were over age 34. That is,80.0% of pregnant women of advanced maternal age underwent prenatal genetic diagnosis. In 2013, abnormalities were detected in 979 expectant mothers, or 2.0% of women tested.



Medical institutions or public health centers that conducted the tests were responsible for following up on abnormal cases and offering counseling, so that the pregnant women in question could secure timely and appropriate care. When necessary, they would be referred to genetic counseling centers or other related institutions for treatment.

In order to ensure the quality of these services, the HPA performs qualification examinations at institutions that perform genetic disease examinations on a regular basis, in accordance with its 'Genetic and Rare Disease Testing Institution Qualification Examination Criteria.' Certified institutions are subject to evaluation every four years. By the end of 2013, a total of 28 clinical cytogenetic laboratories and 9 genetic laboratories had passed the HPA qualification



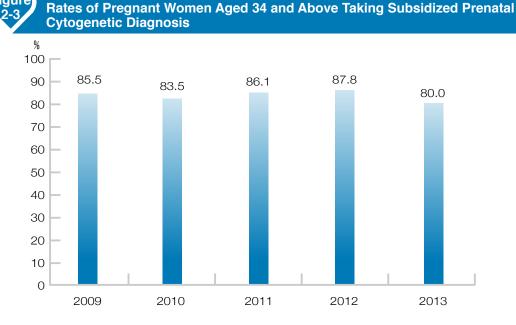
examination. In addition, guidelines are put in place for the periodical examination of genetic counseling centers' qualifications to ensure their quality of genetic counseling, diagnosis and therapy. By the end of 2013, the HPA has examined a total of 11 genetic counseling centers.

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

Genetic disease testing and counseling services are offered to people, who are suspected of suffering from a hereditary disease, family members of people suffering from genetic diseases, and those with abnormal readings in newborn screening for metabolic syndrome. In 2013, a total of 13,302 people took such tests. Of these, 761 people were found to have chromosomal disorders; 1,262 were thalassemia carriers; and 3,673, other abnormalities.

(3) Establishing of a Pregnant Women Care Center

Based on a concept of comprehensive health care, we provide prenatal and postnatal care for pregnant women and their families, through our national free hotline for pregnant women 0800-870-870 and the pregnancy-care website (http://mammy.hpa.gov.tw) . This care consists of breastfeeding instruction and support, postnatal nutrition and weight management, physical and mental adjustment, stress management, emotional disturbance, and necessary referrals for health counseling, care and support services.



2. Comprehensive Reproductive Health Regulations and Systems

(1) Enactment of Artificial Reproduction Laws and Regulations

Taiwan introduced a series of laws in order to ensure the appropriate development and use of artificial reproduction technologies, and to protect the rights of infertile couples, sperm and egg donors, and children conceived through artificial reproduction. The Artificial Reproduction Act, enacted on March 21st, 2007, was followed by the Regulations for Kinship Queries for Children Born Through Artificial Reproduction, Regulations for Artificial Reproduction Institutions Permits, Regulations for Verification of Kinship of Sperm/Oocyte Donors and Receptors, Regulations for Artificial Reproduction Information Notification and Administration, and the Notice of Maximum Payment Limits of a Donor's Expenses by the Recipient Couple. By December 2013, a total of 72 artificial reproduction institutions had secured accreditation.

(2) Draft Revision to the Genetic Health Act

To better ensure the health and safety of expectant mothers and their babies, the HPA set out to revise the Genetic Health Act, renaming it the Reproduction Health Act, 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. This deliberation was not continuous, and would not be continued. Re-deliberation of the act began again on February 9th, 2012 at the Executive Yuan, and the act was passed on for checking on April 6th that year.

(3) Improving the Quality of Prenatal and Ultrasound Examinations

The women of Taiwan are currently entitled to 10 prenatal examinations and 1 ultrasound examination with government subsides. The number of prenatal examinations provided are as high as in countries as the U.S. and Japan. Women with high-risk pregnancies requiring further medical attention can turn to the National Health Insurance program to access health care. The HPA will continue to conduct evaluations and improvements, based on scientific empirical evidence and with the concept of "comprehensive health care" at the core of its services, in order to optimize the quality of prenatal examinations.

Section 2 Infant and Child Health

Status Quo

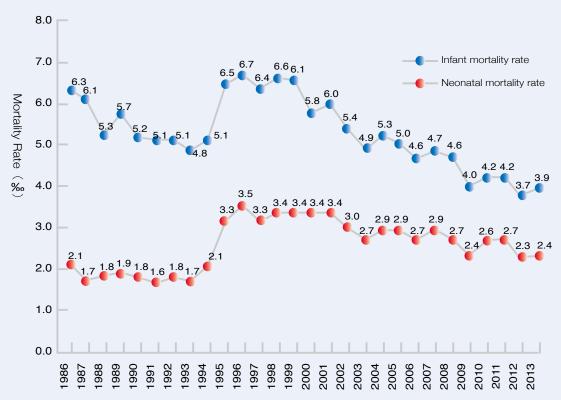
The infant mortality rate is one of the key indices of the state of national childhood health. Taiwan's neonatal mortality rate was 2.4% in 2013, compared to 2.1% in 1986, and 3.5% in 1996. Infant mortality rates fell to 3.9% in 2013, from 6.3% of 1986 (Figure 2-4). Compared to OECD countries in 2012, Taiwan's infant mortality rate in 2013 is lower than that of Mexico, Turkey, Chile, Slovakia, the United States, Hungary, New Zealand, Canada; similar to Poland, the UK, Switzerland, Australia, Spain, and Greece; and higher than Denmark, France, Portugal, Germany, Norway, Ireland, Holland, Czech Republic, Italy, Estonia, Luxembourg, Slovenia Republic, Finland, Iceland, Japan, Korea, Austria, Israel, Belgium and Sweden.

The Childbirth-reported Statistics showed that a total of 195,251 births in 2013 (Figure 2-5). Of these, 8.4% were live births with low birth weight (less than 2,500 grams) and 0.8% with extremely low birth weight (Less than 1,500 grams).

Under natural conditions, the sex ratios at birth were approximately 1.05:1.06. However, preference for males has long been a persistent phenomenon in Asian societies: many nations have a preference for male heirs and varying degrees of the sex ratio at birth imbalance. Taiwan's sex ratio at birth (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 in sex ratio at birth has seen only a slight decline (Figure 2-6), due to declining birth rates and people hoping to have a male heir as their first or second child. From 2005 to 2010, the sex ratio at birth in Taiwan stayed at approximately at 1.08 to 1.09, which still showed an imbalance. This indicated that sexual discrimination persists in some parts of society, due to the influence of traditional concepts such as having male heirs and preferring males over females.



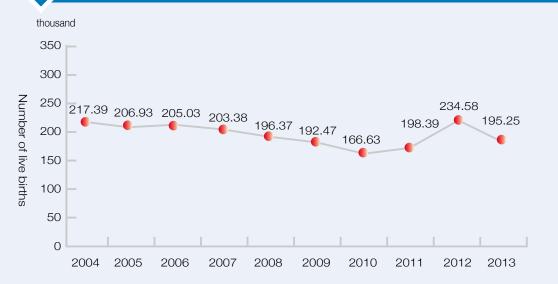
Neonatal and Infant Mortality Rates



Sources: Department of Statistics, Ministry of Health and Welfare - Causes of Death in 2013

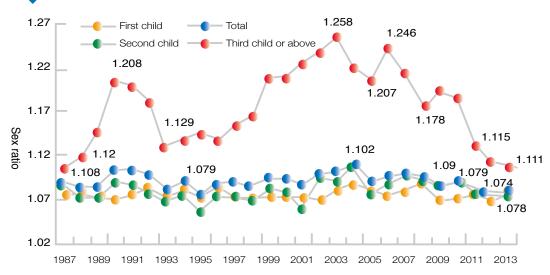
Figure 2-5

The Number of Reported Live Births





Sex Ratios of Live Births by Order of Birth



Source: HPA Statistics on Reported Births

Table 2-1

Sex Ratios among Live Births

Year	Live Birth	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
2012	234,575	51.78	48.22	1.074
2013	195,251	51.88	48.12	1.078

Notes: Sex ratios at birth = Total number of boys delivered/total number of girls delivered (Only live births are calculated)

Table 2-2

Sex Ratios of Live Births by Order of Birth

Year		First child	Second child	Third child or above	Total
	Persons	113,181	77,854	26,345	217,380
2004	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
	Persons	104,549	77,163	25,211	206,923
2005	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
	Persons	105,700	74,897	24,424	205,021
2006	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
	Persons	106,005	74,234	23,136	203,375
2007	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
	Persons	102,854	71,565	21,954	196,373
2008	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
	Persons	101,338	70,724	20,403	192,465
2009	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
	Persons	86,656	60,754	19,220	166,630
2010	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
	Persons	103,300	71,042	24,044	198,386
2011	Male	53,445 (51.73)	36,772 (51.77)	12,777 (53.14)	102,994
2011	Female	49,855 (48.27)	34,270 (48.23)	11,267(46.86)	95,392
	Sex ratio	1.072	1.073	1.134	1.079
	Persons	122,633	87,204	24,738	234,575
0010	Male	63,261	45,158	13,043	121,462
2012	Female	59,372	42,046	11,695	113,113
	Sex ratio	1.066	1.074	1.115	1.074
	Persons	102,366	71,321	21,564	195,251
0010	Male	53,050	36,895	11,350	101,295
2013	Female	49,315	34,426	10,214	93,955
	Sex ratio	1.076	1.072	1.111	1.078

Source: HPA Statistics on Reported Births

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) as reported by the women themselves.

^{2.} There were a total of 6 cases of unclear gender at birth in 2004, with 2 cases in 2005. There were 5 cases of unknown mothers in 2006. There were a total of 2 cases of unknown gender in 2007.

^{3.}Gender ratios at birth = total of baby boys delivered divided by total of baby girls delivered (Only live births were calculated).

The HPA puts great effort in promoting breastfeeding policies, in order to boost the healthy growth of babies and children in Taiwan. The total rate of feeding from breast milk alone less than a month after birth rose from 5.4% in 1989 to 70.8% in 2013, while total breastfeeding rates less than a month after birth rose from 26.6% in 1989 to 95.2% in 2013. In order to promote healthy growth and development in babies, we must continue to provide a comprehensive health care system, as well detecting and treating abnormalities as early as possible. For this, we have stipulated the following important target indices.

Target Indicators

- 1. Screen more than 99% of newborns for congenital metabolic disorders every year.
- 2. Raise the utilization rate of children's preventive health care services to 85% or above; have more than 98% of infants less than 1 year old using such services at least once.
- 3. Breastfeeding Rate: according to suggestions from the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), exclusive breastfeeding is recommended up to 6 months of age, with continued breastfeeding along with appropriate complementary foods up to two years of age or beyond. The HPA aims to push Taiwan's rate of breastfeeding exclusively children under 1 month old in up to 72% in 2013.

Policy Implementation and Results

The health of the nation's next generations – infants and children – constitutes a multifaceted, complex challenge. When stipulating policies, emphases must be placed on integrating resources to form a comprehensive care and service system, while also taking into account the special characteristics 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 29th, 2006, the Department of Child Health Promotion established 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 missions include drafting policies related to child health and safety; promotion of public awareness of child health issues; and developing pediatric technologies.

2. Provision of Comprehensive Health Care Services

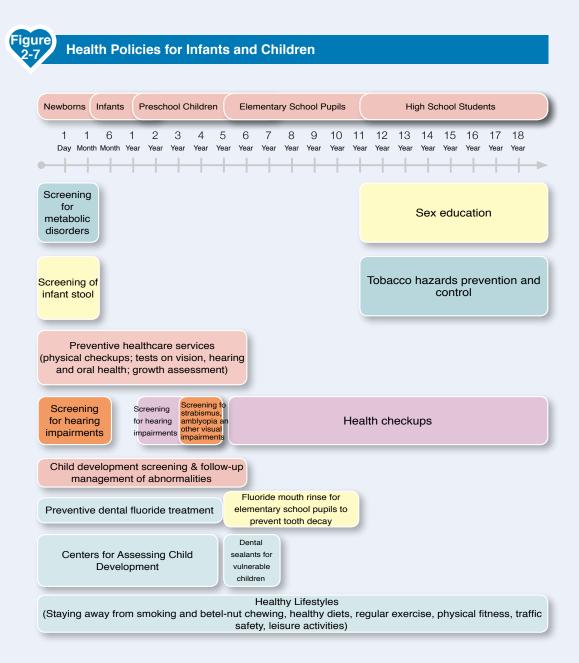
A summary of Taiwan's major policies regarding children's healthcare is presented in Figure 2-7. The service contents are as follow:

(1) Implementation of the birth reporting system

Since 2004, all hospitals equipped with delivery wards have been incorporated into an online birth reporting system. Birth data reported to the system finds its way to the Department of Household Registration, Ministry of the Interior, sorted by nationality. The latter in turn passes the data on to the National Immigration Agency, and to local household registration agencies. The purpose is to make sure that local health and household registration agencies are able to get hold of birth data quickly and accurately, especially data which relates to high-risk newborns (including those with birth defects), so that all necessary services can be provided in time. In order to ensure the system being better protected against hacking, Taiwan's online birth reporting system has now been bolstered by a unique Healthcare Certification Authority program. In 2013, the online birth reporting system registered a total of 197,502 births, of which 195,251 were live births (hence a live birth rate of 98.86%); there were 2,251 stillbirths (a still birth rate of 1.14%). The online birth reporting rate was 99.9%. The data and statistics collected and compiled can certainly serve as reference for policies, strategies and services in the areas of reproductive health and care.

(2) Provision of screening services for newborns

Newborn Congenital Metabolic Disorders screening services have been available nationwide since 1985. Alongside a screening rate of over 99% in the past few years, proper treatment and counseling is provided in the event



of confirmed abnormalities to keep any sequelae to a minimum. In 2013, a total of 195,032 newborns underwent screening (a screening rate of 99.8%). 3,533 people tested positive for G6PD-deficiency, commonly known as favism; 267 people tested positive for congenital hypothyroidism; 5 people tested positive for congenital adrenal hyperplasia; 8 people tested positive for phenylketonuria; ,1 person tested positive for medium-chain acyl-CoA dehydrogenase deficiency, 6 people tested positive for methylmalonicacidemia; There were no detections of Type 1 glutaric academia, homocystinuria, maple syrup urine disease, galactosaemia; isovaleric acidemia (Table 2-3).

(3) Provision of Preventative Health Care for Children

The HPA subsidizes preventive healthcare services for children under age 7 through medical institutions contracted under the national health insurance program. The objective is to provide cohesive, continual health management and healthcare guidance and to offer early treatment if any abnormality is detected. Since 2002, the utilization rate of this service has hovered at around 70%. In 2013, approximately 1,170,000 people used this service; The average utilization rate was 82.1%. The rate of infants less than one year old who used this service at least once a year reached 97.6%. The HPA is

keen to further enhance the use and quality of preventive healthcare services 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 HPA authorized county and city public health agencies to offer preventive healthcare services to kindergarten and preschool children. In addition to monitoring and analyzing what the services might have accomplished, they also helped to 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) Commissioning a "Child Development Assessment Center" in Hospitals

To offer accurate accessible and comprehensive services for developmentally delayed children, in addition to establishing one Child Development Assessment Center in each county and city starting in 2010, the HPA has also established Child Development Assessment Center depending on the number of inhabitant's under the age of 6 and distribution 1 to 4 centers of medical resources in each county and city. In 2013, this number has increased to 45 Centers for Assessing Child Development in total.



Incidence Ratio and The Number of Abnormalities Detected among Newborns in 2013

Items of screening	Incidence	Number of abonormalities
Glucose-6-Phosphate dehydrogenase deficiency $(G-6-PD)$	1 : 51	3,533
Congenital hypothyroidism (CHT)	1:1,027	267
Congenital adrenal hyperplasia (CAH)	1:15,032	5
Phenylketonuria (PKU)	1:24,021	8
Homocystinuria (HCU)	0	0
Isovaleric acidemia (IVA)	1:308,395	0
Maple syrup urine disease (MSUD)	1:106,225	0
Galactosemia (GAL)	1:177,041	0
Methylmalonic acidemia (MMA)	1:73,540	6
Type 1 glutaric acidemia (GA 1)	1:119,503	0
Medium-chain acyl-CoA dehydrogenase deficiency (MCAD)	1 : 956,023	1
Total		3,820

(5) Commissioning the Child Development Assessment Center Service Quality Management and Information Systems Establishment Plan

In order to improve the quality of service at Child Development Assessment Centers, in 2013 the HPA invited experts in the fields of late development assessment, intervention, society, politics, and special education to revise up operation standards for the centers, and to provide field training at 23 assessment centers. They held a meeting on 'Family-centered Service Models for Late Developing Children,' discussing education, training and operations, and sharing their experiences in the area. They also established a service quality management information system for Child Development Assessment Centers.

(6) Creating a Friendly Environment to Increase Breastfeeding Rate

A. The HPA implements a mother and baby friendly hospital accreditation system in order to foster positive changes at hospitals. In particular, hospitals are told to stop offering complementary foods for free or at a

Table 2-4

The Number of Accreditation of Baby-Friendly Hospitals

年	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Number of certified hospitals	38	58	74	77	81	82	94	94	113	144	158	163	176
Rate of exclusive breastfeeding for babies under 1 month (%)	-	-	-	46.6	-	-	-	62.7	64.4	65.7	68.6	71.9	70.8
Rate of exclusive breastfeeding for babies under 6 months (%)	-	-	-	24.0	-	-	-	35.1	41.2	44.5	45.6	49.6	48.7
Coverage rate of certified hospitals (%)	-	-	-	39.2	40.8	41.3	47.4	46.3	53.9	67.2	71.4	75.1	79.2

discount so that breastfeeding can be taken as the norm, and newborns can have the best possible start in life.In 2001, a total of 38 medical institutions were certified as baby-friendly hospitals. The number had increased to 176 by 2013. These baby-friendly hospitals covered 79.2% of total births in Taiwan in 2013, a big jump from 39.2% in 2004 (Table 2-4). During this same period, rates of breastfeeding exclusively babies aged under 1 month rose to 70.8% in 2013, up from 46.6% in 2004; the exclusive breastfeeding rate for babies aged under 6 months increased from 24.0% to 48.7%.

B. The HPA continued to reinforce cross-sectoral coordination to make workplaces as breastfeeding-friendly as possible. In particular, the HPA joined forces with local public health authorities to help companies set up breastfeeding rooms. In 2013, we 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 on prevention and control of sexual harassment. These sessions were also intended to foster a working environment suitable for breastfeeding mothers.

(7) Implementing the Public Breastfeeding Act

- A. In 1989, the WHO and UNICEF issued a joint declaration protecting, promoting, and supporting breastfeeding. In 1990, we saw breastfeeding further cited as a key indices 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 order to protect the rights of mothers to breastfeed in public places, Taiwan implemented the 'Ordinance on Breastfeeding in Public Places' on the November 24th, 2010, which stipulates that no person can prohibit or prevent a mother from breastfeeding in a public place, or force her to leave for doing so. The ordinance also specially stipulates that public places should be equipped with breastfeeding rooms and clear signage. Moreover, on December 3rd, 2013, it was officially stipulated that trains (both regular and high-speed) should be equipped with breastfeeding rooms; these regulations will come into effect on the December 3rd, 2015 for regular trains, and December 3rd, 2016 for high-speed trains. A total of 1,969 public places across Taiwan were equipped with breastfeeding rooms by 2013, in accordance with these new regulations.

3. Countermeasures to Rectify Sex Ratios 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 the many social complications that may arise from a drastic imbalance between the two genders in the population. In order to combat illicit abortions, the HPA and two other Department of Health subsidiaries-the Department of Medical Affairs and the Food and Drug Administration jointly established 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 sale in Taiwan. The Department of Medical Affairs is charged with regulating sex selection undertaken by private laboratories or biotechnological ventures, in accordance with the Medical Technicians Act. On January 13th, 2011, a new decree went into effect: any prenatal sex selections as part of diagnosis of non-gender-related genetic diseases and any medically induced abortion performed only because of the unborn baby's sex is considered a crime under Paragraph 1, Article 28-4 of the Physicians Act. 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 to NT\$500,000. Serious offenders may even have their physician's license revoked.

In addition, restrictions have been imposed on technologies that may dictate the gender 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 to 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 will not be able to reapply for a new permit until two years later. To effectively address the sex imbalance among newborns, the HPA has repeatedly instructed medical institutions "Either to conduct prenatal sex selection in diagnosis of non-gender-related genetic diseases or to do so upon the request of the expectant mother and her relatives, let alone perform a medically induced abortion on gender 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 non-gender-related genetic diseases constitutes illegal and improper behavior as outlined in Paragraph 36, Article 2 of the Medical Technicians Act.

Aside from setting and enforcing the aforementioned laws and regulations, the HPA monitors sex ratios at birth recorded by medical institutions and midwives on a regular basis, and is working to improve monitoring and detection of illegal activity. The HPA established a gender ratio monitoring mechanism in 2010, which makes use of gender ratio data from hospitals to provide guidance for prenatal checks and hospitals. The mechanism brings together local health bureaus to survey midwives and hospitals, as well as disseminating laws and regulations, and also roots out any illegal advertising of gender screening before birth. Finally, this mechanism strengthens the public dissemination capabilities of local health bureaus, has established a reporting window in every local bureau, and works to revise and improve related regulations.

Thanks to the hard work of those involved in the aforementioned areas, Taiwan's gender ratio at birth fell to 1.079 in 2011 from 1.090 in 2010. The ratio fell further in 2012, to 1.074. From a high of third in the world in 2003, Taiwan's sex ratio at birth had fallen to 15th place by 2012. The ratio only rose in 2013, to 1.078. The HPA will continue management of reagents and equipment for examinations, and will persist with efforts to inform and influence the public, in the hope of improving Taiwan's sex ratio at birth and tackling gender discrimination, thereby helping to achieve equality between the genders.





Section 3 Adolescent Health

Adolescent Sexual Health

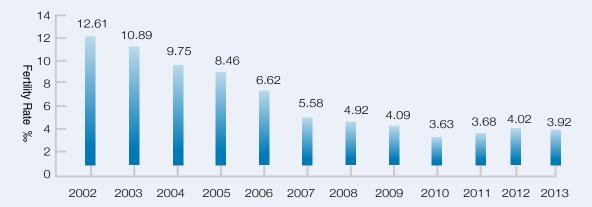
Status Quo

As 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 attitudes to sex and pregnancy, random abortions and venereal diseases. In a 2013 HPA health behavior study of high school and vocational school students, 9.3% of male respondents aged 15-17 and 11.1% of female respondents aged 15-17 said they had engaged in sex. Among these students, 83.3% of male respondents and 86.6% of female respondents said they used birth control in their most recent sexual encounter. By comparison, in 2011, 12.9% of males aged 15-17 and 8.8% of females aged 15- 17 said they had engaged in sex, while 74.4% of males and 77.5% of females said they used birth control in their most recent sexual encounter. These results show that the overall rate of sexual activity among 15-17-year-old students dropped in the last 2 years, while the prevalence of birth control in the students' most recent sexual encounter increased. Ministry of the Interior population data from 2013 showed the fertility rate of teenage females aged 15-19 in Taiwan was 3.92 per 1,000, a significant drop compared to 12.61 per 1,000 in 2002 (see Figure 2-8). The 2013 fertility rate among this age group in Taiwan was lower than the United States (39 per 1,000), the United Kingdom (25 per 1,000), Australia (16 per 1,000), Sweden (6 per 1,000), and Japan (5 per 1,000), but it was higher and South Korea (2 per 1,000).

Premature sexual activity tends to result in unexpected pregnancies among adolescents, who are neither financially nor physically stable; pregnancy can impact upon career development, while teenage pregnancy also impact negatively upon the development and family environment of the children involved. This stands out as an adolescent health issue not to be taken lightly.



Adolescent Fertility Rate in Taiwan, 2002~2013



Target Indicators

- 1. Reduce the adolescent fertility rate among girls aged 15-19 by 0.05% annually.
- 2. Raise the use of contraception among teenagers by 1% annually.

Policy Implementation and Results

Subtle physiological and psychological changes take place as one move from adolescence into adulthood. At this point, it is crucial that qualified professionals provide teenagers with comprehensive services for both physical and mental health, diagnosis and treatment, referrals and counseling, and they express genuine concern over their wellbeing. This 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 HPA and what they have achieved so far:

1. Video Counseling for Adolescents

A website (http://www.young.hpa.gov.tw) was established provide teenagers with all the formation they need relating to sexual health. According to statistics for 2013, a total of 133,697 visitors browsed the website. The "Secret Garden", a webpage that provides video counseling on adolescent sexual health, has served a total of 3,248 visitors.

2. Adolescent Sexual Health Promotion Consultation Service Plan:

With blogs, and the telephone also serving as platforms for counseling, teenagers are referred to psychiatric counselors or medical institutions as needed. In 2013, 105 guidance lectures were held at 112 schools in 19 counties and cities, with a total of 16,438 students attending.

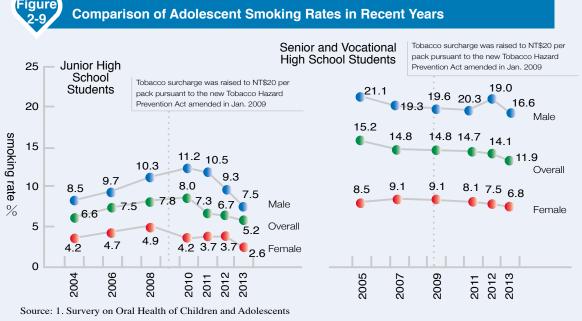
Adolescent -Friendly Medical Professionals/Outpatient Services

The HPA has teamed up with 45 medical institutions from Northern, Central, Southern, and Eastern Taiwan to introduce the "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. In 2013, the service helped a total of 6,402 cases.

Tobacco Hazards Prevention on Campus

Status Quo

In 2013, the smoking rate among Taiwan's junior high school students was 5.2% (7.5% for males and 2.6% for females). A further breakdown shows that the higher the grade, the higher the rate: 3.0%, 5.7% and 6.5% among seventh, eighth and ninth graders respectively. Compared to the findings of the World Health Organization's Global Youths 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%), New Zealand (17.6%), Malaysia (20.2%), Russia (25.4%), and South Korea (8.8%). On the other hand, smoking rates among Taiwan's senior and vocational high school students reached 11.9% in 2013 (16.6% for males and 6.8% for females), showing a gradual downward trend (Figure 2-9). Teenage smoking remains a problem not to be taken lightly.



2. Definition of smoking:trying a cigarette within the last 30 days even if just one or two puffs

Target Indicators

In 2013, reduce the smoking rate among male students in junior high school to less than 10.5%, and the smoking rate among male student in senior and vocational high school to less than 20.3%.

Policy Implementation and Results

- 1. The HPA collaborated with the Ministry of Education to promote and implement the "Tobacco Hazards Prevention in Schools Plan." We emphasized strategies in tobacco hazard prevention education, promoting a tobacco-free campus environment and education on quitting smoking. We also cooperated with the Ministry of Education and local governments in conducting random inspections of tobacco hazards prevention in schools; the schools that were prosecuted were the primary subjects of inspection. Upon the recommendations of visiting committee members, the local governments and schools in question were asked to make improvements. We hope to lower smoking rates among students and educators, as well as students' exposure to second hand smoke on campus.
- 2. We cooperated with local health department and integrated community resources through promotional activities and subsidies of community health plans. We worked with NGOs and community volunteers to monitor shops around schools, to stop illegal sale of tobacco to minors, thus maintaining adolescent health and preventing harm from tobacco. In addition, we continued to utilize a disguised method of inspection to monitor refusals of sale of tobacco to minors. We then published the results of these inspections, from local governments and convenience stores, in order to encourage competition and improvement. According to Article 12 of the Tobacco Hazards Prevention Act, which stipulates that people under 18 are prohibited from smoking, a total of 2,584 people were fined in 2013. A total of 2,559 quitting smoking courses were completed, and continue to be implemented.
- 3. Facing the consistently high smoking rates among young people in Taiwan, the HPA specially invited the singer Jam Hsiao, who went off the rails as a teenager, to visit schools as an anti-smoking ambassador. We also shot public welfare adverts and anti-smoking short films, to encourage students to follow Jam Hsiao in rejecting tobacco within and outside school. We aim to imbue every student with this attitude, and help the nation's youth in rejecting tobacco together.
- 4. In order to encourage an anti-smoking stance among young people, the HPA held the 'Smoke-Free Life Design Award' in 2013, with the theme 'We Are Cool, NO SMOKING!' We collected short films, posters, slogans and other works about rejecting and quitting smoking, and published them on Facebook, YouTube and other social networking sites. The competition received a total of 2,883 entries.
- 5. In the future, we will continue to carry out inspection of anti-smoking work in schools through concrete objectives, guidance and assessments. We will continue to educate seed instructors on campus from all counties and cities regarding smoking cessation education, expand the scope of anti-smoking publicity campaigns, creat smoke-free campus environments, and implement smoking cessation education, in order to optimize anti-smoking work in schools.

Section 4 Vision, Hearing and Oral Health

Optical Health Care

Status Quo

In Taiwan, myopia is a major concern among children. A 2010 survey showed that the percentage of first graders with myopia rose to 21.5% in 2010, which was 1.9% higher than that of 19.6% in 2006, while that among six graders increased to 65.8% from 61.8%. According to an earlier survey conducted in 2006, the upward trend in the percentage of Taiwan's elementary school pupils suffering from myopia (-0.25 diopters or less) seemed to have eased somewhat. But the percentage of students 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 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.

Target Indicators

- 1. Medium-term Goal (2020): Reduce the prevalence of myopia among elementary school students to the level of year 2010 in which the percentage of first graders and six graders with -0.5 diopters or more was 17.9% and 62%.
- 2. Long-term Goal (2025): Keep implementing the evidence-based approach and building cross-sector collaboration to promote vision health and myopia prevention for young pupils, and evaluate the effectiveness of visual surveillance.

Policy Implementation and Results

In order to ensure early detection and treatment of visual impairments, the HPA 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 optical health be maintained. Separately, the HPA 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 can easily lead to high myopia later in life. All in all, the HPA 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, in undertaking publicity campaigns, education and screening, and referrals. A summary of the strategies adopted and their achievements follows:

- 1. Vision Health Services for Pre-School Age Children
- (1) The HPA offers various preventive healthcare services relating to children's vision health. Pediatricians and 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 Rrandom dot Stereograms.
- (2) To ensure early detection and treatment of such visual impairments as strabismus and amblyopia, the HPA offers screening services to pre-school age children aged 4-5. Referrals and consultation are provided when warranted. A total of 359,154 children were screened in 2013, with a 98.9% tracking rate for abnormal cases.

Table 2-5

The Percentage of Students Aged 6-18 with Myopia

Year	1986	1990	1995	2000	2006	2010	(%)
Grade	(%)	(%)	(%)	(%)	(%)	≦-0.25D	≦-0.50D
First Grade	3	6.5	12.8	20.4	19.6	21.5	17.9
Sixth Grade	27.5	35.2	55.8	60.6	61.8	65.8	62
Ninth Grade	61.6	74	76.4	80.7	77.1	-	-
12th Grade	76.3	75.2	84.1	84.2	85.1	-	-

Sources: HPA-commissioned epidemiological survey on refractive errors among children and teenagers aged 6-18, conducted every five years; in rates of myopia prevalence 1986-2006, myopia is defined as \leq -0.25D



The Prevalence of High Myopia Around the World

Region	Age	Prevalence
Sweden (2000)	Whole population	2.5
Singapore (2001)	University students	15.0
Taiwan (2006)	18 years	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.

- 2. In order to promote vision health for young pupils, the HPA builds cross-sector collaboration as well as implements the evidence-based approach to carry out health education programs, vision screening services, and scientific studies.
- 3. We conducted the "Intervention program for vision care in lower grade schoolchildren" plan, in hope to get the evident results of basic intervention.
- 4. We continued to conduct publicity activities in health promotion and myopia prevention. We created guidance tapes promoting 2~3 hours of daily outdoor activity, to be broadcast on mass public media. These productions also propagated advice such as the fact that children who under age 2 should avoid looking at screens; children should not sit close to screens for long periods of time; and children should rest for 10 minutes for every 30-40 minutes spent looking at a screen. We added visual health education information in new versions of children health manuals. We worked with parents to teach them how to test their children's vision and record eye protection efforts. Through health education provided by pediatricians, we reminded parents to attach great importance to the visual health of their children.

Hearing Health

Status Quo

Hearing ability plays a vital role in children's linguistic development, while hearing loss impacts on both language learning and children's ability to communicate with the outside world, as well as potential implications for later cognition, socialization and mental health. Research shows that out of 1,000 newborn babies, approximately 3-4 of them are diagnosed with congenital hearing loss. Babies with congenital hearing impairment who receive treatment within 6 months due to early detection through newborn hearing screening, should in the future exhibit linguistic development, knowledge, and communication skills equivalent to normal children. However, hearing impairment in children is not easily detected, because they cannot express themselves, and parents usually neglect this area. Hearing screening is an effective method of detecting hearing impairments in children. In 2007, the participation rate of newborn hearing screening was 28.70% in Taiwan. This had increased to 97.8% by 2013. Hearing screening rates for pre-school age children rose from 30.3% in 2002 to 81.6% in 2013.

Policy Implementation and Results

- 1. Since 2010, the HPA has provided subsidies for hearing screening within three months for newborns from low income families. On March 7th, 2012, we announced the "Newborn Hearing Screening Subsidy Project." From March 15th 2012, all babies can receive hearing screening within three months of birth, with a subsidy of NT\$700 available for each. In 2013 a total of 310 hospitals provided this screening subsidy. This covered 97.8% of total births, and the screening rate was 97.3%. A total of 190,003 babies underwent screening. 684 babies were diagnosed with hearing impairments.
- 2. In order to improve the quality of hearing screening for newborns, we conducted three newborn hearing screening seminars across Taiwan. A total of 293 people participated. Three Newborn Hearing Diagnosis Seminars were also conducted in Northern, Central, and Southern Taiwan. A total of 132 people participated.
- 3. The HPA also conducted the Hearing Screening Plan for Pre-School Age Children, conducted in communities or kindergartens. In 2013, 138,197 children were thus screened. The screening rate was 81.6%, and the re-check rate was 97.6%.

Oral Health

Status Quo

According to surveys conducted in recent decades, Taiwan's DMFT index (number of tooth decayed, missing or filled teeth) among children of 12 rose to 5.0 in 1990 from 3.8 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 funds for promoting children's oral health in 1991. The new policy paid off. The DMFT index fell to 3.7 in 1996, 2.58 in 2006, and 2.5 in 2012 (Figure 2-7). Taiwan has already achieved the WHO 2000 target of a DMFT index below 3, but comparison with the 2011 world average of 1.67 (among 189 countries) shows that there is still much work to be done. A comparison of MFT readings of various countries is shown in Table 2-8.

In Taiwan, periodontal disease is a common threat to oral health. In more serious cases, it can 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. Quality of life is also affected. According to HPA's nationwide survey conducted in 2008, 54.2% of people aged 35-44 were found to have developed periodontal pockets (CPI scores of 3-4). It also showed that prevalence of the disease increased with age, with males more vulnerable than females. Listed in Table 2-9 are prevalence rates of periodontitis in various countries among people at age 35-44.

Target Indicators

- 1. Reduce tooth decay rates among 5-year-old children from 79.3% in 2011 to 40% by 2020.
- 2. Reduce DMFT index among 12-year-old children from 2.5 in 2012 to 1.3 in 2020.
- 3. Have over 50% of children aged 3-4 undergo fluoride treatment at least once.

Policy Implementation and Results

1. Reducing rates of tooth decay among children

(1) Free Professionally Applied Fluoride Treatment for Children Aged under Six

The World Health Organization considers fluorides the safest and most economical and effective means of preventing tooth decay. The majority of medical literature also points to the conclusion that application of fluoride gel can reduce the likelihood of tooth decay in children by 28%. Since July 2004, children under age 5 have been provided with fluoride treatment, an oral checkup, and oral hygiene education for free. In June 2013, the program was expanded to cover all children under six, while children under the age12 from underprivileged backgrounds (including low-income families, the physically or mentally disabled, and those from indigenous areas, remote areas or outlying islands) are provided with one fluoride treatment every three months. Services were provided a total of 669,250 times in 2013. 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. Extra 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) Nationwide fluoride mouth rinse program for elementary school pupils

Since 2001, the HPA has implemented a plan to provide fluoride mouth wash for elementary school students. We have also conducted studies of schoolchildren's oral health, as well as the potential for 'oral health teams' in school, as well as training for dentists and school nurses. In 2013, services were provided at 2,669 schools, benefiting approximately 1.37 million children. This helped reduce the DMFT index among 12-year-old children to 2.5 in 2012, from 3.31 in 2000. We also cooperated with dentist unions in all regions, to assist dentists who go to schools to monitor the implementation quality of these plans, as well as promotion of tooth cleaning after meal, and educational guidance activities relating to prevention of tooth decay and oral health in general.

(3) Cavity and fissure sealant subsidies for disadvantaged children

The widespread use of fluoride mouth rinse among elementary school pupils has had little effect on preventing cavities and fissure caries on the chewing surface of children's teeth. By contrast, cavity and fissure sealants can reduce the likelihood of these dental caries by 57%. For this reason, the HPA 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. 2012, the cavity and fissure sealant service was expanded to first and second grade elementary school students on outlying islands, 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. A total of 8,089 children benefited from this service in 2013.

2. The workplace-based oral health care intervention model

In 2013, oral health care and education training were held in Northern, Central and Southern Taiwan. This training included: managers and administrative staff, and factory nurses and volunteers. We also analyzed changes in awareness of the attitude to oral health care, as well as the state of oral health.



DMFT Index of Children at Age 12 in Taiwan in Recent Years

	DMFT index		Prevalence	rate (%)	Treatment rate (%)	
Year	7 years old (milk teeth)	12 years old (adult teeth)	7 years old (milk teeth)	12 years old (adult teeth)	7 years old (milk teeth)	12 years old (adult teeth)
1981	7.83	3.76	96.6	85.1	0.6	14.0
1990	7.28	4.95	96.0	92.0	4.52	12.0
1996	5.53	3.67	85.1	85.0	15.5	28.7
2000	5.29	3.13	89.6	66.5	39.2	54.3
2006	5.23	2.58	59.6	37.3	58.3	60.0
2012	5.9	2.5	88.2	70.0	30.6	69.1



DMFT Index of Children at Age 12 by Country

Country	Year	DMFT index
Taiwan	2012	2.5
USA	2004	1.19
Japan	2005	1.7
South Korea	2010	1.9
Hong Kong	2011	0.4
Netherlands	2002	0.8
Singapore	2002	1.0

Source: WHO Oral Health Country / Area Profile Programme



Prevalence of Periodontitis Among People Aged 35-44 by Country

Nation	Year	Prevalence Rate%
China	1997	36
Hong Kong	1991	74
Japan	1992	56
Australia	1996	37
New Zealand	1989	48
Norway	1983	65
Italy	1985	48
UK	1988	75
France	1989	23
Germany	1997	46
Canada	1995	73
Taiwan	2008	54

Source: WHO Oral Health Country $\ /\$ Area Profile Programme





Healthy Living

Healthy Living

According the WHO's 2011 report, the four major non-communicable diseases (cancer, diabetes, cardiovascular disease, and chronic respiratory disease) now account for approximately 63% of deaths worldwide (or 2/3). In Taiwan, the figure is near 6 out of 10 (58.4%). Smoking, lack of exercise, unhealthy diets and excessive alcohol consumption are the 4 major common risk factors behind the major non-communicable diseases. Each of these 4 risk factors depends on an individual's behavior; changes can only come from promoting healthy lifestyles, reinforcing health education and publicity, and coordinating with civil forces to create a comprehensive healthy environment which supports public study of health, healthy choices and healthy lifestyles.

In the aspect of tobacco control, the HPA is continuing to implement the Smoking Hazards Prevention Act, and has successfully kept exposure rates of second-hand smoke in smoke-free places below 10%, as well as helping to create smoke-free environments in communities, campus, hospitals and military units. Meanwhile, we also offer a diverse range of smoke cessation services, such as the Second Generation Smoke Cessation payment scheme, free smoke cessation hotlines, smoke cessation classes, and a smoke cessation app. Enabling access to services such as medication and health education ensures that all kinds of people, as well as disadvantaged groups, are able to access help with smoke cessation and successfully free themselves from the hassles of tobacco craving.

As in the aspect of obesity prevention, the HPA has cooperated with local health bureaus and other departments to promote a healthy weight management plan for the entire population, which encourages study and implementing a healthy lifestyle of 'smart eating, happy exercises and daily weighing.' We have also improved public understanding of calories and nutrition through health education publicity programs, as well as inspecting and improving aspects of living environments likely to lead to obesity. Healthy environments in hospitals, schools, workplaces and communities can encourage healthy diets, regular exercise among the public, helping them to avoid the threats of obesity and future chronic diseases.

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

Section 1 Tobacco and Betel Quid Hazards Prevention and Control

Tobacco Hazards Prevention and Control

Status Quo

More than 5 years have passed since new regulations under the Tobacco Hazards Prevention Act went in effect on January 11th, 2009. The Act focused on expanding the smoke-free environment, such as indoor public spaces and indoor workplaces with three or more people. As relevant surveys and statistics reveal, exposure rates of the general public to second-hand smoke in public places dropped from 23.7% in 2008 to 9.2% in 2013; which means the protection from second-hand smoke rose to 90%. In the meantime, smoking rate of adults aged over 18 years has dropped from 21.9% in 2008 (38.6% among males, 4.8% among females) to 18% in 2013 (32.5% among males, 3.3% among females), a drop of more than 10% (see Figure 3-1). It is estimated that in the past five years, the smoking population shrunk by around 540,000 smokers. Smoking rate among senior and vocational high school students has dropped from 14.8% in 2007 (19.3% among males, 9.1% among females) to 11.9% in 2013 (16.6% among males, 6.8% among females), while the smoking rate in junior high school students dropped from 7.8% in 2008 (10.3% among males, 4.9% among females) to 5.2% in 2013 (7.5% among males, 2.6% among females). (For detailed statistics on smoking rates among high school

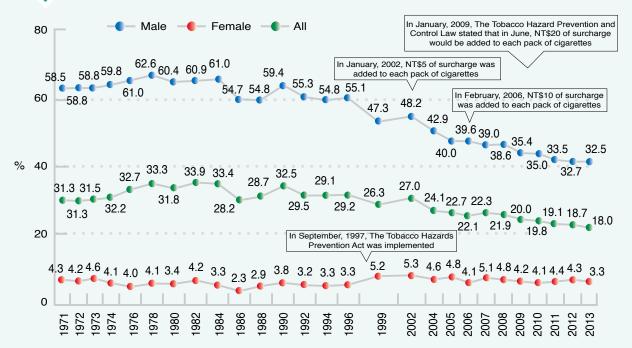
students, see Section 3, Chapter 2.)

In order to lower smoking rates even further, and in accordance with WHO suggestions, raising the price of tobacco is the most effective tobacco control strategy. The 2012 Map of Average Tobacco Prices published by the World Lung Foundation and American Cancer Society reveals that the average tobacco price in Taiwan is NT\$70, lower than \$77 in Thailand and \$99 in Malaysia, and similar to \$68 in Mainland China. However, prices in more advanced countries, such as \$453 in Norway, \$328 in Ireland, \$311 in New Zealand, and \$279 in Singapore, are around 4 to 6.5 times higher than in Taiwan. Adjusted by purchasing power parity, price in Mainland China is more expensive than that of Taiwan. Excessively low cost of tobacco in Taiwan contributes to the high smoking rate among men and disadvantaged groups. The HPA has sought the opinions of experts in various fields to conduct evaluation and adjustment of tobacco surcharges and stipulate more complete measures, in order to reach the goal of reducing the smoking rate in 2020.

The HPA is continuing to promote Second Generation Cessation Payment Scheme, and is training specialist staff in smoking cessation education. We conducted face-to-face cessation education and case management services. Intergration of local resources allowed teams to be assigned to workplaces, schools, and other facilities to provide cessation health instruction, couseling and education. Impostion of the health and welfare surcharge, the HPA has effectively improved smoke cessation success rates, and has enhanced inspection of traditional stores and betel nut stalls to detect illegal supplying of tobacco products. We try to cut off sources of tobacco products from adolescents who are under 18. The administration will continue to work with a wide range of groups to support year-round promotions, tobacco-free and supportive environments.

The HPA's main tasks in 2013 included: 1. Continuous Implementation of the Tobacco Hazards Prevention Act; 2. Creation of smoke-free supportive environments; 3. Provision of diverse smoking cessation services; 4. Surveillance and research; 5. Personnel training, Details are as follows:

Smoking Rates Among Adults over 18 years of age



- 1. Data from 1971-1996 is from the Taiwan Tobacco and Wine Monopoly Bureau.
- 2. Data from 1999 is from Professor Lee Lan.
- 3. Data from 2002 is from the HPA's Survey on Citizen's Knowledge, Attitude, and Behavior Regarding Health Promotion.
- $4.\ Data$ from 2004-2013 is from the HPA's Adult Smoking Behavior Survey.
- 5. For 1999-2013 data, current smokers were defined as those who had smoked more than 100 cigarettes (5 packs) and had smoked within the past 30 days.
- 6. Taiwanese census data collected from Directorate General of Budget, Accounting and Statistics in year 2000 was weighted and standardized according to sex, age, educational level, and geographic region to calculate adult smoking rate from year 2004 to 2013.

Target Indicators

Reduce the smoking rate of adults over aged 18 to below 18.0% in 2013.

Policy Implementation and Results

1. Continued Enforcement of the Tobacco Hazards Prevention Act

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

- (1) Local health bureaus in each county and city have been actively implementing inspection training, and in 2013, a total of 730,000 institutions were inspected over 5.31 million times. 7,582 disciplinary actions were opened, with fines worth a total of over NT\$34.59 million collected over the course of the year. Of these disciplinary actions, 12 involved violations of Article 9 of the Act, which bans sales promotion of tobacco products; fines relating to this offense totaled over NT\$10 million.
- (2) By holding research camps, seminars, and training classes, and by compiling handbooks on compliance with the law, the HPA has improved the quality of tobacco prevention professionals' work. We also provided education and training for tobacco prevention volunteers.
- (3) The HPA provides the 'Tobacco Hazards Consultation and Violations Reporting Hotline' 0800-531-531, to deal with public inquiries and reports relating to the Tobacco Hazards Prevention Act. In 2013, the Hotline dealt with approximately 4,442 public enquiries and 566 complaints, all of which were passed on to the relevant local health bureau to be dealt with fully.

2. Creating Supportive Tobacco-Free Environments

Tobacco control involves not only reducing the exposure rate to second-hand smoke but also smoking rate. To help people stay healthy, the HPA contributes to supportive tobacco-free environments in the community, restaurants, campus, workplaces, and in the armed forces. It also promotes tobacco hazards prevention through multimedia education and events.

(1) Promoting Tobacco-Free Environments in Various Places

A. School Campuses

In view of a gradual trend for smokers to begin at ever younger ages in Taiwan, the HPA has conscientiously persisted in promotion of the 'Tobacco hazard and control work plan for young gropus of people.' 246 people participated in a total of study camps at 57 schools; in addition to face-to-face lectures with instructors, and helped the students and benefited subsequent implementation of the plan.

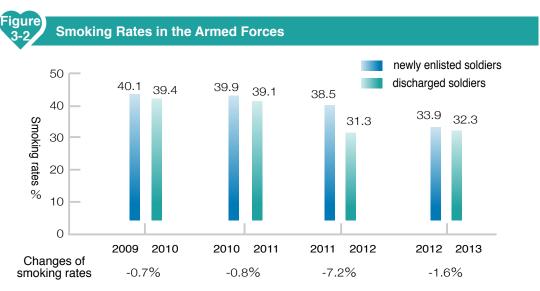
B. Communities

The HPA subsidized the development of community health plans across Taiwan which promotes tobacco control in their communities. Smoking cessation messages are disseminated in these communities through LED displays, posters, cloth hangings and notice boards, which also aim to create no-smoking areas, and provide a channel for education of youths in the prevention of smoking. We have also provided guidance for shops in communities and within 1 kilometer of elementary schools and junior high schools in refusing sale of tobacco products to minors.

C. Military

The HPA and the Medical Affairs Bureau of the Ministry of National Defense, through the command headquarters of the military, 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. In the area of smoking cessation services, we

established quitting groups, based around doctors' services, and also provided training, evaluation and referrals to quitting coaches, whose skills will then filter down through the system. In 2013, we provided training to 270 'smoke cessation' doctors while 2,513 completed outpatient and follow-up services. 166 of these successfully quit smoking. We provided training to 355 quitting coaches and follow-up training for 9, 303 people. 73 people successfully quit smoking through this route. In terms of monitoring and research, smoking rates among newly enlisted members of the armed forces stood at 33.9% in 2012, which fell to 32.3% among those retiring from service in 2013 (Figure 3-2), demonstrating that the armed forces quitting programs are gradually beginning to produce some results.



Source: Ministry of National Defense, Integrated Tobacco Hazard Prevention Control Plan and Report.

D. Hospitals

In 2011, the HPA established the first Asia-Pacific Network as part of the ENSH-Global Network for Tobacco Free Healthcare Services. A total of 147 hospitals have joined the network by 2013. Also in 2013, there were 7 new Gold Forum member worldwide, 4 of which were in Taiwan, the country that had most members in the world.

(2) Multi-channel publicity for tobacco control

- A. In order to combat the consistently high rates of smoking among young people in Taiwan, the HPA specially invited the singer Jam Hsiao, who went off the rails as a teenager, to visit schools as an anti-smoking ambassador. We also shot public welfare adverts and anti-smoking short films, to encourage students to follow Jam Hsiao in rejecting tobacco within and outside school. We aim to imbue every student with this attitude, and help the nation's youth in rejecting tobacco together.
- B. In order to encourage a smoke-free stance among young people, the HPA held the "Smoke-Free Life Design Award" in 2013, with the theme "We Are Cool, NO SMOKING!" We collected short films, posters, slogans and other works about rejecting and quitting smoking, and published them on Facebook, YouTube and other social networking sites.
- C. According to the results of the 2013 "Health Topics Communication Effectiveness Evaluation and Tobacco Products Information Monitoring" research project, of those interviewed who came into contact with any 'health topics' communication programs, the highest proportion (86.5%) had encountered 'quit smoking guidance.'86% of those interviewed were highly satisfied with maintenance of indoor smoke-free environments, and over 50% were aware that the government provided services for smoke cessation.

3. Provision of diverse smoking cessation services

The WHO clearly recommends that smoke cessation is an important part of overall tobacco hazards prevention and control policy. It 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 expenditure. Those who quit smoking 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 of heart disease, stroke, cancer, or chronic respiratory disease. Smokers can obtain assistance from smoke cessation clinics, the free smoking cessation hotline, and special classes. In order to help smokers quit smoking and reduce disabilities, the HPA provides diverse smoke cessation assistance.

(1) Second Generation Smoke Cessation Payment Scheme

The HPA has promoted the Second Generation Smoke Cessation Payment Scheme since 2012. Nearly 2,500 hospitals, clinics and community pharmacies provide medical treatment services to aid quitting smoking; this medicine is subsidized by health and welfare subsidies, ensuring the price each time does not exceed NT\$200. This is suitable for low income households, aborigines, and people on outlying islands, as per the stipulation of social subsidy law. Some medical institutions and community services work with quitting professionals to provide special support and care to those who are willing. People for whom these drugs are unsuitable, such as pregnant women and adolescents, can all receive benefits. People can go online and search for medical institutes or community pharmacies that provide services (website: http://ttc.hpa.gov.tw/quit/). From the launch of these services in 2002 to 2013, 575,847 people benefitted from quitting smoking services. In 2013, a total of 96,924 people used the services a total of 279,770 times; the 7-day abstinence rate at 6 months stood at 28.9%.

(2) Smoke Cessation Hotline

The Taiwan Smokers' Hotline Project was launched in 2003 to provide convenient, confidential and accessible smoke cessation counseling from 9:00AM to 21:00PM, Monday to Saturday. Users can simply dial 0800-63-63-63 from a local landline, public phone or mobile for a toll-free service, where they can get in touch with professionals who provide one-on-one consultations to help callers develop a personal plan to quit. As of 2013, 812,480 calls had been made to the service. In 2013 alone there were 101,834 calls. The 6-month smoke cessation success rate was about 40.6%.

- (3) The HPA developed the 'Quit Smoking League' mobile app. Through instant messaging and m utual encouragement, quitters can help each other escape from the dangers of smoking and successfully kick the habit.
- (4) Quit Smoking Classes: In 2013, a total of 426 classes were held, with approximately 8,252 participants.

4. Research and Monitoring

The HPA has established long-term smoking behavior monitoring systems to determine the effectiveness of its tobacco hazards prevention work. These include "Adult Smoking Behavior Surveillance", "the Global Youth Tobacco Survey" and "the Global Schools Personnel Survey". Authorities also monitored nicotine, tar and carbon monoxide content in tobacco products. In 2013, the HPA also studied the effectiveness of its smoke cessation services, tobacco product ingredient reports, media promotion evaluation, drug information inspection, policy achievement evaluation, and policy evaluation.

As part of our "Tobacco Product Inspection and Research Development Plan," the HPA tested 45 domestic and imported products to measure the nicotine, tar and carbon monoxide contents in their mainstream cigarettes, as well as their concentration of heavy metals and N-nitrosamines. All of these samples were found to be in compliance with the Tobacco Hazards Prevention Act. The WHO's Framework Convention on Tobacco Control (FCTC) calls for disclosure of information about the toxic ingredients (including additives) of tobacco products and the emissions they may produce on tobacco company websites. In Taiwan, tobacco manufacturers and importers have been required to comply to these requirements since June 4th, 2009, in accordance also with the Tobacco Hazards Prevention Act. As of 2013, 121

business owners had submitted filings on 3,165 tobacco products. This data was collected together in a database and made available to the general public online.

5. Personnel Training

The HPA held Stage 2 of its local county and city tobacco hazards prevention practice exchange training workshop, with 182 people attending. 639 people completed were certified after taking our outpatients smoke cessation treatment medical training plan, while 439 dentists were similarly certified after completing our smoking cessation services training plan. 749 people completed and were certified after our health education personnel advanced training plan, along with 416 higher education students. 545 passed the advanced smoking cessation education services training plan for pharmacists, while 358 passed the high-level training. We also held courses in basic laws and intermediate training for 200 people, 52 of whom completed the training.

Betel Quid Hazards Prevention and Control

Status Quo

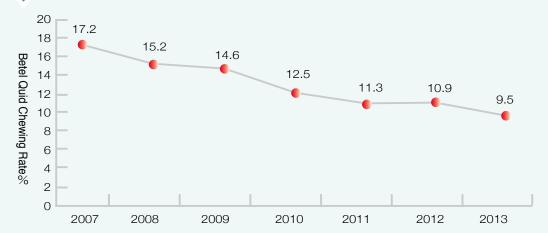
The International Agency for Research on Cancer has listed betel quid as a Group 1 carcinogen to humans. In Taiwan, betel quid chewing is a primary cause of oral cancer. Some 88% of oral cancer patients are found to have the habit of betel quid chewing. Compared to smoking and excessive use of alcohol,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

In Taiwan, there are around 940,000 regular betel quid chewers. The standardized incidence rate of oral cancer among males increased to 42% in the past 8 year and is a common threat to men at aged 25-44. To reduce the threat of oral cancer in Taiwan, a major publicity campaign was undertaken in 2013 that sought discourage people from chewing betel quid.

Success in getting men to quit betel quid has been achieved in recent years. From 2007 to 2013, Taiwan's overall betel quid chewing rate fell by 45% (Figure 3-3). Rates among junior high, senior high and vocational high school students remain the same have also fallen significantly, and data for recent years show declines of 21% and 30% (Figure 3-4). 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 cities posted much lower rates (Figure 3-5).



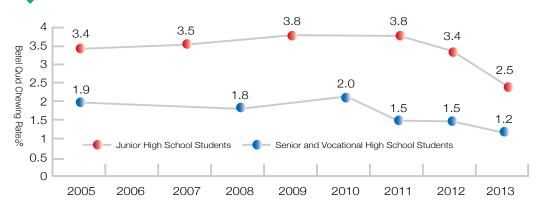
Betel Quid Chewing Rate Among Adult Males, 2007-2013



Betel Quid Chewing Rate: Refers to those who have chewed within the past 6 months.

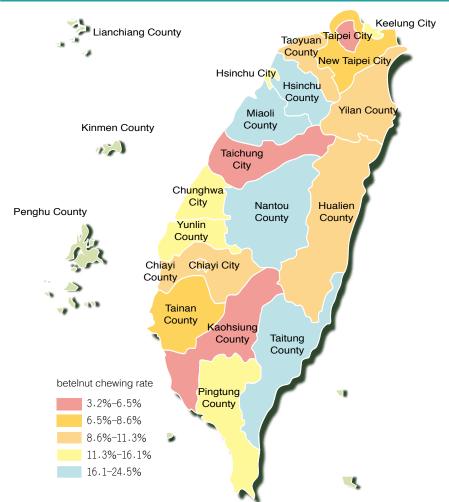
Source: Behavioral Risk Factor Surveillance System (BRFSS) Survey, Adult Smoking Behavior Survey.





Betel Quid Chewing Rate: Proportion that have chewed at least once in the past 30 days Source: Global Youth Tobacco Survey (GYTS)

2013 Betel Quid Chewing Rates Among Adult Males by County/City



Betel Quid Chewing Rate: Refers to those who have chewed within the past six 6 months. 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: the Program for Managing Problems Related to Betel Quid. In accordance with a proposal by NGOs, December 3rd designated as "No Betel Quid Chewing Day." In 2013, rigorous efforts were made by all levels and strengthen of government to reinforce 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 about fell to 9.5% in 2013; from 17.2% in 2007.

Target Indicators

In 2013, the betel quid chewing rate for adults over 18 years old is lower than 5.6%

Policy Implementation and Results

1. Publicizing the 'No Betel Quid Chewing' Message

(1) Adopting a Soft Approach and Having Patients Share Their Experiences

The HPA developed and produced a variety of promotional materials that feature the 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, these documentaries were played throughout 2013 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.





"The Lost Smile", a documentary on oral cancer patients

(2) Developing a Betel Quid Cessation Service System and New Awareness Channels

The HPA 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 towards betel quid chewing, the HPA has been distributing tissue boxes printed with oral cancer and betel quid warnings since 2007 at gas stations, for 5 consecutive years. 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 2013.



(3) Starting With Schools

In 2013, the HPA selected one junior and one senior high school in the two county and city with the highest prevalence of betel quid chewing (Kaohsiung City and Taitung County), and guided these schools to become the focal points for the county in establishing a model for a no-betel quid environment in schools and communities in the area. We aimed to create a no-betel quid environment for when students leave school. In addition, we conducted on-site investigations and field research in those administrative regions where the rates of chewing betel quid among students increased in 2012 (New Taipei City, Taichung City, Nantou County, and Changhua County). We investigated all levels of possible influence factors leading to the increase in betel quid chewing rates among young people, as well as potential strategies for improvement, which involved interviewing a total of 44 people. In addition, we held a total of 4 betel guid hazards education workshops in the Northern, Central, Southern and Eastern regions of Taiwan, where 193 people received training as seed resources for teaching against betel quid. We also assisted in the development of various evaluation tools, and designed posters and



The 2013 'Quitting Betel Quid Handbook'

cartoons, tackling betel quid chewing, as well as quitting handbooks and quitting stickers.

2. Fostering a Culture of No Betel Quid Chewing in Communities and Workplaces

(1) Bolstering Cooperation with NGOs to Combat Betel Quid Chewing

Since 2008, the HPA has offered annual subsidies to community health units to implement betel quid prevention projects in their communities. Through cooperation with senior figures in the community, we can encourage the stipulation of "no betel quid" lifestyle contracts, hold educational lectures, increase publicity at holidays and through innovative measures, print posters and labels to hang at betel quid stalls, have sufferers of oral cancer tell their stories to encourage others to reject betel quid, help members of the public to quit chewing betel quid, and provide oral mucous checks for betel quid chewers. In addition, with the help of local health bureaus and community health units, we have persuaded and gained the support of employers in workplaces with high instances of betel quid chewing to draw up "no betel quid" management standards, stick up "no betel quid" posters, develop an anti-betel quid environment, and help in providing oral mucous checks and quitting support services for betel quid chewers. In 2013, we subsidized a total of 165 community health units in undertaking such activities.

(2) Promoting Inter-agency Coordination in Oral Cancer Screenings

The HPA consulted with the Ministry of Labor (formerly known as the Council of Labor Affairs) to have it stipulated in the 'Regulations for Labor Health Protection' that when conducted standard health checks, employers must, with employees' consent, also conduct oral mucous checks, in order to broaden the scope of oral cancer screening. The HPA has also worked with the Ministry of the Interior, Ministry of Education, and the Council of Agriculture since 2010, to jointly implement a betel quid prevention plan for children and adolescents; this plan continued to be implemented in 2013.

Section 2 Promoting Physical Activity

Status Quo

Physical inactivity/ Sedentary life style is one of the 10 leading risk factors in global mortality and disability as stated by the WHO in 2009; it is estimated to account for more than 2 million deaths per year. In addition, 60-85% of adults have been shown to live inactive lifestyle, with two-thirds children who do not engage in sufficient physical activity. They are the factors that affect people's health and contributing to a serious public health problem.

Physical inactivity has also become the fourth leading risk factor of global mortality accounting for 6% of deaths, which is just below hypertension(13%), tobacco use (9%) and hyperglycemia (6%). In 2011, the WHO has stated that 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 the health of individuals and raises national health expenditures and adds cost to society, but it also creates a significant burden to public health.

The WHO recommends that every adult should engage in over 150 minutes or more medium-intensity physical activity per week, while children and adolescents should engage in 60 minutes or more of medium-intensity activity daily per day, for a cumulative total of over 420 minutes or more per week. In the 2013, "City Sports Investigation", Ministry of Education investigated the ratio that the population exercises. Among people age 13 and above who participated in the investigation, 31.3% exercised at least three times a week, 30 minutes each time, and were carrying out activities that were sufficiently rigorous to induce perspiration and shortness of breath. This number had grown significantly from only 15.5% in 2005 (Figure 3-6); however, the proportion does not engage in regular exercises was still considerably high (68.7%). This showed that there are still rooms for improvement. When differentiated by age, the proportion of those aged between 29 and 59 taking regular exercise is even lower (Figures 3-7 and 3-8).

Figure 3-6

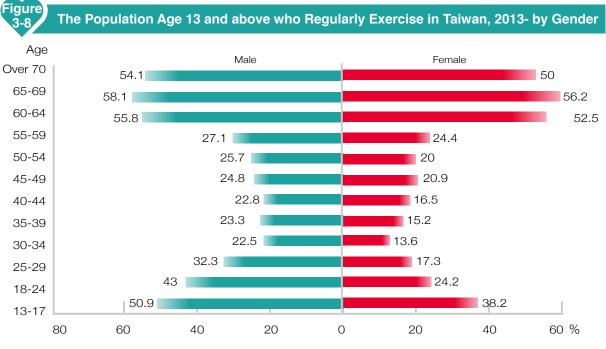
The Population Age 13 and above who Regularly Exercise in Taiwan ,2005-2013



Source: 2005~2013 City Sports Investigation, Sports Administration, Ministry of Education

Figure The Population Age 13 and above who Regularly Exercise in Taiwan, 2013- by Age Age Over 70 51.9 65-69 58.6 60-64 54 26.8 55-59 22.2 50-54 22.3 45-49 19.7 40-44 18.8 35-39 19.4 30-34 26 25-29 33.4 18-24 47.1 13-17 0 10 20 30 40 50 60 %

Source: 2013 City Sports Investigation, Sports Administration, Ministry of Education



Target Indicators

The government is committed to increasing the rates of regular exercise. Correspondingly, the ratio targets of policies under the Executive Yuan's "Golden Decade" plan has been doubled from 26% in 2010 to 38% in 2015, and 52% in 2020.

Policy Implementation and Results

1. Promoting the "10,000 Steps Everyday" Program

The WHO states that walking is the easiest and most recommended form of exercise. Walking for 30 minutes burns as much calories as a medium-to-high intensity activity. HPA has promoted walking as exercise since 2002, and has encouraged the public to incorporate the "10,000 Steps Everyday, Your Health is Guaranteed" concept into their lives. In 2006, we also designated the November 11th as "National Walking Day" to encourage the population to make walking a part of their lives, every day and everywhere, through publicity channels in commerce, government, education, NGOs and the media.

2. Promoting Healthy Exercise

Since 2011, HPA has produced and promoted videos of healthy exercise, included: "Healthy Exercise for Workers (15 minutes)" and "Conference Version of Healthy Exercise for Workers (10 minutes)", aimed specifically at workers who often suffer from stiff backs and necks, and other aches and pains due to prolong usage of computers. We encourage employers to provide employees with time to exercise, and to incorporate exercise into the culture of the workplace. This can reduce stress and pain of workers, as well as improve their fitness and work efficiency.





Get up for a healthy lifestyle! Healthy lifestyle booklet



10 small tips to encourage exercise – children's edition

3. Diverse Publicity Channels

Other than using traditional leaflets, news sources and broadcast media, HPA also utilizes websites, Facebook, mobile app advertisements and online newspapers to promote healthy fitness. These new forms of media also provide information such as community walking routes, exercise guidelines, and different types of exercises, enabling the public to access health information instantaneously. In 2013, HPA even produced 45,000 pedometers to give away to health bureaus in promoting healthy fitness and walking as exercise.



4. Telephone Consultation Hotline

HPA established a free service hotline (0800-367-100), to answer the public with any questions they might have regarding integrating exercise into their lives. In 2013, the hotline was used 1,844 times, and the most common question was "How often and for how long should I exercise?" (Representing 36.8% of all queries), "What are the benefits and principles of exercise?" (Representing 26%), and "How do I choose an appropriate form of exercise?" (Representing 20.1%).

5. Integrating Different Sectors to Promote Healthy Living

- (1) Communities: HPA subsidizes community health units to improve obesogenic environments. With the help and involvement of communities, we advocate schools and workplaces to increase the amount of time dedicated to physical activity, and promote the establishment of an environment that supports exercise, as well as calorie labeling and slogans. By the end of 2013, 450 recreational areas across Taiwan had been established or improved, and a total of 1,579 community walking paths were built to encourage the public to use local environments to engage in exercise. We also subsidized 9 NGOs in holding exercise promotional activities which encouraged the public to exercise more, and make regular exercise a regular habit.
- (2) Workplaces: Workplaces: HPA held the national workplace "Staircase Beautification Contest in 2013." It was hoped that staircase beautification would in turn spur employees to take the stairs rather than the lift, thereby doing some exercise in daily life. 18 outstanding workplaces were selected from a total of 67 entries.
- (3) Schools: In order to improve the acquisition of health competence among children and adolescents, and to encourage the development of good dietary and exercise habits, HPA has been promoting healthy BMI (including healthy exercise and diet) among health promoting schools in collaboration with the Ministry of Education.

Section 3 National Nutrition and Obesity Prevention

Status Quo

According to the results of "Nutrition and Health Survey in Taiwan" conducted between 1993 and 1996 as well as between 2005 and 2008, the prevalence of overweight and obesity among adults increased from 33% to 44%. Male prevalence of obesity rose from 33% to 51% and female prevalence of obesity went from 33% to 36%. According to the "Student Health Survey" conducted by the Ministry of Education, the prevalence of overweight and obesity was 29.4% in elementary school students and 29.7% in junior high students respectively in 2011. In elementary school, the prevalence of overweight and obesity was found to be 33.2% among boys and 25.1% among girls. In junior high school, the prevalence of overweight and obesity was 34.7% among boys and 24.2% among girls. The WHO states that

overweight people are up to 3 times more likely to suffer from diabetes, metabolic syndrome and blood lipid abnormalities, while they are twice as likely to suffer from cancer (such as colorectal, breast and endometrial) and hypertension, compared to those of normal weight.

Primary reason of obesity is due to that the caloric intake is more than caloric need, while other causes, like heredity, physiological or psychological reasons, may lead to the consequence of obesity as well. The increase in the prevalence of overweight and obesity is related to westernized foods and refined meals with higher calorie, higher frequency of sedentary activities such as watching television and internet usage along with low physical activity and increased availability of sugary drinks and high-calorie junk food. Many kinds of foods without nutrition labeling make it difficult to determine whether these foods are healthy or not; also, some communities lack for convenient mass transportation systems or convenient recreational sports 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 consume more calorie, fatty and sugary foods.

To prevent obesity, HPA has launched a national healthy weight management campaign since 2011, which in 2013 was entitled "Taiwan 2013 – We Invite You to Love Your Health." It gathered 600,000 people from Taiwan's 22 counties and cities who were committed to "smart eating, joyful moving, daily weighing". Together, participants lost a total of 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. 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 phone, fax, e-mail, or in person.

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 also enacted the Statute for Breastfeeding in public places to increase breastfeeding and prevent childhood obesity. To target obesity prevention, the government also called a task force to propose white paper and clinical guidelines. It revised the Act Governing Food Sanitation to include rules on advertisements and promotion of foodstuffs which are unsuitable for long-term consumption by children. It has formulated the draft of a national nutrition act. It also held a meeting of experts to determine standards by which to define food stuffs that are inappropriate for long-term consumption by children. Finally, the government tracks height and weight trends among citizens.

- Building a Health Supportive Environment: Inspect and improve obesogenic environment, construct information supportive environment, and establish healthy food intake system and diverse exercising environment.
- (1) Building a Health Information Supportive Environment: HPA launched the obesity prevention website and free service hotline 0800-367-100. It promotes "smart eating, joyful moving, daily weighing" as the framework to a healthy body weight, while also providing other valuable related information. In 2013 there were over 940,000 hits on the website, and 3,419 calls made to the hotline. Moreover, it took further steps to care for individuals in 120 cases.
- (2) Preventing Obesity by Recognizing and Improving Environmental Factors: HPA 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. At the end of 2013, HPA held "2013 Building Healthy Communities lifestyle Achievements Conference." One gold, one silver, one bronze, and 3 creativity awards were awarded to local health bureaus by HPA. It also offered an excellent opportunity for them to share the experiences of improving the obesogenic environment.

- (3) Creating a Supply System for Healthy Food: To make it easier to choose healthy foods, HPA promotes clear, easy-to-understand nutrition labeling 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 HPA'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. HPA also drawn up health food purchasing guidelines to encourage public and private institutions to follow healthy principles. These guidelines might include purchasing healthy lunchboxes, choosing healthy options for group meals, and providing fruits and other healthy food as gifts for guests.
- (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 to encourage people to take part in physical activity by the environment around them, and the diversity of routes means there are options suited to people of any genders, ages or groups. Meanwhile, HPA encourages workplaces to plan exercise time before and after work and it promotes forming exercise groups. In addition, the healthy exercise for working people is revised with warning, and 10 minutes of meeting version of health exercise is produced.



2013 Building Healthy Communities Lifestyle & Healthy Communities Achievements Conference

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 established the diversity of weight-loss classes, courses on exercise and healthy eating, as well as family weight-loss activities for the winter and summer vacations. 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 Action

To strengthen the healthy weight promotions, HPA relies on organizational actions and cross-departmental resources. It forms support teams that help carry out a variety of activities in communities, schools, workplaces, and hospitals. In 2013, 6 mayors or magistrates of the 22 cities and counties in Taiwan lead the launch news conferences and pledge to join the battle against obesity. HPA held the "2013 Building Healthy Communities Achievements Conference." At the conference, 162 awards were given to healthy localities, excellent individual units and volunteers for helping residents lost weight in 2013, and they had a chance to present achievements in healthy weight management.

5. Developing Personal Skills

HPA released the "Move for a Healthy Lifestyle" handbook, the promotional banners of "Healthy Weight



The Promotional Banner of "Healthy Weight Management Campaign"



Management Campaign", and pedometers. To strengthen people's health literacy, it launched the obesity prevention website and free service hotline to promote calorific value, nutrition, exercise and healthy weight management. Besides, it held educational training workshops for local health department and health center officials to improve their abilities to implement healthy weight management.

6. Weight Loss Results

In 2013, a total of 688,567 participated in the healthy weight management plan "Taiwan 2013 – We Invite You To Love Your Health" A total of 1,089,120.5 kilograms were lost. Each participant lost an average of 1.58 kilograms. According to the result of the "National and Health Survey in Taiwan" conducted in 2013, the prevalence of overweight and obesity among adults decreased from 44% (in 2005-2008) to 38% (in 2013). The achievement in weight loss have received wide attention by the international media, and have also been reported by the BBC (British Broadcasting Corporation) and its website, Singapore's Asia Television, America's APHA "Nation's Health Newspaper" and Japan's NHK Television. The U.S. Secretary of Health & Human Services also expressed great interest in the Taiwan's healthy weight management plan, and has inquired about the achievements of the campaign during the bilateral meeting of the World Health Assembly for three consecutive years.





BBC television report

Japanese NHK Television report

Section 4 Accident and Injury Prevention

Status Quo

The accident-related mortality rate in Taiwan has been declining since 1989, and long-term trend is also decreasing; apart from the outliers in 1999 (58.9 per 100,000) due to 921 Earthquake, and in 2009(31.9 per 100,000) due to typhoon Morakot. In 2012, the accident-related mortality rate dropped to 29.5 per 100,000 people (Figure 3-9), which was the sixth leading cause of death in Taiwan. However, since the endorsement of the mandatory helmet laws for scooter riders and motorcyclists in 1997, the traffic-related deaths had steadily decline annually from 33.4 per 100,000 people in 1996 to 14.2 per 100,000 people in 2013.

From 1987 to 2013, the leading causes of accidental death were traffic accidents, accidental falls, drowning, accidental poisoning, and fires related accidents (Figure 3-9). The data from 2013 showed that accidental death ranked 4th

in the cause of death among infants of age 0, and was the leading cause of death in children of ages 1-4, 10-14 and 15-19 (Table 3-3). The leading causes of accidental deaths in 2013 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 - traffic accidents followed by accidental drowning; ages 10 to 14 and 15 to 19 - traffic accidents followed by accidental drowning (Table 3-4).

In 2013, accidental deaths ranked 10th in the top leading causes of death in the elderly over 65 years old, accounting for 2,629 deaths (102.5 per 100,000). Falling was the 3rd top leading cause of death for the elderly, followed by accidental drowning (Table 3-4). Falling affects the physical, psychological, social functions and quality of life of the elderly, and also becomes a burden for caregivers. According to the results of national health survey, the standardized prevalence of falling of the elderly was 20.5% in 2005, which decreased to 16.6% in 2009. The top 3 locations for falling incidences in the elderly are: bathrooms, living room, bedroom of their own homes; and streets/roads, vegetable gardens/farmland, park or sports field outside of homes.

Sudden Infant Death Syndrome (SIDS) is the main cause of death in infants of age 0 other than diseases and accidental hazards. According to the 2013 Statistics of the causes by the Ministry of Health and Welfare, SIDS death rate accounted for 24.6 per 100,000 (Figure 3-10).



Five Major Causes of Death in 0~19 years old Children and Adolescents in 2013

Order of importance	Age 0	Age 1-4	Age 5-9	Age 10-14	Age 15-19
1st	Congenital abnormality, malformation; chromosomal abnormality	Accidental injury	Malignant tumors	Accidental injury	Accidental injury
2nd	Special conditions in perinatal period	Malignant tumors	Accidental injury	Malignant tumors	Malignant tumors
3rd	Disorders related to length of gestation and fetal growth	Congenital abnormality, malformation; chromosomal abnormality	Congenital abnormality, malformation; chromosomal abnormality	Cardiovascular disease (not including diseases related to high- blood pressure)	Self-inflicted bodily harm (suicide)
4th	Accidental injury	Cardiovascular disease (not including diseases related to high- blood pressure)	Cardiovascular disease (not including diseases related to high- blood pressure)	Congenital abnormality, malformation; chromosomal abnormality	Cardiovascular disease (not including diseases related to high- blood pressure)
5th	Sudden Infant Death Syndrome (SIDS)	Harm	Cerebrovascular disease	Cerebrovascular disease	Congenital abnormality, malformation; chromosomal abnormality

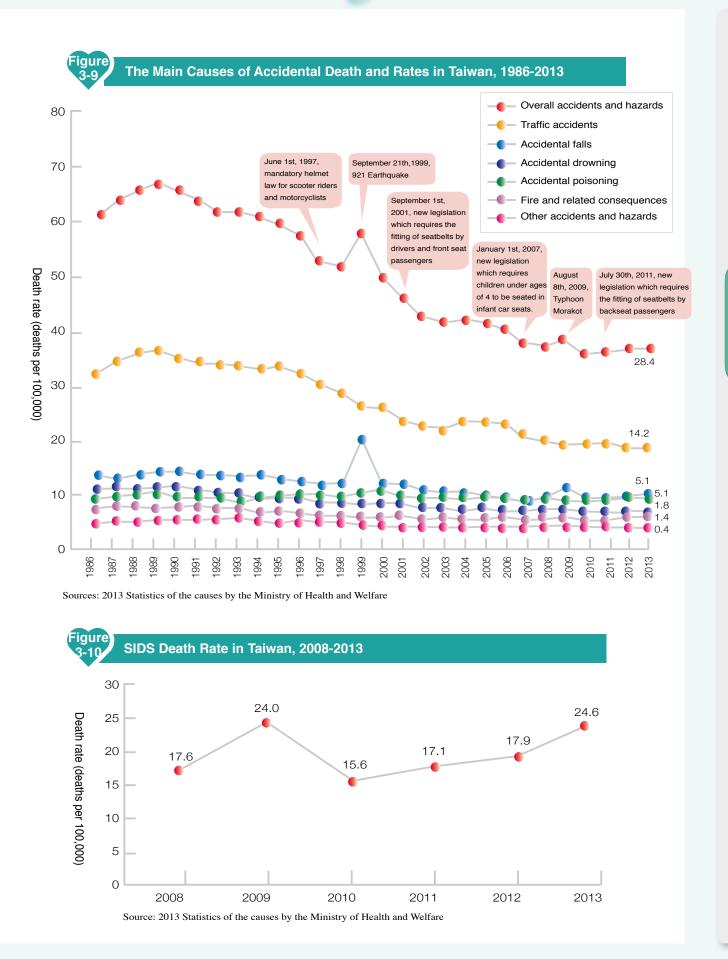
Source: 2013 Statistics of the causes by the Ministry of Health and Welfare

Table 3-4

Three Major Causes of Accidental Death in Children, Adolescents, and Elderly in 2013

Cause of death	Age 0	Age 1-4	Age 5-9	Age 10-14	Age 15-19	Over 65
1st	Accidental falls	Traffic accidents	Traffic accidents	Traffic accidents	Traffic accidents	Traffic accidents
2nd	Traffic accidents	Accidental falls	Accidental drowning	Accidental drowning	Accidental drowning	Accidental drowning
3rd	Accidental drowning	Accidental drowning	Fire and related consequences	Fire and related consequences	Accidental falls	Accidental falls

Source: 2013 Statistics of the causes by the Ministry of Health and Welfare



Target Indicators

In 2013, over 15,000 disadvantaged households with children 6 years older and under participated in the "Home Safety Assessment program."

Policy Implementation and Results

1.Laws and Policies

- (1) Incorporation of Injury Prevention, Safety Promotion to the "Healthy People 2020 White Paper": injury prevention and safety promotion was incorporated into "Healthy People 2020" as new themes. Its goals include the prevention of death and injury caused by traffic accidents, malicious injury, falls, drowning, and carbon monoxide poisonings. A national monitoring system for accidental injuries was established as a responsive strategy towards the promotion of Safe Communities Program. These have gradually reduced the mortality rate of accidental injury.
- (2) Accommodation with cross-sectoral policies: HPA coordinates with other governmental departments to promote children's safety in homes. HPA worked with "the Protection of Children and Youths Welfare and Rights Act", "Children and Adolescent Safety Implementation Program" and the Ministry of Transportation and Communication with "National Action Plan for Strength Road Safety". Together, officials were able to improve children's education and care, and enhance their safety and health.

2. Building a Safe Household Environment for Children

- (1) Building a Safe Household Environment for Children: HPA created a checklist that people could use to assess whether their home was safe for children. Parents and caregivers could investigate and improve areas deemed unsafe in their households. Also, staffs from local health bureaus and departments assisted with the investigation of homes of vulnerable families with children of 6 years old and under. A total of 28,549 such homes were investigated and offered with basic improvement suggestions in 2013.
- (2) Incorporation of health education into Children's Preventive Services: In order to elevate the levels of knowledge toward accidental injury prevention among parents and caregivers, HPA provides experts offering age-specific tips for preventing accidental injury during the seven preventive care sessions for children 7 years old and under. The children's health handbooks also include assessment forms providing information about accidental injuries among children along with information on basic steps that can be taken to prevent such injuries. In addition, in order to improve the quality of children's health care and reduce the influence of risk factors on children's health, HPA has implemented the "Subsidy Plan for Child Health Education Guidance" since July 1st, 2013. Under this plan, doctors provide two special health education guidance sessions for parents and caregivers of children under one year old, including information on prevention SIDS and accidents.
- (3) Training of relevant staff: HPA has run education and training courses for staff of local health bureaus from Northern, Central, Southern and Eastern regions of Taiwan. These courses include: safety for children in households; how to check safety in the home; how to use referral resources; and economic assistance for vulnerable families to improve safety in the households. These measures improve health bureau and department staff understanding of issues relating to safety in the households. In addition, in order to improve staff understanding of accident prevention, the HPA provides 8-hour online learning courses for health bureau and department staff and medical personnel on child health and safety in the community.
- (4) Monitoring analysis: HPA implements the "Accident Monitoring Research and Policy Support Pioneer Program," which uses government-collected data on accidents in Taiwan to conduct various statistical analyses in order to gauge the current situation and any changes and trends. In addition, HPA uses the "Kindergarten Health and Safety Management Report Form," filled in every 6 months by staff at local health bureaus. This allows us to monitor data on children's accidents, which, following analysis, forms an important resource for policy design and accident prevention programs.

3. Promotion of Fall Prevention for the Elderly in the Community

- (1) The "Fall prevention for the Elderly" manual was produced to reinforce the health guidance of fall prevention. The contents include: the possibilities of fall, prevention measure of fall, exercises of fall prevention, examples of household environment safety, examples of safe activity for the elderly, household environment evaluation chart, responses in occurrence of fall, and prescription of fall prevention.
- (2) HPA has integrated healthy cities, safe communities, community health promotion programs and community care service points to promote the health of the elderly in the community according to their specific needs. The health issues promoted including: healthy diet, exercises, falling prevention, medication safety for elderly, chronic diseases prevention, health examinations, blood-pressure tests etc. In 2013, 22 counties and cities a total 1,672 community care service points consisting of 359 health centers and 438 hospitals have incorporated with the public health system, which is over 80% of all the community care service points. They promote the health of elderly in the community in 8 aspects: promote fall preventing exercise at places where the elderly usually go, reinforcing their muscle strength, walk, and balance; and accommodate with the community and household environmental evaluations to promote fall prevention work for the elderly. HPA also conducted "Evaluations of Household Environment Safety for the Elderly" in 4,436 households, of which, 2,191 have made improvements.

4. Prevention of Sudden Infant Death Syndrome(SIDS)

- (1) Through the statistical data of the causes of death by the Ministry of Health and Welfare, HPA continue to monitor the mortality rate of SIDS and the trends of the number of deaths.
- (2) In order to reinforce the health educational guidance of parents and main caregivers, HPA refer to the relative improvement measures in SIDS prevention from American Pediatric Association. HPA also incorporated recommendations of sleeping positions and sleeping environment in the infant health manual for each newborn baby. The evaluation chart of SIDS prevention and control is also added to the manual.
- (3) The SIDS preventive guidance is listed as: 1. one of the health education items for infant preventive care (the 1st session when infants are 0 2 months old and the 2nd session when infants are 2 4 months old). 2. the key points of the training courses and the contents of doctor's service manual in the regional child preventive care educational trainings (a total of 18 sessions) jointly organized by HPA and Taiwan Pediatrician Society.
- (4) In order to prevent occurrences of SIDS, Shaken Baby Syndrome health guidance was added to the health manual in assisting caregivers to understand the risk of shaking babies, to convey the techniques in consoling crying babies, and to avoid fierce shaking of babies.

Creating a Network of Safe Communities

In 2002, Taiwan has complied with the WHO's Safe Community Principles and Safe Community Promotion Plan. Through the establishment of safe and healthy living environments, we were able to expand the benefits of Safe Community, lowering incidence rate of accidents and hazards. From 2005 to 2013, a total of 19 communities have passed the international safe community certification.





Healthy Environment

Healthy Environment

In Ottawa Charter in 1986, the World Health Organization identified five priority action areas for health promotion: build healthy public policies, create supportive environments, strengthen community actions, develop personal skills, and reorient health services. It is a set of guidelines applicable to health promotion across all settings. These includes: "Healthy Cities" which integrate healthy values and principles into city planning, improve city health problems, establish healthy public policies through cross department and field cooperation, in order to promote the residents of the cities and communities to actively participate in health promotion work. "Healthy Community" which integrate civil resources and existing healthcare systems, establish a diverse basic networks, and emphasizes the establishment of partnership relations and community participation. We hope through community operation to solve health problems, and implement healthy life. "Health Promoting Schools" bring consensuses among teachers, parents and students, promote collective participation of the communities, and provide health services by the establishment of school health policies. These integrate health into campus learning and life, and thus building a healthy campus learning environment, enhancing students' overall health. "Health Promoting Workplaces" integrate concerted efforts from employers, employees, and society to promote the health and happiness of occupational workers, with an emphasis on improving the organization and work environment of workplaces, reinforce healthy lifestyles of employees, in order to promote personal skills and development. "Health Promoting Hospitals" are medical or health service organizations dedicated to enhancement of the health of patients, staffs, and communities through structure, culture, decision, and process developments. The strategy adopted is one of organizational change, in order to reach the goal of enhancing health through medical processes.

Section 1 Healthy Cities

Status Quo

In 1986, 21 European cities conducted a meeting in Lisbon. They collectively decided to develop city health and promote healthy city plans. In 1997, the WHO introduced the 20 steps for developing healthy city plan to assist countries promoting healthy cities. Through engagement cross department efforts and community participation, it is aimed to establish healthy public policies which could adapt to the demands of urbanized society and its associated problems of hygiene and ecology that may create severe health problems to citizens. Echoing the WHO's Healthy Cities Initiative, the concept of healthy city was first introduced in 1995 in Taiwan. Then as the mayor of Taipei City, President Ma Ying-Jeou announced 2002 as Taipei's "1st healthy city year". Drawing on the WHO's five priority action areas, he promoted the "Make Taipei a City of Healthy Longevity by a 100-Ton Weight Reduction" initiative. In 2003, HPA began a project to make Tainan City a healthy city. Professional teams were called in to work with the local government in promoting cross-department, interdisciplinary cooperation among government, industry and academia in order to establish healthy public policies. In 2005, Tainan City became an associate member of the Alliance for Healthy Cities (AFHC), which was set up by the World Health Organization Regional Office for the Western Pacific Region. This in turn prompted other county and city governments' participations. Between 2006 and 2007, HPA also guided Miaoli County, Hualien County, Kaohsiung City and Taipei County to adopt the Healthy Cities initiative. This was followed in 2007 by the establishment of a set of national indicators for healthy cities and a platform for nationwide information exchange. With help from professional teams, HPA continue to assist the county and city governments to push forward with their healthy cities, as well as to assist regions connect internationally.

Policy Implementation and Outcomes

1. Promoting Healthy Cities Nationwide

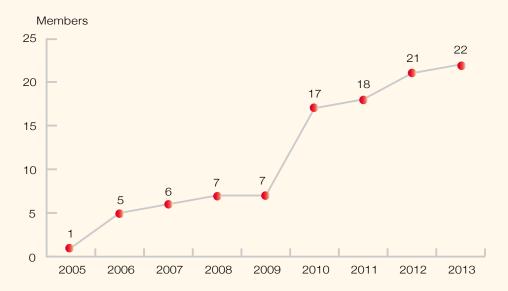
Teams of scholarly and specialists were established for the sake of assisting counties and cities with the Healthy City initiative. By 2013, 19 counties and cities have implemented, including Keelung City, Taipei City, New Taipei City, Yilan County, Taoyuan County, Hsinchu City, Hsinchu County, Miaoli County, Nantou County, Changhua County, Yunlin County, Chiayi City, Tainan City, Kaohsiung City, Pingtung County, Taitung County, Hualien County, Kinmen County and Lianjiang County. In addition, the 11 regions namely Tainan City, Hualien County, Miaoli County, Chiayi City, Kaohsiung City, Taitung County, Nantou County, Hsinchu City, New Taipei City, Taoyuan County and Hsinchu and the 11 districts of Taipei City (Daan, Shilin, Beitou, Zhongshan, Songshan and Wanhua districts), 4 districts of New Taipei City (Danshui, Shuangxi, Pingxi and Pinglin districts) and Pingtung City have joined the Alliance for Healthy Cities (AFHC) supported by WHO Western Pacific Region as non-governmental organizations.

2. Promoting the Exchange of Healthy City Information and Results

HPA continued to collect domestic and international data related to healthy cities, and facilitate domestic cities and counties to promote exchange and share of the results of their healthy city programs. On November 26th, 2013, the Fifth Taiwan Healthy City and Age-Friendly City Award Ceremony was held. Director-General Shu-Ti Chiou gave an opening speech and award the winners. There were 232 entries for healthy city award, and Hsinchu City government (regional level organization) and Songshan district of Taipei City received the Outstanding Healthy City awards. The mayor of Hsinchu City Ming-Cai Xu and Dr. Ying-Wei Wang of the Tzu Chi University Cultural Medicine Department won Outstanding Contribution awards. Innovation Awards were given to a total of 41 awards from 13 regions, including Taipei City. On the November 27th, the 2013 Taiwan Healthy City and Age-Friendly City Achievements Press Conference was held, which included an exhibition of achievement posters and awards.



2005-2013 Number of domestic members of the WHO Western Pacific Alliance for Healthy Cities



Source: Health Promotion Administration



The Fifth Taiwan Healthy City and Age-friendly City Awards Ceremony

Section 2 Healthy Communities

Health Promoting Communities

Status Quo

The public health community of Taiwan had noticed natural conditions of a given community, the government policies and other artificial factors can impose affect on people's health early on. In the line with this, community health promotion committee was established, and volunteers were recruited by the local public health center and community leaders to discuss and to promote the health issues that the local required. In 1996, then as the Director of Bureau Chief of the Yilan County Director-General Shu-Ti Chiou employed a style of community-led construction to unveiled a three-year community health building program that was intended as a community empowerment project. In 1999, Department of Health (now the Ministry of Health and Welfare) officially launched the Community Health Building Program, establishing the nation's first Community Health Building Center in Singang Township, Chiayi County. Over the years a total of 50 such centers had been established nationwide. Drawing on the 5 action areas for health promotion identified in the WHO's Ottawa Charter, these centers are given the duty of integrating community resources and bringing together the public and private sectors to foster 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, HPA began to assist all entities set up under the Community Health Building Program to promote healthy living initiative, so that community health can be greatly improved. When the Executive Yuan (Cabinet) introduced the "Challenge 2008: National Development Plan" in 2003, the Healthy Living Communities Program was listed as one of the top priorities. In order to sustain community health building initiative, HPA drafted guidelines and criteria for the certification of health promoting communities in 2008, and the two areas of emphasis were "stay healthy with exercise" campaign and "healthy diet". 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 HPA as health promoting communities.

Health issues promoted under the Community Health Building Program in previous Years are as follow:

- 1. 1999-2001: HPA promoted six health issues including: healthy diet, physical fitness, tobacco prevention and control, betel quid prevention and control, personal hygiene, and safe use of medicines; as well as encouraged people in receiving regular preventive healthcare services.
- 2. 2002-2005: HPA allowed for communities to determine their target health issues based on their own health needs.
- 3. 2006-2007: HPA promoted designated physical fitness, healthy diet, and tobacco prevention and control etc. as the appointed themes, and the community could propose other health theme based on their particular needs.
- 4. 2008-2009: HPA promoted issues of healthy diet, physical fitness, breast and cervical cancer screening, smoke-free communities, betel quid-free communities, seniors health forever, safe communities, and other such health issues.

- 5. 2010: HPA promoted issues of healthy diet, physical fitness, screening for the 4 major types of cancers, smoke-free communities, betel-quid free communities, safe communities, senior health promotion communities and other such health issues.
- 6. 2011: HPA designated "cancer screening promotion for the four major types of cancer" and "senior health promotion as the main themes." Other themes that communities could choose for themselves included "tobacco prevention and control (among youths)", "betel quid prevention (and smoking cessation)", "safety promotion" and "community healthy characteristics."
- 7. 2012: HPA designated "tobacco, alcohol, betel quid prevention and control", "healthy aging", "obesity prevention (healthy diet and physical fitness)", and "improvement of obesogenic environment" as the main themes. 2 self-selected themes of "safety promotion" and "discussion of local health characteristics".
- 8. 2013: HPA designated "tobacco, alcohol, betel quid prevention and control", "active ageing", "obesity prevention (healthy diet and physical fitness)", and "improvement of obesogenic environment" as the main themes. 2 self-selected themes of "safety promotion" and "discussion of local health characteristics".

Policy Implementation and Results

- 1. With the community as a platform, in 2013 HPA subsidized 19 counties and cities, and 165 community units to promote a community health building plan in 162 villages, townships, and city districts. These were to handle core programs for the control of smoking, alcohol and betel nuts, improvement of leisure environments, obesity prevention and active aging, in addition to the opt-in campaigns of safety promotion and local health characteristics. The results of promotion were as follows:
- (1) 5,222 volunteers were given the volunteer manuals and participated in community health building volunteer work.
- (2) 5,347 tobacconists, betel nut stands and grocery stores within 1 kilometer perimeter of a junior high or primary school were educated to refuse sale of tobacco products to minors.
- (3) 1,915 communities conducted advocacy and guidance for permanent smoking cessation. 599 smoke-free areas were established, and 1,464 educational sessions on the dangers and prevention of smoking.
- (4) 3,660 community stores retailing alcohol products were trained to refuse sale of alcohol to minors. 763 educational sessions on the dangers of alcohol to youth were held.
- (5) 89,791 individuals were given inspections of the mucous membrane of their oral cavities, whilst 5,331 individuals attended betel quid quitting services, 201 betel quid-free public spaces, 218 betel quid-free workplaces were constructed, and 229 press on betel quid control were released and 3,408 education sessions on the dangers and prevention of betel quid were held in local media.
- (6) 3,856 sessions of health promotion activity for the elderly were organized, with a total of 157,777 participants. 296 sessions of health promotion competitions for the elderly were also held, a total of 38,403 elderly contestants entered.
- (7) Organized healthy weight loss with a total weight loss of 194,957 kilograms.
- (8) 1,740 stores were educated to label the calorie on their products, provide healthy set meals, and improve 450 recreational areas, in order to construct diverse active life environments.
- (9) 20 building units were subsidized to provide community safety promotion work, promote safety work in homes, roads, leisure areas and schools, enhancing life safety of people.
- 2. On the December 17th and 18th, 2013, a "Building Healthy Community Lifestyle and Empowering Community Healthy Conference" was held to commemorate local public health bureaus and 162 units with outstanding healthy weight loss results. Results from health building initiatives across regional communities, the modes of weight loss promotion, experience and innovation from across all fields were also shared in the conference.
- 3. From 1999 to the end of 2013, of 528 health building units subsidized, 417 are still dedicated to the promotion of health related issues.

Safe Communities

Status Quo

The concept of safe communities originated from three communities which n accidental injury occurred frequently in Sweden in 1970. After three years of the implementation of a plan for injury prevention, accident injuries had dropped by 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 emphasize the integration of community resources. Promote hazard prevention and control plan which is basing on the evidence-based research to lower the occurrence of community accidents and hazards, and to assist communities around the world in promoting injury prevention plans, as well as to provide a rigorous and transparent system for assessment and certification to publicize the concept of safe communities, forming a worldwide "Safe Community" Network. As of 2013, a total of 331 communities around the world had been certified as safe communities.

In 2002, Taiwan promoted various safety promotion projects that suit community features and needs in accordance with the safe community criteria laid down by the WHO. In 2005, the Neihu District in Taipei City, Dengshi District in Taichung County, Alishan Township in Chiayi County and Fengbin Township in Hualien County had received international safe community certification. In 2006, the Northern, Central, Southern, and Eastern Safe Community Support Centre were established to assist the promotion safe community plans within the community. The following communities had received international safe community certifications: Zhongzheng District in Taipei City, Shihkang District in Taichung County, and Shoufeng Township in Hualien Country in 2008, Zuoying District in Kaohsiung City, Xingang Township in Chiayi County, Dongshan Township in Yilan County and Hoping District in Taichung City which is jointly administered by an aboriginal committee in 2009; South District in Tainan City (Jinhua Community, Su'ao Township in Yilan County, Toucheng Township in Yilan County and the 4 districts in Taipei City (Wenshan, Datong, Xinyi and Nangang) received in 2010. According to the certification methods of WHO CCCSP, certified community has to apply for re-approved every 5 years, in order to assure that the promotion work of community safety can be sustained. In 2010, Fengbin Township in Hualien County and the Neihu District in Taipei City passed recertification of international safe community. In 2011, Xizhi District in New Taipei City (Xiufeng Community) had received international safe community certifications. In 2012, Alishan Township in Chiayi County passed re-certification of international safe community; Taipei Medical University Hospital certified as an international safe hospital; and Taipei Medical University was re-certified as an international safe school. In 2013, the East District in Hsinchu City had received international safe community certifications, whilst the Zhongzheng District in Taipei City passed the recertification. This brings the total number of units who received international safe communities to 19 (Table 4-1).

Policy Implementation and Results

Development of evidence-base health and safety promoting communities

- (1) Draw on international health and safety promotion strategies, take community as the platform, and set up organization and framework responsible for promotion of the program; furthermore, take into account community needs while promoting injury prevention and safety promotion in a variety of ways.
- (2) Development of co-operation and integration with other health promotion plans, such as using health promoting hospitals as a platform for promote them to be certified as safe hospitals; using 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) To adopt a double-pronged approach toward carrying out the safe community program: combining autonomous involvement of community members with support and training 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 to effectively promote safe communities effectively.
- (5) Establish a professional team to assist communities promote safe communities program.

Table 4-1

Communities Received the International Safe Community Certification

Name of community	Year	Remarks
Fengbin Township, Hualien County	2005	Passed re-certification in 2010
Alishan Township, Chiayi County	2005	Passed re-certification in 2012
Neihu District, Taipei City	2005	Passed re-certification in 2010
Zhongzheng District, Taipei City	2008	Passed re-certification in 2013
Shoufeng Township, Hualien County	2008	
Shigang District, Taichung City	2008	
Zuoying District, Kaohsiung City	2009	
Xingang Township, Chiayi County	2009	
Heping District, Taichung City	2009	
Dongshan Township, Yilan County	2009	
Jinhua Community in South District, Tainan City	2010	
Su'ao Town, Yilan County	2010	
Toucheng Town, Yilan County	2010	
Wenshan District, Taipei City	2010	
Nangang District, Taipei City	2010	
Datong District, Taipei City	2010	
Xinyi District, Taipei City	2010	
Xiufeng Community in Xizhi District, New Taipei City	2011	
East District, Hsinchu City	2013	

Remarks: According to the certification methods of WHO CCCSP, certified community has to apply for re-certification every 5 years, in order to assure that the promotion work of community safety can be sustained.



2012 WHO CCCSP participated in The Ceremony of International Safety Community Certification



2013 WHO CCCSP participated in The Ceremony of International Safety Community Certification

2. Conduct exchange of safe community policy outcomes and education and training programs

HPA commissioned the Taiwanese Injury Prevention and Safety Promotion Association to handle the "2013 Taiwan Safe Community Promotion Program." A total of 50 communities were advised in the running of the safety promotion work program, including the below events:

(1) 2013 Conference on Safe Community Development in Taiwan

On November 2nd, 2011, Dr. Dale Hanson (James Cook University, Australia), Dr. Yoko Shiraish (Chair, Institution for Safe Community, Japan), and Mr. Masato Saito (Director, Toshima Safe Community Promotion Center, Japan) were

invited to share their experiences of promoting safe communities. Around 110 community representatives from Taiwan and Japan were in attendance. It was very helpful for promote safe communities program in the future via sharing experiences in community development.

(2) 2013 Traveling Seminar in Taiwanese Safety Communities

On the November 3rd, 2013, Dr. Dale Hanson (James Cook University, Australia), Ms. Catherine Wong (Secretary, Asia Region Safe Community Network), Dr. Yoko Shiraish (Chair, Institution for Safe Community, Japan), Dr. Joon Pil Cho (Chair, WHO CCCSP Affiliate Safe Community Support Center, Ajou University, Korea) and delegates from Japanese communities and members of Taiwanese communities, were invited to visit benchmark communities, Ligong Community of East District in Hsinchu City (intentional injury prevention plan), the Sunshine Elementary School (school safety projects) and Hsinchu City Police Bureau (eDuty Command system) for traveling seminars.

(3) Conference and education/training sessions:

HPA held 3 workshops to assist staffs in running of community safety promotion. The topic of workshops included: Community Guidance Skills, Community Assement and Search, and Use Evidence-based Research. District training courses were held in north, south, east and west, targeting 50 communities and their personnel. The course included: how to plan a community safety program, collections and usage of injury data, how to use injury data. A training course was also held in each region for the personnel of clinics and health centers on training of home safety inspection. Course contents included: key points and items to be aware of in a home environment inspection, practical drills and how to assist economically disadvantaged families in contacting local resource groups to provide them with services to improve their living environments.

3. Promotion of Community Strategies for Alcohol Control and Prevention

In accordance with the ten points of the Global Strategy to Reduce the Harmful Use of Alcohol as formulated by the 63rd World Health Assembly in 2010, Nangang District in Taipei City, Heping District in Taichung City, Jinhua Community in Tainan City and Shoufeng Community in Hualien County were all assisted in implementing alcohol control and prevention strategies in 2013. Nangang District in Taipei City held a signing ceremony for its "Happiness is No Drunk Driving: Love Manifesto" which called on its community signatories to "appoint a designated driver when you have been drinking" as a way to reduce accidents and injuries caused by drink driving. Heping District in Taichung City cooperate with community development association and neighborhood association to organize "Drinking Discipline Patrol" to prevent drunk driving and sign a tribal convention promising to control of alcohol consumption as well as co-operate with local schools to integrate health education into the curriculum. Jinhua Community in Tainan City coordinated with local restaurants to promote a scheme for calling taxis for guests. Meanwhile, Shoufeng Township in Hualien County strengthened anti-alcohol prohibitions by means of Fengtian Police Station, and added new safety warnings in places where accidents were known to frequently occur. The community also arranged several traffic safety advocacy sessions.

4. Designated as International Safe Communities in 2013

In 2013, HPA commissioned the Taiwanese Injury Prevention and Safety Promotion Association to held the "2013 Promotion of Safe Communities Program", and advised a total of 50 communities on the promotion of health and safety related topics, including medication safety, transportation safety for the elderly, safety in the home (including fall prevention training for the elderly), school safety, traffic safety (clear vehicles occupying public places project and improvement on accident prone road section), public place safety, community fire prevention (building community disaster prevention models), control and prevention of drunk driving (identifying community alcohol problems, and formulating community policy accordingly), and intentional injury prevention (including domestic violence prevention and woman/child safety) and other issues. In 2013, the communities who received WHO CCCSP certification as International Safe Communities were as follow:

- (1) East District in Hsinchu City: Since 2009, Hsinchu Cathay General Hospital started to promote safe community program in East District in Hsinchu City. In order to sustainably run the safe community program in the East District in Hsinchu City, the co-operative partners reached a consensus to established the civil association Safety and Health Promotional Association, East District in Hsinchu City on March 3rd, 2013. Through the collaboration of public and private resources, promote 5 major issues including Home Safety, School Safety, Traffic Safety, Public Place Safety and Intentional Injury Prevention.
- (2) Zhongzheng District in Taipei City: In 2006, the Zhongzheng District in Taipei City established the "Zhongzheng Community Safety and Health Promotion Association", which established organizational preparation and responsibilities, and promoted the Zhongzheng Safe Community Plan. In 2008, they applied to become a member of the Global International Safe Community Network and passed re-certification in 2013. Their methodology assigns to tasks to 5 small working groups, namely the Home Safety Promotion Group, the School Safety Promotion Group, the Public Space Safety Promotion Group, the Transport Safety Promotion Group and the Intentional Injury Prevention Group. These groups target high risk groups and environmental needs to implement the Safe Community Program(including accidental injury prevention and suicide prevention).

Section 3 Health Promoting Schools

Status Quo

School is an important venue for children to develop a healthy lifestyle. The World Health Organization defined health promoting schools as "schools that are constantly strengthening their capacities as a healthy setting for living, learning and working". Priority has long been given to advancing health promoting schools in the US, the UK, New Zealand, Hong Kong and Singapore. In response to the World Health Organization concept of promoting health, Taiwan began to promote the "Four-Year Program of Improving Student Health in 1996." Since 2002, the Department of Health and Ministry of Education cooperated with WHO to set six major components of health promoting schools: school health policies, school physical environment, school social environment, community relationships, individual skills, and health services. The goal of setting these components is to develop school health policies, foster consensus between teachers and students, promote community participation, and provide health services that ultimately create a healthy learning environment for children and adolescents.

In 2012, HPA created a system for international certification of the nation's health promoting schools. Further, we invited international experts and scholars to come to view the promotion and achievements of our health promoting schools.

Policy Implementation and Results

 Integrating inter-departmental resources: cooperating with the Ministry of Education on Health Promoting School Plans

In April 2002, the Minister of Health's Ming-liang Lee and the Ministry of Education's Minister Huang Jong-Tsun signed the "Joint Declaration on Health-Promoting Schools." On September 13th, 2004, the Department of Health and Ministry of Education joined forces with local government, teachers, and parent group representatives to sign the health-promoting schools plan. 48 schools were selected to implement the program, and 120 teachers completed training. From 2005-2007, the teachers resources development centers, counseling support networks, and training centers were established, as were the "Taiwan Health-Promoting Schools" website, "Taiwan Health-Promoting Schools Counseling Network" website, public relations, monitoring, and evaluation support systems. Further, school health promotion resources and an experience communications platform were provided. From 2008-2009, a Health Promoting Schools Promotion Center was formed, integrating the various resources developed since 2005. 98 scholars and experts composed the central and local counseling groups, providing the local governments and every level of school with consistent assistance and services.

In 2010, the Ministry of Education established nine items for the "National Indicators of Health Promoting Schools" and the "Local Performance Indicators of Health Promoting Schools' Student Health and Behavior." 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, and betel nut hazard control. Further, it developed a nationally unified and actionable research plan for health promoting schools, with tools requiring before-and-after evaluation so that schools at all levels could conduct action research and evaluate effectiveness.

In 2011, the Ministry of Education continued the Department of Health's "Health Promoting Schools Promotion Center" and organized the "Health Promoting Schools' Counseling and Network Maintenance Plan," on the basis of the models developed in the past. To facilitate sustainability of health promoting schools in Taiwan, they developed an empirical guide for second-generation schools and organized 101 experts and academics into the "Health Promoting School Center", a single resource center offering consulting and counseling. Through the end of 2013, a total of 3,892 senior high schools were involved in the plan, with another 132 colleges and universities participated.

2. Health Promoting Schools promotion strategies and topics

In accordance with WHO, the health promoting school policies focused on 6 major areas in order to create a healthy and happy learning environment. In 2013, the most important areas included: a healthy diet and exercise, healthy body, oral care, vision care, tobacco control, the second-generation NHI, and betel nut hazard control.

3. Health Promoting Schools Promotion Outcomes

- (1) The revised international certificate standards for health promoting schools: According to the WHO's "Health Promoting Schools Development Plan: A Framework for Action," HPA laid out an "Evaluation Tool for Community Obesity Prevention Environments" index. Further, we carried out validation by experts and afterwards amended for the international certificate standards. In 2013, we used the 2012 certification results to streamline the assessment project and review the expert validity examinations again. In considering the differences between elementary, junior high, and senior high school students, we decided to revise the standards into three different versions. The three versions include 6 standards, 21 sub-standards, and 47 checkpoints, as follows:
- A. Standard 1, School Health Policy (2 sub-standards, 6 checkpoints)
- B. Standard 2, Physical Environment of Schools (5 sub-standards, 9 checkpoints)
- C. Standard 3, Social Environment of Schools (Health Culture) (4 sub-standards, 7 checkpoints)
- D. Standard 4, Healthy Lifestyle Skills: Teaching and Action (3 sub-standards, elementary school version 8 checkpoints, junior and senior high school version 9 checkpoints)



Awards press conference given by this department and the Ministry of Education for the "Taiwan 2013 – We Invite You to Love Your Health - Elementary Students' Creative Tips Through Art" competition

- E. Standard 5, Community Relations (3 sub-standards, 6 checkpoints)
- F. Standard 6, Health Services (4 sub-standards, elementary school version 11 checkpoints, junior and senior high school version 10 checkpoints)
- (2) In collaboration with the Ministry of Education, HPA held a competition:

"Taiwan 2013 – We Invite You to Love Your Health - Elementary Students' Creative Tips Through Art." The purpose of this competition was to encourage students to drink at least 1,500cc of water everyday. Through the competition, elementary students learn to replace sugary drinks in their diet, reducing the risks of obesity and chronic diseases. Gold, silver, and bronze medals (9 in total) were awarded to the elementary schools students respectively, and 217 masterpieces were selected. A joint press conference was held with the Ministry of Education to announce the awards. Through the students' creativity, Taiwanese students and the people are encouraged to drink plenty of water and to implement a healthy lifestyle.

Section 4 Health Promoting Workplaces

Status Quo

After the introduction of five priority action areas in its Ottawa Charter of 1986, the World Health Organization (WHO) 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 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 Ministry of Health and Welfare, MOHW 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, HPA launched a program on tobacco hazards prevention at the workplace. With a commission from HPA, 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 bringing about a healthy working environment free from smoking and enabling businesses to perform autonomous management on this front. As of 2013, a total of 10,655 entities had secured voluntary healthy workplace certification (5,797 tobacco hazards prevention labels, 3,171 health initiation labels and 1,687 health promotion labels, see Figure 4.2). In addition, a total of 381 establishments were cited between 2006 and 2013 for their outstanding records as healthy workplaces. In 2012, HPA has included health promotion certified workplaces into the evaluation indices of work plan of subsidizing local promotion of healthcare, in order to encourage the bureaus of health to work with workplaces, together to advocate employee health promotion, and create a friendly and healthy work environment.

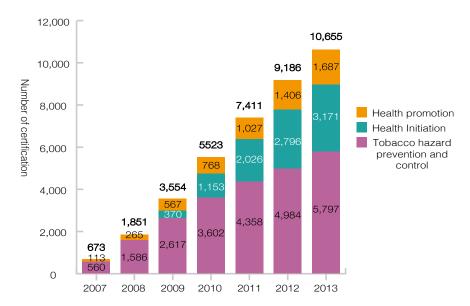
Policy Implementation and Results

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

Since 2003, HPA has continued to establish healthy workplace, and to provide counseling, as well as hygiene education, and training. In 2007, a healthy workplace certification system was initiated. In 2009, the system introduced a new criterion of certification in accordance with the newly revised Tobacco Hazard Prevention Act, that is, all indoor



The Number of Workplaces with Healthy Workplace Certification, 2007-2013



workplace with 3 or more employees, would be henceforth off-limits to smoking. Meanwhile, HPA makes it a point to commend establishments that have registered outstanding records in keeping their workplace smoke-free and in health promotion.

- (1) In 2013, teams of specialists were called in to provide 167 workplaces and 9 occupational or industrial unions with on-site guidance on health promotion and tobacco hazards prevention. In addition, 5 workshops on workplace health promotion for responsible personnel were held, and their actual result were follow-up, guidance was also offered continuously.
- (2) Promoting the Healthy Workplace Certification scheme actively: In 2013, a total of 1,469 workplaces passed the healthy workplace certification, and 39 were awarded as outstanding workplace in this regard. Amendments to the scheme were also made following continuous consideration of international policy; as a result, separate certifications were established with regard to smoking prevention, health initiation and health promotion in 2013. The contents are as follows:
- A. Tobacco Hazards Prevention Labels: the workplace has achieved resulted in smoking prevention that surpass the relevant provisions of the Tobacco Hazards Prevention Act.
- B. Health Initiation Labels: the workplace has achieved resulted in smoking prevention that surpasses the relevant provisions of the Tobacco Hazards Prevention Act, and the workplace has already begun activities related to health promotion.
- C. Health Promotion Labels: the workplace has achieved resulted in smoking prevention that surpass the relevant provisions of the Tobacco Hazards Prevention Act, but must also reach the employee personal health resource targets of the WHO's proposed 4 categories (personal health resources in the workplace; physical work environment, psychosocial work environment, enterprise community involvement). At the same time they must also conduct a comprehensive assessment of the implementation of their health promotion projects and draft an annual plan. They should set suitable qualitative and quantitative targets and assess the results of their projects on this basis.
- (3) Encouraging workplaces to offer employee health and positive work environments in order to enhance employees' health and physical conditions: HPA held the national workplace "Staircase Beautification Contest in 2013". 18 outstanding workplaces from Northern, Central and Southern regions were selected from a total of 67 entries. The winners were awarded during the 2013 Workplace Health Promotion Summit. It was hoped that staircase beautification would in turn spur employees to take the stairs rather than the lift, thereby doing some exercise in daily life. According to statistics from the Environmental Protection Agency, by taking the stairs instead of the lift, it is estimated to reduce

carbon emissions by 0.218 kilos per floor. Thus, taking stairs not only improve employee' health, but also helps reduce carbon emissions.

2. Attendance at the 11th Annual Global Views Business Forum

On the October 30th, 2013, Director-General Shu-Ti Chiou attended the 11th Annual Global Views Business Forum, organized by the Vision Commonwealth Business Group. She acted as panelist on the "Healthy Workplace ~ Happy Homes" forums, together with the presenter Wen-hua Wang, the founder of the Dream School, panelist Binyun Zhang, the chairman of the Shanghai Fudan Hospital Management Company, and Xue Jian-ping, the CEO of Xinyi Housing, they examined the links between health and economics for enterprises and how to improve workplace health. During the session,



2013 The 11th Annual Global Views Business Forum

Director-General Shu-Ti Chiou suggested that executives and managers should serve as models to their employees thereby encouraging their employees to participate and to enhance the health levels of employees. In her concluding remarks she stated that "investing in your employees is investing in yourself".

3. 2013 Workplace Health Promotion Summit and Outstanding Workplace Award Ceremony

On the December 3rd and 4th, 2013, the 2013 Workplace Health Promotion Summit and Outstanding Workplace Award Ceremony. The Director General of the International Commission on Occupational Health, Dr. Kazutaka Kogi, the Director General of the Finnish Institute of Occupational Health, Dr. Harri Vainio, the Director General of the International Ergonomics Association, Professor Ming-Yang Wang, the Deputy Director of the Workplace Health Department, Health Promotion Board of Singapore, Ms. Eunice Yong, and Professor Norito Kawakami of the University of Tokyo. Various domestic experts and scholars were also invited to participating in this event, and approximately 300 people attended the summit.

4. The Nationwide survey on health promotion and tobacco hazards prevention at the workplace

A nationwide survey on health promotion and tobacco hazards prevention at the workplace show that workplace smoking rate was 14.7% in 2013, down by 1.1% from 2012. The workplace smoking rate in 2004~2013 are show in Figure 4-3. The percentage of indoor workplaces that enforced a total ban on smoking came in at 82.0%, which was 1.1% higher compared to 2012 The trend in the evolution of smoking ban policies for 2004~2012 is shown in Figure 4-4.

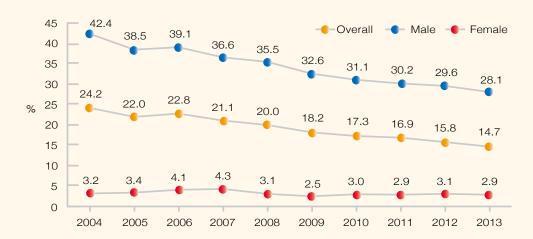


2013 Healthy Workplace Promotion Summit and Meritorious Workplace Award Ceremony

According to the 2010-2013 "Nationwide survey on health promotion and Tabacco Hazards Prevention at the workplaces", it shows that in 2013 58.6% of employees eat less than three vegetables a day, an increase of 6.2% in 2012 (Figure 4.5). 64.5% eat less than 2 pieces of fruit a day, an increase of 1.2% in 2012 (Figure 4.6). As for obesity, in 2013 56.8% were within the normal weight range, an increase of 0.3% in 2012. However, the proportion considered obese also rose slightly (Figure 4.7), demonstrating that effective healthy weight management plans in the workplace still require promotion and continued implementation.

Figure 4-3

Smoking rates in the workplace, 2004-2013



Source: 2013 Nationwide survey on health promotion and tobacco hazards prevention at the workplace

Figure 4-4

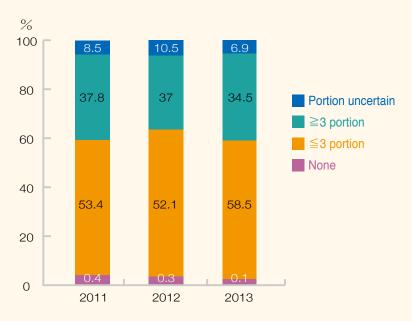
Smoking bans in the workplace, 2004-2013



Source: 2013 Nationwide survey on health promotion and tobacco hazards prevention at the workplace



Vegetable consumption rate of workplace employees, 2010-2013



Source: 2013 Nationwide survey on health promotion and tobacco hazards prevention at the workplace

Figure 4-6

Fruit consumption rate of workplace employees, 2010-2013



Source: 2013 Nationwide survey on health promotion and tobacco hazards prevention at the workplace



Physical condition of workplace employee, 2010-2013



Data source: 2013 Nationwide survey on health promotion and tobacco hazards prevention at the workplace

Section 5 Health Promoting Hospitals

Status Quo

1. International

In 1990, the WHO established the International Network of Health Promoting Hospitals and in 2006 they published the Implementing Health Promotion in Hospitals: Manual and Self-Assessment Forms, which provided hospitals with a tool to evaluate the structure, system, process and quality of their own health promotion policies, and act as a guide to implementation and improvement of health promotion services.

As of the end of 2013, over 950 hospitals representing 41 national or regional networks from countries across Europe, America, Asia, Africa, and Oceania have joined the International Network of Health Promoting Hospitals and Health Services.

2. Domestic

Taipei City took the lead in 2002 in formulating the Healthy Hospital accreditation standards. In that year, Taipei Municipal Wan Fang Hospital began promotion of the initiative and in 2005 it became the first Asian hospital to achieve the qualifications for membership of the International Network of Health Promoting Hospitals.

The WHO established the World Health Organization Collaborating Centers to tackle important issues in public health. To establish the necessary official network, each country was invited to attend and co-operate to benefit international efforts on such issues. Entering into discussion on issues deemed important by the WHO and into such established official networks can increase professional exchange between Taiwan and the world, and can reinforce our own implementation of WHO policy. 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. Its purpose is to help with the promotion, education, guidance, research, and cooperation of network coordinator in the health promoting hospitals in the Taiwan region. In the same year, Director-General Shu-Ti Chiou attended the International HPH Conference as a full member for the first time. As coordinator of the Taiwan Network of Health Promoting Hospitals and Health Services, HPA Director-General Shu-Ti Chiou was admitted to the HPH Governance Board as an observer in 2008. As part of her role, she was responsible for promoting the network within Asia, and has organized several Asian regional conferences and invited as a lecturer on health promoting hospitals to conferences across Asia. Thanks to her hard work across Asia, the HPH Networks in Asia have grown from the original 41 hospitals of the Taiwan network, into 6 national networks (America, Indonesia, South Korea, Taiwan and Thailand), 12 countries and total 232 member hospitals by the year 2014. Taiwan played a pivotal role in spreading the health promoting hospital concept within Asia. In 2010, Director-General Shu-Ti Chiou was elected as Vice Chair of the network, and in 2012 she was elected as the Chair, making her the first person to undertake an official leading role within a WHO Collaborating Centers network since Taiwan's withdrawal from the United Nations. In the same year, Taiwan hosted the 20th International Conference on HPH in Taipei City, the first time it was conducted outside of Europe, and attracted the greatest number of participating countries (45 from across the 5 continents), the greatest number of attendees (1,370), and produced the greatest number of submissions (744 articles) to date.

Director-General Shu-Ti Chiou, in her role as the Chair of the International Network of Health Promoting Hospitals, signed important Memorandum of Understanding (MOUS) with international organizations such as the ENSH-Global Network for Tobacco Free Health Care Services (ENSH), the International Hospital Federation (IHF), and the South Eastern Europe Health Network (SEEHN). Such work has assisted in spreading the concept of health promoting hospitals to a wider international audience.

Whilst serving as chair of the WHO International Network of Health Promoting Hospitals, Director-General Shu-Ti Chiou also proactively participated in network related business, such as establishing and leading the Task Force on HPH and the Environment and the Task Force on Age-Friendly Health Care and Health Services; sitting on the editing committee of Clinical Health Promotion, the official journal of the International HPH Network; participating in the Working Group on WHO-HPH Standards, the Working Group on Healthy Workplace, ENSH and the Scientific Committee of the International HPH Conference. In addition, she also assisted in the writing of the WHO textbook: Engage in the Process of Change - Facts and Method. Her work also included assisting the USA, Canada, Korea, Singapore, Thailand, Indonesia and Estonia in establishing or expanding the network in their countries, bringing the total number of global HPH members to over 1,000.

The WHO gave the International Network of Health Promoting Hospitals two main tasks, namely the action to mitigate the effects of climate change, and formulating and researching a Health Promoting Hospital Advanced Recognition Project (also known as the WHO HPH Recognition Program). The planning has been jointly directed by Director-General Shu-Ti Chiou and the CEO of the WHO Collaborating Centers for Evidence-based Health Promotion in Hospitals and Health Services, Professor Hanne Tønnesen. 21 Taiwanese hospitals participated in the recognition trial, covering over half (52.5%) of the 40 international hospitals who were participating in this study.

Policy Implementation and Results

- 1. Health Promoting Hospitals
- (1) Training and Growth of Health Promoting Hospitals
- A. By the end of 2013, Taiwan had 131 healthcare organizations (122 hospitals, 1 long-term care facility, 8 health centres, see Figure 4-8) who had been approved to join the International Network of Health Promoting Hospitals, the largest single bloc within the international network (Figure 4-9).
- B. In order to reinforce the partnership between local health bureaus and healthcare institutes, and to integrate health



2006-2013 Numbers of Taiwanese hospitals added to the WHO Health Promoting Hospitals Network

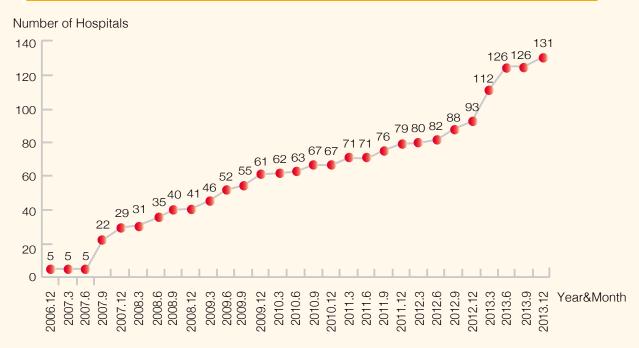


Figure 4-9

Numbers of members of the International Network of Health Promoting Hospitals by country



 $Data\ source:\ Website\ of\ the\ Health\ Promoting\ Hospitals\ International\ Network\ http://www.hphnet.org/index.php/members/nrnetworks$

promotion with preventive care resources, HPA provided subsidies to assist local health bureaus in encouraging hospitals to work towards becoming health promoting hospitals, to take the initiative in supplying health promotion services, and to improve the health of the communities, employees, family members and patients. Starting in 2011, the subsidized local offices partnered up with the healthcare institutions under their jurisdiction to implement the "Assisting Healthcare Institution Conducting Health Promotion Initiatives". In 2013, 21 bureaus and 136 healthcare institutions in their jurisdiction implemented this initiative. Core topics included promotion of health in the workplace and weight loss initiatives, while optional topics (select at least one) were energy-saving and reduction of carbon emissions (40 institutions), healthy aging (55 institutions) and old age-friendly healthcare (52 institutions).

- C. To advance the capacity of health promoting service of local health bureaus and healthcare institutions, HPA held a total of 2 workshops for hospitals and non-hospital institutions. 198 people attended these workshops.
- D. In order to assist capitation pilot hospitals and domestic health promoting hospitals in the integration of the administration of medical affairs and introducing preventative medicine services, holistic health risk management and community health promotion, HPA organized the Conference on Capitation and Health Promoting Hospitals and Healthcare Providers in August 2013, which introduced evidence-based health promotion issues. Hospitals with good health promotion achievements and capitation pilot teams were invited to share their experiences. A total of 91 hospitals and 227 people were in attendance.
- E. HPA held a competition to select model health promoting hospitals and to reward innovation. Xizhi Cathay General Hospital was selected as the model institution, whilst awards of merit were given to 5 other hospitals. Rewards for innovative (including in anti-smoking campaigns; tobacco control in mental health institutions, ecological sustainability; diet, exercise and weight control; employee mental health; safe workplaces; volunteer movements; elderly health and health equality) were given to 54 institutions. Awards were presented at the 2013 Health Promoting Hospital Conference.
- F. The 2013 Health Promoting Hospitals Conference was held on October 13, 2013. Awards for model health promoting institutions and innovation projects were presented to exemplar healthcare institutions; certificates of HPH membership were also issued to 40 new members. A total of 496 experts, scholars and colleagues from health departments and hospitals attended the conference.

(2) Participation in the multinational WHO HPH Advanced Recognition Project

In order to assess the effects of health promotion in hospitals, the WHO International HPH Network proposed an Advanced Recognition Project, using existing self-assessment tools and standards to valuate the results of hospital implementation of clinical health promotion, through means of examining medical records, patient surveys, employee surveys, quality planning and organizational data. 8 countries of the International HPH Network (Taiwan, the Czech Republic, Thailand, Slovenia, Estonia, Canada, Indonesia and Malaysia) have enlisted willing health promoting hospitals to participate in this recognition trial. At present, Taiwan has 21 HPH institutions (9 intervention hospitals and 12 control hospitals) who have joined this recognition project, making Taiwan the nation with most participating hospitals in this project. On the April 13th, 2013, a workshop was organized for the intervention group. Prof. Hanne Tønnesen, CEO of the International HPH Network and Mr. Jeff Kirk Svane, technical officer, were invited to advise participating hospitals in implementing quality improvement plans. On the August 18th, 2013, another workshop for the control group was held to assist participating hospitals in launching this plan and in the collection of baseline data.

2. Low-Carbon Hospitals

(1) Establishment of the International Task Force on Health Promoting Hospitals and the Environment

In 2009, during the 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. In four years the Task Force aims to

combine the strengths of the WHO, Health Care Without Harm (HCWH), the International HPH Network and Taiwan to transform healthcare departments from being high resource consumers to protectors of environment. By the end of 2013, the Task Force had a total of 177 domestic and international members.

In 2010, HPA launched the "Medical Community as Vanguard to Save Earth with Carbon Reduction" campaign in Taiwan, where 128 hospitals in Taiwan to work pledged on initiatives to save energy and reduce carbon emissions, demonstrating the determination of the medical communities. It is predicted that carbon emissions in 2020 will have dropped by 13% (164,648 tons) as compared to 2007, equivalent to planting trees for 445 Da'an Forest Parks or 34 New York Central Parks. Furthermore, on April 11th, 2012, HPA collaborated with HCWH to hold a Pre-Conference on HPH and Environment at the Taipei International Conference Center. The Southeast Asian Launch Ceremony of HCWH's Global Green and Healthy Hospitals Network (GGHHN) took place at the same time. Director-General Shu-Ti Chiou, in her capacity as chair of the International HPH Network, attended the launch ceremony alongside delegates from 13 other countries (21 hospitals representatives from Taiwan). She called on healthcare institutions who valued environmental sustainability from all areas of the globe to work together to promote community environmental health.

(2) Hospital Training and Subsidies

Since 2010 HPA has organized environment-friendly hospital workshops every years, providing hospitals with a platform for experience exchange. In 2013, HPA organized environmental-friendly work shops in the Central and Northern Taiwan. A total of 165 people from 59 hospitals participated in these workshops. Expert teams were also arranged to visit 39 hospitals to provide them with site assessments and consultation in the implementation of energysaving and low carbon measures. By the end of 2013, a total of 168 Taiwanese hospitals have joined in the environmentfriendly practice. In addition, energy saving and carbon reduction was listed as a optional topic for healthcare institutions to select in their promotion of health-promotion initiatives, subsidized by the HPA and coordinated by local health bureaus. A total of 40 medical institutions in Taiwan have selected this topic in 2013.

(3) Publication of Manuals and Assessment Tools

In 2010, HPA published the Chinese-English versions of the "Green Hospitals, Green Life, Green Planet -Experience Sharing on Green Hospitals" manuals; In 2013, HPA drafted the "Health Promotion and Environmentallyfriendly Hospital Manual" to assist hospitals in developing and implementing low-carbon strategies. In 2012, HPA developed the "Self-Assessment Forms for Environment-friendly Hospital Initiative", drawing upon the 10 dimensions of Health Care Without Harm's publication of "Global Green and Healthy Hospital Agenda", and modify it to accommodate Taiwan's healthcare industry. It contains 8 dimensions (leadership, chemicals, waste, energy, water, transportation, food, and buildings), consisting a total of 84 action items. In 2013, the self-assessment form was sent to 161 low carbon hospitals for evaluation; a total of 138 hospitals took the survey. Initial analysis revealed that Taiwanese hospitals generally performed better in the dimensions of leadership, waste, energy and buildings, with an implementation rate of over 90%; dimensions that needed improvement were transportation and food.

(4) International Exchange

- A. In 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), the first time in 17 years that an official from Taiwanese attended the UN climate change press conference. Taiwanese efforts also gained the recognition of the WHO and the international community.
- B. HPA organizes environment-friendly workshops during the annual International HPH Conference. In 2013, experts from Germany, Austria, Sweden and Taiwan were invited to share experiences and discussions on topics such as green procurement, energy efficiency, low carbon foods, pharmaceutical control and indoor air quality.

Approximately 50 people participated the work shop. Also, the 5th Meetings of the Task Force on HPH and the Environment were also held. For the results achieved by this task force in the promotion of green hospital, please visit the following page on the website of the International HPH Network: http://www.hphnet.org/members/task-forces/20-members/tf1/143-tf-on-hph-a-environment.

- C. A total of 33 healthcare institutions from Taiwan and abroad participated in attending the "2013 International Environmental-Friendly Hospital Team Work Best Practice Award".
- D. HPA commissioned HCWH to assist in promoting sustainable healthcare and environment-friendly measures in the medical communities, both domestic and abroad. HCWH collected 18 best practice examples from foreign medical institutions and made them available for browsing by domestic and foreign medical institutions, as well as provided consultation advices for medical institutions in Taiwan.



Health Promoting Hospital and Environmental-Friendly Workshop





5Healthy Ageing

Ageing should be a positive experience. The WHO has therefore advocated "Active Ageing" since 2002, encouraging seniors to attend not only their physical and mental health but also to social, economic and cultural affairs, while seeking spiritual growth. The goal is to maintain an active lifestyle.

Taiwan has been an ageing society since 1993, while in December 2013 the number of people aged 65 or over surpassed 2,690,000, or 11.5% of the total population. Given a persistently low birth rate and the ageing of postwar baby boomers, 14% of Taiwan's population is expected to be 65 years of age or older in 2018. This would qualify Taiwan as what is generally known internationally as an aged society. If current trends hold, Taiwan will become a super-aged society in 2025, when people 65 years or older will account for approximately 20% of the population. Adding to this challenge, the population of Taiwan appears to be ageing faster than any other developed country.

Accelerated growth in the senior population, along with a steady rise in the middle-aged population, means that the health of these groups is even more important to society. Health promotion and disease prevention are imperative, as is developing a friendly environment that can provide seniors with appropriate 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 improving citizens' health as much as possible. Such living conditions can control or decrease the risks and adverse effects of diseases, postponing the onset and compressing the length of disability, and boost the quality of life.

According to the vital statistics in 2013, the top ten causes of death among Taiwanese people (Figure 5-1), malignant neoplasms, heart disease, cerebrovascular diseases, diabetes, hypertensive diseases, nephritis, nephritic syndrome and nephrosis, etc., are all problems faced by Taiwanese people during the ageing process. These causes account for approximately 60% of total deaths. The government needs to take this matter seriously. Diseases can be detected early through health screenings, which can also prevent major chronic diseases and actively help to create a healthy supportive environment, thus enabling healthy ageing among Taiwanese citizens.

Table 5-1

Taiwan's 10 Leading Causes of Death, 2013

	Cause of Death	Number of Deaths	Crude Death Rate (see 1)	Standardized Death Rate (see 2)
1	Malignant neoplasms	44,791	191.9	130.4
2	Heart disease (Hypertension diseases excluded)	17,694	75.8	47.7
3	Cerebrovascular diseases	11,313	48.5	30.3
4	Diabetes mellitus	9,438	40.4	25.8
5	Pneumonia	9,042	38.7	22.5
6	Accidents and adverse effects	6,619	28.4	22.4
7	Chronic lower respiratory disease	5,959	25.5	14.9
8	Hypertensive diseases	5,033	21.6	12.9
9	Chronic liver disease and cirrhosis	4,843	20.7	14.8
10	Nephritis, nephritic syndrome and nephrosis	4,489	19.2	11.9

Note 1: Death rate calculated per 100,000 people

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

Source: Statistics on Cause of Death, Ministry of Health and Welfare

Section 1 Health Policies for Middle-Aged and Elderly Citizens

Status Quo

Average life expectancy in Taiwan was 79.9 years in 2013, which was 76.7 years for males and 83.3 years for females. Longer lives present new challenges, as the 2013 National Health Interview Survey demonstrated, with more than 80% (86.3%) of seniors reporting 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 are hypertension and diabetes mellitus, while women are vulnerable to osteoporosis. In order to ensure quality of life for senior citizens, health policies aimed at improving health and disease management for middle-aged and elderly citizens are needed.



The Percentage of Seniors Aged 65 or Above with at least One Chronic Disease

Categories	1 chronic disease	2 chronic diseases	3 chronic diseases
Total	86.3%	68.6%	47.3%
Males	84.3%	64.1%	40.7%
Females	88.1%	72.5%	53.1%

Source: 1. 2013 National Health Interview Survey

2. 17 types of chronic diseases include: hypertension, diabetes, heart disease, stroke, lung or respiratory disease (bronchitis, emphysema, pneumonia, lung disease, and asthma), arthritis or rheumatism, gastric ulcers or stomach illness, liver or gallbladder disorders, hip fractures, cataracts, kidney disease, gout, spinal bone spurs, osteoporosis, cancers, hyperglycemia, and anemia.

Target Indicators

- 1. In 2013, the rate of elderly people who exercise regularly was 55.4%. (At least three times a week, and at least 30 minutes per session).
- 2. In 2013, the smoking rate of people over 65 fell to 12.1%
- 3. In 2013, the percentage of women aged 45-69 undergoing mammograms for breast cancer within the past two years rose to 33%.
- 4. In 2013, the percentage of people aged 50-69 undergoing fecal occult blood tests within the past two years rose to 40%.

Policy Implementation and Results

In order to promote early detection and treatment of chronic diseases, the government provides preventive health care and integrated screening services for adults. In addition, the HPA incorporates healthy ageing policies into other initiatives, such as healthy cities, safe communities, health promoting communities, and the Community Care Sites program. It emphasizes health promotion issues that address the specific needs of seniors, such as healthy diet, exercise, prevention of falls, drug use safety, prevention of chronic diseases, health examinations and blood pressure measurement. Other steps taken to build a comprehensively age-friendly health environments and services include the promotion of age-friendly health care and age-friendly cities.

Summary of Achievements:

1. Preventative Healthcare for Adults

The government provided 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 2013, 1.81 million people took advantage of these services (including 880,000 people aged 65 or over), which led to a utilization rate of 32.6%. Among subjects screened during in 2013, the percentages of people

with newly detected abnormalities in blood pressure, blood sugar and blood cholesterol were 19.6%, 8.3% and 11.7% respectively. (A newly detected abnormality is defined as one detected, for example, high blood pressure, diabetes, and high cholesterol, which had not been diagnosed before. This time the results of the check-ups show abnormalities).

2. Integrated Screening Services

In order to provide comprehensive, on-site screenings in local communities, the HPA has been encouraging county and city governments to consolidate their medical resources since 2002. This includes integrating screenings already used in adult preventive health care services and cancer screenings. In 2013, 20 counties and cities had carried out these changes, serving over 343,000 people. A total of 2,878,000 people benefited from these integrated services between 2003 and 2013.

3. Health Promotion for the Elderly

(1) Integrating Community Local Resources to Promote Senior Health

The HPA advanced senior health promotion by adopting the WHO Ottawa and Bangkok Charters. Through the health departments and community medical institutions, we integrate local resources, such as the concepts of a healthy city, safe communities, health promoting communities, community care sites and senior citizens learning centers. We conducted health promotion activities according to the specific characteristics and needs of the elderly in our communities, aiming to protect their independence and allow the elderly to live healthy, autonomous lives. When the elderly are less dependent, then can also take an active role in society, and once again become a useful societal resource. In 2013, health stations in 22 cities and counties, and 438 medical institutions partnered with 1,672 Community Care Sites to hold health promotion activities, increasing the partnership rate at care sites to over 80%.

(2) Health 102 Move — National Contest for Elderly Health Promotion

In order to increase social participation among seniors, the HPA collaborated with health bureaus (stations) and NGOs to encourage teams of seniors to take part in this competition, which encourages Grandpas and Grandmas to interact more in their daily lives through sports practice and gatherings. Mutual learning and support encourages seniors to take part in physical activity, and also enriches the lives of the elderly. In society, helping keep them happy and positive, slowing physical deterioration, and promoting societal participation in general. 82,139 seniors took part in the 2013 event, representing over 3% of the elderly population, and also surpassing the annual target of 60,000 people.

(3) Enhancing Preventive Health Care Services for the Elderly

In 2013, the HPA promoted the elderly health promotion plan, conducted chronic disease prevention and elderly health promotion, and improved early detection of chronic disease, referrals and follow-up services. In 2013, approximately 880,000 people aged 65 or older people received adult preventive healthcare services. Approximately 1,028,000 people aged 50-69 underwent fecal occult blood testing, and approximately 694,000 women underwent mammograms.269 people aged 65 years or older took advantage of smoking cessation helpline services, and 4,574 used smoking cessation elderly outpatient services.

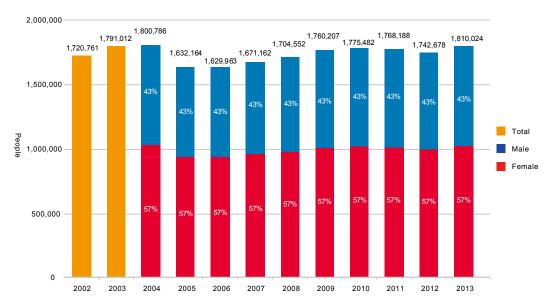
(4) Creating Age-friendly Cities

In response to the rapid ageing of the global population, the WHO published "Global Age-Friendly Cities: A Guide in 2007," which 8 aspects of city living were identified as worthy of special emphasis in creating a friendly environment to the elderly. The HPA chose Chiayi as the site for a first pilot of age-friendly city in 2010, with a view to gradually expanding this program to other counties and cities. The policy was based on the 8 aspects pinpointed by the WHO: housing, communication and information, transportation, outdoor spaces and buildings, civic participation and employment, social participation, community and health services, and respect and social inclusion. In 2013, the program was being implemented in 22 counties and cities nationwide, meaning that in just three short years, Taiwan has became the world's highest rate of 'age-friendly cities' inclusion.

A. Public policy for "age-friendly cities": we encourage every county and city government to implement the following points, to integrate cross-department and bureaus with the public and academic resources, to establish an 'age-friendly city' promotion committee, and to implement respectful policies in the local region. The aforementioned points include: holding "Grandparents Day" activities, promoting elderly learning centers, provision of on-site services by care points, encouraging the elderly to become volunteers, provision of communal dining or delivery services, gradual purchase of low-floor buses and vans, providing communication networks for remote areas and communities,

Figure 5-1

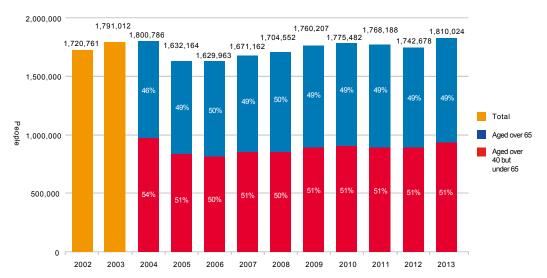
Use of Preventive Healthcare Services for Adults, by Gender



Source: Annual Report on Adult Preventive Healthcare, National Health Insurance Administration

Figure 5-2

Use of Preventive Healthcare Services for Adults, by Age



Source: Annual Report on Adult Preventive Healthcare, National Health Insurance Administration

- and providing assistance with home maintenance for elderly citizens who live alone. Some cities and counties also provide housing for the elderly.
- B. We have entrusted groups of academics and invited experts in various fields to form promotion teams, to help local governments inspect the positive and negative impacts of their policies on senior citizens' lives, improve city infrastructure and services according to elders' needs, and establish an age-friendly city which is compatible with these needs, is easily accessible and encourages an active life. We have also held workshops and performance conferences, in order to enhance local governments' experience and capabilities, as well as encouraging participation in international conferences, development of potential models for international cooperation, and development of international participation and exchange.
- C. Taiwan's 22 county and city governments have aligned themselves with the WHO's eight aspects, and have come up with annual improvement plans to develop special policies for an age-friendly city. Examples include Taipei's 'Senior -Friendly Stations'; Taoyuan County's 'New Traffic Bright Spots'; Miaoli County's 'Everyone Tells Neighborhood Stories.' and 'Active Elders Leisure Roaming Bus'; Taichung City's 'Happy Seniors Cartoons and Documentaries' and 'Every Generation Go to School' activities; Chiayi City's 'Elderly-Friendly Canteens' and 'Cheung-Ching Center'; Chiayi County-supported 'Healthy Ganzi Diam Shops'; Yilan County's 'A Touch of Happiness' and Yunlin County's 'Bus of Happiness'.
- D. 'Age-friendly city' competitions: In 2013, the HPA held the 'Healthy City and Age-friendly City Awards Ceremony and Performance Conference', at which awards for excellence, personal contribution awards and innovation were given. 392 programs signed up for consideration, of which 85 were selected for commendation. Over 700 people attended the ceremony. In addition, we also arranged a performance conference on November 27th for 19 units who had been awarded prizes for excellence or innovation. These units were able to report on the results of their work and share their valuable experience.

(5) Age-friendly Healthcare

A. The promotion of Age-friendly Healthcare Institutions Certification

In response to the rapid aging of Taiwan's population, and to assist healthcare institutions prepare in a timely fashion, Director-General Shu-Ti Chiou had developed "Taiwan's Framework of Age-friendly Hospitals and Health Services", based on the three main age-friendly principles from WHO's "Toward Age-friendly Primary Health Care" published in 2004 and the Five Standards of Health-Promoting-Hospitals (HPH). The framework encompasses four standards: Management Policies, Communications and Services, Care Process, and Physical Environment, 11 substandards and 60 items. It has a core value of "health", "humanity" and "human rights", and a vision to improve seniors' health, dignity and societal participation. The framework was released in 2010, and the "Age-Friendly Hospitals and Health Services Recognition" was promoted island-wide in Taiwan since 2011 through full support from the government.

B. Age-friendly Health Care Institution Guidance and Development

The recognition framework was initially implemented in hospital settings, and later expanded to clinics (community treatment groups) and long-term care institutions in 2012. As of the end of 2013, 64 institutions (including 1 local public health center) have passed the recognition. Only Keelung City, Hsinchu County, Hsinchu City, Lienchiang County and Kinmen County currently have no Agefriendly healthcare institutions. HPA will continue to actively guiding healthcare institutions to join the recognition. In order to encourage experience exchange and facilitate learning among Age-friendly healthcare institutions, HPA organizes the Age-Friendly Healthcare Model Institution, Composition and Slogan competitions every year; the winners of these events are awarded during the annual year-end ceremony each year. The 2013 ceremony was the third year that it has been held; award-winning healthcare institutions were invited to share their knowledge and experience; a total of 261 people attended the ceremony.

Section 2 Prevention and Control of Major Chronic Diseases

Status Quo

According to Taiwanese Survey on Hypertension, Hyperglycemia, and Hyperlipidemia (TwSHHH) in Taiwan" conducted by the HPA in 2007, nearly 40% of Taiwanese citizens aged 20 or above suffered from hypertension, hyperglycemia, or hyperlipidemia (the 3Hs). Sufferers accounted for 7.36 million people by 2013. Of Taiwan's top 10 leading causes of death, many are related to these three chronic diseases, including heart disease (No. 2), cerebrovascular diseases (No. 3), diabetes mellitus (No. 4), hypertensive diseases (No. 8), and nephritis, nephritic syndrome and nephrosis (No. 10). Combined, they accounted for 47,967 deaths in 2013, exceeding the 44,971 deaths caused by cancers in 2013. Moreover, year-on-year increases were registered relative to 2012 in the number of deaths attributed to heart disease (573 people or 3.3%), cerebrovascular diseases (252 people or 2.3%), nephritis, nephritic syndrome and nephrosis (162 people or 3.7%), diabetes (157 people or 1.7%), hypertensive diseases (47 persons or 0.9%).

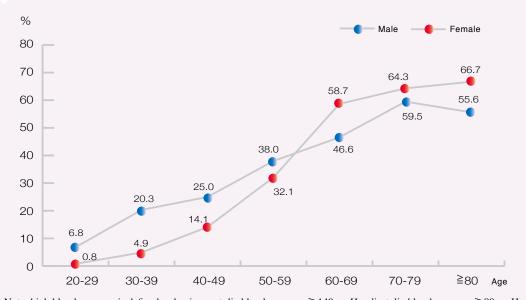
In addition, people tend to become increasingly vulnerable to the 3Hs, nephritic disease and metabolic syndrome as they age. Women over 50 are more susceptible to the 3Hs than men (see Figures 5-3, 5-4, 5-5). Moreover, people with the 3Hs stand a greater chance of developing cardiovascular disease and kidney disease or even dying.

Given the increasing prevalence of chronic diseases in Taiwan, the HPA has set metabolic syndromes, diabetes, cardiovascular diseases, and kidney diseases, among others, are the preventive foci of chronic diseases. Even though chronic diseases pose no immediate threat to life, they are nonetheless the main cause of early death. The reasons behind occurrence for chronic diseases are complicated and diverse, and the processes are gradual. Chronic diseases can even appear at any stage of life. When such diseases emerge, physical limitations or disability gradually appears, reducing the patient's quality of life. Chronic disease can negatively affect health in the long term, and also worsens gradually. HPA has therefore stipulated preventive goals for major chronic diseases, including:

- 1. Improvement and maintenance of middle-aged and elderly health.
- 2. Prevention and delay of occurrence of chronic diseases.
- 3. Enhance quality of life for patients, family members, and caregivers.

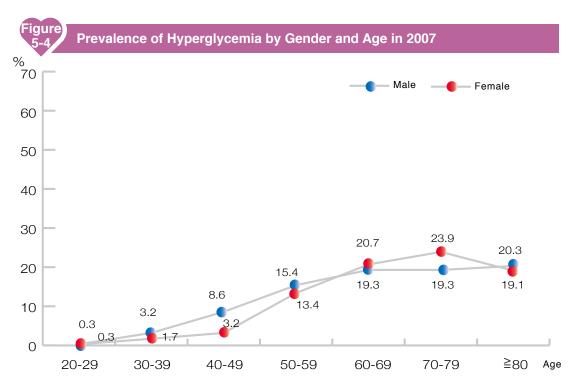
Figure 5-3

Prevalence of Hypertension by Gender and Age in 2007



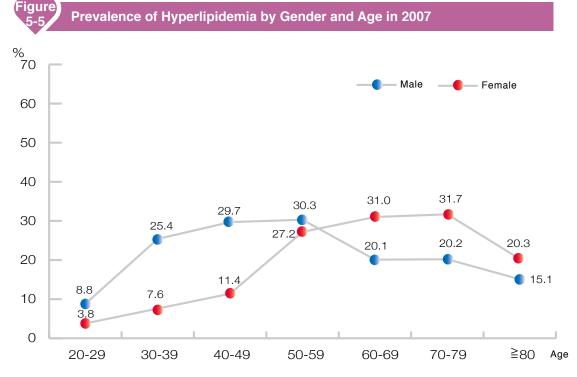
Note: high blood pressure is defined as having systolic blood pressure $\ge 140 \text{mmHg}$, diastolic blood pressure $\ge 90 \text{mmHg}$, or use of high blood pressure medication.

Source: 2007 Taiwanese Survey on Hypertension, Hyperglycemia, and Hyperlipidemia (TwSHHH)



Note: hyperglycemia is defined as blood glucose test value ≥126mg/dl after 8 or more hours on an empty stomach, or use of hypoglycemic agents.

Source: 2007 Taiwanese Survey on Hypertension, Hyperglycemia, and Hyperlipidemia (TwSHHH)



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

Source: 2007 Taiwanese Survey on Hypertension, Hyperglycemia, and Hyperlipidemia (TwSHHH)

Target Indicators

- 1. Awareness of ideal waist circumference reached 47.9% among males and 44.4% among females over age 18 in 2013.
- 2. The number of users of preventative health care services to over 1.8 million in 2013.
- 3. In 2013, there were 194 Diabetes Health Promotion Institutes and 145 Chronic Kidney Disease Health Promotion institutes
- 4. In 2013, we pushed for the establishment of 495 diabetes support groups, and attained 95% coverage of Taiwan's counties, towns, cities and regions.

Policy Implementation and Results

- 1. Raising Health Awareness Among the Public
- (1) Diverse Health Education and Promotion, Production of Teaching Materials and Manuals

The HPA 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, DVDs, etc., on metabolic syndrome, diabetes mellitus, coronary artery disease, hypertension and chronic kidney disease.

(2) Diverse Promotion Channels

In response to the special days designated for such chronic diseases as diabetes mellitus, hypertension, heart disease, kidney disease and asthma, etc. The HPA cooperates with local health departments, civil 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 include:

- A. In 2013, we spread awareness of topics such as prevention of metabolic syndrome, chronic kidney disease prevention, diabetes prevention and cardiovascular disease prevention through channels including television, radio and magazines. In addition, we also revised and printed handbooks and leaflets on fall prevention among the elderly, recognizing dementia, health during the menopause, hypertension prevention, guidelines for the clinical treatment of osteoporosis, diabetes passport and health management for chronic kidney disease. We were thus able to improve utilization of health education by medical centers and members of the public.
- B. For World Diabetes Day 2013, the HPA collaborated with the Diabetes Association of the ROC, the Taiwan Association of Diabetes Educators, the Formosan Diabetes Care Foundation and the Taiwan Association of Persons with Diabetes in holding a series of internationally synchronized events on diabetes education and prevention. These included press conferences, carnival, lighting, photography contests, sport walking and health check-up events. We thus improved public awareness and understanding of diabetes. Approximately 15,000 people participated in these events.
- C. For World Hypertension Day 2013, we cooperated with the Taiwan Heart Foundation to hold the 'Healthy Blood Pressure and Pulse, Happy Life in One Grasp' group excursion, which attracted approximately 400 participants. We also spread the concept of hypertension prevention via channels such as television, newspapers and the internet, calling on the public to adopt a healthy lifestyle attitude, while also improving public hypertension detection services.
- D. For World Heart Day 2013, we worked with the Taiwan Heart Foundation and the Taiwan Society of Cardiology to promote heart disease prevention. We made use of several channels such as television, newspapers and the internet to spread the concept of heart disease prevention. Our efforts were reported in a total of 22 media outlets, and 600 people participated.
- E. For World Kidney Day in March 2013, the HPA held a chronic kidney disease prevention awareness event. 7 kidney care carnivals were held in 6 counties and cities across Taiwan, with a total of 6,342 people participated.

We also held 21 kidney disease prevention seminars across the country, improving public awareness of the concept of kidney disease prevention, and attracting a total of 1,958 participants, as well as 5 chronic kidney disease care benchmark learning demonstrations, with a total of 1,135 people participated.

2. Urging high-risk groups to pay attention to health improvement, improving behavior, and ability to self-manage one's health

- (1) In order to make blood pressure measuring service locations convenient and accessible for the general public, local health departments integrated community resources at their disposal to establish 2,500 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 HPA also advised local governments in promoting metabolic syndrome and diabetes prevention, added waistline measurements at blood pressure stations, and promoting metabolic syndrome prevention in 554 communities.
- (2) The HPA provided additional training sessions on prevention of chronic disease to the faculties of senior and junior high schools, and elementary schools. In 2013, a total of 603 school staff attended, including 61 administrators and 542 school nurses and nutritionists. Accumulated attendance between 2007 and 2013 reached 4,522.
- (3) In order to enhance care access for groups at high risk of diabetes, the HPA promoted 495 diabetes support groups in 349 townships and districts across Taiwan, representing a total coverage of approximately 95%. We also held healthy diet, weight control, and blood sugar monitoring events. In 2013, 9,513 people from high-risk groups participated in these events, among whom 6,194 conducted a self-assessment, with the following results: 9.4% improved their staple food intake, 66.3% exercised for more than 30 minutes each day (an increase of 10.6%), and 23.5% lost two or more kilograms. In addition, health promotion events focused on those at high risk of diabetes at 194 diabetes health promotion institutions were also a success. 33.3% reported improved blood glucose, with other improvements in blood pressure (46.8%), and cholesterol (40.3%) readings. Another 44.9% reduced their waist circumference, while 42.4% exercised for over 30 minutes every day. 46.1% reported a weight loss.
- (4) 22 local health bureaus across Taiwan integrated community resources, such as district offices, neighborhood offices, community care points etc., to thoroughly spread the concepts of the 3 Hs and chronic kidney disease prevention throughout communities. A total of 4,899 events were held, with over 140,000 seniors attending.
- (5) In Yunlin, Chiayi, and Tainan, where rates of subsidized kidney failure treatment are higher than the national average, we promoted the 'Multi-colored Life: Action Plan for Yunlin, Chiayi and Tainan to Tackle Kidney Disease.' This program improved health education about kidney disease, and also involved several large-scale events and health education activities across the counties, with a total of 33,783 people participated.
- (6) In order to develop a locally effective and viable salt-reduction model and promotion plan, the HPA held the 'Salt Reduction Development Model and Results Evaluation Plan for Local Governments', which involved symposiums, educational training, family guidance, and the cooperation of restaurants, communities and catering companies. Salt-reduction activities were held to improve community action and provide a supportive environment for salt reduction. Publicity events and educational courses were also held to develop individuals' skills in reducing salt in their diet.
- (7) In order to ensure that all doctors of various specialties who wish to provide adults with preventative health care services are easily able to access training, and also ensure that all medical practitioners are familiar with the concept of 'evidence-based preventive medicine,' the HPA held 20 'Adult Preventive Health Care Training Courses' and 'Evidence-based Preventive Medicine Courses' in 2013, with over 1,000 doctors participated.

3. Promoting Self-Awareness and Self-Management in Health

(1) The HPA promoted shared-care networks for diabetes in 22 counties and cities, and also established an accreditation system for diabetes medical care staff. We also publicly revised the "Medical Personnel Certification Criteria for Diabetes Shared-Care Network", added new classifications for pharmaceutical experts, simplified the process and duties for specialist nursing and nutrition accreditation, and extended the period of validity of these medical accreditations. A total of 7,265 people were accredited for clinical care in 2013.

- (2) There were 194 diabetes health promoting institutes in 2013 (8 more than the total in 2012). They provided internships to 1,410 diabetes health education staff and handled 270,925 cases applicable to the 'Pay-For-Performance Program for Diabetes under National Health Insurance' (an increase of 45,287 from 2012). The HPA held diabetes support group exchange meetings, improved competence and cohesion, and also covered group operating budgets for trained health education teachers and guidance counselors, in order to improve operating capability and quality. A total of 53 groups took advantage of this. Among the 25,317 patients in these groups nationwide, 16,320 were evaluated with the following results: 5.4% improved self-monitoring of blood glucose levels; 5.7% showed improvements in staple food intake; 63.4% (a 4.1% increase) exercised daily for over 30 minutes; 18% reduced their weight by 2 kilograms or more, and 44.6% (a 5.4% increase) reduced their HbA1c (glycated hemoglobin) readings to below 7%. We conducted the selection of exemplary diabetes support groups: a total of 40 groups won awards, and two competition events were conducted. We publicly commemorated award winners in the weight loss competition, including 22 groups, 196 individuals, and 437 ABCDEFG exemplar diabetic patients, and 8 diabetic improvement patients.
- (3) In 2013, the HPA designed and awarded the Diabetes Health Promotion Institution Label, which is hung at the entrance to accredited medical centers, enabling the public to feel assured about their choice of medical center. We also held the first 'Outstanding Diabetes Health Promotion Institution Commendation and New Institution Accreditation Ceremony'; 8 institutions were praised for their performance in care of new diabetes patients, with special awards given to 16 institutions, first-rate awards to 40 institutions; awards for outstanding overall implementation results given to 8 institutions, with special awards given to 17 and first-rate awards to 40. We also awarded the accreditation label to 12 new institutions in the 2014.
- (4) Health officials established a cross-departmental, interdisciplinary model of specialized care in order to deter the development of chronic kidney disease (CKD) and assist patients preparing for dialysis. Since 2004, the HPA entrusted the Taiwan Society of Nephrology with the advancement of health promotion institutions focusing on kidney ailments, and 145 of these institutions with 108,334 follow-up patients, accepted 30,225 new patients in 2013. Among patients undergoing dialysis, 1,992 (54.6%) already had a surgically created arteriovenous fistula in place. 1,342 (36.8%) dialysis first-timers arrived as outpatients rather than as inpatients or for emergency treatment. Significant improvements were shown.
- (5) In 2005, the HPA established a case management and information system for chronic kidney disease in order 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 2013, 210 hospitals used the system to register a total of 125,321 cases.
- (6) In order to assist local governments in promoting viable hypertensive patient health promotional plan, the HPA held the 'Local Government-based Hypertensive Patient Health Promotion Plan' in Tainan in 2013. 2,165 members of the public were provided with blood pressure diaries. We also held 30 public education lectures, and 3 follow-up education lectures for doctors in various regions. Patients were traced for half a year, and blood pressure control levels reached 64.8%-78.2%, an improvement on Taiwan's overall blood pressure control levels in 2007's '3 Hs Survey of 29.2%.'

Section 3 Cancer Prevention and Control

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

In order to continue with the second phase of the plan, and in 2014-2018 we will promote the 'Third Phase National Cancer Prevention Plan'. Its focus has shifted from treatment and early detection to prevention. The three new major points include: 1) more attention paid to prevention of other causes of cancer beside smoking and betel nut chewing, such as obesity, poor diet and insufficient exercise, reinforcing the monitoring of environments conducive to obesity, implementation of the 'Modern Citizen Diet Plan' and redoubling the proportion of people exercising regularly; 2) continuing to promote effective cancer screening, especially for oral and colorectal cancer, detecting and removing precancers, and preventing development into cancer; 3) promoting the 'Cancer Navigation Plan', not missing a single patient with curable cancer, ensuring that all early-stage cancer patients receive treatment, and that all late-stage cancer patients have access to palliative care, in order to minimize patients' confusion and sense of helplessness.

Status Quo

In an administrative order issued in 1979, the Department Ministry of Health and Welfare (formerly the Executive Yuan Department of Health, Executive Yuan) requested that 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 the registry data in 2011, 92,682 people (51,965 males and 40,717 females) were newly diagnosed with cancer. The standardized incidence rate was 295.1per 100,000 (339.4 for males and 255.0 for females). The median age was 62 (64 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 nut (Figure 5-6).

Based on standardized incidence rates of cancer, the ten most common forms of cancer in 2011 were, in order: (1) female breast cancer; (2) colorectal cancer; (3) liver cancer; (4) lung cancer; (5) prostate cancer; (6) oral cavity cancer, oropharynx, hypopharynx; (7) stomach cancer; (8) corpus uteri cancer; (9)cervical cancer; (10) skin cancer. (For national cancer incidence rates, see Tables 5-3, 5-4 and 5-5.)

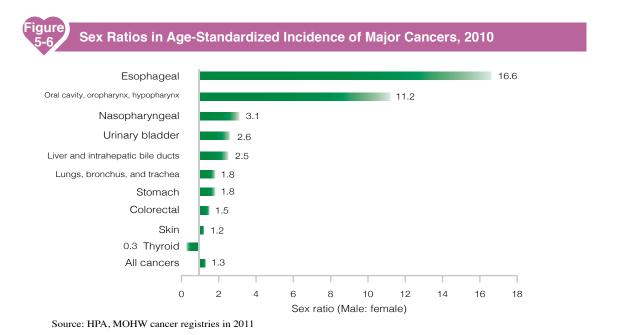


Table 5-3

Incidence Rate of 10 Leading Cancers in 2011

Order	Primary site	Number of cases	Age-standardized incidence rate (Per 100,000 people)
1	Female breast	10,056	64.3
2	Colorectal	14,087	43.8
3	Liver and intrahepatic bile ducts	11,292	35.8
4	Lungs, bronchus, and trachea	11,059	34.0
5	Prostate	4,628	29.7
6	Oral cavity, oropharynx, hypopharynx	6,890	22.2
7	Stomach	3,824	11.6
8	Corpus uteri	1,722	10.9
9	Cervix	1,673	10.5
10	Skin	2,985	9.0
	Overall	92,682	295.1

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: HPA, MOHW cancer registries in 2011



Incidence Rate of 10 Leading Cancers Among Men in 2011

Order	Primary site	Number of cases	Age-standardized incidence rate (Per 100,000 people)
1	Colorectal	8,140	52.6
2	Liver and intrahepatic bile ducts	7,920	52.0
3	Lungs, bronchus, and trachea	6,938	44.2
4	Oral cavity, oropharynx, hypopharynx	6,308	41.5
5	Prostate	4,628	29.7
6	Stomach	2,430	15.2
7	Esophageal	2,063	13.3
8	Skin	1,590	9.9
9	Urinary bladder	1,389	8.7
10	Nasopharyngeal	1,123	8.5
	Overall	51,965	339.4

Source: HPA, MOHW cancer registries in 2011



Incidence Rate of 10 Leading Cancers Among Women in 2011

Order	Primary site	Number of cases	Age-standardized incidence rate (Per 100,000 people)
1	Female Breast	10,056	64.3
2	Colorectal	5,947	35.7
3	Lungs, bronchus, and trachea	4,121	24.8
4	Liver and intrahepatic bile ducts	3,372	20.4
5	Thyroid	1,954	13.5
6	Corpus uteri	1,722	10.9
7	Cervix	1,673	10.5
8	Stomach	1,394	8.3
9	Ovary, fallopian tubes, or uterine broad	1,240	8.3
10	Skin	1,395	8.1
	Overall	40,717	255

Source: HPA, MOHW cancer registries in 2011

2. Cancer Mortality

Ministry of Health and Welfare mortality statistics showed that 44,791 people died of cancer in 2013 (including 27,883 males and 16,908 females), accounting for 29.0 percent of all deaths. The age-standardized mortality rate was 130.4 per 100,000 people (169.4 for males and 94.7 for females). The top 10 fatal cancers in 2012 were: 1. lung cancer, 2. liver cancer, 3. colorectal cancer, 4. female breast cancer, 5. oral cancer, 6. prostate cancer, 7. stomach 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).



Mortality Rate of 10 Leading Cancer in 2013

Order	Primary site	Number of cases	Age-standardized motality rate (Per 100,000 people)
1	Lung cancer	8,854	25.3
2	Liver cancer	8,217	24.2
3	Colorectal cancer	5,265	14.9
4	Female Breast cancer	1,962	11.6
5	Oral cancer	2,694	8.2
6	Prostate cancer	1,207	6.6
7	Stomach cancer	2,241	6.2
8	Pancreatic cancer	1,798	5.2
9	Esophageal cancer	1,660	5.0
10	Cervical cancer	702	4.0
	Others	10,191	29.6
	Overall	44,791	130.4

Note:1. Ranking is based on crude mortality rate.

- 2. Age standardized rate: Calculated by the standard world population in 2000
- 3. Source: Statistics on Causes of Death, Department of Statistics, Ministry of Health and Welfare



Mortality Rate of 10 Leading Cancer Among Men in 2013

Order	Primary site	Number of cases	Age-standardized motality rate (Per 100,000 people)
1	Lung cancer	5,713	34.2
2	Liver cancer	5,649	34.9
3	Colorectal cancer	3,069	18.3
4	Oral cancer	2,505	15.7
5	Esophageal cancer	1,538	9.5
6	Stomach cancer	1,420	83
7	Prostate cancer	1,207	6.6
8	Pancreatic cancer	1,009	6.2
9	Non-Hodgkin's lymphoma	621	3.7
10	Leukemia	583	3.8
	Others	4,569	28.0
	Overall	27,883	169.4

Source: Statistics on Cause of Death, Department of Statistics, Ministry of Health and Welfare

Table 5-8

Mortality Rate of 10 Leading Cancer Among Women in 2013

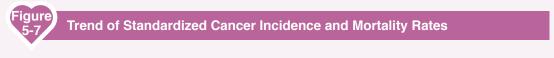
Order	Primary site	Number of cases	Age-standardized motality rate (Per 100,000 people)
1	Lung cancer	3,141	17.3
2	Liver cancer	2,568	14.1
3	Colorectal cancer	2,196	11.9
4	Female Breast cancer	1,962	11.6
5	Stomach cancer	821	4.4
6	Pancreatic cancer	789	4.3
7	Cervical cancer	702	4.0
8	Ovarian cancer	558	3.3
9	Non-Hodgkin's lymphoma	449	2.5
10	Leukemia	400	2.6
	Others	3,322	18.8
	Overall	16,908	94.7

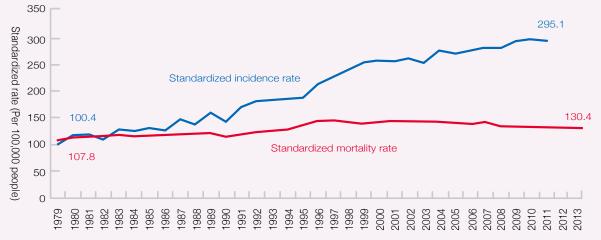
Source: Statistics on Cause of Death, Department of Statistics, Ministry of Health and Welfare

3. Increase/Decrease in Annual Cancer Incidence and Mortality in Recent Years

Ministry of Health and Welfare statistics on causes of death showed that cancer has been the leading cause of death in Taiwan since 1982. 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 2013 it was 130.4. The age standardized incidence rate of cancer during the same period rose from 111 per 100,000 people in 1982 to 295.1 per 100,000 people in 2011 (see Figure 5-7).





Note: 1. Cancer incidence rate and mortality rate source: HPA, 2011 registered cancer data and statistics of the cause of death from the Department of Statistics, Ministry of Health and Welfare.

2. Age standardized rate: Calculated by the standard world population in 2000

Based on 10-year analysis of the standardized cancer incidence rate from 2002 to 2011, cancers among men increased by an average of 13.1%. Prostate cancer (56.7%) had the highest increase rate, while stomach cancer (23.7%) had the highest decrease rate. Cancers among women increased by an average of 15.6%, with corpus uteri cancer (67.1%) having the highest increase rate, and cervical cancer (41.4%) having the highest decrease rate. (see Figures 5-8, 5-9).

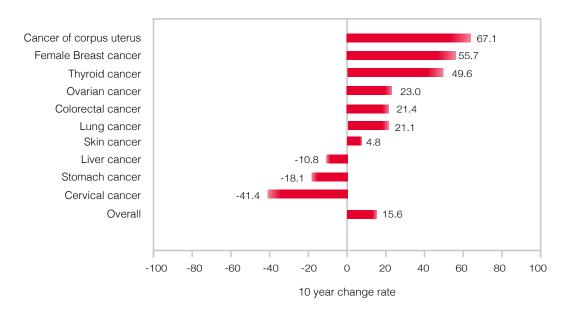


Age-Standardized Incidence Rates for the 10 Leading Cancers Among Men, 10-Year Change, 2002-2011





Age-Standardized Incidence Rates for the 10 Leading Cancers Among Women, 10-Year Change, 2002-2011



Target Indicators

Improved cancer screening rates:

- 1. Achieved a cervical cancer screening rate of 70% among women aged 30-69 over the past three years.
- 2. Achieved a breast cancer mammogram screening rate of 33% among women aged 45-69 over the past two years.
- 3. Achieved a colorectal cancer screening rate of 40% among people aged 50-69 over the past two years.
- 4. Achieved an oral cancer screening rate of 50% among betel nut chewers and smokers over age 30 in the past two years.

Policy Implementation and Results

1. HPV Prevention and Control

Research has 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. In order to extend subsidies for HPV vaccination to junior high school female students from low income and middle-low income households, aboriginal areas and offshore islands, the HPA undertook the following measures:

(1) Training Specialist Staff

We held explanation meetings on the HPV Vaccination Action Plan for staff at local health bureaus, ensuring that staff are clear about the procedure for the vaccination, which will be beneficial for the smooth implementation of the program.

(2) HPA mailed HPA vaccination brochures and consent forms to junior high school females who are qualified. Of those who agreed to receive vaccinations, "Intimate Notes for Women" and "Staying Away From HPV" manuals, and the "Cervical Cancer - Tips About Sex" DVD are also mailed to them to introduce the relationship between cervical cancer and HPV, HPV vaccination and cervical cancer prevention. In 2013, the completion rate of all 3 doses of vaccine was 99.2% among the people who agreed to be vaccinated, which was higher than 95.8% in 2012.

2. Promoting Screening for Leading Types of Cancers

Incidences of cervical cancer, breast cancer, colorectal cancer, and oral cancer account for approximately one third of all cancer cases combined. Evidence shows that widespread screening greatly reduces incidence and mortality rates. In particular, Pap smears reduce incidence and mortality rates of cervical cancer by 60-90%; mammogramphy reduce breast cancer mortality rates by 20-30%; fecal occult blood tests reduce colorectal cancer mortality rates by 20-30%; and oral mucosa tests can reduce oral cancer mortality rates for men over age 35 who smoke and drink by 40%.

In 1995, 1999, 2002 and 2004, the government began to offer Pap smears screening to women over age 30, oral cancer screenings for people aged 18 or over who smoke or chew betel nut, breast cancer mammograms among women aged 50-69, and fecal occult blood tests among people aged 50-69 respectively. From July 2002 to June 2004, doctors conducted breast cancer screenings in two stages: high-risk women were identified by means of questionnaires before undergoing 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 over age 30 who smoke or chew betel nut (including those who have quit). In order to safeguard the health of even more cities and meet the different needs of different age ranges and societal groups, in June 2013 the government changed the age of those eligible for colorectal cancer screening to 50-75, while the age for aboriginals who chew betel nut (or have given it up) for oral cancer screenings has been brought forward to 18.

In 2013, the HPA continued to promote 4 cancer screenings with the following strategies and achievements:

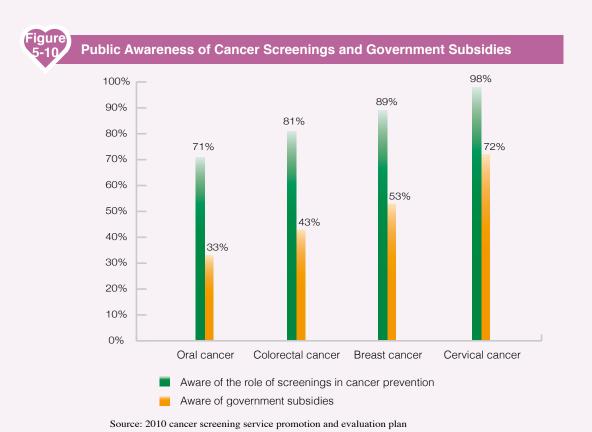
(1) A Soft Approach and Diverse Publicity

In order to reinforce the public's awareness of cancer screening provided by the government, in 2011 we actively cooperated with health departments and offices, medical institutions, and civil organizations, to broaden provision of cancer screening services and advocacy events. We also utilized diverse media channels, including to promote cancer screening services, in order to advocate the concept of regular screening. Through promotional films, we called on the public to take the threat of cancer seriously, and remind everybody to undergo screening, regular checkups, and if tests are positive, the importance of follow-up diagnoses. For example, in 2011, actor Ma Ru Long and his wife shot cancer prevention advocacy advertisement, titled "Life-saving Engineering" to remind people to take the threats of cancer seriously. In addition, in 2012, they shot a 30-second cancer screening advocacy radio advertisement for women about cervical cancer, "Family Version", and the 30-second long "Colleague Version" for breast cancer. Through relaxing conversation among family members and colleagues, the audio remind people to undergo screening, and when the results are positive, the importance of follow-up checkups. Finally, in 2013, we produced the liver cancer prevention film "News Broadcast," reminding Hepatitis B and C carriers to go for regular follow up or treatment, in order to prevent liver cancer.

The HPA conducted a telephone survey of people aged 30-69 in 2010. It suggested that 71%, 81%, 89% and 98% of the people were aware of the effectiveness of screening in prevention of oral cancer, colorectal cancer, breast cancer and cervical cancer, respectively. However, fewer people knew about which groups free cancer screenings were provided for by the government. The survey showed that only 72% of respondents knew about free Pap smears offered to women over age 30. 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 5-10).

(2) Subsidizing Hospitals in Making Screening for Cancer Part of Their Culture

In 2013, the HPA subsidized 230 hospitals that register 5,000 or more outpatients age 30, so they could undertake a special project to enhance the 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 nut. The HPA further contributed by following the WHO's "Health Promotion 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 hospitals accounted for about 92% of all outpatient services. In 2013, they conducted 2.73 million screenings for the four main cancers. These screenings represented 59.7% of all such services rendered nationwide. Compared to screenings conducted in the same time period in 2009, these figures represented 2.1 times the 2009 number (1.2 times for cervical cancer, 2.6 times for breast cancer, 5.3 times for oral cancer, and 16.7 times for colorectal cancer.)The number of cancerous and precancerous cases detected exceeded 28,000 people.

(3) Screening Results for Major Forms of Cancer

In 2013, 4.88 million screenings were carried out for cervical cancer, breast cancer, colorectal cancer, and oral cancer. Of the total, 10,000 cases of cancer and 40,000 cases of pre-cancer were detected; 50,000 lives were thus saved. Details are listed below (Table 5-9).



2013 Results of All Kinds of Cancer Screening

Items	Subjects	Screening policies	2013 screening results
Cervical cancer	Women aged 30 or over	At least 1 Pap smear every 3 years	The rate of 30~69 years old women who have undergone pap smears within 3 years was 75.9%.(Telephone Survey)
Breast Cancer	Women aged 45-69 Women aged 40-44 who have relatives within second degree kinship who suffered from breast cancer	Once mammogram every 2 years	The rate of 45~69 year old women who have undergone mammogram screening in the past two years was 36%
Oral cancer	Those aged 30 or over who chew betel quid (or have given up) or smoke Aboriginal people aged between 18 and 30 who chew betel quid (or have given up)	One oral mucus test every 2 years	The rate of those aged 30 or over who chew betel quid (or have given up) or smoke, and have undergone oral screening within 2 years was 54.0%.
Colorectal cancer	People aged 50~74	One fecal occult blood test every 2 years	The rate of those aged 50~69 who have undergone fecal occult blood test in the past two years was 38.2%.

A. Cervical cancer screening

In 2013, 2.175 million cervical Pap smears were given to females over age 30, pre-cancer was detected in 9,996, while 4,191 were found to have cancer, pushing the percentage of women aged 30-69 who had undergone screening for cervical cancer within the past three years to 75.9% (telephone survey). Of these women, pre-cancer was detected in 9,996, while 4,191 were found to have cancer. In 1995, the Department of Health began to provide women over age 30 with annual Pap smears. The standardized cervical cancer mortality rate fell by 64% between 1995 and 2012, from 11 to 4.0 people per 100,000. The standardized cervical cancer incidence rate also decreased by 58%, from 25 per 100,000 in 1995 to 10.8 per 100,000 in 2000.

B. Breast cancer

In November 2009, the HPA started improving provision of once mammogram test every two years for women aged 45-69. In 2013, 694,000 mammograms were conducted on females aged 45-69, approximately 3,300 cases of breast cancer were detected a coverage rate of mammography was 36% over past two years. In addition, in order to upgrade the accessibility of breast cancer screening, in 2010 we subsidized local governments in providing mobile mammography

units' and in procuring mammogram equipments. Various local governments and medical institutions also purchased mobile mammography units' or mammogram equipments by themselves.

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 could provide people aged 50-69 with one fecal occult blood test every two years. In June 2013, the service was broadened to cover people aged 50-75. The screening rate among people aged 50-69 in 2012 and 2013 was 38.2%. The tests were conducted a total of 1,02,8000 times in 2013. 26,207 were found to have polypus, and 2,030 were found to have colorectal cancer.

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 age 30 who smoke or chew betel quid with one oral mucosa test every two years. In order to provide the public with more convenient screening services, the HPA commissioned the Taiwan Dental Association to train otolaryngologists at local public health centers. Local health bureaus were also authorized to provide training on oral mucosa tests to otolaryngologists.

A total of 978,000 tests were conducted in 2013. The percentage of people over age 30 who smoked or chewed betel nut and had taken such tests within the past two years rose from 28% in 2009 to 54% in 2013. In 2013, these tests detected oral premalignant lesions potentially malignant disorders in 3,703 patients and oral cancer in 1,274 patients.

(4) Improving Quality of Cancer Screening Services

In order to improve cancer screening services, the HPA entrusted the Taiwan Society of Pathology to certify institutions that offer cervical pathological diagnoses and improve the quality of screening operations. By December 2013, it had completed follow-up inspections at 38 institutions; a cumulative total of 116 institutions had been certified by the end of 2013. Similarly, the HPA commissioned the Radiological Society of the ROC to certify mammography institutions and to draw up plans for the improvement of mammogram services. Follow-up inspections had been completed at 159 institutions December 2013, and a cumulative total of 206 institutions had been certified by the end of the year. For institutions conducting fecal occult blood tests, the HPA entrusted the Corporation Aggregate Taiwan Society of Laboratory Medicine to conduct qualification checks and service improvement work. A total of 125 institutions conducting fecal occult blood tests had been undergone checks by the end of 2013. The group also completed two external quality control tests and extended on-site assistance to institutions that failed to meet standards. The HPA commissioned the Taiwan Dental Association and the Cancer Prevention and Education Foundation to provide training on oral mucosa tests. In 2013, they provided training to 513 dentists and 319 ENT doctors. We have also authorized local health bureaus to conduct oral mucus educational training for non-dental and ENT doctors. A total of 554 doctors from





other specialties were trained in 2013, who then went on to conduct oral cancer screening services. In order to provide training and guidance for medical institutions in conducting oral cancer screening services, the HPA collaborated with local health bureaus to hold practical training events at medical institutions conducting oral cancer testing (a total of 17 hospitals and 41 clinics and health centers), and also helped them to incorporate this testing into their routine operations.

3. Quality of Cancer Care

(1) Accreditation of Cancer Care Quality

In accordance with the Cancer Prevention Act, in 2005 the HPA introduced a set of guidelines in order to improve the quality of cancer care. We also provided subsidy plans to encourage medical institutions to implement these guidelines; in 2013, we subsidized 76 medical institutions in implementing the 'Hospital Cancer Care Quality Improvement Plan'. We also provided subsidies for care and services that are crucial to the overall quality of cancer care but which are not necessarily covered by National Health Insurance, such as cancer registration, tumor case management and one-stop windows for cancer patients.

Survival of cancer patients hinges on the quality of treatment and care they get. For this reason, in 2005 the HPA commissioned the National Health Research Institutes to devise an accreditation system for cancer care quality at hospitals. On October 4th, 2007, the HPA 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 over 500 newly diagnosed cases of cancer, with a view to upgrading their quality of cancer diagnosis and treatment while providing patients with a safe and effective care environment. This purpose of accreditation is to assist hospitals to establish cancer care structures and cancer treatment models. Examples include the establishment of a 'cancer committee' to plan and supervise related cancer operations within the hospital, or establishing a registered cancer database, cancer healthcare teams, clinical treatment guidance, and stipulation of standard operating procedures of care.

In order to improve the quality of domestic cancer treatment, in 2010 we conducted standard revision of the accreditation, and completed trial evaluations at 8 hospitals. The second version of the accreditation standard includes quality of radiation treatment, image diagnosis quality, cancer case management, and on-job training of medical staff, in order to provide a comprehensive environment of patient safety and effective quality. By the end of 2013, a total of 50 hospitals have passed the accreditation. The results of the accreditation were necessary qualifications for applications for medical center accreditation. Results of the accreditation were posted online for the public's reference. (Figure 5-11).

(2) Improving Cancer Treatment and Diagnosis

Pathology and imaging reports are crucial to cancer diagnosis and treatment. Therefore, in 2007 and 2010, the HPA set mandatory items to be included in pathology and imaging (computer tomography and magnetic resonance imaging)





reports meant for cancer diagnosis and treatment. Currently, 17 items were mandatory for pathology reports and 16 for imaging reports. Moreover, the growing popularity of target therapy for cancers has brought greater attention onto the quality of molecular pathological tests that precede treatment. For this reason, in 2010 the HPA began to devise ways to improve the quality of these tests. It began to hold seminars focused exclusively on these tests, and launched a pilot program to determine the capacity of institutions performing such tests. Since 2013, the HPA has also commissioned the Taiwan Oncology Nursing Society to develop "guideline for safe handing of anti-neoplastic agents in clinical practice" and guideline for prevention and management of chemotherapy extravasation. 2 seminars were held between experts and hospitals for the purposes of application of guideline promotion.

4. 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 the physical, mental and social strains of the illness, the HPA has run a cancer patient service program since 2003.

In 2013, we subsidized 6 NGOs in conducting direct service plans for cancer patients, thus providing cancer patients and family members with comprehensive cancer support care. The service contents include: health education on the phone, counseling services, inpatient and outpatient visits, psychological counseling, new patient learning camps, volunteer training, and provision of health education information regarding cancer. These services were provided to approximately 30,000 patients.

To build a comprehensive service network aimed specifically at cancer patients, the HPA extended its subsidies to hospitals with over 450 newly detected cases of cancer a year. Using these subsidies, 53 such hospitals established onestop window for cancer services. With resources inside and outside the hospital fully integrated, nurses, social workers and psychiatrists are dispatched so that cancer patients and their families can quickly obtain the resources and services they need.

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. These services were used around 120,000 times in 2013. The HPA also commissioned the Hope Foundation for Cancer Care to train personnel tasked with one-stop window cancer services, as well as volunteers. In addition, the HPA holds regional awareness conferences to understand the needs and difficulties faced by hospitals, and provide them with expert suggestions.

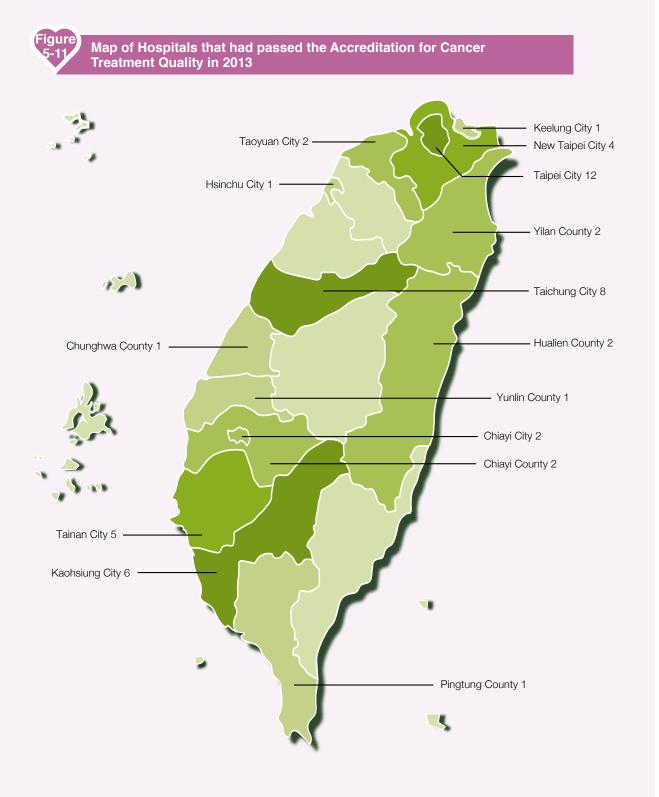
(2) Hospice and Palliative Care

The Ministry of Health and Welfare began promoting hospice and palliative care since 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 HPA teamed up with the Taiwan Hospice Organization to provide 'share-care' to cancer patients outside of hospice wards at 8 hospitals on a trial basis. Hospitals receiving subsidies to conduct these services increased to 34 in 2005. As of the end of 2013, 96 hospitals were offering 'shared-care', 45 were providing inpatient service, and 68 offered home care services. In 2013, about 20,000 cancer patients benefited from hospice and palliative care, a significant increase on 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 services, home care services, and shared-care) in the year before their death rose from 7% in 2011 to 50.6% in 2012.

According to the 2010 "Quality of Death: Ranking End-of-life Care Across the World" study conducted by the Economist Intelligence Unit and the Singapore Lien Foundation, Taiwan was ranked 14th for end-of-life care services, and first place in Asia, following interviews with doctors, experts and service staffs in 40 countries.

In order to further enhance the quality of hospice and palliative care, guidance on provision of sharedcare services and training for cancer prevention and palliative care staff was offered. We also subsidized civil

organizations in expanding palliative care awareness events. A total of 477 publicity events were held for colleges and academies, aboriginal areas, seniors' associations, cancer patient support groups, palliative care workers and members of the general public.







Special topics

Special topics

In "The World Health Report 1998-Life in the 21st Century: A Vision for All," the WHO underscores 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, and income, along with mental and physical disabilities. For example, due to their specific health needs and unequal socioeconomic status, various segments of the population often face unique health problems. Women, for instance, often have to worry about breast cancer, cervical cancer, hormone treatments related to menopause, osteoporosis and incontinence. 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 care for rare diseases, including PCB poisoning. In order to achieve health equity, the main focus is to adopt the following 3 concepts of: different strategies, plans, measures and intervention programs 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 2013, female life expectancy was 83.3 years. In 2013, women aged 50 or over accounted for 33.7% of the entire woman population, and the average menopausal age was approximately 50 years, indicating that there a lot of time left for women after the menopause. In the Nutrition and Health Survey conducted by the Department of Health from 2004 to 2008, 241 people aged 50 or over were found to have osteoporosis. Of them, 12.6% were women suffering from lumbar osteoporosis and 12.1% were women suffering from femoral neck osteoporosis. The corresponding percentages for men were 4.3% and 10.7%, respectively, indicating that women suffer more from this problem than men. 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 and over, roughly a fourth suffered from osteoporosis. The percentage was even higher among women 65 and over, at 32.7%. Among women 55 and 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 develop healthy behaviors. This department promotes understanding of the menopause through press releases, lectures and its specially-established consultation line.

Policy Implementation and Results

1. The HPA established the 0800-00-5107 free hotline to help women through the difficulties that come with the menopause. In 2013, the service was used over 6,000 times. The majority of concerns expresses related to memory loss, inability to concentrate, fatigue, dry skin, increased numbers of wrinkles, insomnia and dry eyes. We also held training courses for counselors at the menopause hotline; 42 counselors participated in hotline service training, while 15 menopause healthcare activities were held at the hotline office. We also held 4 menopause growth camps, each of which was attended by an average of approximately 75 people. Furthermore, we printed handbooks and leaflets, and spread information via newspapers, magazines and broadcast media. We are also planning to trial "menopause-friendly health centers", to provide women with convenient access to medical care.

2. In the efforts to preserve bone health, build bone strength and prevent osteoporosis should begin at childhood and adolescence. Besides publicizing these ideas at 'chronic disease prevention camps' on school campuses, the HPA uses the internet, newspapers and magazines. In observance of World Osteoporosis Day, the HPA issued news releases encouraging people to bolster bone health through weight-bearing exercise and strength training, a balanced diet, and preventing falls. We also provided the public with guidance on a 'one-minute osteoporosis risk self-assessment.' In order to enhance public understanding of the menopause and osteoporosis and improve self-treatment, the HPA compiled preventive health and education materials. Moreover, in order to provide medical staff with tools for the prevention, diagnosis, and treatment of osteoporosis so that patients can receive the best care, the HPA 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, which were printed for use by medical staff. In 2013, the English translation of our 'Taiwan Osteoporosis Practice Guidelines' was registered at the US Agency for Healthcare Research and Quality (AHRQ) National Guideline Clearinghouse (NGC), while the bureau's name and guidelines were published on the home page of their website. These were the first Taiwanese clinical guidelines to be registered at the NGC, and will represent an important reference material for osteoporosis treatment across the world.

Section 2 Health of Disadvantaged Groups

Reproductive Health Care for New Immigrants' Spouses

Status Quo

In 2013, Taiwan posted 147,636 marriage registries. Of the newlyweds, 128,144 persons (86.8%) were native-born; 11,542 (7.82%) were from Mainland China, Hong Kong, or Macau; and 7,950 (5.38%) were foreign-born. By the end of 2013, there were an estimated 473,000 foreign and mainland Chinese spouses. Of foreign-born brides in 2013, most were from Mainland China, Hong Kong and Macau, with 68.41%, with South-East Asia in second place with 27.49%; 4.1% were of other nationalities. Most foreign-born grooms came from other areas, with 59.47%, while 25.63% were from Mainland China, Hong Kong or Macau, and 14.7% from South-East Asia. The total number of foreign-born spouses in 2013 is 486,000, of which 157,000 from outside China, representing 32.39%; 329,000 come from Mainland China, Hong Kong or Macau, representing 67.61%. Children born from couples with at least one foreign spouse reached 6.99% of the total in 2013 (Figure 6-1).

Target indicators

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

Policy Implementation and Results

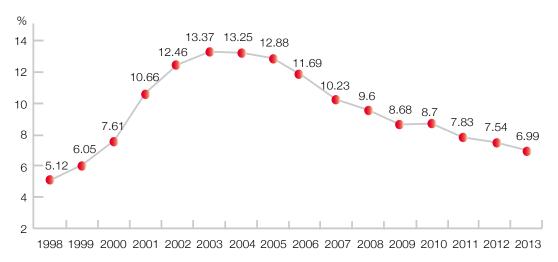
Taiwan has witnessed a steady, increasingly diverse inflow of immigrants in recent years. The majority of these immigrants are spouses of domestic residents from cross-border marriages. In 2003, the HPA implemented the "Foreign and Mainland Chinese Spouses Childbirth Health Management Program" to not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

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

The results of our active efforts in promoting the reproductive health of new immigrants are as follow:



Percentages of Newborn With Immigrant Mothers, 1998-2013



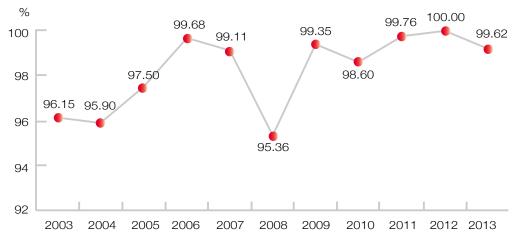
Source: Department of Statistics, Ministry of the Interior

1. Implementation of Reproductive Health Care and Education

In collaboration with local health departments and centers, the HPA created reproductive health care cards designed specifically for foreign and mainland Chinese spouses as well as their children (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 2013, 3,999 new health cards were issued; of these, 1,391 were given to foreign spouses (98.44% of foreign newlyweds registered during the year) and 2,608 were given to mainland Chinese spouses (99.62% of mainland Chinese newlyweds registered during the year).

Figure 6-2

The Percentage of Health Care Management for Immigrant Spouses, 2003-2013



Source: Department of Statistics, Ministry of the Interior

2. Training Interpreters and Offering Interpretation Services

In order to help foreign spouses cope with language barriers when receiving medical treatment, in 2004 the HPA launched a program to train volunteers in assisting with foreign spouse childbirth health services. Foreign spouses who have lived in Taiwan for many years 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 2013, the Ministry of the Interior's fund for Caring for and Helping Foreign Spouses had subsidized 205 health departments in 17 counties and cities to help provide interpretation services to serve reproductive health care.

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

Since 2005, the HPA has drawn on appropriations from the Ministry of the Interior's Fund for Caring and Helping Foreign Spouses to subsidize prenatal examinations for foreign mothers who have just immigrated and not yet covered by National Health Insurance. In 2013, subsidies worth a total of NT\$6.94 million were provided for 11,927 prenatal exams.

4. Researching and Producing Health Education Materials in Multiple Languages

In order to help foreign spouses overcome language barriers, the HPA 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. These were sent to health bureaus in every county and city for distribution to healthcare centers, for the use and education of new immigrant spouses and their children. 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.

Prevention and Treatment of Rare Diseases

Status Quo

Since 2000, Taiwan launched a reporting mechanism for rare diseases through which 8,183 cases had been reported by the end of 2013. Rare disease patients face a unique set of challenges: their numbers are few and the market for their drugs is small. In free market circumstances, these factors mean pharmaceutical companies are often 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. Rare disease patients also rely on special nutrition and special equipment required by their medical care.

Target Indicators

The objective is to build a comprehensive treatment network for rare diseases, thus helping patients to secure the care and subsidies they need, in turn upholding their right to medical treatment.

Policy Implementation and Results

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



International Comparison of Legislation to Protect Rare Disease Patients

Country	US	Japan	Australia	EU	Taiwan
Year of Legislation	1983	1993	1998	2000	2000
Name of Law	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 Prevalence of a Rare Disease	75/100,000	40/100,000	11/10,000	20/100,000	1/10,000
Legislative protection	Research and development of drugs Research and development of medical equipment and nutritional supplements required by rare disease patients	Research and development of drugs Research and development of medical equipment required by rare disease patients	Research and development of drugs	Research and development of drugs	Promoting prevention and treatment of rare diseases. Providing necessary 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. In accordance with Article 33 of the Rare Disease and Orphan Drug Act, the HPA is also responsible for appropriating funds to subsidize the diagnosis and treatment of rare diseases along with orphan drugs not covered by National Health Insurance.

(2) Establishing the Advisory Committee for Rare Diseases and Orphan Drugs

By the end of 2013, the committee had reviewed, certified and announced 201 rare diseases. They has also listed 82 orphan drugs and 40 nutritional supplements, determined the conditions they were suited for, and reviewed applications for treatment subsidies.

Establishing a Comprehensive Medical Network for Genetic and Rare Diseases

- (1) Establishing an orphan drugs and special nutrients distribution center. In 2013, subsidies of approximately NT\$57 million were extended for the storage and supply of 37 nutritional supplements and 10 emergency drugs.
- (2) Regarding the uncovered medical subsidies of health insurance for rare diseases, in 2013, we subsidized a total of 2,026 people. (We subsidized 412 patients with rare diseases who needed household medical facilities to survive, nutritional counselling subsidies for 326 people with rare metabolic diseases, 57 people requiring domestic and international confirmation of diagnosis, and 1,231 people who have rare diseases and need special nutritional food and drugs).
- (3) Through genetic inheritance services (including prenatal inheritance diagnosis, newborn screening, and genetic disease checkups and counselling,) we provided medical services for genetic and rare diseases at 11 medical centers. We also set up the genetic disease consultation website, providing related information and resources relating to genetic and rare diseases.





Special screening of 'Rock Me to the Moon' on October 26th, 2013

3. Research, Education and Publicity to Prevent Rare Diseases

The HPA draws on media resources to inform the public about the prevention of rare diseases, and compiles a series of leaflets and handbooks about rare diseases. In 2013, the HPA also subsidized patient support groups in holding a total of 13 meetings at patient support centers, businesses and health centers. On the October 26th, they also held a special screening of the film 'Rock Me to the Moon', attended by 324 people.

Oral Health 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 (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 26th, 2008.

Target Indicators

The percentage of institutionalized disabled people covered by preventive oral care services will reach 80% in 2013.

Policy Implementation and Results

Providing Preventive Oral Care Services to the Disabled: In 2013, the HPA trained 273counsellors specializing in oral care for people with disabilities, 39 seed dentists, and 111 workers at institutions the work with oral health. It



Comparison of Oral Health among People Over 18 With Disabilities and the General Public Over 18

Group	DMFT index	Permanent Tooth Decay Rates (%)	Fillings Rates (%)	
People Over 18 With Disabilities	12.1	94.6	30	
People Over 18 in General	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)

also set up 10 teams that provide at-home services, proving oral health services at patients' homes and at 20 disability centers.

Health Care for PCB Poisoning Patients

Status Quo

In 1979, over 2,000 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 According to research, PCBs poisoning can affect the liver, immune system and nervous system in the long term, as well as more immediate effects of chloracne, pigmentation, and eyelid gland dysfunction.

Since April 1979, the former Depart of Health, Taiwan Provincial Government planned and conducted oil disease registrations, blood test, medical and healthcare services. Each health bureau provided follow-up visits, health education, and medical referrals. Since March, 1997, when PCB poisoning patients went to commissioned hospital clinics (Including emergency), they are partially covered for their healthcare needs. Former Taiwan Provincial Government entrusted National Health Insurance Administration for collections and payment transfer. After Reinventing Taiwan Provincial Government, in July 1999, Center for Disease Control, Department of Health started handling the transactions. In January 2004, HPA started handling transactions of healthcare services for PCB poisoning patients. In August 2011, the notice of healthcare services key points for patients with PCB poisoning. It is used as the basis for medical subsidies of PCB poisoning patients.

Target Indicators

Establish a health care system for PCB poisoning patients to secure care.

Policy Implementation and Results

HPA provided more complete healthcare services for PCB poisoning patients. After the transfer of transactions, we continued providing PCB poisoning patients with multiple healthcare services. The main points are as follow:

- 1. HPA started conducting special clinic services for PCB poisoning patients. In December 2009, Feng Yuan Hospital and Changhua Christian Hospital started holding "PCB poisoning special clinic".
- 2. HPA provided "PCB poisoning patient treatment card" and National Health Insurance Card noted PCB poisoning patient. HPA has provided first and second generations of PCB poisoning patient treatment cards according to each individual's wish. PCB poisoning patients with the treatment card and noted National Health Insurance Card can enjoy partial medical coverage from different clinics (Treatment and emergency).
- 3. In 2011, the notice of healthcare services key points for patients with PCB poisoning was pronounced. It is used as the basis for medical subsidies for PCB poisoning patients. The contents are as follow:
 - (3.1) Subjects include: All PCB poisoning patients. At the end of 2013, the registered cases served for HPA were a total of 1,750 people, including 1,281 first generation PCB poisoning cases and 469 second generation cases.
 - (3.2) The contents of medical subsidies: All PCB poisoning patients receive free regular health checkups, and all PCB poisoning patients have co-payment subsidies for outpatient clinic and emergency services. The first generation PCB poisoning patients have co-payment subsidies for hospitalization.

Special topics

Promoting Your Health

- 4. Every year, bureaus in each county and city arrange for PCB poisoning patients to go to hospitals for free health check-up. The contents of check-up include adult prevention healthcare, EKG, abdominal echo, fetoprotein tests, Hepatitis C virus antibody tests, Hepatitis B surface antigens, surface antibody checkups, categorization of white blood cells, serum biochemistry (alkaline phosphatase and gamma-glutamyl transferase), and blood feces occult analysis. In 2013, a total of 590 PCB poisoning patients received free health check-up services. (The participation rate was 33.7%).
- 5. In 2013, HPA have subsidized partial treatment fees for 14,761 PCB poisoning patients and hospitalization fee for 76 people. 192 people received health education advocacy and professional consulting from doctors.







in All Policies



Health
Promotion
Infrastructure

Health Promotion Infrastructure

With rapid advancements in media and web technologies, the acquisition and distribution of health information has been transformed from a passive to an active pursuit. In order to provide public health services geared toward health promotion, local health bureaus must serve the people while emphasizing quality, availability, accessibility, timeliness and cost efficiency, therefore they can meet people's demand. They must regularly and systematically undertake all kinds of health surveillance work, continuously collect data related to citizens' health and risk factors, and make optimal use of health communication channels. These actions provide a foundation for health promotion strategies.

In addition, we are eager to share its accomplishments in health promotion with the international community. The HPA 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

Health Centers

Status Quo

Taiwan has a comprehensive network of grassroots health care units. At the end of 2013, 22 county and city governments administered 372 public health centers that employed a total of 5,072 people. Out of all the staff members, 84.6% were females and 15.4% males. Major responsibilities of public health centers include smoking prevention, women's and children's health, building healthy communities, preventative immunization, monitoring reports, infectious disease control and prevention, management of psychiatric patients, long-term care services, outpatient and emergency medical services, and all kinds of fundamental medical and health care services.

Policy Implementation and Results

- 1. Major achievements of public health centers in 2013.
- (1) Provided 755,680 immunizations, covering 21.46% of the national total.
- (2) Provided preventive health care services to 154,046 children, or 13.17% of the nation's total. Provided preventive health care services to 128,085 adults, covering 7.22% of the national total.
- (3) Provided 144,143 pap smear examinations, covering 7.06% of the national total.
- (4) Offered quit smoking clinics at 304 public health centers. They provided the service 28,887 times, covering 10.3% of the national total. The rate of successful smoke cessation was 27.7%
- (5) NHI medical clinics served a total of 2,657,421 cases, approximately 1.1% of total cases in NHI authorized clinics.
- (6) Issued 24,842 death certificates, covering 16% of the national total.

2. Education and Training of Public Health Center Staff

Public health centers provide community-oriented health care, by integrating and utilizing community resources to offer comprehensive, coordinated and continuous health services. For this reason, health center staff not only take on the role of community health management, but also more traditional health care duties. The HPA therefore began holding "Local Health Bureau Staff Health Education and Training Workshops" in 2010, in order to improve staff competence in this and other areas. In 2013, 2 workshops on "Obesity Prevention and Control" and "Healthy Ageing" were held, with a total of 205 people attending.

In addition, in order to improve health center staff's professional knowledge and service qualities, as well as overall quality of service, we increased the number of opportunities for staff to engage in advanced study. We also ensured that medical staff did not encounter obstacles to study relating to time or location. From 2009 to 2013, a total of 122 hours of public health core course digital materials were developed, on 25 different topics (Table 7-1); these provided health center staff with diverse and interactive learning tools. In 2013, 12 hours of materials were developed, on the 4 major topics of non-communicable diseases, dementia, oral health and health workplace.

3. Maintaining Clinical Treatment Systems at Local Health Centers

In conjunction with health departments at 18 counties and cities, the HPA 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 290 health centers and 2 chronic disease prevention centers. Areas requiring maintenance 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 to ensure local health centers can produce regular reports every month.

4. Hosting the 7th Annual Golden Center Award Competition

The HPA has hosted the Golden Center competition since 2006 to improve service at public health centers, increase staff efficiency, and provide motivation. By selecting public health centers which provide excellent health care, the HPA offers health centers across the nation a benchmark to learn from as they refine their service procedures, service environment, and reinforce service qualities. Through public award ceremony, it also raises morale among health center employees by recognizing their achievements. The main themes of the 7th Golden Center Awards in 2013 were to establish cancer screening service networks and to improve environments which encourage obesity. 16 and 18 health centers took part in the competition, and underwent written and on-site inspections, respectively. The Kaohsiung and Taoyuan Regional Health Centers were chosen as outstanding in their establishment of a cancer screening service network; the South-West-North District Health Center in Changhua and the Qianzhen District Center in Kaohsiung were selected awarded for excellence in this respect, while Yunlin's Lunbei Health Center, Yilan's Jiaoxi Township Health Center and Taichung's Wuqi District Health Center were given the merit award. In the category of "improving environments conducive to obesity", the outstanding award went to the Tuku Township Health Center in Yunlin County, the excellent award to Zhongzhan Heath Services Center in Taipei, two health centers in Taichung's Shihkang District, and the award for merit to the Yangmei Town Health Center in Taoyuan County, the Luodong Town Health Center in Yilan County, and the Tianwei Township Health Center in Changhua County.



Topics and Hours of Public Health Core Course Digital Learning Materials in Recent Years

Years	Торіс	Number of Hours	Years	Торіс	Number of Hours
	Health Promotion			Tobacco Hazard Prevention and Control	6
	Health Education	8		Obesity Prevention and	
	Healthy Behavior	6	2011	Control	4
	Communication Between the People and the Media	3	2011	Healthy Ageing	6
2009	Women's and Children's Health	6		Application of Health Center Statistics	4
	Applied Epidemiology	5		Palliative Care	4
	Physical Activities	5		Safe Communities	5
	Community Cancer Prevention and Screening		2012	Evidence-based Health Promotion Strategies	5
	Healthy Diets	4		Legal Knowledge of Health	_
	Adolescent Health and Sex	3		Center	6
	Education			Non-communicable Diseases	4
2010	Chronic Disease Prevention and Control	8		Dementia	3
	Children's Health	4	2013	Oral Health	3
	Community Resource Management and Application	5		Healthy Workplace	3

Health Departments

Status Quo

Health departments are the core organizations in the promotion of local public health initiatives: they integrate local resources to implement health regulations, policies and missions passed down from central health authorities, and to contact organization structures both longitudinally and horizontally. This also helps to accomplish their health promotion duty among the local population. In order to enhance health departments' work in health promotion and maternal and chlid health, 6% of The Health and Welfare Surcharge budget deriving from the 4th clause of the Tobacco Harzard Prevention Act, the 4th and 5th clauses of The Regulation of the Tobacco Health and Welfare Surcharge Distribution and Utilization and Review Directions for Tobacco Control & Health Care Funds is given to central and local government for tobacco, control and health preventive service. Of this, 30% is used to fund health departments of 22 counties and cities in Taiwan, helping them to implement their tobacco control and health preventive services.

Policy Implementation and Results

1. Subsidizing Local Tobacco Hazard Prevention and Control and Health Preventive Services Work Plan

(1) Tobacco Hazard Prevention and Control Work Plans

Taking the experiences of tobacco control from developed countries, and utilizing local government to promote and implement policies are key strategies in tackling the social culture around the dangers of tobacco and off second-hand smoking. In 2013, HPA subsidized local health departments in 22 counties and cities to implement their tobacco hazard prevention and control work plans. These included: implementing The Tobacco Hazard Prevention Act; reinforcing inspections and sanctions related to The Tobacco Hazard Prevention Act; providing and utilizing tobacco cessation services networks based on local government resources; holding tobacco control events for adolescents; creating a supportive tobacco-free environments; helping to hold events around World No-Tobacco Day; surveying smoking behavior among junior and senior high school students; and providing training plans for tobacco control personnel.

(2) Health Preventive Services Work Plans

In 2013, HPA subsidized Taiwan's 22 county and city health departments in implementing health preventive services work plans, which included the 4 major topics: "healthy fitness, metabolic syndrome and obesity prevention", "cancer screening and prevention"; "betel quid hazards prevention and control"; "health promotion for adults to elderly" and "health promotion for maternal and child". There were 9 different sub-plans in total: "healthy fitness, metabolic syndrome and obesity prevention", "active aging" "promotion of a chronic disease care network", "cancer screening and prevention of health hazards on betel quid chewing", "monitoring and inspection of the sex ratios at birth", "establishment of breastfeeding-friendly environments for mothers and babies", "women and children health promotion and accident and injury prevention and control among aboriginal groups, new immigrants, and disadvantaged groups"; "fluoride treatment for children"; and "hearing screening for newborns".

(3) Other than the subsidization of the aforementioned local efforts in smoking prevention and health promotion action plans, HPA is also planning subsidies for remote areas to develop comprehensive action plans against smoking, alcohol and betel nut prevention, local tobacco-related cancer prevention work, age-friendly cities, and plans of breastfeeding feeding rate improvements, community health-building promotion program, promotion of healthcare organizations to participate in health promotional work. These efforts will help to meet the particular health needs of local communities and improve the problems of health inequalities.

2. Evaluation of Health Promotion Works and Holding of the National Health Assembly

HPA has stipulated evaluation standards for the aforementioned local efforts in tobacoo contorl and health preventive services work plans, in order to encourage local health bureaus to utilize limited resources to maximum effectiveness in a spirit of active innovation, to fully implement related health promotion regulations and policies, to fulfill their role as the first defense of citizens' health, and to establish excellent partnerships with local resources. HPA also presents awards of

commendation on an annual basis at the National Health Assembly. The award-winning health departments in the health care evaluations in 2013 included 11 counties and cities: Taichung City, Tainan City, Chiayi County, Changhua County, Taoyuan County, Chiayi City, Yilan County, Hsinchu City, Lienchiang County and Hualien County. Awards for progress were given to Tainan City, Taoyuan County, Hsinchu City and Lienchiang County. Other awards recognizing specific achievements in different areas of health work were also given out.

Section 2 Health Communication

Status Quo

With the rapid development of communication and media, people can access health information quickly through a variety of channels including television, broadcast, 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 diversely and rapidly. There is a potential pitfall, however: it is easy for improper or incorrect information to spread quickly, thus undermining citizens' health and safety.

The main function of health communication is to "create," "collect", and "share health-related information". It involves effective dissemination of information on health promotion, disease prevention and other health-related topics. In order to extend its impact on health online, the HPA provides the following websites:

Website name **Description** Home page Health Promotion 1. The Administration of Health Promotion website is designed Administration, Ministry of Health (1) Explain the missions of the HPA's various units and and Welfare the services they offer to the citizens, and provide contact information. http://www.hpa. (2) Announce HPA most updated news and activities. gov.tw/ (3) Provide information on health topics that cater to different segments of the population, such as parenting, infant hearing, oral care, optical 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) In order to accommodate different age audiences and browsing preferences by offering an English version and a children's version. The site is accessible in PDA version and RSS subscription is also provided. 2. The Department of Health cited the HPA website as an excellent health information website in 2005 and 2006. 3. Featuring prominently on the homepage are informative and flash movies covering key topics from the year. Browsers can easily access the HPA's important topics on one page. 4. The website includes special sections available to research and academic institutions, including Data for External Use, Health Surveys, and Health Education.

Website name **Description** Home page 1. Provides local health departments, public health Obesity Prevention centers, venues, and the public with a convenient Information Website online platform for health education. http://obesity.hpa. 2. Collects national weight loss information to gov.tw/ No. of the administer weight management campaigns. The Healthy 1. The goal of establishment: the website uses healthy workplace as the theme. Through network messages, HPA Workplace Website advocate tobacco hazard prevention and control, health http://health.hpa. promotion methods, and workplace certification events with gov.tw/ all the workplace in Taiwan. 2. Network contents: "healthy workplace certification gardens," "workplace health and happiness," "no smoking in workplaces," "good things to come," "resources download," "online education," and "related websites." Health 99 website 1. Currently the "Health 99 Website" has an average of approximately 180,000 viewers each month, while total http://health99. membership is over 80,000 people. In 2005 and 2006, the hpa.gov.tw website was named an excellent health information website. Over 3,900 online teaching materials, including flyers, manuals, posters, and multimedia resources, are available on the Health 99 Website, and people can browse online, download materials and request delivery services. Sources of educational materials include the publications of Ministry of Health and Welfare and Health Promotion Administration. We also collate publications from medical institutions, health offices, and civil groups, and provide the latest health news, knowledge, theme museums, and online self-screening information. 2. The Health 99 Website will continue to plan and pioneer the subjects of health media. Currently there are over 34,000 members on the site's Facebook fan page, and we will continue with interaction and exchange among online contacts. We will also provide different user-oriented services according to the different needs of different groups. Thematic network contents and mobile APPs on mobile will increase interaction with the public. Cancer registration This website provides information for members of the public, and online academics, and health units to search for data on cancer interactive search epidemiology; this represents a basis for cancer prevention system plans, evaluation of health administrative units, and hospital jurisdiction planning. https://cris.hpa. gov.tw/

Website name	Home page	Description
The Website of the Hereditary Disease Counseling Service http://gene.hpa. gov.tw/	ALGORISADA SERVICIANA SERVIC	 The website consolidates professional information and resources related to hereditary illness as a reference for domestic medical specialists and public health personnel. The objective is to help professionals secure the information they need to deliver fast and excellent services when handling genetic disorders, including rare diseases. The Department of Health cited the website as an excellent health information website in 2006.
The Pregnant Women Care Website http://mammy.hpa. gov.tw	AND ADDRESS OF THE PARTY OF THE	This website provides a cloud pregnancy care platform, which provides new mothers with more convenient access to cloud pregnancy management tools: knowledge and learning on pregnancy, pregnancy check-up management tips, maternal health records, and treatment assistance. Resources such as a maternal diary, Facebook page, self-management tips, records, and experience sharing allow pregnant mothers and family members to make the most of this beautiful time, and experience the joy of welcoming newborn babies.
Adolescents (Sexual Health e-learning) http://young.hpa. gov.tw/	性福e學園 Inne of a	The Website for Adolescents provides information related to sex education for adolescents. Provides confidential online and webcam consultation services are available to adolescent visitors and unmarried pregnant teens. It is suitable for use by all adolescents.
Tobacco Hazard Prevention Website http://tobacco.hpa. gov.tw/		 The Website for Tobacco Hazards Prevention is devoted to promoting tobacco hazards prevention and presenting relevant achievements. It is intended as a one-stop platform for public health officials, instructors and people to search and download information. The website contains the following: News, Second Generation Smoking Cessation, the Tobacco Hazards Prevention Act, Tobacco Hazards Prevention Strategies, Smoking Cessation Services, Smoke-Free Taiwan, Past Events, Download, Smoking Behavior Surveys, Research Results, Events Info, Local Tobacco Hazards Prevention, the Smoking Cessation Handbook, etc.
Taiwan Smokers' Helpline service website http://www.tsh.org. tw	- 1001 - 1000 -	This website offers information and help with smoke cessation. Contents include: professional information about services, news, events, Q&A, and updates on smoking cessation.

Website name	Home page	Description
The HPA Quitting Smoking Management Center http://ttc.hpa.gov. tw/quit/	TOTAL STATE OF THE PARTY OF THE	 This website provides information related to our smoking cessation services. Medical institution collaborative areas: application procedures for smoking cessation services, operational know-how, and smoking cessation training courses. Public areas: provide smoking cessation methods for people who are willing to quit smoking, subsidized medicine, and other relevant information, in order to help members of the public to quit smoking. Service status: a list of contracted medical institutions that provide quitting services in each county and city, and the services provided in each county and city.
Website for Disclosure of Ingredients in Tobacco Products http://tobacco- information.hpa.gov. tw/	PARTICIPATION OF THE PARTICIPA	According to Article 8 of the Tobacco Hazard Prevention Act tobacco manufacturers should regularly declare the ingredients additives, emissions, and other relevant information, in order for allow the people to understand the contents and materials in tobacco products and related hazards.
Health Indicator 123—Interactive Online Query System for Health Indicators https://olap.hpa. gov.tw/	Section of the sectio	 The website provides people with access to health data through searches of health indicators. The data used for the query system derive from national health surveys and birth reports conducted and managed by the HPA.
Quit Smoking League APP		Through this interactive APP by smokers and others with personal experience, we support everyone in getting away from tobacco, and successfully quitting smoking!
Weight Management APP	3	 Healthy secrets: Provide healthy lunchboxes under the guidance of each county and city, improved rice dumplings for the Dragon Boat Festival, healthy meals for Valentine's Day, and improved moon cakes for The Moon Festival. Weight loss tool: Calculate personal BMI, and recommended calorie consumption. Smart recipes: Provides 300~600 calorie recipe samples for the 3 meals. National healthy exercise: Short documentary of 3-minute of national healthy exercise.

Website name	Home page	Description
Breastfeeding APP		We provide services such as, video education, a map search and GPS system for all mother-infant friendly medical institutions in Taiwan, supportive group search functions, status solutions, breastfeeding reminders, baby diaries and growth curves.

Section 3 Health Surveillance

Status Quo

As the Taiwanese population continues to age and birth rates remain low, the threat of non-communicable diseases and other health issues grow. The World Health Organization (WHO) has suggested that every country should establish surveillance systems for non-communicable disease (NCD). In response to the difference in resources in different countries, the WHO proposed a stepwise strategy to build the NCD surveillance systems by considering mortality, morbidity, and prevalence of health risk factors.

Since the establishment, the HPA has progressively developed a comprehensive health surveillance system which encompasses the entire population, to fulfill the requirements of various health indicators necessary for policy implementation and international comparison. Through routine surveillance and periodic health surveys, the HPA collect national health data which can not be simply obtained through vital statistics or reporting and registration systems, to strengthen evidence-based health promotion policy-making and program assessment.

Policy Implementation and Results

In order to establish a systematic national health surveillance system on non-communicable diseases, three modes of survey administration are regularly used, including community-based face-to-face interview, telephone interview, and in-school student self-administered questionnaire, to collect data. Surveys of the entire population as well as population of different age groups, were conducted continuously to collect, analyze, and disseminate health data. In 2012, the health survey quality management system of the HPA passed the ISO9001 certification. With regards to surveillance systems, we have established birth reporting system, and registration systems for cancer and other major diseases. From 2012 to 2014, we held pilot studies of birth defects and injury surveillance. Professional team was granted to conduct assessment on comprehensiveness and efficacy of the surveillance system and provide recommendations for future improvement. In 2013, we improved protocols of breastfeeding survey, national nutrition survey and continued to reinforce the oral health surveillance and visual health surveillance. With all these measures, we were able to enhance framework development and efficacy of the surveillance system, and to strengthen the evidence-base of policy making and program evaluation.

Various surveys that the HPA has conducted over the years and is planning to undertake in coming years are listed in Table 7-1. Four community-based face-to-face interview surveys conducted in 2013 were "Taiwan Birth Cohort Study", "Child and Adolescent Behaviors in Long-term Evolution", "National Health Interview Survey" and "Nutrition And Health Survey in Taiwan". Based on self-administered questionnaires, the HPA completed two surveys on the health and smoking behaviors of middle and high school students. The four telephone surveys conducted in the year were "Smoking Behavior of Citizens aged 15 and Over", "Behaviorial Risk Factors Surveillance System", "Spring Festival Weight Control Survey", and "Survey of Awareness of and Satisfaction with HPA Policies". Further information on these studies are as follow.

1. Taiwan Birth Cohort Study

Recognizing the significance of children's living conditions during a period of rapid social change and the potential consequences throughout their lives, the Taiwan Birth Cohort Study (TBCS) was initiated in 2003 by the HPA. In order

to gain experience for the planning and implementation of the large-scale birth cohort survey, a pilot study comprising children born at the end of 2003 was conducted before the main study, which comprises children born at the end of 2005. The sample children were surveyed at 6 months, 18 months, 3 years and 5 and a half years old and a telephone interview was conducted at 7 years of age. A rich set of data was thus available to understand the health profile of Taiwanese children in the 21st century. To keep following up health status and development of the children, a follow-up survey is scheduled at 8 years of age.

Data from this birth cohort study can be used to investigate health status of the children and the associated family and social environment factors that the children exposed from birth to preschool. It can also be used to test the hypothesis of early origin of adult health. The research findings can be translated into policy-relevant information to inform decision-making of child health care and social welfare.

2. Child and Adolescent Behaviors in Long-term Evolution

Based on ecological models and aimed at the multi-level influences of the individual, family, school and community on child and adolescent health and lifestyles, the "Child and Adolescent Behaviors in Long-term Evolution (CABLE)" study was initiated in 2001 by the National Health Research Institutes (NHRI). The study provides information related to student's health for education and health sector as reference for policymaking. Participants were randomly sampled in 2001 from first and fourth graders of 18 public elementary schools in Taipei City and Hsinchu County. From 2001 to 2006, data were collected with self-administered questionnaires by the NHRI research team at the elementary or junior high school from which the participants were enrolled. In 2007, as the participants were older, they dispersed throughout Taiwan due to schooling or employment. In turn, the NHRI began collaborating with the HPA to combine the efforts of research and administrative units. Follow-up surveys and studies are thus made possible through the HPA's field work team to conduct community surveys. The 13th survey of the project was conducted in December 2013 to the end of May 2014. Till the end of 2013, this study has accumulated 12 years of longitudinal data. The analytical results can be a useful reference for policy making and evaluation.

National Health Interview Survey

In order to regularly monitor the health status of the citizens and the changing trends, the HPA has collaborated with the National Health Research Institutes since 2001 to conduct Taiwan's National Health Interview Survey. The survey are conducted at four-year interval, using face-to-face interviews to collect data that can be used to monitor the nation's health, trends, service needs and the related factors. The fourth survey was conducted in July to December 2013. A total 23,296 respondents were interviewed with a response rate of 75.2%. The survey report is scheduled for publication at the end of 2014.

4. Nutrition and Health Survey in Taiwan

Nutrition is an important factor on health, as well as an important indicator of national health. The Nutrition and Health Survey is therefore an essential tool in understanding the state of the nation's nutrition. Taiwan started planning for national nutrition surveys since 1980. In 1980-81 and 1986-88 household survey for dietary intake and children's physical development, as well as actual measuring and weighing of the food was conducted. Since 1993, the government conducted a series of Nutrition and Health Survey in Taiwan. The protocol of the survey in 1993-1996 included 24-hour dietary recall of participants aged 13 to 64 and dietary habits of children aged 4-12. Target population of the surveys in the following years were senior citizens in 1990-2000, elementary school children in 2001-2002, children aged 0-6 and adults aged over 19 in 2005-2008, junior high and senior high school students in 2010-2011, and elementary school students in 2012.

The Nutrition and Health Survey in Taiwan was initially managed by the former Bureau of Food and Drug, Department of Health. The HPA took over the responsibility in 2013 and aimed to establish a long-term, stable and regular monitoring system for health and nutrition of the citizen. During 2013 to 2016, national representative data can be collected every year and with data collected in the four year period, city and county representative data can be obtained. In 2013, a total of 2,649 participants were recruited for questionnaire interview, specimen collection and physical examine. The data can be used as a reference for national nutrition and non-communicable disease policymaking.

5. Surveys on Health and Smoking Behavior among Adolescents

Since 2004, the HPA has followed the protocol of the Global Youth Tobacco Survey, developed by the World Health Organization (WHO) and the United States Centers for Disease Control and Prevention (CDC), to monitor the current status and trends of changes in adolescent tobacco use. In addition, since 2006, the HPA further adopted the survey method of the CDC's Youth Risk Behavior Survey (YRBS), and the WHO Global School-based Student Health Survey (GSHS). In addressing important health behavior that leads to death, disease, disability, or social problems, these surveys focus on adolescent substance use such as smoking, drinking, and betel nut chewing, as well as a variety of other lifestyle and health-related behaviors. In order to align Taiwan's youth-surveillance system with international standards, and benefit from years of accumulated experience in youth health behavior survey, the HPA officially collaborated with the U.S. CDC in conducting the Global School-based Student Health Survey since 2012.

The aforementioned GYTS and GSHS surveys were conducted on middle or high school in alternate years, with anonymous self-administered questionnaires completed by students of sampled classes. In order to provide more timely results for policy reference, the GYTS has been conducted annually since 2011 on city-county representative samples of both middle and high school students; while the GSHS in 2013 continued to conduct on national representative sample of high school students. We also cooperated with the US CDC on revising of survey protocol and the questionnaire to be applied in 2013. The two surveys were both completed in June 2013 with 34,774 students completed the GYTS (a response rate of 90.6%); 5,252 students completed the GSHS (a response rate of 89.5%).

6. Conducting the National Smoking Behavior Survey and the Behavioral Health Risk Factor surveillance Survey

Since 2004, HPA has conducted the Telephone Survey on Adult Smoking Behavior (ASBS), which used the U.S. Behavioral Risk Factor Surveillance System (BRFSS), National Health Interview Survey (NHIS) and Global Adult Tobacco Survey (GATS) as references. Targeting citizens aged 18 and above in counties and cities all over the country, the survey uses the Computer Assisted Telephone Interviewing System (CATI) to survey smoking behavior, second-hand smoke exposure and other related factors, to establish a database of smoking prevalence among adults. In 2013, the survey's scope was extended to cover those aged 15 and above, for international comparability. The survey successfully interviewed 25,964 people, with 76.9% of eligible interviewees were successfully contacted and interviewed.

In addition, since 2007 HPA referred to the United States BRFSS telephone survey in planning a surveillance of health risk behavior among people over 18 years old, to monitor prevalence of major diseases (including diabetes, metabolic syndrome, hypertension, and kidney diseases), health risk behaviors, and utilization of preventive healthcare services. The surveyed population were adjusted in 2013 to include those aged 15 years and above, to facilitate international comparison. In 2013, 24,624 people were successfully surveyed, with 66.8% of eligible interviewees successfully contacted and interviewed.

The WHO has pointed out that obesity can lead to many chronic illnesses, as well as psychological and social problems. The organization therefore views obesity as an illness itself, and has declared obesity as the 21st century's predominant public health and medical issue. In order to ascertain changes in diet, exercise and weight among the general population aged 18 to 64, the HPA conducts a Spring Festival Weight Control Survey, which also serves as a basis for ongoing weight control promotion plans. This survey successfully interviewed 1,089 respondents from the general public, and 1,137 participants of the 2012 weight management plan. A total of 2,226 (57% of eligible interviewees) were successfully contacted and interviewed.

The HPA conducted the 2013 Survey of Public Awareness and Satisfaction of HPA Public Administration, to ascertain awareness of the HPA and satisfaction levels regarding its performance among citizens aged over 18. The survey also serves as a basis for project improvement. The survey successfully interviewed 1,088 respondents, with 53.9% of eligible interviewees were successfully contacted and interviewed.

7. Survey of Breastfeeding Rates

Since 2008, the HPA has conducted the annual survey of breastfeeding rates to gather policy relevant information on current status and long-term trends in maternal health, breastfeeding and friendly environments. The target population of the survey are mothers who have recently given birth in all the counties and cities all over the country. This survey uses the computer-assisted telephone interview (CATI) system to collect data, including child birth, breastfeedingfriendly environments and mother's satisfaction, services provided by the hospital, etc. Optional modules were applied on subsamples to collect information from the childbearing age women, such as smoking, exposure to second-hand smoke, drinking alcohol and so on. The 2013 survey successfully interviewed 12,539 respondents.

8. Promotion of the "Online Health Indicators Data Query"

The HPA has developed an online health indicator data query system since 2004. Information and internet technology were applied to provide the accessible web-based data querying services to the general public, the media worker, and health personnel. Descriptive statistics generated from birth reporting database, as well as health surveys on different age groups of the population are available.

The survey data that can be accessible on this website are: the 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, Taiwan Longitudinal Study on Aging, Taiwan Fertility and Family Survey and Birth Reporting Database. It provides services for queries into over 600 health indicators for the general public, and the number of visitors averages over 10,000 each year.

In order to improve the website's accessibility and user-friendliness services, it provides multiple indicator search options, as well as a bilingual service. In 2013, the existing 'Health Indicator 123,' website was integrated with the 'Online Interactive Data Query for Cancer Registration' and the newly developed 'Injury Surveillance Indicator Query System' to provide a user-friendly, customized service, and thereby improving the website's quality and utilization.

9. Applications of Survey and Research Data

The goal of health surveillance surveys of non-communicable diseases conducted by the HPA is to provide the reference for policy-making, program evaluation and strategy planning. To increase the utilization of these survey data, the HPA not only publishes the results in survey reports, but also conducts analyses and academic research on specific topics, as well participating in relevant seminars and publication of journal papers. In addition, we provide analytical results for the purposes of news release and for health education and advocacy. People can also visit our online interactive data query website to quickly access to descriptive statistics generated from surveillance data.

In order to effectively reach its objectives of protecting personal privacy, encouraging sharing of health data and reducing overlapping efforts, the Ministry of Health and Welfare established the Collaborative Center of Health Information Application (CCHIA) in 2011. Since 2012, the HPA has continually provided a series of health survey raw data to the center for use. Currently, data from 3 reporting database (the Birth Reporting Database, Rare Disease Reporting Database, Assisted Reproduction Database) and 9 surveys (the Taiwan Longitudinal Study on Aging; the Taiwan Survey on the Prevalence of Hypertension, Hyperglycemia, and Hyperlipidemia; the Global Youth Tobacco Survey of Junior High School Students; the Global Youth Tobacco Survey of Senior High School Students; and the Adult Smoking Behavior Survey, Taiwan Fertility and Family Survey, Taiwan Birth Cohort Study, Global Student Health Survey, National Health Interview Survey) are accessible at the collaborative center. It is hoped that this will expand resource sharing and increase overall utilization of the data, thus realizing the optimum value of health surveillance data.

Table 7-2

Overview of Important Health Surveys over the Years

Survey		cross-sectional survey →longitudinal survey													
		2004								2012				2016	2017
Community-Based Face-to-Face Interview Survey		•		•	•										
National Health Interview Survey			•				•								
Taiwan Longitudinal Study on Aging	→				\rightarrow				\rightarrow				\rightarrow		
Taiwan Fertility and Family Survey	•	•				•				•				•	
Child and Adolescent Behaviors in Long- Term Evolution					\rightarrow	→	→	\rightarrow	\rightarrow	→	\rightarrow	\rightarrow	\rightarrow		
Taiwan Birth Cohort Study			→	\rightarrow	\rightarrow	→	→	\rightarrow	\rightarrow		\rightarrow	→			→
Nutrition And Health Survey in Taiwan			•	•	•	•		•	•	•	•	•	•	•	•
Student Self-administered Survey			1			1						1			
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		'	1	'	'	1	1			1		1			
Adult Smoking Behavior Survey		•	•	•	•	•	•	•	•	•	•	•	•	•	•
Behavioral Risk Factor Surveillance System					•	•	•	•	•	•	•	•	•	•	•
Surveys on Health Care Issues		•	•	•	•	•	•	•	•	•	•	•	•	•	•
Survey of Breastfeeding Rates						•	•	•	•	•	•	•	•		•

Section 4 International Cooperation

Status Quo

A healthy citizenry is a crucial foundation for a country's prosperity and power. The HPA has designed various policies to improve the nation's health through all kinds of international exchanges and studies. Besides attending the WHA Assembly and other technological conferences, the HPA has also actively pursued a greater degree of exchange, cooperation and experience sharing between its various projects and the WHO Center for International Cooperation, international academic institutions and foreign governments. The HPA also participates in global and regional health promotion conferences, holds many national and international health seminars, receives international expert guests and attends important international seminars, in order to share our experiences of non-communicable disease prevention and health promotion. These measures not only increase Taiwan's international visibility, but also raise international approval of our various policies.

Policy Implementation and Results

1. Participation in the 66th WHA Assembly 2013

Over the course of the assembly, the HPA reported its responses to the main topics of non-communicable diseases, preventing blindness, maternal and child health, health inequality, active aging, and climate change, and also shared Taiwan's experiences in these areas. The HPA also conducted bilateral discussions with the USA, UK, EU, Germany, Japan, Australia, Haiti, Dominica, Paraguay, and Singapore, etc. over the course of the event. As well as inviting official from these countries to the 2013 Global Health Forum in Taiwan, these talks also covered topics such as future cooperative agreements, authorization for new warning labels on cigarette packets, and maternal and child health exchange.

2. Women's Health

On the August 5th, 2013, the HPA held the 2013 International Conference on Women and Health: Global Challenges and Progresses, and invited the world's top female experts, including the Directors of the World Medical Association and American Medical Association, and New York representatives from the Medical Women's International Association and UN Commission on the Status of Women. The key topic of the conference was 'Global Challenges and Progresses in Women's Health,' while exchanges were also conducted on topics of women's health in the Americas, Africa and Asia, in order to increase the amount of attention paid to women's health issues by health workers in Taiwan, as well as the effectiveness of policy implementation. A total of 220 people participated in the conference.

3. Tobacco Hazards Prevention and Control

- (1) The Traditional Chinese-language platform of the GLOBALink tobacco hazards prevention website provides Chinese-speaking workers in tobacco prevention in Taiwan and around the world with a convenient channel for the latest news in tobacco hazards prevention. GLOBALink also regularly posts reports about events and developments in tobacco prevention on to the English-language page, thus sharing with the international community. Held on the 16-17th September 2013, the International Tobacco Hazards Prevention Experts Conference invited Dr. Geoffrey T. Fong and Professor Anne Quah, Canadian experts on international tobacco hazards prevention policy evaluation and planning, to come to Taiwan to share their practical experience of tobacco control. This helped government institutions, NGOs and Taiwanese scholars and experts to understand research and implementation of global tobacco control, thus assisting the promotion and development of Taiwan's own tobacco hazards prevention policies.
- (2) On the 21-22nd May 2013, the HPA participated in the ENSH-Global Network for Tobacco Free Health Care Services Annual General Assembly and the Tobacco Free Pre-Conference, both held in Sweden. The conference represented the first time that the council had been re-elected since the network was established; the HPA nominated Yan Qi-Hua, director of the Chung Shan Medical University Hospital for the election. In her capacity as the Taiwan network coordinator, HPA Director-General Shu-Ti Chiou also wrote to all network members to nominate Mr. Yan, which was a major contribution to his success in the election; the election had no further relevance for Taiwan or the Asia-Pacific region. The HPA also took part in the ENSH Gold Forum 4 Taiwanese hospitals were recognised as ENSH GOLD Level Forum members of only 7 globally, while the HPA was also invited to share Taiwanese policy results in the field of smoke-free hospitals. We were able to learn about other countries' experiences in promoting smoke-free policies through the experiences of foreign experts.
- (3) The HPA to hold the International Conference on Globalization of Tobacco Control Policy on the 23-24th August 2013. The conference invited approximately 160 participants, including international scholars such as Dr. Kenneth E. Warner, Dr. Judith Mackay, Dr. Frank J. Chaloupka, and Dr. Bonnie Halpern-Felsher. The goal of the conference lay in creating an interaction between Taiwanese tobacco policy and experts in the field, as well as the methods expressed during the conference, and also in providing a concrete declaration of the HPA's tobacco hazards prevention policies.

(4) In order to collect international comparative data and increase Taiwan's capacity in adolescent health behavior surveying and data analysis, the HPA has collaborated with US CDC on the Global Youth Tobacco Survey (GYTS) since 2004, and the Global School-based Student Health Survey (GSHS) since 2012. The US CDC provides technical support in development of survey protocol, sampling, weighting, preliminary data analysis, completion of the survey report and publication of journal papers.

4. Healthy Cities and Safe Communities

On the November 3rd, 2013, HPA held the International Safe Communities Recognition Ceremony for Eastern District in Hsinchu City and Zhongzheng District in Taipei City. The event was hosted by Jun-Bi Zhao, director of the WHO CCCSP subsidiary the Institution for Safe Communities Korea, and Professor Dale Hanson of James Cook University, Ms. Hui-Zhuang Huang, secretary of the WHO CCSP Asian Region Network, and Dr. Yoko Shiraishi, drector of the Institution for Safe Communities Japan were invited to Taiwan to attend the ceremony.

5. Health Promoting Schools

- (1) HPA took part in the 21st International Union of Health Promotion and Education (IUHPE) World Health Promotion Conference, a global NGO activity held on the 23-25th August in Pattaya, Thailand. The event was based on the theme "Best Investments for Health." Director-General Shu-Ti Chiou was in attendance with colleagues, and the slogan "Taiwan HPA" was used in HPA's booth exhibited in the conference to demonstrate HPA's recent processes and achievements of health promotion in different settings, such as cities, workplaces, schools, hospitals and communities. A total of 450 people visited the HPA's booth, where they exchanged experiences and opinions.
- (2) Together with the Canadian ISHN and the US ASCD, HPA jointly held the School Health Symposium as part of the 21st IUHPE World Health Promotion Seminar, with 60 participants from over 20 countries attended. HPA specially organized a lecture on health promotion certification for schools in Asia, as well as a workshop in which school principals shared their experiences. Director-General Shu-Ti Chiou, was invited to the ending keynote lecture to share Taiwan's major processes and achievements in the field of health promoting schools.
- (3) In 2013, HPA became a trustee member of the IUHPE, while Director-General Shu-Ti Chiou was elected as the 2013-16 Global Vice President (there are a total of 12 Global Vice Presidents globally). In the elections which determined the responsibilities of each Global Vice President, held at the first meeting of the newly elected executive committee, Director-General Shu-Ti Chiou was selected as a partnership convener. In the future, she will use this platform to integrate the strength of the IUHPE and Taiwanese to promote the development and consolidation of health promotion partnerships. This will create a mutually beneficial three-win situation between Taiwan, the IUHPE and International Health Promotion.



The HPA stall at the 21st IUHPE World Conference on Health Promotion

6. Health Promotion Hospitals and Low-Carbon Hospitals

- (1) Director-General Shu-Ti Chiou attended the 21st International Conference on Health Promoting Hospitals and Health Services, held in Gothenburg, Sweden from May 22nd to 24th, 2013. In her capacity as Chair of the Governance Board of International HPH Network, Dr. Chiou gave a speech at the opening ceremony and chaired the General Assembly of the International HPH Network. Approximately 816 participants from 40 countries attended the seminar, including Dr. Hans Kluge of the WHO, making it the conference with the highest attendance than any of the previous events held in Europe. During the conference, the Taiwan HPH Network has won the first "Outstanding Fulfillment of HPH Strategy" award; the Changhua Christian Hospital was awarded the second "Outstanding Fulfillment of WHO HPH Standards" award (the first being won by Dalin Tzu Chi General Hospital). Moreover, 4 hospitals from Taiwan received the ENSH Gold Level Awards (total 7 were giuen out globally).
- (2) In response to the aging society, the Working Group on HPH and Age-friendly Health Care was approved during the 20th WHO HPH General Assembly in 2012, with Director-General Shu-Ti Chiou acting as its leader. In order to further develop the scope of the Working Group, it was approved to transfer to Task Force on HPH and Age-friendly Health Care, with Director-General Shu-Ti Chiou as leader. HPA plans to develop Taiwan's Age-Friendly Care Framework into an internationally applicable framework through this Task Force, as well as to improve the skills of domestic professional health personnel in age-friendly care via the international exchange.
- (3) During the 21st International HPH Conference, HPA organized the HPH and Environment Symposium, inviting experts and scholars from Germany, Austria, Sweden and Taiwan to discuss and share experiences on topics such as green purchasing, energy efficiency, low-carbon food, pharmaceuticals control and indoor air quality. Approximately 50 people attended the symposium. In addition, the 5th Meeting of the Task Force on HPH and Environment was held after the symposium.
- (4) On June 9th, 2013, HPA and the WHO Collaborating Center for Evidence-based Health Promotion in Hospitals and Health Services jointly held a pre-conference entitled "Health in Healthcare Policy Strengthening Partnership between Public Health & Health Care," preceding the 8th GCHP in Helsinki, Finland. At the meeting, experts from Sweden and Denmark shared their experiences in health promotion, while Director-General Shu-Ti Chiou and representatives from the Taipei Veterans General Hospital and Chang Gung Hospital gave reports on Taiwan's health promotion hospital policy, age-friendly health care framework and low-carbon and energy-saving policy in hospitals.



The Taiwan Health-promoting Hospital Network won the 1st Outstanding Fulfillment of HPH Strategy Award and Changhua Christian Hospital won the 2nd Outstanding Fulfillment of HPH Standards Award

- (5) On June 17th, 2013, HPA, the WHO Collaborating Center for Evidence-based Health Promotion in Hospitals and Health Services and the International Hospitals Federation jointly organized a pre-conference entitled "Innovative Value-adding Hospital Management in an NCD Era: Act NOW!," before the 38th World Hospitals Conference in Oslo, Norway. Participants shared their experiences on what hospital can do in an era of Non-Communicable diseases. Director-General Shu-Ti Chiou acted as chair and spoke on "Towards Active and Healthy Aging: a Framework of Age-Friendly Hospitals," sharing major achievements of Taiwan's promotion of age-friendly hospitals.
- (6) From June 18th-20th 2013, Director-General Shu-Ti Chiou attended the World Hospitals Congress as Chair of the Governance Board of International HPH Network. The title of the congress was "Future Healthcare," and over 1,000 participants from 40 countries across the world attended. The congress was opened by Dr. Margaret Chan, Secretary-General of the WHO, with a speech entitled, "Maintaining the momentum, of better health globally for the 21st century - Are innovation and technology game changers for the future?" When the floor was opened for questions, Director-General Shu-Ti Chiou responded with comments regarding the attainment of the WHO's 25 by 25 targets. Director-General Chiou stated that hospital management must innovate to provide holistic, preventive health services to the patients; taking CABG patients as an example, intervention services such as smoking cessation, exercise and healthy diet may work to improve patient health and prevent future episodes of myocardial infarction. This is a kind of "soft innovation", not just limited to medical equipment or facilities. Such measures can improve the quality of health care, and can bring additional health benefits. Hospitals can thus work together with public health departments and primary health care to help achieve the 25 by 25 objective. Dr. Margaret Chan responded by agreeing with this point of view, and pointed out that the greatest medical burden in the world today is non-communicable diseases, and is associated mainly with lifestyle choices. Hospitals, primary health care services and public health institutions should work together to find community-specific solutions. Director-General Shu-Ti Chiou is the first Taiwanese official to have discussion with the WHO Secretary General in an international public meeting since Taiwan left the WHO, and this consolidates Taiwan's specialist leadership role in hospital health promotion.
- (7) From September 30th to October 1st, 2013, HPA collaborated with the Estonian Health Promotion Hospital Network in organizing the HPH Autumn School in Estonia. The theme of the school was "Strengthening the Partnership between Public Health and Health Care System." At the workshop, Director-General Shu-Ti Chiou shared Taiwan's experiences and accomplishments in the field of health promotion in hospitals, as well as Taiwan's "Age-Friendly Heath Care and Health Promotion Framework, Standards & Recognition." Yu-Cheng Chang, the Chiayi Christian Hospital also introduced the practicalities of implementing age-friendly health care policies. A total of 78 people from 5 countries (Taiwan, Estonia, Lithuania, Finland and Germany) attended the summer school.

7. Healthy Ageing

- (1) On June 22nd-25th, 2013, HPA attended the 20th World Congress of Gerontology and Geriatrics in Seoul, South Korea. The title of the congress was "Digital Aging: A New Horizon for Health Care and Active Aging," a total of 3,920 people participated, including 194 people from Taiwan. Together with the Canadian University of Alberta, HPA jointly held a seminar on age-friendly health care, which included speeches by representatives from Canada, the US, The Netherlands, Taiwan and the International Health Promotion Hospitals Network. Director-General Shu-Ti Chiou introduced "Development and Application of a Framework of Age-friendly Health Care in Taiwan", as well as the international development plan of Task Force on HPH and Age-friendly Health Care. Director-General Shu-Ti Chiou also hosted the Smoking Cessation for Seniors' Seminar organized by Taiwan, in which experts from Taiwan Japan and Korea shared their experiences and researches in the field.
- (2) On September 23rd, 2013, Director-General Shu-Ti Chiou was invited by world-famous consultancy McKinsey's Company to the UK Leading Systems Network Global Conference. The conference was titled, "Global learning,

- local improvement." Director-General Shu-Ti Chiou shared "Mobilize and change: Taiwan's movement towards value-adding healthcare," with members of the LSN global network and other senior representatives.
- (3) On September 25th-26th, 2013, Director-General Shu-Ti Chiou was invited by the United Nations Population Fund (UNFPA) the "Responding to Rapid Ageing: Workshop to Exchange International Experiences" event in Hanoi, Vietnam. At the conference, Director-General Shu-Ti Chiou gave a speech "Active and healthy aging in Taiwan: a comprehensive and system-oriented approach", sharing Taiwan's health promotion experiences towards elderly in response to population ageing, chronic diseases prevention and control, and active ageing relating policies. After the conference, Director-General Shu-Ti Chiou by the Central Television health channel O2 TV, Vietnam News, Voice of Vietnam and the Armed Forces Television Network, further sharing Taiwan's experiences in promoting age-friendly policies.
- (4) In October 2013, Director-General Shu-Ti Chiou and Dr. Yu-Cheng Chang, Director of the Chiayi Christian Hospital, were invited by the world-famous consultancy McKinsey's Company to record a "webinar" on Taiwan's age-friendly health care, entitled, "Development and Application of a Framework for Age-friendly Health Care in Taiwan." The webinar was broadcasted on October 22nd-23rd, sharing results of Taiwan's age-friendly health care promotion through its members' platform. Following the broadcast, HPA also shared the webinar on HPA website for the reference of all domestic health care institutions.(https://www.youtube.com/watch?v=IJuHtUftQfA&feature=youtu. be)

Cancer Prevention

On November 21st, 2013, Qiu Wen-Da, Head of the Ministry of Health and Welfare, led the Ministry of Health and Welfare and the Ministry of Foreign Affairs in collaboratively holding the 2013 Taiwan Global Health Forum - Cancer Prevention Prem. Attendees at the pre-forum included experts and representatives in the world of cancer prevention, from over 20 countries. Attendees included Kevin Fenton, director of health and wellbeing at Public Health England; Thomas Gross, Deputy Director of Science for the Center of Global Health at the National Cancer Institute; Dr. Canice Nolan from the European Commission; Michael Sparks, Chair of the IUHPE; Joyce R. Gaufin, from the Executive Board of the American Public Health Association, and other foreign experts. The attendees entered into thorough interactive discussions, and together with the Taiwanese government, hospitals and NGOs, dissected the global cancer prevention situation and corresponding countermeasures through specialist lectures, workshops and round-table discussions. They reached a consensus on the future direction of cancer prevention activities from a global point of view, while Taiwan's experiences were shared with attendees from around the world. This was a major step towards achieving the WHO-set target of 25% less premature deaths from cancer by 2025.

Attending the European Health Forum Gastein

The European Health Forum Gastein is the EU's most important forum on health policy, and is also one of the world's foremost meetings of health leaders. From October 2nd to 4th, 2013, HPA attended the 16th European Health Forum Gastein in Austria. HPA sponsored a parallel forum on "Non-Communicable Diseases: from research to action", in which representatives from international NGOs and various governments discussed how to achieve the WHO's target of reducing pre-mature deaths due to NCDs by 25% in the year 2025. Director-General Shu-Ti Chiou expressed her opinions in two speeches, titled "Public health policy performance against NCDs: examples of opportunities and challenges from Asia," and "Innovative measures to tackle NCDs in Asia: a policy-maker perspective." Discussions were then held with the European Commission, various health ministries and NGO representatives on how to combat and reduce the impact of health risk factors. Director-General Shu-Ti Chiou was also invited by the forum to attend the

discussion "Shaping a health literate Europe - a recipe for sustainable healthcare," to share the Taiwanese government's experiences in health literacy.

10. 2013 Global Health Forum in Taiwan

On November 22nd-24th, 2013, the Global Health Forum Taiwan was held at the Taipei Cathay Pacific Conference Hall. For the first time, HPA was jointly responsible for planning the forum's agenda, and with the help of various different units (including the Ministry of Foreign Affairs and the Office of the International Cooperative from the Ministry of Health and Welfare), a total of 640 people attended the forum. The number of attendees, foreign guests and heads of ministries was the highest in the history of the forum. A summary of the major achievements of the forum is as follows:

- (1) The title of the forum, "Health in All Policies," encompassed four main subtopics: "Global Perspectives on Health in All Policies," "A new era of public health: outlook and challenges," "Value-added health care (Asian experiences)," and "Innovative and Resilient Health Development (European Experiences.)" The forum brought together 26 world renowned leaders in public health and medical communities, including various heads of ministries, health officials, professionals and senior representatives. A total of 66 foreign guests from 24 different countries attended the forum.
- (2) On the morning of November 23rd, President Ma attended the opening of the forum and spoke about the topics such as the second generation of National Health Insurance, healthy weight management, drunk-driving prevention, mental health and suicide prevention. In all of these areas, inter-departmental cooperation can provide the force to effectively improve policy and protect public health. Dr. Wen-Ta Chiu, Minister of Health and Welfare, shared Taiwan's experiences with Second Generation National Health Insurance, which was continuously commented on by experts during the forum and made a deep impression for our foreign guests, whom praised the high efficiency of Taiwan's National Health Insurance policy.
- (3) A press conference was held on the November 24th to issue the "Taipei Declaration on Global Development of Health in All Policies." Tzou-Yien Lin, Deputy Minister of the Ministry of Health and Welfare, attended the press conference on behalf of Minister Wen-Ta Chiu and signing the declaration, which was jointly drafted by Director-General of HPA Shu-Ti Chiou, and Professor Martin McKee, President-Elect of the European Public Health Association. The declaration was publicly signed by Mr. James Chauvin, President of the World Federation of Public Health Associations; Dr. Mengistu Asnake, Vice President and President-elect of the World Federation of Public Health Associations; Ms. Joyce R. Gaufin, President of the American Public Health Association; Dr. Michael Sparks, President of IUHPE; Professor Helmut Brand, President of the European Health Forum Gastein and President of the Association of Schools of Public Health in the European Region; and Dr. Bettina Borisch, Head of Geneva Secretariat, World Federation of Public Health Associations. In addition, a total of 149 attendees from the forum signed the declaration.



Taipei Declaration on Global Development of Health in All Policies



An audience with the President for 39 foreign speakers and officials, November 25th

- (4) Publication of forum newsletters: HPA utilized the past experiences of Young Gasteiners at the Gastein Forum, and invited 5 Young Gasteiners to Taiwan, as well as 12 young adults from Taiwan (including 7 colleagues from HPA and 5 members of other academic institutions,) to form a work group, reporting on forum progression and conduct interviews. Three forum newsletters were published by the working group.
- (5) An audience with the President of Taiwan for the foreign guests: on the morning of November 25th, 39 foreign guests (speakers at the forum and foreign officials) enjoyed an audience with the President of Taiwan. They later visited the municipal health and sports centers of Taipei City and were impressed by the President's support of health policy and implementation to fulfill the concept of "Health in All Policies".

11. Developing Research Program on Health Inequalities

In order to investigate the current status and trends in health inequality in Taiwan and develop plans which work towards health equality, Director-General Shu-Ti Chiou visited the University College London's Institute of Health Equity (UCLIHE) in September 2013 to meet with Sir Michael Marmot, Chairman of the WHO Commission on Social Determinants of Health. From 2014 to 2015, HPA collaborates with the UCL IHE on the Taiwan Health Inequality Report, which involves completion of a health inequality report, drafting of a national plan to reduce health inequalities, and establishment of a long-term monitoring mechanisms for health inequality.

12. Hosting International Guests

- (1) On January 7th, 2013, Dr. Adewale Troutman, President of APHA, led a group visit to HPA. During the course of meeting, Director-General Shu-Ti Chiou led bilateral discussions on topics such as obesity prevention and chronic disease prevention and treatment.
- (2) On January 9th, 2013, a group of seven Irish Congressmen, including John McGuinness, President of Ireland-Taiwan Parliamentary Friendship Society, came to visit HPA. During the course of the meeting, Director-General Shu-Ti Chiou led bilateral discussions on topics such as obesity prevention and chronic disease prevention and treatment.
- (3) On February 19th, 2013, discussions were conducted with Dr. Sohel Saikat of the UK-Taiwan Short-term Health Care Exchange and Cooperation Plan, which covered non-communicable disease monitoring systems, health promotion hospital networks, women's health care (including prenatal health checks) and cancer screening.
- (4) On May 10th, 2013, 7 guests including Dr. Patrick O'Carroll, Assistant Secretary for Health in the Office of Public Health and Science and the 10th Regional Health Administrator and Prof. John Auerbach, Director of the Institute on Urban Health Research at Northeastern University, visited the HPA. Director-General Shu-Ti Chiou gave reports entitled 'Reorienting Healthcare Services, Strengthening Partnership for Better Health,' and 'Whole Society Development Against Obesity in Taiwan,' in order to introduce Taiwan's hard work in the fields of health promotion hospitals and obesity prevention, while also sharing some of Taiwan's accomplishments in these areas.
- (5) On July 8th, 2013, Professor Richard Osborne, Deakin University Australia visited HPA to discuss arrangements for a cooperative plan for health literacy. First of all on July 8th, he explained "Thailand Health Literacy Questionnaire" and his university's collaboration with Thailand. A discussion was also held on the best ways to revise, plan and implement a Chinese version of the questionnaire, should Taiwan be interested in developing and conducting a health literacy questionnaire. Then on July 9th, Director-General Shu-Ti Chiou hosted a meeting to discuss a cooperative plan for health literacy and the application of health promotion hospitals policy. The meeting gathered information on the resources needed to establishing a cooperative relationship, and various questions were discussed.
- (6) On July 22nd, 2013, 20 guests visited the HPA, including Professor Hin Peng Lee from the National University of Singapore and Dr. Sweet Far Ho, Senior Consultant at the Singapore Ministry of Manpower. HPA introduced

the results of health promotion hospital policy, while the visiting group introduced Singapore's training system for preventative medicine, and their relationship with the state public health system. Both parties shared their experiences in matters such as raising interests among hospitals to take part in health promotion activities, funding cancer screening programs and provision of health inspection services.

- (7) On August 20th, 2013, guests from South Africa, including Mr. Mbuyiselo Lincoln Goduka and Ms. Margaret Nokuzola Ntlangula to confirm details of ICDF assistance in improving community healthcare workers' information platforms with IT. They also participated in discussions of HPA's non-communicable disease prevention work and mother-and-baby healthcare.
- (8) On August 22nd, 2013, 16 Vietnamese visitors came to HPA, including Le Chanh Nhac, Deputy Director of Vietnam Ministry of Health General Office of Population and Family Planning. The focus of the visit included mother-and-baby health care, prevention of imbalanced sex ratios at birth, geriatric health care and systems for social welfare and information. The visit also included site visitors of related public and private institutions.
- (9) On October 30th, 2013, Taiwan ICDF arranged for 24 guests to visit Taiwan, from Indonesia, Malaysia, the Marshall Islands and other countries. They took part in discussions with HPA, with mother-and-baby health policy as the main focus of study and discussion.
- (10) On November 11th, 2013, 10 guests from Mainland China visited the HPA, including Wang Yi Qing, Permanent Member of Xiamen City Medical Association. Following a comprehensive introduction to HPA and its work with diabetes, further discussions were held regarding HPA's diabetes prevention policy.
- (11) On November 13th, 2013, 35 guests including Professor Soenarto Sastrowijoto of Gadjah Mada University in Indonesia visited HPA. Witnessing the processes involved in HPA's work helped the visitors to understand Taiwan's health promotion work, and included discussions on Taiwan's work in cancer screening, improvements to the quality of cancer screening and treatment, and palliative care for cancer patients.
- (12) On November 21st, 2013, guests including Dr. Helmut Brand, President of European Health Forum Gastein; Dr. Angela Brand, Chair of European Centre for Public Health Genomics; Dr. Kristine Sorensen, coordinator of European Health Literacy Project; Dr. Stephan van den Broucke, WHO Technology Advisor; Dr. Jűrgen Pelikan, Director of WHO Collaborating Center for Health Promotion in Hospitals and Healthcare, Ms. Ina Gudumac, researcher at WHO Collaborating Center for Immigrant Health, came to HPA to discuss potential policy developments and international cooperation in the field of health literacy. They also shared their experiences and policy accomplishments in the fields of health monitoring tools and methods, and EU health literacy surveys.
- (13) On November 25th, 2013, Dr. Jessica Allen of British University of Central London Institute of Health Equity visited HPA, to discuss the progress of the bilateral Taiwan Health Inequality Report, and also to augment item for analysis and collect statements from Taiwanese experts.
- (14) On November 26th, 2013, 12 visitors from Vietnam, including Nguyen Van Tan, Deputy Director of General Office for Population and Family Planning, Ministry of Health, visited HPA in order to learn about areas such as Taiwan's age-friendly environments and health care services, non-communicable disease prevention policy, and reproductive health.





Appendix

HPA Chronological Highlights in 2013

Date	Summary of Events
January 1st	Since January 1st 2013, "The Subsidization Plan for Medical Institutions and Smoking Cessation Services" and "Recording Chart for the Case Management of Smoking Cessation and Health Education" have been electronified.
January 5th	Health Promotion Administration Achievement Review and Future Planning Meeting.
January 7th	Prof. Adewale Troutman, President of American Public Health Association (APHA) led a delegation to visit Health Promotion Administration. Director General Dr. Shu-Ti Chiou discussed obesity prevention, chronic disease prevention, and several other issues with the guests.
February 22nd	HPA held a seminar on "Health and Welfare Implications Tobacco Product Surcharge Adjustments," inviting 70 groups to attend: anti-smoking groups, medical circles, patient groups, and tobacco product unions, in order to listen to recommendations from all sides.
March 5th	HPA held "The Public Health Check-up Summit." During the summit, we compared important health indices with other countries through establishment of health index structures and statistical data analyses. We also issued a proposal for future plans, and listened to views and opinions from all relevant circles. 200 expert scholars, NGO members, union members, student representatives, legislators, examination committee members, and heads of local county and city health bureaus attended the meeting.
March 22nd	The Department of Health and Welfare and Council of Labor Affairs revised some clauses in "Method for Conducting Laborers' Physical and Health Check-ups at Designated Medical Institutions." A total of 11 clauses were revised.
March 26th - 27th	HPA held "The 2013 National Healthcare Meeting." We handed out awards for excellent performance of health care units during 2012. During the meeting, we discussed issues regarding how to minimize local health inequalities, and our important annual objectives, and engaged in practical sharing of experience, group discussions, and reports. Approximately 230 representatives from every local health bureau participated.
April 19th	Chairman Cary Adams of the UICC visited the HPA on April 19th, and met with Deputy Director Lin Cho-Yen and Director-General Chu Shu-Ti. We then explained the goals of our cancer prevention, cancer screening, tobacco hazards prevention and control, obesity prevention and control, and patient recuperation advocacy policies. We also announced our objective and strategies for reaching the WHO 2025 target of lowering the number of deaths from cancer by 25%.
April 30th	HPA held a press conference to announce our 2010 Cancer Incidence Data. We shared information regarding the Top 10 forms of cancer, the fact that over 90,000 people had cancer, and cancer risk factors (most evident in betel nut chewers). HPA called on the public to cut out the four risk factors of tobacco, alcohol, betel quid, and obesity, and to engage in the "two goods" of regular exercise, eating five vegetables and fruits a day, as well as undergoing regular cancer screening, and seeking prompt medical treatment.
May 1st	Since May 1st, patients who are covered by insurance to receive Second Generation Smoking Cessation Payment Scheme in areas that are lacking medical resources can receive a 20% discount in medication fees.
May 10th	HPA welcomed the US Federal Deputy Medical Chief (Tenth Regional Cross-state Health Chief Commander), the North Carolina Public Health Administration Director, and US Central and Local Health Medical leaders and scholars, who all participated in the 2013 Taiwan-US Health Policy Seminar. A total of 7 guests visited the HPA. We introduced our policies and achievements in the fields of health promotion and disease prevention, and also engaged in mutual exchange of experiences.
May 17th	HPA revised its "Medical Services Institution Preventative Healthcare Service Notices." Since June 1st 2013, the screening age for colorectal cancer has been extended to cover all people aged under 75. (Subsidy amounts have also been adjusted.) Those eligible for oral screening now include aboriginal people over 18 and under 30 who chew betel quid(or have given it up), while tooth fluoridization services for children has been extended to all children under 6.
May 17th	Amendments to the Article 4 and Article 35 of the Tobacco Hazards Prevention Act were passed by resolution on 9 May 2013 in the Executive Yuan's 3346th sitting, raising the surcharge on tobacco by N.T.\$20 and the tobacco tax by N.T.\$5. It was sent to the Legislative Yuan for deliberation, and after the first reading at the Legislative Yuan on 17 May, it was handed over for examination.

Date	Summary of Events
May 21st- 22nd	The ENSH-Global Network For Tobacco Free Health Care Services held its General Assembly and ENSH Gold Forum in Sweden. In 2013, Taiwan had the most recognized ENSH GOLD Level Forum members of all countries. Out of 7 new members, 4 of them were from Taiwan. During the forum, HPA engaged in mutual sharing of experiences. In addition, Yen Chi Hua, Director of the Zhong Shan Medical Hospital, was selected as Director of the ENSH-Global Network For Tobacco Free Health Care Services.
May 22nd -24th	HPA participated in the "21st International Conference on Health Promotion Hospitals and Health Services" in Gothenburg, Sweden. During the conference, the proposal of upgrading the Working Group on HPH and Age-Friendly Health Care was upgraded to Task Force and was approved by the General Assembly. In addition, 257 abstract submissions were from Taiwan. The Taiwan HPH Network won the first "Outstanding Fulfillment of HPH Strategy" award; The Changhua Christian Hospital was awarded the second "Outstanding Fulfillment of WHO HPH Standards". This recognition demonstrated Taiwan's achievements in promoting clinical health promotion and preventive medicine.
June 9th	HPA and the WHO-CC for Evidence-based Health Promotion in Hospitals and Health Services jointly held a pre-conference during the 8th Global Conference on Health Promotion in Helsinki, Finland. Experts from Sweden, Denmark, and Taiwan shared their experiences in promoting health promotion hospitals, age-friendly hospitals, and carbon reduction and energy conservation in hospitals.
June 17th	Taiwan collaborated with the WHO-CC for Evidence-based Health Promotion in Hospitals and Health Services and the International Hospital Federation to organize a pre-conference during the 38th World Hospital Congress in Oslo, Norway. The pre-conference featured experience sharing regarding Taiwan's strategies and actions taken by hospitals to combat non-communicable diseases.
June 18th	HPA announced the "Children's Health Education Consultation Services and Subsidy Project." From July 1st 2013, children under one year old have been eligible for two subsidies. Physicians provide parents with health education on special health topics such as breastfeeding, sudden death prevention, accident and hazard prevention, oral hygiene, and milk tooth care, in order to avoid the impact of risk factors on children's health.
June 22nd- 25th	HPA collaborated with University of Alberta, Canada to hold a seminar on age-friendly healthcare during the 20th World Congress of the International Association of Gerontology and Geriatrics, held in Seoul, Korea. Experts from Canada, US, and the Netherlands were invited to give speeches. HPA also held a seminar on smoking cessation for the elderly. Experts from Taiwan, Japan, and Korea were invited to share their research on elderly smoking cessation.
July 15th	The English version of the "Taiwan Osteoporosis Practice Guidelines" was registered by the U.S. AHRQ of the National Guideline Clearinghouse (NGC). It was the first Taiwanese publication to be registered by the NGC.
July 22nd	A total of 20 people from the Singapore "Preventive Medical Doctor Plan" team visited HPA. HPA gave a brief introduction to domestic achievements in promoting health promoting hospitals. The visiting team explained the relationship between the Singaporean preventive medical training system and government public health. Both parties engaged in experience sharing regarding the willingness of hospitals to improve health promotional work, cancer screening items covered by insurance, and the frequency of health check-up services provision.
July 23rd	In response to the organizational restructure of the central government, on July 23rd 2013, the Bureau of Health Promotion was officially restructured to become the Health Promotion Administration. On that day, Chu Wen-Da, Head of the Department of Health and Welfare, and Chu Shu-Ti, Director-General of the HPA, attended the unveiling ceremony.
July 24th	HPA introduced the new HPA logo, the 'Hand,' at the National Health Press Conference. We introduced the concept and symbolism behind the new logo.
July 26th	HPA held a seminar on "Commendation for Excellent Performance in Cancer Prevention in Hospitals and Community Screening Networks Experience Sharing." HPA commended 91 hospitals and local health bureaus that were found to have excellent performance in cancer screening in 2012, and certificates were given to 48 hospitals that passed our certification of cancer treatment quality. HPA also invited local health bureaus, basic level medical institutions, and hospitals to share their experience regarding the promotion and establishment of community screening networks.
August 5th	HPA held the "2013 International Conference on Women and Health:Global Challenges and Progresses." We invited the president-elect of the World Medical Association, the President of the American Medical Association and Global Health Director, New York Medical College Representative to the UN of Medical Women International Association & Representative from the NGO Committee on the Status of Women, NY, U.S.A. We engaged in health discussions regarding women in the America, Africa, and Asia. A total of 229 people participated.

Date	Summary of Events
August 9th	Director-General Shu-Ti Chiou was elected as Global vice president of the IUHPE (tenure from 2013~2016). This represented a significant breakthrough in the participation of international public health from Taiwan.
August 9th- 10th	HPA held a seminar on "Capitation Payments and Health Promotion Hospitals and Healthcare Institutions", assisting hospitals based on capitation schemes and all Taiwanese health promoting hospitals to integrate management and preventive medicine. We also invited benchmark hospitals to share their achievements and challenges with the audience participants. Approximately 200 people participated.
August 20th	Revised the 12th, 13th, and 2nd articles of the Regulations for the Testing of Yields of Nicotine and Tar Contained in Tobacco Products and the Labeling of Cigarette Containers, as well as 8 new warning photos for cigarette packaging. These changes were implemented on June 1st 2014.
August 22nd- 29th	16 middle and high level managers in central and local government from the Vietnamese General Office for Population & Family Planning, Ministry of Health, visited Taiwan to share their international experiences.
August 23rd	HPA held the inaugural "Health Promotion Contribution Award Ceremony". 8 individuals and 3 groups who had demonstrated significant long-term contributions to the planning, promotion, implementation, and innovation of health promotion were awarded.
August 23rd- 24th	HPA held a seminar on "Global Localization of Tobacco Hazard Preventive Strategies." Approximately 160 people participated. The topics for discussions included: 1) Tobacco hazard control policies/system evaluations 2) Adolescent smoking prevention, 3) Smoking cessation services: new policies and consultation needs. We also shared our achievements in tobacco prevention and control in Taiwan, and promoted international exchange.
August 23rd- 25th	HPA participated in the 21st IUHPE World Health Promotion Pre-Seminar, "School Health Seminar." At the seminar, HPA organized one keynote speech and one schools experience sharing workshop. Director-General Shu-Ti Chiou was also invited to give the closing keynote speech, with the title "the National Health Promotion School Movement in Taiwan." she introduced the major achievements of collective promotion of health promotion schools by the health and educational units, and engaged in experience exchange with international experts.
August 25th- 29th	HPA participated in the 21st IUHPE World Health Promotion Seminar, and held a symposium in the seminar, and organized a stand named "Taiwan HPA." It introduced the HPA's major work and achievements in health care. A total of 450 people participated. And Director-General Shu-Ti Chiou attended the Executive Board meeting of the IUHPE as the 2013~2016 Global vice president.
September 30th - October 1st	HPA and the Estonian Health Promotion Hospitals Network collectively held an HPH Autumn School seminar in Estonia. The theme of the seminar was "Strengthening Partnerships Between Public Health and the Health Care System." We shared our experiences and achievements in promoting health promoting hospitals. 78 people from 5 countries (Taiwan, Estonia, Lithuania, Finland, and Germany) participated in the seminar.
October 2nd - 4th	HPA held a parallel forum during the 16th European Health Forum Gastein. The theme was "Non-Communicable Disease: from reaction to action." We mainly discussed the various factors that influence recuperation from non-communicable diseases in the health system. By utilizing innovative strategies, we can develop better health care system efficiency. Approximately 100 people participated.
October 7th	The National Finals of the "Third Grandpas and Grandmas Moving on". Out of 1,604 Taiwanese teams, we selected 21 elite representative teams from 18 counties and cities. Approximately 750 people aged over 65 participated in the competition. Seniors from the Taiyuan Health Vitality Station at Saint Mary's Hospital in Taitung won the gold medal.
October 13th	HPA organized the "2013 Conference on Health Promoting Hospital," which included giving awards such as the Health Promoting Hospital Model, Excellence and Workplace Friendly Awards; Organizational Restructure Awards and Creative Projects Awards. 40 new hospitals were certified as HPH hospitals. We invited winning hospitals to share their experiences. A total of 538 people from 184 healthcare institutes and 8 local health bureaus participated in this conference.
November 15th	HPA held the Third Age-Friendly Healthcare Institution Achievement Presentation Ceremony, recognizing outstanding age-friendly medical institutions with the following awards: Model, Friendly Service, Organizational restructure, Friendly environment and Excellence. 26 new medical institutes were also awarded the Age-friendly certificates. As of November 15, 2014, there were 64 certified age-friendly healthcare institutions in Taiwan.

Date	Summary of Events
November 17th	HPA held the inaugural "Certification Ceremony for Diabetes Health Promotion Institutions and New Institutions." We gave out awards to 49 hospitals with excellent diabetic patient healthcare projects and overall achievement through 2013. Since the start of 2014, we have also certified 12 new health promotion institutions.
November 21th	HPA held parallel meeting on "Health Literacy" at the Global Health Forum in Taiwan, and invited 6 international experts and 3 Taiwanese experts including Professor Helmut Brand, Chairman of the Gaustin Health Forum in Europe, to discuss how to apply the framework of European health literacy to develop our own framework in the future.
November 21st -24th	HPA organized the 2013 Global Health Forum in Taiwan. On November 21st, a Pre-Conference Symposium on Cancer Control & Prevention took place, with plenary speeches, workshops, and round table discussions to explore the global vision for future directions on cancer prevention. The official forum was held from November 22nd to 24th. The theme was "Health in All Policies." A total of 712 people participated, including 26 world renowned public health care leaders, and 72 health department officials from 24 countries. President Ma spoke at the opening ceremony on the morning of 23rd. On the 24th, the "Taipei Declaration on Global Development of Health in All Policies," was announced during the forum to make a concerted effort to realize national health and happiness.
November 24th-27th	The UN Population Foundation sponsored 12 people from the General Office for Population & Family Planning, Ministry of Health ,Vietnam to visit Taiwan to investigate Taiwanese population policy and other relevant issues. They visited the HPA in order to understand the Taiwanese policies for age-friendly environments and health services, non-communicable disease prevention and control strategies, as well as reproductive health policy.
November 25th	President Ma held an audience for the 39 foreign guests (forum lecturers and officials) who attended the 2013 Global Health Forum in Taiwan. The guests were impressed with President Ma's support of health policies, which was beneficial to realize the objectives of Health in All Policies.
November 25th	HPA held a discussion on health inequalities as part of the Global Health Forum Parallel Seminar. We invited Dr. Jessica Allen, Deputy Director of the University College London's Institute of Health Equity. A total of 15 Taiwanese and international participants attended the meeting for discussions regarding the preliminary results of health inequalities analysis.
November 26th -27th	HPA held the "5th Healthy City and Age-Friendly City Awards Ceremony and Achievement Conference." Awards of excellence for "Healthy Cities" and "Age-Friendly Cities", Excellent Contribution Awards, and Creative Achievement Awards were presented. Approximately 700 people participated.
December 3rd	On December 3rd 2013, we revised the "Main Points for the Evaluation of Genetic Disease Detection Institutions," which was renamed "Main Points for the Qualification Evaluation of Genetic and Rare Disease Detection Institutions." The legislation was thus extended to cover rare disease detection institutions, who were notified as such. The validity period of the evaluation was extended revised from 3 years to 4 years.
December 3rd- 4th	HPA held the "2013 Workplace Health Promotion Summit and Outstanding Workplace Award Ceremony," and invited 5 foreign guests, including Dr. Kazutaka Kogi, the ICOH Director, to engage in exchange with Taiwanese experts and scholars. 39 outstanding workplaces were awarded, among which 18 outstanding workplaces were also awarded with "Staircase Beautification Contest" in 2013 Approximately 300 people participated.
December 12th	HPA held the "National Diabetes Support Group Competition" awards ceremony. 40 excellent patient support groups, 437 exemplar patients, and 22 weight loss competition units and 196 individual weight loss achievements were awarded.
December 13th	HPA held the "Smoke-free Hospital and Second Generation Smoking Cessation Achievement Seminar," in order to promote experience sharing between medical institutes. During the seminar, we gave out 45 Smoke-Free Hospital Certification Awards, while 43 excellent medical institutions were awarded for their achievements in second generation smoke cessation. These awarded were named, "Quitting Smoking King "Quitting Smoking Services King," and "6 Month Quitting Smoking Achievement King."
December 17th	HPA held the "2013 Building Healthy Communities Lifestyle Achievements Conference" and invited local health bureaus from across Taiwan to share their achievements. Also, one gold, one silver, one bronze medal, and 3 creativity awards were awarded to local health bureaus by HPA.
December 18th	HPA held the "2013 Building Healthy Community Achievements Conference" and awarded excellent units and personnel with awards for the "2013 Annual Healthy Weight Management Plan," "2013 Annual Building Healthy Communities Plan," and "7th Golden Institution Plan Competition Selection".

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