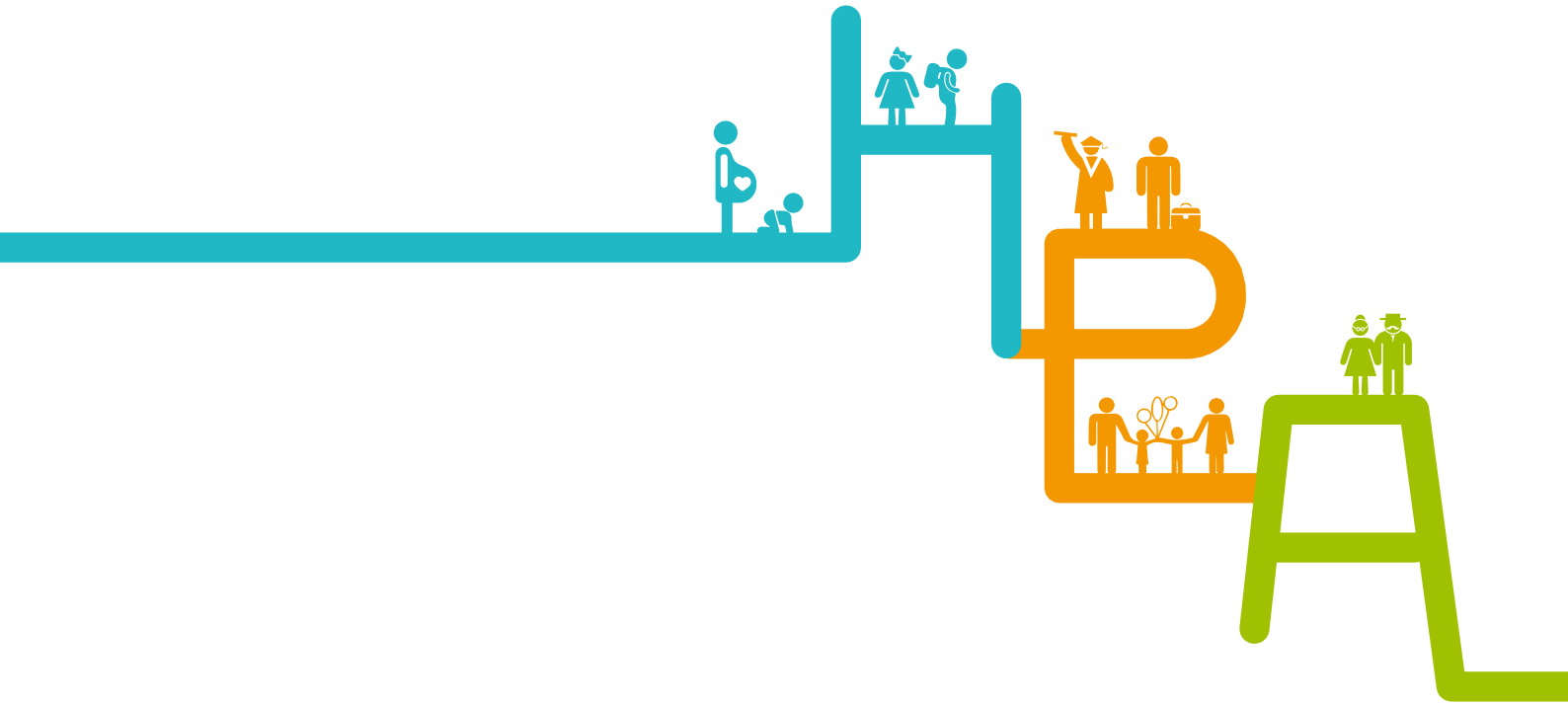
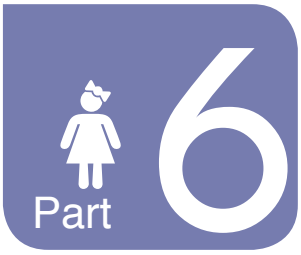
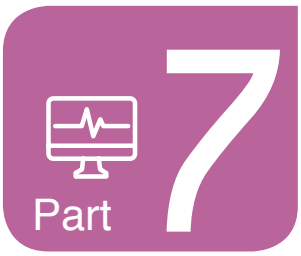


Health Promotion Administration, Ministry of Health and Welfare

Contents





Promoting the participation of citizens, building a health Taiwan.

In the 2011 United Nations High-Level Meeting on the Prevention and Control of Non-Communicable Diseases, it was highlighted that data of the World Health Organization (WHO) in 2008 indicated that non-communicable diseases like cancers, cardiovascular diseases, diabetes and chronic respiratory disease account for over 63% of deaths in the world. This problem even influences the very economic development of countries worldwide, and with main risk factors being issued such as harmful use of alcohol, tobacco use, unhealthy diets, and physical inactivity; governments of all countries have been reminded to take the matter seriously. It was clear that preventative actions should be taken with urgency, and at the World Health Assembly in 2013, a non-communicable disease prevention and surveillance structure was unveiled, with the goal of lowering the rate of early deaths (30-70 years of age) caused by non-communicable diseases by 25%. In 2015, having achieved its Millennium Development Goals, the UN initiated its 2030 Sustainable Development Goal and health issue has shifted its focus from communicable disease to non-communicable diseases and promotion of healthcare initiatives focusing on developing "Ensure healthy lives and promote well-being for all at all ages" have now been thrust into the spotlight.

As Taiwan faces up to the major threats of aging, low birth rate, and limited resources, health promotion and non-communicable disease prevention work has become more important than ever. In order to lower rate of deaths caused by non-communicable diseases, as well as to create an environment which supports these health goals, there is a need for industry, government, academia, citizenry, and media to work together. As such, to our core missions of Protection, Prevention, and Promotion, we have added two more core missions: Partnership and Participation. We look forward to all partners' support and working together to safeguard our people's health.

Looking back in 2015, we have promoted and implemented many policies. The achievements are as follows:

For maternal and child health, we subsidized Artificial Reproduction for low and middle income households and provided support and assistance to infertile couples seeking to give birth, thereby reducing the economic barriers of conception for infertile couples. In addition, we completed the implementation of the "Intervention Program for Vision Care in Lower Grade School Children", and through research learnt that outdoor activities could become a visual health intervention method with empirical foundation.

As for National Nutrition, we have actively promoted the risk of trans fats and the importance of iodine intake. We worked together with the FDA on prohibition of trans fats, iodine labeling on food packages and increase tolerance level of iodine. We also drafted the"National Nutrition and Healthy Diet Promotion Act".

As for Age-Friendly, 22 counties and cities across the country joined the age-friendly cities, thereby leading to a 100% coverage rate. We developed the world's first government-driven recognition framework of age-friendly

healthcare organizations; such framework is now applied to long-term care centers and was also promoted to other countries. At the present, Estonia has tested the system, and countries like Australia and Greece are also planning to introduce the system. We leveraged all available resources of medical institutes and health centers, set up supportive community care service locations, and conducted 8 major health promotion initiatives for elderly people within communities. In 2015, we successfully integrated 1,921 service locations, with an integration rate of 96%.

As for tobacco control, the adult smoking rate has reduced to 17.1% by the end of 2015, and reduced 760,000 individuals within 7 years. The second-hand smoke exposure rate in public areas has also been reduced to 7.7%. We have conducted inter-ministerial prevention work regarding the problems of abuse of electric cigarettes worldwide, and we continued to investigate related advertisements and sales according to the Pharmaceutical Affairs Act. We focus on the campus use of electric cigarettes, and conducted investigations into their usage, seizing items where are relevant. We have received support from the Ministry of Finance, Ministry of Education, Ministry of Justice, and government in each county and city. The main subjects of advocacy included kindergarten, elementary school students, and their families. We used the theme of "Put out your cigarettes for love, and a million people will be happy" to bring tobacco-free concepts to families.

As for cancer prevention and control, we have continued to conduct screening for four major cancers. In 2015, we have discovered 50,000 cases of precancerous lesions, and through early treatments have sought to bring cancer under control. We promoted condition notices, advocacy, and palliative healthcare services for those with non-curable forms of cancer. Cancer patients who received palliative care within 1 year of diagnosis (hospice, palliative care within the home, and shared healthcare) has increased to more than 50%, and ranks the 6th in the world in terms of the quality of death, and 1st in Asia.

In tandem with the Rare Disease and Orphan Drug Act, we added new legal service items by providing psychological support, birth care, supportive and palliative healthcare, schooling, and employment. We passed the "Yu Cheng (PCB poisoning) Patients Health Care Service Act." We also ensured healthcare rights for Yu Cheng patients, and reinforced health support of the disadvantaged groups.

In cooperation with the need for long-term care caused by population structure changes, we are actively planning health promotion policies which will prevent frailty in elderly people. In the meantime, we also conducted community nutritional health education, established organizational screening systems, and completed development of chronic prevention networks. We also used information technology to create intelligent and healthy life, in order to promote active aging, and upgrading health literacy for citizens.

The core values of health promotion are capacity building and empowerment. We have provided healthcare information for citizens, and hoped that as a result they might be able to develop more knowledge in health. In order to promote the health of all citizens, people should concern more about their own health, so that they might understand that health is their responsibility, and could make the best choices for their health. I hereby welcome everyone's participation to the health!

Director-General of Health Promotion Administration

November, 2015

Part 1

Policy and Organization

Policy and Organization

1. Evolution

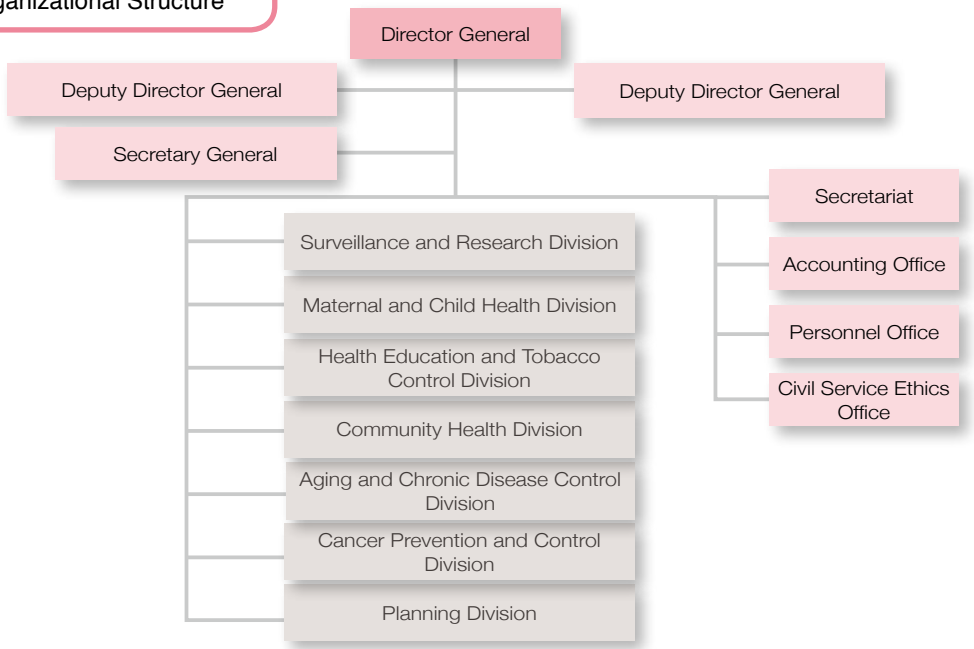
The Health Promotion Administration is formerly known as the Bureau of Health Promotion, Department of Health. Its history goes back when the Department of Health Care, the Institute of Family Planning, Institute of Public Health and Institute of Maternal and Child Health were merged and became the "Bureau of Health Promotion" on July 12th, 2001, responsible for health promotion and non-communicable disease prevention work. In accordance with the government organizational restructure, the Bureau of Health Promotion became the 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 life expectancy, reduce health inequality, so the citizens can live longer and better regardless of wealth, region, gender, and ethnic group.

2. Organization and Mission

The HPA is headed by the Director General, who is aided by two Deputy Director General 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 disease, and other major non-communicable disease prevention and control.
3. Planning, executing and supervising the matter of a healthy lifestyles.
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 hearing and vision.
8. Planning, executing and supervising the matter of public health surveillance, research and development.

Figure 1-1 Organizational Structure

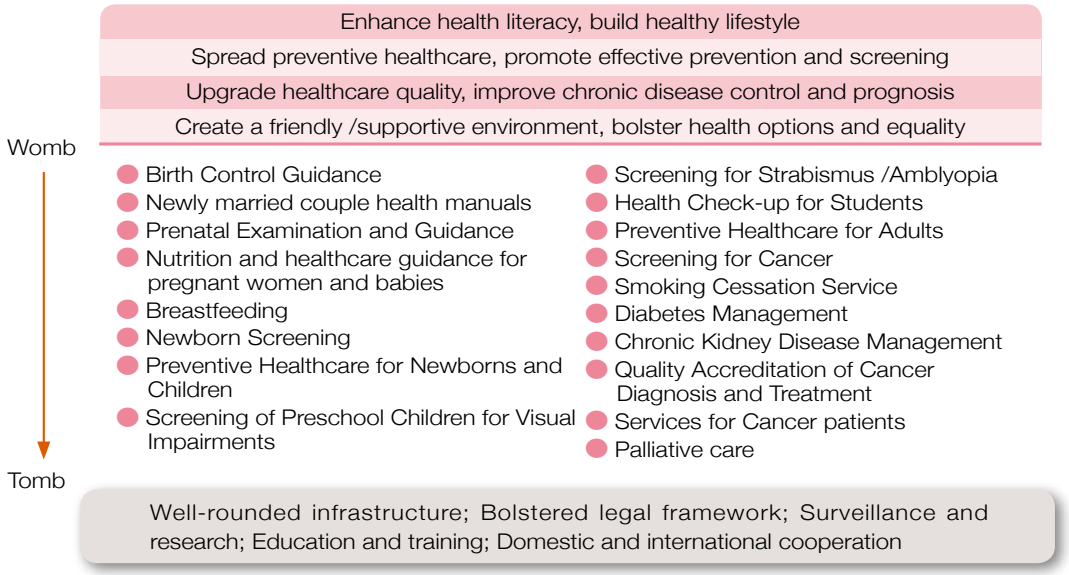


9. International cooperation relative to health promotion and non-communicable disease prevention affairs.
10. Other relevant administrative matters of health promotion.

3. Organizational Tasks of HPA

The HPA gives priority to enhancing health literacy and promoting healthy lifestyles; spreading preventive healthcare 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 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).

Figure 1-2 Organizational Tasks of the HPA



4. The HPA logo Design Concept

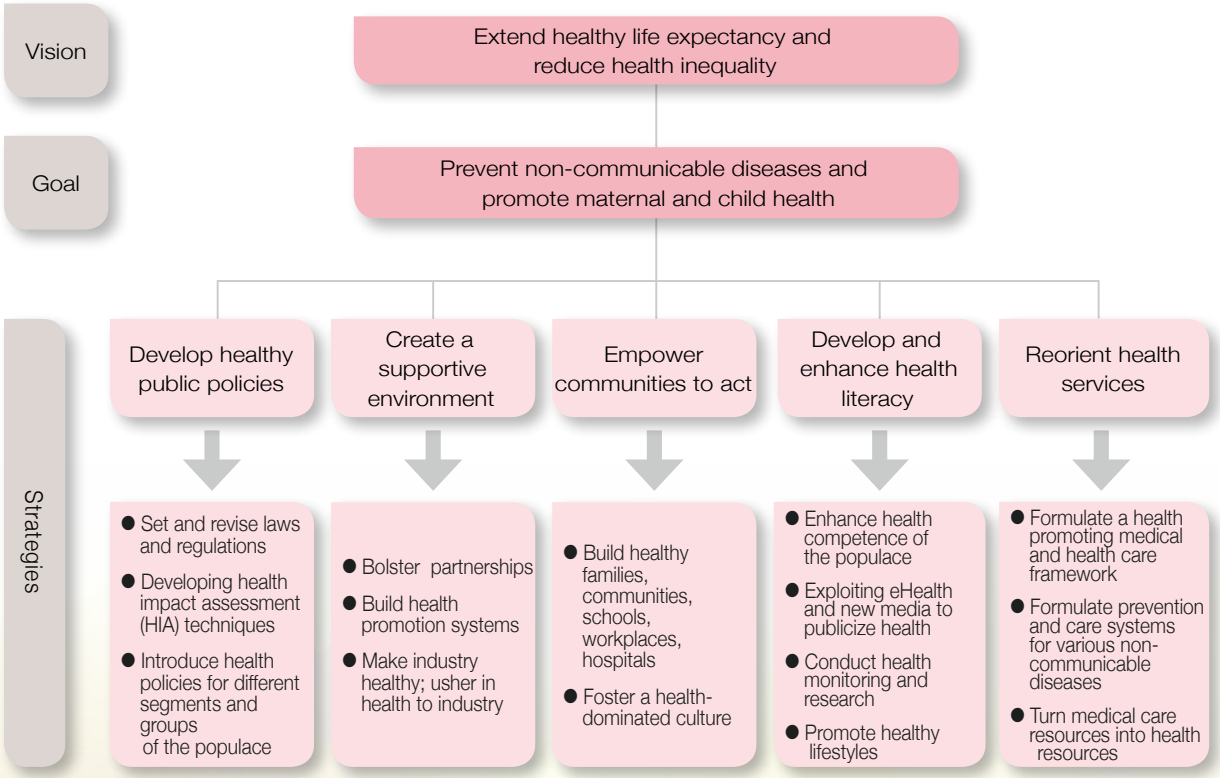
The concept behind the design of the HPA's logo comes from shows an open hand with four fingers and a thumb across the palm. This configuration symbolizes that the HPA will "safeguard" all citizens. The fingers represent our 5 core missions, Protection protecting the health of all citizens from the effect of health hazards, Prevention preventing disease through diet, exercise and screening, Promotion promoting health by molding a healthy living environment, and enhancing health options and equality, Participation joint participation in health promotion by all citizens,and Partnership promotion of the health of all citizens requires industry-government-academia-public-media cross-area hand-in-hand cooperation. Furthermore the plan behind using "green" color 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.

5. 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 organization systems so that healthy behavior and choices can become more readily within reach, thereby fostering collective changes in mass. 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 policy. (figure 1-3).

Figure 1-3 The Vision, Goals and Strategies of the HPA



Part 2

Healthy Birth and Growth

Healthy Birth and Growth

The impacts of social change and multicultural development have transformed society, as well as family structures and functions, and have brought about changes in the economy, transportation, and the social and material environments that surround us. There have also been changes 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. As a result, there has been a clear increase in issues such as postponement of childbearing, developmental delay amongst 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.

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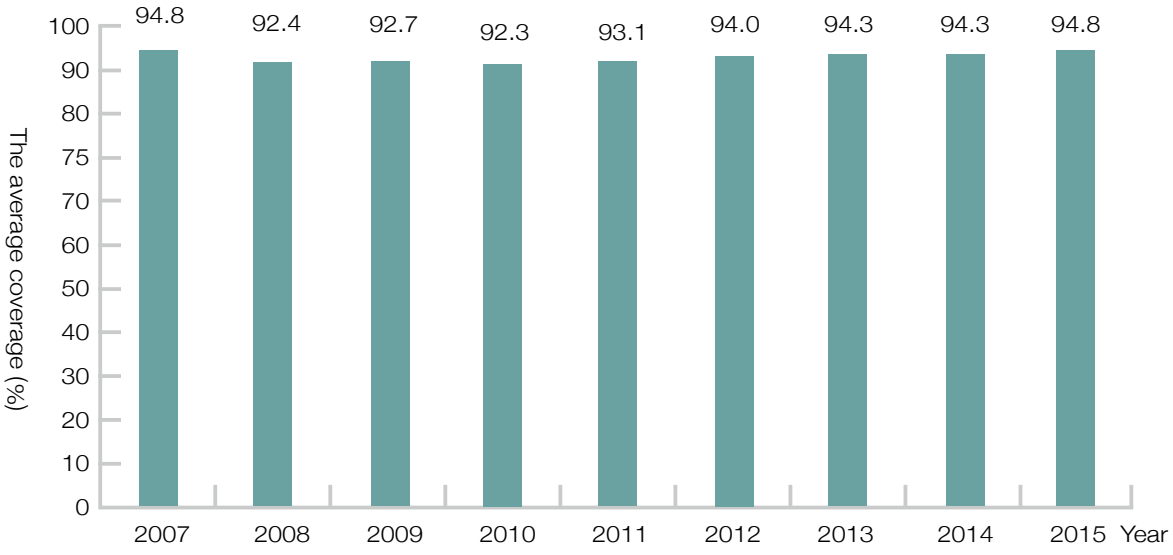
Section 1 Maternal Health

Status Quo

In 1989, Taiwanese women had their first child at an average age of 25.2 years old. By 2015, this average was 30.6 years. Structural analysis of mothers' ages reveals that: the percentage of mothers aged between 20 and 24 fell from 29.5% to 8.1%; that of mothers aged between

Figure 2-1 Percentage of women attending at least 10 prenatal care sessions



Source: Data on Prenatal Examinations 2006-2014 and 2007-2015 Birth Reports

25 and 29 fell from 44.6% to 24.1%; that of mothers aged between 30 and 34 increased from 17.4% to 41.4%; and that of mothers aged between 35 and 39 increased from 3.4% to 21.6%. A trend towards later childbirth is clearly evident. The maternal mortality ratio in 2015 was 11.7 per 100,000 individuals. Compared with the 34 OECD countries, Taiwan's maternal mortality ratio ranks 30th in the world for 2015.

Target Indicators

1. More than 90% of women visiting prenatal examinations at least 10 times, and more than 98% of women visiting prenatal examinations at least one time.
2. More than 95% of women with high-risk pregnancies undergoing prenatal genetic diagnoses and follow-ups.

Policy Implementation and Results

1. Establishing Systematic Reproductive Health Services

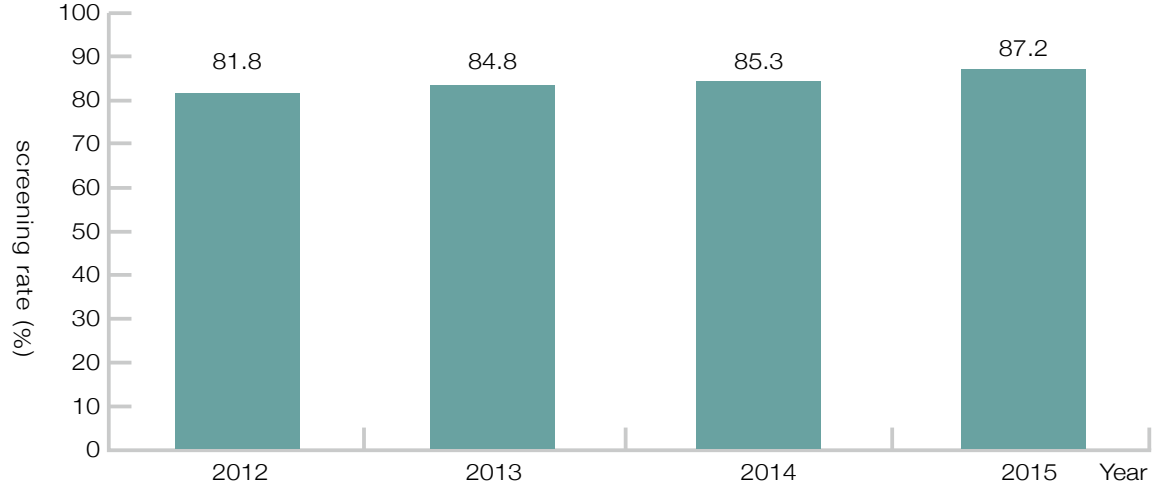
(1) Prenatal Examinations for Pregnant Women

In order to promote the health of expectant mothers and their unborn babies, as well as to discover various possible complications early, the HPA offers 10 prenatal examinations for pregnant women through medical institutions contracted under the National Health Insurance program. The utilization of this service have been in the region of 90%. In 2015, 94.8% of pregnant women giving birth through live birth means visited at least 10 prenatal examinations (Figure 2-1), with visits totaling 1,941,000 in number. 98.7% of women made at least 1 prenatal visit, and 97.7% visited at least 4 times.

Beginning on April 15th, 2012, we have conducted Group B Streptococcus screening for women during the 35th to 37th week of pregnancy. If those screenings come back positive, we make use of preventive antibiotic treatment before delivery. This lowers infection in the perinatal period and prevents early onset of birth. In 2015, there were a total of 186,787 screenings, with 38,837 cases returning a positive result. As such the rate of tests returning positives is 20.8%. (Figure 2-2).

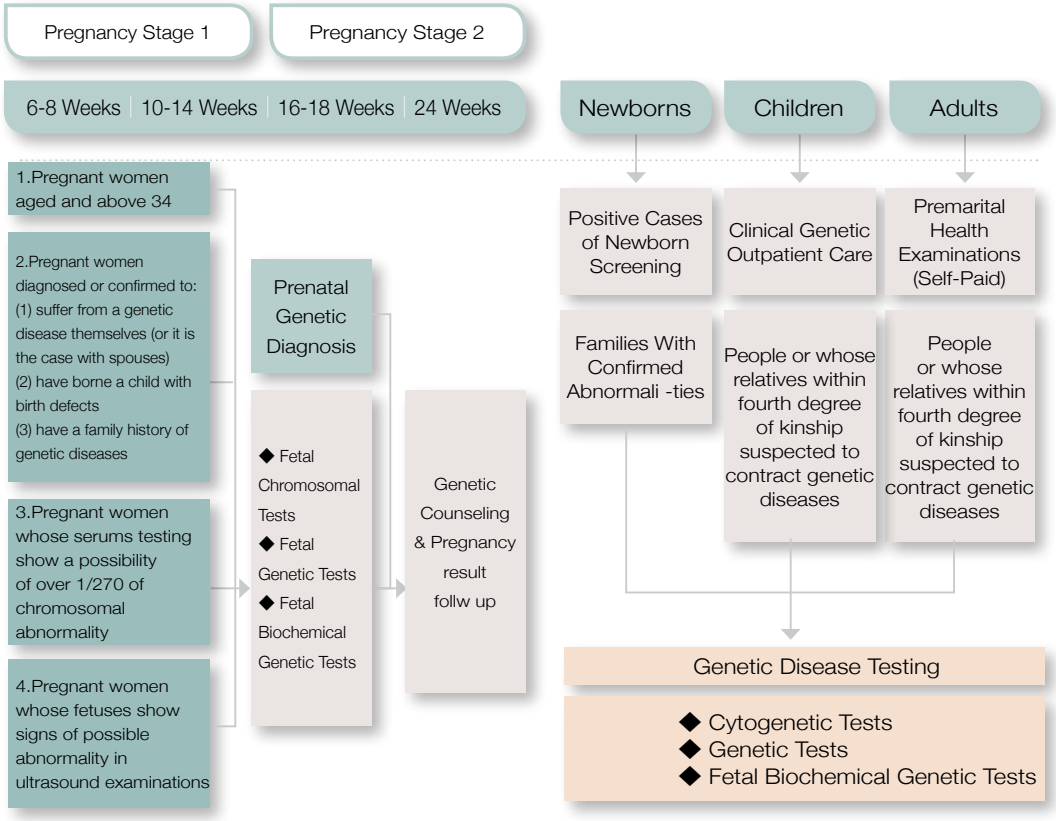
In order to provide continuous holistic healthcare, as well as to upgrade the quality of pregnancy healthcare, we have promoted prenatal healthcare education and instruction services since November 1st, 2014. We have emphasized important health issues during the first and third trimester of pregnancy, such as maintaining the safety of mothers and babies, gender equality, guidance for psychological adaptation pregnancy, birth preparation plans, breastfeeding instructions, high-risk pregnancy and prenatal checkups. Where possible, we have attempted to provide evaluations and health education instructions twice, avoiding the influence of dangerous factors on the health of mothers and babies, and protecting the health of mothers and babies. In 2015, we provided a service to 299,327 individuals. As of December, 2015, 670 contracted pregnancy checkup institutes and midwifery clinics have joined forces in helping to promote these services. 1,599 physicians and midwives have been deemed qualified to provide services, and the service coverage rate has reached 90.1%.

Figure 2-2 Group B Streptococcus screening rate



Source: 2012-2015 Group B Streptococcus screening system, Date from those attending 7-9 Prenatal Examinations

Figure 2-3 The Hereditary Disease Prevention Network



(2) Provision of Comprehensive Genetic Testing Services

The HPA offers genetic testing at various stages. These include pre-marriage, pre-pregnancy, pre-birth, birth, and throughout adulthood. These practices of primary prevention, prevention through reproduction options, and secondary prevention are used to prevent and control genetic diseases. These are illustrated in Figure 2-3. A summary of what the various genetic testing services have achieved at different stages of the reproductive process are as follows:

A. Screening for Thalassemia in Pregnant Women

If abnormalities are detected through prenatal blood testing, the patient will be brought in for testing. If both spouses are found to have abnormalities, blood samples are taken and 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 and genetic counseling. In 2015, a total of 356 people underwent thalassemia genetic testing, of whom 85 were found to be carriers of thalassemia major.

B. Prenatal Genetic Diagnosis for High-Risk Pregnancies

In order to effectively lower infant mortality, and reduce the economic pressure on families, the HPA announced that it would be providing subsidies for prenatal genetic diagnosis for high-risk pregnancies (classified as those in which mothers are over the age of age 34, where an abnormality has been found in a current or past pregnancy, where there is a history of genetic disorders in her or her spouse's family, where a pregnant women's blood serum screening shows abnormal chromosomes with a risk rate of over 1/270, and where ultrasound screening that shows the babies may have abnormalities and suspected genetic diseases). The maximum subsidy amount is 5,000 TWD. In addition, we also provide low- income families, or those resident in the 80 districts that lack eugenic healthcare medical resources, with between 3,500 and 8,500 TWD. A total of 57,471 people benefitted from these subsidies in 2015; 48,547 of them were over the age of 34. (Figure 2-4). Abnormalities were found in 1,645 of those examined, which is 2.9% of the total number examined.

The medical institutions or public health centers

that conducted the tests were responsible for following up on abnormal cases, so that the pregnant women in question could secure timely and appropriate care. Where necessary, they were referred to other related institutions for treatment.

In order to ensure the quality of these services, the HPA administers 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 2015, a total of 28 clinical cytogenetic laboratories and 13 genetic laboratories had passed the HPA qualification examination. In addition, guidelines in place for the periodic examination of genetic counseling centers' qualifications ensure the quality of genetic counseling, diagnosis and therapy provided. These examinations are divided into initial and follow-up examinations. By the end of 2015, the HPA had examined a total of 14 genetic counseling centers.

C. Genetic Disease Testing and Counseling Related to Reproductive Health

Genetic disease testing and counseling services are offered to people with reproductive health concerns, those who are suspected of suffering from a hereditary disease, those who have family members suffering from genetic diseases, and those with abnormal readings in newborn screening for metabolic syndrome. In 2015, a total of 6,855 individuals took such tests. Of these, 723 people were found to have chromosomal disorders, 1,079 were thalassemia carriers, and 144 showed evidence of other conditions.

(3) Establishing Pregnant Women's Care Centers

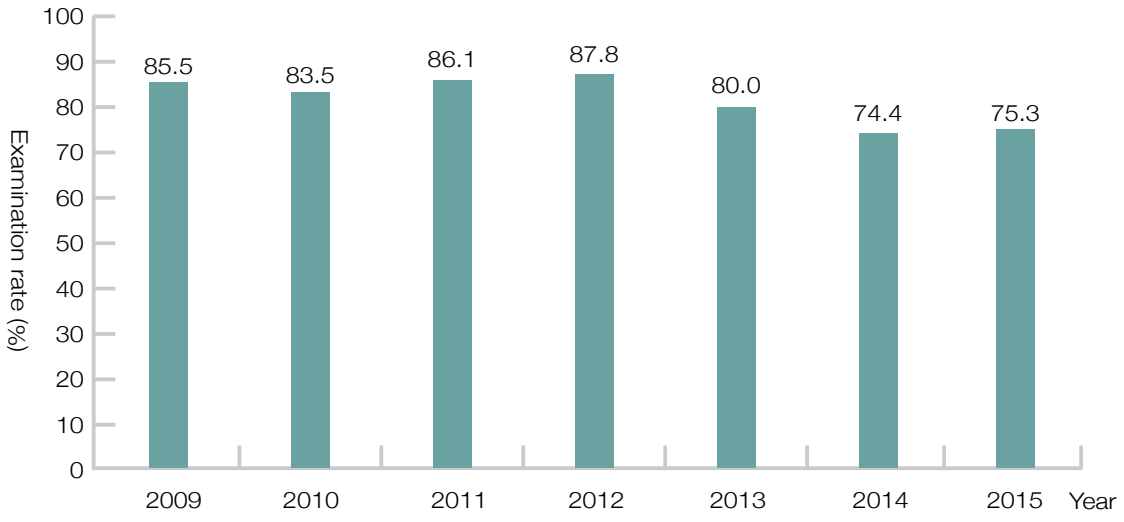
Based on the concept of comprehensive health care, we provide prenatal and postnatal care for pregnant women and their families through our national free hotline for pregnant women 0800-870-870, our cloud pregnancy app and our pregnancy-care website (http://mammy.hpa.gov.tw). This care consists of providing health information in response to queries about parent-children health, breastfeeding, pregnancy nutrition and weight management, infant health promotion, physical and mental adjustment, emotional trauma, and necessary referrals for health counseling, care and support services. A service was provided through the enquiry hotline 18,761 times in 2015, and the website received 2,324,661 hits.

2. Comprehensive Reproductive Health Management Regulations and Systems

(1) Enactment of Artificial Reproduction Laws and Regulations

Taiwan has introduced a series of laws which aim to ensure the appropriate development and use of

Figure 2-4 Percentage of Pregnant Woman Over the Age of 34 Receiving Second Prenatal Genetic Diagnosis Subsidies



Sources: Subsidy information of pregnant women receiving prenatal hereditary diagnosis and number of people for the pregancy checkup information

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 the end of 2015, a total of 79 artificial reproduction institutions had secured accreditation.

(2) Draft Revision to the Genetic Health Act

In order to better promote reproductive health and ensure the health and safety of pregnant women and their babies, the HPA set out to revise the Genetic Health Act, renaming it the Reproduction Health Act, in 2000. The draft was submitted to the Legislative Yuan, Taiwan's parliament, on February 22nd, 2008 for deliberation. This deliberation was not continuous, and was discontinued. The draft was returned to the Executive Yuan on January 31th, 2016, and the HPA is discussing the contents for revision for further re-deliberation to the Executive Yuan.

(3) Improving the Quality of Prenatal and Ultrasound Examinations

Taiwanese women are currently entitled to 10 prenatal examinations and 1 ultrasound examination through government subsides. The number of prenatal examinations provided are on a comparable level to countries such as the U.S. and Japan. In order for prenatal examinations to actually fulfill the health needs of pregnant women, and in order to accord with the development of new medical technology, scientific evidence continues to be made use of in order to review and renew the system. Representatives of professional groups related to gynecology are currently being engaged to discuss the system in place. Since November 1st, 2014, we have adjusted the following items relating to the prenatal examinations of pregnant women: Prenatal Hepatitis B blood serum labeling testing (HBsAg, HBeAg) has been moved from the 5th prenatal examinations to the 1st prenatal examinations, and prenatal screening subsidies have been increased. In addition quality upgrades to prenatal ultrasound have taken place, and plans are in place to monitor and review the scope of the current ultrasound checkups. This involves checking the recommended standard operating procedures, screening manuals, screening and measuring standards, report formats, as well as providing recommendations for clinical practice operations.

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 has decreased from 3.3‰ in 1995 to 2.5‰ in 2015. The infant mortality rate has also decreased from 6.5‰ in 1995 to 4.1‰ in 2015. (Figure 2-5). Compared with the 35 OECD countries, Taiwan's infant mortality rate ranks 22nd in the world for 2015.

The HPA's childbirth statistics reveal that there were a total of 213,714 births in Taiwan in 2015 (Figure 2-6). 9.0% of live births had low birth weight (birth weight less than 2,500 grams) and 0.90% of live births had extremely low birth weight (birth weight less than 1,500 grams) (Figure 2-7).

Under natural conditions, the sex ratios at birth are approximately 1.04-1.06:1. However, preference for males has long been a persistent phenomenon in Asian societies: many nations have a preference for male heirs and there are varying degrees of imbalance at the sex ratios at birth. Taiwan's sex ratios at birth (ratio of male to female newborns) ranked third highest in the world in 2003. In 2010, the government actively conducted prevention work and the sex ratio at birth has decreased from 1.09 in 2010 to 1.069 in 2014. It was the lowest rate in 28 years. The sex ratio at birth for third child or above has also decreased to 1.109, which was the lowest in 27 years. In 2015, the sex ratio at birth has risen again to 1.083, and we will continue to work hard.

The HPA puts great effort into promoting breastfeeding policies as way of boosting the healthy growth of babies and children in Taiwan. The total percentage of infants fed exclusively through breastfeeding less than a month after birth rose from 5.4% in 1989 to 67.5% in 2015, while total breastfeeding rates (i.e. not necessarily exclusively) less than a month after birth rose from 26.6% in 1989 to 96.2% in 2015. In order to promote healthy growth and development in babies, we must continue to provide a comprehensive health care system, as well as detect and treat abnormalities as early as possible. To this end, we have stipulated the following important target indices.

Figure 2-5 Neonatal and Infant Mortality Rates in Recent Years

Sources: Department of Statistics, Ministry of Health and Welfare – Causes of Death in 2016

Figure 2-6 Live Births Reported for Years 2004-2015

Figure 2-7 Annual Occurrence of Low Weight and Extreme Low Weight in Infants

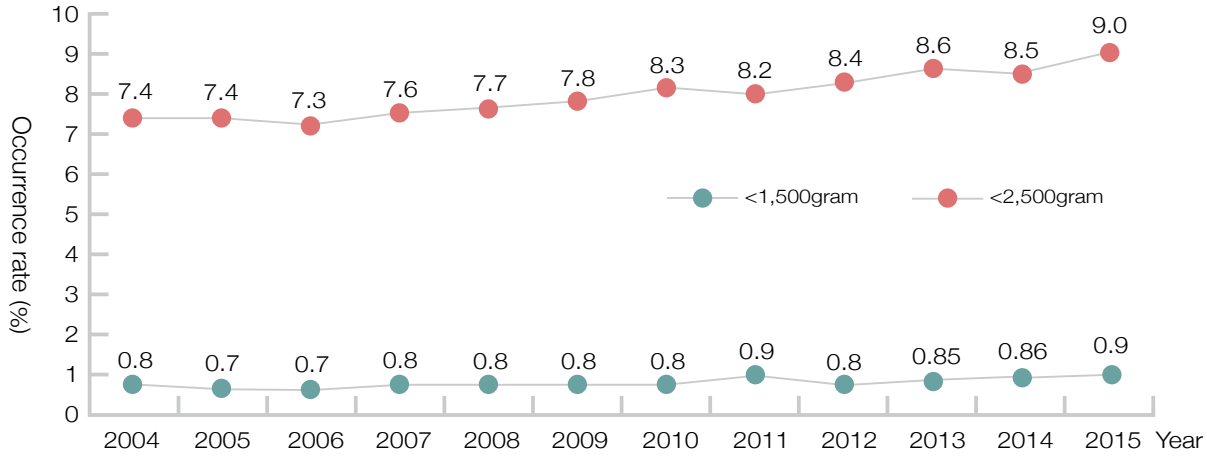
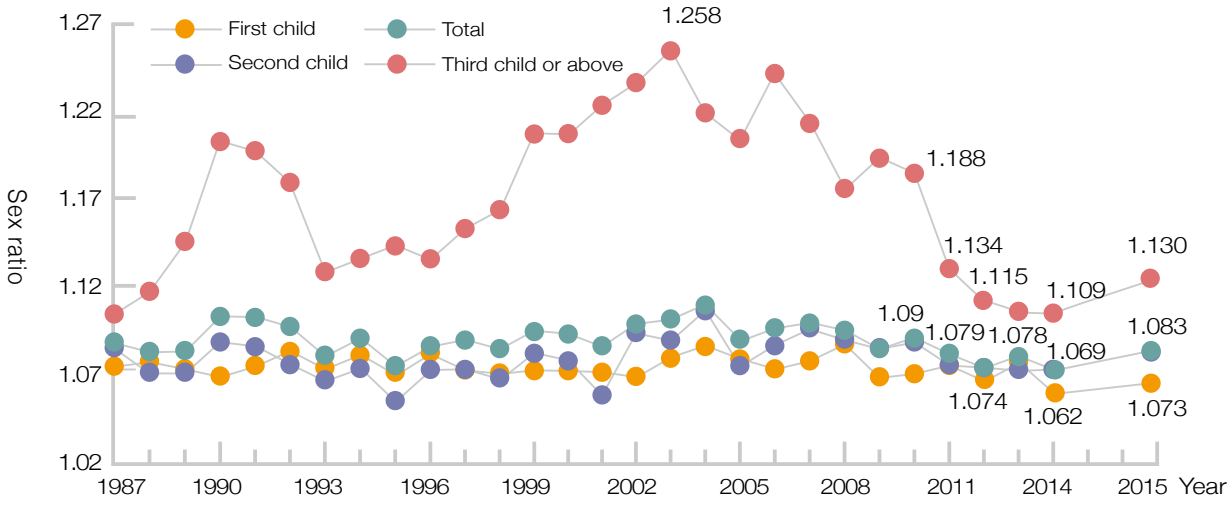


Figure 2-8 Sex Ratios of Live Births by Order of Birth



Sources: HPA Statistics on Reported Births

Target Indicators

1. Screen more than 99% of newborns for congenital metabolic disorders in 2015.
2. Increase uptake of children's preventive health care services to 82% or above in 2015; along with have more than 98% of infants under 1 year old use such services at least once.
3. Breastfeeding Rate: according to advice from the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), mothers worldwide should exclusively breastfeed infants for their first 6 months of life to achieve optimal growth, development and health. Thereafter, they should be given nutritious complementary foods, and should continue breastfeeding up to the age of two years or beyond. The HPA has aimed to push Taiwan's rate of exclusive breastfeeding rate in children under 6 months old up to 46% in 2015.

Policy Implementation and Results

The health of the nation's next generation of infants and children constitutes a multifaceted, complex challenge. When stipulating policies, emphasis should be placed on integrating resources to form a comprehensive care and service system, whilst also taking into account the special characteristics of different segments of society. Above all, all endeavors should be geared towards 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, promoting 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 2-9. The contents are as follows:

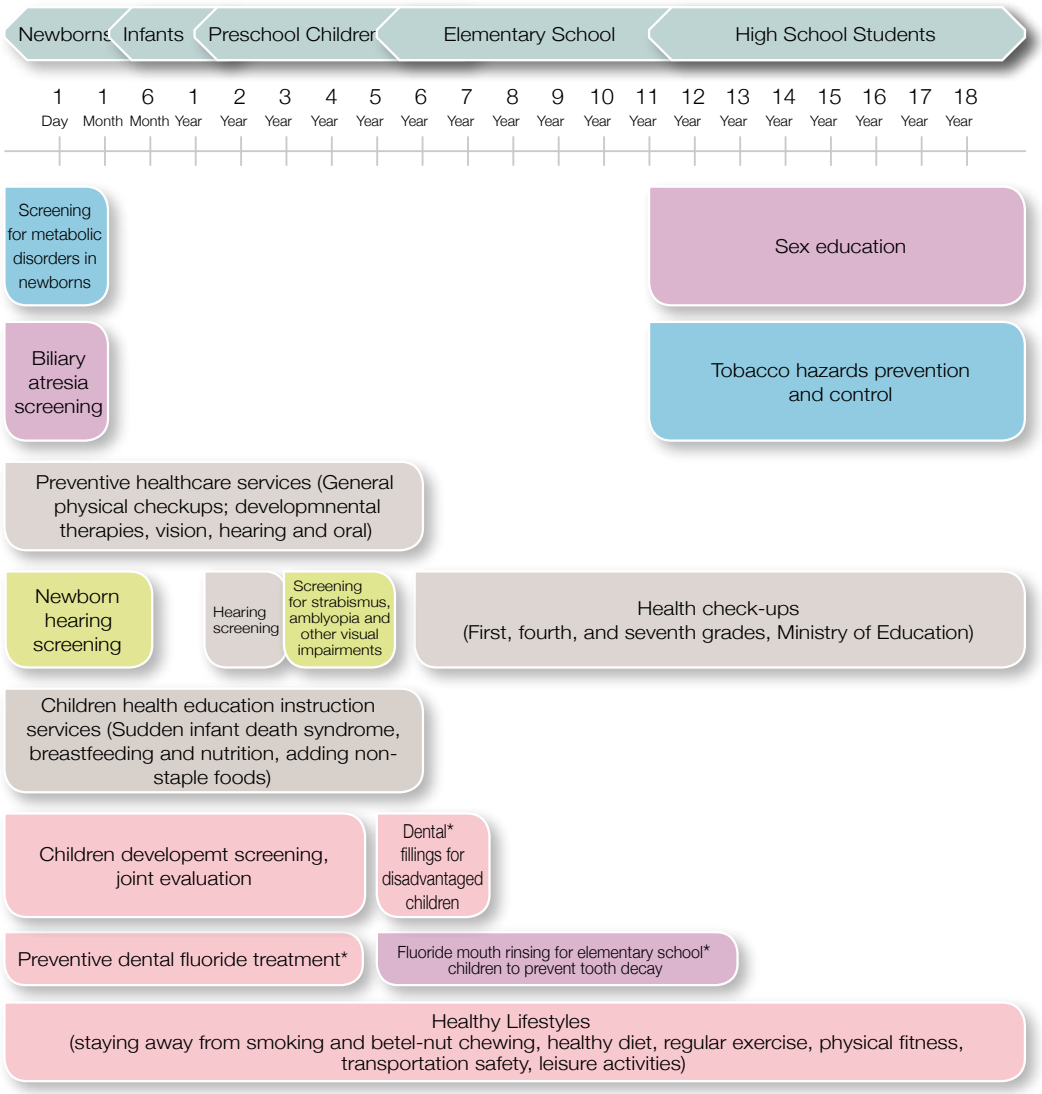
(1) Implementation of the Birth Reporting System

To obtain accurate and comprehensive information regarding population dynamics in a timely manner, to raise the timeliness in provision of maternal and child health care, and to enhance accuracy of birth-related data, birth reporting system was initiated into full-scale promotion in 1995. Since 2004, a web-based birth reporting system has been in use by all hospitals with delivery wards across the nation. The birth reporting data sorted by nationality are transmitted concurrently to the Department of Household Registration, Ministry of the Interior; then, in turn, forwarded to the National Immigration Agency and local health and household registration offices. The purpose is to ensure timely and accurate provision of information on the dynamic of births to health and household registration offices, especially the information of high-risk newborns, so that all necessary services can be provided early on. In 2015, out of the total of 216,229 births reported, 213,714 were live births (a live birth rate of 98.84%) and 2,515 were stillbirths (a still birth rate of 1.16%).

(2) Providing 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 recent years,

Figure 2-9 Health Policies for Infants and Children



Remark: *From 2015 onwards, this initiative is being by the Mental and Oral Health Department, Ministry of Health and Welfare

we further provide treatments and genetic counseling for newborns who have been diagnosed with Newborn Congenital Metabolic Disorders. This helps to lessen the impact of issues. In 2015, a total of 212,717 newborns underwent screening, with the total screening rate being 99.8%. 4,033 of them were found to have abnormalities. The conditions and diseases for which screenings were carried out, along with prevalence ratios and abnormality numbers, are shown below in Table 2-1.

(3) Providing Preventative Healthcare for Children

In order to improve children's health through contracted hospitals and medical institutes, HPA subsidizes preventive healthcare services for children under the age of 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 should any abnormality be detected. Since 2002, the utilization rate of this service has hovered at around 70%. In 2015, average use rates reached 78.3% (Figure 2-10). Children under 1 with at least one instance of usage was 96.2%.

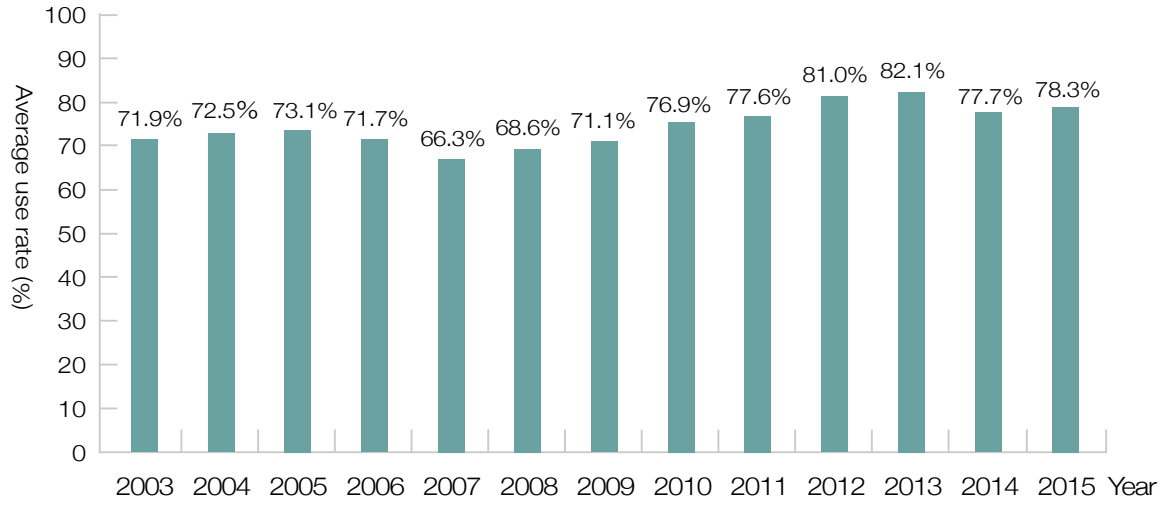
In order to upgrade the overall use and quality of preventive healthcare services for children, HPA completed the planning of the "Next Generation of Children Preventive Healthcare Project", and this was implemented

Table 2-1 Abnormalities Detected Amongst Newborn in 2015

Condition	Prevalence ratio	Number of abonormalities
Glucose-6-Phosphate dehydrogenase deficiency（G-6-PD）	1：48	3,726
Congenital hypothyroidism（CHT）	1：724	290
Congenital hypothyroidism（CHT）	1：29,287	6
Phenylketonuria（PKU）	1：70,906	3
Homocystinuria（HCU）	0	0
Isovaleric acidemia（IVA）	1：212,717	1
Maple syrup urine disease（MSUD）	1：106,359	2
Galactosemia（GAL）	0	0
Methylmalonic acidemia（MMA）	1：106,359	2
Type 1 glutaric acidemia（GA 1）	1：106,359	2
Medium-chain acyl-CoA dehydrogenase deficiency（MCAD）	1：212,717	1
Total		4,033

Remark: A total of 212,717 newborns were screened.

Figure 2-10 Uptake of Preventative Pediatric Healthcare



Sources: Children Prevention Health Insurance Declaration Information, number of children under 7 for Ministry of the Interior

in 2010. It first reviewed items and services with the lowest usage rates, and identified upgrading development screening for children, integrating basic medical resources, and providing a diverse range of services. In addition, the project approved county and city health offices implementing external preventive healthcare services in kindergartens. We regularly monitor and conduct statistical analyses regarding the results of children's healthcare prevention services, and promote the referral of children for development screening, so as to reinforce children's health monitoring, referral, and follow-up at various medical functions across medical institutes. Since July 1st 2013, we have promoted the "Children's Healthcare Education Instruction Services Subsidy Project." As of November 1st 2014, we have sought to subsidize two services for children under 1, and a total of 7 services in the period before the child reaches 7 years of age. Doctors provide one on one healthcare education instruction for

children, with contents including: feeding and nutritional instruction, addition of non-staple food, prevention of sudden infant death syndrome (SIDS), accident injury prevention, household safety, and related dangerous factor prevention, along with visual and oral healthcare and obesity prevention. By the end of 2015, a total of 2,377 doctors had applied to join this project, with the coverage rate for children under 7 reaching 89.5%. A total of approximately 898,825 people used this service, with the percentage of those using the service 7 times being 63%.

(4) Implementing "Service Quality Upgrade Plan for Children's Development Assessment Centers" within Hospitals

In order to offer accurate, accessible and comprehensive services for developmentally delayed children, from 2010 onwards the HPA has established Child Development Assessment Centers. Depending on the number of inhabitants under the age of 6 and the distribution of medical resources within each county and city, the number of these centers ranges from 1 to 4. By 2015 the total number of Children's Development Assessment Centers has reached 46 nationwide.

(5) Conducted Children's Development Assessment Center Service Quality Management and Information Systems Implementation Plans

In order to improve the quality of service at Children's Development Assessment Centers, from 2013 to 2014 the HPA invited experts in the fields of late development assessment, intervention, society, politics, and special education to revise operation standards for the centers. In 2015, we continued to conduct inspection work at 14 assessment centers. In addition, we provided a revision of the 2015 comprehensive report proposal, conducted educational training based on the proposal, and established service quality management information systems for children's development assessment centers.

(6) Creating a Breastfeeding-Friendly Environment to Increase the Breastfeeding Rate

A. The HPA implements a baby-friendly hospital accreditation system as a way of fostering positive change at hospitals. In particular, hospitals are asked not to offer baby formula for free or at a discount. This is done so that the act of breastfeeding can be normalized, and newborns thereby receive the best possible start in life. In 2001, a total of 38 medical institutions were certified as baby-friendly hospitals. This number had increased to 182 by 2015. These baby-friendly hospitals delivered 80.7% of babies born in Taiwan in 2015, a big jump from 39.2% in 2004 (Table 2-2). During this same period, the percentage of babies aged under 1 month who were exclusively breastfed rose to 67.5% in 2015, up from 46.6% in 2004. The exclusive breastfeeding rate for babies aged under 6 months increased from 24.0% to 45.4%.

B. The HPA has 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 2015, 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.

Table 2-2 Accreditation of Mother-and-Baby- Friendly Hospitals

Item \ Yrar	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number of certified hospitals	38	58	74	77	81	82	94	94	113	144	158	163	176	177	182
Rate of exclusive breastfeeding for babies under 1month of age (%)	-	-	-	46.6	-	-	-	62.7	64.4	65.7	68.6	71.9	70.8	68.0	67.5
Rate of exclusive breastfeeding for babies under 6 months of age (%)	-	-	-	24.0	-	-	-	35.1	41.2	44.5	45.6	49.6	48.7	45.8	45.4
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	76.6	80.7

(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 index 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 "Public Breastfeeding Act" on November 24th 2010. This act 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 act 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 railway regular and high-speed rail) should be equipped with breastfeeding rooms. These regulations will come into effect on December 3rd 2015 for regular trains, and December 3rd 2016 for high-speed trains. By the end of 2015, a total of 2,135 public places across Taiwan had been equipped with breastfeeding rooms, and 781 public places voluntarily established facilities in accordance with these new regulations.

3. Adopting Countermeasures to Rectify Imbalances in Gender Ratios at Birth

The government has set out to draft and implement regulations governing the medical industry. It is hoped that this will uphold the right of all babies to life and eliminate gender discrimination, thus keeping to a minimum the many social complications that may arise from a drastic imbalance between the two genders within 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 Gender Ratio at Birth Panel. For its part, the Food and Drug Administration is responsible for the management of medical equipment designed for gender selection, as well as for the gathering and tracking of imported testing materials and their sale in Taiwan. The Bureau of Medical Affairs is charged with regulating gender 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 gender selections as part of diagnosis of non-gender-related genetic diseases and any medically-induced abortion performed only because of the unborn baby's gender was considered a crime under Paragraph 1, Article 28-4 of the Physicians Act. As such, physicians found to have conducted gender selection or abortion 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. For instance, those who select the gender of an embryo for nonmedical purposes 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 will face 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 gender imbalance amongst newborns, the HPA has repeatedly instructed medical institutions to "neither conduct prenatal gender selection in diagnosis of non-gender-related genetic diseases nor to do so upon the request of the expectant mother and her relatives, let alone perform a medically-induced abortion on the basis of gender considerations." Offenders will be dealt with according to pertinent laws and regulations, under which they are permitted to conduct tests on fetus gender only as part of diagnosis of gender-related genetic diseases. In addition, it was announced on March 23rd 2012 that medical technicians carrying out prenatal gender 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 gender 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 disseminates laws and regulations. It also seeks to root 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 1.090 (males born vs. females) in 2010. The ratio fell further in 2012, to 1.074, and more in 2014, to 1.069. From a high of third-highest in the world in 2003, Taiwan's gender ratio at birth had fallen to 34th place by 2014. In 2015, it rose to 1.083 again. The HPA will continue management of equipment used for examinations, and will persist with efforts to inform and influence the public, in the hope of improving Taiwan's gender 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 their attitudes to sex, which may result in pregnancy, abortions and sexually transmitted diseases. In a 2015 HPA health behavior study of high school and vocational school students, 11.8% of male respondents aged 15-17 and 10.4% of female respondents aged 15-17 said they had engaged in sex. Amongst these students, 79.8% of male respondents and 88.5% of female respondents said they had used birth control in their most recent sexual encounter. By comparison, in 2013, 9.3% of males aged 15-17 and 11.1% of females aged 15-17 said they had engaged in sex, while 83.3% of males and 86.6% of females said they had used birth control in their most recent sexual encounter. Ministry of the Interior population data from 2015 showed the fertility rate of teenage females aged 15-19 in Taiwan was 4.38 per 1,000, a significant drop compared to 12.61 per 1,000 in 2002 (see Figure 2-11). The fertility rate amongst this age group in Taiwan in 2015 was lower than those of the United States (34), the United Kingdom (22), Australia (15), Sweden (6), and Japan (5), but it was higher than that of South Korea (2). Early sexual behavior will result in pregnancy for adolescents who are lacking economic foundation and are still immature physically and mentally. Should they give birth, it may also have an impact on their career development, and could exert a negative influence on the nurturing of their children and families. Therefore, underage pregnancy is an adolescent health topic that should not be overlooked.

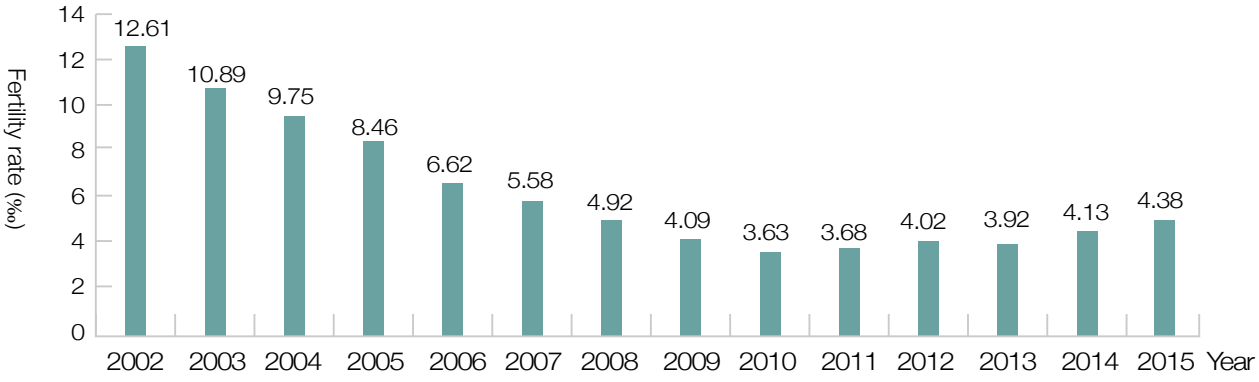
Target Indicators

1. Reduce the adolescent fertility rate amongst girls aged 15-19 to less than 4.13 in 2015.
2. Raise the use of contraception amongst teenage females aged 15-17 to 85% in 2015.

Policy Implementation and Results

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

Figure 2-11 Adolescent Fertility Rate in Taiwan 2002-2015



Source: Ministry of the Interior statistics

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 to provide teenagers with all the information they need related to sexual health. According to statistics for 2015, of the website received a total of 84,104 hits. The "Secret Garden", a webpage that provides video counseling on adolescent sexual health, received a total of 2,364 hits.

2. Adolescent Sexual Health Promotion Consultation Service Plan

Combined with the local community health-promoting schools, teenagers are referred to psychiatric counselors or medical institutions where relevant. In 2015, we worked together with community health promotion schools to conduct 85 adolescent sexual health counseling services lectures, with a total of 21,346 students attending.

3. Teenager-Friendly Medical Professionals/Outpatient Services

The HPA has teamed up with 70 medical institutions from 22 counties, to introduce the "Teen Happiness No. 9 Outpatient Service". In addition to preventive care and reproductive health services, adolescents are provided with assistance in communicating with their parents any unexpected pregnancies. In 2015, the service helped a total of 30,297 times.

Tobacco Hazards Prevention in Schools

Status Quo

In 2015, the smoking rate amongst Taiwan's junior high school students was 3.5% (4.9% for males and 2.0% for females). Compared to the findings of the World Health Organization's Global Youth Tobacco Survey (GYTS). Taiwan's smoking rate amongst junior high school students is 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 amongst Taiwan's senior and vocational high school students reached 10.4% in 2015 (15.6% for males and 4.7% for females), and as such indicates a gradual downward trend (Figure 2-12). Teenage smoking remains a problem not to be taken lightly.

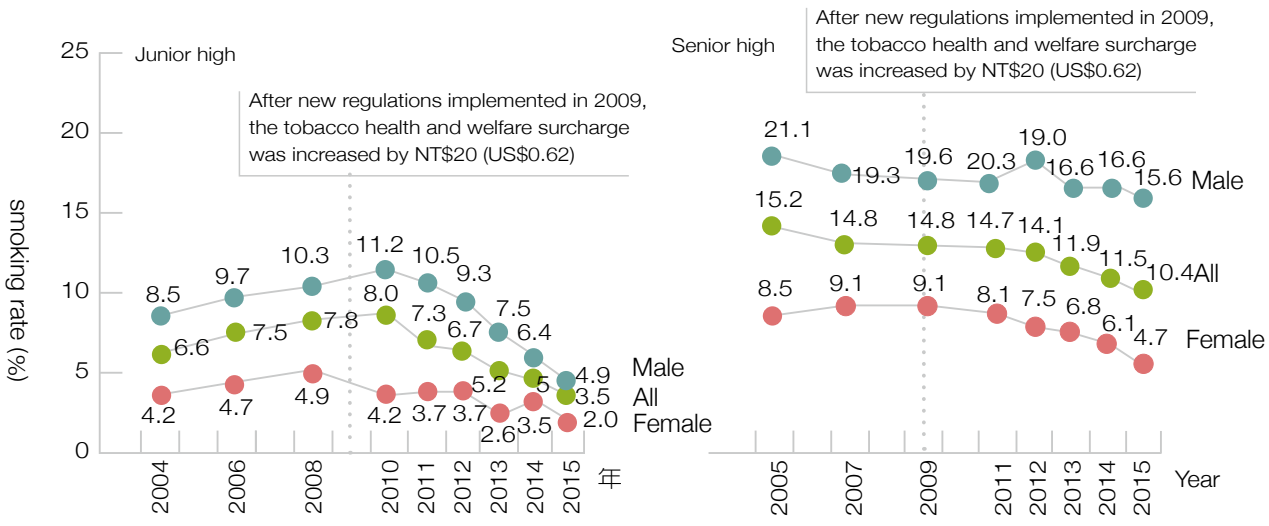
Target Indicators

In 2015, the smoking rate amongst students in junior high school fell to less than 6.0%, and the smoking rate amongst male students in senior and vocational high school fell to less than 11.3%.

Policy Implementation and Results

1. The HPA collaborated with the Ministry of Education to promote and implement the "Campus Tobacco Hazards

Figure 2-12 Smoking Rate in Adolescents



Sources: 1. HPA Global Youth Tobacco Survey (GYTS)
2. Definition of smoking prevalence: respondent has tried to smoke in the last 30 days, even just 1 or 2 puffs.

Prevention Implementation Program" Second-hand smoke exposure rate on middle school campuses has decreased from 21% in 2008 to 7.5% in 2015. In senior and vocational high school, this figure dropped from 35.2% in 2007 to 16.3% in 2015. We have emphasized strategies to establish tobacco hazards prevention education, to promote a tobacco-free campus, and to provide education on quitting smoking. We also cooperated with the Ministry of Education and local governments in conducting random inspections of tobacco hazards prevention in campus; 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 amongst students and educators, as well as students' exposure to second-hand smoke on campus.

2. In order to promote tobacco-free families, we launched the "One Million Tobacco-Free Families Integrated Marketing Promotion Plan." We worked together with hospitals, campuses, workplaces, and local community health units in implementing the plan, and through tobacco-free family petitions and tobacco-free stickers, we drove comprehensive tobacco cessation advocacy. We invited people to participate in the tobacco cessation events, and designed campus learning fliers and tobacco-free vanguard coloring pages so that elementary and kindergarten children can learn about the risks of second and third hand smoke. It is hoped that parents will be led to understand the importance of tobacco-free families, and we use tobacco-free walking events to encourage parents and children to march toward the path of a tobacco-free life and a tobacco-free environment. We conduct tobacco-free short sentences selection events, and through people's creative thinking, we hope that the hazards of tobacco smoking may be drawn out in the short sentences as we seek to bring tobacco-free concepts to families. Through the channels and marketing projects which we have unveiled to date, there are 800,000 families supporting tobacco-free life.
3. In order to support and promote adolescents multiple smoking cessation services, we conduct adolescent smoking cessation education staff training and follow-up guidance, and assist with field smoking cessation education. In 2015, we conducted 4 staff training courses. A total of 279 people completed the courses. From 2008 to 2015, a total of 898 adolescent educational teachers have been provided with adolescent smoking cessation education services.
4. We cooperated with local health departments and integrated community resources through promotional activities and through subsidizing community health plans. We worked with NGOs and community volunteers to monitor shops close to campuses to stop illegal sales 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 sales 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. In addition, a total of 3,795 people were fined in accordance with Article 12 of the Tobacco Hazards Prevention Act, which stipulates that people under 18 are prohibited from smoking. A total of 3,713 quit smoking courses were completed, and they continue to be held on an ongoing basis.
5. The number of people using electronic cigarettes is rising globally, and in an era of ecommerce, the prevention can be very difficult. Where relevant we have implemented interdisciplinary prevention, and if people are found guilty, we will dish out the most severe penalty. According to HPA's Global Youth Tobacco Surveys, 3.0% middle and 4.1% high and vocational school students currently use electronic cigarettes. It is worth noting that half of the users are non-smokers(57.8% and 36.5% in middle and high/ vocational school students separately). In order to prevent the prevalence of electronic cigarettes, we conduct border controls, e-cigarette tracing, inspection and monitoring, propagandas awareness raising, and nicotine cessation. If people are found to sell or manufacture electronic cigarettes which contain illegal drugs, they will be penalized according to the Narcotics Hazard Prevention Act. If there is nicotine found, it is considered a counterfeit and misbranded drug, and they will be penalized according to Pharmaceutical Affairs Act. If the electronic cigarettes look like tobacco products, it is in violation of Article 14 of the Tobacco Hazards Prevention Act. The Ministry of Education also notify all schools that if they find students using electronic cigarettes, the cases should be sent to the police stations so that the contents and origins of the electronic cigarettes may be investigated. Schools should provide nicotine cessation counseling and guidance, in order to put an end to the risks of electronic cigarettes.
6. We continue to conduct campus tobacco hazard prevention work by using quantified goals, guidance

Table 2-3 Percentage of Taiwanese Students Aged 6-18 with Myopia

Grade \ Year	1986	1990	1995	2000	2006	2010	
						≦-0.25D	≦-0.50D
First Grade Elementary School	3	6.5	12.8	20.4	19.6	21.5	17.9
Sixth Grade Elementary School	27.5	35.2	55.8	60.6	61.8	65.9	62
Third Grade Junior High School	61.6	74	76.4	80.7	77.1	-	-
Third Grade Senior High School	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; for purposes of calculating rates of myopia prevalence 1986-2006, myopia is defined as ≦ -0.25D

and evaluations, and we continue to recommend teachers to get the Seed instructor training for smoking cessation programs in all counties and cities. We will seek to expand campus tobacco hazard prevention advocacy work, drive the creation of tobacco-free environments, implement smoking cessation education, and reinforce campus tobacco hazards prevention work.

Section 4 Vision and Hearing Health

Optical Health Care

Status Quo

In Taiwan, myopia is a major concern amongst children. A 2010 survey showed that the amongst students aged 6 to 18, first graders with myopia rose to 21.5% in 2010 -0.25D , which was 1.9% higher than that of 19.6% in 2006, while that among sixth graders increased to 65.9% from 61.8%, and increase of 4.1% (Figure 2-13). In 2015, 26.1% first graders had bad vision, and 63.9% sixth graders had bad vision (this includes myopia, amblyopia, astigmatism, and heteropsia.) In the 2006 national survey, it is shown that even though the prevalence of myopia amongst elementary school students has declined, the prevalence of myopia for 12th graders (≦-6.0D) (16.8%) is still higher than those in other South East Asian, European, and American countries. As a point of comparison, the figure is 15% for Singapore (university students in 2001), and 2.5% in Sweden (2000 total population). Myopia will increase the risks of all kinds of complications, therefore, through children vision screening services, we can discover vision problems in children for referral and treatments.

Target Indicators

1. Mid-term (2020): Reduce the increasing prevalence of myopia such that the values of 2010 (17.9% of first-graders and 62% of sixth-graders), will be the same in 2020.
2. Long-term (2025) Reduce the increasing prevalence of myopia such that the values of 2010 (17.9% of first-graders and 62% of sixth-graders), will be the same in 2020.

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 so that children's optical health may be maintained. Separately, the HPA has been joined by the Ministry of Education in implementing a vision health program intended for both preschool and school children, lest they are afflicted with myopia, which can easily lead to severe 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. Optical Health Services for Pre-School Age Children

(1) The HPA offers various preventive healthcare services related to children's optical 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 conducting random 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 349,952 children were screened in 2015, with a 99.3% referral rate for abnormal cases.

2. In order to provide accessible care to detect and correct vision problems early on, a myopia prevention work plan for ophthalmologists to intervene in kindergartens and daycare was established.
3. We conducted the "Intervention Program for Vision Care in Lower Grade Schoolchildren" plan, with the hope of verifying the effectiveness of basic intervention through undertaking outdoor activities.
4. We continued to conduct publicity activities to promote health and prevent myopia. 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 are under the age of 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 minutes spent looking at a screen. In 2012, we added visual health education information in children's health manuals. We worked with parents to teach them how to test their children's vision and record their eye protection efforts. Through health education provided by pediatricians, we reminded parents to attach great importance to the visual health of their children.
5. In order to remind business owners and parents to care more about their children, particularly with regards to the use of electronic products and visual health, we stipulated the "Ministry of Health and Welfare Health Promotion Administration Recommendation of Warnings for Using Electronic Products". Amongst the labels which we recommend use of were: "Overuse will harm your vision" and "Rest your eyes for 10 minutes after using the products for 30 minutes, children under 2 should not stare at the screens, and children over 2 should not stare at the screens for more than 1 hour." We cooperated with the National Communication Commissions and Bureau of Standards, Metrology, and Inspection, Ministry of Economic Affairs to conduct administrative instructions for business owners in July 2015 to add warning labels to their products. Since January 1st 2016 and September 1st 2016, National Communication Commissions, Bureau of Standards, Metrology, and Inspection, Ministry of Economic Affairs made it mandatory for business owners to label their products.

Hearing Health

Status Quo

Hearing ability plays a vital role in children's linguistic development. Hearing loss impacts on both language learning and children's ability to communicate with the outside world, as well as having 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 impairment in children.

In 2007, the participation rate of newborn hearing screening was 28.70% in Taiwan. This had increased to 87.1% by 2015. Hearing screening rates for pre-school age children rose from 30.3% in 2002 to 82.9% in 2015.

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 2015, a total of 296 hospitals provided this screening subsidy. This covered 98.8% of total births, and the screening rate was 97.8%. A total of 208,722 babies underwent screening. 795 babies were diagnosed with hearing impairments.
2. In order to improve the quality of hearing screening for newborns, we conducted 3 newborn hearing screening seminars across Taiwan. A total of 233 people participated. Three Newborn Hearing Diagnosis Seminars were also conducted in Northern, Central, and Southern Taiwan. A total of 192 people participated.
3. The HPA also conducted the Hearing Screening for Pre-School Age Children, conducting in communities or kindergartens. In 2015, 134,628 children were thus screened. The screening rate was 82.9%, and the re-check rate was 97.9%.

Part 3

Healthy Living

According to a report issued in 2012 by the World Health Organization (WHO), the four major non-communicable diseases (cancer, diabetes, cardiovascular disease, and chronic respiratory disease) now account for approximately 68% of deaths worldwide. In Taiwan, that figure is nearly 8 out of 10 (80%). Smoking, a lack of exercise, unhealthy diets and excessive alcohol consumption are the four major common risk factors behind the occurrence of non-communicable diseases. Each of these four risk factors depends on an individual's behavior: change can only come from promoting healthy lifestyles, reinforcing health education and publicity related to healthy lifestyles, and coordinating with civil forces to create a comprehensively healthy environment which supports public study of health, healthy choices and healthy lifestyles.

With regards to Tobacco hazards prevention, the HPA is continuing to implement the Tobacco Hazards Prevention Act, and has successfully kept rates of exposure to second-hand smoke in smoke-free places below 10%, as well as helped to create smoke-free environments in communities, schools, hospitals and military units. Meanwhile, we also offer a diverse range of smoke cessation services such as second generation cessation payment schemes, free smoking cessation helpline, smoking cessation courses, and a smoking 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 in quitting smoking, thereby successfully freeing themselves from the shackles of tobacco addiction.

With regards to 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 observation and implementation of a healthy lifestyle of "smart eating, fun exercise, and daily weight-checking". We have also improved public understanding of calories and nutrition through health education publicity programs, as well as through inspecting and improving aspects of living environments that might be likely to lead to obesity. Healthy environments in hospitals, schools, workplaces and communities can encourage healthy diets and regular exercise amongst the public, helping them to avoid the threats of obesity and future chronic disease.

Furthermore, 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, and officials also certify safe communities and schools with the end goal of reducing accidental injuries and constructing safe and healthy living environments.

Section 1 Tobacco and Betel Quid Hazards Prevention and Control

Tobacco Hazards Prevention and Control

Status Quo

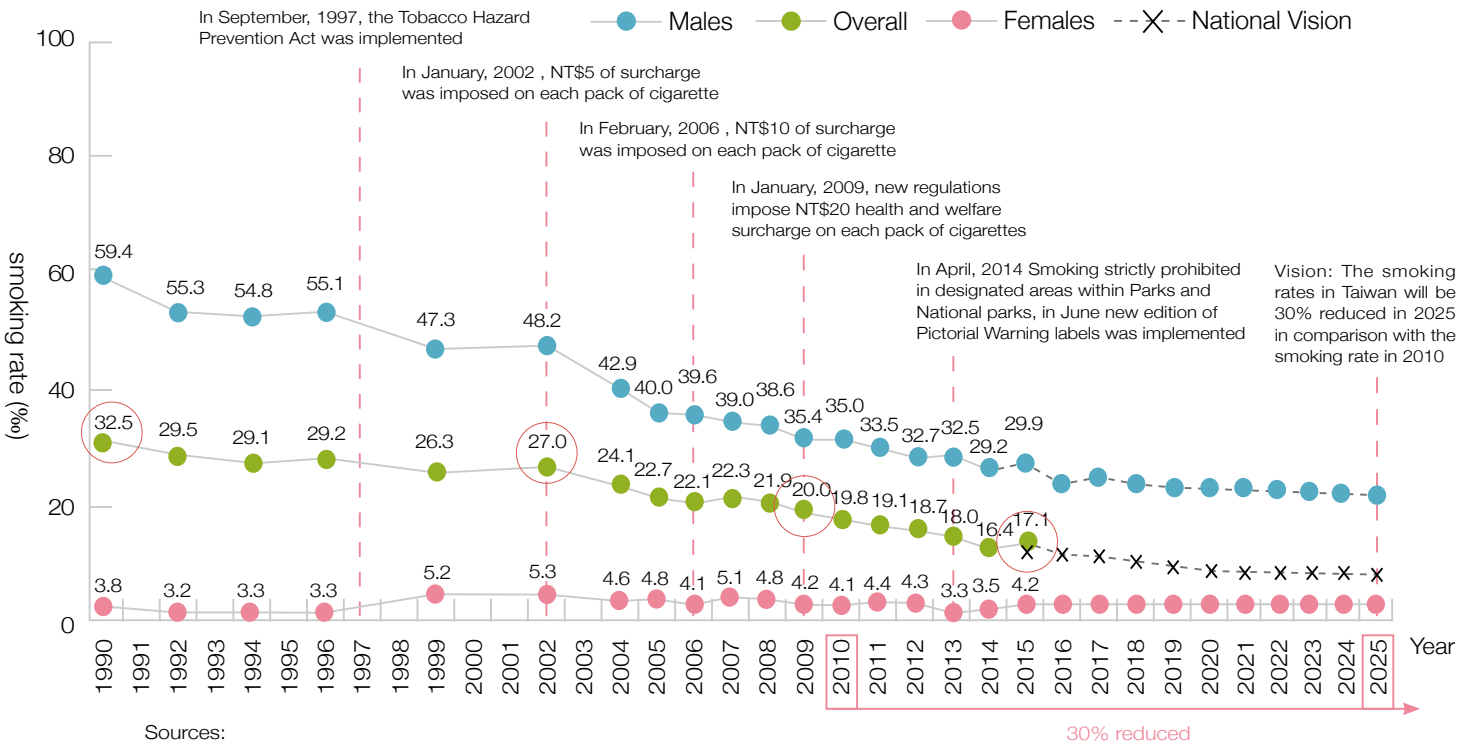
More than seven years have passed since new regulations under the Tobacco Hazards Prevention Act went into effect on January 11th 2009. The act has been successful in gradually expanding the areas within which tobacco is prohibited. The act also driven the implementation of a new version of tobacco health warning labels, led to a ban on tobacco ads, increased surcharges for tobacco, and promoted diverse services for second generation cessation. Relevant surveys and statistical information show that the exposure rate of second hand smoke continues to decrease in areas where tobacco is prohibited by law. It decreased from 23.7% before the implementation of the new regulation in 2008 to 7.7% in 2015, giving a total protection rate of over 90%. In the meantime, the smoking rate for adults over 18 has decreased from 21.9% in 2008 (male 38.6%, female 4.8%)

to 17.1% in 2015 (male 29.9%, female 4.2%). This is a reduction of nearly one quarter (22.1%). (Table 3-1). The smoking rate of senior high and vocational school students decreased from 14.8% in 2007 (male 19.3%, female 9.1%) to 10.4% in 2015 (male 15.6%, female 4.7%), the smoking rate of middle school students decreased from 7.8% in 2008 (male 10.3%, female 4.9%) to 3.5% in 2015 (male 4.9%, female 2.0%). For detailed statistics regarding middle and senior high and vocational school students, please consult Chapters 2 and Section 3. We estimate that the total population of smokers within Taiwan has decreased by 760,000 people.

The WHO recommends raising the price of tobacco as the most effective policy in lowering smoking rates. Comparison the average tobacco prices around the world according to the 2015 WHO report on the global tobacco epidemic and the 2014 Tobacco Atlas reveals that the average price for tobacco in Taiwan is NT$77, lower than the average prices of NT$81 in Thailand and NT$114 in Malaysia, and similar to that of NT$71 in Mainland China. However, prices in developed countries, such as Norway (NT$473), Ireland (NT$390), New Zealand (NT$438), and Singapore (NT$317), are around 4 to 6.5 times higher than in Taiwan. When prices are adjusted by taking the purchasing power parity (PPP) into account, the adjusted prices in Singapore, Ireland and New Zealand are 2.3, 2.1 and 1.9 times than those in Taiwan . Excessively low prices for tobacco in Taiwan means that smoking rates amongst men and disadvantaged groups remain high. The HPA has sought the opinions of experts in various fields to conduct evaluation of tobacco surcharges and suggest adjustment. To follow the WHO NCDs global target of 30% relative reduction in prevalence of current tobacco use, the HPA has also drawn up more exhaustive accompanying measures, hoping that the smoking rates in Taiwan will be 30% reduced in 2025 in comparison with the smoking rate in 2010.

The HPA is continuing to actively promote the second-generation Smoking Cessation Payment Scheme, and is training specialist staff in smoking cessation

Figure 3-1 Smoking Rates Among Adults over 18 Years of Age



Sources:
1. Data from 1990 to 1996 is from the Taiwan Tobacco and Liquor Corporation.
2. Data for 1999 is from the survey form Professor Li Lan.
3. Data for 2002 is from the HPA's 2002 National Health Interview Survey (NHIS).
4. Data from 2004 to 2014 is from the HPA's Adult Smoking Behavior Survey.
5. Data from 1999 to 2014, current smokers were defined as those who had smoked more than 100 cigarettes (5 packs) and had smoked within the past 30 days.
6. Data from 2004 to 2014 is taken information provided by the Directorate-General of Budget, Accounting and Statistics (DGBAS), and standardized by gender, age, education level and characteristics of residential areas.

education. We conducted face-to-face smoking cessation education and case study management. Through the integration of resources within our jurisdiction, we worked as a team and provided smoking cessation and health educational instruction, counseling, and educational services relating to quitting smoking in workplaces and schools. We used health and welfare surcharges on tobacco products to help smokers quit smoking. The HPA has also effectively improved smoking cessation success rates, and has strengthened inspections of traditional stores and betel quid stalls to inspect illegal supplying of tobacco products to minors. We are trying to cut off sources of tobacco products to adolescents who are under 18, and have coordinated with all sectors to initiate comprehensive publicity to create a smoke-free supportive environment.

Target Indicators

Reduce the smoking rate of adults over aged 18 to below 17% by 2015.

Policy Implementation and Results

1. Continued Enforcement of the Tobacco Hazards Prevention Act

Emphasis has been placed on carrying out compliance checks, expanding the network of smoking cessation services, bolstering targeted education programs and increasing publicity. Local tobacco 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 2015, a total of 630,000 institutions were inspected over 4.27 million times. 8,784 punitive actions were taken, with fines worth a total of over NT$32.01 million collected over the course of the year. 12 of these punitive actions involved violations of Article 9 of the Act, which bans advertisement and promotion of tobacco products; and fines related to this offense totaled over NT$11.12 million.

(2) By holding research camps, seminars, and training courses, and by compiling handbooks on compliance with the law, the HPA has promoted the specialty of the tobacco prevention and control professionals. We also provided education and training courses for tobacco prevention volunteers.

(3) The HPA offers the "Tobacco Hazards Prevention Inquiry and Complaints Service Helpline" 0800-531-531 to deal with public inquiries and reports relating to the Tobacco Hazards Prevention Act. In 2015, the Hotline dealt with approximately 3,737 public enquiries and 514 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 mainly involves in reducing smoking rates and second-hand smoke exposure rates. To help people stay healthy, the HPA contributes to support tobacco-free environments in parks, communities, restaurants, schools, workplaces, and in the armed forces. It also promotes tobacco hazards prevention through multimedia education and events.

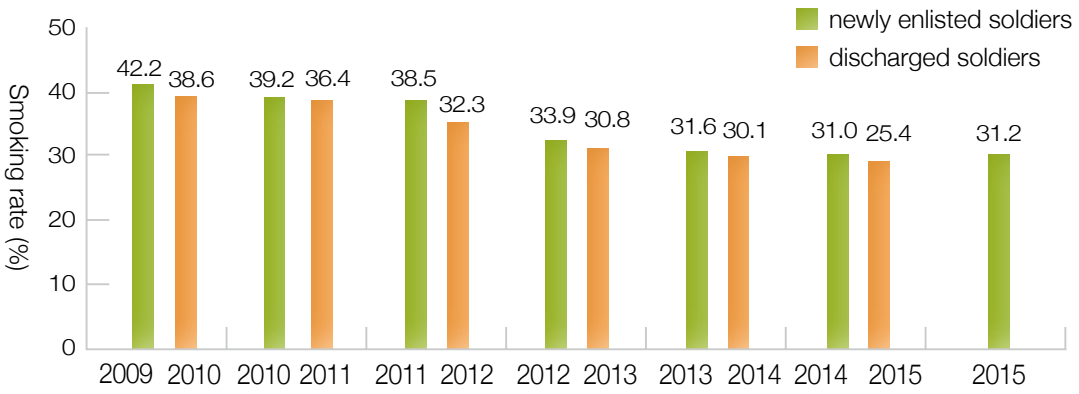
(1) Promoting Tobacco-Free Environments in Various Places

A. Designated areas in National Parks and parks:Since April 1st 2014, we have implemented a new policy that with the exception of designated smoking areas, smoking is prohibited in the designated areas in national parks, national science parks, scenic spots, and forest playground areas and park green lands. A total of 47 locations with 174 scenic spots and 3,790 parks allow smokers and non-smokers to be separated, and respect each other. Taiwan is the second nation to implement this policy. After one month of implementation, a survey showed that 96% of people approved of this policy, as such it is clear that this policy had received support from the people.

B. Pictorial health warnings on tobacco packages:We invited submission of "Health Warning pictures", and a total of 619 works participated. 15 excellent works were selected. We conducted three expert seminars, three focal point team seminars, and two case interview film shooting and eye tracker experiments. The conclusion was that the design of health warning pictures should be strong and direct. Terrifying photos draw better attention from smokers than other appeals such as social and supportive appeals.

C. Campuses:In view of a gradual trend for smokers to begin at ever younger ages in Taiwan, the HPA conducted four smoking cessation teacher training courses in 2015. A total of 279 people completed the courses. From 2008 till 2015, a total of 898 adolescent smoking cessation teachers were trained, providing smoking cessation education services for smoking adolescents. They also continue to promote the tobacco

Figure 3-2 Smoking Rates in the Armed Forces



Sources: Report on the Integrated Program for Tobacco and Betel quid Control in the Armed Forces throughout the years

control program in youth premises In 2015, 31 colleges participated in this program, 120 student groups participated, and 59 local health bureaus collaborated. We shot 51 tobacco hazards prevention documentaries, and conducted two sessions of college tobacco hazards prevention seminars. A total of 148 schools and 301 people participated. At the end of the year, we also selected eight excellent schools by experts and scholars, and praised them in the Commendation and Results Observation Conference for Tobacco Control in Campuses. Through various methods, we guided college students to learn about tobacco hazards related knowledge so as to enhance student's abilities to say no to tobacco.

D. Communities:In 2015, the HPA subsidized 150 communities to undertake tobacco free community plans. By integrating the resources of local health bureaus and communities, through dissemination and subsidization, we supervised stores around campuses, ensuring that they would not sell tobacco products to people under 18. In 2015, we have extended this plan to 5,808 stores.

E. Military:The HPA and the Medical Affairs Bureau of the Ministry of National Defense (MND), through the command headquarters of the military, drew up 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 expand the services like training, evaluation and referrals provided by the coaches. In 2015, we conducted seven tobacco and betel quid control guidance counselor training courses, including four sessions on the mainland and three sessions on outlying islands,and a total of 535 people were trained. Other relevant participation figures were: a total of 1,136 tobacco and betel quid cessation guidance counselors from all units within the armed forces took part. 9,976 people stated their desire to quit smoking, and from those 1,431 people volunteered to accept the guidance of tobacco cessation services. 976 people stated their desire to quit betel quid chewing, and from those 140 people volunteered to accept betel quid cessation guidance. A total of 291 people successfully quit smoking, giving a success rate of 20.3%. With regards to monitoring and research aspects, the prevalence smoking rate amongst members of the armed forces was 31.0% for newly enlisted soldiers in 2014, and this has been reduced to 25.4% in 2015 (Figure 3-2). This provides clear evidence that tobacco hazard prevention in the armed forces has been effective.

F. Hospitals:The ENSH-Global Network for Tobacco Free Healthcare Services was established in 1999. Since then, 22 nations (22 members and 16 associate members) have participated. In order to encourage hospitals to become smoke-free hospitals, the HPA has promoted Taiwan to become a member of the network in 2011 and become the first network member in the Asia-Pacific Region. The standards of network certification have become the certification indices and key inspection points for tobacco-free hospitals in Taiwan. By emphasizing and supporting all hospitals in Taiwan move towards health promotion work, the Taiwan network has rapidly expanded and become

the largest network in Asia with total 198 hospitals participating till 2015. Currently 11 of the 27 hospitals which won International Golden Awards are in Taiwan, which has won the most of any country.

(2) Use of Multimedia Publicity for Tobacco Control:

1. We invited actor Nolay Piho, who successfully depicted the chieftain in the movie Warriors of the Rainbow: Seediq Bale, to shoot the Tobacco Hazards Prevention Documentaries. He used his stories of smoking cessation to advocate the hazards of tobacco.
2. Under the remit of "2015 Health Topic Advocacy Achievement Evaluation and Tobacco Message Monitoring", people were interviewed of a range of health topics and advocacy items. Their awareness of smoking cessation advocacy was 65.5%, with TV ads being the main channel (approximately 64.2%). 85% of people stated high satisfaction rates with indoor tobacco-free environment, and over 60% of people (62.4%) are aware that the government provides smoking cessation services.

3. Provision of diverse and Accessible Smoking Cessation Services

The WHO clearly recommends that smoking cessation is an important part of overall tobacco hazards prevention and control policy since it helps to prevent cardiovascular and respiratory diseases along with cancer. It offers individuals, families and societies immediate benefit, effectively reducing high blood pressure, diabetes and hyperlipidemia rates, whilst lowering health expenditures. Those who quit smoking are less likely to need lifelong medication 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. In order to help smokers quit smoking and reduce obstacles which prevent them from doing so, the HPA provides diverse smoking cessation services. Smokers can obtain assistance from smoking cessation clinics, the free Smoking Cessation Helpline, and special classes.

(1) The second generation cessation services payment scheme:The HPA has promoted the second generation cessation payment scheme since 2012. Nearly 3,000 hospitals, clinics and community pharmacies provide medical treatment and services to aid quitting smoking. This medicine is subsidized by health and welfare surcharges of tobacco products, ensuring that medical cost does not exceed NT$200. In regions that lack medical resources, another 20% is deducted. This is suitable for low-income households, aborigines, and people on outlying islands, as per the stipulation of social subsidy laws. Some medical institutions and community services work with cessation-service 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 benefit from these services. 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 2015, people used the services a total of 2,826,038 times were benefitted from quitting smoking services. In 2015, a total of 153,137 people used the services a total of 467,908 times; with 6-month point prevalence abstinence rate standing at 26.4%.

(2) Smoking Cessation helpline:The Taiwan Smokers' Helpline (TSH) was launched in 2003 to provide convenient, confidential and accessible smoking 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 2015, 1,007,548 calls had been made to the service. We provided telephone counseling services to 248,020 people. The 6-month point prevalence abstinence rate was 40.8%.

(3) By integrating quitting information into the "Healthy wonderful housekeeper" app, people were able to assess their own nicotine addiction levels, and combined with mobile positioning systems to display nearby medical institutes, people were supported in moving away from tobacco addiction and quitting successfully.

(4) Smoking Cessation Courses: In 2015, a total of 457 courses were held, with approximately 5,756 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 Survey", and "the Global Youth Tobacco Survey". Authorities also monitored the nicotine,

tar and carbon monoxide content of tobacco products. In 2015, the HPA also studied the effectiveness of its smoking cessation services, tobacco product ingredient reports, media promotion evaluation, monitoring tobacco depictions and imagery, law enforcement evaluation, and policy evaluation.

As part of our "Developments in the testing and research of tobacco products", the HPA tested 40 domestic and imported products to measure the nicotine, tar, carbon monoxide and N-nitrosamines contents in mainstream smoke, as well as the concentration of heavy metals in tobacco leaves. In all but one of the samples of tobacco products, the contents of tar were found to be in violation of the Tobacco Hazards Prevention Act. According to The Tobacco and alcohol administration Act of the Ministry of Finance, tobacco manufacturers with bad quality tobacco products will be fined NT$300,000. 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's websites. In Taiwan, tobacco manufacturers and importers have been requested to comply with these reporting since June 4th 2009 according to the Tobacco Hazards Prevention Act. As of 2015, 70 companies had declared 4,044 tobacco products. Through the new version of Tobacco Information Declaration System, tobacco suppliers can upload the publicly-declared information on websites for disclosure of ingredients in tobacco products, thereby providing people with immediate tobacco ingredient information.

5. Personnel Training

In 2015, the HPA held two sessions of its Country and City Tobacco Control exchange workshops, with 182 people attending. 518 people were trained and certified completely as smoking cessation physicians, whilst 412 dentists were similarly certified after completing our Elementary smoking cessation services training plan, and 206 people were certified on our advanced training course; there were also 1,069 people trained and certified as smoking cessation instructors, and 541 people obtained certification through the advanced pharmaceutical staff training courses. We also conducted basic and advanced enforcement personnel training, with 210 and 53 people being trained completely.

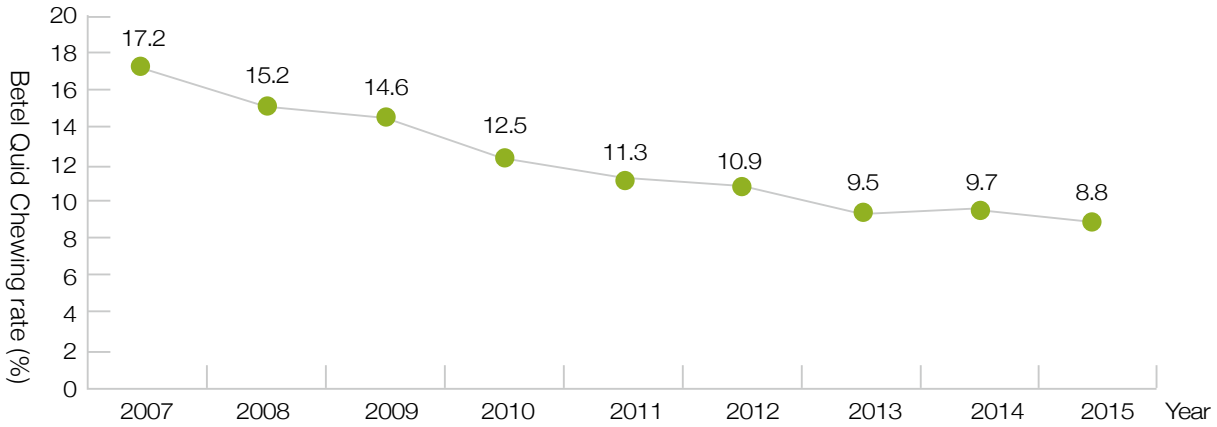
Betel Quid Hazards Prevention and Control

Status Quo

The International Agency for Research on Cancer has listed betel quid as a Group 1 carcinogenic agent to humans. In Taiwan, betel quid chewing is a primary cause of oral cancer. About 88% of oral cancer patients are habitual betel quid chewers. Compared to smoking and excessive use of alcohol, betel quid chewing carries an even higher risk of oral cancer.

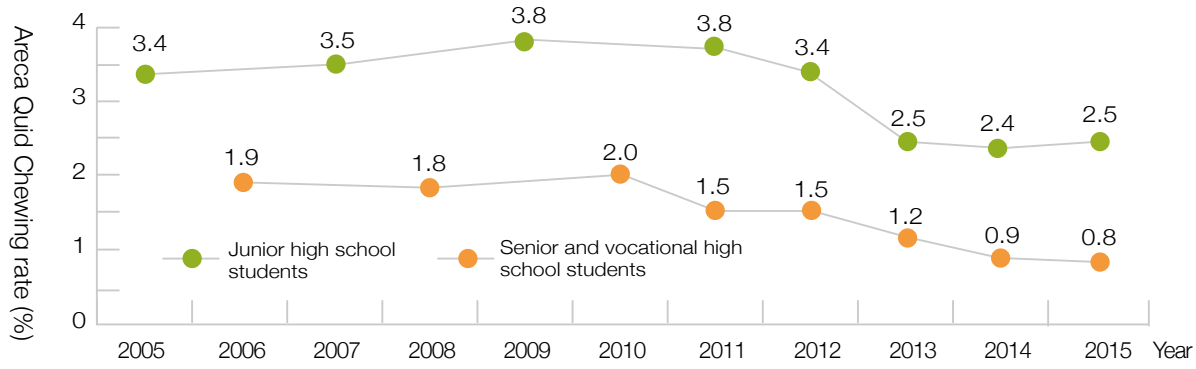
In Taiwan, there are approximately 900,000 regular betel quid chewers. The standardized incidence rate of oral cancer amongst males has increased to 31.4% over the past 10 years, and is a common threat to men at ages 25-44. To reduce the threat of oral cancer in Taiwan, a

Figure 3-3 Betel Quid Chewing Rate Amongst Adult Males over Age18, 2007-2015



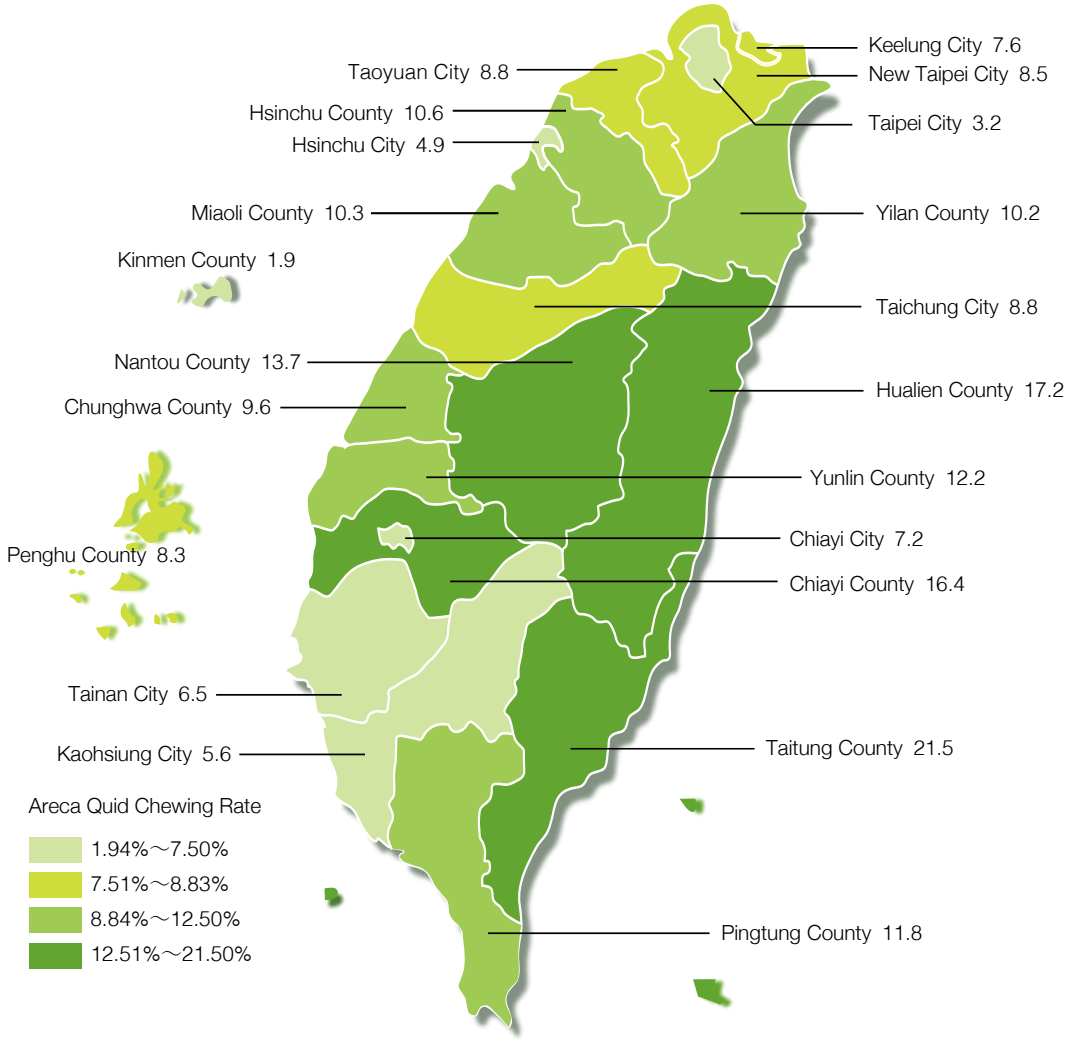
Betel Quid Chewing Rate: Refers to those who have chewed within the past 6 months.
Sources: Behavioral Risk Factor Surveillance System (BRFSS) Survey, Adult Smoking Behavior Survey.

Figure 3-4 Betel Quid Chewing Rate Amongst Adolescents, 2005-2015



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

Figure 3-5 2015 Betel Quid Chewing Rates Amongst Adult Males over Age18 by Country/City



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.

major publicity campaign which sought to reduce betel quid usage rates throughout the population was maintained through 2015.

From 2007 to 2015, Taiwan's overall betel quid chewing rate fell from 17.2% to 8.8%, giving a rate of decrease of 48.8%. (Figure 3-3). Rates amongst junior high, senior high and vocational high school students have also fallen significantly, and data for recent years show declines of 57.9% and 26.5% (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, whilst metropolitan cities posted much lower rates (Figure 3-5).

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, the Executive Yuan designated December 3rd as "Betel Quid Prevention and Control Day." In 2015, rigorous efforts were made by all levels and regions of government to reinforce betel quid prevention and control through diverse media and expanding participation in related activities. Government agencies and NGOs also joined forces to create betel quid free communities, workplaces, schools and barracks.

Target Indicators

The betel quid chewing rate amongst males over age 18 was reduced to below 9% in 2015.

Policy Implementation and Results

1. Publicizing the 'No Betel Quid Chewing' Message

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

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 habitually chew betel quid. "The Lost Smile" is Taiwan's first documentary on people afflicted 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; and it is highly rated not only by oral cancer fighters but also the general public. In order to attract wider public attention to the topics of betel quid chewing and oral cancer, these documentaries were broadcast throughout 2015 on the internet and broadcast media, as well as in hospitals, schools, communities, workplaces and military. The objective was to have patients and families share their personal experiences to raise greater awareness of betel quid hazard amongst chewers and the general public.

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

In order to help people quit betel quid addiction, and reduce the risk of oral cancer, the HPA has promoted the betel quid cessation service system by revising betel quid cessation educational materials, offering training programs for betel quid cessation instructors, and providing betel quid cessation services. Due to the fact that betel quid chewing is more prevalent amongst fishermen and construction and highway maintenance workers, the HPA has cooperated with NGOs on betel quid hazard and oral cancer prevention by conducting seminars and provide oral cancer screening at construction sites, fish harbors, and national highway service stations. In addition, the HPA has worked with performance groups and folklore parades, to promote the awareness of betel quid chewing related risks and deliver smoking and betel quid chewing cessation messages through drama performance. The ultimate aim is creating a heathy image of tobacco and betel quid free lifestyles to carry forward the Chinese traditional arts.

(3) Starting With Schools

In 2013, the HPA selected one junior and one senior high school in the two counties and cities with the highest prevalence of betel quid chewing in Taiwan (Kaohsiung City and Taitung County), and guided these schools to become focal points for their counties in establishing a model for a no-betel quid environment in schools and communities in the area. We aim 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 amongst students increased in 2012 (New Taipei City, Taichung City, Nantou County, and Changhua County). In 2013, we focused on the counties and cities that have increased rates of junior and high school students chewing betel quid (Taipei City, Taichung City, Taoyuan City, Hsinchu City, Kaohsiung City, Tainan City, Kinmen County, and Hualien County). We investigated all levels of possible influence factors leading to the increase in betel quid chewing rates amongst young people, as well as potential strategies for improvement. In 2014, the 11 counties and cities mentioned above expanded to establish

a model for a no-betel quid environment in schools and communities. This effectively ensures betel quid-free communities after students leave the schools, and reduces the chances of contact with betel quid. We also developed all kinds of evaluation tools and designed anti-betel quid posters, cartoons, and provide betel quid quitting manuals and 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 have encouraged the drawing up 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 cancer screening 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 2015, we subsidized a total of 144 community health units and provided guidance to 563 public area and workplaces in undertaking such activities.

(2) Promoting inter-agency coordination in betel quid hazard and oral cancer screening

In order to reinforce source control, monitor transforming abandoned betel quid farms into other crop farms, monitoring betel quid re-growth areas, and analyzing whether the total area used for growing betel has continued to decline, the HPA has subsidized the Council of Agriculture on the transformation of abandoned betel quid farms into other crops from 2014 through to 2017. It is estimated that the total area used for growing betel will reduce by 48,000 acres within four years.

The HPA assisted the Environmental Protection Administration to implement Article 50-1 under the Waste Disposal Act, which ensures that those found to be spitting betel quid juice attend betel cessation programs. Since April 2014 and around 3,000 people found to be spitting betel quid juice (residues) participated in the programs. The HPA provide local health departments with a list of qualified lecturers and teaching manuals on running betel quid cessation programs.

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. Implementation of this plan continued through 2014. We 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 conducting standard health checks, employers must, with employees’ consent, also conduct oral cancer screening, in order to broaden the scope of oral cancer screening.

Section 2 Promoting Physical Activity

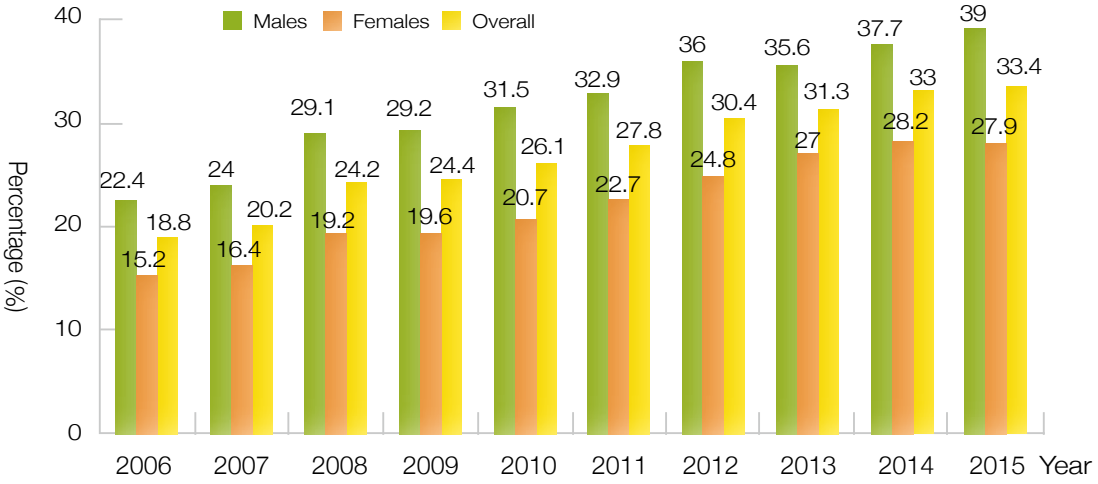
Status Quo

Physical inactivity and sedentary lifestyles are one of 10 risk factors leading mortality as stated by the WHO in 2009; and are estimated to account for more than 2 million deaths per year. In addition, one quarter of adults and over 80% of adolescents do not engage in sufficient physical activity. This can affect people’s health and contributes to a serious public health problem.

Physical inactivity has become the fourth risk factor of global mortality accounting for 6% of deaths, which is just below hypertension (13%), tobacco use (9%) and hyperglycemia (6%). Furthermore, 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. Physical inactivity not only seriously affects the health of individuals and raises national medical expenditures and adds cost to society, but it also creates a significant burden on government and the public.

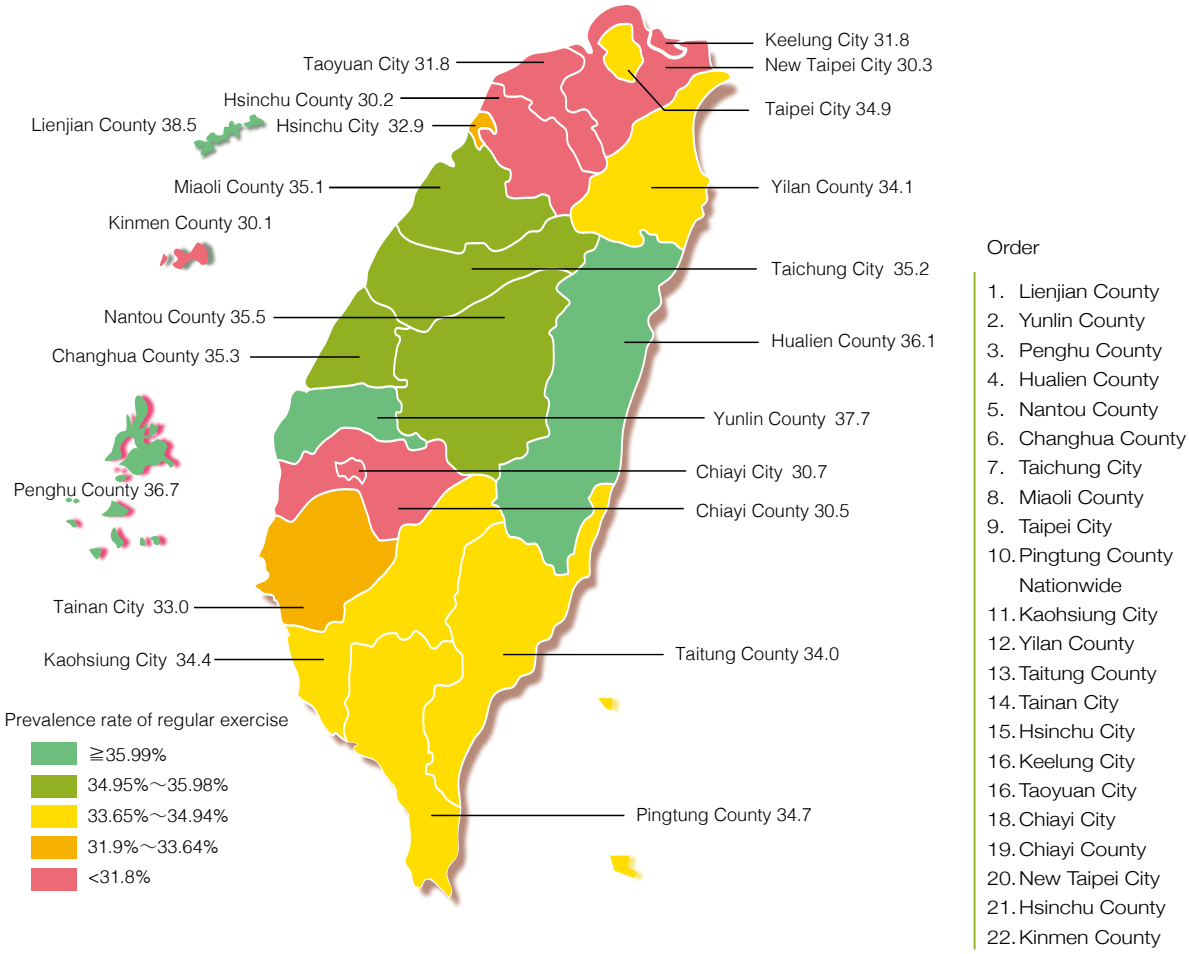
The WHO recommends that every adult should engage in over 150 minutes or more moderate physical activity per week, whilst children and adolescents should engage in 60 minutes or more of medium-intensity activity per day, for a cumulative total of over 420 minutes or more per week. In the “2015 Sports City Survey”, which the Ministry of Education investigated . Amongst people

Figure 3-6 The prevalence of aged 13 and above who regularly exercise in Taiwan 2006-2015



Sources: 2006-2015 Sports City Surveys from the Sports Administration, Ministry of Education.

Figure 3-7 The population age 13 and above who regularly exercise in Taiwan



Source: 2015 Sports City Survey from the Sports Administration, Ministry of Education.

age 13 and above who participated in the investigation, 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 18.8% in 2006 to 33.4% in 2015 (Figures 3-6, 3-7). However, the proportion that does not engage in regular exercise was still considerably high (66.6%). This showed that there is still clear room for improvement. When differentiated by age, the proportion of those aged between 35-54 taking regular exercise is even lower. In addition, the survey results show that 61.4% of people over 13 years who have reached the exercise requirements of WHO recommendation, 69.8% were male, and 52.9% were female.

Professor Chi-Pang Wen of the National Health Research Institutes pointed out that in comparison with individuals who undertake no exercise and engage in exercise 15 minutes a day (about 90 minutes a week) have reduced total mortality 14%, cancer mortality rate 10%, and cardiovascular mortality rate 20%, whilst adding 3 years to life expectancy. By the promotion of active lifestyles, we could foster the habit of regular exercise, thereby raising people's fitness and reducing the incidence and disability of chronic diseases.

WHO has indicated that walking is the easiest and most recommended physical exercise, and a 30 minute walk helps to drive calorie consumption equivalent to moderate physical activity to vigorous activity. Since 2002, the HPA has promoted healthy walking. We encouraged people to follow the concept of taking10,000 steps daily to guarantee your health. On November 11th 2006 we established our first National Walk Day, and ever since then we have worked together with industries, government, academic, civil, and media circles to encourage citizens to include walking into their daily life anywhere and anytime.

Target Indicators

The 2015 target was for 38% of citizens to be exercising regularly

Policy Implementation and Results

1. Inter-ministerial work to promote national health fitness

Working together with the Sports Administration, Ministry of Education to promote national exercise, on December 30th, the HPA and Sports Administration, Ministry of Education collectively conducted an "Exercise and Health Seminar" at National Taipei University of Technology, in order to develop policy related to health and fitness in the future. Four themes were discussed, including "promotion of all areas of national exercise", "physical fitness tests", "important exercise and health promotion related topics", "exercise health monitoring and information cloud systems." We invited participation from scholars and experts from health offices, sports bureaus, schools, workplaces, and hospitals who participated in total of 130 people.

2. Promotion of diverse physical exercise

In order to encourage children to develop physical activity habits regularly, and award the contributions of health promotion schools, the HPA and Taoyuan City Hsin-Shin Elementary School, Yilan County Lize Elementary School, Tainan City Dagong Elementary School, and Taichung City Tai'an Elementary School conducted four events which are "RUNNING KIDS" Exercise, Fitness, and Healthy Lives events. Former President Ma Ying-Jeou even personally led the sessions in Hsin-Shin and

Sports Administration, Ministry of Education collectively conduct exercise and health seminars.

"RUNNING KIDS" Exercise, Fitness, and Healthy Lives events.

Lize Elementary Schools. In the four events, 2,000 school teachers and children participated in healthy aerobics and running events.

In addition, in 2011, we focused particular attention on office workers who use computers often and suffer from stiffness or pain in their shoulders and necks. The exercise plan that we came up revolves around healthy aerobics for office workers, and in 2014, we remade and promoted Chinese and English versions of office workers healthy aerobics. During intermissions at domestic and international seminars, we promoted the healthy aerobics, and received positive feedback. All county and city health offices developed unique healthy aerobics in their respective counties and cities, and encouraged healthy aerobic exercises. In 2015, we conducted the "National Healthy Aerobic Competition." A total of 32 teams participated, 19 teams passed the initial selection and reached the final, and 16 teams received awards.

3. Diverse Media Dissemination

As well as making use of the "Let's Move Toward A Healthy Life" physical activity booklet, news sources and broadcast media (Healthy New Year, Walking Broadcast go go go!) to promote health, the HPA also utilizes websites, Facebook, mobile app advertisements and online newspapers to promote health-related fitness which are provided information such as community walking routes, exercise guidelines, and different types of exercises, enabling the public to access health information instantaneously. HPA distribute pedometers to civil societies to broadcast health-related fitness and walking events.

4. Phone Counseling Hotlines

HPA established a free service hotline (0800-367-100), to assist the public with any questions they might have regarding integrating exercise into their lives. In 2015, the hotline was used 4,830 times, with the most common questions being "Exercise time?" (22.8%), "Exercise methods?" (21.9%), and "Intensity of exercise?" (20.6%).

5. Integrating Different Sectors to Promote Healthy Living

(1) Communities: the HPA subsidizes community health units in improving obesogenic environments. With the help and involvement of communities, we advocate schools and workplaces to increase physical activity time, and promote physical activity supports of an environment as well as calorie labeling and slogans. By the end of 2015, a total of 306 community walking paths were built to encourage the public to use local environments to engage in exercise.

(2) Workplaces: We initiatived health promotion in workplaces, with regular exercise being one of the most important areas of healthy workplaces. We encouraged workplaces to establish supportive environment that benefit employee exercise. For example, using healthy walking paths, staircases, and exercise spaces. In 2015, a total of 1,848 passed healthy workplace certification.

(3) Schools: In order to improve the acquisition of health literacy amongst children and adolescents, and to encourage the development of good dietary and exercise habits, the HPA has been promoting healthy BMI (including healthy exercise and diet) amongst health promoting schools in collaboration with the Ministry of Education. As of 2015, 3,885 schools below senior and vocational high school comprehensive developed the health promoting schools, and they went through a health promoting school international accreditation program which involved including healthy body weight in their accreditation standards.

(4) Hospitals: promoted green transportation; increased the exercise activities for employees and the public; built outdoors bicycle paths and provided free bicycle rental services; established bicycle parking lots in the hospitals, and conducted employee bicycle events.

Section 3 National nutrition

Status Quo

In accordance with the results of 2005-2008

"Nutrition and Health Survey in Taiwan", population's daily consumption status is far from the amount recommended by the daily food guide. Grains and starched vegetables consumption is less than 8 servings/day (recommended 6-16 servings/day), excluding middle-aged and elder-aged man. The main source of calories from sugar is more than 10% of total calories among young generation. As for protein foods including legume, fish, meat, and egg, adult males consumed 9 servings/day and adult females consumed 6-7 servings/day (recommended 3-8 servings/day). Men and women under age 30 consumed less than 3 servings/day of vegetables (recommended 3-5 servings/day), and average fruits consumption was less than 2 servings/day among adults (recommended 2-4 servings/day). The average consumption of low-fat milk among middle-aged people was 0.4 glasses/day (recommended 1.5-2 glasses/day), and whole fat milk is the main option for citizens. As for fats, nuts, and seeds, people consume an average of 6-7 servings/day; while males and females consume 0.3 and 0.2 servings/day of nuts and seeds respectively among all age group (recommended 1 serving/day). Daily food consumption among population should be improved to meet the national recommended amount.

Healthy diet is important to our health, as several research shows that unhealthy diet is one of the main factors of causing non-communicable diseases. Diet with too much delicate food may cause chronic diseases such as obesity, cardiovascular disease, diabetes, osteoporosis, and cancer. Establishing healthy diet literacy, developing healthy diet habits, encouraging a healthy and balanced diet, and controlling the prevalence of obesity has become worldwide trends and ones of main national nutritional policies HPA has promoted. It implements projects to promote fruits and vegetables consumption and reduce salt and saturated fat intake, as well as formulates regulations to limit food marketing to children, reduce saturated fats, and eliminate partially hydrogenated oils.

In order to improve nutrition status and nutrition literacy among population, and prevent chronic disease, HPA has conducted nutrition and health survey, formulated public health policies, disseminated nutrition literacy through multi-media, and advocated healthy diet.

Target Indicators

In 2015, The percentage of population consuming 5 servings/day of fruits and vegetables have reached 19.3%, and daily salt consumption lower than 9.8g among males and 7.8g among females over age 19.

Policy Implementation and Results

1. Formulating Public Health Policies

(1) HPA has regularly conducted the nutrition and health survey in Taiwan, and published the results. It monitors nutrition status and body weight trends by systematic and sustainable methods, and establishes evidence-based national nutritional policies.

Dragon Boat Festival "Glutinous Rice Dumplings, Choose Healthier Eating" Press Conference on June 5th 2015.

"Choose Healthier this Hotpot, Stay Healthier this Winter" Press Conference on November 6th 2015.

(2) HPA has derived the "Population Nutrition Act (Draft)". During June to September and November to December 2014, we conducted three counseling meetings and a consensus workshop respectively to examine the Act.In August 2015, we conducted consensus meetings of central government with nutrition professionals, civic group members and city and county representatives to discuss and revise the Act.

(3) Since 2014, HPA has monitored national iodine status through the Nutrition and Health Survey in Taiwan annually. According to the survey results, HPA cooperates with TFDA to formulate iodine-related policies, which includes a mandatory labeling of "iodine is a necessary nutrient" on each salt package and a rising iodized salt level from 12-20 ppm to 20-30 ppm.

(4) Trans-fat Free policies are undertaken in co-operation with HPA and TFDA. To protect people's health, partially hydrogenated oils (PHO) can not be used in food products since July 1st 2018.

2. Building a health supportive environment: constructing information supportive environment and establishing healthy food intake systems

Creating a supply system for healthy food: To make it easier to choose healthy food, HPA promotes clear, easy-to-understand nutrition labeling that include calorie and encourages restaurants to provide calorie content on menus. HPA also guided caterers and industries to develop healthy lunchboxes and healthy festivals food, such as reformulated healthy rice dumplings, moon cakes, and New Year dishes. At schools it checks that school lunches meet daily nutrition guidelines. Survey results show that 72% of high school/ vocational level and below promoted at least one vegetarian meal per week. HPA also drawn up health food purchasing guidelines to encourage public and private sectors to follow healthy principles. These guidelines might include purchasing healthy lunchboxes, choosing healthy options for group meals and gifts. HPA launched a model plan to promote healthy food and beverages to catering industries and restaurants that around campuses within 500 meters, and guided caterers to develop healthy meals that are low in oil, salt, sugar, and high in vegetables and fruits. In 2015, local health departments gave advice to 98 schools, community health-promoting units gave advice to 183 schools, and health-promoting hospitals gave advice to 108 schools.

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 has established an alert system that provides preventive care and health maintenance information to patients and other people along with valuable weight management services, and has presented healthy diet courses.

4. Reinforcing Community Action

In order to encourage people to increase their fruit and vegetable intake, we have advocated "Healthy Vegetable Day" every week in elementary and junior high schools. We promoted healthy lunchbox certification with "more vegetables, lower calories" , and guided government and public sectors to choose the healthy lunchbox. We held farmer's markets on weekend days to encourage people to buy local food and have healthy diet.

5. Developing the Personal Skills

In response to current events and festivals, we have disseminated the importance of healthy diet, for example, use iodized salt instead, through press releases, press conferences, and ad display.

Section 4 Obesity Prevention

Status Quo

According to the results of the "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 32.7% to 43.4%. The prevalence rates of obesity among males rose from 32.8% to 50.8%, and amongst females rose from 32.5% to 36.1%. According to the "Student Health Survey" conducted by the Ministry of Education, the prevalence rates of overweight and obesity was 28.7% in elementary school students (32.4% amongst boys and 24.7% amongst girls), and 29.2% in junior high students (33.3% among boys and 24.8% among girls) in 2015.

The WHO states that the relative risk of obese people for diabetes metabolic syndrome and blood lipid abnormalities are more than 3 times highly that for non-obesity, and the risk of twice for cancers (such as colorectal, breast and endometrial) and hypertension.

The primary cause of obesity is that caloric intake is more than caloric need, whilst other factors such as dietary habits, physical exercise, life habits, hereditary causes, and physiological or psychological reasons, may also lead to obesity. The prevalence of overweight and obesity is increased due to westernized foods and meals with higher calorie content, along with higher frequency of sedentary activities such as watching television and internet usage along with low physical activity, increased availability of sugary drinks and high-calorie junk food and foods without nutritional labels make it difficult to recognize whether they are healthy or not. In addition, some communities lack convenient mass transportation systems or convenient recreational sports facilities and this leads to an upswing in sedentary activities. Disadvantaged groups continue to have insufficient health education opportunities, and for economic reasons, they tend to buy low nutrition, high calorie foods. Unhealthy foods with free gifts cause people to consume more calories, fatty and sugary foods which are due to advertisements marketings.

To prevent obesity, HPA has launched a national healthy weight management campaign since 2011, which in 2015 was entitled "2015- Health and associating" It gathered together 600,000 people from Taiwan's 22 counties and cities which were committed to "smart eating, joyful moving, daily weighing", participants lost a total of 600 tons together". The purpose of the event was to raise public health and prevent chronic disease by promoting an active lifestyle and increasing 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 bureaus 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 Formulation of Public Health Policies

(1) To building healthy cities along with health promotion hospitals, workplaces, schools and communities, and to promote obesity prevention work.

(2) Implemented breastfeeding regulations in public places to improve breastfeeding rates and reduce childhood obesity.

(2) We revised the "Act Governing Food Safety and Sanitation Management", and including children are long diet inappropriately food ads and marketing into the standards which should be upheld. On November 20th 2014 we promulgated the "Advertisement and Promotion of Food Products Not Suitable for Long Term Consumption by Children". The Act states that all food supply and toy commercials to children are banned or severely restricted from 5:00 pm to 9:00 pm. Taking effect on January 1st 2016, it is intended that this will prevent obesity in children.

(4) We continued to undertake the "Nutrition And Health Survey in Taiwan" to monitor body weight trends of citizens, and to survey citizens' knowledge of healthy weight management. In 2015, this included the "2015 New Year Weight Control Telephone Interview Survey". Through understanding people's knowledge of healthy weight and awareness, it is hoped that

Table 3-1 Obesogenic Environment Examination

Obesogenic Environment Examination	Achievements
Strategy 1: Increase availability of healthier food and beverage choices in public service venues	●●●●●●●
Strategy 2: Improve availability of affordable healthier food	●●
Strategy 3: Limit supply of unhealthy food in public service areas	●●
Strategy 4: Are there "all-you-can-eat" restaurants in the public service venues?	●
Strategy 5: Limit advertisements of less healthy foods and beverages	●
Strategy 6: Decrease consumption of sugar-sweetened beverages	●
Strategy 7: Increase accessibility to healthier food	●
Strategy 8: Encourage production, distribution and sales of local produce	●●●
Strategy 9: Encourage breast-feeding	●●
Strategy 10: Require physical education in schools	●●
Strategy 11: Increases opportunities for extracurricular physical activity	●
Strategy 12: Limit screen time to no more than two hours per day in licensed child care facilities	●
Strategy 13: Support locating schools within easy walking distance of residential areas	●●
Strategy 14: Increase infrastructure supporting walking	●
Strategy 15: Improve accessibility to outdoor recreational facilities	●●●●●●●
Strategy 16: Improve access to public transportation	●
Strategy 17: Strengthen personal safety in public areas	●●
Strategy 18: Enhance traffic safety in areas where people walk or ride bicycles	●●
Strategy 19: Strategy to encourage communities to organize for change	●

Remark: 19 strategies contains 40 sub-items. 15 strategies have been improved and four strategies have been maintained. ● improved ● maintained

this will help in ensuring we can promote obesity prevention policies in the most suitable way.

2. Building a Health Supportive Environment: inspects and improves obesogenic environments, construct information supportive environments, and establish healthy food intake systems and diverse exercising environments.

(1) Building a Health Supportive Environment: the 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 2015, the website received over 600,000 hits, and 7,901 calls were made to the hotline. Moreover, further steps were taken to provide care for individuals in 592 cases.

(2) Preventing obesity by recognizing and improving environmental factors: the HPA compiled "Strategies to Prevent Obesity in Taiwan: a Community Implementation and Measurement Guide". Local health bureaus in Taiwan's 22 cities and counties, together with community leaders and volunteers, can make use of the guide to determine and improve environmental factors contributing to obesity in the nation's 368 districts, county-level cities and townships. 15 of the 19 strategies (a total of 40 sub-items) have been amended, and the other four strategies (supporting locating schools within easy walking distance of residential areas, improving access to public transportation, strengthening personal safety in public areas, and enhancing traffic safety in areas where people walk or ride bicycles) were to be generally maintained but also improved in certain areas (see Table 3-1). At the end of 2015, the HPA held the "2014 Building Healthy Communities Lifestyle Achievements Conference". One gold, one silver, one bronze, and three creativity awards were awarded to local health bureaus by the HPA. The conference also offered an excellent opportunity for groups to share their experiences of improving the obesogenic environment.

(3) Constructing healthy dietary supply systems, providing more vegetables, and less calorific foods.

(4) Forming an environment conducive to an active lifestyle: the government aims to build a living environment suitable for exercise any time of the day by anyone, anywhere. It works to build safe, comfortable pedestrian walkways, bicycle paths, walking paths, and hiking trails. Along these routes signs are installed that inform people how many calories they have burned. This encourages people to take part in physical activity within the environment around them, and the diversity of routes means there are options suitable to people of all genders and ages. Meanwhile, the HPA encourages workplaces to plan exercise time before and after work, and it promotes forming exercise groups.

3. Re-orienting Health Services

The government encourages medical centers to transform their orientation from traditional forms of diagnosis and treatment toward health promotion and preventive medicine. It has established a diverse range of weight-loss classes, courses on exercise and healthy eating, as well as family weight-loss activities for the winter and summer vacations. It has also promoted baby friendly hospitals initiative and breastfeeding; and provided related healthy body weight information.

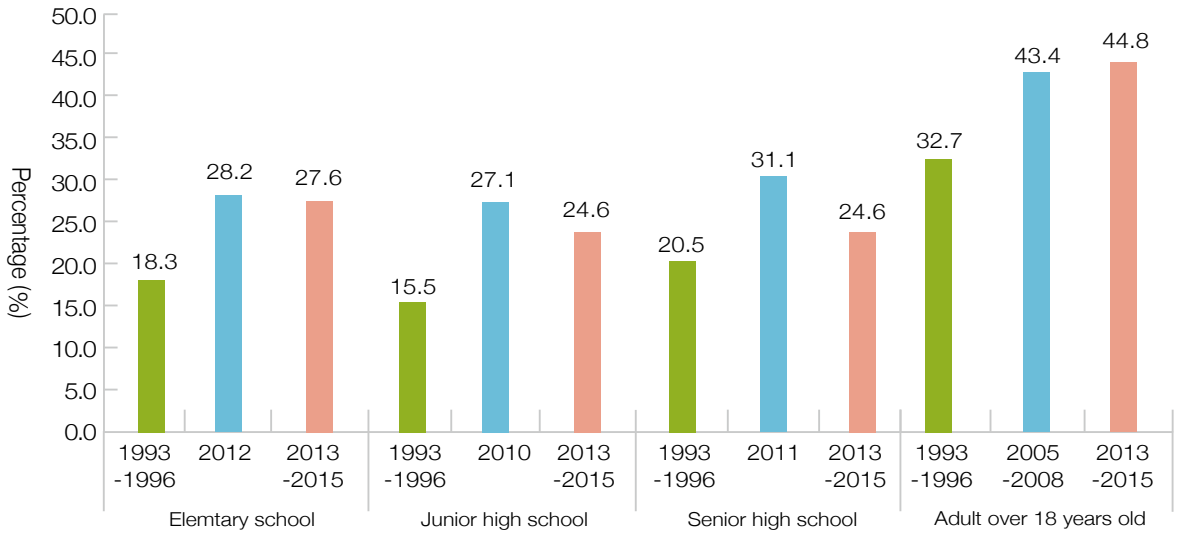
4. Reinforcing Community Action

To strengthen the healthy weight promotions, the 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 2015, 10 mayors or magistrates of the 22 cities and counties in Taiwan led press conferences and pledges to join the battle against obesity. HPA held the "2015 Building Healthy Communities Achievements Conference". At the conference, 253 awards were given to healthy localities, excellent individual units and volunteers for helping residents lose weight, and they had a chance to present achievements in healthy weight management.

5. Developing personal skills

The HPA released the "Move for a Healthy Lifestyle" handbook, the promotional banners of "Healthy Weight Management Campaign", and pedometers. We collected experiences on weight loss information to publish the "Fit Life Exercise" healthy weight loss handbooks. We completed the revision of the "Move for a Healthy Lifestyle" handbook, and printed 130,000 copies for county and city health offices to distribute to for the purpose of learning how establish healthy lifestyles and create healthy and supportive environments. During holiday seasons, we disseminated the importance

Figure 3-8 Prevalence of overweight and obesity in Taiwan



Note:

1. Data Source: Nutrition and Health Survey in Taiwan
2. Elementary, junior high and senior high school students' weight status is defined by "Definition of obesity in children and adolescents" issued by Ministry of Health and Welfare in 2013.
3. The adult's overweight and obese: BMI ≥ 24 kg/m²
4. The chart consists of people aged over 18 with non-standardized adult body weight percentage. From 2005-2008, information on adults aged 18 is lacking, therefore we used age 19 adult information for comparison.

of healthy diet through press releases, press conferences, and promotional cards. We also established a healthy weight management consultation hotline service, an online consultation service, Line calorie calculation services, and an obesity prevention network. Through these services, we disseminate topics on nutrition, exercise, and healthy body weight, and increase public knowledge on health and nutrition. We also conducted trainings to staff at local health bureaus to assist them in planning and implementing healthy weight management programs.

6. Weight Loss Results

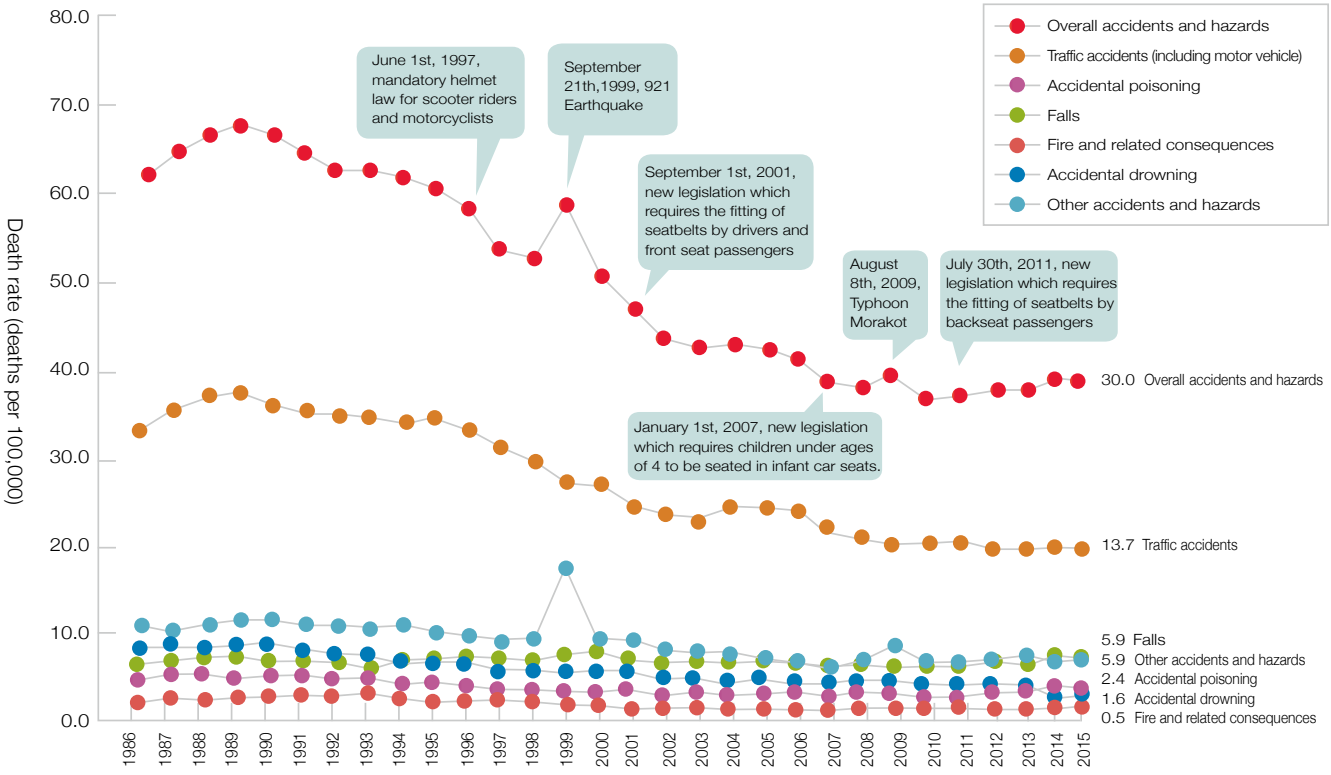
In 2015, a total of 716,779 people participated in the "2015: 2015- Health and associating" healthy weight management plan. A total of 1,193,390.8 kilograms were lost. Each participant lost an average of 1.66 kilograms. From 2011-2015, 3,610,000 attendances participated in this plan and more than 50,000 participants decreased their BMI from overweight and obese range (those with a BMI≧24 kg/m^2) to normal range through the method of "smart eating, joyful moving, daily weighing". According to the results of the"Nutrition And Health Survey in Taiwan", the prevalence of overweight and obesity among adults increased from 32.7% in 1993-1996 to 43.4% in 2005-2008, and then decreased to 44.8% initially in 2013-2015. The prevalence of overweight and obese students in elementary school has decreased from 28.2% in 2012 to 27.6% in 2013-2015. The prevalence of overweight and obese students in junior high school has increased from 27.1% in 2010 to 24.3% in 2013-2015. The prevalence of overweight and obese students in high school has decreased from 31.1% in 2011 to 24.8% in 2013-2015. It has shown that the growth in the prevalence of overweight and obesity has been slowing down in Taiwanese adults, elementary school children, and high school students (Figure 3-8).

Section 5 Accident and Injury Prevention

Status Quo

The accident-related mortality rate in Taiwan has been declining since 1989, and long-term trends also has been toward declining. The only outlying exceptions to this are in 1999 (58.9 per 100,000) due to The 921 Earthquake, and in 2009 (31.9 per 100,000) due to typhoon Morakot. In 2015, the accident-related mortality rate dropped to 30 per 100,000 (Figure 3-10), which was the sixth leading cause of death in Taiwan. However, since the endorsement of the mandatory

Figure 3-9 The Main Causes of Accidental Death and Rates in Taiwan,1986-2015



Source: 2015 Statistics on the causes of death as published by the Ministry of Health and Welfare

helmet laws for scooter riders and motorcyclists in 1997, traffic-related deaths have steadily decline annually from 33.4 per 100,000 people in 1996 to 13.7 per 100,000 people in 2015.

From 1987 to 2015, the leading causes of accidental death were traffic accidents, accidental falls, others, accidental poisoning, drowning, and fire related accidents (Figure 3-10). Data in 2015 showed that accidental death was the fourth greatest cause of deaths amongst infants under one-year-old, and remained as the leading cause of death amongst those aged 1-5 and 12-17, and the second greatest cause of death for 6-11 (Table 3-2). The leading causes of accidental deaths for all age groups in 2015: under one year age for other causes, 1-4 year age for traffic accidents, 5-9 year age for drowning and traffic accidents of the age of 10-14, 15-19 and 65 above. (Table 3-3).

In 2015, accidental deaths ranked as one of the leading causes of death in those over 65 years old,

Table 3-2 Five Major Causes of Death in 0-17 years old Children and Adolescents in 2015

Order of importance	Age 0	Age 1-5	Age 6-11	Age 12-17
1st	Congenital abnormality, malformation; chromosomal abnormality	Accidental injury	Malignant tumors	Accidental injury
2nd	Special conditions in perinatal period	Malignant tumors	Accidental injury	Malignant tumors
3rd	Disorders relating to length of gestation and fetal growth	Congenital abnormality, malformation; chromosomal abnormality	Cardiovascular disease (not including diseases related to high-blood pressure)	Intentional self-inflicted injuries (suicide)
4th	Accidental injury	Mischievous (Homicide)	Congenital abnormality, malformation; chromosomal abnormality	Cardiovascular disease (not including diseases related to high-blood pressure)
5th	Infections specific to the perinatal period	Pneumonia	Murder (Homicide)	Congenital abnormality, malformation; chromosomal abnormality

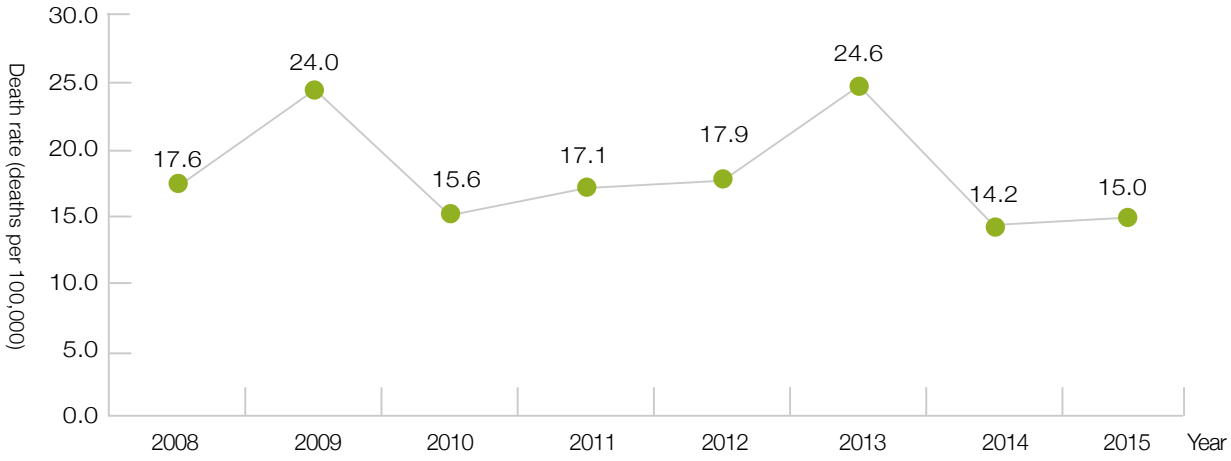
Sources: 2015 Statistics on the causes of death as published by the Ministry of Health and Welfare

Table 3-3 Three Major Causes of Accidental Death in Children, Adolescents, and Elderly in 2015

Order of importance	Age 0	Age 1-4	Age 5-9	Age 10-14	Age 15-19	Over Age 65
1st	Others	Traffic accidents	Accidental drowing	Traffic accidents	Traffic accidents	Traffic accidents
2nd	Traffic accidents	Others	Traffic accidents	Accidental drowing	Others	Others
3rd	Accidental falls	· Accidental drowing · Caused by fire-related burns · Accidental falls (all three)	Others	Caused by fire-related burns	Accidental drowing	Accidental falls

Sources: 2015 Statistics on the causes of death as published by the Ministry of Health and Welfare

Figure 3-10 SIDS Death Rate in Taiwan, 2008-2015



Sources: 2015 Statistics on the causes of death as published by the Ministry of Health and Welfare

accounting for 2,984 deaths (103.8 per 100,000). Accidental falls ranked as third leading subcause of death due to accidents and adverse effects for the elderly, next only to traffic accidents and others (Table 3-3). Falling can affect the physical, psychological, and social functions of the elderly, and undermine their quality of life, as well as increase the burden for caregivers. According to the results of the National Health Interview Survey in 2013, 16.5% of seniors over the age 65 had fallen in the previous year. 8% of them fell and received treatment. The top locations for falling incidences in the elderly are: bathrooms/toilets, living rooms, bedrooms; along with streets/roads, vegetable gardens/farmland, park or sports fields.

Sudden Infant Death Syndrome (SIDS) is a leading cause of death amongst infants. According to 2008-2014 statistics on the causes of death as published by the Ministry of Health and Welfare, it ranks as the fourth to sixth leading cause of death amongst infants each year. The SIDS rate in 2015 was 15.0 per 100,000 (Figure 3-10).

Target Indicators

In 2015, over 20,344 disadvantaged households with children six years older and under participated in the Home Safety Assessment program.

Policy Implementation and Results

1. Laws and Policies

(1) Incorporation of injury prevention and safety promotion into the "Healthy People 2020 White Paper": injury prevention and safety promotion were incorporated into the "Healthy People 2020 White Paper" as new topics. The main goals of the additions were preventing 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 accidental injury and mortality rates.

(2) Alignment with cross-ministerial policies: the HPA aligns with other governmental departments to promote children's safety at home. The HPA worked with the Ministry of the Interior to enact the Protection of Children and Youths Welfare and Rights Act along with its Children and Adolescent Safety Implementation Program. Together, officials were able to improve children's education and care, and enhance their safety and health.

2. Building a Safe Household Environment for Children

(1) Building a safe household environment for children: the HPA established household safety environmental inspection charts, and included the "Children's Health Booklet" within materials. Parents and caregivers were invited to investigate and improve areas deemed unsafe within their households. In addition, staff from local health bureaus and centers assisted with the investigation of homes of disadvantaged families with

children of six years old and under. A total of 20,334 such homes were investigated and provided with basic improvement suggestions in 2015.

(2) Incorporation of health education into children's preventive services: in order to elevate the levels of knowledge about accidental injury prevention amongst parents and caregivers, the HPA provides experts offering age-specific tips for preventing accidental injury during the seven preventive care sessions for children seven years old and under. The "Children's Health Booklet" also include assessment forms providing information about accidental injuries amongst 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, the 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 seven years of age, including information on SIDS and accident prevention.

(3) Analysis of surveillance data: we implemented the "Injury surveillance and analyses application project" in which the current national injury related database were used and analyzed. Through the analysis, we enhanced our understanding of the current status and long-term trend of injuries across the nation, and provided basis for strategic planning and assessment of intervention outcome.

3. Fall prevention for elderly citizens within the community

(1) The HPA has compiled a "Fall Prevention Recipe for the Elderly" handbook, which reinforces health education on fall prevention. The contents include: reasons for falling, methods of fall prevention, exercises to prevent falls, household safety examples, safe exercises for the elderly, a household safety evaluation chart, responses to falls, and implementation of fall prevention measures.

(2) The HPA integrates healthy cities, safe communities, community health promotion programs and care service points, to promote the health of elderly people in the community according to the specific needs of the elderly. Focuses of these projects include: healthy diets, exercise, falls, medication safety, prevention of chronic diseases, health check-ups, and blood pressure measurements. In 2015, 1,921 of our community care centers participated. In places where seniors appear more often, we promoted fall prevention exercises, along with exercises which would help reinforce muscle strength, gait and balance. In addition, we also promoted fall prevention work amongst elderly through multiple approaches like community and household environment evaluation.

4. Preventing Sudden Infant Death Syndrome (SIDS)

(1) Through the statistical data on the causes of death published by the Ministry of Health and Welfare, we 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, we refer to the relative improvement measures in SIDS prevention from American Pediatric Association. We also added an entire section on "Newborn Care Tips: Creating a Safe Sleeping Environment" in the health education instruction section of children health manuals. "Secrets to SIDS Prevention" was also added to the manual.

(3) Training on the prevention of sudden infant death syndromes was listed as one of the priority health education items included in the two check-ups carried out on newborns; one of which is done at the ages of 0-2 month, and the other at 2-4 months. From 2012 to 2015, the HPA collaborated with local health departments, pediatrics and the Taiwan Association of Family Medicine to organize 24 training sessions on "Educational Training for Physicians on Child Development and Health Screening Service". The courses included content from physician's service manuals, and a total of 3,804 people have participated in the training sessions.

(4) In order to prevent Shaken baby syndrome (SBS), we added health guidance for shaken baby syndrome. We ensure that caregivers understand the risks of shaking babies, and learn better techniques for consoling crying babies, avoiding attempting to stop babies crying by shaking them violently. In order to prevent occurrences of Sudden Infant Death Syndrome (SIDS), SBS health guidance was added to the health manual to assist caregivers in understanding the risk of shaking babies, to convey techniques which could be used to console crying babies, and to avoid fierce shaking of babies.

Part 4

Healthy Environment

Healthy Environment

In 1986, the World Health Organization (WHO) introduced five priority actions for health promotion by way of the Ottawa Charter: building healthy public policies, creating supportive environments, strengthening community actions, developing personal skills, and reorienting health services. These five actions are applicable to health promotion in various settings, including "healthy cities" which seek to integrate healthy values and principles into city planning, and work to improve health problems within cities. Through cross-department and interdisciplinary cooperation, we have worked to establish healthy public policies so as to encourage cities and community residents to actively participate in health promotion work.

"Healthy community" combines private resources and the existing healthcare system to establish a diversified core network, emphasizing community participation and the building of partnership relationships. Above all it aims through community cooperation to solve problems in the community and realize the concept of healthy living.

"Health promoting school" is a concept driven by the formulation of a school health policy. It is key that consensus between teachers, students and parents is built up and that there is joint community participation in provision of health services. This concept merges health promotion into campus learning and life, and also builds a healthy learning school environment which increases the overall health of students.

"Health promoting workplace" is an idea which combines the joint effort of employers, employees and society to promote the health and welfare of workers in the workplace. It emphasizes improving workplace organization and the work environment, and encourages employees to adopt healthy lifestyles to promote development of their individual skills and professionalism.

"Health promoting hospital" is a medical or heath service organization that aims to improve the health gain for its key stakeholders of patients, employees and

community residents. This is achieved by developing structures, cultures, decisions and processes. The organization is re-orientated so that it might achieve the objective of improving health through medical care process.

Section 1 Healthy Cities

Status Quo

In 1986, 21 European cities conducted a meeting in Lisbon, and collectively decided to develop city health and promote healthy city plans. In 1997, the WHO introduced 20 steps for developing healthy city plan to assist countries promoting healthy cities. Through, cross-departmental actions, and community participation, healthy public policies were established. These policies could adapt to the demands of urbanized society and its associated problems of hygiene and ecology, which could in turn 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, former President Ma Ying-

Jeou announced 2002 as Taipei's "First Year of the Healthy City". Drawing on the WHO's five priority action areas, he promoted an initiative to "Lose 100 Tons of Weight Between Us, Make Taipei a City of Health For All" initiative. In 2003, HPA began a project to develop Tainan City into a healthy city. Professional teams were called in to work with the local government in promoting cross-departmental, 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. Based on the successful experience of Tainan City, this has prompted participation from other city and county governments. 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 in the establishment of national indicators for healthy cities, as well as the creation of a platform to share information. Through the professional teams, HPA continue to assist the county and city governments in their healthier cities plans and encourage them to share their experience. HPA also assisted counties to make contacts with international professionals by sharing experience and insights.

Target Indicators

More than 90% of Taiwanese counties and cities participating in the promotion of healthy cities by the end of 2015.

Policy Implementation and Results

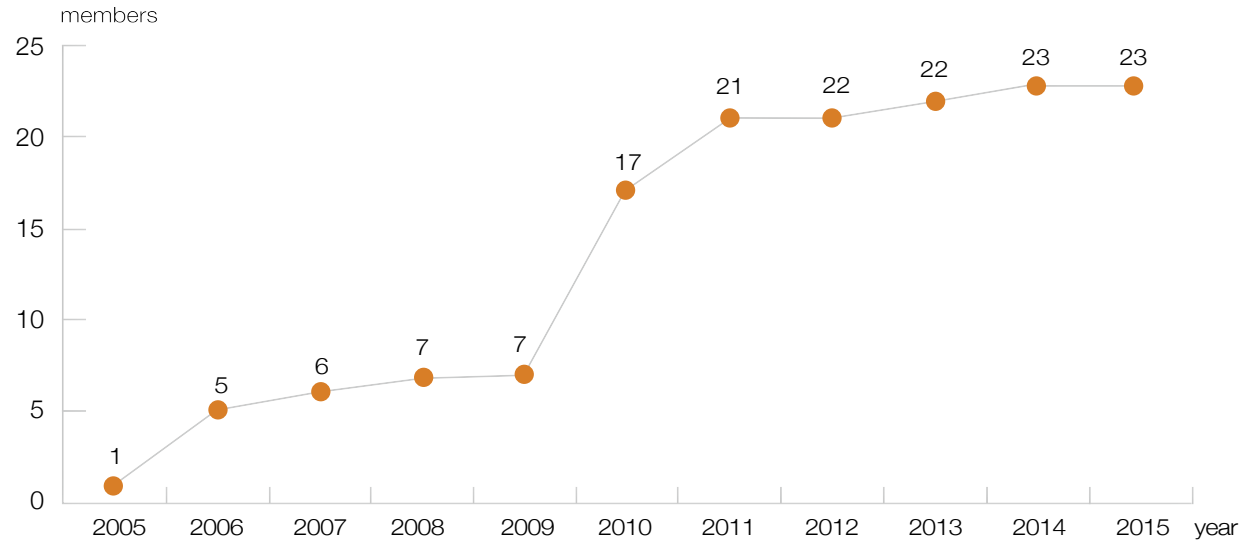
1. Promoting Healthy Cities Nationwide

Established professional teams to assist 21 cities and counties in 2015 to promote Healthy Cities Initiative. In addition, 12 cities and counties (Tainan City, Hualien County, Miaoli County, Chiayi City, Kaohsiung City, Taitung County, Nantou County, Hsinchu City, New Taipei City, Taoyuan County, Hsinchu County and Kinmen County) and 11 regions (Taipei City - Daan, Shilin, Beitou, Zhongshan, Songshan and Wanhua Districts), New Taipei City (Danshui, Shuangxi, Pingxi and Pinglin Districts) and Pingtung County (Pingtung City) became associate members of the Alliance for Healthy Cities (AFHC), set up by the World Health Organization Regional Office in the Western Pacific Region.

Table 4-1 List of AFHC Awards Won by Taiwan 2008-2014(2 in 2008,2 in 2010, 4 in 2012 , 7 in 2014 , a total of 15 awards)

年度	Award	Recipient unit
2008	Award for Innovation in Monitoring and Evaluation of Healthy Cities	Tainan Healthy City Association
	Award for Innovation in Public and Private Partnership for Healthy Cities	Daan Health Promotion Association
2010	Award for Creative Developments in Healthy Cities – Partnership Development	Beitou Health Promotion Association
	Award for Creative Developments in Healthy Cities – Partnership Development	Miaoli Healthy City Association
2012	Award for Creative Developments in Healthy Cities –Evaluation	Pingtung Healthy City Association
	Award for Creative Developments in Healthy Cities – Healthy Settings and Non-communicable Disease Control	Miaoli Healthy City Association
	Award for Creative Developments in Healthy Cities – Healthy Settings and Non-communicable Disease Control	Tainan Healthy City Association
	Award for Creative Developments in Healthy Cities – Health Equity	Hsinchu City Healthy City Promotion Association
2014	Award for Creative Developments in Healthy Cities – Evaluation	Taoyuan Healthy Promotion Association
	Award for Creative Developments in Healthy Cities – Healthy Settings and Non-communicable Diseases Control	Taoyuan Healthy Promotion Association
	Award for Creative Developments in Healthy Cities – Health Equality	Taoyuan Healthy Promotion Association
	Award for Creative Developments in Healthy Cities – Disaster Preparedness, Response or Recovery	Taoyuan Healthy Promotion Association
	Award for Creative Developments in Healthy Cities – Disaster Preparedness, Response or Recovery	Hsinchu City Healthy City Promotion Association
	Award for Creative Developments in Healthy Cities – Health Equity	Tainan Healthy CityAssociation
	Award for Creative Developments in Healthy Cities – Good Health Systems	Kaohsiung Healthy Harbor City Association

Figure 4-1 Number of Domestic Members of the Alliance for healthy cities in WHO Western Pacific Region 2005-2015



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

Section 2 Healthy Communities

Health Promoting Communities

Status Quo

Public health professionals within Taiwan have long since been aware that the natural conditions of communities, government policies, and other artificial factors can affect people's health. As an upshot, the community health promotion committee was established, and volunteers were recruited by each local public health center, and community leaders discussed and promoted the health issues that their localities required. In 1996, the Health Bureau of Yilan County employed a style of community-led construction that led to the unveiling of a three year long community health building program, initially intended as a community empowerment project. In 1999, the 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 centers have been established nationwide. Drawing on the five action areas for health promotion identified in the WHO's Ottawa Charter, these centers are given the task of integrating community resources and bringing together the public and private sectors to foster greater awareness of health issues and a willingness to cultivate healthy behaviors in life. The ultimate objective is to confront and resolve whatever threats to community health might exist so that a healthy community is no longer a mere vision but a possible reality.

In 2002, HPA began to assist all entities set up under the Community Health Building Program to promote the healthy living initiative, so that community health might 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" campaign. The overall objective is promotion of 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. From 2011 onwards, we have sought on a yearly basis to integrate important top-down health promotion policies with unique local bottom-up health topics.

Target Indicators

By the end of 2015, Taiwan's national community health building plans covered over 40% of Taiwan's 368 townships, cities, and districts.

Table 4-2 Health Topics Promoted by the Community Health Building Program

Year	Designated Topic	Optional Topic
1999-2001	HPA promoted six health topics including: healthy diet, healthy fitness, tobacco hazard prevention and control, betel quid prevention, personal hygiene, and medication safety. HPA also encouraged citizens to receive regular preventive healthcare services.	
2002-2005	HPA allowed communities to determine their own health topics based on their own health needs.	
2006-2007	HPA promoted designated topics, such as health fitness, healthy diet, and community smoking prevention.	In addition, it was possible to propose health topics according to the characteristics of communities and lifestyles in which they were being promoted.
2008-2009	HPA promoted topics relating to healthy food, healthy body weight, screening for breast cancer and cervical cancer, smoke-free communities, betel quid free communities, senior citizens' health, safe communities, and other such health issues.	
2010	HPA promoted topics related to healthy food, healthy body weight, screening for the "4 major" cancers, smoke-free communities, betel quid free communities, safe communities, health promotion communities for elderly and other such health topics.	
2011	HPA designated "advocacy for the 4 major cancers screening" and "health promotion for elderly" as core campaigns, with promoting "Healthy 100, moving in Taiwan" weight management, healthy diet.	"Control of betel quid (including anti-smoking)", "smoking prevention among the adolescents", "safety promotion" and were set as opt-in campaigns.
2012	HPA designated "smoking, alcohol and betel quid control", "health promotion for elderly", "obesity prevention (diet and exercise)" and "improvement of leisure environments" as core campaigns.	"Safety promotion" and "local health characteristics" were selected as optional campaigns.
2013	HPA designated "smoking, alcohol and betel quid control", "active aging", "obesity prevention (diet and exercise)" and "improvement of obesogenic environments as core campaigns"	"Safety promotion" and "local health characteristics" were selected as optional campaigns.
2014	HPA designated "smoking, alcohol and betel quid control", "active aging", "obesity prevention (diet and exercise)", "salt reduction", and "creating leisure environments" as core campaigns;	"Health promotion", "children's visual and oral health", and "local health characteristics" were selected as optional campaign topics.
2015	Tobacco and betel quid prevention, active aging, obesity prevention, salt reduction, and creation of a down-to-earth exercise community were designated as mandatory topics.	"Health promotion", "children's visual health", and "local health characteristics" were selected as optional campaign topics.

Remark: Customized topics

Policy Implementation and Results

1. In 2015, through the use of community as a platform, HPA subsidized 19 counties and cities, and 151 community units, as they sought to promote a community healthy cities plan in 153 townships and city districts. The five main topics were: tobacco, alcohol, and betel quid control; obesity prevention; active aging; salt reduction; and creating leisure environments:

(1) 4,965 volunteers were presented with volunteer manuals and invited to participate in community health building volunteer work.

(2) Total calculated weight loss of 576,398 kilograms was achieved within 2015 as we seek to create a healthy city for all. A model plan to promote healthy food and beverages to catering industries and restaurants that around campuses within 500 meters was implemented to 183 schools; 590 healthy purchase advocacy events were also given a platform.

(3) We conducted 1,698 salt reduction events, provided guidance to 1,429 on the provision of low-salt meals

(4) 3,885 health promotion events for the elderly were organized, with a total of 162,661 participants, 227 health promotion competitions for the elderly were also held, with a total of 26,854 elderly contestants competing.

(5) 199 walking groups were established and 306 healthy walking trails were set-up, with calorie labeling information signs featuring along the side of the trail.

(6) "No smoking in my house" was used as the main theme for health education advocacy, and we promoted 1,874 pledge sessions for "tobacco-free families." We conducted 2,881 betel quid health hazard prevention health education events focusing on people who often chew betel quid, and provided oral mucus screening services for 86,039 people. 4,931 people participated in tobacco cessation services, and we created 681 betel quid free public spaces.

2. On December 22nd and 23rd 2015, a conference was held on the topic of "building healthy community lifestyles and empowering community health". This was held to commemorate county and city health departments which had succeeded in encouraging healthy weight loss, with a total of 253 units receiving recognition in this field. Results from health building initiatives across regional communities, the methods used to achieve weight loss promotion, and experience and innovation from across all fields were also shared in the conference.

3. From 1999 to the end of 2015, of the 576 health building units subsidized, 455 are still dedicated to the promotion of health related issues.

Safe Communities

Status Quo

The concept of safe communities originated from three communities within Sweden in 1970 where accidental injury occurred frequently. Three years after a plan for injury prevention had been implemented, accident injuries had dropped by 27%. In 1989, the World Health Organization established the WHO Collaboration Centre on Community Safety Promotion (WHO CCCSP) at the Karolinska Institute in Stockholm, Sweden. This center emphasized the integration of community resources in achieving stated aims. Main aims were promoting of hazard prevention and control, planning to lower the occurrence of community accidents and hazards derived from evidence-based research, and assisting communities around the world promote injury prevention plans, as well as providing 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 have been certified as safe communities.

In 2002, Taiwan has promoted various safety promotion projects that suit community needs in accordance with the safe community criteria laid down by the WHO. In 2005, the Neihu District of Taipei City, Tungshih Township in Taichung County, Alishan Township in Chiayi County and Fengbin Township in Hualien County received international safe community certification. By the end of 2015, a total of 20 units had secured the WHO CCCSP Certification. In 2015, the contract between WHO and Karolinska Institute in Stockholm, Sweden expired. WHO CCCSP has terminated its operation. HPA is still providing guidance to all communities to promote community safety work.

Target Indicators

Counsel on promote safety topics, create safe community environments, and reduce the occurrence of accidents involving residents.

Policy Implementations and Results

1. Promoting health and safety within communities on the basis of evidence-based research.

(1) Draw on international health and safety promotion strategies and implement these within the community, and set up an organization and framework responsible for promotion of the program. In addition, community needs will be taken into account at the same time as we promote injury prevention and safety promotion in a variety of ways.

(2) Development of co-operation and integration with other health promotion plans. Health promoting schools could be leveraged to lead on promotion of campus safety and 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 by leveraging policy support from the government and cross-agency departments. Making use of interdisciplinary cooperation to effectively promote safe communities.

(5) Establish a professional team to assist communities promote the safe communities program.

2. Meetings conducted in 2015 where community policy outcomes and education are shared

(1) Conduct meetings where expert guidance is sought in the development of "Community Safety Promotion Manuals." Through the assistance of expert teams, we have guided 30 communities in their efforts to promote "Safety Promotion Topics" (seniors' and children's household safety, water safety, transportation safety, and campus safety). This will help to serve as a reference guide in promoting safety promotion topics in communities.

(2) In 2015, we conducted hazard prevention education training and safety promotion seminars.

In order to prevent accident hazards to children and adolescents, we conducted four accident hazard prevention educational training sessions in northern and southern Taiwan. 231 people participated in the session. Through the knowledge and experience sharing of experts in the fields of accident hazard prevention, child safety in the household, and child safety environment evaluation, we hope to increase the knowledge of child safety promotion in health departments, schools, kindergartens, and community staff as we seek to create a child-safe residential environment.

(3) Conduct County and City Household Environment Evaluation Analysis:

In order to understand the efficacy of household environmental safety and unsafe areas for improvement in households of: families with indigenous children of the age of 6 and under, new immigrants and low-income families, single parent families or families with disabled, premature infants, low birth weight infants, or mentally disabled children across 22 counties and cities, a total of 17,848 household safety evaluation forms were analyzed. The results from the first inspection showed an average of 11.7% of households not meeting ideal criteria, with 45.8% of households on average improving before any follow-up re-inspection.

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, both the Department of Health and Ministry of Education have been involved in cooperating with the WHO to set six major components of health promoting schools: school health policies, school physical environments, school social environments, 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, the HPA created a system for international certification of the nation's health promoting schools. Further, we invited international experts and scholars to come and carry out certification, to assess and display the achievements of our health promoting schools.

Target Indicators

In 2015, schools participated in health promotion school international certification, and conducted international health promotion school seminars.

Policy Implementation and Results

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

In April 2002, the Director of the Department of Health, Ming-liang Lee, and Minister of Education, Jong-Tsun Huang, 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 seed teachers completed training. From 2005-2007, education resource development centers, counseling support networks, and training centers were established, as was the "Taiwan Health-Promoting Schools" website, "Taiwan Health Promoting Schools Counseling Network" website, along with public relations, monitoring, and evaluation support systems. Furthermore, 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 comprised the central and local counseling groups, providing local governments and every level of school with consistent assistance and service. 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 key health topic areas of: fitness, oral health, vision care, healthy BMI, tobacco hazards prevention, and betel quid hazard control. Furthermore, 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 unveiled the "Health Promoting Schools' Counseling and Network Maintenance Plan" to build upon the models developed in the past. To facilitate sustainability in health promoting schools in Taiwan, they developed an empirical guide for second-generation schools and organized 93 experts and academics under the "Health Promoting School Center" umbrella, a single resource center offering consulting and counseling. As of December 2015, a total of 3,885 senior high schools had been involved in the plan, and another 159 colleges and universities had participated.

In accordance with the WHO's "Health Promoting Schools Development Plan: A Framework for Action," the HPA laid out health promoting school certification standards in 2012 and then carried out international certification of health promoting schools for the first time following on from this. In 2015, we used the 2012 and 2014 certification results to streamline the assessment project and review the expert validity examinations once again. In consideration of 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:

(1) Standard 1, School Health Policy (2 sub-standards, 6 checkpoints)

(2) Standard 2, Physical Environment of Schools (5 sub-standards, 9 checkpoints)

(3) Standard 3, Social Environment of Schools (Health Culture) (4 sub-standards, 7 checkpoints)

(4) Standard 4, Healthy Lifestyle Skills: Teaching and Action (3 sub-standards, 8 checkpoints in elementary school version,9 checkpoints in junior and senior high school version)

(5) Standard 5, Community Relations (3 sub-standards, 6 checkpoints)

(6) Standard 6, Health Services (4 sub-standards, 11 checkpoints in elementary school version, 10 checkpoints in junior and senior high school version)

2. Health Promoting Schools Strategies and Topics:

In accordance with WHO, the health promoting school policies focused on six major areas of health promoting school policies: School health policies, school material environments, school social environments, social relationships, personal health techniques, and health services. These policies were wholly implemented in schools in order to construct a healthy and happy learning environment. The key topics that were promoted in 2015 included: Sex education (including AIDS prevention), healthy body weight, tobacco hazard prevention and control, oral healthcare, vision healthcare, and national health insurance.

3. Health Promoting Schools Outcomes:

(1) We held the "2015 International Health Promotion Conference." We invited 14 international and domestic experts from the United States, Canada, France, and Thailand to take part. We shared our experiences on health promotion initiatives and core ability evaluations as we created an international exchange platform. We sought to absorb best practice from abroad where possible, and actively promoted health promotion work. All experts had positive feedback regarding HPA's achievements in health promotion.

(2) We conducted the "Asia Health Promotion School Core Index Forum." In the meeting, we invited three international experts: Honorary Professor Lawrence St. Leger from Deakin University in Australia, Professor Lee Da Ba from The Chinese University of Hong Kong, and Professor Noy S. Kay from University of Indiana in the United States; four domestic experts, along with K-12 Education Administration, Ministry of Education representatives to discuss the development of health promotion school core certification indices in Hong Kong, Taiwan, and Thailand. We further conducted international comparisons. It is our hope that in the future "Asia Health Promotion School Core Index" will be a global core value index as we seek to be a part of global and Asian networks.

Section 4 Health Promoting Workplaces

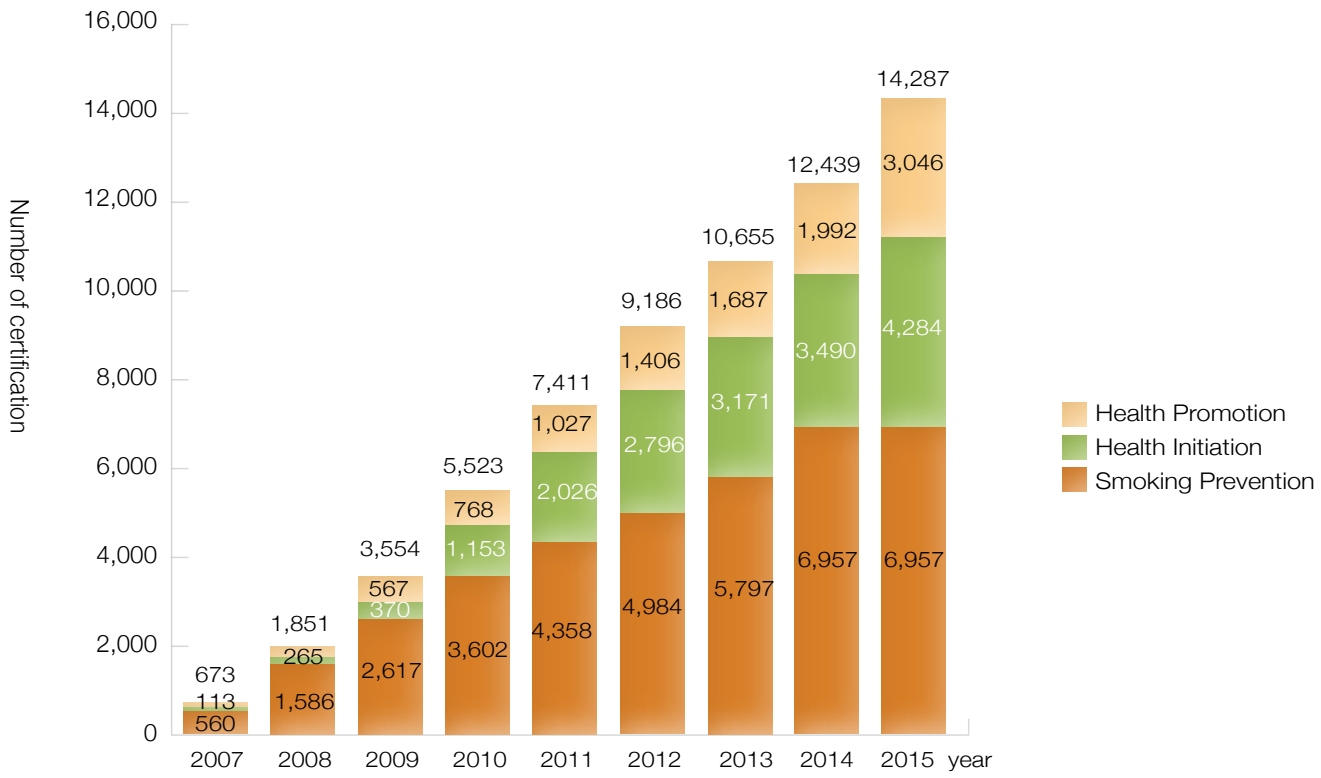
Status Quo

After the introduction of five priority action areas in its Ottawa Charter of 1986, the World Health Organization (WHO) unveiled a new initiative- the 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 development. To create a healthy workplace, therefore, means not only to decrease the incidence of occupational diseases but also to proactively promote the health of the working population.

In 1996, The Department of Health (now as Ministry of Health and Welfare) and Council of Labor Affairs (now as Ministry of Labor) 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, education and training. To further enhance workplace health, they helped every county and city set up at least one healthy factory.

In 2003, HPA was launched a program on tobacco hazards prevention at the workplace. Commissioned by the 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

Figure 4-2 Workplaces that Have Passed Healthy Workplace Certification, 2007-2015



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 the 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 smoke-free working environment and enabling businesses to perform autonomous management on this front. In 2012, the HPA included health promotion certified workplaces into the evaluation indices of "subsidizing local health bureaus for health promotion". It is hoped that this will encourage the bureaus of health to work with workplaces to advocate employee health promotion, and create a friendly and healthy work environment.

Target Indicators

In 2015, 1,848 workplaces obtained healthy workplace certification, and excellent healthy workplaces were selected and commended.

Policy Implementation and Results

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

Since 2003, HPA has continued to establish healthy workplace as a concept, 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, which was to prohibit smoking in all indoor workplaces jointly used by 3 or more employees. Meanwhile, HPA commended outstanding healthy workplaces and encourage to maintain smoke-free workplaces and health promotion.

(1) In 2015, teams of specialists were called in to provide 166 workplaces and 9 occupational or industrial unions with on-site guidance on health promotion and tobacco hazards prevention. Continued guidance and actual result follow-ups were given to the participants.

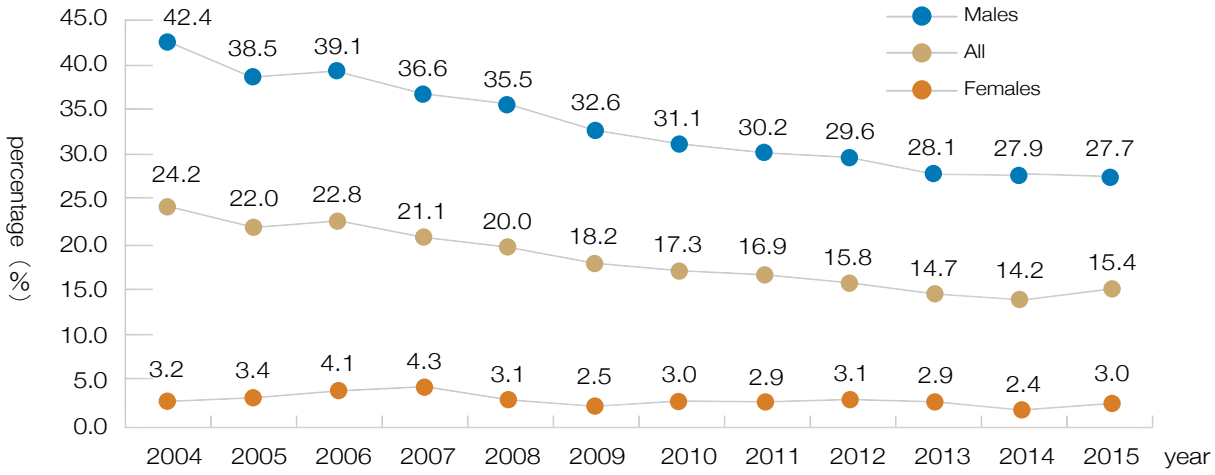
(2) Actively promote promotion Healthy Workplace Certification. We continued to refer to the international strategies to revise certification plans. In 2015 a total of 1,848 workplaces passed the certification. The certification content is as follows

A. Health Initiation Labels: the workplace has achieved results 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.

B. Health Promotion Labels: the workplace has achieved results in smoking prevention that surpasses 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, physiological health environment, psychosocial work environment, and enterprise community participation). 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.

C. Between 2007 and 2015, a total of 14,287 workplaces have passed healthy workplace certification. 6,957 workplaces were certified for the Tobacco Hazards Prevention Labels, 4,284 were certified for the Health Initiation Labels, and 3,046 were certified for the Health Promotion Labels (Figure 4-2). In addition, from 2006 to 2015, we have commended 443 excellent healthy workplaces.

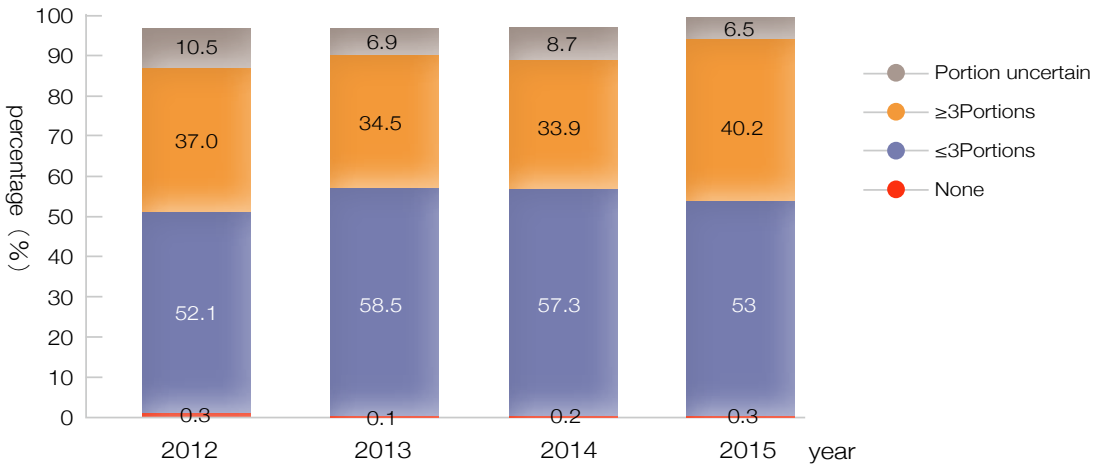
Figure 4-3 2004-2015 Smoking Rates in the Workplace



Source: 2015 working population healthy behavior survey

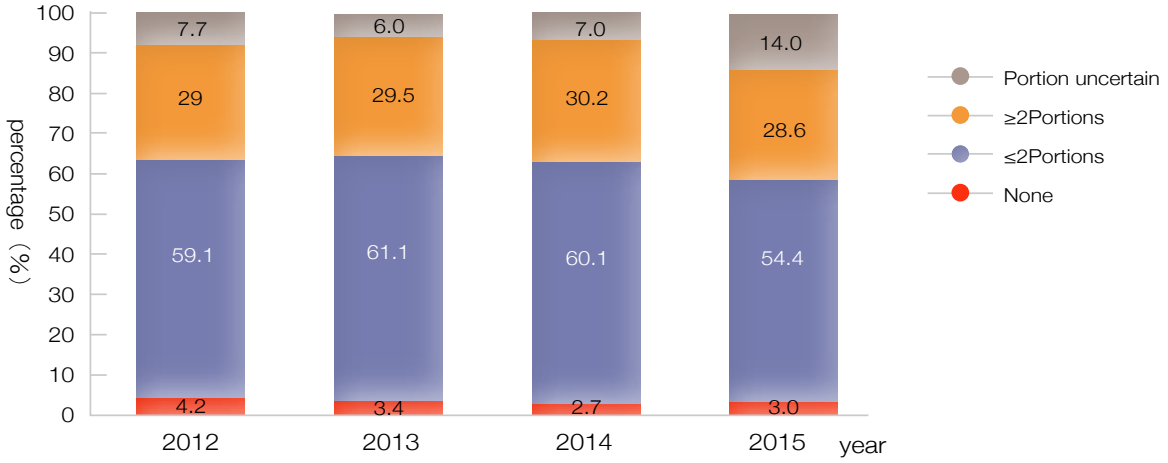
(3) In order to motivate workplaces to strive for improvement, we select workplaces with excellent achievements and uniqueness each year through the nomination of national excellent healthy workplaces. In 2014, we also added nominations for the "10 years Excellent Achievement Awards" and "Excellent Promotion Staff Awards." We hope not only to encourage health promotion work and excellent workplaces, but also further commend "Workplaces with Continuous Health Promotion Work and Continuous Improvement" and "First-Line Excellent Health Promotion Staff". Through exclusive interviews, we are able to share their overall health promotion work methods and unique promotion events with the world. In 2015, we commended 31 workplaces as outstanding in this regard and 5 members of staff as Excellent Healthy Workplace Promotion Staff.

Figure 4-4 2012-2015 Vegetable Consumption Rate of Workplace Employees



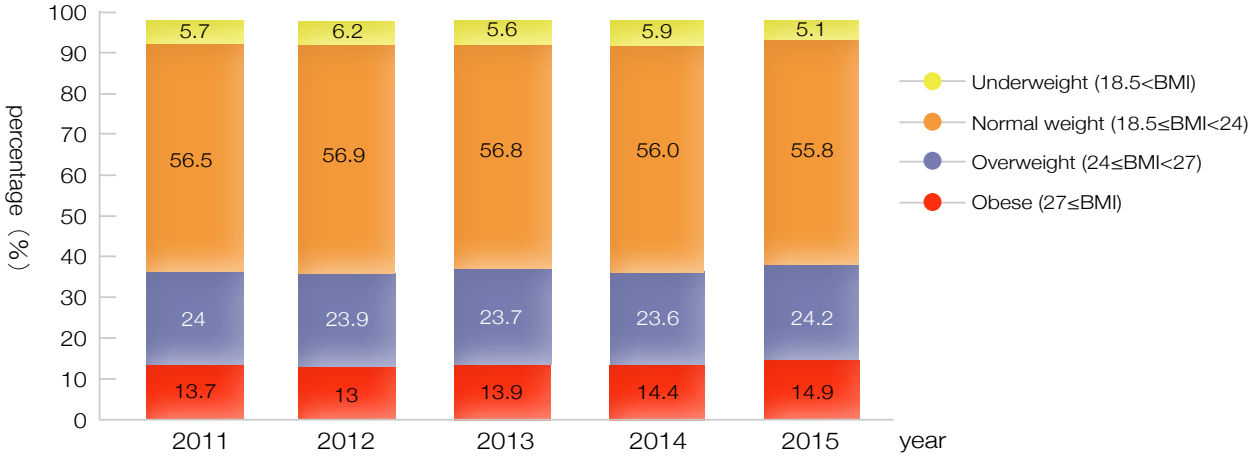
Source: 2012-2015 working population healthy behavior survey

Figure 4-5 2012-2015 Fruit Consumption Rate of Workplace Employees



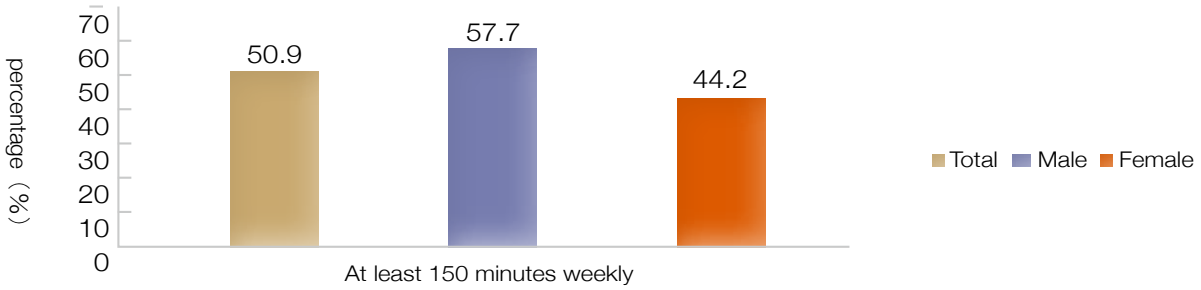
Source: 2012-2015 working population healthy behavior survey

Figure 4-6 2011-2015 BMI condition of workplace employees



Source: 2011-2015 working population healthy behavior survey

Figure 4-7 2015 Exercise Rates of Workplace Employees



Source: 2015 working population healthy behavior survey

2. Working population survey on health promotion and tobacco hazards prevention at the workplace

A working population (people who have full-time jobs and are 18 years or older in Taiwan) survey on health promotion and tobacco hazards prevention showed that the workplace smoking rate was 15.4% in 2015, an increase of 1.2% from 2014. The workplaces smoking rate from 2004 to 2015 are show in figure 4-3.

According to data collected from the "2012 - 2015 working population survey on health promotion and tobacco hazards prevention at the workplace", it shows that in 2015, 53.3% of employees ate less than three vegetables a day, a decrease of 4.2% from 2014 (Figure 4-4). 57.4% ate less than 2 pieces of fruit a day, a decrease of 5.4% from 2014. (Figure 4-5). As for body weight, in 2015 55.8% were within the normal weight range, a decrease of 0.2% from 2014 (Figure 4-6). According to the WHO, the recommended amount of exercise for the working population was 150 minutes per week. In 2015, the average working population who exercised more than 150 minutes per week was 50.9%. For male workers, 57.7% of them exercised more than 150 minutes per week. For female workers, 44.2% of them exercised more than 150 minutes per week (Figure 4-7). This shows that promotion within the workplace of the importance of effective healthy weight management plans, exercise, and healthy eating and drinking must be maintained.

Section 5 Health Promoting Hospitals

Status Quo

1. International

In 1990, the World Health Organization established the International Network of Health Promoting Hospitals, and published the "Implementing Health Promotion in Hospitals: Manual and Self-Assessment Forms," which provided hospitals with a structure, system, process and quality assessment for assessing their own health promotion policy. This acts as a program and guide to the implementation and continued improvement of health promotion services.

As of the end of 2015, over 700 hospitals representing 41 national or regional networks from countries across Europe, America, Asia, Africa, and Oceania have joined the WHO International Network of Health Promoting Hospitals and Health Services.

2.Domestic

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

The WHO established the World Health Organization Collaboration Center to tackle important issues relating to public health, and where necessary, establish official networks that would allow countries to be invited to collaborate on international promotion of such issues. Entering into discussion on issues deemed important by the WHO and into such established official networks would not only increase professional exchange between Taiwan and the world, but would also reinforce our own implementation of WHO-sanctioned policies.

In 2006, former Director-General Shu-Ti Chiou, then 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 HPH network member in Asia.

In the meantime, former Director-General Shu-Ti Chiou applied to the Ministry of Interior to form the Taiwan Society of Health Promoting Hospitals, which was established in 2007, and had the remit of assisting the Taiwan network coordinator undertake promotion, education, guidance, research, and collaboration with health promoting hospitals in Taiwan. In 2008, former Director-General Shu-Ti Chiou attended the International Network Conference as a full member for the first time. As Coordinator of the Taiwan Network of Health Promoting Hospitals and Health Services, former 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 HPH network within Asia, and has organized several Asian regional conferences, as well as been invited as a lecturer on health promoting hospitals to conferences across Asia. Thanks to her hard work across Asia, the original 41 hospitals of the Taiwan network have, by 2014, matured into six national networks (in America, Indonesia, Singapore, South Korea, Taiwan and Thailand), with a total of 232 member hospitals in 12 countries. Taiwan has played a pivotal role in spreading the health promoting hospital concept within Asia.

From 2012 to 2014, as Chair of the International HPH Network, former Director-General Shu-Ti Chiou signed important collaboration agreements with key international organizations such as the South Eastern Europe Health Network (SEEHN), the ENSH-Global Network for Tobacco Free Health Care Services (ENSH), and the International Hospital Federation (IHF). Such work has assisted in spreading the concept of health promoting hospitals to a wider international audience. We have provided assistance to the United States, Canada, Italy, South Korea, Singapore, Thailand, Indonesia, and Estonia in establishing or expanding their networks. Global membership numbers now exceed 1,000.

Target Indicators

Have 150 hospitals become members of the WHO International Network of Health Promoting Hospitals by the end of the year 2015.

Policy Implementation and Results

1. Health Promoting Hospitals

(1) Training and Growth of Health Promoting Hospitals

A. By the end of 2015, Taiwan had 160 healthcare organizations (146 hospitals, one long-term care facility, and 13 health bureaus, see Figure 4-8 and Table 4-2) that were successfully certified and entitled to join the WHO International Network of Health Promoting Hospitals. The Taiwan HPH Network has remained the largest single bloc within the international network since 2012 (Figure 4-10).

B. In order to reinforce the partnership between local health departments and healthcare institutes, and to integrate health promotion with preventive care resources, HPA provided subsidies to assist local health bureaus encouraging hospitals to work towards becoming health promoting hospitals, to take the initiative in supplying health promotion services, and to improve the health of communities, employees, family members and patients. Starting in 2012, the subsidized local departments partnered with the healthcare institutions under their jurisdiction to implement the “Work Plan on Assisting Healthcare Institution in Conducting Health Promotional Initiatives”. In 2015, 19 health departments and 131 healthcare institutions within their jurisdiction implemented this work plan. We promoted the following mandatory topics: age-friendly healthcare, workplace

Figure 4-8 Numbers of Taiwanese Hospitals Added to the WHO-International Health Promoting Hospital Network 2006-2015

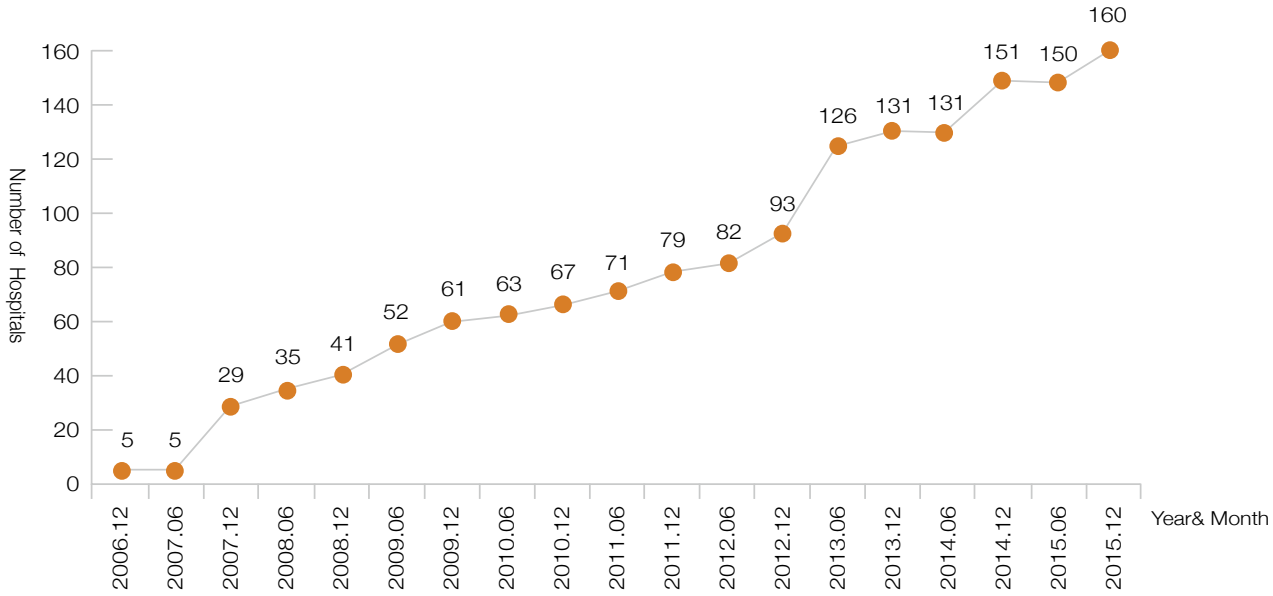


Table 4-3 2015 Distribution of Health Promotion Hospital International Network Membership by City and Country

County/City	Number of institutions	County/City	Number of institutions
Taipei City	20	Chiayi City	7
Kaosiung City	18	Yilan County	6
Taichung City	15	Hsinchu County	5
New Taipei City	13	Taitung County	5
Taoyuan City	11	Yunlin County	4
Tainan City	10	Chiayi County	3
Changhua County	9	Keelung City	2
Miaoli County	8	Kinmen County	1
Hualien County	7	Hsinchu City	1
Nantou County	7	Penghu County	1
Pingtung County	7	Lianjiang County	0
Total	160		

Note: There are currently no HPH members in Lianjiang County

health promotion, energy conservation and carbon reduction. The second announcement outlined promotion of obesity prevention as a mandatory topics, with self-selected topics being age-friendly healthcare (50 institutes selected), workplace health promotion (60 institutes selected), energy conservation and carbon reduction (24 institutes selected).

C. In 2015, a health promotion hospital conference was held on November 21st. We presented health promotion hospital model, excellence, and organization restructuring awards to seven institutes. In addition, 34 creative planning institutes received a total of 47 awards between them. During the conference, we also certified 13 institutes that have applied to the WHO Health Promotion Hospital International Network. A total of 514 experts, scholars, health offices, and hospital colleagues participated in the seminar.

D. In order to increase the knowledge of related fields in a domestic context and promote the participation of health promotion hospitals, in 2014 we published the "Health Promotion Hospital Concept and Practice Book." Contents include case study examples, developmental processes, concepts, and related managerial strategies and evaluation indices.

E. In 2014, we published the "Health Promotion Hospital: from Taiwan to the World" Special Edition to convey Taiwan's achievements in promotion of health promoting hospitals.

(2) Participation in the Multinational WHO HPH Recognition Project

In order to assess the effects of health promotion in hospitals, the WHO International HPH Network proposed a Recognition Project, using pre-existing self-assessment tools and standards to evaluate the performance of clinical health promotion by hospitals. This is conducted through investigation of medical records, patient and employee surveys, quality planning and analysis of organizational data via clinical trial methodology. The project was co-hosted by former Director-General Shu-Ti Chiou and Professor Hanne Tønnesen, Director of the WHO Collaboration Centre for Evidence-based Health promotion in Hospitals and Health Services. Eight member nations of the International HPH Network (Taiwan, the Czech Republic, Thailand, Slovenia, Estonia, Canada, Indonesia and Malaysia) have recruited health promoting hospitals to participate in this transnational trial. At present (2015), Taiwan has 21 institutions (nine intervention hospitals and 12 control hospitals) participating in this Recognition Project, making Taiwan the nation with the greatest number of HPH members participating in the project (currently there are 44 hospitals worldwide participating in this project). Prof. Hanne Tønnesen, and technical officer Jeff Kirk Svane were invited to conduct field inspections of control hospitals from June 29th to July 3rd, 2015. All twelve control hospitals in Taiwan were presented with the "Golden Level Certification" of the Recognition Trial.

2. Promoting Low-Carbon Hospitals

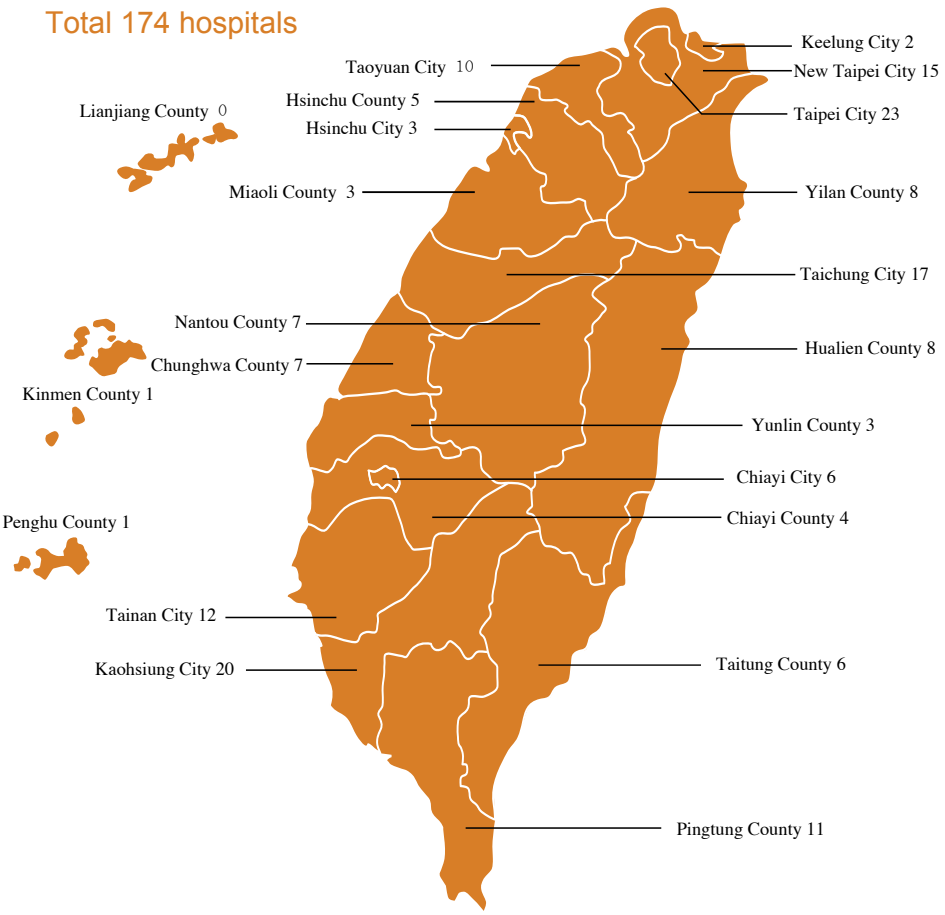
(1) Establishing a Taskforce on HPH and Environment

To assist the healthcare sector in mitigating the impacts on the environment, in 2009, the International HPH Network Secretariat passed a resolution to hand the WHO appointed task of promoting "HPH, Climate and Environment" over to Taiwan. On April 14th 2010, during the 18th International HPH conference in Manchester, United Kingdom, the Taiwan Network proposed and received approval from the General Assembly and Governance Board to establish a "Taskforce on HPH and Environment." former Director-General Shu-Ti Chiou was to be the chairperson of this task force. In the span of its four-year term, the Task Force has combined the efforts of the International HPH network, international NGO Health Care Without Harm (HCWH) and Taiwan to assist healthcare institutions in transforming from polluters of the environment to protectors. By the end of 2015, a total of 184 domestic and foreign healthcare institutions and organizations have joined this task force, including 174 Taiwanese hospitals (Figure 4-9), six foreign hospitals, and four foreign healthcare institutions.

In 2010, HPA launched the "Medical Community as Vanguard to Save the Earth with Carbon Reduction" campaign in Taiwan, whereby 128 hospitals have pledged to demonstrate their determination and initiative to save energy and reduce carbon emissions. It is predicted that carbon emissions in 2020 will have dropped by 13% (164,648 tons) compared to 2007, which is the equivalent to planting trees equal to 445 Da'an Forest Parks, or helping the world to plant trees equal to 34 New York Central Parks.

Analysis of the energy consumption rates and waste data provided by hospitals between 2007 and 2014 showed that compared to 2007, the total floor areas of the hospitals

Figure 4-9 Domestic Low-Carbon Hospital County and City Distribution Chart



in 2014 had increased by 6.83%; however, the total reduction of carbon emissions (reduced carbon dioxide emissions) still managed to be 1.35% less than 2007. This showed that hospitals have indeed made great efforts to conduct energy conservation and carbon reduction. The task force completed its four-year term in April 2014 and was succeeded by the Tzu Chi Foundation, which is now responsible for promoting international energy conservation and carbon reduction. The HPA is responsible for the promotion of domestic low- carbon hospitals.

(2) Guidance and Subsidization of Low Carbon Hospitals

Since 2010, the HPA has organized low carbon hospital workshops yearly, providing hospitals with a platform for experience exchange. In 2015, HPA organized two workshops in Northern and Southern Taiwan for hospitals to learn about implementation and promotion of energy conservation, along with carbon reduction practices. The workshops attracted 202 attendees in total. HPA also arranged expert teams to visit 30 hospitals for field diagnosis, and provide professional counseling services on environment-friendly measures. Furthermore, HPA listed energy conservation and carbon reduction as one of the optional topics under the "Work Plan on Assisting Healthcare Institution in Conducting Health Promotion Initiatives" in 2015; with a total of 24 healthcare institutions selecting this topic as part of their work plans.

(3) Publication of Guidebooks and Evaluation Tools

In 2010, HPA published the Chinese and English versions of the "Green Hospitals, Green Life, Green Planet-Experience Sharing on Green Hospitals", and in 2014 the "Special Volume on Taiwan's Low Carbon Hospital Achievements" and the "Health Promotion and Environmentally Friendly Hospital Manual" were also published by HPA to assist low-carbon hospitals adopt and implement environmentally-friendly measures and action plans.

In 2012, HPA developed the "Self-Assessment Forms for Environmentally-Friendly Hospital Initiative", drawing upon the 10 dimensions of the "Global Green and Healthy Hospital Agenda" published by Health Care Without Harm, and modifying it to accommodate Taiwan's healthcare situation. In 2015, the self-assessment form encompassed eight dimensions (Leadership, Chemicals, Waste, Energy, Water, Transportation, Food, and Buildings), consisting of a total of 84 action items. In 2015, HPA sent out the self-assessment form to 174 domestic low-carbon hospitals, and 114 of them responded. According to an initial analysis, hospitals' performances in leadership, waste, energy, and buildings were better than average, with a greater than 90% execution rate. However, there are still rooms for improvement with regards to transportation and food. In the meantime, HPA has also established a platform to collect and analyze hospitals' performance in the field of energy conservation, which assisted the 174 hospitals in quantifying their data on carbon emissions.

(4) International Environment-Friendly Hospital Teamwork Best Practice Award

HPA organized the "2014 International Environment-Friendly Hospital Teamwork Best Practice Award", which was won by Taichung Tzu Chi Hospital, Taoyuan Chang Gung Memorial Hospital, Taipei Mackay Memorial Hospital, Kaohsiung Municipal Xiaogang Hospital, and Eda Hospital. In June 2015, the Tzu Chi Foundation conducted a health promotion and environment friendly session during the 23rd International Conference on Health Promoting Hospitals and Health Services in Oslo, Norway, and presented awards to the following hospitals: Taiwan Adventist Hospital, Taichung Veteran General Hospital Puli Branch, St. Martin De Porres Hospital and the 17th Somdej Prasangkarach of Thailand.

Part 5

Healthy Ageing

Healthy Ageing

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

Taiwan has been an ageing society since 1993, while in 2015 the number of people aged 65 or over surpassed 2,938,690, or 12.5% 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 aging faster than that of any other developed country. Due to the rapid increase of aging population, the middle-aged population has gradually increased, and the virtue or vice of health has had a great influence on society, with particular focus being paid to the topics of health promotion and disease prevention for middle-aged and elderly people. There are pressing needs for changes in the healthcare environment and an evaluation of services provided. We hope that as middle and elderly age diseases begin to occur, we can create a friendly city environment which offers health and wellbeing, so that we might be able to control or lower risks, as well as other negative influences of the diseases, and so that we might be able to upgrade their quality of life.

According to statistics from 2015, the causes of death among Taiwanese people (Figure 5-1) included chronic diseases including malignant tumors, heart disease, cerebrovascular disease, diabetes, high blood pressure, nephritis, kidney disease, and kidney pathology, all of which are among the problems most often faced by Taiwanese people during the ageing process. These conditions account for approximately 60% of total deaths, and the government clearly needs to take this matter seriously. Diseases can be detected early through health screening, which can also prevent key chronic diseases and actively help to create a healthy supportive environment, thus enabling healthy ageing among Taiwanese citizens.

Section 1 Health Policies for Middle-Aged and Elderly Citizens

Status Quo

The average life expectancy in Taiwan was 80.2 years in 2015, 77.0 years for males and 83.6 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

Table 5-1 **2015 Figures on the 10 Leading Cause of Death In Taiwan**

	Cause of Death	Number of Deaths	Crude Death Rate (see Note 1)	Standardized Death Rate (see Note 2)
1	Malignant neoplasms	46,829	199.6	128.0
2	Heart disease (other than hypertensive diseases)	19,202	81.8	48.1
3	Cerebrovascular disease	11,169	47.6	27.9
4	Pneumonia	10,761	45.9	24.6
5	Diabetes mellitus	9,530	40.6	24.3
6	Accidental injury	7,033	30.0	22.8
7	Chronic lower respiratory tract disease	6,383	27.2	14.6
8	Hypertensive disease	5,536	23.6	13.2
9	Nephritis, kidney disease, and kidney pathology	4,762	20.3	11.8
10	Chronic liver disease and cirrhosis	4,688	20.0	13.6

Note 1: Death rate calculated per 100,000 people
Note 2: the standardized death rate is based on the 2000 WHO world population and age structure
Sources: Statistics on Cause of Death, Ministry of Health and Welfare

Table 5-2 **Citizens Over 65 Years Old Who Report They Have Been Diagnosed with**

Categories	1 chronic disease	2 chronic diseases	3 chronic diseases
All	86.3%	68.6%	47.3%
Male	84.3%	64.1%	40.7%
Female	88.1%	72.5%	53.1%

Sources:
1. 2013 National Health Interview Survey
2. The 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.

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.

Target Indicators

1. In 2015, the rate of elderly people who exercised regularly (at least three times a week, and for at least 30 minutes per session) was 58.9%.
2. In 2015, the smoking rate of people over 65 fell below 10%.
3. In 2015, approximately 1,800,000 people used adult prevention healthcare services.
4. All 22 counties and cities promoted age-friendly cities.
5. In 2015, more than 200 institutes achieved the age-friendly healthcare certification.

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, community health building, and community care center. It emphasizes health promotion

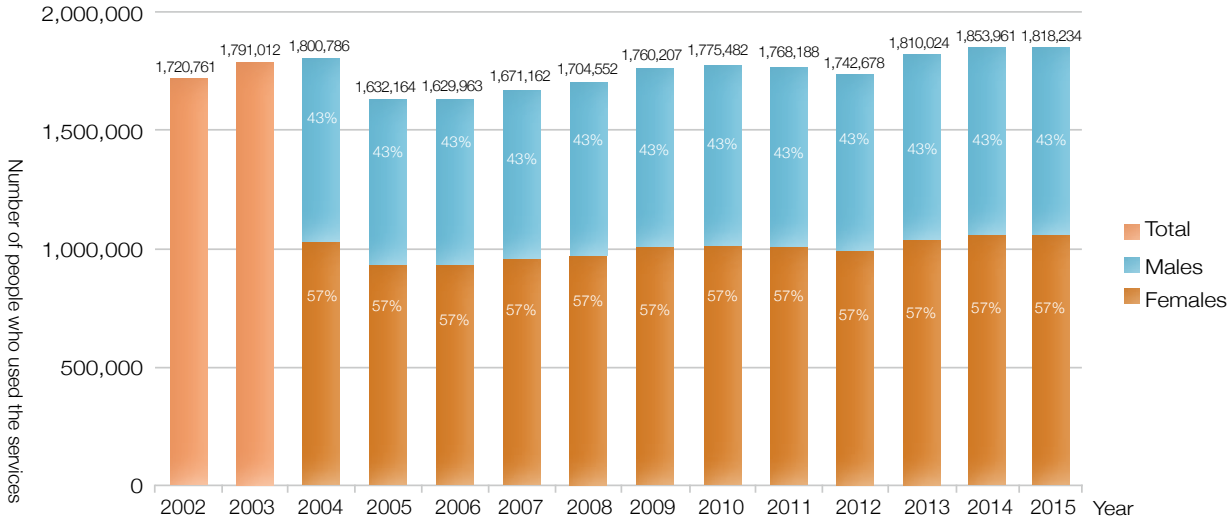
issues that address the specific needs of seniors, such as healthy diet, exercise, prevention of falls, drug safety, prevention of chronic diseases, health examinations and blood pressure measurement. Other steps taken to build comprehensive age-friendly health environments and services include the promotion of age-friendly health care and age-friendly cities.

Summary of Achievements:

1. Preventive health services for adults

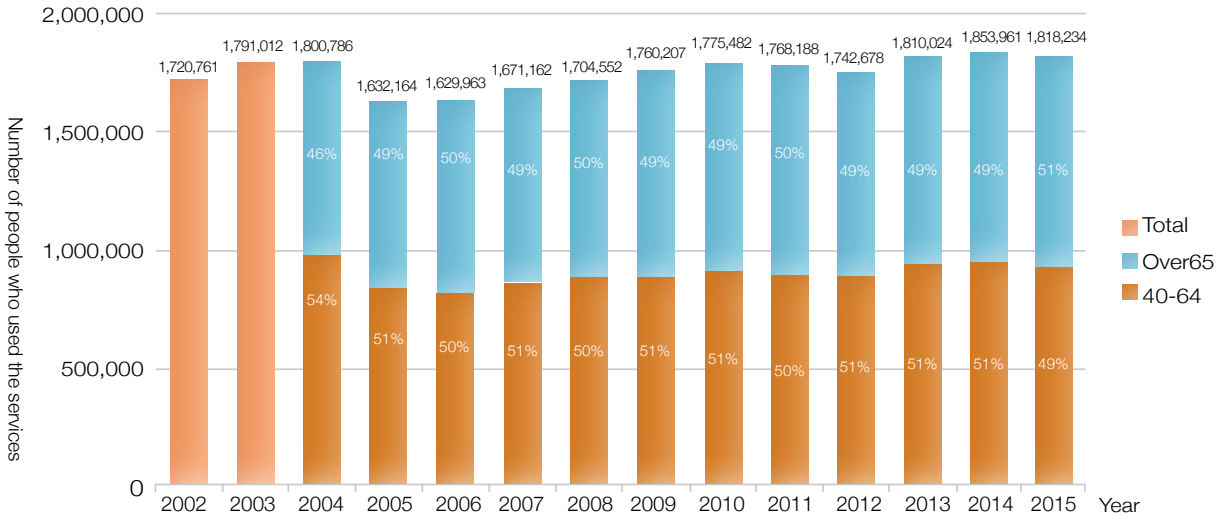
The government provided preventive healthcare service for adults, including physical examinations, blood and urine tests, and health consultations. These are provided free of charge to people aged 40-64 every three years, and to those aged 65 or over every year. In 2015, approximately 1.81 million people took advantage of these services (including 920,000 people aged 65 or over), which led to a utilization rate of 31.1% (Figures 5-1 and 5-2). The results of 2013 NHIS showed that 60% of people over age 40 have received health checkups (Including the free adult prevention healthcare services provided by

Figure 5-1 Annually Use of Preventive Health Care Services for Adults, by Gender



Source: National Health Insurance Administration

Figure 5-2 Annual Use of Preventive Health Care Services for Adults, by Age



Sources: National Health Insurance Administration

the government and expensed health checkups). Through adult prevention healthcare services, in 2014 the abnormal rates for high blood pressure, blood sugar, and cholesterol were 19.3%, 8.5%, and 11.2%, respectively. (Definition of newly discovered abnormal cases: No personal history of high blood pressure, diabetes, and high cholesterol, however the results of physical examinations turn up abnormal.)

2. Integrated Screening Services

In order to provide comprehensive, on-site screening in local communities, the HPA has been encouraging county and city governments to consolidate their medical resources since 2002. This includes integrating screening already used in adult preventive health care services and cancer detection. In 2015, 20 counties and cities had carried out these changes, serving over 533,000 people.

3. Senior Health Promotion

(1) Integrating Community Local Resources to Promote Senior Health

The HPA advanced senior health promotion by adopting the WHO's Ottawa Charter and Bangkok Charters. Through cooperation with health departments and community medical institutions, we integrated local resources such as the concepts of a healthy city, safe communities, health promoting communities, community care centers 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 they can also take an active role in society, and once again become a useful societal resource. In 2015, health centers and medical institutions in 22 cities partnered with 1,921 Community Care Centers to hold health promotion activities, increasing the partnership rate at care centers to over 96%.

(2) Health 2015 move – National Contest for Elderly Health Promotion

In order to increase social participation among seniors, the HPA collaborated with health bureaus, health centers and community 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 encouraged seniors to take part in physical activity, and also enriched the lives of the elderly, helping keep them happy and positive, slowing physical deterioration, and promoting their social participation. Over 100,000 seniors took part in the 2015 event, representing over 4% of the total aged population.

(3) Enhancing Preventive Health Care Services for the Elderly

The HPA conducted chronic disease prevention and elderly health promotion, and improved early detection of chronic disease, referrals and follow-up services. In 2015, approximately 920,000 people aged 65 or older received adult preventive healthcare services. 2,010 people aged 65 or older received smoking cessation helpline services, and

42,839 people received smoking cessation treatment and health education services.

4. Creating Age-friendly Cities

In response to the rapid ageing of the global population, in 2007 the WHO published "Global Age-Friendly Cities: A Guide" , in which eight domains of city living were identified as worthy of special emphasis in creating a friendly environment for the elderly. The HPA chose Chiayi as the pilot age-friendly city in 2010, with a view to gradually expanding the plan to other counties and cities. The policy was based on the eight domains pinpointed by the WHO: housing, communication and information, transportation, outdoor spaces and buildings, civic participation and employment, social participation, community support and health services, and respect and social inclusion. In 2013, we have promoted age-friendly cities in 22 counties and cities in Taiwan. Over 2,930,000 elderly have benefited from diverse age-friendly policies around Taiwan. Taiwan became the first country in which all the counties and cities signed the Dublin Declaration to promote age-friendly cities.

(1) Formulating public policy for age-friendly cities:

we encourage every county and city government to implement the following points, to integrate various offices and bureaus with public and academic resources, to establish an age-friendly city promotion committee, and to implement all central pro-elderly and respect policies in the local sphere. In 2010, we first implemented the Age-friendly Cities plan in Chiayi City, and by 2013, all counties and cities in Taiwan were promoting the plan.

(2) Building an age-friendly supportive environment:

In 22 county and city government areas within Taiwan, we have referred to the eight major domains of age-friendly cities as pinpointed by the WHO, and promoted annual age-friendly city plans. According to the needs of elderly people, we have developed plans that reflect local characteristics, in order to improve the city environment, reduce obstacles, and increase participation in life.

(3) Conducting diverse and age-friendly city promotion and advocacy:

A. In 2015, we used the (Behavioral Risk Factory Safety Survey) BRFSS to survey people's stereotypes toward elderly people. The results have shown that compared to the positive attitude of young people towards elderly people, elderly people had the most negative attitude about themselves. In addition, in 2015, we also conducted satisfaction surveys of 22,755 people over 60 years of age regarding the age-friendliness of the cities they live in.

Among the eight major facets of WHO guide, the three facets deemed the most satisfactory by elderly people were: community and health services (3.06 points), respect for the elderly and social integration (3.0 points), and communication and information (2.95). As for the sub-items of each facet, the three most satisfactory items were: "when you run errands, how diligent and efficient are unit or agency staff in helping you?" (3.16 points), the ticket prices of mass transportation (3.14 points), and the sufficiency of health promotion services events provided by the communities(3.11 points).

B. We developed 30 and 100 second long advocacy videos related to the themes of "Elderly Friendly Love in Taiwan" and sent them to 22 county and city health bureaus, health centers and community care centers. We also advocated "Active ageing" , "Cross-generation friendliness" , "Happy living" , "Love with no barriers" , and "Healthy ageing."

C. We established an "age-friendly city network." We provided all counties and cities with the platforms they needed to promote age-friendly city event information, and to provide results to central and local governments for wider broadcast.

(4) Increasing the powers of counties and cities to promote age-friendly cities

A. Through the development of promotion teams, we created information exchange and experience-sharing platforms. In August 2015, we conducted the Taipei City Government friendly demonstration event. 79 people from the operational bureaus of 22 county and city governments participated. On October 17th, Alliance for Healthy Cities, Taiwan conducted a special themed forum at the Taiwan Public Health Annual Meeting. We invited central government, local government, citizen representatives, civil groups, and expert scholars to share their experiences on promoting age-friendly cities. 70 expert scholars from 22 counties and cities engaged in discussion.

C. We conducted the "Healthy City and Age-Friendly City Award Selection." 386 submissions were made. After primary and secondary evaluations, we selected 94 award-winning units (3 Outstanding Awards and 91 Innovation Achievement Awards). The award ceremony was conducted at the Zhiben Campus, Taitung University on November 12th 2015. Former Vice President Wu personally gave out the awards. Prof. Nam Eun Woo of Yonsei University Healthy City Research Center and 350 experts and scholars participated. On December 13th, we conducted achievement presentation seminars and invited award winners of outstanding awards and innovation achievement awards to share their experiences. 204 posters also participated in the exhibition.

5. Age-friendly Healthcare

(1) The promotion of "Recognition of Age-friendly Hospitals and Health Services" :

In response to the rapid ageing of Taiwan's population, and to assist healthcare institutions to prepare in a timely fashion, we has 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 Policy, Communication and Services, Care Processes, and Physical Environment, 11 sub-standards, 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 Recognition of Age-friendly Hospitals and Health Services has been promoted across Taiwan since 2011 with full support from the government.

(2) Age-friendly Hospitals and Health Services Guidance and Development

The recognition was initially launched in hospitals in 2011 and later expanded to clinics (community health groups) and long-term healthcare organizations in 2012. The HPA holds workshops every year. Since 2015, we started conducting age-friendly healthcare professional training courses, and provided training for medical staff in related fields. In order to encourage benchmark learning, we conducted model award, along with creative proposals, and writing competitions yearly. At the end of the year, we presented awards at the "Age-Friendly Healthcare Annual Award Ceremony." In 2015, it was the fifth year of the ceremony, and 410 people from over 174 national healthcare institutes, county and city health bureaus, and academic units participated. The award winners shared their thoughts and experiences of promotion, which has led to a new wave of age-friendly healthcare.

(3) Universal adoption of Age-friendly hospitals and health services

From 2014 to 2018, 500 healthcare institutes will achieve certification goals in this period. In 2015, HPA provided certifications to 206 institutes (Table 5-3, includes all 153 hospitals, 25 local health centers, and 28 long term healthcare institutes and the annual goal has been achieved. All the hospitals and nursing homes

Table 5-3 Distribution of age-friendly hospitals and health services in all counties and cities in 2015

County/City	Number	County/City	Number	County/City	Number
Taipei City	22	Hualien County	12	Taitung County	4
Miaoli County	21	Changhua County	10	Hsinchiu City	3
Kaohsiung City	18	Taoyuan City	9	Hsinchiu County	3
New Taipei City	16	Nantou County	9	Penghu County	3
Tainan City	15	Yilan County	8	Keelung City	2
Chiayi City	13	Yunlin County	6	Kinmen County	1
Pintung County	13	Chiayi County	6	Lianjiang County	0
Taichung City	12				
Total			206		

Note: Lianjiang County do not have Age-friendly hospitals and health service

affiliated with Ministry of Health and Welfare were certified.)

Section 2 Prevention and Control of Major Chronic Diseases

Status Quo

According to the "Survey on Hypertension, Hyperglycemia, and Hyperlipidemia (TwSHHH) in Taiwan" conducted by the HPA in 2007, nearly 40% of Taiwanese citizens aged 20 or above suffer from hypertension, hyperglycemia, or hyperlipidemia (the 3Hs). According to the results of 2013 to 2015 "National Nutritional Health Condition Change Survey," the prevalence of 3H for people over age 18 was as follows: the prevalence rate of hypertension was 24.14% (male: 27.18%, female: 21.15%). 4,655,000 people was estimated in total to have hypertension. The prevalence rate of hyperglycemia was 11.8% (male: 13.14%, female 10.49%). 2,270,000 people was estimated in total have diabetes. The prevalence rate of hyperlipidermia was 20.87% (male: 21.03%, female: 20.71%). 4,024,000 people was estimated to have hyperlipidemia. Amongst the top ten causes of death, 3H related diseases include coronary disease (ranked 2$^{nd)}$, cerebrovascular diseases (ranked 3rd), diabetes (ranked 5th), hypertension related diseases (ranked 8th), and kidney diseases (ranked 9th). The total number of deaths from such diseases was 50,199 people in 2015. In comparison with 2014, the number of death dued to coronary diseases decreased by 197 (-1.1%), the number of death dued to cerebrovascular diseases decreased by 564 (-2.5%), and the number of people with diabetes decreased by 315 (-1.5%). The number of death dued to hypertension related diseases increased by 77 (+0.3%), and the number of death dued to nephritis, kidney disease, and kidney pathology decreased by 106 people (-0.5%).

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 nephritic disease or even death.

Given the increasing prevalence of chronic disease in Taiwan, the HPA has set metabolic syndromes, diabetes, cardiovascular diseases, and kidney diseases, amongst others, as the preventive foci of chronic disease. Even though chronic diseases pose no immediate threat to life, they are nonetheless the main cause of early death. The reasons behind the occurrence of chronic diseases are complicated and diverse, and their onset is 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 the health of middle-aged and elderly people.
2. Prevention and delay in the occurrence of chronic disease.
3. Enhancing quality of life for patients, family members, and caregivers.

Target Indicators

1. Awareness of ideal waist circumference reached 49.1% among males and 46.1% among females over age 18 in 2015.
2. In 2015, there were 213 diabetic health promotion centers and 166 kidney disease preventative health promotion centers.
3. In 2015, we pushed for the establishment of 514 diabetes support groups, and attained 97.8% coverage within Taiwan's counties, towns, cities and regions.

Policy Implementation and Results

1. Raising Health Awareness Among the Public

(1) Diverse Health Care Promotion

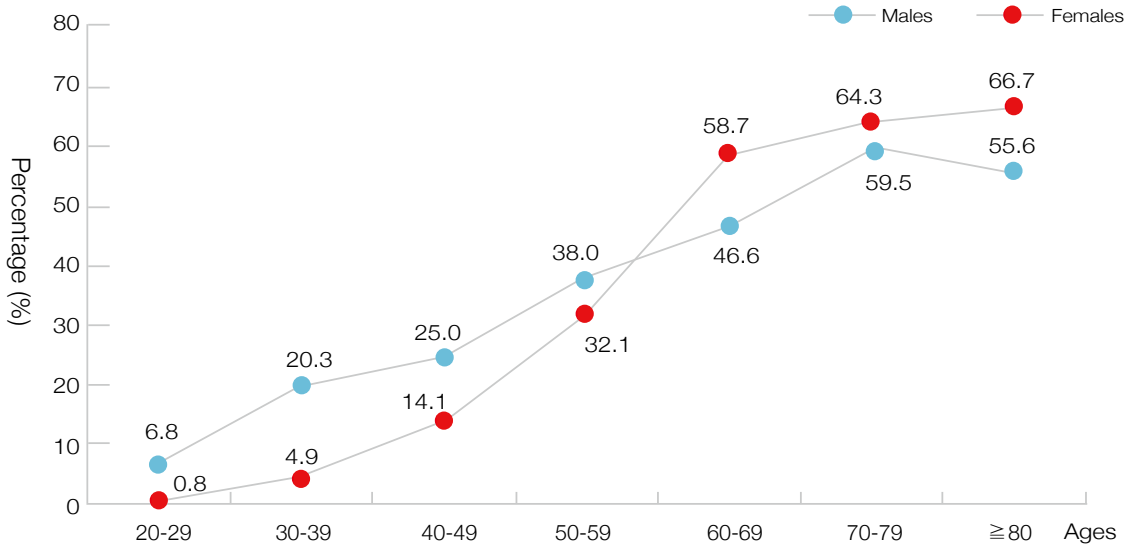
The HPA made a variety of health education materials and promotional items on the prevention and treatment of metabolic syndrome, diabetes mellitus, coronary artery disease, hypertension and chronic kidney disease available to medical professionals and the general public, including leaflets, posters, self-care manuals, cardboard cutouts, and DVDs.

(2) Diverse Promotion Channels

In response to the international days dedicated to chronic diseases such as diabetes mellitus, hypertension, heart diseases, kidney diseases and asthma, the HPA cooperates with local health bureaus, civil groups and community organizations and held press conferences

Figure 5-3

Prevalence of Hypertension by Gender and Age in 2007

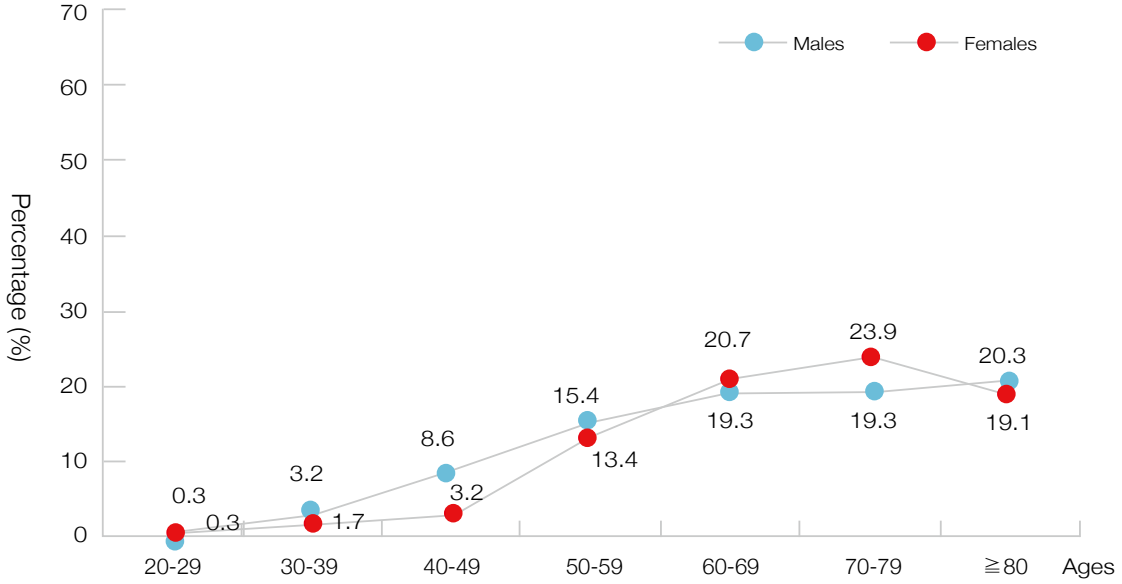


Note: High blood pressure is defined as those having systolic blood pressure ≧140mmHg, diastolic blood pressure ≧90mmHg, or those who use high blood pressure medication.

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

Figure 5-4

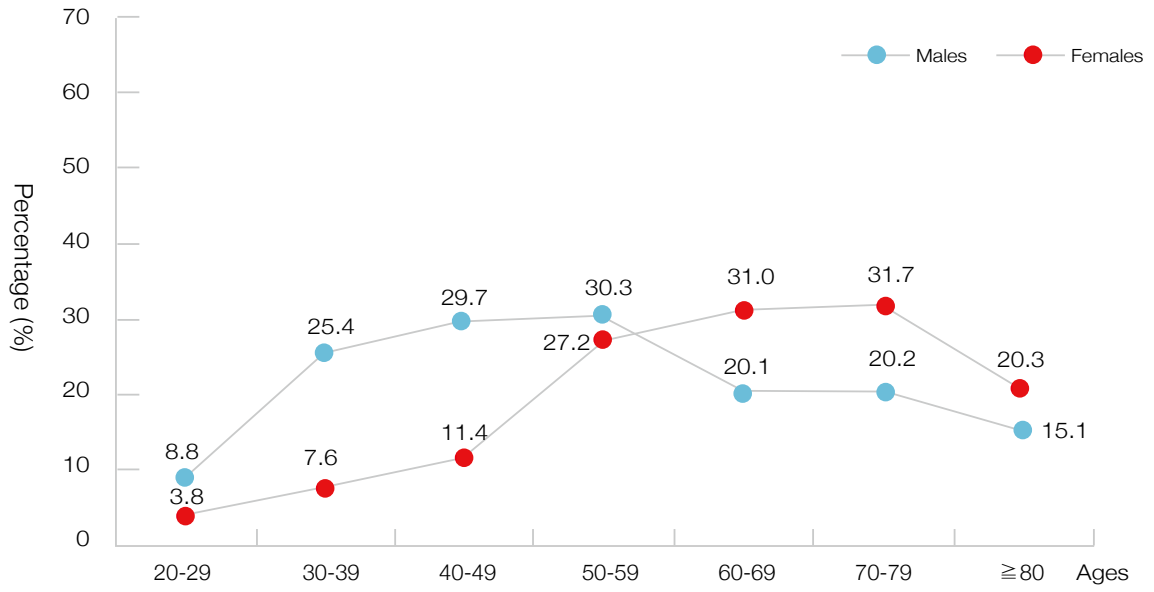
Prevalence of Hyperglycemia by Gender and Age in 2007



Note: Hyperglycemia is defined as patients with blood glucose test value ≧126mg/dl after 8 or more hours of empty stomach, or those who use hypoglycemic agents.

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

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



Note: Hyperlipidemia is defined as patients with serum cholesterol ≧240 mg/dl after 8 or more hours of empty stomach, serum triglycerides ≧200 mg/dl, or those who use lipid lowering drugs.
Source:2007 Taiwanese Survey on Hypertension, Hyperglycemia, and Hyperlipidemia (TwSHHH)

and other public events. It also promotes causes through schools, communities, the internet, magazines, radio, TV, vehicle ads, and convenience stores. Important events are as follow:

A. In 2015, 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 "Diabetes and I" , "Women Menopause Healthcare" , "Healthy Ageing and Elderly Healthcare", and "Elderly Fall Prevention Manual" . We made resources and medical institutes available for health education and adovacy use.

B. Reacting to World Diabetes Day in 2015, 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 to advocate "Healthy Eating and Diabetes" . These included press conferences, carnivals and fairs, lighting ceremonies, photography contests, night runs, gymnastic performances and many more other events. We thus improved public awareness and understanding of diabetes. Approximately 1,650 people participated in these events.

C. Reacting to World Hypertension Day 2015, we cooperated with the Taiwan Heart Foundation to conduct the "2015 World Hypertension Day Fair." Around 500 people participated. Through television, newspapers, and the Internet, we advocated concepts of hypertension prevention, and reminded people to abide by healthy lifestyles. The event featured in 24 media reports.

D. Reacting to World Heart Day 2015, we worked with the Taiwan Heart Foundation and held a fair. We made use of channels such as television, newspapers and the Internet to publicize heart disease prevention. Our efforts were reported in a total of 33 media outlets, and 400 members of the public participated.

E. Reacting to World Kidney Day in March 2015, the HPA worked together with the Taiwan Society of Nephrology, county and city health bureaus, and medical institutes from around Taiwan to conduct a chronic kidney disease prevention awareness event. Seven kidney care carnivals were held in six counties and cities across Taiwan, with a total of 3,986

people participating. We also held 17 kidney disease prevention seminars across the country, improving public awareness of kidney disease prevention, and a total of 1,488 people participatied, and 5 chronic kidney disease care network workshops were held, in which a total of 1,041 people participated.

2. Urging high-risk groups to pay attention to health improvement, improve 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 government health departments integrated the community resources at their disposal to establish 2,600 additional blood pressure measurement stations, in addition to hospitals and clinics, at a variety of locations such as administration agencies, community care centers, activity centers, drugstores, malls 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 promoted metabolic syndrome prevention in 677 communities.

(2) Increase the knowledge of chronic diseases prevention on campuses: The HPA provided additional training sessions on prevention of chronic disease to the school administrators, nurses and nutritionists of senior and junior high schools, and elementary schools. In 2015, a total of 675 school staff attended, including 50 administrators and 625 school nurses and nutritionists.

(3) In order to enhance care access for groups at high risk of diabetes, the HPA promoted 514 diabetes patient support groups in 359 townships and districts across Taiwan, representing a total coverage of approximately 97.8%. We also held healthy diet, weight control, and blood sugar monitoring events. In 2015, 6,710 people from high-risk groups participated in these events, among whom 6,694 conducted self-assessment, presenting the following results: 43.9% improved their staple food intake, 56.1% exercised for more than 30 minutes each day (an increase of 14.3%), and 20.5% lost two or more kilograms. In addition, health promotion events which focused on those at high risk of diabetes at 213 diabetes health promotion institutions were also a success. 49.6% reported improved blood glucose, with other improvements in blood pressure (53.1%), and cholesterol (48.7%) readings. Another 49.6% reduced their waist circumference, while 55.7% exercised for over 30 minutes every day. 53.0% reported weight loss.

(4) 22 local health bureaus across Taiwan integrated community resources, such as district offices, neighborhood offices, and community care points, thoroughly spread the concepts of the 3Hs and chronic kidney disease prevention throughout communities in 2015. A total of 5,600 events were held, and were attended by over 300,000 seniors that are 65 years old and above.

(5) In order to develop a locally effective and viable salt-reduction model and promotion plan, the HPA held the "2015 Community Health Building Plan," which involved symposiums, educational training, family guidance, and the cooperation of restaurants, communities and catering companies. Salt-reduction activities were held to strengthen 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.

(6) 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 preventative medicine', the HPA held 22 'Adult Preventative Health Care Training Courses' and 'Evidence-based Preventative Medicine Courses' in 2015, in which over 1,000 healthcare providers participated.

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

(1) The HPA promoted diabetes shared-care networks in 22 counties and cities, and also established an accreditation system for diabetes medical care staff. We also publicly revised the 'Standards for Accreditation of Diabetes Shared-Care Networks Medical Staff', added new classifications for pharmaceutical experts, simplified the process and burden of specialist nursing and nutrition accreditation, and extended the period of validity of these medical accreditations. A total of 9,026 people were accredited for clinical care in 2015.

(2) There were 213 diabetes health promoting institutions in 2015. They provided internships to 1,339 diabetes health education staff and handled 292,983 cases applicable to the National Health Insurance Coverage for Improving Diabetes Treatment. The HPA held diabetes support group exchange meetings, and

improved competence and cohesion. Among the 28,333 patients in these groups nationwide, 27,468 were evaluated with the following results: 8% showed improvement in self-monitoring of blood glucose levels, 34.2% showed improvements in proper food consumption levels, 41% exercised daily for over 30 minutes, 12.2% reduced their weight by 2 kilograms or more, and 34.4% have readings of HbA1c (glycated hemoglobin) below 7%. We conducted the selection of exemplary diabetes support groups: a total of 39 groups won awards. Two competitions were conducted and we publicly commended award-winners in the weight loss competition, including 24 individuals rated 'Excellent', 20 individuals rated 'Great', 427 ABCDEFG exemplar diabetic patients, and 64 diabetic improvement patients.

(3) In 2015, the HPA designed and awarded the Diabetes Health Care 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'. 14 benchmark best-in-class institutions were commended, and 8 institutions were praised for their performance in caring for new diabetes patients. Special awards were given to 24 institutions, awards for outstanding overall implementation results were given to 8 institutions, and special awards were given to 21. We also awarded the accreditation label to 16 new institutions at the 2016 ceremony.

(4) Health officials established a cross-departmental, interdisciplinary model of specialized care in order to delay and lessen the development of chronic kidney disease (CKD) and assist patients preparing for dialysis. Since 2004, the HPA has entrusted the Taiwan Society of Nephrology with the advancement of health promotion institutions focusing on kidney ailments, and 166 of these institutions with 153,801 follow-up patients, accepted 40,136 new patients in 2015. Among patients undergoing dialysis, 1,976 (56.6%) already had a surgically- created arteriovenous fistula in place. 1,394 (40%) dialysis first-timers arrived as outpatients rather than as inpatients or for emergency treatment. Significant improvement was apparent in all of these figures.

(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 and treatment of kidney disease and referrals. Later, it integrated the system with other CKD databases. By the end of 2015, 227 hospitals had used the system to register a total of 158,322 cases.

(6) In order to promote 3H and coronary disease prevention, we helped hospitals to establish cross-department work teams and healthcare administrators. Since 2015, we entrusted the Taiwan Association of Lipid Educators with the task of conducting "3H Heart Saving Holistic Health Management Trial Plans" . In June 2016, six hospitals participated in cross-department work teams and healthcare administrators plan. Through good 3H control, tobacco cessation services, regular exercise, and compliance with medical interventions and follow-up measures, we have established quality indicators and promoted coronary disease prevention and management.

Section 3 Cancer Prevention and Control

In accordance with the Cancer Control Act of 2003, the HPA periodically convenes meetings of the Central Cancer Prevention and Control Meeting and the Cancer Prevention and Control Policy Commission. These meetings help inter-ministerial government officials achieve horizontal and vertical coordination and communication. For the 1st Year National Cancer

Prevention and Control Program (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, echoing President Ma Ying-Jeou's 'Golden Decade-National Visions' campaign pledge to reduce cancer mortality rates, in 2010 the HPA promoted the 2nd National Cancer Prevention and Control Program (2010-2013). Its primary strategy was to expand the provision of cancer screening services.

In order to continue with the third phase of the plan, and in 2014-2018 we promote the 3rd National Cancer Prevention and Control Program. 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 premalignant lesions, and preventing their development into cancer; (3) Promoting the 'Cancer Navigation Plan', every life counts 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' anxiety and sense of helplessness.

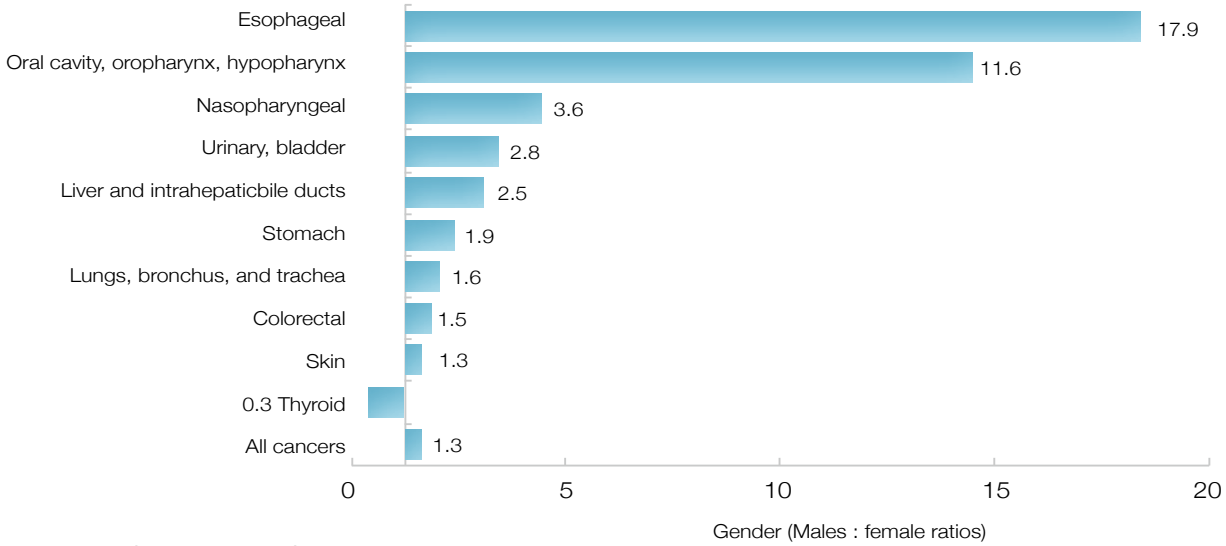
Status Quo

In an administrative order issued in 1979, the Ministry of Health and Welfare (formerly the Department of Health, Executive Yuan) requested that hospitals with 50 beds or more 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 and Control Act went into effect. Article 11 of the statute stipulates that "in order to build up a databank related to cancer prevention and control, medical care institutions of cancer prevention and controlshould report data concering diagnosis and treatment of Newly detected cancers and their stages to academic research institutions commissioned by the central competent authority."

1. Cancer Incidence

According to the registry data in 2013, 99,143 people (54,601 males and 44,542 females) were newly diagnosed with cancer. The standardized incidence rate was 299.7 per 100,000 (340.1 for males and 264.3 for females). The median age of new cancer patients was 62 (64 for males and 61 for females). Based on standardized incidence statistics, men were 1.3 times more likely than women to develop cancer. In particular, men were 17.9 and 11.6 times more vulnerable to esophageal and oral cancer, a phenomenon attributable to their greater tendency to smoke cigarettes and chew betel nut (Figure 5-6).

Figure 5-6 **Sex Ratio in Age-Standardized Incidence of Major Cancer, 2013**



Sources: HPA, MOHW cancer registries in 2013

Table 5-4 Incidence Rate of 10 Leading Cancers in 2013

Order	Primary site	Cases	Age-standardized incidence rate (per 100,000 people)
1	Female breast	11,281	69.1
2	Colorectal	15,140	44.3
3	Lungs, bronchus, and trachea	11,751	34.1
4	Liver and intrahepatic bile ducts	11,424	34.1
5	Prostate	4,801	29.2
6	Oral cavity, oropharynx, hypopharynx	7,248	22.3
7	Cervix	2,011	12.1
8	Stomach	3,768	10.7
9	Thyroid	3,122	10.5
10	Skin	3,655	10.3
	All Cancers	99,143	299.7

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 2013

Table 5-5 Incidence Rate of 10 Leading Cancers Among Men in 2013

Order	Primary site	Cases	Age-standardized incidence rate (per 100,000 people)
1	Colorectal	8,681	53.2
2	Liver and intrahepatic bile ducts	7,905	49.3
3	Lungs, bronchus, and trachea	7,093	43.0
4	Oral cavity, oropharynx, hypopharynx	6,633	41.8
5	Prostate	4,801	29.2
6	Esophageal	2,348	14.5
7	Stomach	2,422	14.3
8	Skin	1,944	11.5
9	Urinary bladder	1,481	8.8
10	Non-hodgkin lymphoma	1,316	8.4
	All cancers	54,601	340.1

Sources: HPA, MOHW cancer registries in 2013

Table 5-6 Incidence Rate of 10 Leading Cancers Among Women in 2013

Order	Primary site	Cases	Age-standardized incidence rate (per 100,000 people)
1	Female Breast	11,281	69.1
2	Colorectal	6,459	36.3
3	Lungs, bronchus, and trachea	4,658	26.2
4	Liver and intrahepatic bile ducts	3,519	19.7
5	Thyroid	2,362	15.8
6	Cervix	2,011	12.1
7	Corpus uteri	1,579	9.5
8	Skin	1,711	9.1
9	Ovary, fallopian tubes, or uterine broad	1,321	8.6
10	Stomach	1,346	7.5
	All cancers	44,542	264.3

Sources: HPA, MOHW cancer registries in 2013

Based on standardized incidence rates of cancer, the ten most common forms of cancer in 2013 were, in order: (1) female breast cancer; (2) colorectal cancer; (3) lung cancer; (4) liver cancer; (5) prostate cancer; (6) oral cavity cancer, oropharynx, hypopharynx; (7) cervical cancer; (8) stomach cancer; (9) thyroid cancer; (10) skin cancer (For national cancer incidence rates, see Tables 5-4, 5-5 and 5-6).

2. Cancer Mortality

Ministry of Health and Welfare mortality statistics show that 46,829 people died of cancer in 2015 (including 28,776 males and 18,053 females), accounting for 28.6 percent of all deaths. The age-standardized mortality rate was 128 per 100,000 people (166.3 for males and 93.4 for females). The top 10 fatal cancers in 2015 were: (1) lung cancer, (2) liver cancer, (3) colorectal cancer, (4)

Table 5-7 Mortality Rate of 10 Leading Cancer in 2015

Order	Cause of cancer	Cases	Age-standardized mortality rate (Per 100,000 people)
1	Cancers of trachea, bronchia and lung	9,232	24.7
2	Liver cancer	8,258	22.8
3	Colorectal cancer	5,687	14.9
4	Female breast cancer	2,141	12.0
5	Oral cancer	2,667	7.8
6	Prostate cancer	1,231	6.4
7	Stomach cancer	2,326	6.1
8	Pancreatic cancer	1,948	5.3
9	Esophageal cancer	1,807	5.1
10	Cervical cancer	661	3.5
	All cancers	46,829	128

Note
1. Ranking is based on age-standardized crude mortality rate
2. Age-standardized rates were calculated using the WHO's world population age-structure in 2000
3. Source: Statistics on Causes of Death, Department of Statistics, Ministry of Health and Welfare.

Table 5-8 Mortality Rate of 10 Leading cancer Among Men in 2015

Order	Cause of cancer	Cases	Age-standardized mortality rate (Per 100,000 people)
1	Cancers of trachea, bronchia and lung	5,884	33.5
2	Liver cancer	5,586	32.9
3	Colorectal cancer	3,212	18.1
4	Oral cancer	2,445	14.8
5	Esophageal cancer	1,680	9.9
6	Stomach cancer	1,458	8.0
7	Prostate cancer	1,231	6.4
8	Pancreatic cancer	1,086	6.3
9	Non-Hodgkin's lymphoma	716	4.1
10	Bladder cancer	620	3.9
	All cancers	28,776	166.3

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

Table 5-9 **Mortality Rate of 10 Leading Cancer Among Women in 2015**

Order	Cause of cancer	Cases	Age-standardized mortality rate (Per 100,000 people)
1	Cancers of trachea, bronchia and lung	3,348	17.0
2	Liver cancer	2,672	13.4
3	Colorectal cancer	2,475	12.2
4	Female breast cancer	2,141	12.0
5	Pancreatic cancer	868	4.3
6	Stomach cancer	862	4.4
7	Cervical cancer	661	3.5
8	Ovarian cancer	529	3.0
9	Non-Hodgkin's lymphoma	473	2.5
10	Leukemia	429	2.4
	All cancers	18,053	93.4

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

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 5-7, 5-8 & 5-9).

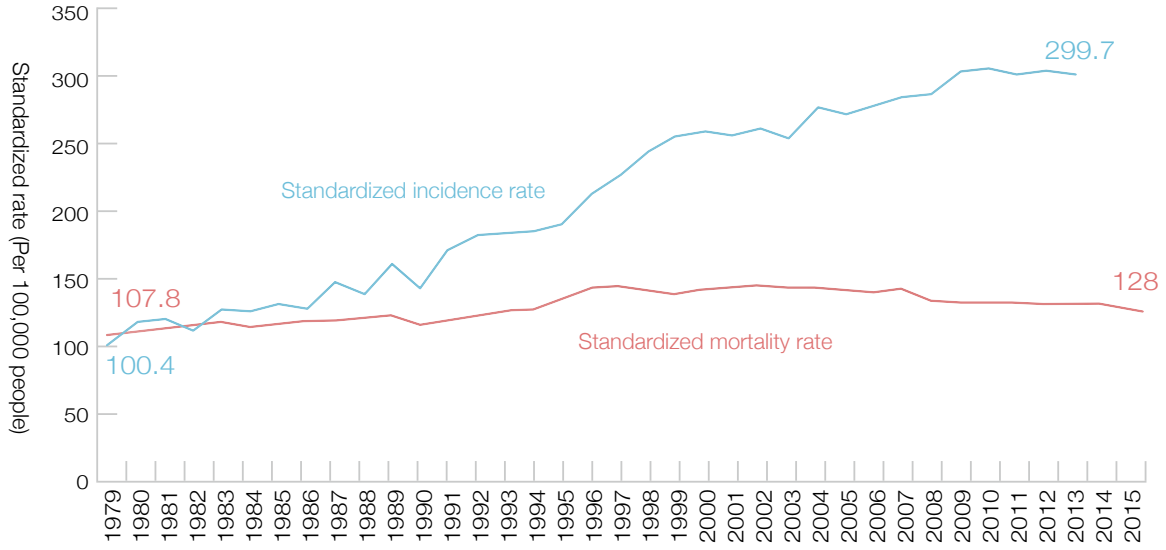
3. Increase/Decrease in Annual Cancer Incidence and Mortality in Recent Years

Ministry of Health and Welfare statistics on causes of death showed that cancer has been the leading cause of the top ten deaths 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 115 per 100,000 in 1982 to a peak of 144.3 in 1997.

Over the next decade it hovered between 138 and 144, and by 2015 it was 128 (per 100,000 people). The age standardized incidence rate of cancer during the same period rose from 110.9 per 100,000 people in 1982 to 299.7 per 100,000 people in 2013 (see Figure 5-7).

In addition, based on ten-year analysis of the

Figure 5-7 **Cancer Standardized Incidence and Mortality Rates in Recent Years**



1. Note: Cancer incidence rate and mortality rate
Source: HPA, MOHW 2013 registered cancer data and 2015 Statistics on Cause of Death, Department of Statistics, MOHW.
2. Age standardized rate: Calculated according to the standard world population in 2000

standardized cancer incidence rate from 2004 to 2013, cancers amongst men increased by an average of 7.3%. Prostate cancer (38.7%) had the highest increase rate, while stomach cancer (21%) had the highest decrease rate. Cancers among women increased by an average of 12.3%, with endometrial cancer (70.5%) having the highest increase rate, and cervical cancer (47.8%) having the highest decrease rate (see Figures 5-8, 5-9).

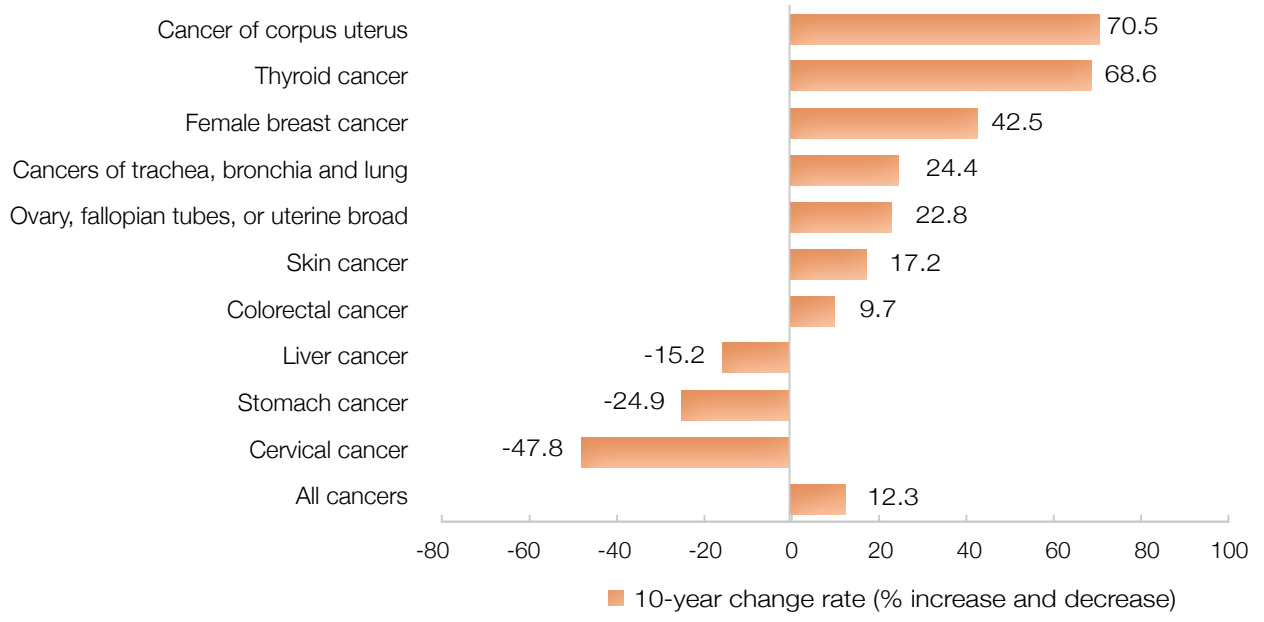
Target Indicators

Improving cancer screening rates:

1. Achieved a cervical cancer screening rate of 70% among women aged 30-69 over the past three years.

Figure 5-8 Age-Standardized Incidence Rates for the 10 Leading Cancers Among Men,10-Year Change, 2004-2013

Figure 5-9 Age-Standardized Incidence Rates for the 10 Leading Cancers Among Women,10-Year Change, 2004-2013



2. Achieved a breast cancer mammogram screening rate of 39.5% among women aged 45-69 over the past two years.
3. Achieved a colorectal cancer screening rate of 44% among people aged 50-69 over the past two years.
4. Achieved an oral cancer screening rate of 56% among people aged 30 or above who chew betel quid (or have given up) or smoke tobacco in the past two years.

Policy Implementation and Results

1. HPV Vaccination

Research has confirmed that cervical cancer is caused by the human-papilloma virus (HPV) infection. In Taiwan, government approval was given for two HPV vaccines, Gardasil and Cervirax, in 2006 and 2008 respectively. They were perceived as effective in preventing the infection of HPV type 16 and 18, thus reducing cervical cancer incidence and mortality rates. The WHO has indicated that the cervical cancer caused by HPV type 16 and 18 comprised 70% of all cervical cancer infections. HPV vaccine can prevent cervical cancer caused by the infections of HPV type 16 and 18. In April 2009, the WHO presented a position paper regarding the HPV vaccine (position paper). In 2014, the WHO renew recommended that: (1) The primary subject of the vaccine would be 9 to 13 year old girls who had not yet become sexually active. (2) The secondary subjects would be older adolescent females. Due to the limited budget of the HPA, according to the recommendation of gradual phase-in introduction of the vaccine by the WHO, we will first choose groups who are less likely to have pap smear screenings (note: economically disadvantaged and aboriginal regions have lower pap smear screening rates). We make use of the tobacco surcharge to subsidize HPV vaccination. Currently, the HPA subsidizes HPV vaccinations for low- income and medium- low income families, aboriginal regions, and female junior high school students in offshore islands.

The HPA mailed HPV vaccine introductions and letters of consent to junior high school girls who are qualified, and also mailed “Intimate Notes for Women” , “Stay Away From HPV” , and “Cervical Cancer-Tips About Sex DVD” . They introduced the relationship between cervical cancer and HPV, HPV vaccine, and cervical cancer prevention. In order to maintain public health, the HPA provided related health education information before vaccination (including information on the vaccine, its safety, and side effects). Doctors will evaluate the physical conditions of people who are going to receive the vaccination and the vaccine recipients should be closely observed for 30 minutes after vaccination. We

also provide a 24-hour free counseling service hotline. Any individuals who suffer problems after vaccination can dial the number and be provided with support. In 2015, the completion rate of all three doses of vaccine was 92.2%.

2. Promoting Screening for Leading Cancer

Incidences of cervical cancer, breast cancer, colorectal cancer, and oral cancer account for approximately one third of all cancer cases. Evidence shows that widespread screening greatly reduces incidence and mortality rates. In particular, pap smears can reduce incidence and mortality rates of cervical cancer by 60-90%; mammograms reduce breast cancer mortality rates by 20-30%; fecal occult blood tests reduce colorectal cancer mortality rates by 15-33%; and oral mucosa tests can reduce oral cancer mortality rates by 40%.

In 1995, 1999, 2002 and 2004, the government began to offer pap smear screening to women over age 30, oral cancer screening for people aged 18 or over who smoke or chew betel quid, breast cancer mammograms for women aged 50-69, and fecal occult blood tests for people aged 50-69 respectively. From July 2002 to June 2004, doctors conducted breast cancer screenings in two stages: high-risk women were first 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 45-69 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 have suffered from breast cancer (such relatives include paternal grandmothers, maternal grandmothers, mothers, daughters, sisters). Also in 2010, the government began to incorporate screenings for colorectal cancer and oral cancer into preventive health care services. Screenings for oral cancer were made available to people over the age of 30 who smoke or chew betel nut (including those who have quit). In order to safeguard the health of more of the public 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 50-74, while the age of eligibility for oral cancer screening for aboriginals who chew betel nut (or have given it up) has been brought forward to 18.

In 2015, the HPA continued to promote four types of cancer screening with the following strategies and achievements:

(1) Emotional Appeals and Health Broadcasts Through Diverse Channels

In order to reinforce the public's awareness of the cancer screening provided by the government, we began

actively cooperating with health bureaus, healthy centers, 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 and to advocate the concept of regular screening. Through promotional films, we called on the public to take the threat of cancer seriously, and reminded everybody to undergo screening, regular checkups, and if tests are positive, of the importance of follow-up diagnoses. In 2015, HPA shot a betel nut documentary, in order to raise awareness of the hazards of betel nuts and encourage people to actively receive screening services using cartoon versions of God and betel nuts to answer questions. This helped reinforce people's resolve to quit chewing betel nuts or start chewing betel nuts in the first place. We produced and disseminated health tapes of the subject of female cancers, and through relaxing conversations between family members, we reminded women of the importance of regularly conducting cancer screenings (mammogram and pap smears).

The HPA conducted a telephone survey of the public. The survey showed the percentage of people who are aware that the government subsidizes free cancer screenings. 72% of respondents were aware of the types of cancer screening subsidized by the government.

In addition, 80% of people who knew that the government subsidizes free cancer screening services were satisfied with the cancer screening services.

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

In 2015, we entrusted 231 medical institutes to conduct "Cancer Quality Improvement Planning" We asked that the hospitals establish clinic cancer screening reminder systems, and one-stop service windows for positive individual referrals. We also cooperated with local health authorities to undertake community screening, and conducted hospital health education and betel nut cessation classes. We also tried to change the previous mindset within hospitals that emphasized treatment and neglected the concept of prevention. We have revolutionized the medical culture and operational modes of hospitals. The clinics of the hospitals that participated in this plan comprise approximately 92% of all hospital clinics in the country. 2,736,000 people underwent screening for four cancers. The screening rate was 41.4% of the national total. The screening rate doubled compared to the same time in 2009 (cervical cancer screening increased by a factor of 1.01, breast cancer screening by a factor of 2.6, oral cancer screening by a factor of 5.8, and colorectal cancer screening by a factor of 19.8). More than 33,000

Table 5-10 **2015 Results 4 Cancers Screening**

Item	Subject	Screening policy	2015 screening results
Cervical cancer	Women over age 30	Pap smear test once a year Recommended once every three years	The rate of 30-69 year old women who have undergone a pap smear test within the last 3 years was 74.5% (Phone survey)
Breast cancer	1. 45-69 year old women 2. 40-44 year old women with a paternal grandmother, maternal grandmother, mother, daughter, or sister who had been diagnosed with breast cancer	One mammogram checkup every 2 years	The rate of 45-69 year old women who have undergone mammogram screening in the past two years was 39.5%
Oral cancer	1. Those aged 30 or above who chew betel nut (or have given up) or smoke tobacco. 2. Aboriginal people aged between 18 and 29 who chew betel nut (or have given up).	One oral mucus checkup every 2 years	The rate of those aged 30 or above who chew betel nut (or have given up) or smoke tobacco, and have undergone oral screening within 2 years was 56.1%.
Colorectal cancer	People aged 50-74	One fecal occult blood test every two years	The rate of those aged 50-69 who have undergone fecal occult blood test in the past two years was 42.0%.

people were found to have precancerous pathological changes and cancer.

(3) Major cancer screening results

In 2015, 5.06 million screenings were carried out for cervical cancer, breast cancer, colorectal cancer, and oral cancer. A total of 10,000 cases of cancer and 50,000 cases of pre-cancer were detected, and 60,000 lives were thus saved. Details are listed below (Table 5-10).

A. Cervical cancer

In 2015, 2.17 million cervical pap smear screenings were administered to females over the age 30, pushing the percentage of women aged 30 to 69 who had undergone screening for cervical cancer within the past three years to 74.5%. Pre-cancer was detected in 10,474 of these women, while 4,014 were found to have cancer (data from telephone research).

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 68% between 1995 and 2015, from 11 to 3.5 people per 100,000. The standardized cervical cancer incidence rate also decreased by 62%, from 25 per 100,000 in 1995 to 9.5 per 100,000 in 2013.

B. Breast cancer

In 2015, the HPA provided mammogram tests for 774,000 women aged 45 to 69. Approximately 3,701 cases of breast cancer were detected (the screening rate was 39.5%). In addition, in order to improve the accessibility of breast cancer screening, in 2010 we subsidized local governments in providing 'mammogram-mobiles' and in procuring mammogram equipment. Various local governments and medical institutions also purchased these 'mammogram-mobiles' and mammogram equipment.

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 50-74. The screening rate amongst people aged 50-69 in 2014 and 2015 was 42.0%. The tests were conducted on a total of 1,181,000 people in 2015. 33,529 were found to have tumors, and 2,352 were found to have colorectal cancer.

D. Oral cancer

In 2010, screenings for oral cancer were

Table 5-11 **2010-2015 number of people who underwent screening for four major cancers**

Cancer Screening Type	2010	2011	2012	2013	2014	2015
Cervical cancer screening	2,151,796	2,153,869	2,157,146	2,176,498	2,178,439	2,170,460
Breast cancer screening	525,544	559,558	670,514	695,832	801,865	773,575
Oral cancer	799,630	868,804	981,893	978,861	1,006,116	939,222
Colon cancer screening	1,023,388	786,086	1,123,190	1,028,437	1,252,427	1,181,474

Table 5-12 **2010-2015 screening rates for 4 major cancers**

Cancer Screening Type	2010	2011	2012	2013	2014	2015
Cervical cancer screening	72% (telephone survey)	-	77% (telephone survey)	76% (telephone survey)	73.5% (telephone survey)	74.5% (telephone survey)
Breast cancer screening	21.7%	29.5%	32.5%	36%	38.5%	39.5%
Oral cancer	32%	40%	52.5%	54%	54.3%	56.1%
Colon cancer screening	23.4%	32.2%	34.2%	38.2%	40.7%	42.0%

Table 5-13 **2010-2015 Number of people with precancerous lesions of the 3 major cancers**

Cancer Screening Type	2010	2011	2012	2013	2014	2015
Cervical cancer screening	11,985	10,369	9,637	9,996	10,756	10,474
Oral cancer screening	2,081	3,845	3,445	3,703	4,370	4,095
Colon cancer screening	21,102	17,479	23,775	26,207	36,229	33,529

Table 5-14 **2010-2015 number of people with 4 major cancers**

Cancer Screening Type	2010	2011	2012	2013	2014	2015
Cervical cancer screening	5,656	4,797	4,045	4,191	4,186	4,014
Breast cancer screening	2,550	2,820	3,166	3,307	3,680	3,701
Oral cancer	1,659	1,428	1,232	1,274	1,395	1,361
Colon cancer screening	2,101	1,800	2,001	2,030	2,490	2,352

incorporated into preventive health care services for the first time. Hospitals contracted under the National Health Insurance program have been able to provide people above the ages of 30 who smoke or chew betel nut (including people who have quit), and aborigines above aged 18 and older, with one oral mucosa test every two years since June, 2013. In order to provide the public with more convenient screening services, the HPA commissioned local health departments to provide training on oral mucosa tests to physicians other than dentists and otolaryngologists to get more doctor involvement in these screening services.

A total of 939,000 tests were conducted in 2015. 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 56.1% in 2015. These tests detected oral potentially malignant disorder in 4,095 patients and oral cancer in 1,361 patients.

(4) Improving Quality of Cancer Screening Services

In order to improve cancer screening services, the HPA entrusted the Taiwan Society of Pathology with the task of certifying institutions that offer cervical pathological diagnoses and improve the quality of screening operations. In 2015, it had completed follow-up inspections at 38 institutions, and a cumulative total of 117 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 200 institutions by December 2015, and a cumulative total of 204 institutions had been certified by the end of the year. For institutions conducting fecal occult blood tests, the HPA has entrusted the Corporation Aggregate Taiwan Society of Laboratory Medicine to conduct qualification checks and service improvement work. A total of 135 institutions conducting fecal occult blood tests had undergone checks by the end of 2015. 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 Cancer Prevention And Education Foundation to provide training on oral mucosa tests. In 2015, they provided training to 441 dentists and 256 ENT doctors . We have also authorized local governments to conduct oral mucus educational training for non-dental and non-ENT doctors. A total of 465 doctors from other specialties were trained in 2015, and many 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, in 2015, the HPA collaborated with local health centers to hold practical training events at medical institutions conducting oral cancer testing (a total of 38 hospitals and 42 clinics and health centers), and also helped them to incorporate this testing into their routine operations.

3. Quality of Cancer Treatment

(1) Cancer Care Quality Improvement Plan

In accordance with the Cancer Control Act, the HPA introduced a set of guidelines in order to improve the quality of cancer care in 2005. In 2015, we subsidized 87 medical institutions to implement 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, oncology nurse case management and one-stop services for cancer patients.

The quality of cancer medical healthcare directly influences the survival rates of cancer patients. Therefore,

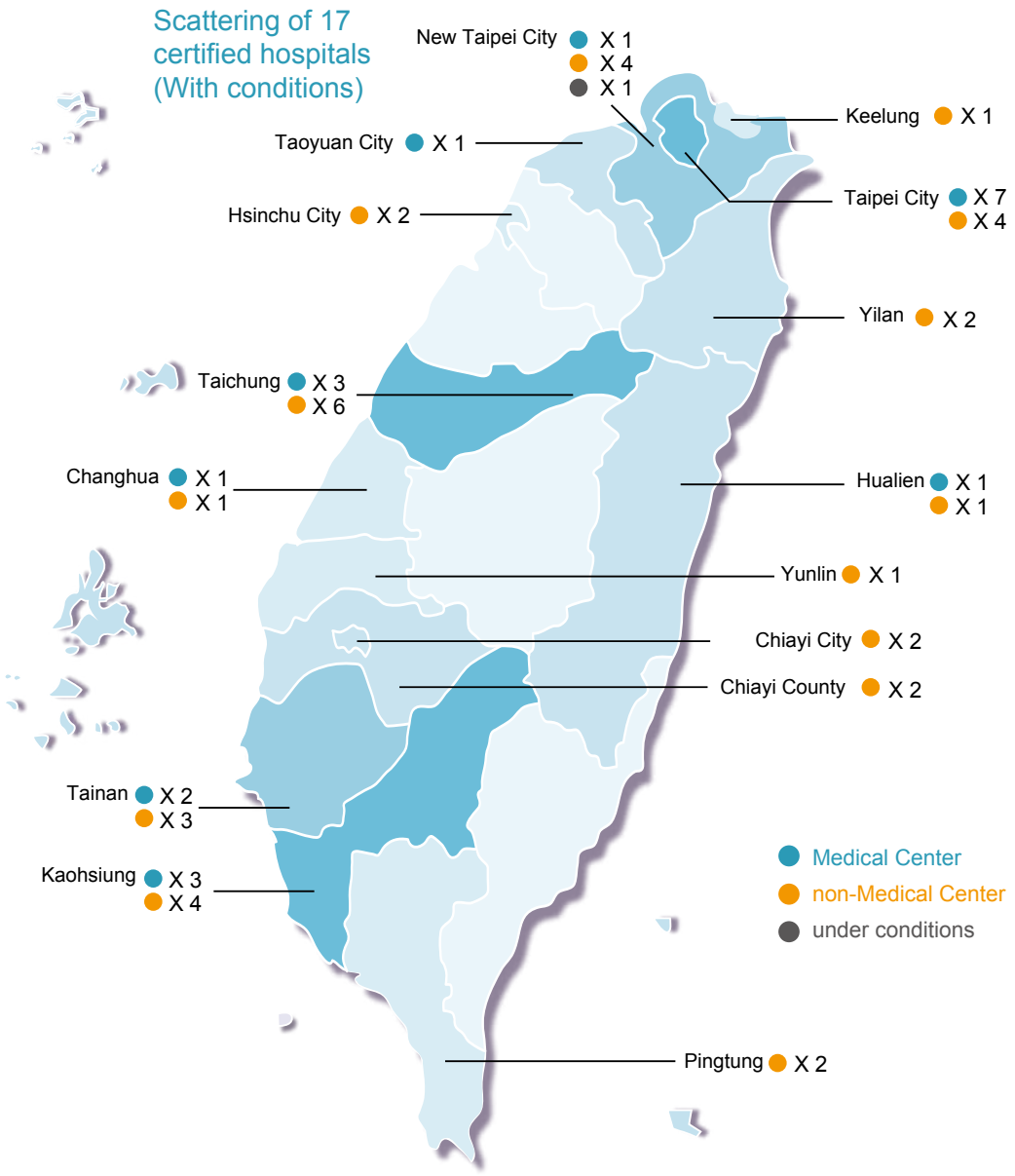
in 2005, the HPA invited National Health Research Institutes to plan the "Cancer Treatment Quality Certification" system. On October 4th 2007, we announced the "Cancer Treatment Quality Certification Standards and Grading" , along with "Cancer Treatment Quality Certification Operating Procedures" . We focused on hospitals which had had more than 500 newly diagnosed cases of cancer, and conducted cancer treatment quality certification work. The goal of the certification standard was to help hospitals establish cancer healthcare structures, and cancer treatment schemes. For example, we established holistic cancer committees to plan and supervise the cancer operations in the hospitals, establish cancer registration information and product management plans, form professional cancer healthcare teams, clinical treatment indices, and stipulate healthcare SOPs.

In order to continue upgrading the quality of domestic cancer treatment, in 2010 we conducted the first revision of certification standards. The second version of certification standards added items such as: quality of radioactive treatment, diagnostic imaging, tumor case management, and medical staff continuous education. The reason behind such additions is our pursuit to provide a safe and effective medical environment for cancer patients. In 2014, we conducted the second revision of the standards. In 2015, the third version of certification standards added psychological healthcare counseling services as a way of reinforcing the importance of psychological healthcare. By the end of 2015, 55 hospitals had passed the certifications, and we posted this information online for reference by the public. (Table 5-10).

(2) Accreditaiton of Cancer Care Quality

Pathology and image reports are important sources of evidence for clinical doctors when it comes to treating cancer patients. In 2007 and 2010, we started developing cancer pathology and image reports (CT and MRI). Currently, we have developed the necessary items for 19 types of cancer pathology reports and 20 cancer image reports. In addition, due to the common cancer targeted therapies, the quality of molecular pathology inspection is very important, and since 2010 we have started planning the upgrade of molecular and biological pathology inspection, conducted seminars, and held capability testing.

Figure 5-10 **Scatter map of hospitals that passed cancer treatment quality certification in 2015**



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 has created a greater need for integrated, continuous and multifaceted care services. To help cancer patients cope with the physical, mental and social strains of illness, the HPA has run a cancer patient service program since 2003.

In 2015, we subsidized seven NGOs in conducting direct service plans for cancer patients, thus providing cancer patients and family members with comprehensive cancer support care. The service content includes: telephone health education and 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 20,000 patients.

In order to construct cancer patient service networks, as we provided subsidies to hospitals to upgrade their cancer treatment quality, we also established cross-hospital cancer medical healthcare trial plans. A total of

67 hospitals joined forces to create a "Cancer Resources Center." By integrating resources inside and outside of the hospitals, nurses, social workers, and psychologists are better able to provide integrated cancer resources services so that patients and their families can return home to their community and feel confident in their treatment. These services were used around 160,000 times in 2015. The HPA also commissioned the Hope Foundation for Cancer Care to train personnel tasked with one-stop 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 has been 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 eight hospitals on a trial basis. The number of hospitals receiving subsidies to conduct these services increased to 34 in 2005. At the end of 2015, 53 hospitals were offering 'shared-care', 83 were providing inpatient services, and 133 offered home care services. This has greatly upgraded patients' use of palliative healthcare.

Being honest with cancer patients is a clear first stepping stone in helping them to achieve good palliative healthcare. In 2014, HPA's subsided hospitals to establish standards by which cancer patients are made aware of the reality of their illness based on the cancer patient's willingness to know. This method not only protects the rights of cancer patients, but it also provides a basis for medical staff to follow. "The 2015 Cancer Quality Improvement Plan" will follow up with contents related to execution of this plan, design report platforms, and standards of information to be provided to patients in the event of a cancer diagnosis.

Due to the difficulties of hospital promotion, in 2014, we shot documentaries to advocate the importance of telling the truth to cancer patients. We have already completed a 30 second TV ad, three four-minute versions, and one nine-minute mini-movie, all of which are shown on the HPA website and on Youtube. All cancer treatment and screening hospitals have been provided with links, and we also provided different language versions of these videos (Mandarin, Taiwanese, Hakka, and English) to all medical institutes, county and city health centers, health service centers, long term care institutes, cancer related civil groups, and other institutes that are in a position to play the films and thus advocate the importance of truth telling.

The Quality of Death Index created by the Economist Intelligence Unit focused on the death quality indices in 80 countries and regions around the world. Death quality indices include aspects such as: palliative medical environment, human resources, dependency of medical management, nursing management, and social participation. Taiwan was ranked number six globally, and first within Asia. This was a great improvement from number 14 in the last survey.

In order to further enhance the quality of hospice and palliative care, the HPA conducted collective palliative healthcare services and guidance mechanisms, along with related training for cancer prevention staff and palliative healthcare teams. We also subsidized civil organizations in expanding palliative care awareness events. In 2015, a total of 287 publicity events were held, and approximately 17,352 people were served.

Part 6

Special topics

Special topics

In the 1998 World Health Report "Life in the 21st Century: A Health Plan for All" the World Health Organization (WHO) underscored the concept of health equality. That is to say, prevention of risk factors and diseases should involve different strategies and courses of action as are appropriate to differing genders, races, and incomes, 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 therapy related to the menopause, osteoporosis and incontinence. High on the list of health concerns facing 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 Yu Cheng patients. In order to truly achieve the three goals of health development, health protection and disease prevention and thus the ultimate aim of health equality, the focus should be on different strategies, plans, methods and interventions for assisting different groups.

Section 1 Women's Health

Status Quo

Taiwan has become an aging society. In 2015, female life expectancy was 83.6 years, women aged 50 or over accounted for 37.1% of the entire population, and the average menopausal age is about 50, indicating that there is a lot of time left for women to live after going through their menopause. In the Nutrition and Health Survey in Taiwan conducted by the Department of Health from 2013 to 2014, 677 people aged 50 or over were found to have osteoporosis through checkups making use of dual-energy absorptiometry (DXA). Of these, 10.8% were suffering from lumbar osteoporosis and femoral neck osteoporosis. The corresponding percentages were 7.3% for men and 13.6% for women, respectively, indicating that women suffer more from this problem than men. Moreover, severity among women increased with age. According to the 2013 National Health Interview Survey, the likelihood of being diagnosed with osteoporosis increases with age, and the likelihood also increases after menopause. Around 1 in 5 women over 50 suffer from osteoporosis (21.9%), while the figure is even higher for women over age 65, at 31%. The same survey indicates that in Taiwan, 60% of women aged 45-54 have irregular periods or amenorrhea caused by menopausal changes. 90% of women aged 55-64 have irregular periods or amenorrhea. Therefore, it is important to provide middle-aged and elderly women with proper health information to help them establish a positive attitude towards life and encourage healthy habits. The HPA 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 2015, the service was used over 8,158 times. The majority of concerns expressed related to memory loss, inability to concentrate, fatigue, dry skin, increased number of wrinkles, dry eyes, insomnia, and loss of libido.
2. In order to increase the quality of counseling service provided to menopausal women and of information available for nursing staff and volunteers, we conducted menopause counseling training courses, training 84 counselors to provide hotline counseling services. We also held 24 menopause healthcare events at the service site, which 1,190 people attended. 11 menopause growth camps were also held, which 417 people attended. The course contents covered physiological and psychological changes experienced during the menopause, along with social changes and self-health management. We also conducted 7 menopausal healthcare seminars in Northern, Central, and Southern Taiwan. We invited menopausal experts and scholars

to give speeches, and we arranged three courses to help upgrade people's health management abilities, with a total of 517 people participating. We printed manuals and leaflets, used newspapers and magazines, broadcast and media advocacy, and planned and promoted "Menopausal friendly medical institutes" to provide women more supportive, convenient and friendly medical environment.

3. In order to help osteoporosis medical professionals to understand more about the prevention, treatment, and application of osteoporosis, we conducted 14 field courses, including 10 professional osteoporosis instruction classes mainly for doctors in medical institutes around the country. We also conducted 4 professional osteoporosis instruction classes, which was attended by nurses, nutritionists, medical radiologists, physical therapists, and pharmacists. A total of 918 people participated. Through simple educational courses, medical professionals can quickly grasp the important content of guideline which will help them to correctly design network courses, and render course content into video format. Ultimately, medical professionals can improve the practicability of osteoporosis guideline via network learning.

Section 2 Health of Disadvantaged Groups

Reproductive Health Care for New Immigrants' Spouses

Status Quo

In 2015, there were 154,346 marriage registries in Taiwan. Of the total number of newlyweds, 288,704 (93.5%) were native-born; 10,455 (3.4%) were from Mainland China (including Hong Kong and Macau); and 9,533 (3.1%) were foreign-born. Of foreign-born brides in 2015, most were from Mainland China, Hong Kong and Macau (59.73%). South-East Asia ranks second as a region, making up 36% of foreign born brides, and 4.25% of brides were of other nationalities. Most foreign-born grooms came from other areas (56.12%), while 28.4% were from Mainland China, Hong Kong, and Macau, and 15.83% from South-East Asia. The total number of foreign-born spouses in 2015 was 509,000 of which 165,000 came from outside the Greater Chinese region, representing 32.42% of spouses; with 343,000 coming from Mainland China, Hong Kong, and Macau, representing 67.38% of spouses. Children born from couples with at least one foreign spouse reached 6.2% of the total population in 2015 (Figure 6-1).

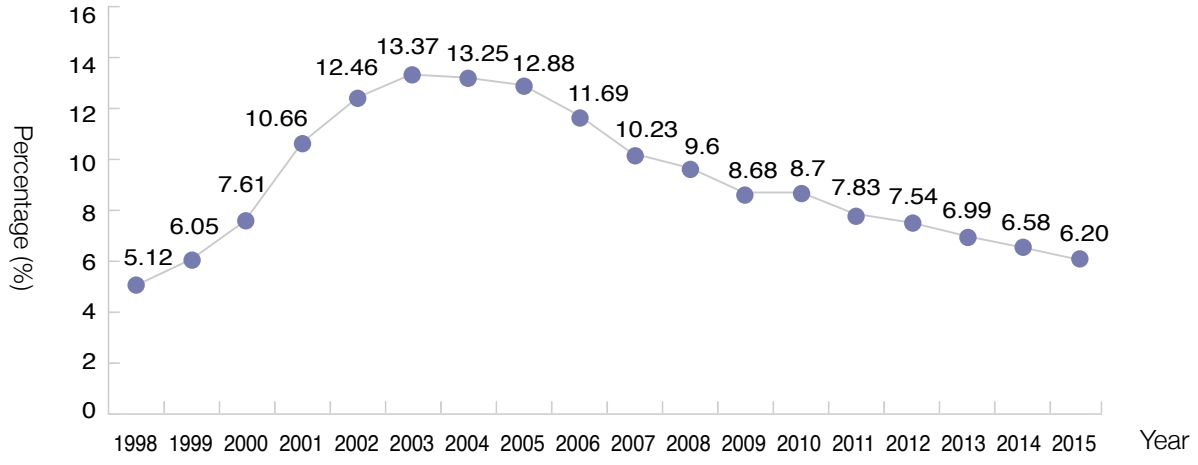
Target Indicators

The goal is to have reproductive health guidance and consultations reach 98% or more for new immigrant spouses.

Policy Implementation and Results

Taiwan has witnessed a slow decline in terms of the

Figure 6-1 Percentage of Births with a Foreign Parent,1998-2015



Source: Department of Statistics, Ministry of the Interior

diversity of its immigrants in recent years. The majority of these immigrants are spouses of domestic residents from cross-border marriages. HPA has worked together with Ministry of the Interior to implement the'Foreign and Mainland Chinese Spouses Childbirth Health Management Program'to help these new immigrants improve their reproductive health, and to help them to adapt to a new life in Taiwan.

The results of our proactive efforts in promoting the reproductive health of new immigrants are as follows:

1. Implementation of Reproductive Healthcare 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 and their children (Figure 6-2). The HPA also offered services and guidance on family planning, prenatal and postnatal care, reproductive health care and immunizations. High-risk or abnormal cases were given referrals for treatment. In 2015, 6,550 new health cards were issued. Of these, 2,975 were given to foreign spouses (all of these were foreign newlyweds who had registered during the year) and 3,575 were given to mainland Chinese spouses (all of these were foreign newlyweds who had registered during the year).

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 health services for foreign spouses. Foreign spouses who have lived in Taiwan for many years are trained to serve as interpreters for health officials who visit the households of newly admitted foreign spouses. Interpretation services are also often called for during provision of pediatric outpatient services or other reproductive health care services. By the end of 2015, the Ministry of the Interior's Fund for Caring for and Helping Foreign Spouses had subsidized 211 health centers in 19 counties and cities across the country. This helped to provide interpretation services in reproductive health care.

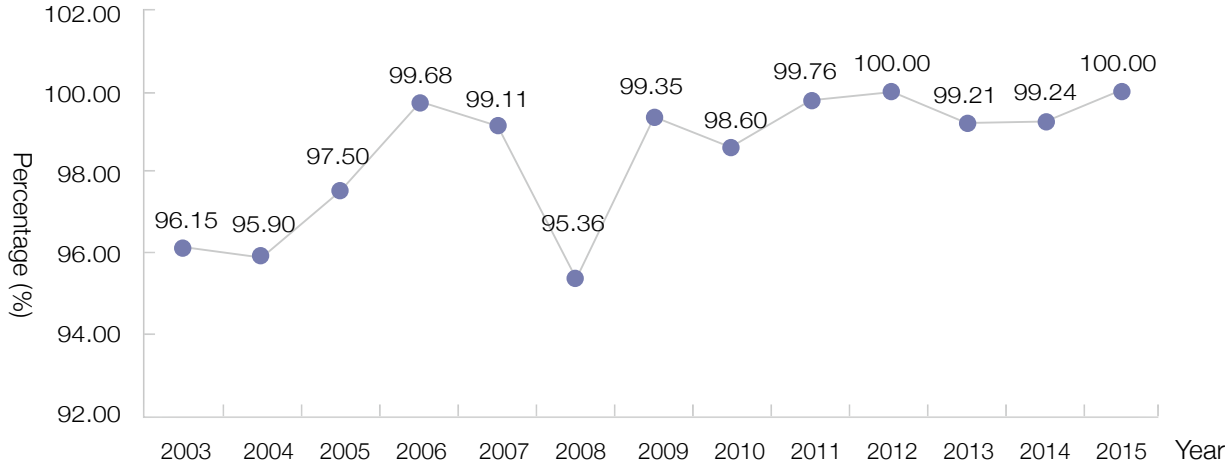
3. Subsidizing Prenatal Examinations for Those Not Covered by Health Insurance

Since 2005, the HPA has drawn on the Ministry of the Interior's Fund for Caring for and Helping Foreign Spouses to subsidize prenatal examinations for foreign mothers who have recently immigrated and are not yet covered by National Health Insurance. Since 2011, HPA has planned its budget to allow for this subsidy. In 2015, subsidies worth a total of NT$ 6,261,796 million were provided for 13,845 prenatal exams.

4. Researching and Producing Health Education Materials in Multiple Languages

In order to help foreign spouses overcome language barriers, the HPA has developed reproductive health educational materials in multiple languages. Publications in 2015 included "Health Handbook for Expectant Mothers"

Figure 6-2 **Proportion of reproductive health cards issues to newly-registered foreign spouses, 2003-2015**



Source: HPA Maternal and Child Health Management System

and "Health Handbook for Child Health" in Vietnamese, Khmer, Thai, Indonesian and English versions. These were sent to health bureaus in every county and city for distribution to healthcare centers. They were translated, edited, and further printed to be used in the 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

In 2015, Taiwan launched a reporting mechanism for rare diseases. 10,370 cases had been reported through this mechanism by the end of 2015. 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. They also depend on special nutritional foods in the course of their medical care to maintain their life.

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 special nutritional foods essential for the maintenance

Table 6-1 **International Comparison of Legislation to Protect Rare Disease Patients**

Country	US	Japan	Australia	EU	Taiwan
Year Legislation on Introduced	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	Prevention of Rare Diseases 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	1. Research and development of drugs 2. Research and development of medical equipment and nutritional supplements required by rare disease patients	1. Research and development of drugs 2. Research and development of medical equipment and nutritional supplements required by rare disease patients	Research and development of drugs	Research and development of drugs	1. Research and development of drugs 2. Research and development of medical equipment and nutritional supplements required by rare disease patients

of life, in 2000 Taiwan promulgated the Prevention of Rare Disease and Orphan Drug Act, becoming the fifth nation in the world to introduce legislation specifically designed to protect rare disease patients (Table 6-1). After two amendments in January 2005 and December 2010, the regulations are now more comprehensive. The HPA continues to collect recommendations from rare disease patients and their families, patient groups, and legislators. We reviewed and amended these regulations based on experiences of their implementation, and these amendments were passed after the third reading. On January 14th 2015, we once again amended and implemented these regulations; 13 articles were amended in the process. Key points of this new revised act are: to increase subsidization of supportive and palliative healthcare; to increase fines for medicine suppliers who cease to provide orphan drugs unreasonably and without force majeure; to appoint professional staff for visits; and to provide patients and their families with psychological support, care for reproductive issues, and counseling services. When rare disease patients go to hospital, go to school, or receive home care, competent authorities should cooperate with relevant institutions to provide necessary assistance. Following these amendments, healthcare provision for sufferers of rare diseases and support for their families is more comprehensive.

On December 7th 2015, we announced the revision of Rare Disease and Orphan Drug Act. In 2015, we elaborated the international rare disease medical professionals subsidy proposal and rare disease prevention work bonus subsidy proposal.

1. Making Treatment Available for Rare Disease Patients

(1) Protecting the Rights of Rare Disease Patients to Medical Treatment

Since September 2002, designated rare diseases have been included on 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. Furthermore, in accordance with Article 33 of the Prevention of 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 Review Committee for Rare Diseases and Orphan Drugs

By the end of 2015, the Committee had reviewed, certified and declared 210 rare diseases. They had also listed 92 orphan drugs and 42 nutritional supplements, determined the conditions they were suited for, and reviewed applications for treatment subsidies.

2. Establishing a Comprehensive Medical Network for Genetic and Rare Diseases

(1) Establishing logistics center of special nutritional foods and emergency orphan drug for rare disease. In 2015, subsidies of approximately NT$ 60 million were extended for the storage and supply of 42 nutritional supplements and 11 emergency drugs.

(2) With regards to uncovered medical subsidies for rare diseases, in 2015 we subsidized a total of 2,523 people (732 patients with rare diseases who needed household medical facilities to survive; nutritional counseling subsidies for 395 people with rare metabolic diseases; 65 people requiring domestic and international confirmation of diagnosis; and 1,331 people who have rare diseases and need special nutritional food and drugs).

(3) Through various reproductive genetic services (including prenatal genetic diagnosis, newborn screening, and genetic disease check-ups and counseling), we provided medical services for genetic and rare diseases at 14 medical centers. We also set up the genetic disease counseling website, providing information and resources relating to genetic and rare diseases.

3. Research, Education and Publicity to Prevent Rare Diseases

The HPA draws on media resources to inform the public about prevention of rare diseases. In 2015, HPA subsidized patient support groups in holding a total of 21 meetings at patient support centers, businesses, and health centers.

Healthcare for Yu Cheng Patients

Status Quo

In 1979, in the Taichung and Changhua regions, contamination of rice bran oil from PCB (used as a heating medium in the deodorization stage of rice bran oil refining) and its thermal denatured byproduct through splits in pipes led to over 2,000 residents suffering from PCB poisoning (Yu Cheng Patients). According to research, PCBs poisoning may cause long-tern damage to the liver, immune system and nervous system, as well as more immediate effects such as chloracne, pigmentation and eyelid gland dysfunction.

Since April of 1979, the former Department of Health, Taiwan Provincial Government has been registering instances of PCB poisoning, as well as providing blood tests and healthcare services. The local health bureaus provided follow-up visits, health education, and medical referrals. Since March 1997, the Former Taiwan Provincial Government entrusted the National Health Insurance Administration to subsidize outpatient copayment for Yu Cheng patients. After re-organization of the Taiwan Provincial Government in July 1999, the services for the Yu Cheng patients were transferred to the Center for Disease Control, Department of Health. In January 2004, the Health Promotion Administration (then known as the Bureau of Health Promotion) took over healthcare service provision for Yu Cheng patients. In 2011, HPA devised the healthcare service guidelines for patients with PCB poisoning, which is used as the basis for medical subsidies for Yu Cheng patients. In order to protect the health rights and benefits of Yu Cheng patients, and further upgrade the legal status of healthcare service provision for Yu Cheng

patients, on February 4th 2015 the "Yu Cheng Healthcare Service Act" was announced by the President.

Target Indicators

Establish a healthcare system for Yu Cheng patients and continue to provide these services in order to safeguard their right to health care.

Policy Implementation and Results

By the end of 2015, a total of 1,817 cases were registered by the HPA, including 1,272 first generation Yu Cheng patients and 545 second generation Yu Cheng patients.

1. HPA provides comprehensive healthcare services for Yu Cheng patients. The main points are as follows:

(1) In January 2004, local health bureaus were tasked with devising an annual medical care plan for Yu Cheng patients, which provides patients with a free health check-up each year, as well as copayment subsidies for clinical services.

(2) In July 2005, HPA included children of the first generation female Yu Cheng patients as second generation patients.

(3) Since December 2009, HPA stared offering special clinical services for Yu Cheng patients. The MOHW Feng Yuan Hospital and the Changhua Christian Hospital started providing "PCB poisoning special clinic" sessions every Tuesday afternoon.

(4) Since July 2010, Yu Cheng patients may be entitled to wave any copayments obligation for clinical or emergency services in all medical departments by showing their NHI card registered with Yu Cheng patient status, or "Yu Cheng patient treatment card" .

(5) The healthcare service guidelines for patients with PCB poisoning was promulgated in 2011, and is used as the basis for medical subsidies for Yu Cheng patients. A clause detailing the waiving of copayments for inpatient services used by first-generation Yu Cheng patients in all departments was added.

(6) On February 4th 2015, the "Yu Cheng Healthcare Service Act" was announced by the President and its legal status was further upgraded.

(7) According to the "Yu Cheng Healthcare Service Act" , not only does the government provide first generation and second generation Yu Cheng patients with emergency healthcare clinics, but they also cover partial medical expenses. First generation patients are partially covered for hospitalization expenses and are entitled to a free health checkup once a year. Special clinics for Yu Cheng patients also provide healthcare and education services. Items which feature as part of the new act are: the birthdates of the first generation Yu Cheng patients has been expanded from 1979 to 1980, and for Yu Cheng patients registered by the government who died prior to the implementation of this Act, surviving spouses and linear descendants can apply for a one time solatium of 200,000 NTD within two years.

An Yu Cheng patient healthcare promotion event was launched, and the personal and legal rights and benefits of Yu Cheng patients must be respected and protected, and indeed this has now been written into law. That means that these patients should receive equal educational, employment, and medical rights and benefits, and should not be discriminated against. When their legal rights and benefits are violated, the government should provide legal assistance. In November and December 2015 respectively, the initial act was reinforced with the "Yu Cheng Patient Rights and Benefits Protection Act" and "Yu Cheng Patient Rights and Benefits Legal Assistance Act."

2. Each year, local health offices within each county and city arrange free health check-ups for Yu Cheng patients at hospitals. Theses examinations include adult preventive health care, EKG, abdominal ultrasound, fetoprotein tests, Hepatitis C viral antibody tests, Hepatitis B surface antigens and surface antibody check-ups, categorization of white blood cells, serum biochemistry (alkaline phosphatase and gamma-glutamyl transferase), and occult blood immune analysis. In 2015, a total of 690 Yu Cheng patients received this free health check-up service (the overall participation rate was 38%).

3. By the end of 2015, HPA will have subsidized outpatient copayments for 18,125 Yu Cheng patients, and inpatient copayments for 106 patients, as well as organized one training session for 47 health office staff members.

4. Regarding the payment for blood relatives of Yu Cheng patients, the acceptance dates for applications runs from August 10th 2015 to August 9th 2017. As of the end of 2015, 39 Yu Cheng patients' solatium was paid by the government.

5. We participated in the Yu Cheng Victim Support Association Exchange Seminar on October 18th 2015, in order to understand the problems experienced by

patients and explain to them their health rights, the current status of healthcare services, and future prospect of promotions.

6. On December 15th 2015, we conducted the "2015 the first meeting of Ministry of Health and Welfare Yu Cheng Patient Healthcare Promotion Committee." which was composed of representatives from HPA, the Ministry of Labor, and the Ministry of Education. Yu Cheng patients, expert scholars, and representatives from the Taiwan Yu Cheng Victim Support Association. Together, they promoted Yu Cheng patient healthcare.

Promoting healthcare for the physically and mentally disabled

Status Quo

According to the monthly social welfare statistics of Ministry of Health and Welfare, as of 2015, 1,155,650 people were regarded as physically and/or mentally disabled. The majority of sufferers are male (56.71%). With regards to age, 38.96% of sufferers are over 65 years of age, and 26.26% are between 45 and 49 years of age. According to the recorded disability classifications, 32.51% suffered from physical disabilities, and 12.79% of them had suffered the misfortune of having lost vital organs.

Since 1996, the national health insurance has been providing adult health checkup services. Although the funding structure has changed slightly since then, with HPA being in charge of the budget since 2007, there are still certain provisions in place to provide for some of the categories as indicated above. According to the "Medical Service Institute Prevention Healthcare Service Act," adult prevention healthcare services for people aged 40 to 64 are provided once every three years, for people who are over the age of 35 and suffer from polio, once a year; and for people aged 65 over, also once a year.

Through health promotion hospitals, we actively provide holistic healthcare and preventive healthcare services, so that patients feel like they have someone to reach out to. In order to upgrade the health rights and benefits of physically and mentally disabled people and in order to fulfill our goals of upgrading people's health through medical processes, we are constantly evaluating the structural, cultural, decision-making, and procedural development processes that we have in place.

Target Indicators

Establish public health policies and create a healthy environment in order to promote health, provide the most appropriate prevention healthcare services, and protect the medical rights and benefits of all patients.

Policy Implementation and Results

1. As of December 2015, there are 160 domestic medical institutes (146 hospitals, 13 health centers, and one long term healthcare institute) that have been certified by the health promotion institute international network. Nine of these are psychiatric hospitals which provide holistic healthcare for physically and mentally disabled people.
2. Services include:

(1) Health checkups: on the basis of internationally recognized empirical evidence, and according to the age and risks of individuals, we provide adult prevention healthcare services once every three years. In 2015, 160,970 people made use of services and were deemed as being physically and/or mentally disabled. The overall usage rate was 22.1%.

(2) Other important service projects include provision of services to the elderly. In 2014, we provided eight major topics along which health promotion should be encouraged. A total of more than 320,000 people were served, and we actively promoted services for infants, children, and women on a yearly basis, ensuring that we were providing important health promotion services for physically and mentally disabled people.

Aboriginal health promotion

Status Quo

According to statistics from the Council of Indigenous Peoples, there are 16 aboriginal tribes: the Amis, Atayal, Paiwan, Bunun, Beinan, Drekay, Tsou, Say-

Siyat, Yami, Thao, Kavalan, Taroko, Sakizaya, Seediq, Hla'alua, and Kanakanavu. The aboriginal population is 530,000, which is 2% of the total population.

In order to take care of aborigines where possible, HPA provides prevention healthcare that covers them for life. Since July 2010, we have provided aborigines who are 55 years or older with adult prevention healthcare services once a year in contrast with 65 years of age for the general population. At the same time, in order to reinforce the concepts of "prevention healthcare" and "self-health management" for aborigines, in 2011 we edited and printed "Adult Prevention Healthcare Service Manual (Aboriginal version)" , and distributed it at 55 aboriginal health offices to aborigines who fulfill the qualification for checkups.

In order to reduce the risks of betel nuts to aboriginal health, in the aboriginal regions that have high betel nut chewing rates, together with regional cultural uniqueness, we highlighted the risks of betel nut, cigarettes, and alcohol, providing support groups for those who wanted to give up betel nut. Since 2010, HPA has included oral mucus checkups as an item on healthcare service check-ups. We provide people over age 30 who chew betel nuts (including those who have quit) and smokers with one oral mucus checkup every two years. Since June 1st 2013, aborigines who chew betel nuts (including those who have quit) can receive one oral mucus checkup every two years from as early as 18 years of age.

In order to promote the health of citizens, we subsidize the local government according to the population structures within their regions (including aboriginal regions), disease patterns, and changes in lifestyles. We undertook the "Community Health Building Plan" in the hope of integrating local community resources, promoting community participation, understanding local health needs, and solving community health problems together.

Target Indicators

Continue to enhance the provision of adult preventative health services to indigenous people and acquire an understanding of the utilization situation.

Policy Implementation and Results

1. In 2015, we provided adult prevention healthcare services to 33,000 aborigines over the age 55. In 2016, we estimate that we will provide services to 34,000 aborigines over the age of 55.
2. In 2015, we catered for support groups for those who wanted to give up betel nut in 25 aboriginal communities and schools with high betel nut chewing rates. In 2015, 19,076 aboriginal people over the age of 18 underwent oral mucus checkups. 48 of them had precancerous oral lesions, and 13 had oral cancer.
3. In 2015, "The Community Health Building Plan" subsidized a total of 19 county and city health offices, 150 community health building units, and 11 construction sites in aboriginal regions. These regions include: 1. Nantou County Xinyi Township Health Office, 2 Nantou County Yuchi Township Health Office, 3. Ditmanson Medical Foundation Chiayi Christian Hospital (Alishan Township, Chiayi County), 4. Taitung County Taitung City Health Office, 5. Ministry of Health and Welfare Taitung County (Taitung County Jinfeng Township), 6. Hualien County Spiritual and Charitable Association (Hualien City, Hualien County), 7. Hualien County Niuli Community Exchange Association (Shofeng Township, Hualient County), 8. Hualien County Xincheng Township Health Office, 9. Hualien County Ji'an Township Health Office, 10. Hualien County Ruisui Township Health Office, and 11. Hualien County Yuli Township Health Office.

Part 7

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 and meet public demand, local health bureaus must serve the people whilst simultaneously emphasizing quality, availability, accessibility, timeliness and cost efficiency. Public bodies must regularly and systematically undertake all kinds of health surveillance work, continuously collecting data related to citizens' health and risk factors, and making optimal use of health communication channels. These actions provide a foundation for health promotion strategies.

The HPA is eager to share its accomplishments in health promotion with the international community. We draw upon various media sources, including the internet, to facilitate international communication and cooperation, thus realizing our 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. As of the end of 2015, 22 county and city governments were administering 370 public health centers that employed a total of 4,465 people. 86% of all staff were female and 14% were male. Major responsibilities of public health centers are divided into two major categories: medical services and public health services. Medical services include Western medicine, dentists, household healthcare, and palliative care. Public health services include food management, psychological health, communicable disease prevention, long term healthcare, chronic disease prevention, health promotion, women and children health, medical administration, and pharmaceutical administration. We provide all kinds of basic medical healthcare services.

Policy Implementation and Results

1. Major achievements of public health centers in 2015

(1) Provided 757,469 immunizations, representing 17.99% of the national total.

(2) Provided preventive healthcare services to 132,245 children, or 11.83% of the national total. Provided preventive health care services to 86,264 adults, representing 4.74% of the national total.

(3) Provided 156,711 pap smear examinations, representing 7.45% of the national total. Fecal occult blood checkup services were provided to 270,569 people, which was 21.71% of the national total, and oral mucus checkup services were provided to 140,864 people, which was 14.13% of the national total.

(4) Offering'Smoke cessation services' at 333 public health centers, with a total of 48,726 service sessions provided, covering 10% of the national total. The rate of successful smoke cessation was 21.4%.

(5) NHI medical clinics served a total of 2,588,009 cases in 2014, approximately 1.02% of total cases in NHI authorized clinics.

(6) Issued 25,726 death certificates in 2014, 15.8% of the national total.

2. Education and Training of Public Health Center Staff

Public health centers provide community-oriented healthcare 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 healthcare duties. The HPA therefore began holding "Local Health center Staff Health Education and Training Workshops" in 2010, in order to improve staff competence in this and other areas. In 2015, three workshops on "community health evaluation" , "community health evaluations and practices" , and "how to write community health evaluations"

were held. We also conducted two workshop sessions, with a total of 77 people attending.

In addition, in order to improve professional knowledge and service quality amongst health center staff as well as overall quality of service, we have 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 2015, a total of 144 hours of public health core course digital materials were developed, on 37 different topics; and these provided health center staff with diverse and interactive learning tools. In 2015, five courses that lasted 10 hours were provided on the topics of: healthy eating and drinking, chronic disease prevention and control, visual healthcare, healthy aging, and birth health.

3. Maintaining Clinical Treatment Systems at Public Health Centers

In conjunction with local health departments in 18 counties and cities, the HPA completed procurement agreements to improve medical care information systems in Public Health Centers. The agreements, which expanded functionality of clinical treatment procedures and provided system maintenance, covered 286 health centers and 2 chronic disease prevention centers. Areas requiring maintenance to sustain normal operations included clinical medicine systems, management of chronic disease patient cases, screening record management, and report forms. There is also a need to regularly update system settings based on National Health Insurance reporting needs to ensure Public Health Centers are able to produce regular reports every month.

4. Hosting the 9th Annual Gold Public Health Centers Award Competition

The HPA has hosted the "Gold Public Health Centers Award Competition" since 2006 as a way of improving service quality in public health centers, increasing staff efficiency, and motivating staff. 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 and service environment and reinforce service quality. The public award ceremony also raises morale amongst health center employees by recognizing their achievements. The main themes of the 9th Golden Public Health Centers Awards in 2015 were "creating healthy drinking and eating environments on health center campuses," and "second hand smoke cessation services, along with tobacco-free community building". All county and city health centers were a part of initial selections, and 13 to 18 health centers were nominated to progress to the final stages of the competition. After document and field evaluations, Huatan Township Health center in Changhua was rated as outstanding in creating healthy drinking and eating environments on health center campuses, Maolin District Health center in Kaohsiung City and Waipu District Health Center in Taichung City received awards for excellence, and honorable mentions were given to Zhongzheng Health Service Center in Taipei City, Cijin District Health Center in Kaohsiung City, Mituo District Health Center in Kaohsiung City, and Citong Township Health Center in Yunlin Township. As for the "second hand smoke cessation services, along with tobacco-free community building" awards, outstanding awards were presented to Daan Health Service Center in Taipei City, Northern Region Health Center in Taichung City and Health Center in Xianxi County Changhua County, and honorable mention awards were given to Baozhong Township Health Center in Yunlin County, Fengshan District Health Center in Kaohsiung City, and Yilan City Health Center in Yilan County.

Health Departments

Status Quo

Health departments are key organizations in the promotion of public health initiatives: they can help integrate local resources, as well as implement health regulations, policies and objectives passed down from central health authorities. Health departments have a longitudinal and horizontal organizational structure, which helps them to accomplish their mission of promoting healthy behavior amongst the local population. In order to enhance health departments' work in health promotion and maternal and child health, the Health and Welfare Surcharge budget deriving from the 4th clause of the Tobacco Hazard Prevention Act, the 4th and 5th clauses of the Regulation of the Tobacco Health and Welfare Surcharge Distribution and Utilization, and Review Direction for Tobacco Control & Health Care Funds is given to central and local smoking prevention efforts.

Of this, 1.8% is used to subsidize local government health bureaus, in order to assist with tobacco prevention and healthcare operations.

Policy Implementation and Results

1. Subsidizing local tobacco hazards prevention and health protection plans

(1) Tobacco hazards 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 issues surrounding tobacco smoking and second-hand smoke. In 2015, the HPA subsidized local health departments to implement their tobacco hazards prevention and control action plans. These included: implementing laws in tobacco hazards prevention and control, reinforcing inspections and sanctions related to these laws, providing and utilizing smoke cessation service networks based on local government resources, holding tobacco hazards prevention activities for adolescents, creating a supportive smoke-free environment, assisting with events around World No Tobacco Day and other events, surveying smoking behavior among middle and high school students, and providing training plans for tobacco control personnel.

(2) Healthcare Action Plans: In 2015, the HPA subsidized local government health departments in implementing healthcare action plans, which cover the four major categories of metabolic syndrome and obesity prevention and treatment, cancer screening and betel nut hazard prevention and control, health promotion for adults, the middle-aged and the elderly, and women's and children's health promotion. There were 10 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 nut chewing, monitoring and inspection of gender ratios at birth, establishment of breastfeeding-friendly environments for mothers and babies, health promotion and accident and injury prevention and control, amongst aboriginal groups and new immigrants, hearing screening for newborn babies, children myopia prevention, and health literacy.

(3) In addition to subsidizing the aforementioned local efforts in tobacco hazard prevention and health promotion action plans, the HPA is also planning subsidies for remote areas to develop comprehensive action plans against smoking, alcohol and betel nut prevention. We also subsidize local smoking-related cancer prevention and control, age-friendly city plans with regards to breastfeeding feeding rate improvements, community health-building promotion programs, and promoting healthcare organizations to participate in health promotional work. These efforts will help to meet the specific health needs of local communities.

2. Evaluation of Healthcare Work and Holding the National Health Assembly

The HPA has stipulated evaluation standards for the aforementioned local efforts in smoking prevention and health promotion, in order to encourage local health bureaus to utilize limited resources to maximum effect in a spirit of active innovation, to fully implement relevant health promotion regulations and policies, to fulfill their role as the first defense in citizens' health, and to establish excellent partnerships with local resources. The HPA will also hand out awards of commendation on an annual basis at the National Health Assembly. Recipients of awards for excellence in the 2015 healthcare evaluations included local bureaus in the following 10 counties and cities: Taichung City, Tainan City, Changhua County, Chiayi County, Keelung City, Yilan County, Chiayi City, Hualien County and Penghu County. Awards for Improvement were given to Taipei City, Yunlin County, Keelung City and Lienjiang County, while other awards recognized specific achievements in different areas of health work.

Section 2 Health Communication

Status Quo

Due to the rapid development of communication and new media, citizens can now access health information quickly through a variety of channels including television, newspapers, magazines, outdoor media and the internet. Boundaries of time and space no longer apply in health information, as information can be transmitted over the web and through broadcast media quickly. 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. This involves effective dissemination of information on health promotion, disease prevention and other health-related topics. In order to extend its role when it comes to health online, the HPA provides the following websites:

Website name	Home page	Description
Health Promotion Administration, Ministry of Health and Welfare http //www.hpa.gov.tw/		1. The Administration of Health Promotion website is designed to: (1) Explain the missions of the HPA's various units and the services they offer to the public, and to provide contact information. (2) Provide the latest news on the HPA and its activities. (3) Provide information on health topics that cater to different segments of the population, such as free health check, maternal, newborn, and child health, adolescent care, healthy aging, oral care, visual healthcare, artificial reproduction, rare disease concern, tobacco hazards prevention, betel quid chewing prevention, chronic disease prevention, cancer prevention and control, weight management, diet and exercise, healthy city and district, handbook of related health issues and monitoring survey. (4) In order to accommodate audiences of different ages and different browsing preferences, we offer an English version, and the site is accessible on a mobile version. An RSS subscription is also offered. 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 movies covering key topics from the year. In browser view it is easy to 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.
HPA Facebook Page https://www.facebook.com/hpagov/timeline?ref=page_internal		1. The HPA has established an official Facebook fan page to disseminate accurate health information through the most convenient channel, with easily understood language and interactive platform. The page currently has over 79,000 fans, and the messages have had more than 180,000 views. We will continue to communicate with the public through this interactive platform by way of written and interactive content. 2. Content is divided into five categories: regular messages (health information, policy advocacy), information about events (using the page to advocate health knowledge and interaction), temporary messages (allowing immediate response and information sharing), press releases, and press conferences.

Website name	Home page	Description
Health 99 website http://health99.hpa.gov.tw		1. Currently the 'Health 99 Website' has an average of approximately 1,900,000 visitors per month, while total membership stands at over 89,000 people. In 2005 and 2006, the website was named an excellent health information website. Over 4,000 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 through a delivery service. We also provide insight on the latest health news, health columns, Internet rumors, Q&As, health-themed museums, and online health checkups. 2. The Health 99 Website will continue to plan and pioneer the subject of health media. Currently there are over 70,000 members on the site's Facebook fan page, and we will continue to interact with our online contacts. We will also provide different user-oriented services according to the specific needs of different groups. Themed network content and mobile APPs on mobile will further increase interaction with the public.
Obesity Prevention Information Website http://obesity.hpa.gov.tw/		1. Provides local health bureaus, health centers, venues, and the public with a convenient online platform for health education. 2. Establishment of a healthy weight management advice line. If members of the public have diet, exercise or weight control problems, and four advice channels are available; namely, they can call the local phone toll-free line on 0800-367-100 or Internet phone (address: http://210.59.250.202/HPA_WebCall/), can also search LINE ID: @call0800367100 and Facebook We fit -Health Promotion Administration. During service hours dedicated staff will provide answers and related suggestions.
Healthy Workplace Website http://health.hpa.gov.tw/		1. The website focuses on a healthy workplace. Through online content, we advocate smoking prevention and control, health promotion strategies, and workplace certification events for workplaces across Taiwan. 2. Contents include: the "Healthy Workplace Certification Garden" , "Workplace Health and Happiness" , "No Smoking in the Workplace" , "Good Things to Come" , "Resources Download" , "Online Education" , and "Other Relevant Websites" .
Cancer Registration and Online Interactive Search System https://cris.hpa.gov.tw/		This website provides information for the public, academics, and health authorities to search for data on epidemiology in Taiwan. Information from cancer registries helps health authorities or hospitals plan and evaluate cancer prevention and control programs within their jurisdictions.

Website name	Home page	Description
Website of the Hereditary Disease Counseling Service http://gene.hpa.gov.tw/		1. The website consolidates genetics disease-related professional information and resources as a reference for domestic medical specialists and public health personnel. The main objective is to help professionals secure the information they need to deliver fast and high quality services when handling genetic disorders, including rare diseases. 2. The Department of Health cited the website as an excellent health information website in 2006.
The Pregnant Women Care Website http://mammy.hpa.gov.tw		This website provides a cloud pregnancy care platform, which provides new generation mothers with more convenient access to cloud pregnancy management tools. Information covered relates to knowledge and learnings on pregnancy, pregnancy check-up management tips, maternal health records, child health care and treatment assistance. Resources such as a maternal diary, Facebook page, self-management tips, records, and experience sharing allows pregnant mothers and family members to make the most of this beautiful time, and experience the joy of welcoming newborn babies.
Website for Adolescents (Sexual Health e-learning) http://young.hpa.gov.tw/		1. The Website for Adolescents provides information related to sex education for adolescents. 2. Provides confidential online and webcam consultation services to adolescent visitors and unmarried pregnant teens. It is suitable for use by all adolescents.
Smoking Prevention Website http://tobacco.hpa.gov.tw/		1. The Website for Tobacco hazards prevention is devoted to promoting tobacco hazards prevention and presenting achievements in this field. It is intended as a one-stop platform for public health officials, instructors and members of the public to search for and download information. 2. The website contains the following sections: News, Second Generation Smoking Cessation Services, the Tobacco Hazards Prevention Act, tobacco hazards prevention strategies, smoke cessation services, smoke-Free Taiwan, past events, download, smoking behavior surveys, research results, event info, local tobacco hazards prevention, the smoke cessation Handbook, etc.

Website name	Home page	Description
Taiwan Smokers' Helpline Service http://www.tsh.org.tw		This website introduces smoke cessation hotlines and offers information and help with smoke cessation. Contents include: introduction to services available, news, events, Q&A, and updates on smoke cessation.
The HPA Quitting Smoking Management Center http://ttc.hpa.gov.tw/quit/		1. This website provides information related to our smoke cessation services. 2. Collaborative area for medical institutions: application procedures for smoke cessation services, operational know-how, Q&A, and smoke cessation training courses. 3. Public areas: provision of smoke cessation methods for people who are willing to quit smoking, subsidized medicine, and other relevant information, in order to help members of the public quit smoking. 4. Service status: a list of contracted medical institutions that provide smoking cessation 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/		According to Article 8 of the Tobacco Hazards Prevention Act, tobacco manufacturers should regularly declare the ingredients, additives, emissions, and other relevant information for their products, in order for the public to understand the contents and materials in tobacco products and related hazards.
GLOBALink Tobacco Control Global Express http://tobacco.hpa.gov.tw/ContentList.aspx?MenuId=372		Translation of advanced tobacco hazards prevention messages globally and successful tobacco prevention case studies for presentation to domestic tobacco hazards prevention workers, medical media reporters, academic units, government units, and civil groups.
Health Indicator 123—Interactive Online Query System for Health Indicators https://olap.hpa.gov.tw/		1. The website provides healthcare staff, the general public, media, and health personnel with access to health data through searches of health indicators. 2. The Interactive Online Query System is established by the HPA based on the data derived from the National Health Interview Surveys and Birth Reporting Systems.

Website name	Home page	Description
Weight Management APP		Healthy Weight Management APP was a piece of software developed by the Health Promotion Administration, Ministry of Health and Welfare. It provides information and tools about weight management. The functional areas covered are: E-books, BMI and daily calorie calculator, healthy recipes, drinking and exercise records, and healthy exercise videos.
One- touch Breastfeeding APP		We provide services such as video tutorials, a map search and GPS system for all baby friendly hospitals and breastfeeding rooms in Taiwan, support group search, Q&As, breastfeeding reminders, baby diaries, and growth charts.
Good Pregnancy Protection APP		This website enables new parents and their families to access information on pregnancy, childcare, postnatal nutrition and weight management, and physical and psychological adjustments, and breastfeeding, all from the convenient touch of a smartphone app. The automatic pregnancy checkup reminder function allows new parents and their families to access information at any time, and ensures they never miss a checkup, getting rid of the hassle of remembering checkups. The app includes the following sections: @Pregnancy healthcare, @Message reminder center, @Pregnancy resources, @Baby care and @Counseling exchange.

Section 3 Health Literacy

Status Quo

To raise people's health literacy about tobacco hazards, cancer, chronic disease prevention, maternal and child health, active aging, and health weight management, HPA has focused on the process of empowerment through the following three strategies: 1. Improving the accessibility of health information, 2. Developing health literacy assessment tools, and adopting segmented communication strategies, 3. Expanding the accessibility of preventive healthcare services and healthcare servicesto enhance personal health literacy and decision-making. Based on information derived from two waves of the Nutrition and Health Survey in Taiwan (NAHSIT), one from 2005 to 2008, and the other from 2013 to 2015, it is clear that the awareness rate, medication rate, and control rate of obesity, hypertension, hyperglycemia, and hyperlipidemia have increased. In addition, healthcare telephone surveys conducted in 2015 have indicated that 74.5% of women aged 30 to 69 have received pap smear tests within a 3-year span, with 92.8% possessing a knowledge of cervical cancer policies. 92.3% of people think that patients with Hepatitis B or C can bring their conditions under control if they receive regular checkups.

Policy Implementation and Results

1. Improving the accessibility of health information

(1) Need evaluation and development of broadcasting channels for different information: We have worked to understand and deliver our messages through research and development, evaluations, tests, revisions, and monitoring, which have been produced fliers, posters, manuals, life-size cardboard cutouts, and DVDs on cancer prevention, chronic diseases prevention, tobacco control, women and children's health and health weight management. For

example, we have issued children's health manuals, newly-wed health manuals, healthy and active lifestyle manuals, and elderly fall prevention manuals, and also advocated health literacy in communities, workplaces, schools, and hospitals…etc.

(2) To co-operate with international folk festivals and social topic advocacy: Some of the festivals we have co-operated with include World Diabetes Day, World Hypertension Day, World Heart Day, and World Obesity Dayor through participation in local events such as Chinese New Year, Women's Day, Dragon Festival, and Mid-Autumn Festivalwhich have been announced information related to healthy diet, cancer prevention, tobacco control,maternal and child health, and healthy weight management. In addition, we have to combine the resources with local government health bureaus, civil society and communitiesto conduct press conferences, send out press releases, and hold large-scale promotional events promoting non-communicable diseases through access such as schools, communities, the Internet, magazines, radio, television, body advertising and convenience stores.

(3) Establishing and developing health literacy of smart technology and broadcasting This has been achieved through developing apps on mobile devices to broadcast health literacy to young people. For example, the smartphone APPs, Facebook, and Line developed by HPA, promoting HPA information. In addition, there are incorrect health information, we have established a special area of truth where explanations can be given and rumors refuted on the HPA website, and operational information networks for people to review correct health information, and ultimately help them to enhance their health literacy. Regarding the continuing education of medical staff, we have planned and designed various online learning courses on web platforms which are e-civil learning web, and e-learning centers to provide online learning for medical staff within health centers.

(4) Developing suitable regional and diverse communication methods for all communities. In order to reduce the digital gap because difference of the level of urbanization, we focused on the public media characteristics in the countryside in Central and Southern Taiwan. For example, we provide people with important health information by working with regional broadcast radio stations and cable television system owners, community groups and television voicemail (or text message) providers.

2. Developing health literacy evaluation tools, and adopting segmentation communication strategies

(1) Through the health promoting hospital plan and age-friendly healthcare service institute plan, we have established friendly, supportive, respected, and accessible healing environments, and simplified health navigation information for institutes. Through our policies, we have also provided medical services

professionals, via public health field experts and scholars, with the adjustment and rebuilding techniques needed to make important content, key messages, and process related to health promotion simplified for consumption by the end user.

(2) Developing local health literacy assessment tools. For example, we have conducted health literacy assessment tool development and applicative evaluation plans respectively for diabetic patients and chronic kidney disease patients, as well as a healthy weight management questionnaire and scale development and evaluation plan, in order to provide professional staff with the information they need to implement health literacy evaluations and surveys, to understand people's needs and empower people's health literacy. Then end goal is improving the benefits of health promotion and healthcare as a reference for adjusting health education strategies.

(3) Adopting segmentation strategies to upgrade core health literacy: According to the results of evaluation surveys and by different regional and group characteristics, we have adopted different promotional strategies. For example, we conducted coronary heart disease prevention advocacy for women going through menopause. We work within relevant fields and targeted groups to create media advocacy for topics such as healthy diet through salt and saturated fat reduction, regular exercise, and tobacco hazard prevention.

3. We have expanded the accessibility of preventive healthcare services and healthcare services to enhance personal health literacy and decision-making.

(1) Encourage people to use adult preventive healthcare services provided by the government. It is possible to discover physical abnormalities at an earlier stage by health checkups, starting with the explanation of these results and then referrals and checkups. We also provide health counseling for tobacco cessation, alcohol cessation, regular exercise, healthy diet, healthy weight management, and injury prevention health counseling. By helping people to make early adjustments to bad habits and control risk factors like hypertension, hyperglycemia, and hyperlipidemia, we hope to increase health literacy, and prevent the threat of diseases.

(2) We have established phone counseling hotlines

services. For example, we have set up a pregnant women care line 0800-870870, healthy weight management counseling line 0800-367100, free smoke cessation hotlines 0800-636363, and also provide counseling services for personalized health problems through professional recommendations to help people judge and make healthy decisions.

Section 4 Health Information

Status Quo

In order for HPA to use diverse channels to disseminate health information, we have already established the HPA official website and 12 other health-themed websites. In 2015, 13,040,000 people visited the HPA website. We also published the HPA Health Newsletters, which had 10,144 subscribers in 2015. In response to the development of social networks, HPA continued to establish social web pages such as the HPA Facebook page, HPA Health 99 Website, Youtube channel, Twitter account, Plurk, Line and other social network platforms. Our goal is to allow members of the public to access health information through the Internet without facing any obstacles.

In recent years, the advancement of global communication technologies and the popularity of wireless networks and smartphones have led to the development

of innovative mobile applications. For example, people can now search for daily information such as weather, or search for a local medical institution or make a doctor's appointment with only their smartphones. In response to market needs, new communication technologies focus on new fields such as exercise, diet, and weight control. Smart health management will integrate with cloud technology and become a part of people's lives, in time developing into holistic, omni-present household health promotion services.

Policy Implementation and Results

In order to make use of Taiwan's excellent information cloud technology, and closely integrate citizen health management and mobile services, as part of the Ministry of Health and Welfare 'Taiwan Cloud Plan', the has HPA promoted the 'Healthcare Cloud' sub-plan. In 2014, we executed the 'Public Health Management Cloud Information Added Value Application Service Platform' plan. We established four platforms including: Health Manager Platform and mobile version APP, a health promotion information open platform, a preventative healthcare service platform, and a health promotion strategy management and support system. In 2015, we have started our operational services, and continue to expand functions. We hope that more people are now able to access more correct information on preventive healthcare services through diverse channels including their mobile phones, and this should lead to an overall improvement in public health. Over the same period, the HPA also promoted the 'Open Data' added value APP, providing an innovative added-value service. Industry, government and academia can work together to spur civil development of health promotion services, together expanding the health promotion services available to the public. The achievements of this project were as follows:

1. We established the Health Manager Platform and mobile APP to provide the public with a convenient all-in-one smart and multi-functional health management tool. Citizens can receive personalized and interactive health education information, personalized health records and management tips (such as exercises, diets, and daily routines), health check-up records and help with their management, health risk evaluations and recommendations, and reminders from their 'Health Manager'. The aim is to improve public understanding of health, and to help them develop healthy lives in order to improve overall health standards.
2. The HPA established a series of preventive healthcare record platforms. We collected records from children's health check-ups, pregnancy check-ups, adult check-ups, and cancer screenings. The public can use the platform service, after on-line status validation, to search for personal data relating to preventive healthcare screening.
3. The HPA established health promotion management support systems, providing decision makers with a basis for policy planning and decisions on operational management. This platform draws from preventive healthcare record databases, and operational records from the 'Health Manager' and 'Open Data' platforms. With these systems, we can demonstrate the various public needs for health promotion, provide timely statistical analyses to support health promotion decision management, and produce information and charts to predict trends or produce warnings. This also represents a reference for decision makers when conducting health promotion policy planning and operational management decisions.
4. The HPA established the "Open Data" platform (http://data.hpa.gov.tw/). In 2015, we initially published 178 data items. The themes cover women and children's health, tobacco prevention, chronic disease prevention, cancer prevention, and monitoring surveys. The information categorizations include statistics, checklists, and standards. We promoted the use of open data in health promotion in various circles. We encouraged industry, governments, and scholarly circles to work together and invest in health promotion services, to develop app services, develop an environment supportive of health promotion, and create new industrial values for the Taiwanese economy.
5. We conducted an "Intelligent Healthy Life Seminar and Application Selection Event." We guided groups from all circles to work to develop a quality health promotion service product which would be able to upgrade the innovation and competitiveness of our national health service industries.

(1) We conducted healthy housekeeper APP online press conferences, and conducted a ceremony to unveil to the public the healthy housekeeper APP developed by HPA. We invited government units, corporations, and civil groups to participate.

(2) We conducted health promotion cloud application selection events. We established exchanges and interactions between health promotion and information

technology groups. Through this, we understand the development trends of current intelligent healthy life applications and information technology. We openly selected works created by student groups, corporations, and institutes affiliated with the HPA. In 2015, with the evaluation of professional committee members, we selected five works from the student group, four works from the social group and industrial innovation category, and four from the social charity service group. The works selected had diverse applications, such as long distance healthcare services, sports management, helping the elderly, and labor health products or services. From 2013 to 2015, we selected 89 works for awards. Other areas covered included visual healthcare, health education information, personal health records and management, personal health risk evaluations and recommendations, health recommendations, and care services. In response to the health needs of modern people, we always seek to exhibit creative thinking when it comes to improving provision of medical services.

(3) We have conducted intelligent and healthy life seminars, and invited expert scholars and corporations who develop intelligent and healthy applications and Internet of Things solutions to share with us their ideas, along with domestic and international development trends. In our exhibitions, we have also brought to the stage some health promotion cloud-based applications. We also provided on-site trials for the "Healthy Housekeeper APP," and held showcase events. Through such events, we have received media focus and been able to demonstrate the HPA's active involvement in the field of intelligent health.

Section 5 Health Surveillance

Status Quo

As the Taiwan's population continues to age and birth rates remain low, the threats of non-communicable diseases grow. The World Health Organization (WHO) has suggested that every country should establish surveillance systems for non-communicable diseases (NCDs). In response to the difference in available resources in different countries, the WHO proposed a step-by-step strategy to establish NCD surveillance systems by considering mortality, morbidity, and prevalence of health risk factors.

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, periodic health surveillance, the HPA collects national health data which can not be simply obtained through civil registration or reporting and disease registration systems, to strengthen evidence-based health promotion policy-making and program evaluation.

Policy Implementation and Results

In order to establish a systematic national health surveillance system for non-communicable diseases, the HPA utilize three modes of survey, including community-based face-to-face interview survey, telephone survey, and school-based student self-administered questionnaires survey, to collect data. Surveys of the entire population as well as population of different age-groups are conducted regularly. Health surveillance data were collected, analyzed, and disseminated for policy relevant purposes. In 2012, the health survey quality management system passed the ISO9001 certification. With regards to surveillance systems, we have established birth reporting system and registration systems for cancer and other major diseases. The HPA reinforced statistic analysis of birth defects and injury. We have conducted the children and adolescent's vision health survey. We improved protocols of breastfeeding survey and the survey on national nutrition. With all these measures, we were able to enhance framework development and efficacy of the surveillance system, and to strengthen the evidence based policy making and program evaluation.

Various surveys that the HPA has conducted in recent years and is planning to undertake in coming years are listed in Table 7-1. Three community-based face-to-face interview surveys conducted in 2015 were the "Child and Adolescent Behaviors in Long-Term Evolution", "Taiwan Longitudinal Study on Aging", and "Nutrition and Health Survey in Taiwan". Based on self-administered questionnaires, the HPA completed three surveys on the health and smoking behavior of junior and senior high school students, and Taiwan Adolescent to Adult Longitudinal Study. Meanwhile, four telephone surveys, including "Smoking Behavior Survey" , "Behavioral Risk Factor Surveillance System" of citizens aged 15 and above, "People's knowledge of HPA policy implementation survey", and "Survey of Breastfeeding Rates". Further information on these studies is listed below.

1. Taiwan Birth Cohort Study (TBCS)

For the purpose of establishing norms for children's growth, development and health status and exploring early biomarkers feasible to predict adult health, and the influence of environment on child health and development, the Taiwan Birth Cohort Study (TBCS) was initiated in 2003 by HPA. In order to amass the necessary experience for the planning and implementation of a large-scale birth cohort survey in 2005, a random small-scale sample was selected, comprising children born in the end of 2003. As planned for the large-scale sample, this pilot sample was surveyed at 6 months, 18 months, 3 years and 5.5 and 8 years old, and with a brief telephone interview at 7 years and 9 years. A rich set of data was thus available to understand the health profile of Taiwanese children in the 21st century.

The results obtained from the pilot study can be used to explore health issues among contemporary children; analyze family and social environmental factors from birth to preschool; and investigate health influences of the factors on school-aged children. Following analysis of the survey results, we can provide policy translation based on the results of survey research data analysis to the government when stipulating policies on children health care and social welfare.

2. Child and Adolescent Behavior in Long-term Evolution

Based on the viewpoint of ecological models and aimed at the multi-level influences of the individual, family, peer groups, school, community and media on child and adolescent physical and mental 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's results provide information related to students' health for education and health authorities' policymaking. Participants were selected in 2001 from first and fourth graders who attended 18 public elementary schools in Taipei City and Hsinchu County. From 2001 to 2006, the NHRI team conducted the project through self-administered questionnaires when the participants were either in elementary or junior high school. 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 different research and administrative units. Follow-up surveys and studies are thus made possible through the HPA's infrastructure of community-based interview surveys. The 15th survey of the cohort was conducted in July 2015 to the end of November 2015. By the end

of 2015, this long-term project had collected 14 years of long-term follow-up data. The analytical results of which represent a useful reference for policy making and evaluation.

3. Taiwan Longitudinal Study on Aging (TLSA)

In response to the potential impact which population aging may have on the economy, medicine, families, and society aspects, one of the former institutes of HPA, the Institute of Family Planning, conducted the baseline survey of TLSA on a national representation sample of adult residents aged 60 and above in non-aboriginal townships in 1989. The respondents were followed every three to four years. Two refresh samples were selected in 1996 and 2003 to maintain representativeness of the younger age cohort and to extend representation of the sample to the population aged 50 and above. The 7th wave follow-up was completed in 2011.

In order to follow up the cohort and used as reference data to understand middle-aged and older adult population's living status, physical, psychological and social health, the 8th follow-up of the TLSA was launched in 2015. In addition, in order to remedy the weaknesses that the original cohort does not cover the aboriginal township, and the sample limit of insufficient analysis caused by the loss and deaths of samples for a long time, we increase a national representative sample of adult residents aged 50 and above and conduct the baseline survey in 2015.

4. Nutrition and Health Survey in Taiwan

Nutrition is an important factor on health as well as a major indicator of national health. The the Nutrition and Health Survey in Taiwan (NAHSIT) is therefore an essential tool for understanding the state of the nation's nutrition. Taiwan started planning for a national nutrition survey since 1980, and then in 1980-1981 and 1986-1988 surveyed household dietary intake and children's physical development, as well as actual measuring and weighing of the food. Since 1993, the government has implemented a series of Nutrition and Health Survey in Taiwan. The rotation of the age groups surveyed in each year, made it time-consuming to update nutritional status of the whole population across the nation on a timely basis. It is keenly necessary to establish a comprehensive and regular national nutrition survey plan.

The Nutrition and Health Survey in Taiwan was initially managed by the former Food and Drug Administration, Department of Health. In contrast to previous sampling design, the HPA took over the responsibility in 2013 and mainly aimed to establish a long-term, stable and regular monitoring system for the national state of health and nutrition, so that 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 2013-2015, a total of 8,256 participants (2,649 in the 2013, 2,802 in 2014, and 2,805 in 2015) were recruited for questionnaire interview, physical examination specimen collection and physical laboratory testing. These results represent a valuable resource 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 (GYTS), developed by the World Health Organization (WHO) and the United States Centers for Disease Control and Prevention (CDC), to keep monitoring the current status and trends in adolescent tobacco use. In addition, in 2006, the HPA also adopted the survey methods used by the CDC's Youth Risk Behavior Survey (YRBS), and the WHO Global School-based Student Health Survey (GSHS). These surveys address behaviors that can lead to death, disease, disability, or social problems by focusing on adolescent substance use such as smoking, drinking, and betel nut chewing, as well as a variety of other lifestyles 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 (GSHS) since 2012.

The aforementioned GYTS and GSHS surveys were conducted on students of junior or senior high schools, in alternate years, with anonymous self-administered questionnaires completed by students from sampled classes. In order to provide more timely information for policy reference, the GYTS has been conducted annually since 2011 on samples of both junior and senior high school students across the country, and its survey questionnaires were updated in accordance with the revision of CDC's survey plan, while the GSHS in 2013 continued to be conducted on national representative sample of high school students in the alternative manner. The HPA also cooperated with the U.S. CDC on revising survey protocol and the questionnaire that have been applied since 2013. The two surveys were both completed in June 2015 with 46,229 students completed the GYTS (a response rate of 90.7%); 5,458 students completed the GSHS (a response rate of 90.2%).

6. Taiwan Adolescent to Adult Longitudinal Study (TAALS)

Since the influential factors in the cultivation, development and change of adolescent health behaviors are complicated, it is necessary to establish a longitudinal nation-wide survey for teenagers. In order to amass the necessary experience for the planning and implementation of a large-scale cohort survey, a random small-scale sample was selected, participants were selected first grader students on junior and senior high schools in 2014, the study could capture the longitudinal trajectories of health behaviors, such as living style, physical activity, mental health, diet habits, sexual behavior, and social support during adolescence to disclose the health problems via the longitudinal survey. Based on the 2015 survey, the last sample size was with 18,649 students, the response rate was 92.8%. The study could also analyze health behaviors of teenagers and provide the policy recommendation to government for promoting adolescent health.

7. Smoking Behavior Survey and the Behavioral Risk Factor Surveillance System

Since 2004, the HPA has conducted the Adult Smoking Behavior Survey (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 (CATI) system 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 26,052 people in 2015, with 70.7% of eligible interviewees successfully contacted and interviewed.

In addition, since 2007 the HPA has referred to the U.S. BRFSS telephone survey in planning the surveillance system for risk behavior among people over 18 years old, in order to monitor major diseases (including diabetes, metabolic syndrome, hypertension, and kidney diseases), risk behavior prevalence and the use of preventive healthcare services. The surveyed population were expanded in 2013 to include those aged 15 and above, to facilitate international comparison. In 2015, 24,723 people were successfully surveyed, with 65.3% of eligible interviewees successfully contacted and interviewed.

In addition, the HPA conducted telephone surveys on various topics to evaluate the effectiveness of health promotion strategies and plans, and to form the basis of policy decision. In 2015, we conducted the "HPA policy implementation knowledge and satisfaction surveys" to evaluate health promotion strategies and the results of health promotion plans. We successfully interviewed 1,073 respondents, with 58.6 of eligible interviewees successfully contacted and interviewed.

8. Survey of Breastfeeding Rates

Since 2008, the HPA has conducted the annual "Survey of Breastfeeding Rates" in order 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 were mothers in every city and county in Taiwan who have recently given birth. Computer-assisted telephone interview (CATI) was applied to collect data including child birth, breastfeeding friendly environments, and mother's satisfaction about services provided by the hospital, as well as smoking, exposure to second-hand smoke, and alcohol drinking of the mothers. The 2015 survey successfully interviewed 12,254 respondents.

9. Promotion of the "Online Health Indicators Query System"

The HPA has maintained an online health indicator query system since 2004. Information and internet technology were applied to provide the accessible web-

based data querying services (https://olap.hpa.gov.tw/) to the general public, the media 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 website currently allows visitors to search descriptive statistics of the following— the National Health Interview Survey, Global School-based Student Health Survey(or the former Taiwan Youth Health Survey) of Junior High and Senior High School Students, Global Youth Tobacco Survey of Junior High and Senior High School Students, Smoking Behavior Survey, Behavioral Risk Factor Surveillance System, Taiwan Longitudinal Study on Aging, Taiwan Fertility and Family Survey and Birth Reporting Database. The site provides services for queries into over 700 health indicators for the general public.

In order to improve the website's accessibility and the user-friendliness of its online health indicator query services, the website now provides multiple indicator search options, as well as a bilingual service. In 2013, the existing "Health Indicator 123," "Online Interactive Data Query for Cancer Registration" and the "Injury Surveillance Indicator Query System" were integrated into the Portal website of "Statistical Analysis of Surveillance Indicators" , for provision of user-friendly, individualized data query service, and thereby improving the quality and utilization of the website.

10. Applications of Survey and Research Data

The goal of health surveillance and surveys of non-communicable diseases conducted by the HPA is to provide data for policy-making, program evaluation and action implementation. To increase the utilization of this survey data, the HPA does not only publish the results in survey reports, but also conduct analyses and research on specific topics, as well as participate in preparation of conference and journal papers. In addition, we provide analytical results for the purposes of press releases and for health communication and advocacy, and through our online interactive query website, we are able to provide the public with quick access to descriptive statistics generated from surveillance data.

In order to effectively fulfil its objectives to "protect personal privacy, encourage 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. (It was renamed Health and Welfare Information Science Center in August 2015). Since 2012, the HPA has continually provided the raw data of series of health survey to the center for use. Currently, data from five reporting databases (Cancer Registration Database, Cancer Screening Database, Birth Reporting Database, Rare Disease Reporting Database, and Assisted Reproduction Database) and ten surveys (Taiwan Fertility and Family Survey, Taiwan Birth Cohort Study, the Global Youth Tobacco Survey of Junior High School Students, the Global Youth Tobacco Survey, Global school-based Student Health Survey, the Smoking Behavior Survey, Taiwan Longitudinal Study on Aging; the Taiwan Survey on the Prevalence of Hypertension, Hyperglycemia, and Hyperlipidemia; National Health Interview Survey , and Behavioral Risk Factor Surveillance System) are accessible at the 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.

Section 6 International Cooperation

Status Quo

Healthy citizens are a crucial foundation for a country's prosperity and power. The HPA has designed various policies to improve the nation's health through various 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

Chart 7-1 **Important monitoring surveys over the years**

Survey Series	• cross-sectional survey → longitudinal survey														
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Community-Based Face-to-Face Interview Survey															
National Health Interview Survey	•				•				•				•		
Taiwan Longitudinal Study on Aging			→				→				→				→
Taiwan Fertility and Family Survey				•				•				•			
Child and Adolescent Behaviors in Long-Term Evolution			→	→	→	→	→	→	→	→	→	→			
Taiwan Birth Cohort Study	→	→	→	→	→	→	→		→	→		→	→	→	
Nutrition and Health Survey in Taiwan	•	•	•	•		•	•	•	•	•	•	•	•	•	•
Student Self-administered Survey															
Tobacco Survey of Junior High School Students		•		•		•	•	•	•	•	•	•	•	•	•
Global Youth Tobacco Survey of Senior High School Students	•		•		•		•	•	•	•	•	•	•	•	•
Global School-based Student Health Survey of Junior High School Students		•		•		•		•		•		•		•	
Global School-based Student Health Survey of Junior High and Senior High School Students			•		•		•		•		•		•		•
Taiwan Adolescent to Adult Longitudinal Study											→		→	→	→
Telephone Interview Surveys															
Adult Smoking Behavior Survey	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Behavioral Risk Factor Surveillance System			•	•	•	•	•	•	•	•	•	•	•	•	•
Surveys on Healthcare Issues	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Survey of Breastfeeding Rates				•	•	•	•	•	•	•	•	•	•	•	•

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 experience of non-communicable disease prevention and health promotion. These measures not only increase Taiwan's international visibility, but also raise international recognition of our various policies. In 2015, we conducted a total of six international meetings, and attended 12 important international seminars, workshops, meetings and forums. A total of 208 guests from 34 countries visited the HPA.

Policy Implementation and Results

1. Conduct large international meetings

(1) 2015 Global Health Forum in Taiwan

Ministry of Health and Welfare, Ministry of Foreign Affairs, and the HPA conducted the "2015 Global Health Forum in Taiwan" at the Yang Ming University from November 1st to 2nd. Titled "Public Health Governance," the Forum drew a total of 66 guests from 32 countries, which consisted of important global medical health organization leaders, health ministers and deputy ministers, medical and public health officials and scholars, A total of 674 people participated. The themes of the conference included: public health governance, accountability, health impact assessment, effective governance, reduction of health inequality, public health advocacy, and parallel sessions on oral cancer prevention parallel meetings, and oral cancer prevention.

Former President Ma Ying-Jeou delivered the opening speech on November 1st. Former Minister of Health and Welfare, Dr. Been-Huang Chiang, made a speech on "Building a Resilient and Innovative Health System" . Notable speakers included: Sir Michael Marmot, President of the World Medical Association Chief and Former Chair of World Health Organization Commission on the Social Determinants of Health; Prof. Ilona Kickbush, Director of the Graduate Institute of International and Development Studies Global Health Director; Dr. Mengistu Asnake, President of the World Federation of Public Health Associations; Prof. Martin McKee, President of the European Public Health Association; Dr. Xavier Deau, immediate past president of the World Medical Association; Dr.Robert M. Wah, Immediate Past President of the American Medical Association; Dr. Andew Gurman, President-elect of the American Medical Association, and Prof. Helmut Brand, President of the European Health Forum Gastein. There were also medical officials and experts from the U.S., EU, United Kingdom, Germany, France, Portugal, Finland, Canada, Switzerland, Mongolia, Malta, Ethiopia, Guatemala, Holland, Greece, India, Belgium, Malaysia, Denmark, Tuvalu, Solomon Islands, Kiribati, Palau, Swaziland, Sao Tome and Principe, Nauru, Fiji, Lesotho, Thailand, Japan, The Philippines, Australia, and Singapore.

For the parallel session on oral cancer prevention, the forum invited six cancer prevention experts from

the United Kingdom, Switzerland, U.S., Mongolia, and India. They shared their experiences on oral cancer risk factor prevention, related research, prevention policies, and the integration of community networks and civil resources to promote oral cancer screening and oral cancer effectiveness evaluations.

On November 3rd, guests visited the National Health Insurance Administration and Centers for Disease Control, the National Taiwan University Hospital, and the Sunshine Social Welfare Foundation. Guests were shown how domestic hospitals align with national policies to promote cancer screening, and how non-profit organizations assist with oral cancer patient healthcare, provide employment guidance, and encourage patients to speak out on the hazards of betel nut chewing.

The forum shared real-time messages on social media networks like Facebook and Twitter. HPA invited 5 Young Gasteiners from the European Health Forum Gastein to Taiwan, which formed a working team with five young Taiwanese scholars, and conducted forum minutes and interviews. Key messages from the forum were posted on social networks daily.

On October 30th, HPA arranged for the Former President Ma to meet with Sir Michael Marmot, President of the World Medical Association Chief and Former Chairman of World Health Organization Commission on the Social Determinants of Health. He was accompanied by Ti Chun Chou and Shih Chang Chen, members of the National Council for Sustainable Development; Shu-Chiang Fu, Deputy Minister of the Environmental Protection Administration; former Director-General Shu-Ti Chiou of HPA, and Cheng Chun Gao, Deputy Secretary of the National Security Council. Former President Ma gave a remark on the policies and achievements of Taiwan's government in maintaining citizen health and promotion of fairness and social justice, and also thanked Sir Marmot and his team for their assistance in creating the Taiwan Health Inequality Reports. During the meeting, former President Ma and Sir Marmot signed the cover of the soon to be published "Taiwan Health Inequality Reports" , signifying our government leader's effort and emphasis on the promotion of health equity.

(2) 2015 Health Inequality Workshop

In order to understand the influence of social determinants on health, we actively promote social fairness and justice. From June 2nd to 3rd, the HPA invited experts from the Health Equality Institute at the University of London, United Kingdom, to conduct a "Health Inequality Workshop" . Through the exchange of knowledge between departments, we understand the connection between social equality and health equality, and have upgraded our professional knowledge on health inequality theories and mobile tools.

(3) 2015 Health Promotion International Seminars and IUHPE Meetings

In order to provide health promotion workers, scholars, policymakers, and students with opportunities for international exchange, from June 17th to 18th, the HPA conducted a series of seminars and speeches. Some of the topics covered were: health funding and health promotion financial planning, exercise promotion, health promotion skillsets, international breastfeeding promotions, and Australian cigarette box packaging case studies. There was also an interactive forum which invoked the idea of how in the era of limited resources we should reflect on the priorities of health promotion. These was also a workshop on health promotion and the importance of social mobilization and in creating spheres of influence. We invited experts and scholars to share their experiences, and assisted domestic scholars on how to plan and execute their health promotion work in future.

As part of this seminar series, we also invited participation from members of the International Union of Health Promotion and Education. IUHPE is the biggest international NGO when it comes to health promotion and education across the world. It has an official relationship with the WHO, and is one of the most important partners for the WHO in its promotion of Health in All Policies. Its mission is to promote global health and well-being in order to reach health equality in societies globally. On June 19th, IUHPE received HPA's invitation to conduct executive meetings in Taiwan. We discussed important policies and gained an understanding of IUEPE's organizational goals and further information about the 22nd Annual IUHPE World Health Promotion Seminar. We will seek to continue our cooperation with this partner and further upgrade the influence and visibility that Taiwan occupies amongst important international public health organizations.

(4) 2015 Health Promotion International Seminar and 15th Annual INHPF Meeting

The International Network of Health Promotion Foundation, abbreviated as INHPF, was established in 1999. Through exchanges, learning, and collaboration, we have worked to contribute towards the operational

efficiencies of this global health promotion foundation. We also instructed, supported, and established new health promotion foundations where relevant. In 2013, the HPA became a member of INHPF. We strive continuously to make Taiwan a place where annual meetings can be held, and indeed we hosted the 2015 Health Promotion International Seminar. The meeting was conducted on November 18th, with the theme being Health Promotion Toward a Healthier World Post 2015, in response to the UN's Sustainable Development Summit in September 2015. We also declared our health goals for 2030. A total of 10 institutes and 16 experts participated in the meeting, and we discussed and drew up plans related to our 2015 health goals.

(5) Establishing a workshop on public health core abilities

The Public Health Accreditation Board was established by the Centers for Disease Control, and Robert Wood Johnson Foundation, in 2007. They are non-profit, voluntary public health evaluation organizations. Their goal is to upgrade the quality and achievement of public health departments, provide national evaluation standards of public health department, and more complete and robust health promotion measures. From December 18th to 19th, the HPA invited the Public Health Accreditation Board to Taiwan to introduce evaluation of public health in the US, how to make public health organizational functions more complete, and how to drive efficiencies. Through workshops, we reinforced our public health department's core abilities, promoted the work of agencies, and upgraded efficiencies within our public health departments.

(6) 2015 Framework Convention on Tobacco Control (FCTC) International Conference

In order to provide legal and public health prevention work scholars, policymakers, and students with the opportunities for international exchanges, we conducted seminars at National Taiwan University on October 26th to 27th. We invited 17 domestic and international experts from New Zealand, the United States, Switzerland, and Indonesia. The topics included: "Tobacco Litigation, Liability and Legal Practice" , "Preventing Tobacco Industries' Interference with Tobacco Control" , "Public Participation and Human Rights in the Implementation of FCTC" , "Electronic Cigarettes and Regulatory Regimes" and "Tobacco Control, Dispute Settlement and Inter-regime Issues" . We focused on the enforcement of tobacco hazards control law and policies, and conducted experience sharing sessions.

2. Participation in international seminars

(1) 68th World Health Assembly

The "World Health Assembly" is an annual meeting for World Health Organization members. In 2009, we officially participated in WHA events as observers, a breakthrough for Taiwan when it comes to international participation. The 68th World Health Assembly was conducted from May 18th to 26th in Geneva, Switzerland. There were 40 technical topics covered in the assembly, and the HPA made 10 speeches on non-communicable disease prevention, national nutritional health, women and

children's nutrition, child obesity prevention, adolescent health, women's health, health inequality, air pollution and health, reduction of hearing loss, and social determinants on health. We reported to the assembly, and shared our experiences on those topics.

(2) 14th Annual World Congress on Public Health

The World Congress on Public Health is conducted once every three years. From February 9th to 15th, it was conducted in Calcutta, India. The theme of the meeting was Healthy People, Healthy Environment. It was conducted by WHO's official partner, World Federation of Public Health Associations. It was sponsored by WHO-SEARO and the Public Health Association of India. Due to our work on tobacco prevention, on February 14th, the congress conducted a meeting in Taiwan. The theme was Taiwan's current tobacco prevention promotion policies and future prospects. We shared our achievements and experiences in promoting tobacco hazards prevention.

(3) 23rd Health Promotion Hospital International Seminar

The International Network of Health Promoting Hospitals is an official NGO established by the World Health Organization. The 23rd International Conference of Health Promoting Hospital was held in Oslo, Norway from June 10th to 12th, 2015. About 600 people from 43 countries attended the conference. 209 people from Taiwan registered and attended the conference (about 35% of the total attendees); there were total 362 submissions from Taiwan (53 oral reports and 309 posters) out of the 593 total conference submissions; Taiwan has ranked first in 6 consecutive years for conference submission. The theme of this conference was "Person-oriented health promotion in a rapidly changing world: Co-production-continuity -new media & technologies". To promote the age-friendly healthcare institution worldwide, HPA organized a Symposium on Age-Friendly Healthcare and shared Taiwan's experiences in promoting age-friendly healthcare. HPA also organized the meeting of the Task Force on HPH and Environment. Since 2012, the International HPH Network has organized the "International HPH Award For Outstanding Fulfilment of WHO HPH Standards" , which was won by Taiwanese hospitals in 4 consecutive years; the "International HPH Award For Outstanding Scientific Publication" and the top 3 conference posters voted by attendees were also won by Taiwanese hospitals.

(4) 2015 18th Annual European Health Forum Gastein

The European Health Forum Gastein is the highest health policy forum in the European region. From September 30th to October 2nd, HPA co-organized a parallel forum during the 18th Annual European Health Forum Gastein, titled "The Power of Data" . Former Directorate-General Shu-Ti Chiou spoke on "Smarter Data for Health Promotion in Taiwan" during the first session of the parallel forum. She shared information on the ICT promotional strategies of Taiwan, healthcare clouds, e-health dissemination, Open Data, health promotion APPSs, and "Active Aging Monitoring and Policy Supportive Systems Active Ageing Decision Support Systems" . In addition, Professor Hsieh Bong Chung Shia Ben-Chang from the Taipei Medical University made a speech on "Big Data in Healthcare" . He shared the cloud service structures and application. Other international speakers discussed emerging applications of Big Data and the accompanying ethical and information security issues. This parallel forum attracted over 300 people; many inquired on Taiwan's progress in public health and ePHR, and the details of various government's roles and methods. The participants sent Twitter messages gave positive feedback of Taiwan's achievements; the first session of the parallel forum had the highest satisfaction rate of the entire EHFG event.

(5) 47th Annual Asia Pacific Academic Consortium Conference

The Asia Pacific Academic Consortium for Public Health was formed by 20 countries and 70 universities across the world. They actively promote

professional education in public health. The theme of the conference was Public Health Challenges in the Asia Pacific Region:Building Regional Initiatives from Local Experiences. The Conference invited Dr. Shu-Ti Chiou, former Director-General of the HPA, to speak and discuss the reinforcement of public health and medical partnership relationships. In a parallel session during the conference, Dr. Chiou discussed the experiences of Taiwanese hospitals in promoting carbon reduction.

(6) 143th Annual American Public Health Association

The American Public Health Association is the longest-standing and most diverse public health professional organization. It is the biggest international event in the public health circle on a yearly basis. HPA was selected to give oral reports and poster exhibitions. From 2013 to 2015, we executed the "Intervention Program for Vision Care in Lower Grade Schoolchildren." The theme was "ROC711 School-based Intervention Program on Myopia Prevention: a Cluster Randomized Controlled Trial in Taiwan" . We reported in the "Vision Health: A Global Perspective" seminar, and receive the Dr. Mel Shipp Best Report Award from the American Public Health Association. It was evident that HPA was actively trying to derive intervention methods based on empirical data in the field myopia prevention, and for this it has received great international feedback.

(7) 2015 The Economist - Healthcare in Asia

The Economist - Healthcare in Asia was conducted in Hong Kong on March 20th 2015. The theme of the summit was "The war on cancer: enemy of the state." In 2014, the HPA was invited by The Economist Group to assist with the planning of the meeting. Former Directorate-General, Chiou Shu-ti presented the keynote session on the state of cancer control, and used the session as a chance to share our cancer prevention policies and achievements. Our cancer prevention plan was held up as a strong example of a comprehensive national plan.

(8) 10th Anniversary of Konkuk University Health Promotion Hospital Seminar

In 2011, South Korea established the Korean Health Promotion Hospital Network under the WHO Health Promotion Hospital Network. In July 2011, Konkuk University received the WHO health promotion hospital certification as a pioneering health promotion hospital within South Korea. The 10th anniversary ceremony and health promotion hospital seminar HPH Conference was conducted at Konkuk University Medical Center. The theme of the seminar meeting conference was "Senior-Friendly Hospitals ". Former Directorate-General Shu-Ti Chiou was invited as a special speaker on Age-friendly Health Services in Taiwan, and to promote the age-friendly health services certification system, first pioneered in Taiwan, to the Korean colleagues.

(9) 7th Annual World Health Summit and European Congress on Public Health

The World Health Summit and European Congress on Public Health are important exchange platforms in the field of public health. This year, people who attended WHS included German Department of Health Chief Hermann Grohe, and Japanese Ministry of Health, Labor, and Welfare Minister Hiroki Nakatani. WHO secretary Chen Feng Fu Jen made the opening speech. She emphasized the important relationship between this meeting and other government units. The HPA participated in giving oral reports at the meeting, and participated in poster exhibitions and exhibition stands. The congress provided a good opportunity to grasp development trends in public health, interact with international scholars and experts, and share our research achievements. In the 8th European Congress on Public Health, we conducted a health promotion school lunch symposium, and participated with a wide array of poster submissions. The WHO and OECD exhibited their expertise and discussed concept structures and thinking based on the future direction of empirical policy implementation and single health information system topics.

(10) Visited Public Health of England and Geneva Union for International Cancer Control

On May 15th, Former Directorate General Chiou Shu-ti visited Public Health England, and discussed future work plans. On May 15th and 18th, PHE briefed in topics related to cancer screening plans, health inequality, sugar reduction plans, digital health applications, and active aging policies and methods. Both sides exchanged their experiences. On May 19th, we visited The National Institute for Health and Care Excellence, and on May 21st we visited the Geneva Union for International Cancer Control.

(11) Cancer screening and registration workshops.

The HPA sent participants to Northern Europe to attend a "Cancer Screening and Registration Workshop"

hosted by the father of mammogram, Dr. Laszlo Tabar, in Finland and Sweden. We also visited Uppsala/Orebro Center. Through this, we understood the operations and applications of cancer registration centers in Finland and cancer screening databases, along with the promotion and achievement of cancer screening policies in Finland and Sweden. In this workshop, we also discussed how to make use of empirical evidence to reduce incorrect breast cancer screening discussions across the world.

3. Participation in international plans

(1) In order to investigate the current situation and trends in health inequalities in Taiwan, and to develop action plans which work towards achieving health equality, Former Director-General Shu-Ti Chiou visited the University College London's Institute of Health Equity (UCL IHE) in September 2013 to meet with Sir Michael Marmot, former Chair of the WHO Commission on Social Determinants of Health. We used the information we had to conduct statistical analyses, and wrote up our "Taiwan Health Inequality Report." In October 2015, we completed the first draft of the report, hosted a press conference to release the highlights of "Taiwan's Report on Health Inequalities" on October 30th. We plan to publish the report in 2016 to promote the understanding of health within society.

(2) In 2011, the International Network of Health Promoting Hospitals proposed the WHO HPH Recognition Project. Currently, there are 10 countries and 47 hospitals participating in this project. 21 hospitals from Taiwan have participated (9 in the intervention group and 12 in the control group). Taiwan had the participating hospitals of any country. Field inspections were made in 9 intervention hospitals in 2014, and 12 control hospitals in 2015; all 21 hospitals received golden level certifications.

(3) In order to collect international comparative data and to enhance Taiwan's capacity in adolescent health behavior survey 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. In addition, since 1999, the HPA has worked with Georgetown University and Princeton University to conduct the Social Environment and Biomarkers of Aging Study (SEBAS). We collected data regarding the health and well-being of middle aged and elderly people within Taiwan. Through this, we explored the life pressures, social environments, and health conditions of elderly people in Taiwan, and further understand the factors that influence the health of middle aged and elderly people in Taiwan.

Appendix

HPA Chronological Highlights in 2015

Time	Summary of chronicles
January 14th	The amended Enforcement Rules of the Prevention of Rare Diseases and Orphan Drug Act are promulgated by the President. A total of 13 articles are amended, including those related to subsidizing supportive and palliative care, improving process by which National Health Insurance covers rare disease medicines, imposing punishment for pharmaceutical suppliers that stop supplying rare disease medicines for inappropriate reasons, and providing rare disease patients better holistic health care and family support.
January 22nd	The "Yu Cheng Patient Healthcare Service Act" is passed after the third reading by the Legislative Yuan. In 2011, the Ministry of Health and Welfare had stipulated the "PCB Poisoning Patient Health Service Guidelines" , and the legal status of healthcare treatment for Yu Cheng patients was improved further with this act. As well as continuing with the original healthcare provisions, we also added solatium payments for Yu Cheng patients registered by the government who died prior to the implementation of this Act, surviving spouses and linear descendants can apply for it.
January 30th	We revised the list of diagnostic test items and subsidy fees for suspected cases of rare diseases covered by the 3rd Paragraph, 1st Item, Article 2 of the "Regulation on Medical Subsidization for Rare Diseases." There are a total of 74 listed under checkup subsidy fees for suspected cases of rare diseases.
February 4th	On January 22nd 2015, Legislative Yuan passed the "Yu Cheng Patient Healthcare Service Act" after the third reading at the 19th Meeting of the 8th Annual 6th Session. And on February 4th 2015 the "Yu Cheng Patients Healthcare Service Act" was announced by the President.
February 9th to 15th	For the first time, our country officially participated in the 14th World Congress on Public Health held by the World Federation of Public Health Associations. The Director-General of HPA was invited to give a speech on obesity prevention and driving sustainable development of health, fairness, environment and the economy. HPA also gave a presentation on tobacco control and had a display booth at the event.
March 20th	The Economist - Healthcare in Asia, 2015 summit taking "The War on Cancer: Enemy of the State" as key theme is held in Hong Kong. The Director-General of HPA is invited to talk about Taiwan's polices and achievements in cancer prevention at the Ministers' keynote session on the state of cancer control. His speech is well received by the audience and acclaimed as a practical example of a comprehensive national cancer plan.
April 14th	We conducted a press conference to announce key points on the fight against cancer in 2012. We reminded people the main risk factors for cancer are tobacco, alcohol, unhealthy diets, and lack of exercise, and that cancers attributed to these reasons made up around 30% of cancer deaths since the most common five cancers (colon cancer, liver cancer, lung cancer, breast cancer, and oral cancer) are related to those cancer causing factors. We remind people to join the cancer prevention activities are possible, and that prevention and screening are the best ways of fighting cancer.
May 15th	At the recommendation of the HPA, in order to increase awareness of vision care amongst those working in the 3C industries (computers, communications, and consumer electronics), as well as amongst parents, the Department laid down administration guidelines on words of caution about effects on vision to be shown on 3C products. The Department is now working with National Communications Commission and Bureau of Standards, Metrology and Inspection under the Ministry of Economic Affairs to provide guidance to the 3C product industry for placing words of caution on products and packaging, which started from July 2105.

Time	Summary of chronicles
May 13th	A total of seven foreign participants in the 2014 Taiwan-U.S. Health and Welfare Policy Symposium visited the Department, including the director of the food safety program for the Center for Science in the Public Interest of North America, Ms. Caroline Smith DeWaal. Also present were Executive Director of Council Of State And Territorial Epidemiologists Dr. Jeffrey Engel, Director-General of Health Department of Wyoming State Dr. Wendy Braund, and the Policy and Organizational Management Program director at Duke University Prof. Pikuei Tu. They made use of the visit to learn about Taiwan's experiences and achievements in obesity prevention, health promotion for the elderly, tobacco control, cancer diagnosis quality enhancement planning, children and women's health, and eHealth. They exchanged ideas through discussions on these subjects with the department.
May 28th to June 11th	In order to encourage students to develop the habit of regular exercise, and reward the contribution of health promotion schools, the HPA worked together with Taoyuan City Shinshih Elementary School, Yilan County Lize Elementary School, Tainan City Dagong Elementary School, and Taichung City Taian Elementary School to conduct four "Running Kids: Healthy Fitness, Happy Lives" events. Former President Ma Ying-Jeou personally led the sessions himself at Shinshih and Lize Elementary Schools. A total of 2,000 educational staff and students participated in the four health and running events.
June 2nd to 3rd	We held the "2015 Health Inequality Workshop" , and invited Prof. Peter Goldblatt, Dr. Jessica Allen, and Ruth Bell from the Health Inequality Institute of the University of London as speakers. They helped draw connections between social equality and health equality, presented their ideas on health inequality theories, and discussed the relevance of mobile devices. We also invited the Gender Equality Committee, Ministry of Labor, Ministry of Education, and Ministry of Health and Welfare to share our experiences on promoting social fairness and reducing social inequality.
June 3rd	In order to enhance the quality of mammogram screenings, the Department issued a new version of the guidelines governing the eligibility review of medical institutions using mammography for preventive healthcare. The Department has set KPIs on the number of screening tests to be conducted, and the required percentage of tracked positive cases to be returned. Eligible medical institutions are also required to have a sound referral mechanism in place for suspected positive cases.
June 10th to 12th	A total of 209 delegates from Taiwan (about 35% of all registered participants of the conference) participated in the 23rd International Conference on Health Promoting Hospitals and Health Services in Oslo, Norway. 362 articles from Taiwan were submitted and accepted by the Conference (a total of 593 articles were submitted to the Conference). Taiwan has submitted the largest number of articles for the six consecutive years since 2010. Taiwan Adventist Hospital has received an award as an outstanding health promoting hospital for four consecutive years.
June 17th 18th	We held the "2015 Health Promotion International Seminar." We invited 14 international experts to share their experiences on health promotion, core ability evaluations, international breastfeeding advocacy, and Australia tobacco packaging case studies. We also conducted Workshop 1: "Mobilizing Advocacy for Health Promotion approaches to NCDs – From Evidence to Influence" and Workshop 2: "How to Write Scientific Journal Article" . A total of 300 people participated.

Time	Summary of chronicles
June 18th	In order to plan policies which will ensure iodine nutrition for citizens, the HPA conducted an International Health Promotion Conference on Iodine Policy and Practices. American Region Deputy Coordinator and Southeast Asian Region Deputy Coordinator from the Iodine Global Network, along with officials from the Department of Health, Thailand, were invited to make speeches on the iodine nutrition policies in those regions. Experience exchange was conducted through final comprehensive discussions.
June 22nd	Electric cigarette users have grown in number around the world, and it can be difficult to regulate the use of electric cigarettes in an era of ecommerece. Given this backdrop, the Department has launched an inter-agency program. The Department has invited the Ministry of Justice, Ministry of the Interior, Ministry of Finance, Ministry of National Defense, Ministry of Transportation and Communication, Ministry of Education, and Ministry of Health and Welfare to the meetings on prevention of the spread of e-cigarettes. We seek to facilitate better segmentation in workplaces, and we are making all-out effort to eradicate hazards posed by electric cigarettes through border controls, e-cigarette tracing, inspection and monitoring, awareness raising, and smoking cessation.
June 29th to July 3rd	"WHO Health Promotion Hospital Recognition Project" is the WHO Health Promotion Hospital International Network's way of evaluating the effectiveness of introducing health promotion hospitals. They have derived an intermediate certification plan, and currently there are 47 hospitals and 10 countries participating in this international plan. 21 hospitals in Taiwan participate in this plan, which is the most of any country. Prof. Hanne Tønnesen, CEO of the WHO-International Network of Health Promoting Hospitals Secretariat and Mr. Jeff Kirk Svane, Technical Officer, visited Taiwan to conduct site visits on the 12 control group hospitals, which all won Gold level certification.
July 17th	For citizens to continue to exercise outdoors in fresh and pleasant air, we invited the Ministry of Education, Environmental Protection Agency, and Sports and Education units to conduct inter-ministerial meetings focusing on exercise recommendations based on differing qualities of air.
July 24th	We announced guidelines on how to apply for surviving members solatium. According to Article 12 of "Yu Cheng Patient Healthcare Services Act" , for Yu Cheng patients registered by the government who died prior to the implementation of this Act, surviving spouses and linear descendants can apply for a one time solatium of 200,000 NTD within two years. (August 10th 2015 to August 9th 2017).
July 24th	We revised the list of diagnostic test items and subsidy fees for suspected cases of rare diseases covered by the 3rd Paragraph, 1st Item, Article 2 of the "Regulation on Medical Subsidization for Rare Diseases." We added 10 items, giving a total of 84 items listed under checkup subsidy fees for suspected cases of rare diseases.
July 31st	The Ministry of Foreign Affairs entrusted the International Cooperation Development Foundation to conduct "Disease Control and Prevention Seminars." 23 national health medical officials, scholars, and experts from 20 allied countries, visited the HPA. The Director-General hosted and introduced non-communicable disease prevention policies and shared achievements for exchanges.
August 11th	We conducted the "Excellent Cancer Prevention Medical Institutes and Health Offices Award Ceremony" in order to give out annual "screening efficiency king," "suspected cancer chasing king," "life-saving king," "most improved," "county and city best partners," and "outstanding achievement award" prizes. A total of 9 county and city health offices, 74 medical institutes, and 40 medical staff received the awards.

Time	Summary of chronicles
August 12th	HPA held the 3rd "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 31st	According to the second paragraph of Article 4 of Yu Cheng Patient Healthcare Services Act, The blood concentration criteria for PCB or PCDF was set and took effect from August 31, 2015.
August 31st	In order to improve iodine nutrition amongst citizens, the HPA passed a proposal that whether salt at household does or does not contain iodine has to label "This salt supplies iodine, a necessary nutrient."
September 7th	According to Article 9 of the "Yu Cheng Patient Healthcare Services Act" , we stipulated "Yu Cheng Patient Healthcare Subsidization Standard and Regular Health Checkup Items" . There were implemented on January 1st 2015.
September 8th	We added macular dystrophy and CHARGE syndromes as rare diseases.
September 14th	In order to improve the iodine nutrition of citizens, the HPA made a proposal in the "Food Safety and Nutrition Counseling Meeting" conducted by the FDA and it was approved, which was increasing the concentration of iodine in salt from the current 12-20mg/kg to 20-33 mg/kg according to the recommendation of WHO.
September 22nd	A total of seven people from the "2015 Third British Parliament Visiting Team" (Led by Taiwan-England Congress Group Chairman Lord Faulkner of Worcester, with a total of five representatives from the House of Lords and two representatives from House of Commons, visited the HPA. The Director-General personally welcomed the delegation, and made a speech to introduce the health situation and promotion policies.
September 25th	We invited three international experts in the form of Honorable Professor Lawrence St. Leger of Deakin University, Professor Lee Da Ba from The Chinese University of Hong Kong and Professor Noy S. Kay of University of Indiana, to discuss with four domestic experts, and representatives of the Ministry Of Education K-12 Education Administration to discuss the development of health promotion school core certification indices in Hong Kong, Thailand, and Taiwan. There was also an agreement to conduct follow-up international comparisons.
September 30th to October 2nd	The 2015 European Health Forum Gastein was held in Gastein, Austira, with the key topic being "Securing Health in Europe—Balancing priorities, sharing responsibilities" . HPA co-organized a parallel forum on the topic of "The Power of Data" , the Director-General of HPA gave a speech on "Smarter Data for Health Promotion in Taiwan" . About 300 people attended the session, many of them raising interesting questions acknowledging the government's efforts in this area. The first session had the highest participant satisfaction level of all sessions in the forum.
October 7th	In order to improve nutrition and create balanced diets for citizens, HPA visited the Agriculture and Food Agency, Ministry of Agriculture, Director-General Lee Chun Lan and Department of Animal Industry, Director-General Lee Chun Jing. We discussed the topics related to food production, citizen nutrition, dairy product intake, and reinforcement of consumption.
October 13th	The 2015 National Contest for Elderly Health Promotion helps elderly citizens dancing and having fun as part of a healthy lifestyle, which hold in National Taiwan University Gymnasium, 14 outstanding elderly teams from different cities and counties with an average age of 75 and a total of 37,000 years old gave wonderful performances full of vitality.

Time	Summary of chronicles
October 15th	The Ministry of Health and Welfare and Ministry of Finance jointly amended the Regulations on the allocation and use of health and welfare surcharge of tobacco products to finance long-term care and optimize the utilization of the Tobacco Health and Welfare Surcharge. Information regarding to the utilization of the Tobacco Health and Welfare Surcharge is also made public according to the amendments. The regulations took effect on September 1st, 2016.
October 21st to 23rd	At the 47th Asia-Pacific Academic Consortium for Public Health held in Bandung City Indonesia, the Director-General of the Department gave a speech on enhancing synergies between public health and medical care, emphasizing on the experiences of Taiwanese hospitals' in reducing carbon emissions. About 1,000 people from 30 countries participated in this event.
October 26th to 27th	We held the Framework Convention on Tobacco Control 2015 International Conference, inviting 17 experts from New Zealand, the U.S, Switzerland, Indonesia and Taiwan to give presentations on several subjects, including "Tobacco Litigation, Liability and Legal Practice" , "Preventing Tobacco Industries' Interference with Tobacco Control" , "Public Participation and Human Rights in the Implementation of FCTC" , "Electronic Cigarettes and Regulatory Regimes" and "Tobacco Control, Dispute Settlement and Inter-regime Issues" . Conference participants exchange information about tobacco hazard control regulations and related policies of different countries.
October 30th	HPA and Sir Michael Marmot, Professor of the University College London Institute of Health Equity, hosted a press conference to release the highlights of "Taiwan's Report on Health Inequalities" on October 30th, accommodating to Sir Marmot's itinerary for the 2015 Global Health Forum in Taiwan.
October 30th	HPA arranged for the Former President Ma to meet with Sir Michael Marmot , President of the World Medical Association and former chair of the WHO Commission on Social Determinants of Health. Former President Ma was accompanied by members of the National Sustainable Development Network, Executive Yuan. Former President Ma and Sir Marmot signed the cover of the "Taiwan Health Inequality Report" , signifying the work our government has put towards cross-department work and promotion of health equality.
November 1st	In order to help the Aborigines quit smoking, the medication is also free for those live in non-outlying island regions, which makes the cessation services more convenient and reduces the economic burdens.
November 1st to 2nd	HPA co-organized the 2015 Global Health Forum in Taiwan. Former President Ying-jeou Ma attended the forum and gave an opening address. The theme of the forum was Public Health Governance, which explored topics related to global health governance, including effective governance leading towards a sustainable world, post-2015 development strategies and the challenges of non-communicable diseases, laws and global health governance, how gaps in statistics affect the accurate measurement of mortality rates and disease burden, and how to govern in order to reduce health inequality. In addition, there were parallel sessions on health technology assessment and prevention of oral cancer. This forum brought together 66 leaders of important medical organizations from around the world, health ministers and deputy ministers and officials, as well as experts in healthcare and public health. A total of 674 people have attended the forum.

Time	Summary of chronicles
November 2nd	In the 2015 Global Health Forum in Taiwan on November 2nd, we conducted parallel meetings on oral cancer prevention. We invited cancer prevention experts from England, Switzerland, USA, Mongolia, and India. We shared information on oral cancer risk factor prevention, related research, preventive strategies, integration of community networks, civil resource promotion, oral cancer screening, and achievement evaluations. This helped contribute towards international visibility, and helped us to share our experiences with countries planning to promote oral cancer screening.
November 12th	We conducted the "Healthy City and Age-friendly City Award" Ceremony. Former Vice President Wu personally gave out the awards at the ceremony. A total of 386 examples from 22 counties and cities, after two stages of review selection, we selected 94 units for awards (3 Excellence and 91 Innovative Achievement Awards). A total of 350 people participated.
November 18th	We held the "2015 International Health Promotion Foundation" event. We invited 16 international experts to share the important developmental direction of health promotion post- 2015, possible health promotion plans promoted by health foundations and international organizations, and information on the government integrating the work plans of health promotion foundation. Our overriding goal is driving global prevention of non-communicable diseases.
November 21st	HPA organized the "2015 Health Promoting Hospital Conference" , and presented awards for model health promoting hospitals, organizational restructuring, and creative planning. HPA also presented certificates to 13 newly certified hospitals . Former Director-General Shu-Ti Chiou presented a speech on the developmental direction and prospects of health promoting hospitals, and the event drew participants from 151 health facilities and seven health bureaus, a total attendance of more than 500 people.
November 27th	HPA hosted an event to commend achievements in promoting age-friendly healthcare institutions. In this event, several awards are presented, including awards for: outstanding age-friendly healthcare institution, organization restructuring, friendly service, friendly environment, and winners of creative initiatives and essays. 105 institutions that have been certified within the year also received their certificates during this event. The Director-General of the Department gave a speech on the quality and future prospects of age-friendly health care, and the event was attended by about 400 people from 187 institutions.
November 27th	According to Item 1 of Article 6 of "Yu Cheng Patient Healthcare Service Act" , we stipulated the "Yu Cheng Patient Rights and Benefits Protection Plan" , and implemented it on this day.
December 1st	According to Article 11 of "Yu Cheng Patient Healthcare Service Act" , we stipulated "Yu Cheng Patient Rights and Benefits Legal Case Support Plan" , and implemented it on this day.
December 3rd	Awards ceremony for premium value-added Cloud applications for health improvement is held. 14 winners' works are selected, the awards publicly presented and works displayed.
December 7th	FDA had announced in advance its plan to increase the content of salt iodine. HPA also shared publicity materials on this day under the slogan that: "appropriate iodine concentration in the salt can make you live smarter!"
December 7th	We revised Article 3, 7, and 13 of the "Enforcement Rules of the Prevention of Rare Disease and Orphan Drug Act" , in order to reinforce the healthcare of rare disease patients.

Time	Summary of chronicles
December 13th	We conducted an "Excellent Diabetes Health Promotion Institute Recognition and Newly Joined Institution Certification Ceremony." In 2015, 75 medical institutes with overall great achievements in healthcare for diabetes patients were awarded. We also awarded certification labels for the newly-added 16 institutes. Next year, we are planning to give out awards to 229 institutes (including 75 institutes from this year).
December 15th	We held a seminar on tobacco-free hospitals and tobacco cessation service achievements, along with a series of information-sharing speeches. These included information on the achievements of tobacco-free hospitals, in Taiwan, ENSH-Global standards and its implementation criteria, characteristics of ENSH-Global Gold Forum Members, and experience sharing of excellent hospitals.
December 15th	We held the first meeting of the Ministry of Health and Welfare Patient Healthcare Promotional Event in 2015. We invited committee members that included representatives of HPA, Ministry of Labor, Ministry of Education, expert scholars, and Taiwan Yu Cheng Victim Support Association, to promote healthcare matters relating to Yu Cheng patients.
December 18th	The Department officially outlined subsidy arrangements and listed the PCB and PCDF tests criteria, according to Article 9 of the Yu Cheng Patients Health Care Services Act. The new regulations came into effect on this announcement date.
December 18th~19th	We conducted a Public Health Capacity Building Workshop. We invited experts from PHAB to come to Taiwan to introduce the ways of evaluating public health in the US, and also to share their insights for how to make organizational functions of public health departments more complete and effective.
December 22nd	We held "2015 National Diabetes Support Group Competition Award Ceremony." We awarded 39 diabetes support groups of excellence, 44 weight loss groups, 427 exemplar patients, and 64 diabetes patient improvement awards. We also gave out Certification of Appreciation awards to group guidance counselors and excellent county and city health office staff.
December 23rd	The Department holds an event to commend achievements in efforts made to promote healthy lifestyles and healthy communities. In this event, a total of 253 awards were presented, including awards for the 2015 health and weight management program, 2015 healthy community program, healthy workplace program, 2015 healthy lifestyle program, the outstanding public health center, and winner of the units of exercise competition. 14 participants from these programs are also invited to share their experiences.
December 25th	Together with the FDA, we announced the plans to label salt with iodine content information. We held a press conference to drive the campaign messages of "Read the label when you buy salt" and "Good salt needs iodine" . We also reminded people how to correctly choose iodine salt, how to distinguish the salts through labelling, and warnings of inappropriate use.
December 30th	The HPA and Sports Administration, Ministry of Education held a joint seminar on sports and health. Focusing on the development of future health fitness related works, we discussed four themes related to promoting citizen exercise nationwide, body fitness check-ups, important exercise and health promotion related topics, and exercise health monitoring and information cloud systems. We invited scholars and experts from health offices, Department of Sports, schools, workplaces, and hospitals. A total of 130 people participated.
December 30th	We revised the 205 rare disease ICD-9-CM diagnosis codes in response to a request by the commissioned hospitals of National Health Insurance Administration. We subsequently declared the 2014 version of ICD-10-CM/PCS.

Name of Publication	2016 Annual Report of Health Promotion Administration
Publishing Organization	Health Promotion Administration, Ministry of Health and Welfare
Publisher	Ying-Wei Wang
Address	No 36, Tacheng St., Datong Dist., Taipei City
Website	http://www.hpa.gov.tw/
Telephone	+886-2-25220888

Editing	Health Promotion Administration, Ministry of Health and Welfare
Design &Printing	INNO Design
Date of Publication	November 2016
Date of First Publication	October 2007
Nature of Publication	Annual Report

This annual report is also available on the HPA website:

http://www.hpa.gov.tw/

Price NT$230

For sale at:

Government Bookstore	1F, 209, Songjiang Rd., Taipei City +886-2-25180207
Government Online Bookstore	http://www.govbooks.com.tw
Wu-Nan Culture Square	6, Zhongshan Rd., Taichung City +886-4-22260330 http://www.wunanbooks.com.tw

GPN:2010301336

ISSN:2312-0894

Taiwan Health Promotion Administration
Ministry of Health and Welfare,Taiwan

Health Promotion Administration,
Ministry of Health and Welfare

ISSN 2312-0894
9 772312 089004

ISSN 2312-0894
GPN 2010301336
Price : NT$230

This Report is funded by
Tobacco Health and Welfare Surcharge