2018 Annual Report

Health Promotion Administration

HPA

Healthy Living, Active Aging

Promoting
Your
Health

Health Promotion Administration, Ministry of Health and Welfare, R.O.C. (Taiwan) December 2018

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Preface by the Director General

Using the subtle nudge to achieve healthy living for all

According to the World Health Organization's definition, when the proportion of a society's population aged over 65 years old reaches 7% it is an aging society, when it reaches 14% it is an aged society and when it reaches 20% it is a super aged society. Taiwan's population structure is aging rapidly; according to Minister of the Interior figures, at the end of March, 2018, Taiwan had more than 3,300,000 elderly people, accounting for 14.1% of the total population, meaning that Taiwan is now officially an aged society. The National Development Council predicts that, by 2026, Taiwan will be a super aged society. Faced with the rapid aging of society, heathy aging is not just the hope of individuals, it is also the new challenge that our entire society needs to focus on. To create a age-friendly environment, HPA is actively promoting healthy cities, age-friendly cities, community health building, healthy workplaces, health promoting schools and health promoting hospitals from the angle of cities, communities, workplaces, schools and hospitals, respectively. We have also formulated "the Community Programs to Prevent or Delay Disability for Elderly Care - Elderly Health Management" to enhance community primary prevention and reduce the risk of elders' frail and disability. Hold community preventive and incapacity delay personnel training courses to make the foundation of community professional promotion personnel complete and widely establish a community health service network.

Healthy Society. Implementation of Policy

Looking back at 2017, through promoting healthy birth, healthy growth, active aging, building a health environment, increasing cancer screening, enhancing tobacco hazard prevention and other policies, working together with various quarters, we delivered outstanding results. These included: continuing to improve newborn gender imbalance; in 2017 the newborn gender ratio fell to 1.075 (male-female ratio around 107-100); the adult smoking rate was down to 14.5% and exposure to second hand smoke in public places was down to

Director General
Health Promotion Administration Ministry of Health and Welfare

just 6.4%; the adult betel nut chewing rate fell to 6.1%; these figures were all the lowest in recent years. The concrete achievements include:

In the area of citizens' nutrition, the draft Population Nutrition Act was promoted, explanatory meetings were held to collect a wide range of opinions and promoting of the draft act into law carried out. Also, to promote citizens health related physical fitness, sports health teacher training was held directed at medical and sports professionals; the graduates from the training course were used to provide 229 Move for Health sessions in 15 cities/counties to encourage active aging.

With respect to being age-friendly, from 2017, with healthy cities as the base, age-friendly communities and the Dementia-friendly Communities (DFCs) and Caring Communities Plan were promoted and dementia health education promotion events and caring city workshops were held, to facilitate the implementation of concrete programs in communities. 2014-2018 the target is to have 500 care institutions complete certification in five years; as of the end of 2017, 469 such institutions had been certified, spanning hospitals, health centers, clinics and long-term care institutions; also, in combination with community care sites, senior health promotion activities were held; the number of people served in all 22 cities/counties was higher than the target, for an achievement rate of 100%.

With regard to tobacco hazard prevention, the draft amendment of the Tobacco Hazards Prevention Act was actively promoted, the focal points enhancing management of electronic cigarettes, expanding the ban on smoking in public places, and increasing the penalty for serial offenders. In addition, we also built the first vehicle with experiential learning and interactive gaming in Taiwan, taking educations against tobacco hazard into people's lives; tobacco hazard education work was also combined with visual health, sexual health and healthy BMI and other issues, winning an enthusiastic response from students and the wider public.

Guiding the Public in Various Ways Age-friendly Hand in Hand

In the area of cancer prevention and control, as well as bringing the adult betel nut chewing rate down to the lowest in recent years, 2015 cancer incidence shows the first fall in the number of people suffering colorectal cancer, showing that the positive effect of colorectal cancer screening is gradually being produced. We have also continued to conduct screening for four major cancers. In 2017, we discovered 50,000 cases of precancerous lesions and, through early treatments, have sought to control the incidence of cancer. We have promoted condition notices, advocacy, and palliative healthcare services for those with non-curable forms of cancer.

In the area of chronic diseases prevention and control, effective reduction of premature death from cardiovascular disease, one of the 10 leading causes of death in Taiwan, is an important issue. With reference to the WHO's cardiovascular prevention guide, prevention practices in the UK and Australia and the actual requirements of Taiwan, a national cardiovascular disease prevention action framework and execution strategy were formulated and, for the first time in 2018, a 5-year national cardiovascular disease prevention program was launched to upgrade citizens' health literacy and build healthy lifestyles; also, through the setting down of local roots by clinics and family doctor intergrated delivery system, incapacity-prevention chronic disease intervention services will be promoted to build an integrated prevention system that connects health promotion and disease management.

To provide more complete care to sufferers of rare diseases, the Regulations Governing Subsidizing Rare Disease Care Expenses was amended, making subsidy procedure and contents more complete; health care for Yu Cheng (PCB Poisoning) patients continues, providing free health checks and subsidizing some medical treatment expenses.

In the past, hygiene and health policy often used laws, subsidy and incentive and advocacy strategies to influence people, neglecting the use of skills to allow people to make beneficial decisions for themselves, and thus change their behavior, the so-called "nudge". The nudge has become a policy trend in advanced countries. HPA is actively carrying out related research and experiments, and together with colleagues in health bureaus at central and local government level and health centers, we will merge the "nudge' into health promotion intervention measures. The aim is, with the precondition of not damaging the free will of people, allowing them to make a more healthy behavior choice to achieve "a small change with large benefit" in life. Together with the health literacy promoted by HPA, conveying correct and friendly health knowledge, the "nudge" will help us continue to build a healthy environment and promote the achieving of the healthy aging objective. Let's create an age-friendly new era together!

HPA Decoding

2001 Established

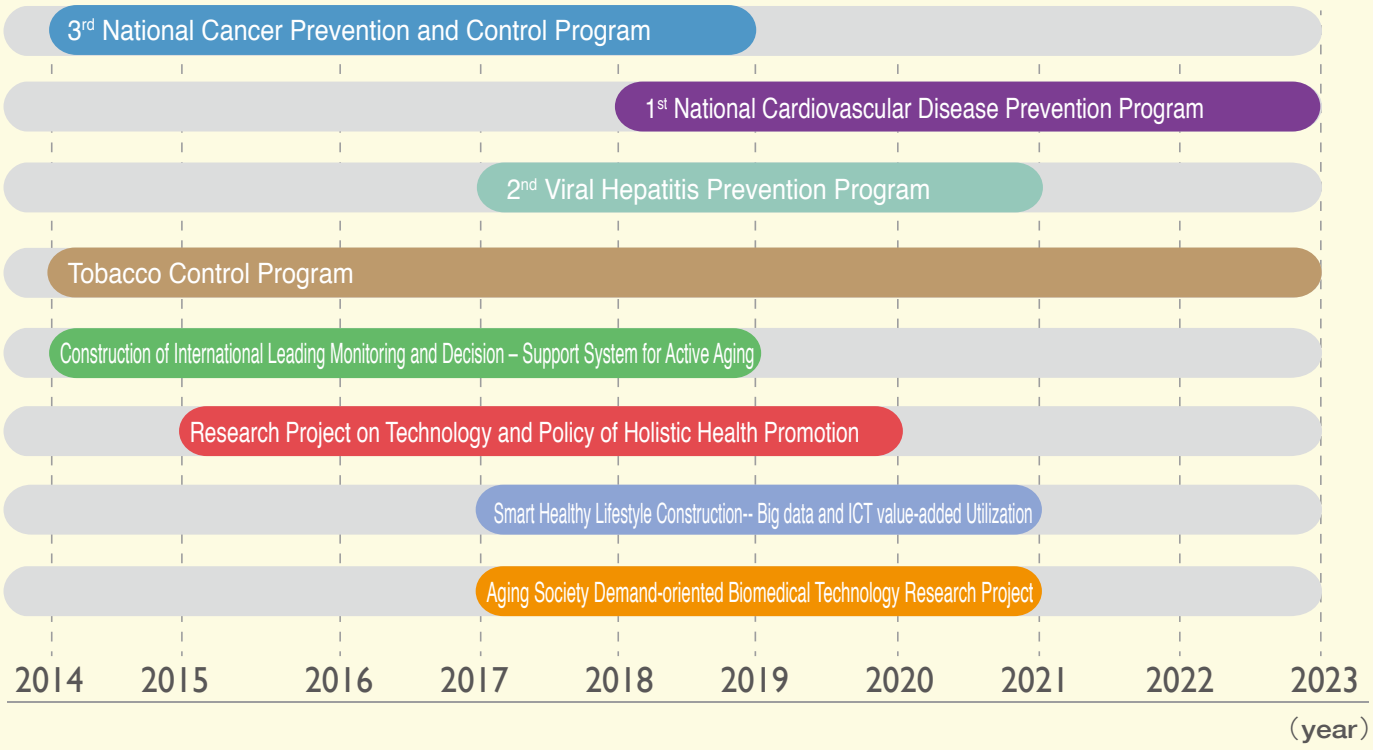
The Health Promotion Administration of the Ministry of Health and Welfare was formerly known as the Bureau of Health Promotion of the Department of Health. Its history goes back to when the Department of Health Care, the Institute of Family Planning, Institute of Public Health and Institute of Maternal 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 restructuring, the Bureau of Health Promotion became the Health Promotion Administration on July 23rd, 2013. It assumes a greater responsibility and promotes the spirit of "prevention is better than a cure." We reinforce preventive medicine and community health, especially in response to the change of population structure and work to more closely integrate social welfare and cross-department resources. The HPA provides comprehensive health promotion services from the womb to tomb and from families to communities. The goal is to prolong healthy life expectancy and reduce health inequality, so citizens can live longer and better regardless of wealth, region, gender, and ethnic group.

2013 Became the Health Promotion Administration

HPA

Promoting Your Health

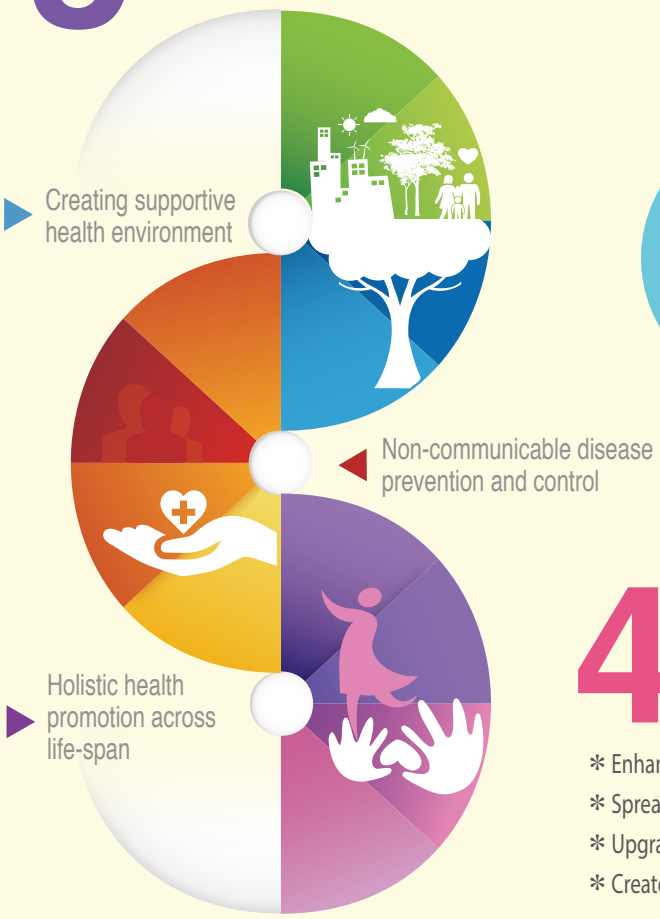
8 Major Administration Policies Plan

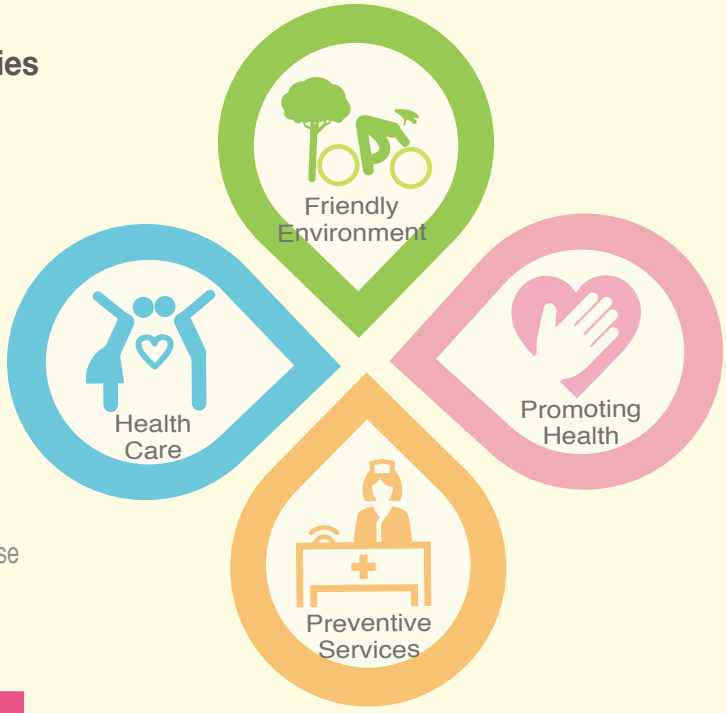


6 Administrative Policies Goals

* Nurture healthy lifestyles, create healthy settings.
* Comprehensive the service environment for women and children and reproductive care.
* Promote vitality and harmonious aging, create age-friendly health environment.
* Reinforce cancers and chronic diseases prevention and control.
* Reinforce national health indices and non-communicable disease monitoring system, implement evidence-based policies.
- Reinforce eHealth, increase the health empowerment of people.

3 Key Points of Administrative Policies



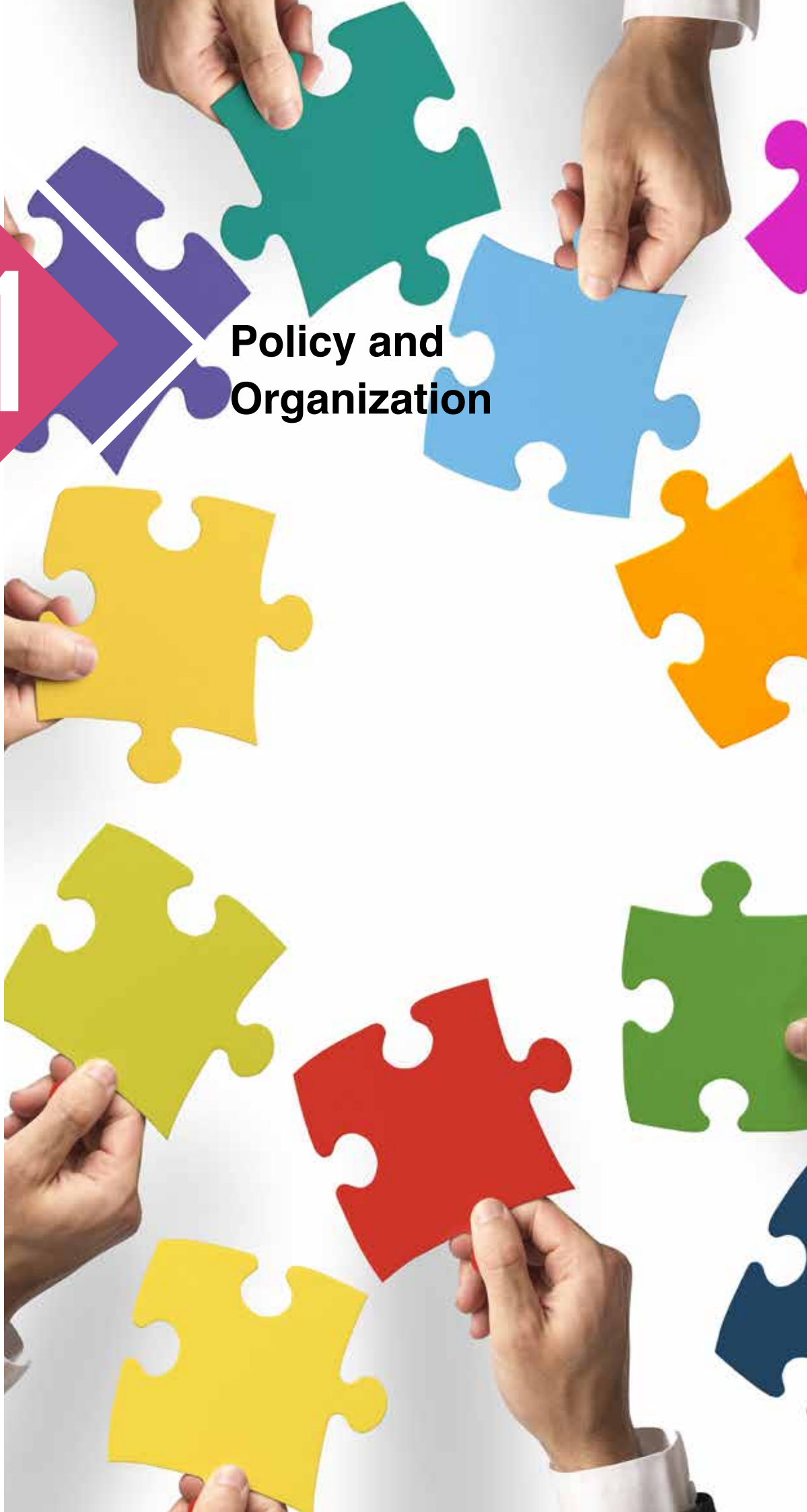


4 Missions

* Enhance health literacy and build healthy lifestyle
* Spread preventative healthcare and promote effective prevention and screening
* Upgrad healthcare quality and improve chronic disease control and prognosis
* Create a friendly / supportive environment and bolster healthy options and equality

Chapter 1

Policy and Organization



I. Organization and Major Deities

The HPA is led by the Director General, who is aided by two deputy director generals and a secretary general. It is further divided into seven divisions and four offices (Figure 1-1). The major assignments include:

1. Planning, coordinating and implementing health promotion policies and formulating related laws and regulations.
2. Planning, executing and supervising matters related to cancer, cardiovascular disease, and other major non-communicable disease prevention and control.
3. Planning, executing and supervising matters related to healthy lifestyles.
4. Planning, executing and supervising matters related to tobacco hazards prevention.
5. Planning, executing and supervising matters related to national nutrition.
6. Planning, executing and supervising matters related to reproductive health.
7. Planning, executing and supervising matters related to hearing and vision preventive care.
8. Planning, executing and supervising matters related to public health surveillance, research and development.
9. International cooperation relating to health promotion and non-communicable disease prevention affairs.
10. Other relevant administrative matters related to health promotion.

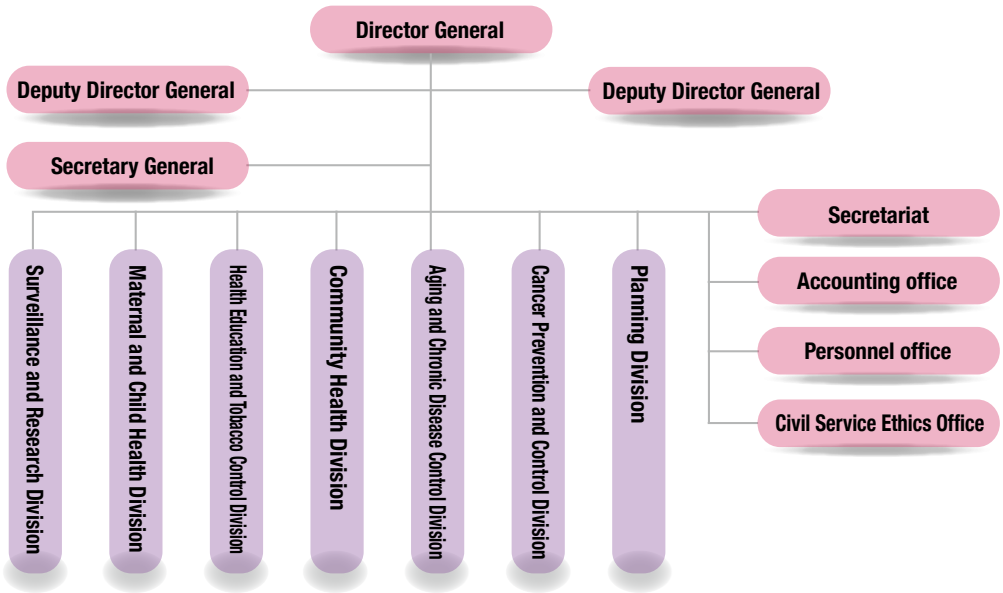
II. Organization and Mission

The HPA gives priority to enhancing health literacy and promoting healthy lifestyles; the wide 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. It plans and implements 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 responsible for 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 implement health policies, together building a healthy environment for the entire population (Figure 1-2)

III. The HPA Logo Design Concept

The concept behind the design of the HPA's logo is an open hand with four fingers and a thumb

Figure 1-1 Organizational Structure



across the palm. This configuration symbolizes that the HPA will "safeguard" all citizens. The 4 P represented by the 4 fingers are 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), and Participation (joint participation in health promotion by all citizens). There is also Partnership, representing that promotion of the health of all citizens requires industry-government-academia-public-media cross-area hand-in-hand cooperation. Furthermore the "green" color was specifically chosen because it has the gentlest effect on the human eye, so it will make people feel relaxed, calm and comfortable; it also represents growth and vitality, and symbolizes constant renewal and growth in the natural world.

IV. 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 all, as articulated by the World Health Organization(WHO), 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 large-scale collective changes. Opportunities and momentum are made available to empower people in different settings, thus making the pursuit of health a trend and enhancing the status of health promotion in public policy. (Figure 1-3).

Figure 1-2 Organizational Task of the HPA

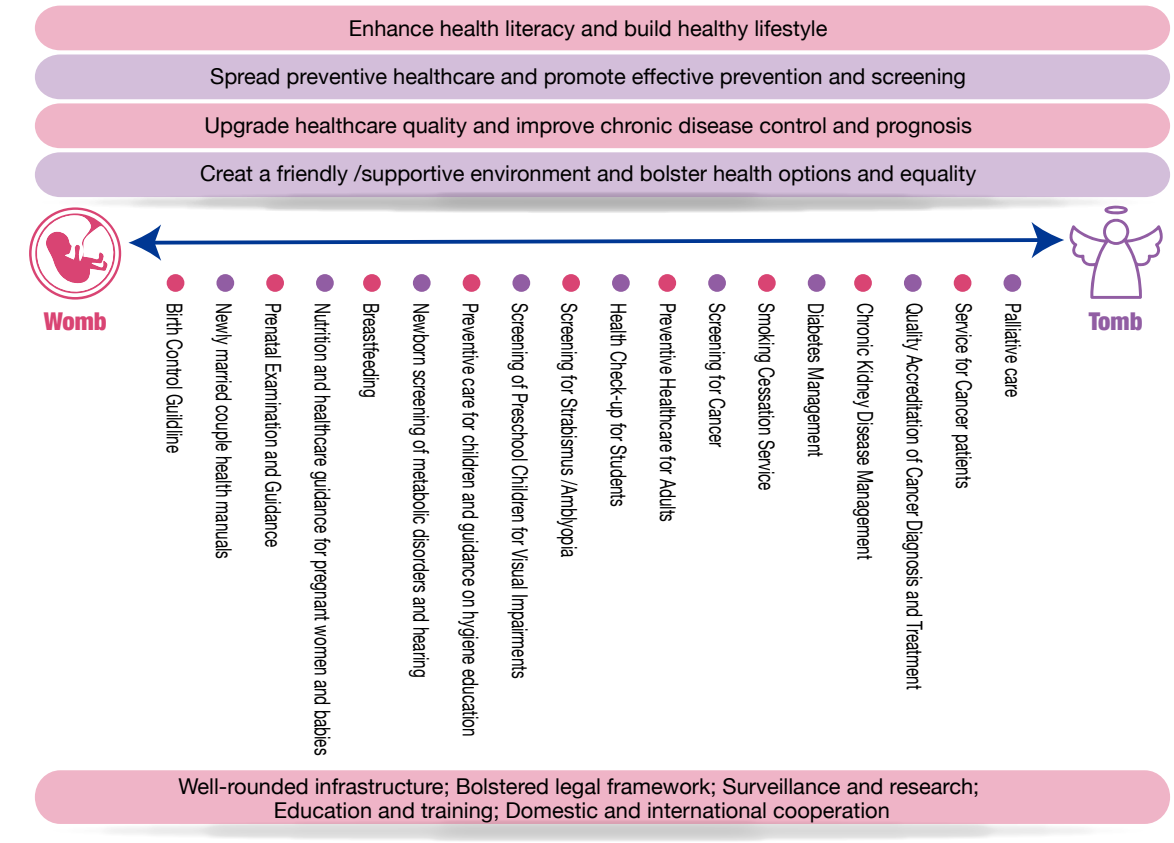
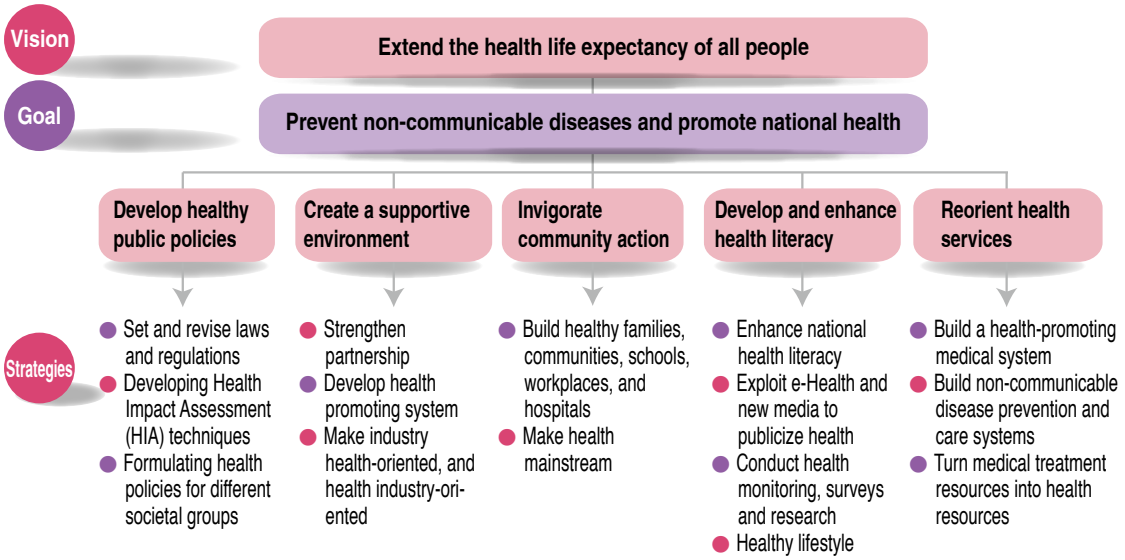


Figure 1-3 The Vision, Goals and Strategies of the HPA



V. 2017 Administrative Goals

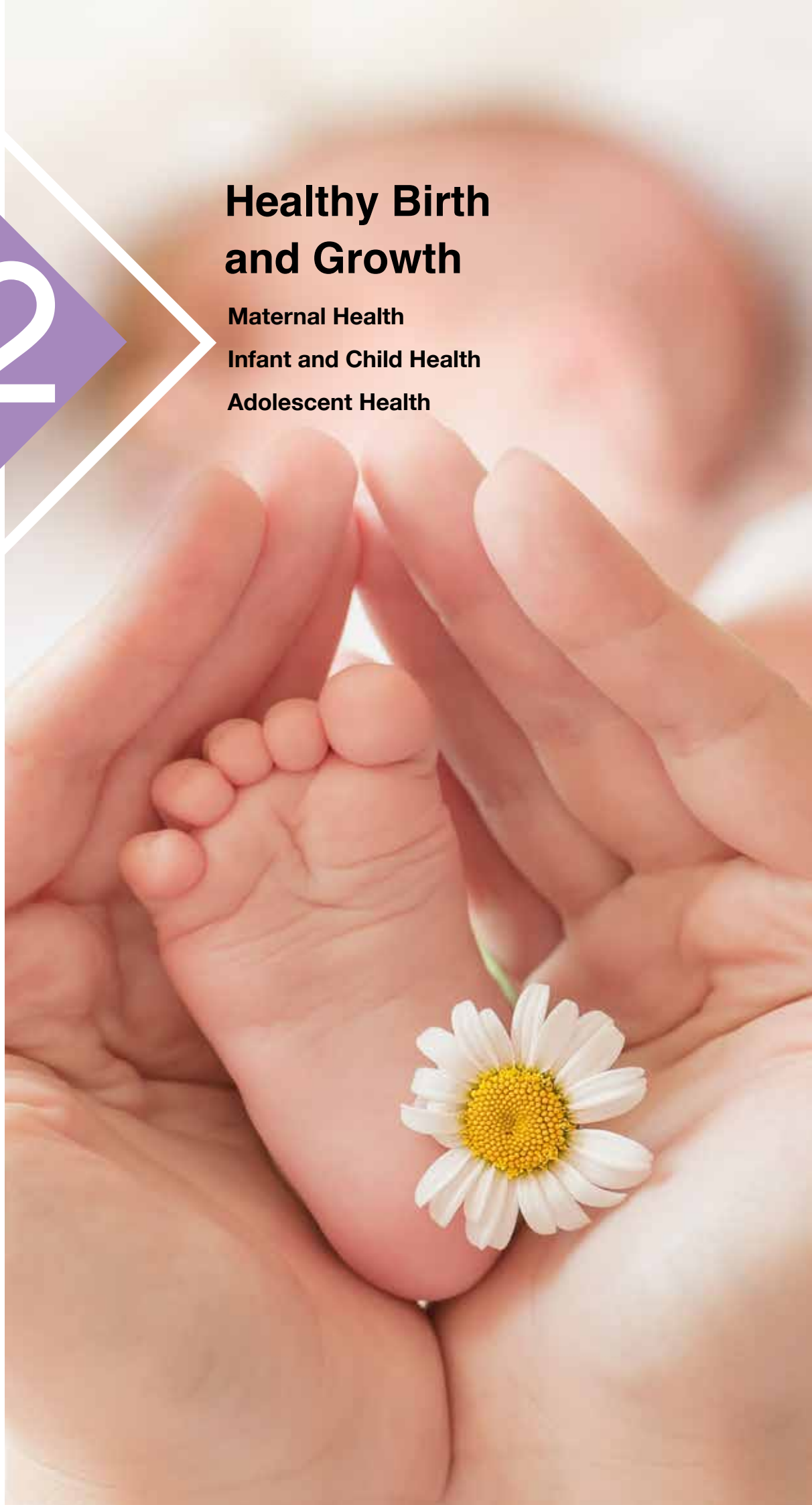
Chapter 2

Healthy Birth and Growth

Maternal Health

Infant and Child Health

Adolescent Health



Highlights

94.7%
Prenatal checkup average use estimated rate

In 2017, the 10 times prenatal checkup average use estimated rate reached 94.7%.

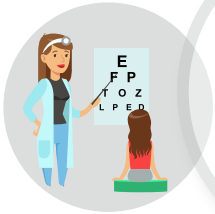
In 2017, children's preventive healthcare services average use rate reached 77.7%.

77.7%
Children's preventive healthcare average rate

99.9%
Congenital metabolic disease screening rate

In 2017, newborn congenital metabolic disease screening rate reached 99.9%.

In 2017, preschool children vision and amblyopia screening rate reached 100%.



100%
Children vision and amblyopia screening rate

8.3%
High school students smoking rate

In 2017, the smoking rate of middle school students decreased to 2.7%, and 8.3% for high school and vocational school students.

Cooperated with 93 medical institutes in 22 counties and cities to establish teenager-friendly professionals/ outpatient, in 2017 to 20,051 people were served.

20,051 teenagers
served in 2017

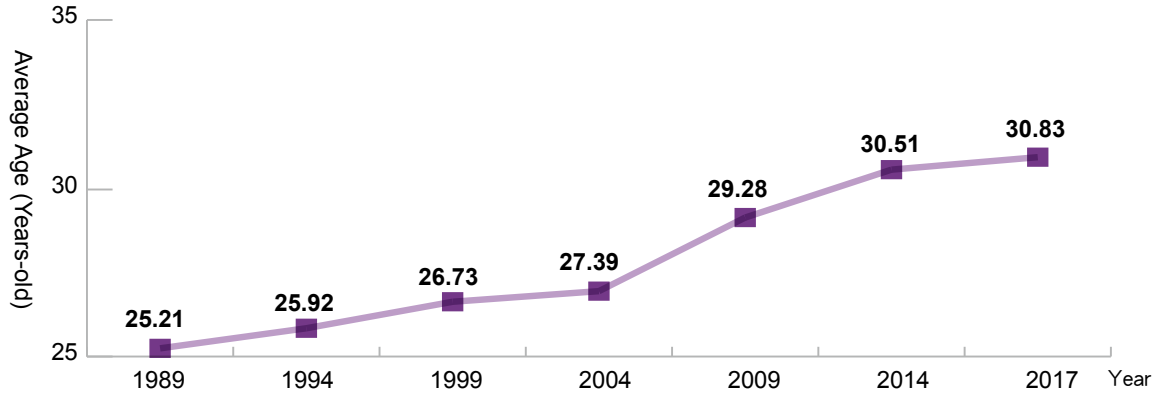
The impacts of social change and multicultural development have transformed society, as well as family structures and functions, and have brought about changes in the economy, transportation, and the social and material environments that surround us. There have also been changes in cross-border marriage and culture, divorce rate, grandparents' role in families, fast food culture and exam stress. These made maternal, infant, child and adolescent health issues more diverse and complex. 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.

Section 1 Maternal Health

Status Quo

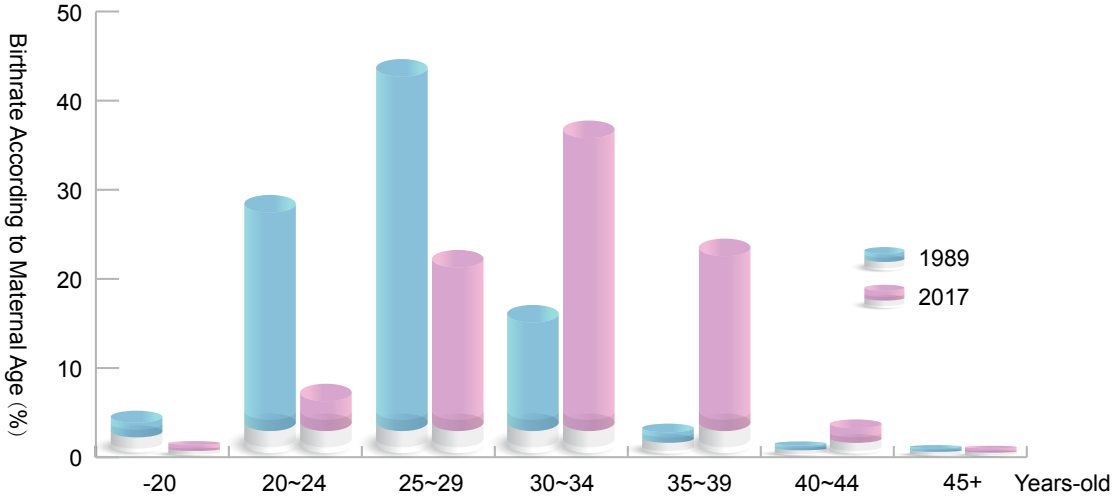
In 1989, Taiwanese women had their first child at an average age of 25.2 years old. By 2017, average age was 30.83 years. (Figure 2-1). Structural analysis of a trend toward late childbirth is clearly evident. The maternal mortality ratio in 2017 was 9.8 per 100,000 individuals. Compared with the 2016 OECD countries, Among the 35 OECD member countries, and Taiwan's maternal mortality ratio ranked number 26.

Figure 2-1 Average Age of First Child for Women in Taiwan



Source: 1989-2017 Number of Births by age of mother, average age of mother, and average age of first birth. (Composed by Department of Household Registration, Ministry of the Interior)

Figure 2-2 Evident Trend Towards Later Childbirth is Clear



Source: 1989-2017 Number of Births by age of mother, average age of mother, and average age of first birth. (Composed by Department of Household Registration, Ministry of the Interior)

Target Indicators

1. In 2017, 90% of women visited prenatal care at least 10 times, and 98% of women visited prenatal at least one time.
2. More than 97% of women with high-risk pregnancies underwent prenatal genetic diagnosis and follow-up.

Policy Implementation and Results

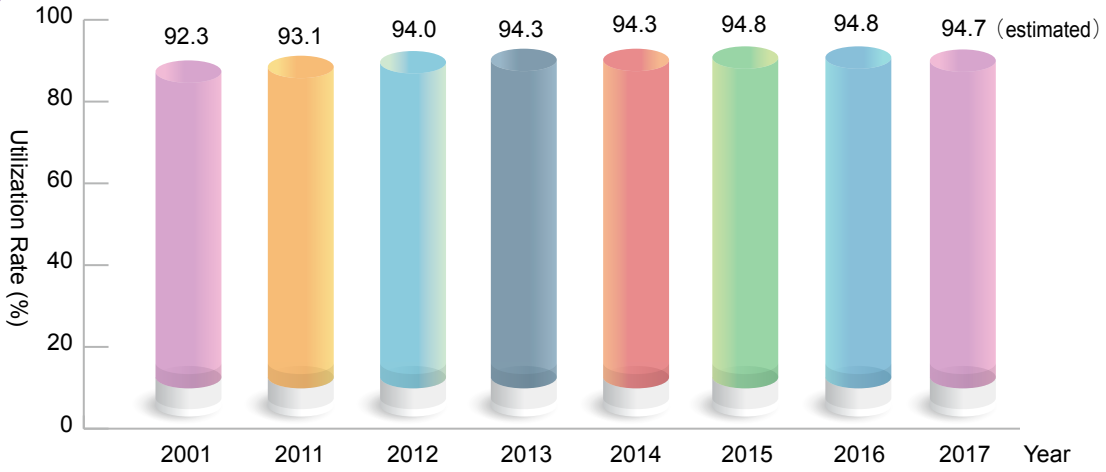
1. Sincere healthcare: Establish Systematic Birth Healthcare Service

(1) From prenatal checkup to healthcare, we comprehensively protect pregnant mothers

In order to promote the health of expectant mothers and their unborn babies, as well as to discover various possible complications early, the HPA subsidizes 10 prenatal examinations for pregnant women. The utilization of this service have been in the region of 90%. (Figure 2-3) In 2017, 1.902 million pregnant women used the prenatal checkups. The estimated utilization rate of women attending at least 10 prenatal care sessions estimated value is 94.7%.

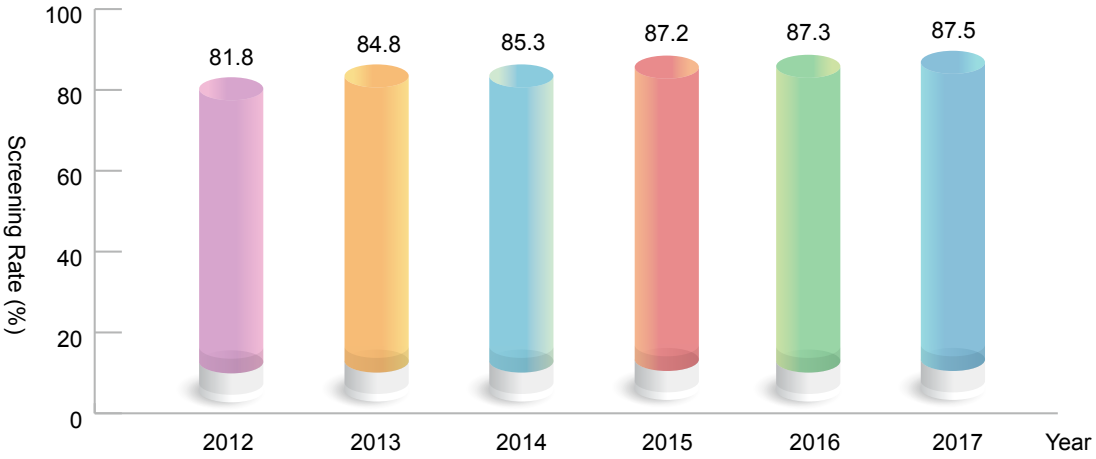
Since 2012, we have conducted Group B Streptococcus screening for women at the 35th to 37th week of pregnancy. In 2017, a total of 169,649 people were screened, with 36,020 people were test positive, with a rate of 21.2% (Figure 2-4). Since November 2014, we started promoting prenatal healthcare instruction services for pregnant women. Two evaluations and healthcare instructions during the first and third trimester

Figure 2-3 The Average Utilization Rate of Women Attending 10 Prenatal Care Sessions



Source: Data from Prenatal Examinations 2007-2017 and 2007-2017 Birth Reports

Figure 2-4 Group B Streptococcus Screening Rate



Source: 2012-2017 Group B Streptococcus Screening System, data from the 7-9 Prenatal Examinations.

of pregnancy, in order to prevent potential risk factors to mothers and children. In 2017, we served a total of 287,609 people were served, and 678 health insurance contracted hospitals and midwifery clinics joined this project. In addition, 1,652 physicians and midwives have been qualified to provide services.

(2) Provision of Comprehensive Genetic Testing Services

The HPA offers genetic testing at various stages, pre-marriage, preganancy, delivery, healthcare of infants, child and dults. 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 2-5.

(3) Genetic Service Results of Childbirth Stage

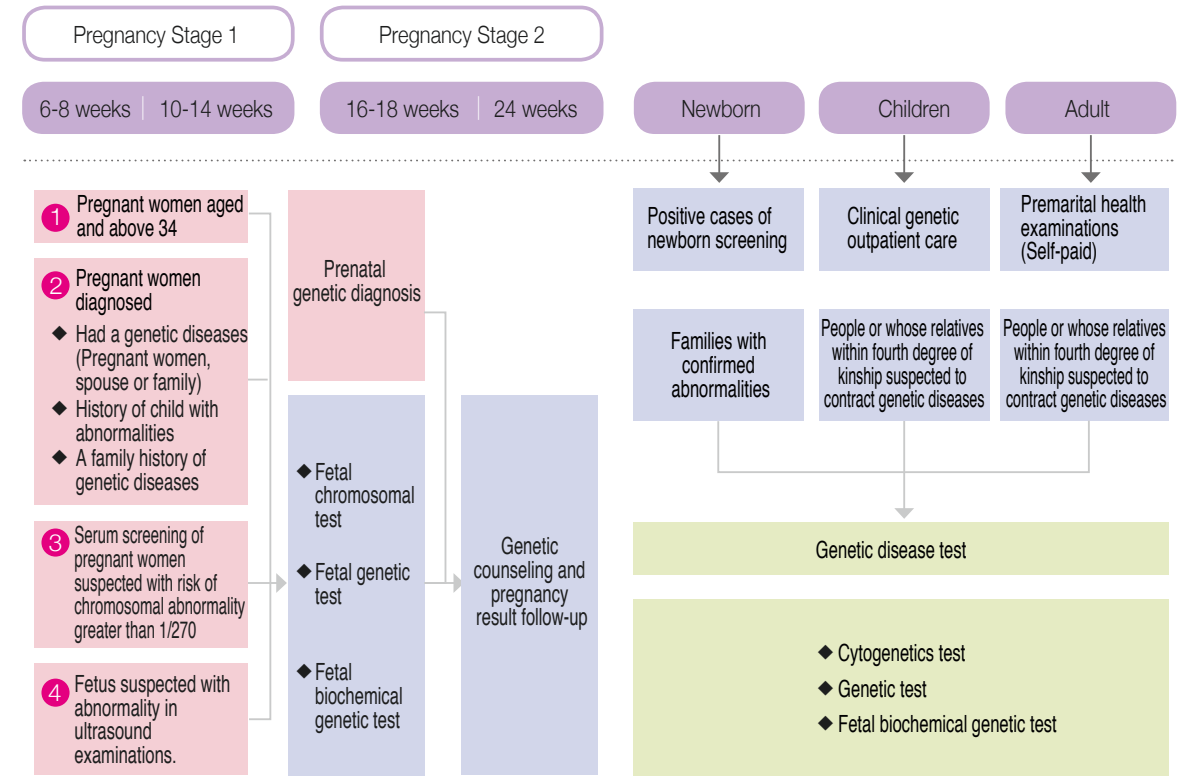
A. Screening for Thalassemia in Pregnant Women

If abnormalities are detected through prenatal blood testing, the patient will be tested. If both spouses are found to have abnormalities, blood samples are taken and sent to one of the five 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 2017, a total of 267 people were tested for thalassemia genetic testing, of whom 60 were found to be carriers of thalassemia major.

B. Prenatal Genetic Diagnosis for High-Risk Pregnancies

In order to effectively lower the infant mortality, and reduce the economic pressure on families, the HPA provides subsidies for prenatal genetic diagnosis for high-risk pregnancies (classified as those in which mothers are aged and above 34, where an abnormality has been found in a current or past pregnancy, a history of genetic disorders in her or her spouse's family, serum screening of pregnant women suspected with risk of chromosomal abnormality greater than 1/270, and where

Figure 2-5 Genetic Disease Prevention Network



ultrasound screening that shows the babies may have abnormalities and suspected genetic diseases). The subsidized checkup fee is 3,500 TWD, with maximum subsidy amount of 8,500 TWD. In 2017, a total of 46,413 people benefitted from these subsidies in 2017 with 40,124 of them were aged and above 34.(Figure 2-6). The checkup rate was approximately 65.9%. Abnormalities were found in 1,379 of those examined, which is 2.97% of the total number examined. Referral for further treatment and genetic counseling were provided.

In order to ensure that pregnant mothers can receive proper healthcare, 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 an evaluation every four years. By the end of 2017, a total of 28 clinical cytogenetic laboratories and 13 genetic laboratories 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 2017, the HPA had examined a total of 14 genetic counseling centers.

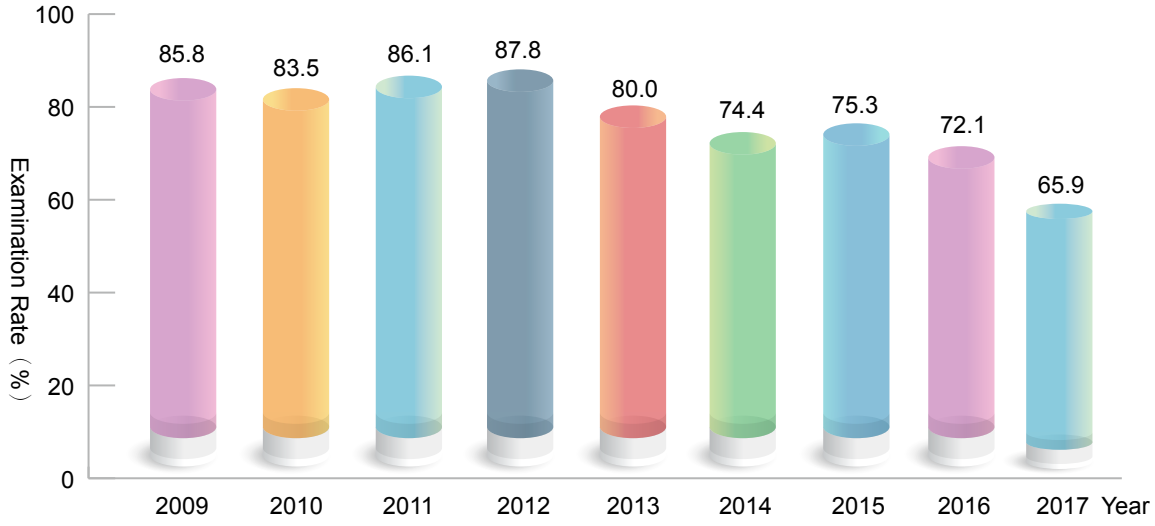
C. Genetic Disease Testing and Counseling Related to Reproductive Health

Genetic disease testing and counseling services are offered to people with reproductive health concerns, those who are suspected of suffering from a hereditary disease, or family members suspected from genetic diseases, and newborn screening with for metabolic disorders. In 2017, a total of 13,012 individuals took such tests. Of these, 575 people were found to have chromosomal abnormality, 956 were thalassemia carriers, and 3,398 showed evidence of other conditions.

(4) Pregnant women healthcare counseling, All-round Care for Pregnant Women

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 19,220 calls in 2017, and the website received 2,168,961 visit.

Figure 2-6 Percentage of Pregnant Woman Aged and above 34 Receiving Prenatal Genetic Diagnosis Subsidies



Sources: Subsidy information of pregnant women receiving prenatal genetic diagnosis and number of prenatal examination.

2. Must Do, Complete Childbirth Health Management Laws and Regulations

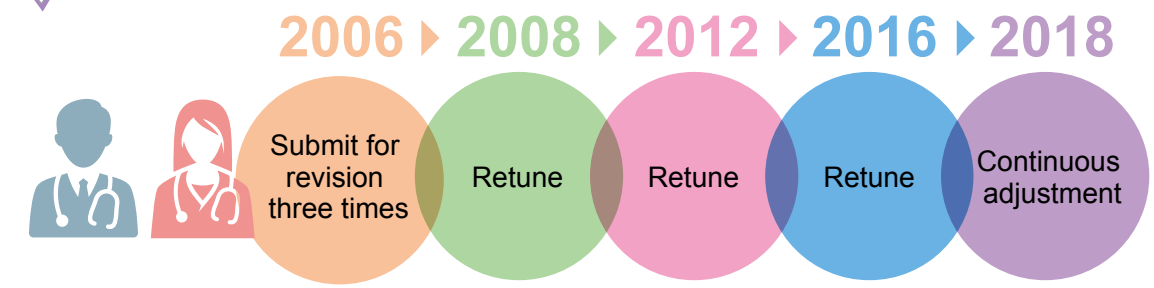
(1) Complete Artificial Reproduction Regulations and Institutions

Taiwan has introduced a series of laws which aim to ensure the appropriate development and use of artificial reproduction technologies, and to protect the rights of infertile couples, sperm and oocytes donors, and children conceived through artificial reproduction. The Artificial Reproduction Act, was promulgated and implemented in 2007, which was followed by the Regulations for Query on Kinship of Children of Assisted Reproduction, Regulations for Artificial Reproduction Institution Permits, Regulations for Verification of Kinship on 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 2017, a total of 83 institutions have been permitted as artificial reproduction institutions

(2) Genetic Health Law Draft Amendment Review, Continue to Work Hard

Since 2006, Genetic Health Law has been amended and submitted to the Legislative Yuan for 3 times. However, the Legislative Yuan review was unfinished, and was not further reviewed by legislative committee each time. In 2008, 2012, and 2016, it was rejected and sent to the administrative agencies for review. In addition, in the 2017, according to the related stipulations of national judicial review meeting "Underage, married women induced abortion decision making power related regulations should properly be included in the judicial or administrative problem solving mechanism." In order for the inclusiveness of bill, HPA invited many experts and interested parties to discuss if married woman require consent of induced abortion from her husband. Introducing third mechanism and see whether think period and days as the direction for law revisions. If agreement is not reached, further communication is required. HPA revised the "Reproductiive Health Law" according to the genetic healthcare, and conducted discussions. We

Figure 2-7 **Genetic Health Law Revision and Progress of Review**



continue to collect the opinions of all the interested parties and experts as the reference for law revision, the revised contents will be sent to Executive Yuan for review.

(3) Improving the Quality of Prenatal and Ultrasound Examinations

Currently, we provide 10 prenatal examinations and 1 ultrasound examination, in order for the current prenatal examinations to fulfill the health needs of pregnant women and cooperate with the new medical and technological development, we continue to use scientific evidence foundations for review and improvement. Since 2014, we changed Hepatitis B blood serum labeling test（HBsAG、HBeAG）from the 5th prenatal examination to the 1st prenatal examination, and increased the prenatal screening subsidies.

In addition, in order to improve the antenatal ultrasonic inspection quality, through collecting the international methods and related references, conducting expert meeting, and investigating the methods of domestic ultrasound examination. We also stipulated the current prenatal ultrasound examination index drafts, which include: screening recommendation procedures, screening manuals, screening measurement, report formats, and clinical practice operational recommendations. We also include the educational training courses of all the members. They are available on the website for members and medical staff.

Section 2 Infant and Child Health

I. Birth and Death

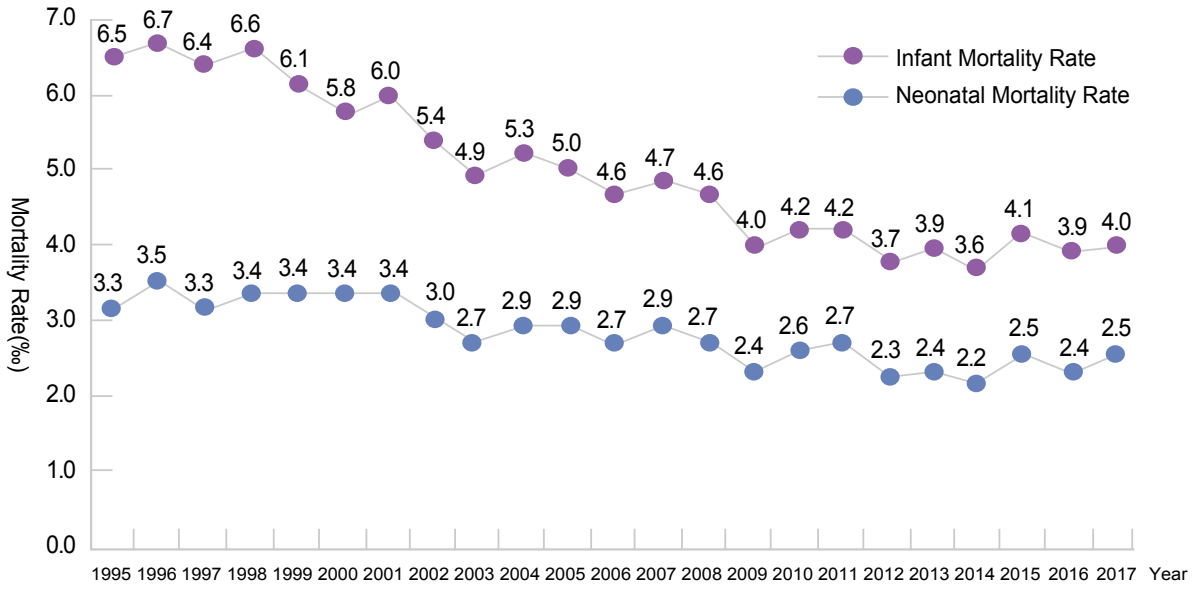
Status Quo

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 2017. The infant mortality rate has also decreased from 6.5‰ in 1995 to 4.0‰ in 2017. (Figure 2-8). Compared with the 36 OECD countries, Taiwan's infant mortality rate ranks 18th, and baby mortality rate ranks 27th in the world for 2017.

The HPA statistic of birth reporting system reveal that there was a total of 207,837 births in Taiwan in 2016 (Figure 2-9). 8.4% were live births with low birth weight (birth weight less than 2,500 grams) and 0.90% were live births with extremely low birth weight (birth weight less than 1,500 grams) (Figure 2-10).

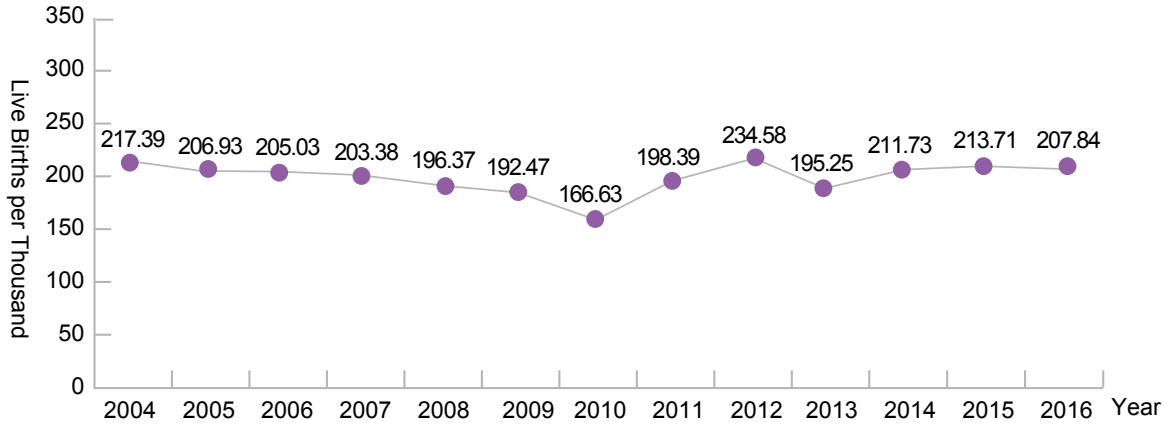
Under natural conditions, gender ratio at birth is approximately 1.04-1.06:1 for male to female. However, preference for males has long been a persistent phenomenon in Asian societies: many nations have a preference for male heirs and there are varying degrees of imbalance when it comes to gender ratio at birth. Taiwan's gender ratio at birth (ratio of male to female

Figure 2-8 Neonatal and Infant Mortality Rates in Recent Years



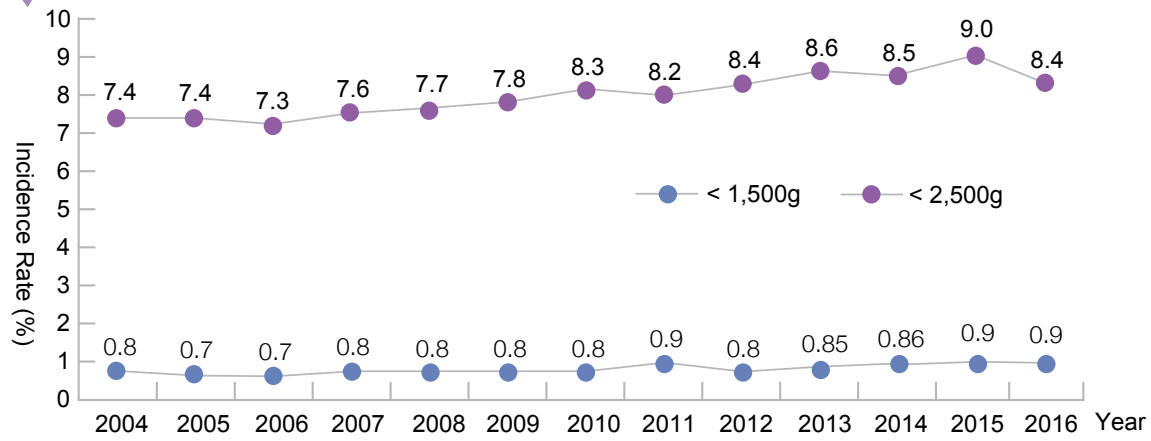
Sources: Department of Statistics, Ministry of Health and Welfare – Causes of Death in 2017

Figure 2-9 Live Births Reported for Years



Sources: HPA Statistics of Birth Reporting System

Figure 2-10 Annual Incidence Rate of Low Birth Weight and Extreme Low Birth Weight in Infants



Sources: HPA Statistics of Birth Reporting System

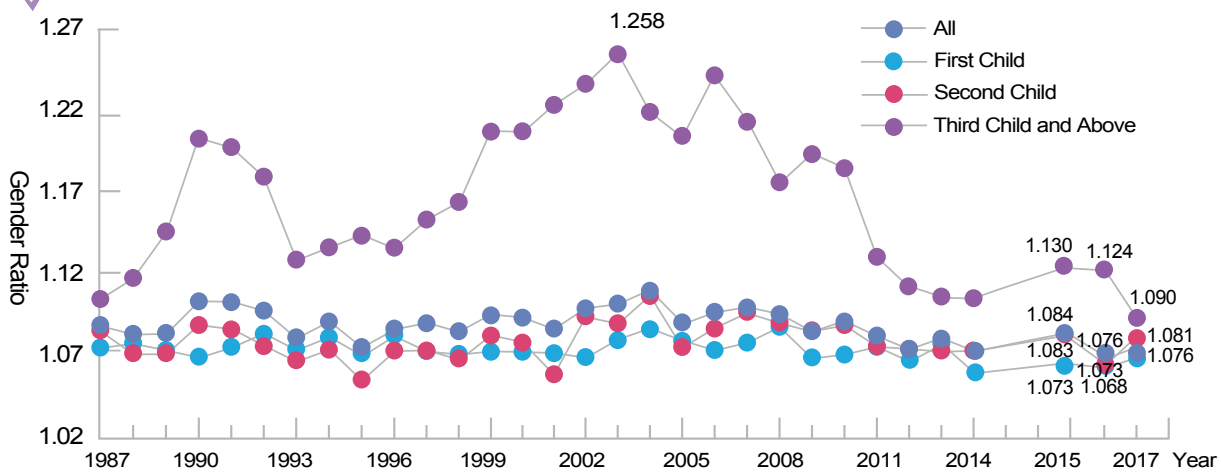
newborns) decreased from 1.09 in 2010 to 1.076 in 2017. The gender ratio for third child or beyond has also decreased to 1.090. And according to our sustainable development goal proposal, we set our goal for gender ratio in 2020 to be 1.068, as the goal for every year (Figure 2-11). The HPA puts great effort into promoting breastfeeding policies as way of boosting the healthy growth of babies and children in Taiwan. The exclusively breastfeeding rate for under one month reached 66.2% in 2016, while total breastfeeding rates under one month after birth reached 96.0% in 2016.

In order to promote healthy growth development of babies and infants. Other than spotting abnormalities and treatment ahead of time, we also must continue to provide complete healthcare system. For this, we stipulated the following important target indices:

Target Indicators

1. Screen more than 99% of newborns for congenital metabolic disorders in 2017.
2. Increase uptake of children's preventive health care services to 83% or above in 2017.
3. Breastfeeding Rate: according to advice from 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,

Figure 2-11 Gender Ratio (Males to Females) of Live Births by Order of Birth



Sources: HPA Statistics of Birth Reporting System

they should be given nutritious complementary foods, and should continue breastfeeding up to the age of 2 years or above. The HPA has aimed to push Taiwan's rate of exclusive breastfeeding rate in children under 6 months old up to 50% in 2025.

Policy Implementation and Results

The health of the nation's next generation 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. Established Child Health Promotion Committee with Great Responsibility

In 2006, we established the "Child Health Promotion Committee," whose missions include: Research of child health policies, infant development, and child physical and psychological development policies, inter-departmental child health policy coordination, review the order of child health topics, improve child health safety healthcare service system, and child health educational promotion, propaganda, and research and development of child health technology.

2. Construct Complete Healthcare Services, Leave no One Behind

The nation's main health policies (Figure 2-12), and the service contents are as follow:

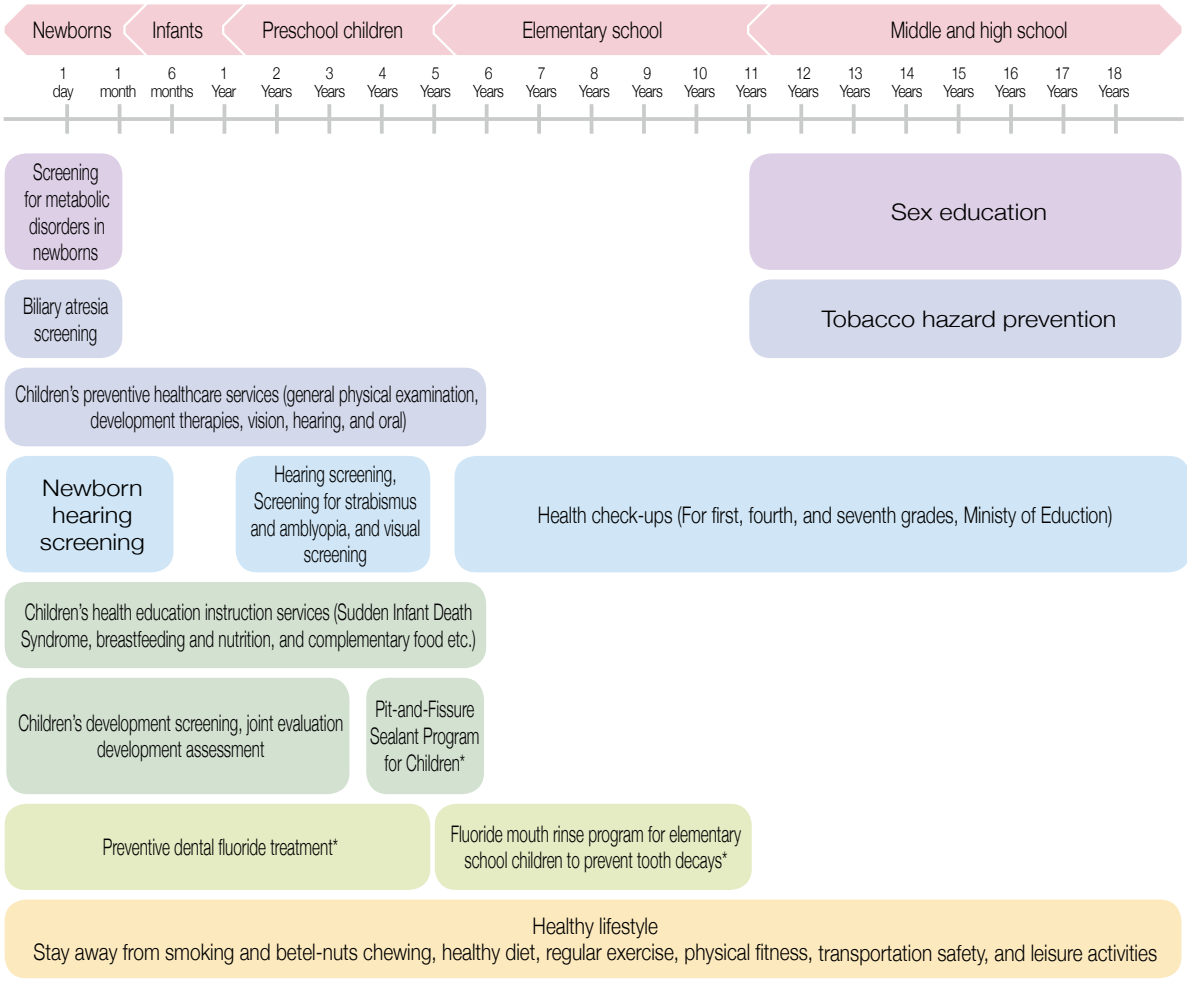
(1) Implementation of the Birth Reporting System

In order to speedily and accurately gain an understanding of the status of births within the population, upgrade the effectiveness of mother and infant health services, and improve the accuracy of information regarding newborn babies from 1995 onwards, we have promoted a web-based birth reporting system, which has been in use by all hospitals with delivery wards across the nation since 2004. The birth reporting data sorted by nationality is transmitted concurrently to the Department of Household Registration, Ministry of the Interior. They are subsequently forwarded to the National Immigration Agency and local health and household registration offices. The purpose of this is ensuring timely and accurately provision of information on the changing dynamics of births to health and household registration offices, especially the information of high-risk newborns, so that all necessary services can be provided from an early stage. In 2016, out of the total of 216,269 births reported, 207,837 (or 98.84%) were live birth sand 2,432 (or 1.16%) were stillbirths.

(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, we further provide treatments and genetic counseling for newborns who have been diagnosed with

Figure 2-12 Infant and Child Health Policies



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

Newborn Congenital Metabolic Disorders. This helps to lessen the impact of issues. In 2017, a total of 193,651 newborns underwent screening, with the total screening rate being 99.9%. 3,670 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) Provide Hearing Screening Services for Newborn Babies

Since March 15th 2012, we promoted the "Newborn hearing screening subsidy project." We provided hearing screening for domestic babies who were born within 3 months. 700 TWD was subsidized for each case. In 2017, 308 medical institutes provided this screening subsidization. The screening rate was 98.3%. A total of 191,119 people were screened. 798 babies were diagnosed to have hearing impairment. In order to upgrade the screening quality for the hearing of newborn babies, we conducted 3 sessions of newborn baby screening staff seminar in the Northern, Central, and Southern parts of Taiwan. A total of 277 people participated. In addition, we provided hearing screening services of preschool age children in communities and kindergartens. In 2017, a total of 118,959 people were screened, with the rate of 72.2%. The re-examination rate was 97.7%.

(4) Providing Preventative Healthcare for Children

HPA subsidizes preventive healthcare services for children under the age of 7 through medical institutions contracted under the national health insurance program.

Table 2-1 Abnormalities Detected Amongst Newborns in 2017

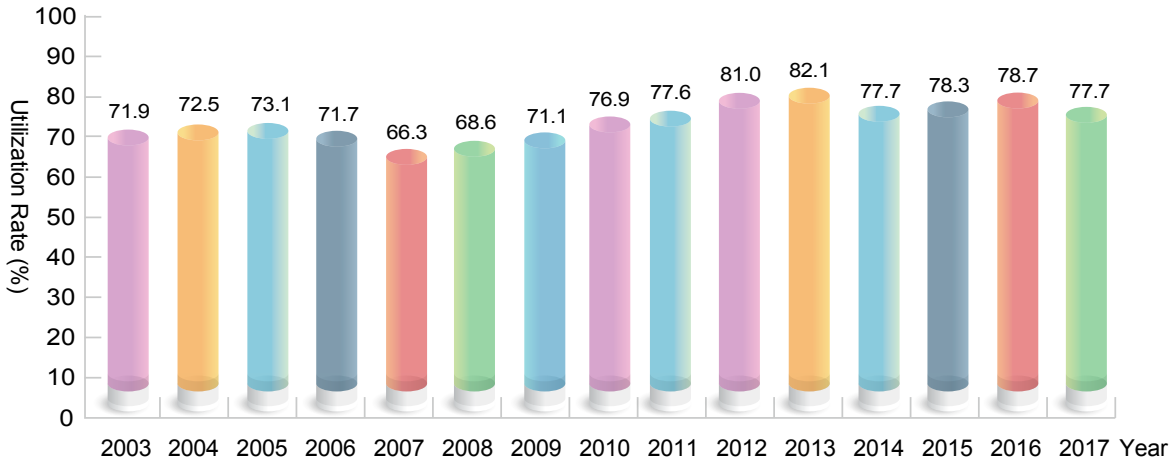
Screening Items	Prevalence ratio	Number of abnormalities
Glucose-6-Phosphate dehydrogenase deficiency（G-6-PD）	1：58	3,344
Congenital hypothyroidism（CHT）	1：635	305
Congenital adrenal hyperplasia（CAH）	1：38,730	5
Phenylketonuria（PKU）	1：21,517	9
Homocystinuria（HCU）	1：193,651	1
Isovaleric acidemia（IVA）	1：96,826	2
Maple syrup urine disease（MSUD）	0	0
Galactosemia（GAL）	0	0
Methylmalonic acidemia（MMA）	1：96,826	2
Type 1 glutaric acidemia（GA 1）	0	0
Medium-chain acyl-CoA dehydrogenase deficiency（MCAD）	1：96,826	2
Total		3,670

Remark: A total of 193,651 newborns were screened in 2017.

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 2017, approximately 1,100,000 and 7 average use rates reached 77.7% (Figure 2-13).

In 2010, HPA implemented the "Next Generation of Children Preventive Healthcare Project." We first

Figure 2-13 Uptake of Preventative Pediatric Healthcare



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

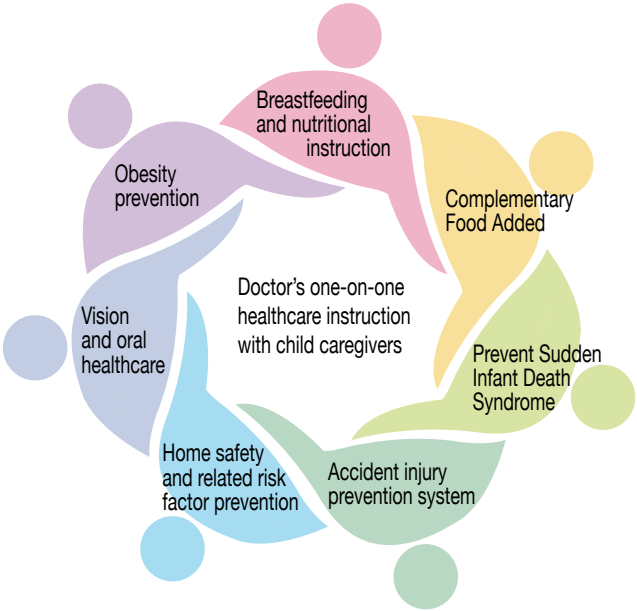
reviewed the items and services with low use rates, in order to reinforce child development screening, and integrate basic medical resources, project approved county and city health bureaus to conduct kindergarten child preventive healthcare extension services. We regularly monitor and statistically analyze child preventive healthcare service achievements, promote child development screening referral, in order to reinforce the functions of child health monitoring, referral, and follow-up medical healthcare of medical institutes. In addition, since 2013, we promoted the "Children Healthcare Education Instruction Service Subsidy Project." Since 2014, we originally provided 2 subsidizations for children under age 1, and extended to 7 child healthcare instruction services for children under age 7. Doctors provide one-on-one healthcare instructions for main caregivers (Figure 2-14)

At the end of December 2017, 2,975 doctors applied to join this project. In 2017, we served approximately 935,601 people, 7 time average use rates were approximately 65.9%.

(5) Co-ordinating with Local Counseling Hospital for the "Subsidize Local Hospital Setup Children Development Assessment Center Plan"

In order to offer accurate, accessible and comprehensive services for developmentally delayed children, from 2010 onwards the HPA has established Children 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 2017 the total number of Children Development Assessment Centers has reached 47 nationwide.

Figure 2-14 Children Healthcare Education Instruction



(6) Conducting "Children Development Assessment Center Project Management Plan"

In order to improve the quality of service at Children Development Assessment Centers, from 2013 to 2017 the HPA invited experts and scholars in the fields of late development assessment, intervention, society, politics, and special education to revise related operation standards for the centers and new version of comprehensive report proposal format. We conducted educational training base on the new proposal and children development assessment center contact meetings. In 2016, we continued to conduct inspection work at 10 assessment centers, and according to the recommendations of expert scholars, in 2017 we selected another 5 Children Development Assessment Center for inspection.

(7) 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. Eliminate hospitals offer baby formula at free or lower price. This is done so that the act of breastfeeding can be normalized, and newborns thereby receive the best possible start in life. (Table 2-2).

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.

(8) Implementing the Public Breastfeeding Act

A. In 1990, the WHO and UNICEF confirmed breastfeeding 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" in November 2010. This act

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

Item \ Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Number of certified hospitals	38	58	74	77	81	82	94	94	113	144	158	163	176	177	182	187	180
Exclusive Breastfeeding Rate for babies under 1 month of age (%)	-	-	-	46.6	-	-	-	62.7	64.4	65.7	68.6	71.9	70.8	68.0	67.5	66.2	
Exclusive Breastfeeding Rate 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	44.8	
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	79.9	78.1

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, in December 2013, it was officially stipulated that trains (both express trains and high-speed rail) should be equipped with breastfeeding rooms. These regulations will come into effect in 2013 for high-speed trains. In 2017, a total of 2,223 public places across Taiwan were equipped with breastfeeding rooms, and 1,187 public places had voluntarily established facilities in accordance with these new regulations.

3. Boys and Girls are both Good, Effectively Rectify Imbalances in Gender Ratios at Birth

The government has drafted medical laws and implemented regulations to uphold the right of all babies to live 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. In addition, as for the techniques used before and during pregnancy that may affect the gender of babies, we also implemented related regulations. If for non-medical reasons, manual reproductive techniques is used to choose the gender of babies, a fine of 200,000~1,000,000 TWD will be imposed in accordance to Item 3, Article 16 of Manual Reproduction Law. Moreover, the doctors performing the techniques will be penalized, the highest penalty is the revocation of permit and the permit cannot be re-applied for two years.

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, in accordance 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 as illegal and improper behavior.

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 activities. The HPA established a gender ratio monitoring mechanism in 2010, and also established report windows, revised related regulations, and increased propaganda for people.

Through our efforts mentioned above, the gender ratio at birth decreased from 1.090 in 2010 to 1.076 in 2017. We continue to target and manage the use of medical equipment, and continue to conduct propaganda and advocacy for people. We aim to improve gender ratio, prevent gender discrimination and reinforce the concept of gender equality in Taiwan.

II. Vision Healthcare

Status Quo

In Taiwan, myopia is a major concern among children. According to the 2017 Children and Adolescent Vision Surveys (Table 2-3), there was an increased in the prevalence of myopia in the first and sixth graders as compared to 2010. It is evident that the myopia problems for school-aged children worsen every year.

In 2018, the rate of first graders with low vision was 25.6%, and 63.2% for sixth graders (Low vision includes: Myopia, amblyopia, astigmatism, and an isometropia, etc.) Because high degree of myopia will increase the risks of eye-related complication, for this, through children's vision screening services, we discover low vision problems of children early for referral and treatment.

Target Indicators

1. Mid-term Indicators (2020): Reduce the increasing prevalence of myopia such that the values of 2017 (19.8% of first- graders and 70.6% of sixth- graders), will be the same in 2020. （≦ -0.5D is 50 degrees）
2. Long-term Indicators (2025): Reduce the increasing prevalence of myopia such that the values of 2017(19.8% of first- graders and 70.6% of sixth-graders), will be the same in 2025. （≦ -0.5D is 50 degrees）

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. HPA cooperated with 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,

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

Year / Grade	1986 (%)	1990 (%)	1995 (%)	2000 (%)	2006 (%)	2010 (%)		2017 (%)
						≦-0.25D	≦-0.5D	≦-0.5D
Grade 1	3.0	6.5	12.8	20.4	19.6	21.5	17.9	19.8
Grade 6	27.5	35.2	55.8	60.6	61.8	65.9	62.0	70.6
Grade 9	61.6	74.0	76.4	80.7	77.1	-	-	89.3
Grade 12	76.3	75.2	84.1	84.2	85.1	-	-	87.2

Sources:

1. HPA-commissioned epidemiological survey on refractive errors amongst children and teenagers aged 6-18, conducted every five years. For the purpose of calculating rates of myopia prevalence 1986-2006, myopia is defined as □ -0.25D
2. HPA-commissioned epidemiological survey on children and adolescent vision surveys in 2017. For the purpose of calculating rates of myopia prevalence in 2017, myopia is defined as □ -0.5D

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. Early detection for early treatment, preschool age children vision health service

(1) The HPA offers various preventive healthcare services related to children's vision health. Pediatricians and family physicians are called on to conduct tests on children's pupils, visual fixation, eye position (screening for strabismus and amblyopia) and corneas, as well as 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 preschool age children aged 4-5. Referrals and consultation are provided when warranted. A total of 427,117 children were screened in 2017, with a 99.53% 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 "Vision Health Surveillance for Children and Adolescent" (Plan period from December 2015 to March 2018), was held to continually assess preventive measures' effectiveness against near-sightedness. We also conducted "The potential impact of 3C products on vision health and management recommendations for their usage" (Plan period from September 2016 to March 2017). We held to discuss the correlation factors of using electronic products that harm the vision. We also collect domestic and international evidence information and current managerial stipulations and response policies to provide overall recommendations as the reference of related policies and plans.

4. We continue to conduct health broadcasts and myopia prevention propaganda. We use social media to advocate at least 2~3 hours of outdoor activities, children under 2 do not stare at the TV, avoid using eyes in close distance for a long period of time, 10 minute break after using the eyes for 30 minutes. In 2012, we added visual health information in the child health manuals. In 2017, we subsidized the creation of sketchbooks of "Little Bear Ai Ai's Big Eyes" for children between age 3 to 5. We also produced visual healthcare LINE stickers. People can download "HPA X 2bau invite you to go outdoors to get away from bad vision" LINE stickers after watching the 30 second film of "Defeat bad vision" (Figure 2-15).

Figure 2-15 HPA X 2bau Invite You to Go Outdoors to Get Away from Bad Vision LINE Stickers

5. In 2017, we provided "the Potential Impact of 3C products on Vision Health and Management Recommendations for their Usage" result summary manuals for the Ministry of Education to notify the schools as reference when purchase lighting equipment and table lamps for students. In addition, we provide 30 seconds and 180 seconds propaganda films and links of "Defeat Bad Vision" created by Ministry of Labor. We reinforced the propaganda of laborers, future parents, and caregivers of children to value visual healthcare.

Section 3 Adolescent Health

I. 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 infection of sexually transmitted diseases. In HPA health behavior study of high school and vocational school students, sexual behavior for adolescents aged 15~17, the occurrence rate of females was higher than males in 2013. In 2015, the occurrence rate increased for male, and slightly decreased for female. As for the recent sexual contraception ratio observation, in 2015, the male contraception rate was lower than that in 2013, and the female rate increased, which is evident that the sex education concept for self-protection of female has been effective but the contraception concept for male has deteriorated. It is an important warning for parents and educational units. (Figures 2-16, 2-17)

The Ministry of the Interior population data showed that the fertility rate of teenage females aged 15-19 in Taiwan was 4‰ in 2017, a significant drop compared to 6‰ in 2007 (see Figure 2-18). The fertility rate amongst this age group in Taiwan in 2017 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‰) in 2015. 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

Reduce the adolescent fertility rate amongst girls aged 15-19 to less than 4‰ in 2017.

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

Figure 2-16 Age 15~17 Adolescent Sexual Behavior Rate

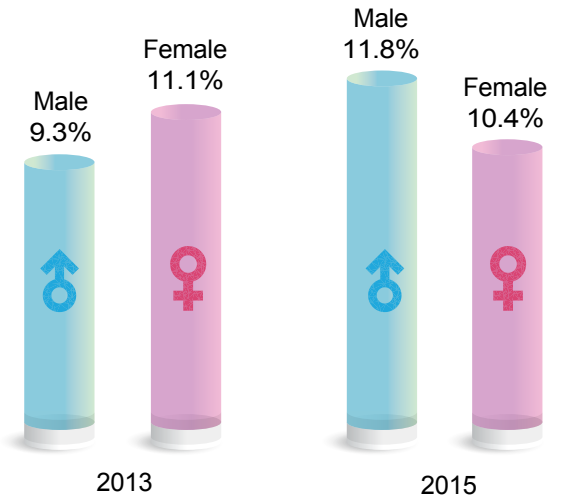
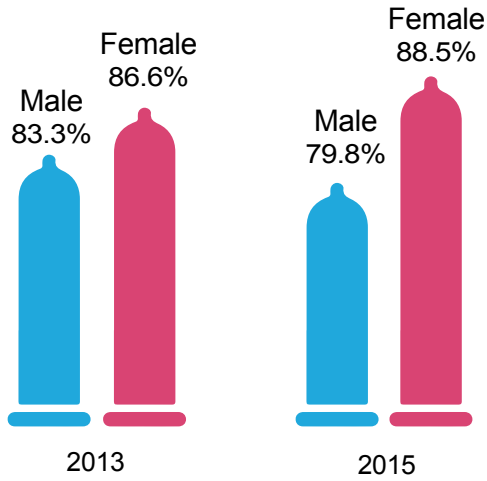


Figure 2-17 Age 15~17 Adolescent Most Recent Sexual Behavior Contraception Rate



way toward reducing underage births and increasing the use of contraception amongst teenagers. The related policies and achievement introductions are as follow:

1. Sex E-school, Online Search for the Correct Sexual Knowledge

Established the http://young.hpa.gov.tw/index/ website, to provide parents and teachers with correct sexual knowledge information and teaching material. We also use the QA methods and have professional staff respond to people's questions, in order to increase the use rates of adolescents. In 2017, we conducted comprehensive review of network structures and made available. We also cooperated with festivals to announce sexual education information. We also invited Ministry of Education K-12 Education Administration, all the local health bureaus, and related groups to use related resources of the adolescent website. We added 6 health education articles and 2 health education documents annually, and 31,809 people searched the website.

2. Comprehensive Teenager-friendly Medical Professionals/ Outpatient Services for Adolescents

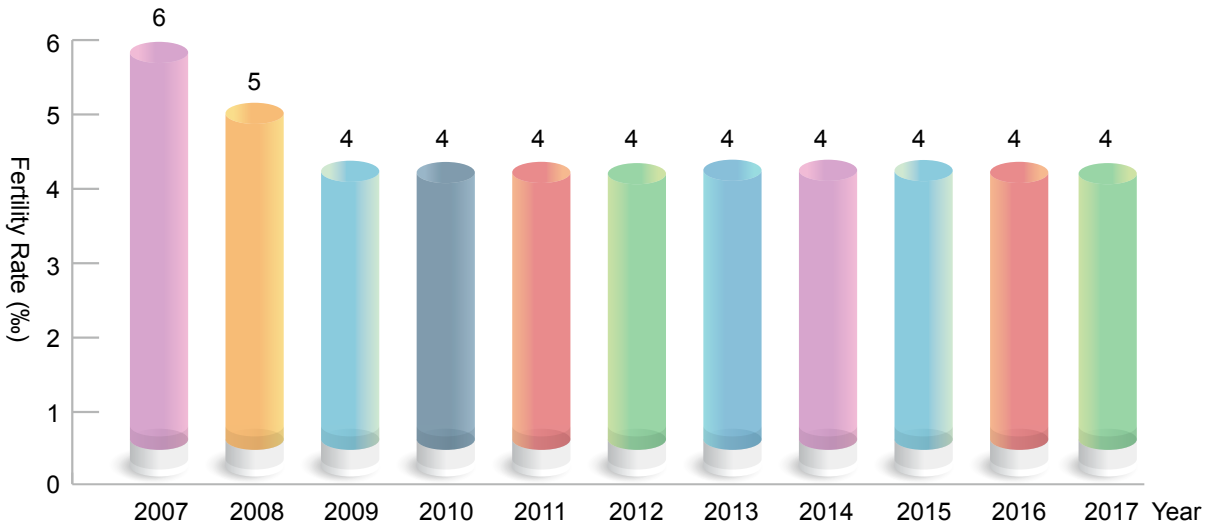
The HPA has teamed up with 93 medical institutions from 22 cities/counties, to introduce the "Teen Happiness No. 9 Outpatient Service". In addition to contraceptive methods, reproductive health services, prevention of drug abuse, mental health care and obesity prevention, in 2017, we have provided services for 20,051 people. We also conducted 4 beginning and intermediate training courses for friendly doctors. A total of 119 people completed training. At the end of 2017, we trained a total of 590 friendly doctors. We conducted "Three-stage Training Course for Puberty Reproductive Healthcare Counseling Personnel" in the Northern, Central, Southern, and Eastern Taiwan. A total of 178 people were trained.

II. Tobacco Hazards Prevention in Schools

Status Quo

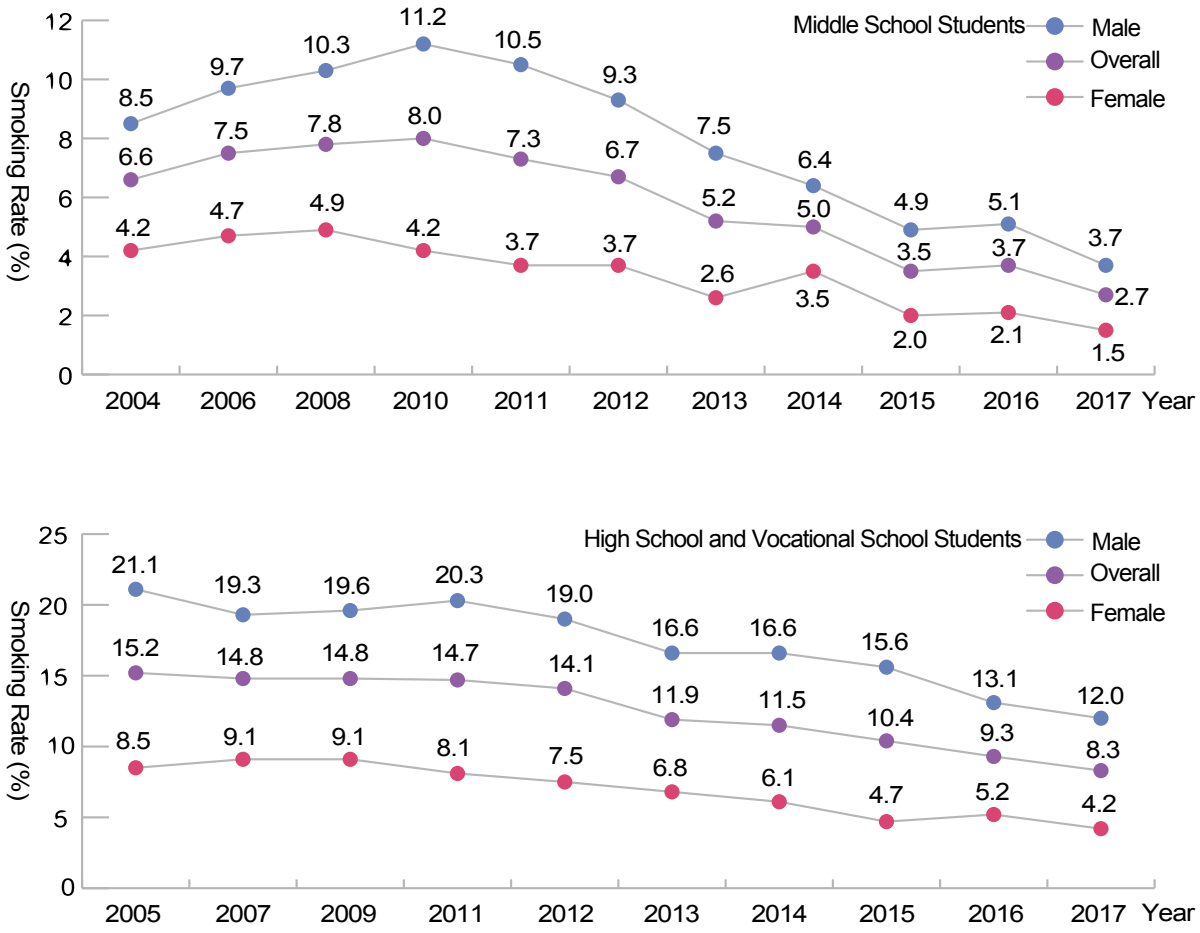
In 2009, after the new stipulations of Tobacco Hazard Prevention Act was implemented, with the promotion of all the policies, the smoking rate of middle school students decreased by over 60% in 2017, and 40% for high school and vocational school students (Figure 2-19). We are gradually marching toward the goal of reducing smoking rate by 30% in 2025 set by WHO NCD.

Figure 2-18 Age 15~19 Adolescent Girl Fertility Rate amongst Girls in Taiwan 2002-2017



Source: Ministry of the Interior statistics

Figure 2-19 **Smoking Rate in Adolescents**



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

Target Indicators

In 2017, the smoking rate of junior high school students was less than 4.6%, and the smoking rate amongst male students in senior and vocational high school fell to less than 9.6%.

Policy Implementation and Results

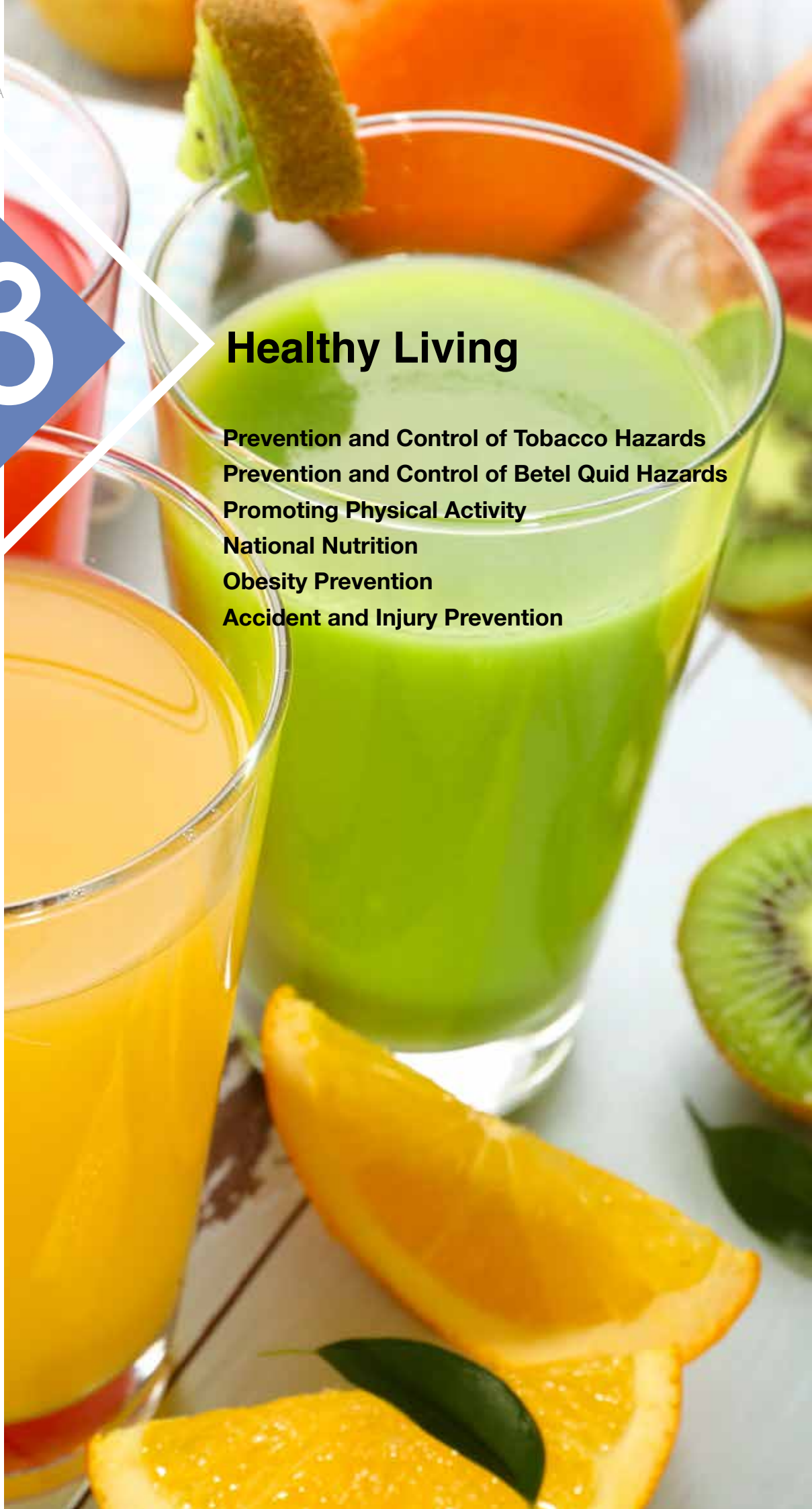
1. "Campus Tobacco Control Implementation Program". Second-hand smoke exposure in junior high school campuses has decreased from 7.2% in 2017. In high school, this figure dropped to 15.6% in 2017. We have emphasized strategies to establish tobacco hazard prevention education, to promote a tobacco-free school environment, 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 schools; the schools that were prosecuted were the primary subjects of inspection. Upon the recommendations of visiting committee members, the local governments and schools in question were asked to make improvements. We hope to lower smoking rates

amongst students and educators, as well as students' exposure to second-hand smoke on campus.

2. In order to reinforce young people's awareness of tobacco hazard and upgrade the self-efficiency of saying no to tobacco, we conducted "2017 Project for Tobacco Control Work in Young Group Area". Through subsidization and guidance visit, a total of 36 schools participated. We encouraged colleges to execute tobacco hazard prevention plan and integrate nearby community resources, expand the scope of advocacy, upgrade teachers and students' knowledge and skills toward tobacco hazard prevention. We nurture tobacco hazard prevention seeding teams, encouraging teachers and students to say no tobacco. We provide tobacco cessation service referral information, in order to establish sustainable operation of tobacco hazard prevention on campus. In 2017, we worked with Ministry of Education to conduct "Young Generation Excellent Performance Award Ceremony and Demonstration." We awarded people with excellent performance, highlight sharing, and achievement poster exhibition. In the meantime, we invited colleges, county and city health bureaus all over the country to participate.
3. Integrating local health department and social resources, through propaganda events or subsidizing community health creation plan, civil groups or community volunteers were used to collectively monitor the surrounding campus stores, and prohibit the sale of tobacco products to adolescents. In addition, we continue to use disguised detection method to inspect whether tobacco is being sold to adolescents, and make the test results of tobacco vendors public, in order to encourage competition and improvement. As for violation of Article 12 of Tobacco Hazard Prevention Act which stipulates that people under 18 cannot smoke, we have penalized 2,166 people, and 1,892 have completed tobacco cessation education, and it continues to be executed.
4. In order to prevent the prevalence of electronic cigarettes, we conduct border inspections, origin tracing, circulation inspections, monitoring management, advocacy propagandas, cessation guidance, and reinforced control. All level schools include electronic cigarettes in the school regulations, and the tobacco risks included in the related courses and propaganda. According to the smoking behavior survey of adolescents, the use rates of electronic cigarettes for middle school and high school students were 2.0% and 2.1% in 2014. In 2016, these numbers increased to 3.7% and 4.8%. Through cross-sectoral cooperation of the government, the numbers decreased to 2.5% and 4.5% in 2017. We have already revised the Tobacco Hazard Prevention Act and included electronic cigarette control regulations. The current regulations of tobacco prohibition age, subjects, and places, and education can all be used on electronic cigarettes. The revised draft has gone through the first reading procedure in Legislative Yuan in 2017. When the law is passed in the future, there will be a more clear regulation on cigarette management.
5. Through overall quantitative goals, guidance, and assessment methods, we conduct campus tobacco hazard prevention spot checks, expand campus tobacco hazard prevention propaganda events, create tobacco free campuses, implement tobacco cessation education, and reinforce campus tobacco prevention work.

Chapter 3

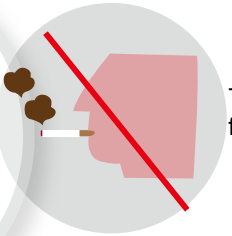
Healthy Living



Prevention and Control of Tobacco Hazards
Prevention and Control of Betel Quid Hazards
Promoting Physical Activity
National Nutrition
Obesity Prevention
Accident and Injury Prevention

Highlights

14.5%
Smoking rate down to



The smoking rate of adults over 18 fell to 14.5% in 2017.

The betel quid chewing rate for adults over 18 fell to 6.1% in 2017.

6.1%
Betel quid chewing rate down to

20,552
Household living environment safety inspections

In 2017, living environment safety inspections were carried out on 20,552 households in vulnerable groups with children age under 6.

33.2%
Regular exercise rate

Elementary school	Junior high school	High school
26.1%	23%	23%

Overweight / obesity rate down to

The prevalence of obesity among elementary school, junior high school and senior high school students fell (for elementary school students the rate fell to 2.1%, junior high school students to 4.1% and senior high school to 8.1%).

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 80%. Smoking, a lack of exercise, unhealthy diets and excessive alcohol consumption are the 4 major common risk factors behind the occurrence of non-communicable diseases. The International Agency for Research on Cancer has listed betel quids as a Group 1 carcinogenic agent to humans.

HPA actively advocates for health promotion, and reinforces health education and the dissemination of health related information. In the meantime, we have sought to work with civil society to create a healthier environment and support people so they can learn about health, make healthy choices and live healthy lives.

With regards tobacco control, the HPA continues to implement the Smoking Hazards Prevention Act, to create smoke-free environments in communities, schools, hospitals and military units. and has successfully kept secondhand smoke exposure rate in smoke-free places below 10%. Meanwhile, we also offer comprehensive smoking cessation services such as second-generation cessation service payment schemes, free Taiwan smokers helpline, smoke cessation classes, and a smoke cessation app, to ensure that people from different backgrounds, as well as disadvantaged groups, are able to access to cessation services, thereby successfully freeing themselves from the shackles of tobacco addiction.

In terms of betel quid prevention, HPA works with the Ministry of Education, Ministry of Labor, local governments and civic groups. From school campuses to workplaces and communities, we promote prevention work, create betel quid-free environments, and non-chewing betel quid culture. In addition, HPA continues to provide people with chewing betel quid cessation and oral mucous screening services, in order to reduce the risk of oral cancer.

With regards to obesity prevention, the HPA has cooperated with local health bureaus and other departments to promote obesity prevention, and 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.

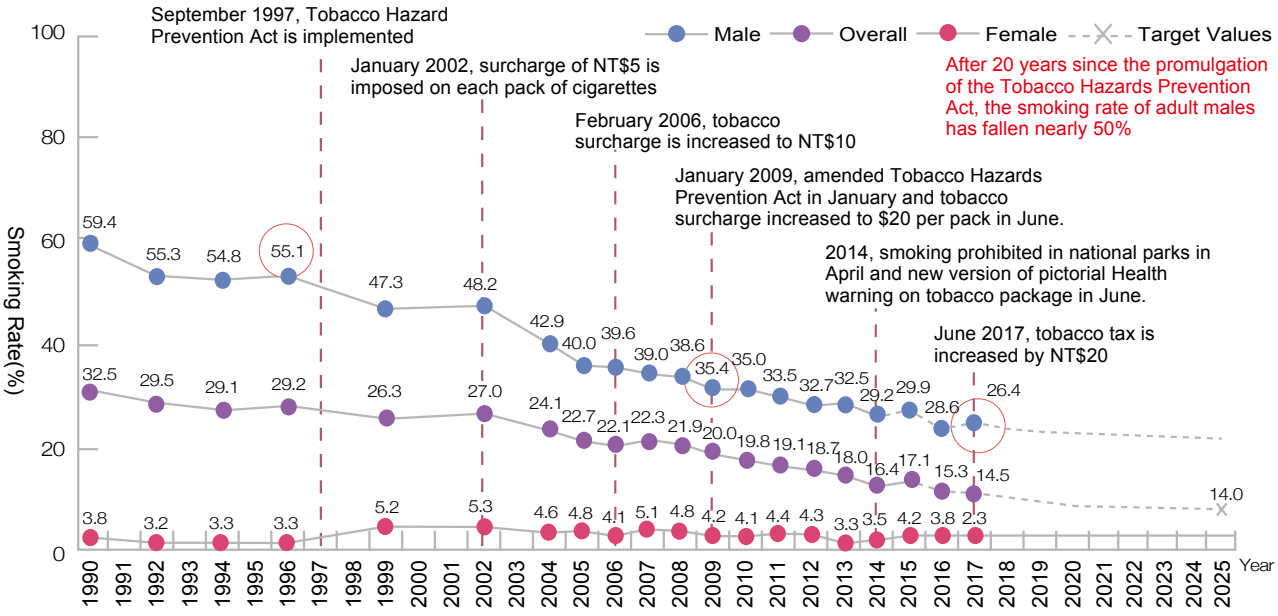
Figure 3-1 Comprehensive Smoking Cessation Services

Section 1 Prevention and Control of Tobacco Hazards

Status Quo

Since the amended Tobacco Hazards Prevention Act took into effect in 2009 and a wide range of strategies were promoted, the smoking rate of adults over 18 years of age has fallen from 21.9% in 2008 to 14.5% in 2017 (Figure 3-2). As such, Taiwan is gradually moving toward the WHO goal of reducing smoking rate by 30% by 2025. In the meantime, the number of places where smoking is banned has been gradually expanded so that indoor secondhand smoke exposure rates for adults over 18 fell from 27.8% in 2008 to 5.3% in 2017. Secondhand smoke exposure rate outdoors also fell from 23.7% in 2008 to 6.4% in 2017. As a result, the protection rate for against exposure to secondhand smoke reached 93.6%.

Figure 3-2 Smoking Rate for Adults Aged 18 and Over And Future Goals



Sources:

1. Data for 1990-1996 from the Taiwan Tobacco and Liquor Corporation.
2. Data for 1999 from a survey by Professor Li Lan.
3. Data for 2002 from the HPA Survey on "2002 National Survey on Knowledge, Attitude, and Practice of Health Promotion for the Taiwan Region".
4. Data for 2004-2017 from the HPA Adult Smoking Behavior Survey.
5. In data for 1999-2017, current smokers were defined as those who had smoked more than 100 cigarettes (5 packs) and had smoked within the past 30 days.

A multi-pronged preventive strategy against tobacco hazards is effective and best protects vulnerable communities. For example, levying a tobacco tax and providing free smoking cessation services have all benefited vulnerable populations. In the future, we will focus on promoting integrated health education with regard to betel quid and smoking cessation, creating completely smoke-free environments, amend the law and increase the size of pictorial health warnings. The HPA is also continuing to actively promote the second-generation Smoking Cessation Payment Scheme, and is training smoking cessation instructors, through face-to-face smoking cessation health education and case study management. By integrating the resources in the jurisdiction, HPA has sent teams to provide smoking cessation and health education instruction, counseling and smoking cessation educational services relating to quitting smoking in workplaces and schools. The health and welfare surcharges on tobacco products are used to help smokers quit smoking and this has effectively improved smoking cessation success rates. It has also stepped-up inspections of the illegal sale of tobacco products to minors by traditional stores and betel quid stalls. In addition to these efforts to eliminate access to tobacco products by adolescents under 18, HPA has also coordinated with all sectors to initiate a comprehensive publicity campaign and create a smoke free supportive environment.

Target Indicators

The smoking rate of people over age 18 was under 15.1% in 2017.

Policy Implementation and Results

1. Proactive, Continued Enforcement of the Tobacco Hazards Prevention Act

Emphasis has been placed on carrying out compliance checks, expanding the network of smoke cessation services, bolstering targeted education programs, increasing publicity and promoting local tobacco control work. These approaches remind people to comply with the Tobacco Hazards Prevention Act so a more comprehensive smoke-free environment can be achieved.

(1) Local health bureaus in each county and city have been actively implemented inspections. In 2017, a total of 760,000 locations were inspected more than 5.28 million times. A total of 7,190 disciplinary citations issued and fines worth over NT$68 million had been imposed over the course of the year. Twenty-eight of these disciplinary actions involved violations of Article 9 of the Act, which bans sales promotions or advertisements of tobacco products; with related fines totaling over NT$43.02 million.

(2) By holding research camps, seminars, and training classes, and compiling handbooks on compliance with the law, the HPA has improved the quality of tobacco prevention professionals' work. It also provides education and training for tobacco hazard prevention volunteers.

(3) The HPA provides a "Tobacco Hazards Consultation and Violations Reporting Hotline" at 0800-531-531 to deal with public inquiries and reports relating to the Tobacco Hazards Prevention Act. In 2017, the Hotline dealt with approximately 3,603 public inquiries and 1,551 complaints, all of which were passed on to the relevant local health bureau to be dealt with.

(4) The creation of a smoke-free environment and preventing the emergence of new tobacco products are urgent tasks in the effort to protect the health of citizens, children and adolescents. The HPA adopted the international experience and empirical evidence contained in the WHO Framework Convention of Tobacco Control, (WHO FCTC), lawmakers proposals and civic group recommendation, in actively promoting revision of the "Tobacco Hazard Prevention Act." The key points of those revisions included electronic cigarette management, prohibition of flavored cigarettes, increasing size of warning pictures, expanding the prohibition of smoking in public indoor venues, increased fines for repeat offenders, banning tobacco manufacturer named sponsorship, increasing legal and medical treatment support, and bans on authorized advertisements of products that imitate the use of tobacco products. The first reading was passed by the Legislative Yuan on December 2017.

2. No Blind Spots, Creating Supportive Smoke-free Environments

Tobacco control mainly involves reducing smoking rates and public secondhand smoke exposure rates. To help people stay healthy, the HPA supports smoke-free environments in parks, communities, restaurants, schools, workplaces, and the armed forces. It also promotes tobacco control through multimedia education and events.

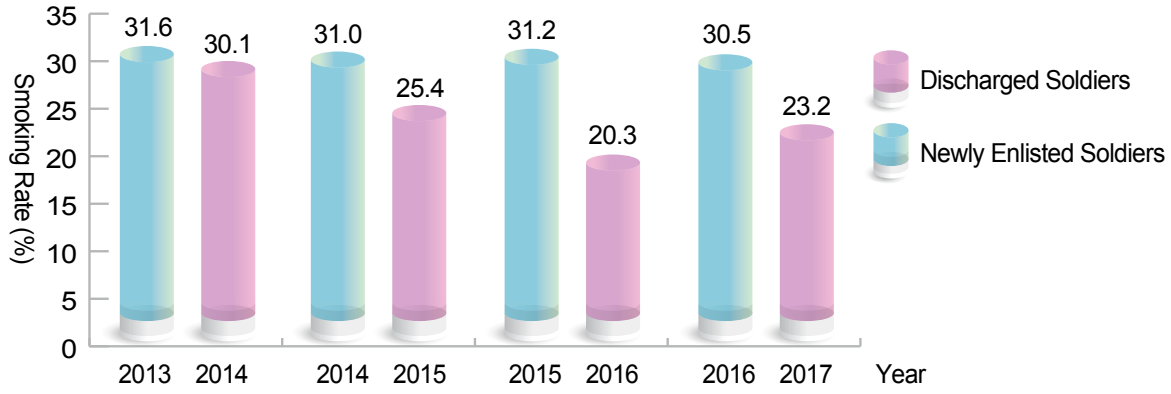
(1) Inculcate in Children an Awareness of the Dangers of Smoking at Home and School from a Young Age

A. Smoke-free homes: In 2012, HPA developed tobacco control children's books "smoke-free home, 3D gamebooks" as a vehicle to teach children about the dangers of tobacco and the courage to say no to smoking. In this way, children's language and video media experience is adopted to make tobacco control an integral element of kindergarten and elementary school resources. HPA encourages teachers to use anti-tobacco teaching materials to which children can relate, thereby improving the efficacy of tobacco prevention work. In 2017, HPA printed 40,000 copies, and distributed them to 7,600 kindergartens and 600 public libraries across Taiwan, to expand and deepen children's awareness of the benefits of a smoke-free environment. In addition, the agency helped counties and cities to disseminate information on smoke-free homes and protecting the health of children. It also held a "2017 smoke-free home coloring competition," with more than 25,000 works submitted. Through creative coloring and painting, children's observation skills, imagination, and creativity were nurtured, allowing them to learn about the hazards of secondhand and thirdhand smoking, so that parents can better understand the importance of a smoke-free home. By painting, the children can think, design, and create their own smoke-free homes, understand the hazards of smoking and encourage their families to embrace an anti-smoking lifestyle.

B. Campuses: In order to protect the health of teachers and students at school, and avoid secondhand smoke exposure in the area surrounding schools, Paragraph 13, Item 1, Article 15, of the Tobacco

The HPA organized a "2017 Smoke-free Home Coloring Competition" for children in the hope of teaching them the importance of a smoke-free environment from a young age.

Figure 3-3 Working with the Ministry of National Defense to Reduce Smoking in the Armed Forces



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

Hazards Prevention Act allows local governments to designate the area around schools under their jurisdiction, including senior high school level and below (including school gates, parent pick-up areas, sidewalks etc), as non-smoking areas, with the parameters of the no-smoking area clearly labeled. As of the end of 2017, a total of 70.9% of schools at high school level and below (a total of 2,608 schools) had installed notices banning smoking in the surrounding areas. The HPA continues to promote an "adolescent tobacco control work program." In 2017, we helped 36 colleges promote campus tobacco control programs, each develop their own hazard prevention execution strategies and healthy campus environment. The creative methods adopted by schools include:

(A) The HPA integrated tobacco control advocacy material into religious philosophy classes and recruited "aboriginal special class" students to form "smoking cessation advocacy angel teams," so they could spread the anti-tobacco campaign message when they returned home.

(B) The HPA worked with nearby high schools, colleges, and government agencies to collectively promote ocean cleanup, pick up large amounts of cigarettes butts and do everything possible to conserve the ocean environment. This simultaneously promoted environmental protection and sent the message that cigarette butts pollute the ocean, thereby deepening the concept of opposing tobacco and saying no to smoking.

(C) College students conducted smoke-free campus "Say No to Tobacco Debates." These focused on the adverse health effects of second-hand smoke, cigarette disposal and whether colleges should have dedicated smoking areas. Students actively participated, and debated both sides of the argument, so that smokers and non-smokers understood and respected each other. Ultimately the events enhanced the importance students attach to tobacco control and as a result incidences of second-hand smoke on campus fell.

C. Military: It is widely believed that men in the military are more likely to take up smoking so the HPA and Medical Affairs Bureau under the Ministry of National Defense worked together to promoted tobacco control work in the military by drafting policy, providing tobacco treatment services, health education promotional materials and counselors. On average 300 tobacco cessation counselors were trained every year and through tobacco cessation counselors we established a "tobacco cessation counselor family" network. When counselors actually help soldiers to stop smoking, they can tailor their approaches to meet the different situations of the soldiers and officers. For example, caring, companionship and consultation, leading to armed forced hospitals providing smoking cessation medical treatment. Counselors also lead group discussions and experience sharing, which creates a virtuous cycle. In addition, the HPA also organized "Quit and Win competitions" as a way of encouraging military personnel to stop smoking, so the military can avoid tobacco hazards. In 2013, the number of newly enlisted soldiers was 31.6%, but that had fallen to 30.5% by 2016. In 2014, the smoking rate of discharged soldiers was 30.1%, and it dropped to 23.2% in 2017. The smoking rate has a decreasing trend.

D. Hospitals: The Global Network for Tobacco Free Healthcare Services was established in 1999. Since then, 20 nations have joined. In order to encourage hospitals to become tobacco hospitals, the HPA supported Taiwan's membership of the network in 2011, establishing the first network in the Asia-Pacific. In addition, the network's certification standards have since become certification indices and key inspection points for tobacco-free hospitals in Taiwan. With greater focus on and support for health promotion work by hospitals in Taiwan, the network in Taiwan rapidly expanded and had 209 hospital members by 2017, becoming the largest network in Asia. Currently, 38 hospitals worldwide have won International Golden Awards of GNTH, and 15 of them are from Taiwan. It makes Taiwan the network with the greatest number of Gold-Level hospitals in 2017.

(2) Using of Multimedia Publicity to Promote Tobacco Hazards Prevention

A. Creating Tobacco control education vehicle and making tobacco hazard education a part of life our daily. In 2017. Including on the tobacco hazard of secondhand and thirdhand smoke, smoking cessation and E-cigarettes as the main theme of promotion. Combined with TV, radio, social media, e-media and print media, with tobacco control education vehicles fouring schools, workplaces, and communities to deliver the message, and enhancing the impact of smoking prevention work. Moreover, the tobacco hazard education vehicles traveled across Taiwan, with "tobacco hazard detective the thirdhand smoke incident of the secret chamber" interactive game. Which disseminating tobacco hazard prevention information by players who searching remains of thirdhand smoke during the game touring schools, communities and large events around Taiwan. Including tobacco hazard information, and helped with integrated visual healthcare, sexual education, healthy body weight and preventing dementia. With fun on HPA's health promotion work. That created an immense response among students and the public.

The HPA launched the "tobacco control education" vehicle on four to promote the hazards of thirdhand smoke and other health related issues.

B. Internet celebrities and experts worked together and internet videos to promote tobacco control made easy: React to the popularity of the internet and social media, tobacco hazard prevention work teamed up with internet celebrities well-liked by adolescents and experts who trusted by parents. For example, parental education experts and doctors divided tobacco hazard prevention information by target group. This made it possible to interact and communicate with people, raise awareness of secondhand and thirdhand smoke, and encourage people to stop smoking. At least 750,000 people viewed the videos, effectively influencing the internet, parents, and adolescents, and deepening understanding of tobacco hazards.

C. Making a big push into TV commercial and radio promotions proving effective: The "Tar Soaked Sponge" TV ad was produced and played on cable TV and broadcast TV channels and as an office building and internet ad. During the period the ad was shown calls to the tobacco cessation hotline clearly increased. Doctors analyzed the hazard of thirdhand smoke and successful case of tobacco cessation ads. Meanwhile reinforcing tobacco hazard prevention work through the campaign MRT posters, train platform TV, advertising light boxes, and posters.

"Tar Soaked Sponge" TV ad.

3. Convenient, Comprehensive and Accessible Smoke Cessation Services

The WHO recommends that smoking cessation is an important part of tobacco control policy as it helps to prevent cardiovascular, respiratory diseases and cancer. To compare with treating hypertension, diabetes, or hyperlipidemia, smoking cessation brings individuals, families, and society immediate benefits. Those who quit smoking are less likely to need lifelong medication or expensive examinations. Within six months, serious disease can be easily and effectively brought 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 barriers of smoking cessation, the HPA provides comprehensive

smoking cessation services. Smokers can obtain assistance from smoking cessation medication therapy free smokers helpline, and smoking cessation classes.

(1) Second Generation Smoking Cessation service payment scheme: The HPA has launched promoted the Second Generation Smoking Cessation service since 2012. More than 4,000 hospitals, clinics and community pharmacies provide smoking cessation medication to aid quitting smoking. This medicine is subsidized by a tobacco health and welfare surcharge which ensures the medication fees does not exceed NT$200. In medial disadvantage areas 20% subside is provided and it is free for indigenous peoples, low-income households and residents of mountainous areas and offshore is land outlying islands. Some medical institutions and community pharmacies work with smoking cessation instructors to provide expert support and care to those willing to receive smoking cessation services. Those for whom cessation education the drugs are unsuitable, such as pregnant women and adolescents, can benefit from these services. Individuals in need can find medical institutes or community pharmacies that provide such services online (website: http://ttc.hpa.gov.tw/quit/). In 2017, 192,082 were served, with 733,113 visits and the six-month cessation success rate was 28.5%, successfully helping 54,000 people to quit smoking. In the short term, it is estimated more than NT$290 million was saved in medical health insurance expenditure and in the long term more than NT$22.9 billion in social and economic benefits.

2nd Generation Smoking Cesscetion service payment scheme

(2) Smoker's Helpline: Taiwan Smoker's Helpline was launched in 2003 to provide convenient, confidential and accessible smoking cessation counseling from 9:00AM to 9:00PM, Monday to Saturday. Users can dial 0800-63-63-63 from a local landline, or phone for the toll-free service. Smokers can talk to professionals who provide one-on-one consultations that help callers develop a personal plan to quit smoking. From 2003-2017, Taiwan Smokers' Helpline served 1,160,662 times and recruited 308,836 smokers to set cessation plans. The six months success rate for smokers who have their own cessation programs rated to 40% in 2017.

(3) Smoking Cessation Classes: In 2017, local governments held a total of 433 classes, with approximately 5,813 participants.

4. Diligent inspection, Research and Monitoring Work Continues

The HPA has established long-term smoking behavior monitoring systems to determine the effectiveness of its tobacco control work. These include "Adult Smoking Behavior survey," "Global Youth tobacco Survey（GYTS）" and "Nicotine, Tar and Carbon Monoxide Content of Tobacco Products Monitoring." In 2017, the HPA also studied the effectiveness of its smoking cessation services, tobacco product composition reports, media promotion evaluation, tobacco product information inspection, evaluation of efficacy of law execution and policy assessment.

As part of its "Developments in the testing and research of tobacco products," the HPA tested 56 domestic and imported tobacco products to measure the nicotine, tar and carbon monoxide in mainstream cigarettes, as well as their concentration of heavy metals and N-nitrosamines. In 4 of the smuggled cigarette samples, tar and nicotine content was found to be in violation of the Tobacco Hazards Prevention Act and to be punishable under the Tobacco and Wine Management Act. In addition, the labeled context on tobacco package that exceeds the permitted examination error value and false tobacco product labeling are in violation of Article 7 of the Tobacco Hazards Prevention Act and will be fined NT$3,500,000. The WHO Framework Convention on Tobacco Control (FCTC) calls for the disclosure of information on toxic ingredients (including additives) of tobacco products and emissions when smoked on websites. In Taiwan, tobacco manufacturers and importers have been required to comply with these requirements since 2009, and relevant provisions of the Tobacco Hazards Prevention Act. As of 2017, 392 businesses had submitted filings on 3,188 tobacco products. Through the new "Tobacco Product Information Declaration System," tobacco suppliers can upload the "publicly-declared information" on websites, disclosing the composition of tobacco products and providing the pubic with real time information. From April 2010 when the website was established to 2017, 212,241 people browsed the website, with 32,564 people in 2017. In order to ensure even greater clarity in tobacco product ingredient declaration principles and enhance the accuracy of tobacco declaration information, the HPA revised and implement the "Operational Principles for the Declaration and Examination of Tobacco Product Information."

5. Finding Helpers and Improving Talent Training is a Must

(1) To improve the problem analysis skills of colleagues of the health bureaus counties and cities in tobacco hazard prevention, to enhancing relevant knowledge and k\skills in practice and plan stipulation as well as providing communication and learning platforms among counties and cities. In 2017, the HPA held two "County and City Tobacco control Exchange Workshops, held in the Southern and Northern regions, and respectively a total of 161 participants.

(2) In order to enhance comprehensive smoking cessations services and provide medication therapy and counseling personally, the HPA provided smoking cessation training courses to improve professional skills of smoking cessation medical personnel. A total of 454 smoking cessation instructors, 282 pharmacists, 234 physicians, and 223 dentists had trained by these courses in 2017.

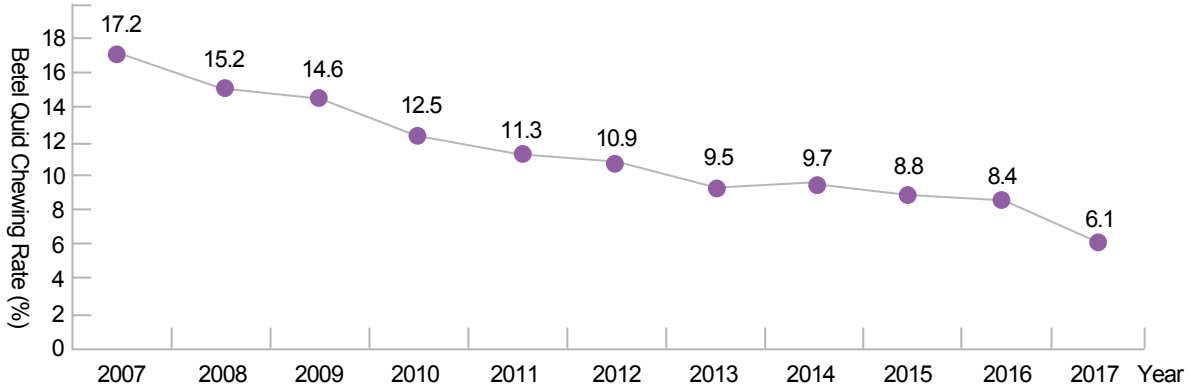
(3) In 2017, HPA conducted four basic training classes with 211 participants and one advanced training class with 51 participants to reinforce awareness of regulations and enhance the law enforcement techniques of inspection personnel.

Section 2 Prevention and Control of Betel Quid Hazards

Status Quo

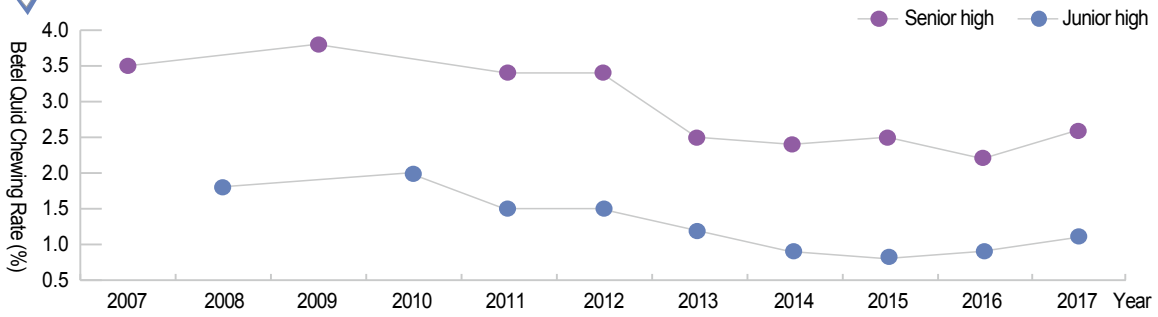
The International Agency for Research on Cancer has listed betel quid as a Group 1 carcinogenic agent to humans. In Taiwan, betel quid chewing is a primary cause of oral cancer. About 88% of oral cancer patients are habitual betel quid chewers. Indeed, betel quid chewing carries an even higher risk of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

Figure 3-4 Betel Quid Chewing Rate among Adult Males Over 18 in Taiwan



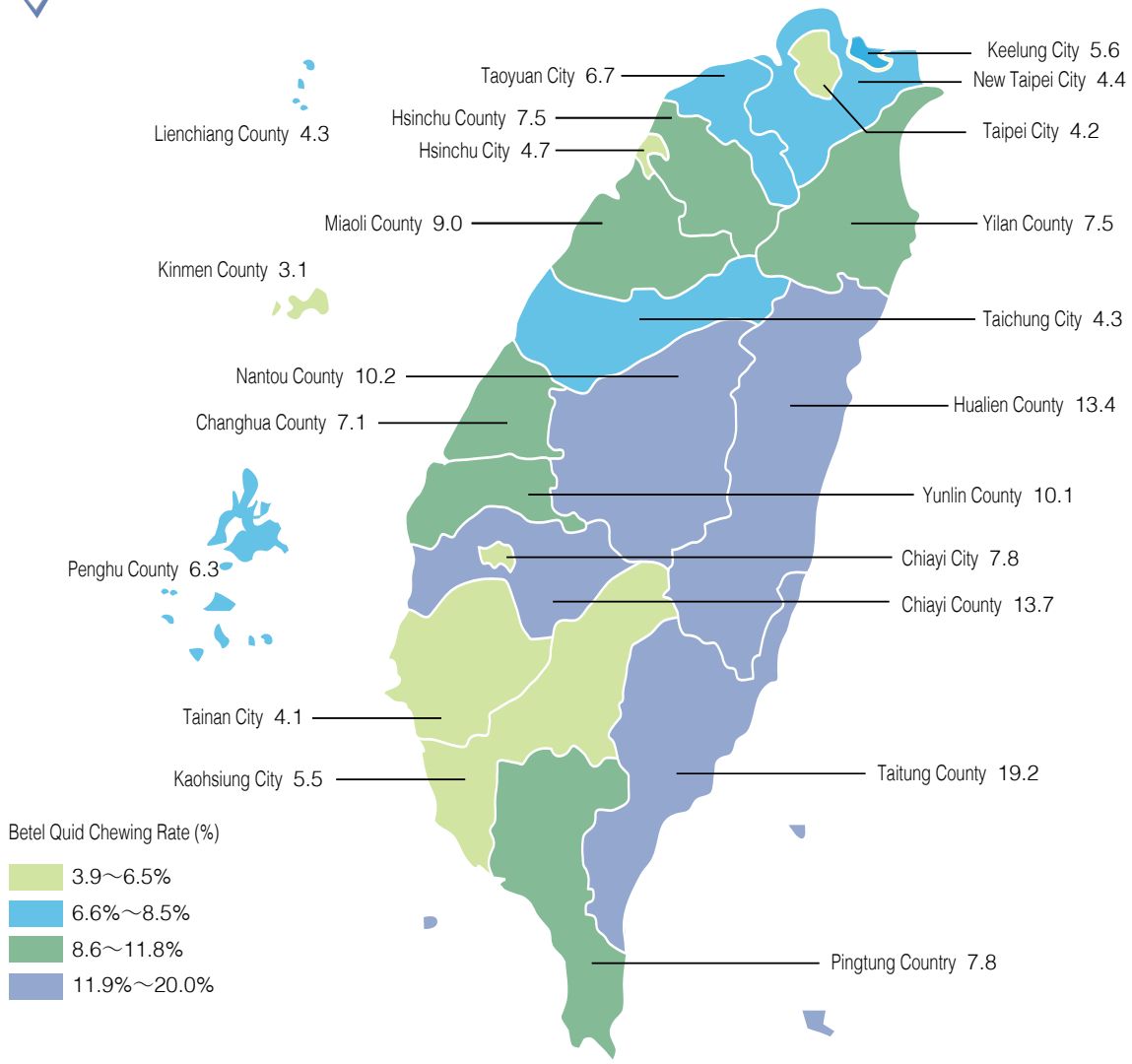
Betel Quid Chewing Rate: Refers to individuals who have consumed betel quid within the past 6 months.
Sources: Behavioral Risk Factor Surveillance System Survey (BRFSS), Adult Smoking Behavior Survey (ASBS), Health Promotion Survey (HPS)

Figure 3-5 Betel Quid Chewing Rate among Adolescents



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 3-6 2017 Global Youth Tobacco Survey (GYTS)



Note:
1. Betel Quid Chewing Rate: Refers to those who have consumed betel quid within the past 6 months.
2. Source: Health Promotion Survey (HPS), Adult Smoking Behavior Survey (ASBS)

Approximately 900,000 people over the age of 18 in Taiwan chew betel quid. In the past 10 years, the standardized incidence rate of oral cancer in men has increased by 29.4%, making it the most common cancer for those aged 30～55. From 2007~2017 trends chart, we can see that the betel quid use rate for adult men fell 64.5% (Figure 3-4), the rate for junior high, senior high school and vocational high school students also fallen considerably, 42% and 23.5% respectively (Figure 3-5). In terms of counties and cities, Hualien and Taitung have the highest betel quid use rate in Taiwan, and Central and Southern Taiwan also has a high level. The betel quid use rate is lower in metropolitan cities (Figure 3-6)

The Executive Yuan adopted the recommendation of civic groups and designated December 3 “Betel Quid Prevention Day.” In 2017, the HPA continued to expand related events at all levels of government and across the country, using a range of media channels, as a way of enhancing betel quid hazard prevention information. HPA works with government departments and civic groups to create betel quid-free environment in communities, workforces, schools and the military.

Target Indicators

Betel quid chewing rate for men over the age of 18 is less than 7.5%.

Policy Implementation and Results

1. Act Tough, and Talk Soft, Publicizing the 'No Betel Quid' Message

(1) Adopting a Soft Approach with Patients Sharing Their Experience

Flexible approaches are used to influence bet nut users and HPA continues to research, develop and produce a range of promotional materials based around the life stories of oral cancer patients. In 2017, the "Betel Quid Wound" betel quid prevention writing competition was organized targeting adolescents, as a way of encouraging reflection on the issue of betel quid consumption and oral cancer. This sought to improve students' awareness of the health dangers posed by betel quid hazards, say no to betel quid use and encourage family members and friends who use betel quid and smoke to actively seek out oral screening services. In the meantime, HPA continues to using internet radio and broadcast media and to work with medical institutions, schools, communities, workplaces and the armed forces to arouse the health awareness and empathy of betel quid users, and ensure more people are aware that using betel quid can cause cancer.

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

In order to help people quit chewing betel quid and reduce the risk of oral cancer, the HPA continues to promote the betel quid cessation service system, has revised betel quid cessation educational materials, offers training programs for betel quid cessation instructors and provides related services. As betel quid use is most prevalent among construction workers and highway bus drivers, the HPA works with NGOs on betel quid hazard and oral cancer prevention to hold seminars and providing oral mucus checkups at construction sites and highway bus stations. This work reemphasizes the fact that betel quid seeds are carcinogens. In addition, internet broadcast and social media to ensure more people are aware that betel quid can cause cancer.

(3) Starting with Schools, Cooperating with Social Welfare Groups and Offering Life Skill Training

From 2012-2015, the HPA selected junior and senior high school in counties and cities with a highest prevalence of betel quid use in Taiwan, and sought to develop these schools and the surrounding areas as demonstration model no-betel quid communities, ensuring that students do not encounter betel quid even outside the schools. In addition, on-site investigations and field research was conducted in the areas to discuss potential factors influencing an increase in betel quid use among adolescents and strategies for improvement. This effectively ensures betel quid-free communities after students leave school and reduces the chance of adolescents coming into contact with betel quid. HPA also developed evaluation tools and designed anti-betel quid posters, cartoons, and provided betel quid cessation handbooks and stickers. In 2017, the agency worked with social welfare groups and incorporated life skills as part of afterschool guidance courses, encouraging children and adolescents to develop self-awareness, independent thinking, self-confidence and judgment, resulting in them rejecting highly addictive betel quid and tobacco.

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

(1) Bolstering Cooperation with NGOs to Combat Betel quid Use

Since 2008, the HPA has offered annual subsidies to community health units to implement local betel quid prevention programs. Working in close conjunction with community leaders the agency has also stepped up promotional work, encouraged the drawing up of 'no betel quid ' lifestyle contracts, held health education lectures and increased publicity through innovative approaches and during holidays. We have also printed labels to stick on betel quid stalls, encouraged betel quid users suffering from oral cancer to tell their stories to discourage others, helped members of the public quit using betel quid and provide oral mucous checks for users. In addition, with the help of local health bureaus and community health units, the HPA has gained the support of employers in workplaces with high instances of betel quid use to draw up 'no betel quid ' management standards, stick up 'no betel quid ' posters, develop an anti-betel quid environment and provide oral mucous checkups and betel quid cessation support services for users. A cross-sector no betel-nut public construction site mechanism was also developed. In 2017, the HPA worked with NGOs to train college students in the provision of tobacco and betel quid prevention services and information dissemination in areas and areas that lack resources.

(2) Guiding the Operation of Betel Quid Farms, Including "Betel Quid-free Construction Sites" as an Evaluation Item

From 2014-2017, the HPA has subsidized the Council of Agriculture's transformation of 720 hectares of abandoned betel quid farmland. This seeks to reinforce

source control monitor the planting of other crops at abandoned betel quid farms, betel quid re-planted areas and analyze whether the total growing area continues to decline. The HPA has also assisted the Environmental Protection Administration implement Article 50-1 of the Waste Disposal Act, which ensures that those found spitting betel quid juice or residue are required to attend betel quid education cessation programs. The agency provides a list of teachers and teaching materials for the classes which it organizes in concert with county and city health officials. Since 2014, more than 3,900 people have attended the classes.

Since 2010, the HPA has also worked with the Ministry of the Interior, Ministry of Education, and the Council of Agriculture, to jointly implement a betel quid prevention plan for children and adolescents.

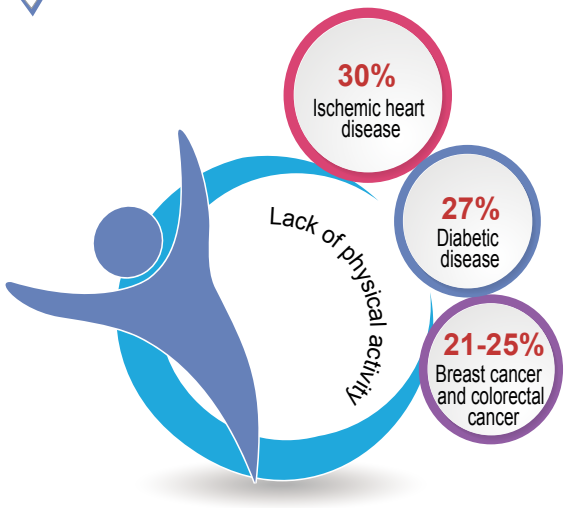
Section 3 Promoting Physical Activity

Status Quo

Physical inactivity and sedentary lifestyles are one of the 10 leading risk factors in global 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 leading risk factor for global mortality accounting for 6% of deaths, which places it below hypertension (13%), tobacco use (9%) and hyperglycemia (6%). Furthermore, in 2011, the WHO 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 (Figure 3-7) Physical inactivity not only seriously affects the health of individuals, increases national health expenditure, and social costs, it also imposes a significant burden on public health.

Figure 3-7 **Impact of Lack of Physical Activity on Individual Health**

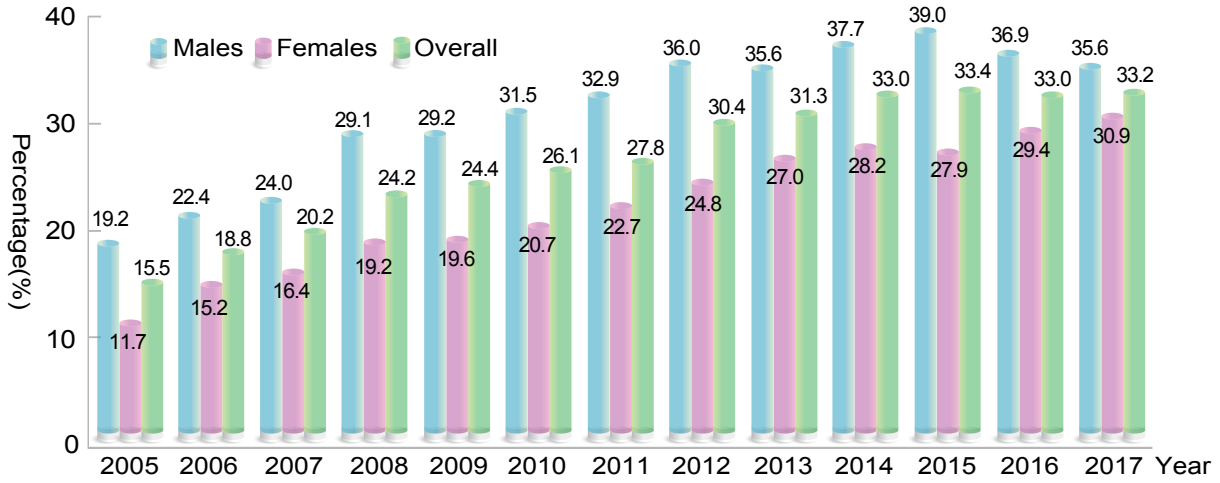


The WHO recommends that adults 18-64 should engage in over 150 minutes of mild physical exercise per week. Children and adolescents should engage in a minimum of 60 minutes of mild physical exercise a day or for 420 minutes a week. According to the 2017 "Current Exercise Survey" conducted by the Ministry of Education, on average ROC nationals over the age of 13 exercise a minimum 3 times a week, for at least 30 minutes each time. Although figures on regular exercise of an intensity to make one sweat and breathe heavily (Figure 3-8) increased from 18.8% in 2006 to 33.2% in 2017 (men 35.6%, women 30.9%), the proportion of individuals not engaging in regular exercise was still as high as 66.8%, an indication that still too few people engage in regular exercise in Taiwan. In terms of age group, those aged 40-49 had the lowest regular exercise rate. In 2015, survey results showed that the number of people over the age of 13 engaging in the WHO recommended amount of exercise per week was 61.4%, with men at 69.8% and women 52.9%.

According to research by Professor Wen Chi Bong of National Health Research Institute, people who exercise 15 minutes a day (90 minutes per week) have a general mortality rate that is 14% lower than those who do not exercise, a 10% lower cancer mortality rate and a 20% lower cardiovascular disease mortality rate, living on average three years longer. The HPA advocates making exercise an integral part of life and encourages people to exercise regularly, to improve citizens' physical fitness, while also reducing the occurrence of chronic diseases and disabilities.

The WHO points out that walking is the easiest and most recommended physical activity, with a 30 minute burning the same amount of calories as medium to standard physical effort. Since 2002, the HPA has promoted healthy walking and encourages people to "take 10,000 steps a day to stay healthy." November 11th, 2006 was designated the first National Walking Day, and ever since the agency has worked with industry, government, academia, civic groups and the media to encourage citizens to make walking part of their daily routine that can be done anywhere and anytime.

Figure 3-8 2005~2017 Ratio of People Over 13 Who Engage in Regular Exercise in Taiwan



Note:
1. Sources: 2005-2015 Sports City Surveys from the Sports Administration, Ministry of Education, and 2016~2017 Current Exercise Survey
2. The definition of regular exercise is a minimum of 3 times a week and at least 30 minutes each time, with the heart rate reaching 130 beats per minute or the exercise being of sufficient intensity to make one sweat or breathe heavily

Target Indicators

The 2017 target was for 37.1% of citizens to be exercising regularly.

Policy Implementation and Results

1. Inter-ministerial Cooperation to Promote National Physical Fitness

The "Council of Gymnasium and Sports Development, Executive Yuan" was specially established by the Executive Yuan to plan national gymnasium and sports policies and relevant vital measures. Ching-sen, Chang, Minister without Portfolio, held the post of convener, and Jui-Yuan Hsueh, Vice-Minister of the Ministry of Health and Welfare held the committee post. In cooperation with the Sports Administration, Ministry of Education to promote national sports, this administration co-sponsored the "2017 National Sports Policy Conference" on September 23th. We issued a joint press release and signed and undertaking that "The Sports Administration and HPA will work together to create an age-friendly sport and community active living environment, collectively protecting the right of Taiwanese to exercise and be healthy." The representatives of both administrations also announced the planning of policy on sport for seniors and community active living, with a total of 300 people from industry, government, and academia participating, including stands from Industrial Technology Research Institute, Exercise Health Information Cloud Added Value Applied Research Center (Fu Jen University) and the Corporation Aggregate National Federation of Associations of Physical Therapists.

HPA and Sports Administration, Ministry of Education conducted "2017 Conference on Sport for Senior Citizens Policy and Developing Active Communities and Lifestyle."

2. Staff Training and Community Promotion

HPA commissioned the Taiwan Physical Therapy Association to develop empirically-based exercise. In 2017, this exercise model was used as a foundation

and targeted medical and sports professionals. From June to September 2017, 14 sessions of "exercise health teacher training" were held with 1,598 people completing the program. Worked with those who finished the training, HPA held 229 health promoting "exercise health classes" for community seniors in counties and cities across Taiwan to promote "seniors love exercise, health and happiness," as support for the goal of active aging. In addition, in order to increase the awareness of health bureau and promotional staff of how to promote physical exercise work, a domestic and international resources inventory was conducted. This involved inviting expert evaluation and establishing a physical exercise resources integration center. A total of six "active environment workshop building" sessions were held, the content of which included introduction of a "National Physical Exercise Index," planning a physical exercise marketing project, and inviting health officials to share their experience promoting physical exercise, thereby increasing the capability of community workers promoting physical exercise.

Physical Exercise Resources Integration Center

3. Multi Media Programs and Promoting a Wide Range of Physical Exercise

The HPA uses health bureau, health office staff, community sports coaches/exercise teachers and physical fitness instructors to develop a guide to physical exercise for seniors and those with chronic illnesses in different age groups. As a result, we produced a national physical activity index, 7 fliers and 4 toolkits, worked together to organize promotional seminars, for the use of practical promoters.

WHO recommends seniors over 65 do more than 150 minutes mildly strenuous physical activity per week. It also recommends more training related to physical balance and preventing falls, thereby reducing the risk of physical deterioration and dementia in seniors, while promoting seniors health and sustained. The HPA produced a 20 minute "health exercise for senior," which is not limited to location, with sitting and standing options. This can increase seniors' physical exercise, enhance muscle strength and balance, encouraging seniors to exercise everyday and promoting active aging.

In 2011, the HPA developed a "health exercise for office workers" for those who use computers for long periods of time and suffer from stiffness or pain in their shoulders and neck. In 2014, the "health exercise for office workers" was remade and promoted with Chinese and English language versions. This was to be undertaken during intermissions at domestic and international seminars and received positive feedback.

In addition to 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 utilized websites, Facebook, mobile app advertisements and online newspapers to promote physical fitness. Information was also provided on community walking routes, exercise guidelines, and different types of exercises, enabling the public to access health related information conveniently.

4. Integrating Different Sectors to Promote Physical Fitness and Healthy Weight

(1) Communities: In 2017, 19 counties and cities, 82 health bureaus and 17 community units received subsidies to conduct community physical fitness courses for seniors. A total of 151 classes were held with 5,669 participants, as part of an effort to encourage people to embrace a healthy lifestyle.

(2) Workplaces: Health promotions were undertaken in workplaces, with regular exercise a key component of a healthy workplace and workplaces encouraged to establish a supportive environment that enables employees to exercise. Examples include the introduction of healthy walking paths, staircases and exercise spaces. In 2017, a total of 1,818 premises were certified as healthy workplaces.

(3) Schools: The HPA worked with the Ministry of Education to promote healthy BMI in health promoting schools (including physical fitness and diet), encouraging children and adolescents to learn relevant knowledge and cultivate good dietary and exercise habits. As of the end of December 2017, 3,871 schools below high school level and 158 colleges/universities embraced the health promoting school program, and went through health promoting school international accreditation which included healthy body weight as one of the accreditation standards.

(4) Hospitals: promoted green transportation; increased the physical activity for employees and the public; built outdoor bicycle paths around hospitals and provided free bicycle rental services; established bicycle parking lots in hospitals and conducted employee cycling events.

Section 4 National Nutrition

Status Quo

In accordance with the results of 2013-2016 "Nutrition and Health Survey in Taiwan", population's daily consumption status is far from the amount recommended by the daily food guide. If the daily caloric demand is 2,000 calories, the " grains and starchy vegetables" for men and women aged 19-64 exceeds the recommended intake of 3 bowls to 48.9% (male: 65.3%, female: 32.7%), and the main source of calories in the adolescent population is that sugar intake is close to 10% of total calories (13-15 years: 9.7%, 16-18 years: 9.2%). "Protein foods including legumes, seafood, egg, meat and poultry" for men and women aged 19-64 exceeds the recommended intake of 6 servings to 53.2% (male: 65.2%, female: 41.4%). About "fats, oils, nuts and seeds", the intake of oils and fats for men and women exceeds the recommended intake of 5 teaspoons by 35.2% (male: 41.1%, female: 29.4%), and intake of nuts and seeds is less than 1 servings in 91.7% (male: 92.7%, female: 90.6%). We suggest that the daily recommended amount of "vegetables" is 3-5 servings, "fruits" is 2-4 servings, and "dairy products" is 1.5-2 cups. However, except for men over 65 years old and women aged 45-64 years, the average intake of vegetables in all ages is less than 3 servings, the average intake of fruits of all ages and gender is less than 2 servings, and 19-64 year-old men and women "dairy products" intake of less than 1.5 cups up to 99.8% (male: 99.6%, female: 99.9%). Daily food consumption among population should be improved to meet the national recommended amount.

Research has shown that unhealthy diet is one of the main causes of non-communicable diseases. Food that is too rich and fatty is connected to chronic diseases such as obesity and coronary disease, diabetes, osteoporosis and cancer. As such, establishing correct and healthy dietary concepts, developing appropriate and healthy dietary habits, consuming a balance of healthy foods, and controlling the prevalence of obesity are the focal points of national nutritional policies. This includes consumption of fruit and vegetables, salt, saturated fats and drafting of national policies to limit marketing of food to children, while also limiting the use of saturated fats, and stopping the use of trans-fats.

The HPA monitors the national nutrition situation as a basis for improving national nutrition and upgrading national nutritional awareness. This involves drafting healthy public policies and establishing diverse channels to disseminate nutritional knowledge and promote the importance of a healthy diet. The ultimate goal is to improve national health and prevent chronic diseases.

Target Indicators

In 2017, the percentage of the population consuming 5 portions of fruit and vegetables per day was 22%, with daily salt consumption lower than 9.4g among males and 7.5g among females over age 18.

Policy Implementation and Results

1. Enhanced Caring, Formulating Public Health Policy

(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.

(2) The HPA promoted the "Population Nutrition Act" and wrote the draft version of the law based on the 60 recommended policy options in the "Rome Declaration on Nutrition" and the "Framework for Action" approved by United Nations General Assembly in March 2016.

In December 2016, a meeting of experts was held and in 2017 a 60-day preview was held on the HPA website for the "Public Policy Network Participation Platform-Everyone Speaks. In June, three public forums were held where a wide range of opinions were heard. In November 2017, it was approved by a MOHW legal affairs committee and in December sent to the Executive Yuan for review.

(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 the Taiwan Food and Drug Administration (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 20-33 ppm. The regulation has been implemented on July 1st, 2017.

(4) Trans-fat Free policies are undertaken in cooperation 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. More Consideration, Construct a Health Supporting Environment

The HPA promotes clear, easy to understand food calorific value and nutritional labeling, while encouraging operators to develop healthy lunchboxes and healthy food for festivals, such as improved glutinous rice dumplings, moon cakes and healthy New Year dishes. Restaurants were also encouraged to provide menus with calorific labeling and HPA worked to ensure that school lunches meet daily dietary guide and nutritional standards. Survey results indicate that 72% of senior high schools or lower have at least one day dedicated to vegetarian dishes. Workplaces and hospitals have also been encouraged to provide healthy food and indicate calorific information. The HPA also stipulated healthy purchasing principles, encouraging the public and private sectors to adhere to the "health" principle when purchasing food. As an example, institutions were asked to consider healthy lunchboxes when ordering lunch; and giving priority to healthy meals at dinner parties, and fruit and vegetables when giving gifts or inviting people to meals.

3. So Active, Re-orienting Health Care Services

The government encourages medical institutions to move away from traditional forms of diagnosis and treatment toward health promotion and preventive medicine. A system has also been provided that provides patients, family members, employees and communities with preventive care and weight management services. In addition healthy diet courses have also been introduced.

Figure 3-9 National Nutritional Policies and Results

4. So Healthy, Promote Low Calorie Vegetarian Meals

In order to encourage people to increase their fruit and vegetable intake, the HPA has advocated for a "Healthy Fruit and Vegetable Day" every week at elementary and junior high schools. The agency has also promoted "more vegetables fewer calories" healthy lunchbox certification. Government agencies also order "more vegetables fewer calories" healthy lunchboxes. Weekend farmer's markets have also been held to promote healthy diets that use local ingredients.

5. More Broadcasts, a Healthy Diet is Very Important

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

Section 5 Obesity Prevention

Status Quo

The HPA's "Changes in National Nutrition and Health Survey 2014-2017," indicates that the prevalence of overweight and obese students at elementary school, junior high schools and senior high schools has gradually decreased. Obesity in adults also has fallen (Figure 3-11). The WHO has said that, obese people are three times more likely to develop diabetes, metabolic diseases and dyslipidemia, and twice as likely to contract cancer (including colorectal cancer, (after menopause), breast cancer, endometrial cancer) and high blood pressure.

The primary cause of obesity is that calorific intake exceeds calorific need, though other factors such as dietary habits, physical activity, life habits, social environment, hereditary causes and physiological or psychological reasons, may also lead to obesity. The main reason for the people being overweight and obese in Taiwan is Westernized foods and richer meals, making it easier to consume excess calories. In addition, the higher frequency of sedentary activities such as watching television and internet usage along with low levels of physical activity and increased availability of sugary drinks and high-calorie junk food are also major

contributing factors, as are foods without nutritional labels that make it difficult to determine whether they are healthy, as well as the lack of convenient public transportation or recreational sports facilities in some communities. Disadvantaged groups tend to have insufficient health education opportunities and for economic reasons often buy low nutrition, high calorie foods. At the same time, advertisements promoting unhealthy foods packaged with free gifts encourage people to consume too many calories, fatty and sugary foods.

Target Indicators

Based on the non-communicable disease prevention global action plan from 2013-2020, the HPA designated 2025 as the year to fulfill the global voluntary target of "Stop the trend of rising obesity," by which time the overweight and obesity prevalence rate among school-aged children and adolescents will no longer be rising.

Policy Implementation and Results

1. Promoting Obesity Prevention and Cooperation in All Areas

(1) Building healthy cities, with health promoting hospitals, workplaces, schools and communities to promote obesity prevention work.

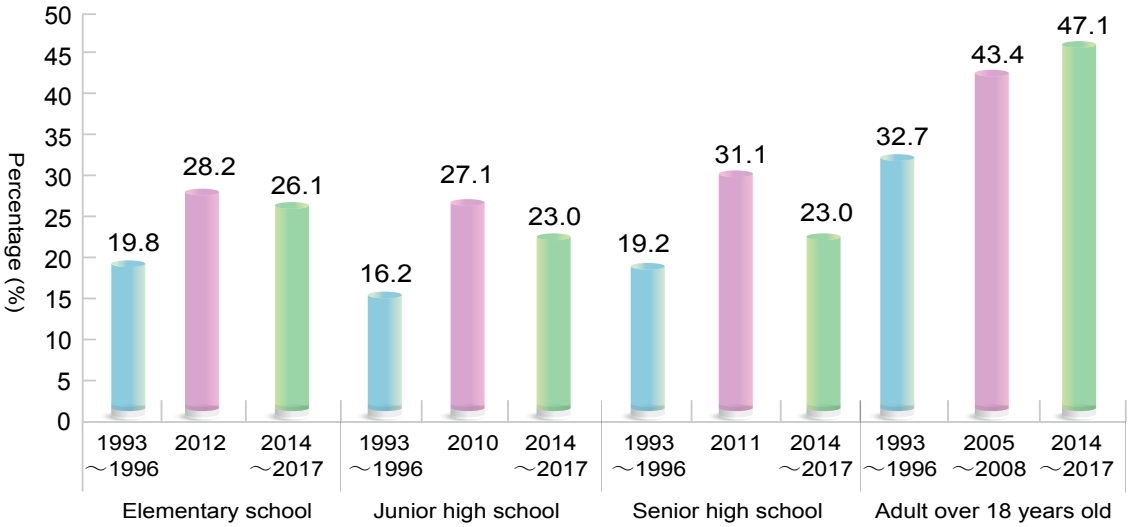
(2) Implementing breastfeeding regulations in public places to enhance breastfeeding rates and reduce childhood obesity.

(3) The HPA continues to conduct the "Changes in National Nutrition and Health Survey" to monitor bodyweight trends to assist the development of future obesity prevention policies.

Figure 3-10 The Main Reason for the Increase in the Prevalence of Overweight and Obesity in Taiwan

- Diet westernization and food refining, easy to ingest too much calories.
- Watching TV, surfing the Internet and other static sedentary life increases, the amount of physical activity is insufficient.
- Sugary drinks and high-calorie unhealthy foods, many foods have no caloric nutrition labeling or identification.
- Insufficient mass transit system and sports and leisure facilities.
- Vulnerable groups have less access to health education messages, limited financial capacity, and easy access to low-nutrition, high-calorie foods.
- Unhealthy food advertising gifts are marketed, causing people to consume too much calories, fat and sugary foods.

Figure 3-11 Overweight and Obesity Prevalence in Taiwan



Sources: Changes in National Nutrition and Health Survey
Standard BMI for elementary, junior high and senior high school students is based on the Ministry of Health and Welfare's 2013 "Recommended BMI for Children and Adolescents."
For an adult a BMI of ≥ 24 kg/m² is overweight or obese

2. Comprehensive Information and Systems to Improve the Obesity Causing Environment

Inspect and improve the obesity inducing environment, construct information supporting environments, establish healthy diet systems and a diverse exercise environment.

(1) Building an information environment that supports healthy-living: Obesity prevention website providing "Smart eating, fun exercise, and weight measuring everyday", healthy weight management information. In 2017, more than 870,000 people browsed the website. The HPA developed "Community Obesity Prevention Environmental Evaluation Tools," organized educational training and enhanced the evaluation capabilities of health officials in communities, schools, workplaces and hospitals. The survey results are used by all counties and cities to improve local action plans and enhance the efficacy of effect of obesity prevention work (Table 3-1).

(2) To construct a healthy diet framework, the HPA has promoted the provision of more vegetables and lower calorie food. It has also encouraged restaurants to provide menus with the calories of different options labeled, implemented healthy purchasing and made efforts to ensure nutritional lunches meet daily dietary guides and nutritional standards. The agency has further promoted healthy diet guidance in areas around schools and encouraged workplaces to provide healthy food with calorific values labeled.

(3) The HPA has established physical activity resources integration centers, completed a physical activity information inventory and placed it on related websites. In addition, workshops have been held for those staff who facilitate the tasks, in order to increase the capabilities of community workers promoting physical activities.

Table 3-1 Obesogenic Environment Examination

	Obesogenic Environment Examination	Achievements
Strategy 1	Increase availability of healthier food and beverage choices in public venues	●●●●●●●
Strategy 2	Improve availability of affordable healthier food	●●
Strategy 3	Limit supply of unhealthy food in public venues	●●
Strategy 4	Limit the number of "all-you-can-eat" restaurants in public venues	●
Strategy 5	Limit advertisements of less healthy foods and beverages	●
Strategy 6	Limit consumption of sugar-sweetened beverages	●
Strategy 7	Increase accessibility to healthier food	●
Strategy 8	Encourage production, distribution and sale of local produce	●●●
Strategy 9	Encourage breast-feeding	●●
Strategy 10	Require physical education in schools	●●
Strategy 11	Increase 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 of 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	Local governments should participate in obesity prevention exchange and cooperation activities and mobilize communities to jointly promote obesity prevention activities and mobilize.	●

Note: Of the 19 strategies and 40 sub-items, 34 strategies represent improvements and six are maintained from 2016.□
●Improved ●Maintained

3. Re-orienting Health Services

(1) The government encourages medical institutions to move away from traditional forms of diagnosis and treatment to health promotion and preventive medicine. Health promotion and education messages were also included in cancer screening reports. The agency conducted a range of weight loss classes, exercise courses, and healthy diet courses.

(2) The HPA drafted "Taiwan Obesity Prevention Strategies," "Empirical Index on Child Obesity Prevention" and "Empirical Index on Adult Obesity Prevention". These were provided to all medical institutions and health promotion schools, with plans to establish expert guidance teams. The agency also organized medical personnel educational training, cultivated seed teachers, and promoted a full field initiative and obesity prevention action, to ensure more citizens with a healthy BMI.

4. Strengthen Community Action

Through organizational action the HPA has integrated inter-departmental resources, established support teams and conducted diverse advocacy events to promote healthy weight management in communities, schools, workplaces and hospitals. Press conferences and press releases were also used to popularize healthy weight loss, creating the social atmosphere and motivation for healthy weight management, and pledges to fight obesity.

5. Develop the Skills to Implement Healthy Living

This has involved focusing on the development of life skills by children and adolescents, integrating healthy BMI related teaching materials and tools, while producing promotional materials and health manuals. Examples include, office workers exercise handbooks, healthy life let's exercise handbooks and healthy BMI teaching manuals for schools, along with 30 second adverts promoting "less sugar," "less salt improves health" and "healthy workouts" played on TV, Youtube and obesity prevention network, in order to improve healthy weight management literacy.

Section 6 Accident and Injury Prevention

Status Quo

The accident-related injury and mortality rate in Taiwan has generally fallen since 1989, and long-term trends also point to a decrease. The only exceptions to this trend are 1999 (921 Earthquake), 2009 (Typhoon Morakot) and 2016 (Kaohsiung Meinong Earthquake). In 2017, the accident-related injury mortality rate dropped to 29.6/10^5 (Figure 3-12), making it the sixth leading cause of death in Taiwan. However, since the

Table 3-2 Top 5 Causes of Death for 0~19 Age Group in 2017

Cause of Death	Age 0	Age 1~4	Age 5~9	Age 10~14	Age 15~19
No.1	Congenital abnormality, malformation; chromosomal abnormality	Accidental injury	Accidental injury	Accidental injury	Accidental injury
No.2	Special conditions in perinatal period	Malignant tumors	Malignant tumors	Malignant tumors	Malignant tumors
No.3	Disorders relating to length of gestation and fetal growth	Cardiovascular disease (not including diseases related to high-blood pressure)	Cardiovascular disease (not including diseases related to high-blood pressure)	Pneumonia	Cardiovascular disease (not including diseases related to high-blood pressure)
No.4	Accidental injury	Pneumonia	Cerebrovascular disease	Cardiovascular disease (not including diseases related to high-blood pressure)	Pneumonia
No.5	Infection during perinatal cycle	Cerebrovascular disease and lower respiratory disease	Pneumonia	Cerebrovascular disease	1. Cerebrovascular disease 2. Diabetes

Source: 2017 Statistics on causes of death published by the Ministry of Health and Welfare, Cause of Mortality Summary

Figure 3-12 Accidental Injury and Death and Rates in Taiwan 1986-2017

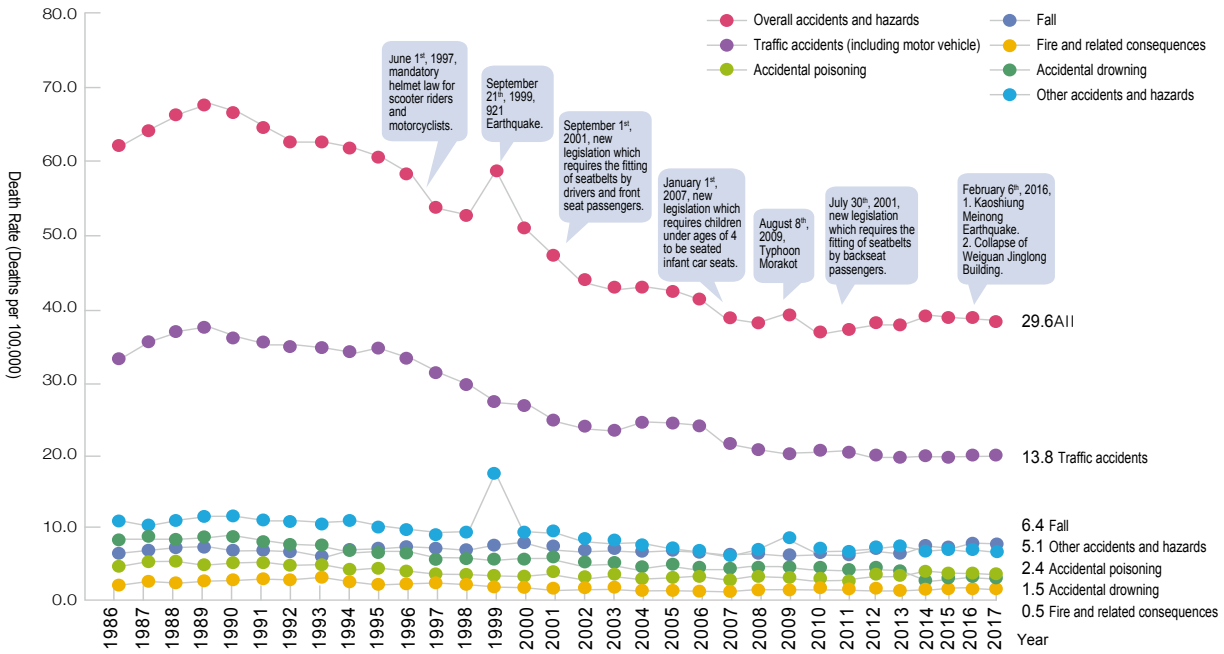


Table 3-3 Three Major Causes of Accidental Death in Children and Adolescents in 2017

Order of frequency	Age 0	Age 1～4	Age 5～9	Age 10～14	Age 15～19	Age 0～19	Over age 65
No. 1	Others 43 people ($22.6/10^5$)	Traffic accidents 13 people ($1.5/10^5$)	Traffic accidents 9 people ($0.9/10^5$)	Traffic accidents 17 people ($1.6/10^5$)	Traffic accidents 198 people ($14.2/10^5$)	Traffic accidents 246 people ($5.5/10^5$)	Traffic accidents 1,263 people ($39.6/10^5$)
No. 2	Traffic accidents 9 people ($4.7/10^5$)	Accidental falls 6 people ($0.7/10^5$)	Accidental falls 5 people ($0.5/10^5$)	Accidental drowning 8 people ($0.7/10^5$)	Accidental drowning 13 people ($0.9/10^5$)	Others 59 people ($1.3/10^5$)	Accidental falls 925 people ($29.0/10^5$)
No. 3	Accidental falls 5 people ($2.6/10^5$)	Others 5 people ($0.6/10^5$)	Accidental drowning 3 people ($0.3/10^5$)	Accidental falls 4 people ($0.4/10^5$)	Accidental poisoning 11 people ($0.8/10^5$)	Accidental falls 29 people ($0.6/10^5$) Fire 29 people ($0.6/10^5$)	Others 752 people ($23.6/10^5$)

Source: 2017 Statistics on causes of death published by the Ministry of Health and Welfare

introduction of mandatory crash helmet laws for scooter riders and motorcyclists in 1997, annual traffic-accident related deaths have steadily declined, reaching $13.8/10^5$ people in 2017.

From 1987-2017, traffic accidents, accidental falls, others, accidental poisoning, drowning and fire were the main categories for accident-related injuries and mortality (Figure 3-12). In 2016, accidental injuries were the No.1 cause of death for children and adolescents (Table 3-2). In 2017, traffic accidents were the most common cause of injury and death among all age groups (Table 3-3).

In addition, in recent years standardized death rates for seniors over age 65 from falls have gradually increased. In 2017, 3,145 seniors in Taiwan died from accidental injuries, making it the ninth most common cause of death. In an analysis of causes of death accidental falls places second behind traffic accidents for seniors (Table 3-3).

According to the results of a "National Health Survey" in 2013, 16.5% of seniors over the age 65 had fallen in the previous year. Of those, 8% required treatment. The top locations for falling incidents among seniors were: bathrooms/toilets, living rooms and bedrooms; Outdoors, streets/roads, vegetable gardens/farmland, parks or sports fields were the main areas where falls occurred. Falls not only affect seniors physically and mentally, they also impact their social function, quality of life and increase the burden on caregivers.

Sudden Infant Death Syndrome (SIDS) is a leading cause of death among infants. According to statistics on causes of death published by the Ministry of Health and Welfare, it ranks as the 4th to 6th leading cause of death among infants every year.

Policy Implementation and Results

1. Laws and Policies Gradually Come Together

(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, and drowning.

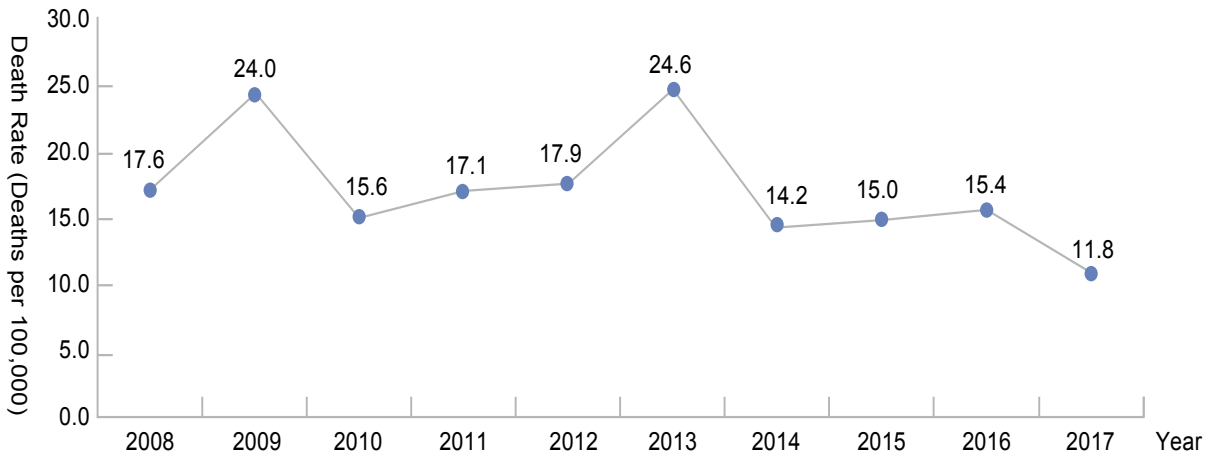
(2) Alignment with cross-ministerial policies: the HPA aligns with other governmental departments to promote children's safety at home. The HPA worked with the Ministry of the Interior to enact the Protection of Children and Youths Welfare and Rights Act along with its Children and Adolescent Safety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

2. Protecting Children and Building a Safe Home Living Environment

(1) Building a safe home living environment for children: the HPA established a "Household Safety Environment Inspection Chart" which was included in the "Child Health Booklet." this was provided to parents and caregivers to childproof their living environment.

(2) Incorporation of health education into child preventive health services: in order to ensure parents and caregivers are better informed on how to prevent accidental injury, the HPA invites medical staff to offer age-specific tips on preventing accidental injury in children during seven preventive care sessions for children seven years old and under. Child health handbooks also include a "Child Accidental Injury Evaluation Form," "Emergency Treatment of Burns and Gas Related Injuries" and "Dealing with Emergencies" which provide information about accidental injuries among children along with information on basic steps to prevent such injuries. In addition, on July 1 2013, the HPA introduced the "Subsidy Plan for Child Health Education Guidance" to improve the quality of child health care and reduce the influence of risk factors. Under this plan, doctors

Figure 3-13 SIDS Death Rate in Taiwan 2008-2017



Sources: 2017 Statistics on causes of death published by the Ministry of Health and Welfare

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) Monitoring and analysis: In 2017, the HPA commissioned Taipei Medical University to implement the "Accidental Injury Hazard Monitoring Statistical Analysis and Added Value Applied Program." This uses the existing accident injury database and conducted a statistical analysis of the results. As a result, a better understanding was developed of accidental injury incidents and long-term trends across Taiwan, to serve as a basis for drafting preventative strategies and the efficacy of their introduction.

(4) Health promoting schools promote safety education topics. Since 2002, the Ministry of Education and Ministry of Health and Welfare have jointly signed and promoted health promoting school plans. Topics include safety education and first aid, safe use of medicine and prevention of campus violence (including bullying). As of the end of December 2017, there were 4,029 health promoting schools in Taiwan below the college level. In order to emphasize evidence-oriented health promoting schools and increase international exchanges since 2012, the HPA has drafted health promoting school international certification standards based on the WHO "Health Promoting School – A Framework for Action." In addition, safety education and first aid, safe use of medicine and prevention of campus violence (including bullying) were included as part of the certification standards to reduce the incidence of accidental injury. In 2017, in order to reinforce school efforts to reduce accidental injury, the HPA included "accidental injury prevention" as an issue in the fourth annual health promoting school international certification process.

3. Multi-point integration, Fall Prevention for Seniors in the Community

(1) In 2017, HPA printed 184,300 copies of the "Fall Prevention for Seniors" handbook, and 5,500 "Fall Prevention for Seniors Posters," for local health agencies to reinforce fall prevention education.

(2) The HPA integrates healthy cities, community health creation and community care service points to promote senior health in the community based on the characteristics and specific needs of seniors. The health issues promoted include: healthy diet, exercise, preventing falls, safe use of medication, prevention of chronic diseases, health screening, and measuring blood pressure. The most important 8 items for preventing seniors falling, which can affect their health and result in incapacitation, were the focus of senior community health promotion. In venues often frequented by seniors fall prevention exercises were promoted along with exercises to improve muscle strength, walking posture and balance.

4. Protecting our Children, Preventing Sudden Infant Death Syndrome (SIDS)

(1) The HPA continues to monitor number of deaths and mortality rate related to SIDS based on statistical data on causes of death published by the Ministry of Health and Welfare.

(2) In order to reinforce health educational guidance given to parents and main caregivers, we reference measures proposed by the American Pediatric Association to avoid the occurrence of SIDS. In addition, sections titled "Newborn Care Tips: Creating a Safe Sleeping Environment" and "Secrets to SIDS Prevention" were added to the Health Education Instruction section of the Child Health Handbook given to parents of all newborns.

(3) Guidance 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 age of 0-2 months and the other at 2-4 months. From 2012-2017, the HPA collaborated with local health departments, pediatric departments and the Taiwan Association of Family Medicine to organize 36 "Training for Physicians on Child Development and Health Screening Service" session. These included the aforementioned preventative guidance and content from physician's service handbook and were attended by a total of 4,756 people.

(4) The new editions of the "Pregnancy Health Handbook" and "Child Health Handbook" included a section on "Shaken Baby Syndrome." This informs those looking after babies about the risks of shaking and details alternative techniques to comfort a crying baby, to avoid vigorous shaking or rocking to stop it crying.

Chapter 4

Healthy Environment

Healthy Cities

Healthy Communities

Health Promoting Schools

Health Workplaces

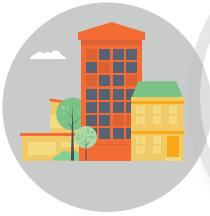
Health Promoting Institutes

Highlights

25%
Building program coverage rate

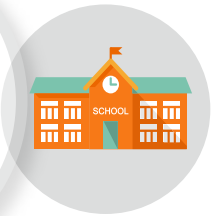
More than 25% of the 368 rural townships, towns, cities and districts in Taiwan promoted community health building plans.

In 2017, 432 community safety environment inspections and 14,151 seniors living environment safety inspections were conducted.



Communities: **532**
Homes: **14,151**
Age-friendly, safe environment

121
Internationally Accredited Health Promoting Schools



121 schools took part in the 4th Health Promoting School International Accreditation.

In 2017, there were 1,818 certified healthy workplaces in Taiwan and HPA commended 28 workplaces as outstanding in this regard and 2 staffs as Excellent Healthy Workplace Promotion.

1,818
Healthy workplace certification

163
Members of International Network of Health Promoting Hospitals

In 2017, 163 institutions became members of the WHO International Network of Health Promoting Hospitals, the largest in the world.

In 2017, uniform accreditation for health promoting hospitals was promoted, with 91 hospitals receiving new accreditation in the first year.

91
Health Promoting Hospitals with uniform accreditation

In 1986, WHO introduced five priority actions for health promotion in 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, this includes:

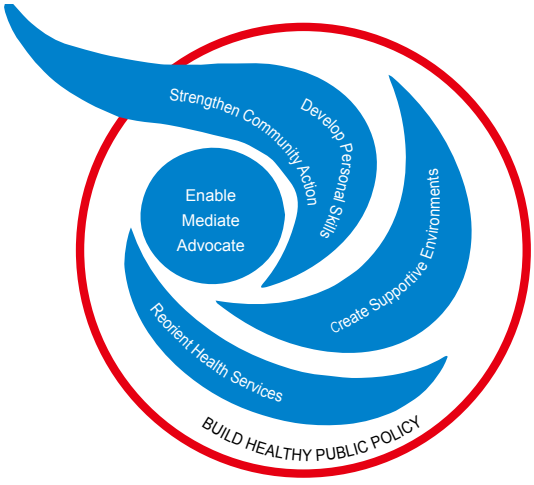
Healthy cities integrate healthy values and principles into city planning, and work to improve health problems within cities. Through cross-department and interdisciplinary cooperation, we have worked to establish healthy public policies so as to encourage cities and community residents to actively participate in health promotion work. A healthy community integrates civic resources and existing healthcare systems, establishes a diverse range of basic networks, and emphasizes the establishment of partnership relations and community participation.

Healthy communities combine private resources and the existing healthcare system to establish a diversified core network, emphasizing community participation and the building of partnership relationships. Above all, they aim to solve problems in the community and practice healthy living through community cooperation.

Health promoting schools are driven by the formulation of school health policy. At the center of this concept is the development of consensus between teachers, students and parents and joint community participation in the 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 workplaces is an idea that combines the joint effort of employers, employees and society to promote the health and welfare of employees in the workplace. It emphasizes improving workplace organization and the work environment, encouraging employees to adopt healthy lifestyles as a basis for the development of their individual skills and professionalism.

Health promoting hospitals are medical or heath service organizations that aim to improve the health gains for their key stakeholders: patients, employees and community residents. This is achieved by developing structures, cultures, decisions and processes. The organization is re-orientated so that it might improve health through medical care processes.



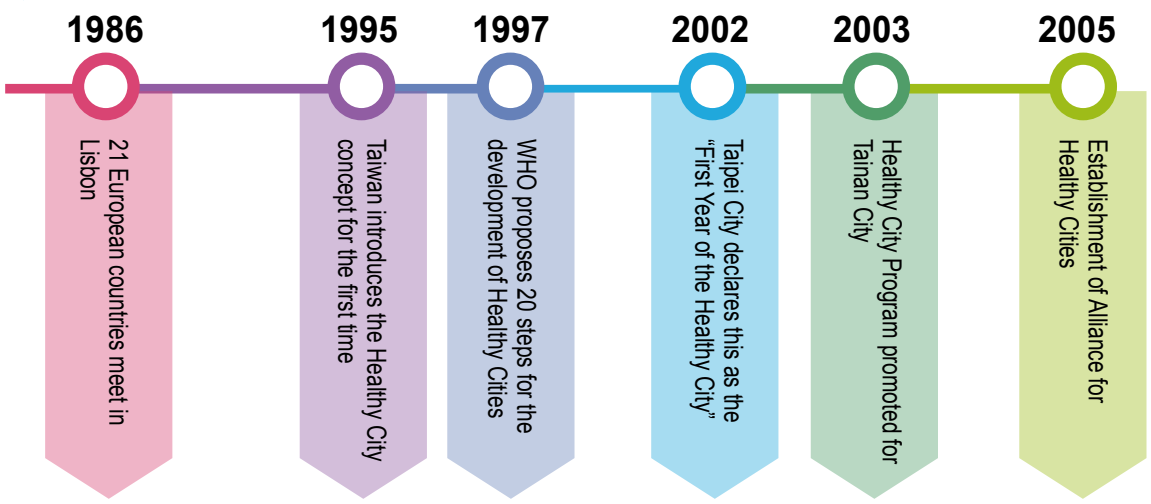
Sources: WHO, the Ottawa Charter for Health Promotion

Section 1 Healthy Cities

Status Quo

In 1986, 21 European cities met in Lisbon, and collectively decided to develop city health and promote healthy city plans. In 1997, the WHO introduced 20 steps to develop healthy cities, so as to assist countries wanting to promote the concept of healthy cities. Through stakeholder engagement, cross-departmental effort and community participation, healthy public policies were established. These were designed to adapt to the demands of urbanized society and associated health and ecology related problems. Echoing the WHO's Healthy Cities Initiative, the concept of the healthy city was first introduced in Taiwan in 1995, with Taipei City declaring 2002 as the "First Year of the Healthy City," Drawing on the WHO's five priority action areas, the city also introduced an initiative to "Lose 100 Tons of Weight Between Us, Make Taipei a City of Health For All." 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 to promote cross-department, interdisciplinary cooperation amongst 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), set up by the World Health Organization Regional Office for the Western Pacific Region. The successful experience of Tainan City encouraged the participation of other city and county governments. Through the work of professional teams, HPA continues to assist county and city governments with their healthy city plans and encourages them to share their experience. HPA also helps them engage in international exchanges.

Figure 4-1 Development of Healthy Cities



Target Indicators

More than 90% of counties and cities in Taiwan participate in the promotion of healthy cities

Policy Implementation and Results

1. Promoting Healthy Cities Nationwide

A professional counseling team made up of experts and scholars was established to help county and city governments promote healthy city projects. In addition, 13 cities and counties (Tainan City, Hualien County, Miaoli County, Chiayi City, Kaohsiung City, Taitung County, Nantou County, Hsinchu City, New Taipei City, Taoyuan City, Hsinchu County, Kinmen County and Taipei City) 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), established by the World Health Organization Regional Office in the Western Pacific Region.

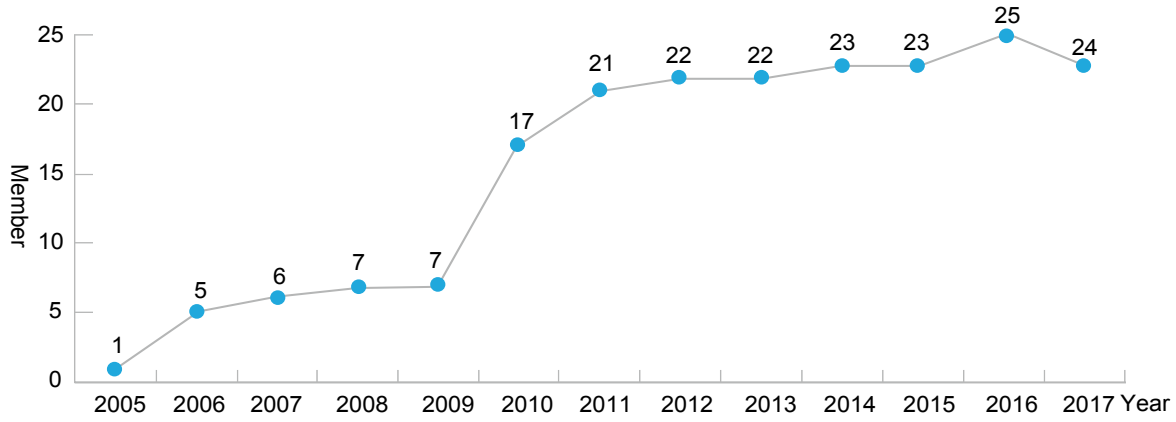
Section 2 Healthy Communities

I. Health Promoting Communities

Status Quo

Public health professionals within Taiwan have long since been aware that certain natural conditions

Figure 4-2 Members of WHO Western Pacific Alliance for Healthy Cities in Taiwan 2005-2017



Source: Health Promotion Administration

Table 4-1 List of AFHC Awards Won by Taiwan 2008-2016 (a total of 23 awards)

Year	Award	Recipient
2008	Award for Innovation in Monitoring and Evaluation of Healthy Cities	Tainan Healthy City Association
	Award for Innovation in Public and Private Partnerships 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 – Healthy Settings and Non-communicable Disease Control	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 City Promotion Association
	Award for Creative Developments in Healthy Cities – Disaster Preparedness, Response and Recovery	Taoyuan Healthy City Promotion Association
	Award for Creative Developments in Healthy Cities – Disaster Preparedness, Response and Recovery	Taoyuan Healthy City Promotion Association
	Award for Creative Developments in Healthy Cities – Disaster Preparedness, Response and Recovery	Hsinchu City Healthy City Promotion Association
	Award for Creative Developments in Healthy Cities – Health Equity	Tainan Healthy City Association
	Award for Creative Developments in Healthy Cities – Good Health Systems	Kaohsiung Healthy Harbor City Association
2016	Award for Development of Creative Results - Evaluation	Tainan City Healthy City Association
	Award for Development of Creative Results - Health Field and Prevention of Contagious Diseases	Taipei City Healthy CityAssociation
	Award for Development of Creative Results - Health Field and Prevention of Contagious Diseases	Taoyuan City Healthy City Association
	Award for Development of Creative Results - Good Health System	Kaohsiung Healthy Harbor City Association
	Award for Development of Creative Results - Good Health System	Taoyuan City Healthy City Association
	ward for Development of Creative Results - Good Health System	Wanhua District Taipei City Healthy City Association
	Award for Development of Creative Results – Catastrophe Prevention, Rescue, and Adaption	Kaohsiung Healthy Harbor City Association
	Award for Development of Creative Results – Catastrophe Prevention, Rescue, and Adaption	Tainan City Healthy City Association

Source: Health Promotion Administration
Note: Awarded once every 2 years

in communities, government policies, and other man-made factors can affect public health. In 1996, the Health Bureau of Yilan County adopted overall community planning and reorganization, proposing a three-year community health building program. 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 Rural Township, Chiayi County. Since then, 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 have been given the task of integrating community resources and bringing together public and private sectors to foster greater awareness of health issues and a willingness to cultivate healthier behavior s an integral part of daily life. The ultimate objective has been to work together to develop a vision for healthy communities by confronting and resolving community health issues

In 2002, HPA began to assist all entities established under the Community Health Building Program promote the healthy living initiative. In 2003, the Healthy Living Communities Program was listed as one of the top priorities of the Executive Yuan's (Cabinet) "Challenge 2008: National Development Plan." In 2008, HPA drafted "Guidelines and Criteria for the Certification of Health Promoting Communities" to promote the community health building initiative focused on the "stay healthy with exercise" and "healthy diet" campaigns. Since 2011, HPA has integrated important health promotion issues with local health issues on an annual basis, calling on community agencies to continue their promotion of community health building. Health promotion issues addressed by the Community Health Building Program over the years are shown in Table 4-2 below.

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

Year	Designated Issues	Optional Issues
1999～2001	HPA promoted six health issues, including: healthy diet, physical fitness, tobacco hazard prevention and control, betel quid prevention, personal hygiene, and safe use of medication. HPA also encouraged citizens to make regular use of preventive healthcare services.	
2002～2005	HPA allowed communities to determine which health issues to address based on their own health needs.	
2006～2007	HPA promoted designated issues, such as physical fitness, healthy diet, and community tobacco hazard prevention.	*Health issues were also proposed by communities based on their characteristics and lifestyles.
2008～2009	HPA promoted issues relating to healthy diet, physical fitness, screening for breast cancer and cervical cancer, smoke-free communities, betel quid-free communities, senior citizen health, safe communities etc.	
2010	HPA promoted issues related to healthy diet, physical fitness, screening for the "4 major" cancers, smoke-free communities, betel-nut free communities, safe communities, health promotion communities for seniors etc.	
2011	HPA designated "screening for 4 major cancers" and "health promotion for seniors" as core campaigns, together with the promotion of weight management and healthy diet in "Taiwan Nationwide Exercise for Health 100."	*Betel quid (including smoking cessation) and tobacco hazard control among adolescents and safety promotion.
2012	HPA designated smoking, alcohol and betel quid control, health promotion for seniors, obesity prevention (diet and exercise) and improvement in obesogenic environments as core campaigns.	*Safety promotion and local health characteristics.
2013	HPA designated smoking, alcohol and betel quid control, active aging, obesity prevention (diet and exercise), salt intake reduction, and creating active living and exercise communities as core campaigns.	* Safety promotion and local health characteristics.
2014	HPA designated smoking, alcohol and betel quid control, active aging, obesity prevention (diet and exercise), salt intake reduction, and creating active living and exercise communities as core campaigns.	*Safety promotion, children's visual and oral health, and local health characteristics.
2015	HPA designated smoking, alcohol and betel quid control, active aging, obesity prevention (diet and exercise), salt intake reduction, and creating active living and exercise communities as core campaigns.	*Safety promotion, children's visual and oral health, and local health characteristics.
2016	HPA promoted topics relating to healthy diet, physical health, obesity prevention, safety promotion, tobacco and betel quid prevention as mandatory topics.	*Local health characteristics
2017	Active ageing (physical health, healthy diet, oral health, community participation, health check-ups and screening, dementia prevention)	

Note: * Customized issues

Target Indicators

More than 25% of the 368 rural townships, towns, cities and districts in Taiwan promoted community health building plans.

Policy Implementation and Results

In 2017, HPA sponsored 19 counties and cities, 82 public health centers and 17 community agencies. A total of 99 community health building agencies held active ageing and community health promotion activities for seniors, with outcomes for different health issues as follows:

1. **Established 99 cross-department promotional platforms.**
2. **Inspection and improvement of age-friendly safe environments:**

(1) Inspection and improvement of community environment security in 532 locations.

(2) Security inspections were conducted in 14,151 senior living environments, with improvements introduced in 5,408 locations. Of these 1,739 inspections focused on seniors living alone or vulnerable groups.

3. **Organization of community physical health classes for seniors:** 151 classes attended by 5,669 participants.
4. **Promotion of healthy dietary habits for seniors:**

(1) Held 519 healthy food demonstration and educational events for seniors attended by 11,397 participants

(2) Held 163 healthy procurement education events, attended by 5,720 participants

(3) Held 883 lectures on healthy diets for seniors, attended by 25,391 participants.

5. **Organized oral health seminars for seniors:** 377 events attended by 14,551 participants.
6. **Organized educations activities on the prevention of dementia:** 1,007 events attended by 20,172 participants.
7. **Number of volunteers to take a volunteer service handbook and participate in community health building:** 2,911

II. Safe Communities

Status Quo

The concept of safe communities started in three communities within Sweden in 1970 where accidental injury was a frequent occurrence. Three years after the introduction of a plan for injury prevention, accident injuries had fallen 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. The center emphasized the integration of community resources and on the basis of empirical research promoted injury prevention plans to reduce the occurrence of community accidents and injuries, while also assisting communities around the world promote injury prevention plans. It also provided a rigorous assessment system and transparent 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.

Target Indicators

Guide communities in the promotion of safety issues, creating safe community environments and reduce the occurrence of accidents and injuries involving residents.

Policy Implementations and Results

1. Promoting communities based on a foundation of international empirical research, health and safety.

(1) Draw on international health and safety promotion strategies and using the community as a platform set up an organization and framework responsible for promotion of the program. In addition, the HPA promotes injury prevention and safety promotion work in a variety of ways, based on community and guided by target audience and issue.

(2) Development of co-operation and integration with other health promotion plans. As an example, health promoting schools could be used as a platform to promote campus safety.

(3) Adopt a double-pronged approach to carrying out the safe community program: combining autonomous bottom-up involvement of community residents with top down support and training provided government agencies.

(4) Using policy support from the government and cross-agency, cross-discipline mechanisms to integrate

resources and put them to optimal use promoting community safety.

(5) Establish a professional team to guide communities in the promotion of the safe communities program.

2. In 2017, security inspections were conducted in 14,151 senior living environments, with improvements introduced in 5,408 locations. Of these 1,739 inspections focused on seniors living alone or vulnerable groups.

Section 3 Health Promoting Schools

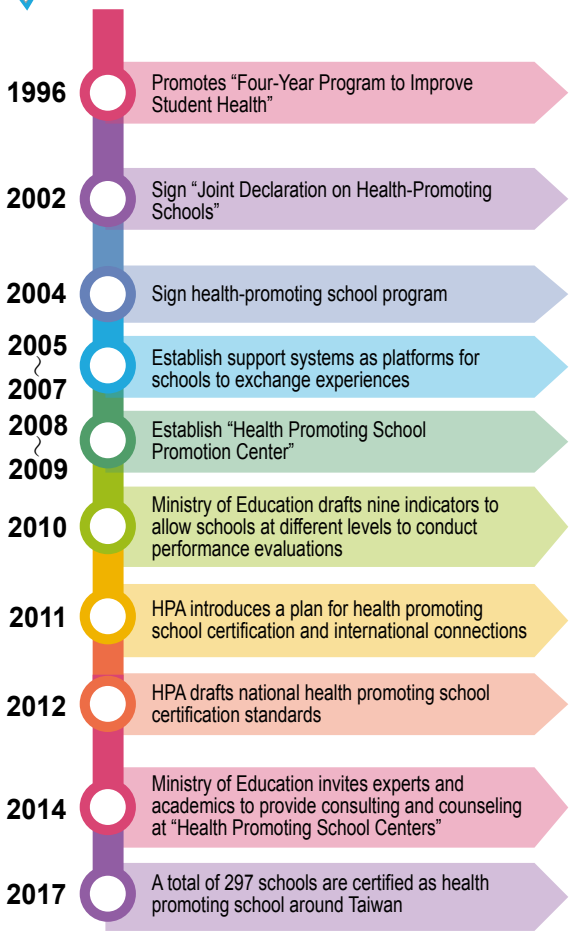
Status Quo

The World Health Organization defines 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 1996, in response to the World Health Organization concept of health promoting schools, Taiwan introduced a "Four-Year Program to Improve Student Health." Since 2002, both the former Department of Health and Ministry of Education have worked with the WHO to set six major components of health promoting schools: school health policies, school physical environments, school social environments, community relationships, individual health 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 school environment which nurtures a health living environment and improves the overall health of children and adolescents.

In April 2002, the former Director of the Department of Health Ming-liang Lee, and former Minister of Education Jong-Tsun Huang, signed a "Joint Declaration on Health-Promoting Schools." In 2004, the Department of Health, Ministry of Education, local governments, teachers and parent group representatives signed a health-promoting school program. This involved building a platform that includes teaching resource development centers, counseling support networks, training centers, the "Taiwan Health-Promoting School" website, "Taiwan Health Promoting Schools Counseling Network" website, media marketing, monitoring and evaluation support systems. Other resources included health promotion school promotion centers to provide county, city governments and schools at all levels with consistent assistance and services. In 2010, the Ministry of Education established nine "National Indicators of Health Promoting Schools" and "Local Performance Indicators for Student Health and Behavior at Health Promoting Schools." The ministry also developed nationally unified evaluation tools to evaluate the situation before and after health promoting schools adopt action research required topics, thereby schools at all levels to assess their effectiveness.

In 2011, the Ministry of Education continued the former Department of Health's "Health Promoting Schools Promotion Center" and the "Health Promoting Schools' Counseling and Network Maintenance Plan," establishing an empirical guide for second-generation schools. In 2014, the ministry invited 93 experts and academics to provide consulting and counseling under the "Health Promoting School Center" umbrella, as the optimal way to sustainably promote health promoting schools in Taiwan.

Figure 4-3 Development of Health Promoting Schools



In 2011, HPA promoted a plan for health promoting school certification and international connections and in 2012 drafted national health promoting school certification standards based on the 2008 WHO Health Promoting Schools Development Plan: A Framework for Action. Since 2012, certification operations have been initiated every two years. As of 2017, a total of 297 schools had been certified.

Target Indicators

As many as 100 schools attended the 4th Health Promoting School International Accreditation where the results of Taiwan's health promoting school policy were discussed.

Policy Implementations and Results

1. Comprehensive Promotion of a Health Promoting Schools Program, with Many Schools Opting to Participate.

By the end of 2017, 3,871 schools under the level of high school/vocational high school were fully promoting the health promoting school program. A further 158 colleges and universities also opted to join the ranks of health promoting schools.

2. Health Promoting Schools Promote Six Strategies and Issues

In 2017, important issues included: healthy body weight, oral healthcare, vision healthcare, tobacco and betel quid prevention, second generation health insurance, (including safe use of medication) and sex education (including HIV/AIDS prevention prevention) etc.

3. Revised Health Promoting School International Certification Standards and Processes

In 2017, health promoting school certification standards, including 6 standards, 12 sub-standards and 24 checkpoints were revised to strengthen the link between the indicator and health outcomes. This also made it easier for health promoting schools to evaluate and track their results.

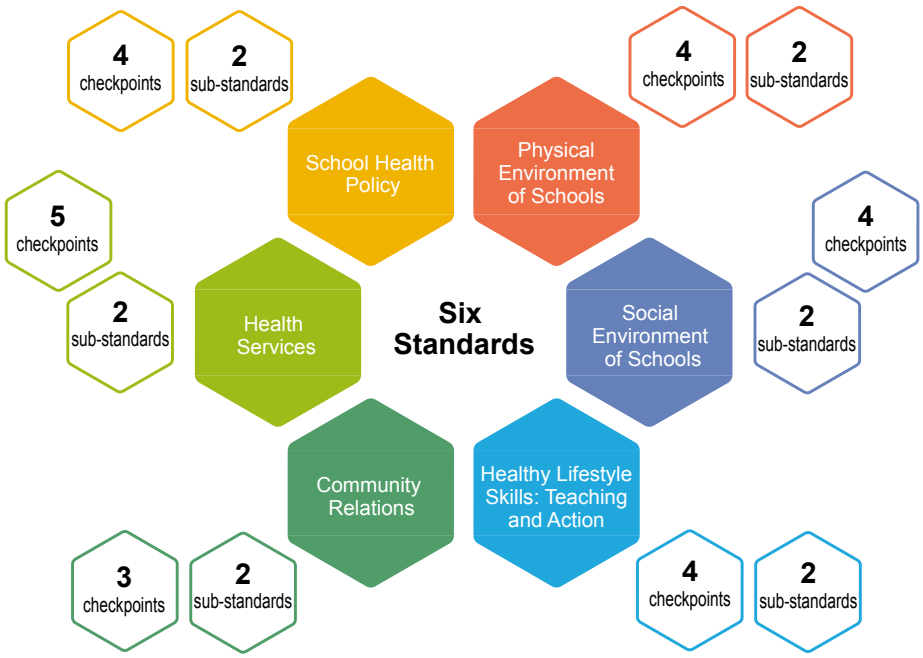
4. Making a Health Promoting School International Certification Film

This was made to play at overseas seminars as a way of disseminating information on the promotion of health promoting school international certification in Taiwan. It was also provided to schools to promote health promoting school international certification and strengthen the willingness of schools to participate in the program.

5. Health Promoting School International Certification Related Education and Training

International experts were invited to speak and help improve the knowledge and understanding of central government education and health department officials

Figure 4-4 Health Promoting School Certification Standards



as well as central government certification guidance committee members, while also facilitating international experience exchange. Health promoting school experts were also invited to give talks and encourage local governments to embrace health promoting school international certification and the principals of award winning schools asked to discuss their experience, to increase the willingness of schools to promote health promoting school international certification.

6. Sharing Taiwan's Experience of Promoting Health Promoting Schools Internationally

In 2017, at the 15th World Congress on Public Health, HPA displayed a "Health Promoting Schools in Taiwan" poster and delivered a paper titled: "Roles of School Environment in Health Promoting Schools affecting students and teachers health behaviors in the Process of Health Promoting School Accreditation." This compared the health behavior of students and teachers at different levels of certified schools in Taiwan.

Section 4 Health Workplaces

Status Quo

The World Health Organization's (WHO) unveiled a new initiative at the 4th International Conference on Health Promotion in 1997- the Healthy Work Approach (HWA) is based on four complementary principles: health promotion, occupational health and safety, human resource management and sustainable development. As such, creating a healthy workplace means not only decreasing the incidence of occupational diseases but also proactively promoting 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 improving their health.

Since 2001, the Ministry of Health and Welfare (MOHW) established six occupational hygiene and healthcare centers nationwide. Together with medical and nursing facilities at factories, they formed a service network that provides diagnosis and treatment, counseling, health education and training. To further enhance workplace health, they helped every county and city set up at least one healthy factory to help cultivate a health workplace culture.

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

The awards ceremony of 2017Active Workplace Innovation Awards

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 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. In 2015, considering the implementation of the new Tobacco Hazard Prevention Act since 2009, domestic workplaces have proactively promoted no-smoking in workplaces with more than three workers, as well as work environments free of second-hand smoke. Tobacco prevention must be conformed to and implemented in domestic workplaces and was included in the must-review items of the Health Initiative and Health Promotion Labels. Therefore, the 2015 Healthy Workplace Certification stopped conducting the Tobacco Hazards Prevention Labels while maintaining the Health Initiation Labels and Health Promotion Labels.

Target Indicators

In 2017, there were 1,500 certified healthy workplaces in Taiwan and HPA unveiled a a process to nominate and commend excellent healthy workplaces.

Policy Implementation and Results

1. Advancing Health Promotion and Tobacco Hazards Prevention in the Workplace

Encourage workplaces to create a healthy and supportive work environment by addressing health promotion issues, including physical activity, healthy diets, tobacco and betel quid hazards prevention, healthy bodyweight management, cancer screening, adult preventative care services, chronic illness management, strengthening woman's health promotion in workplace and psychological counseling etc.

(1) In 2017, teams of specialists provided on-site guidance at 166 workplaces and organized 14 healthy workplace workshops.

Health Initiation Labels

Health Promotion Labels

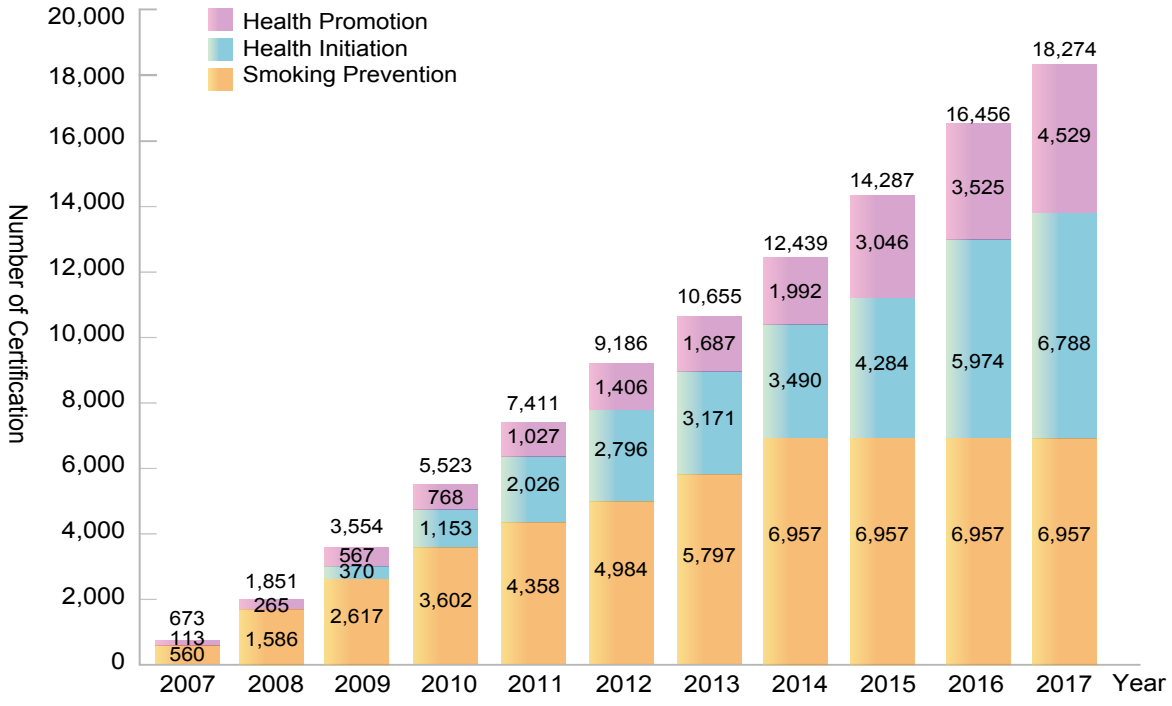
(2) Actively promote Healthy Workplace Certification, including the Health Initiation Label and Health Promotion Label. In 2017, a total of 1,818 workplaces passed the certification. The certification content is as follows:

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: Workplaces have implemented health promotion through a systematic method. Using the " WHO Comprehensive Workplace Health Promotion Model" established by the WHO in 2010, assessments were conducted for four categories (physical work environment, psychosocial work environment, personal health resources, and enterprise community involvement) to define the implementation items of health promotion and formulate the annual plan. They should set suitable qualitative and quantitative targets and assess the results of their projects on this basis.

C. Between 2007 and 2017, a total of 18,274 workplaces have passed healthy workplace certification. (Figure 4-5). In addition, from 2006 to 2017, we have commended 500 excellent healthy workplaces.

Figure 4-5 Workplaces that Have Passed Healthy Workplace Certification, 2007-2017



(3) In 2014, the HPA added "Healthy Workplace Excellent Achievement Award and "Healthy Workplace Excellent Promotion Staff Award." In 2017, we commended 28 workplaces as outstanding in this regard and 2 staffs as Excellent Healthy Workplace Promotion.

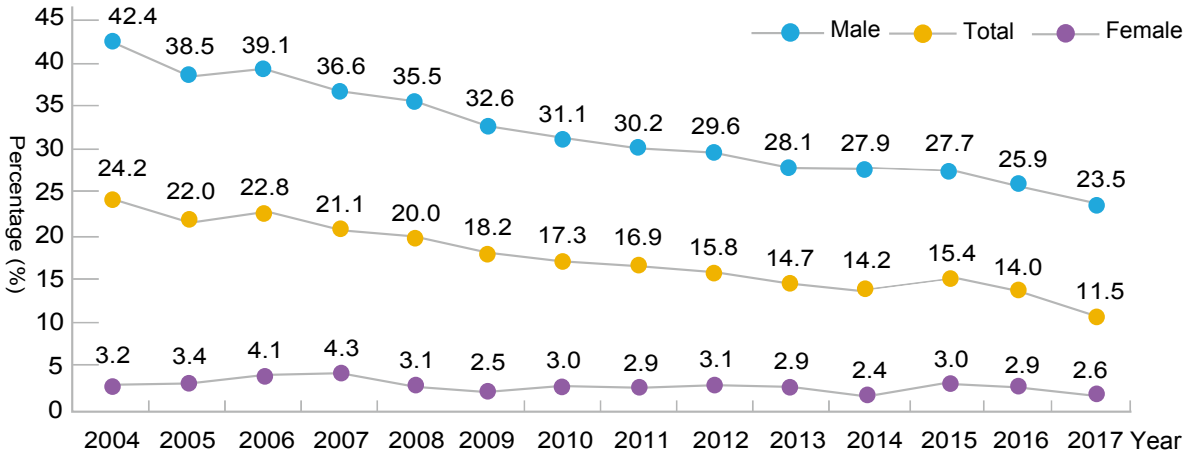
(4) In 2017, HPA launched the competition of "Active Workplace Innovation Award" to promote workplace physical activities and to build a health-supporting working environment. There were 2 workplaces to be awarded "Outstanding Workplace Awards" and 3 workplaces to be awarded "Quality Workplace Awards", which were chosen from 70 workplaces participated the event.

2. Working Population Survey on Health Promotion and Tobacco Hazards Prevention at the Workplace

A working population health promotion and tobacco hazard prevention survey (a total of 6,023 individuals have full-time jobs and aged 18 and above were selected by stratified random sampling and completed telephone questionnaires) showed that the workplaces smoking rate was 11.5% in 2017, A decrease of 2.5% from 2016. The workplaces smoking rate continues to decrease. (The workplaces smoking rates from 2004 to 2017 are show in Figure 4-6).

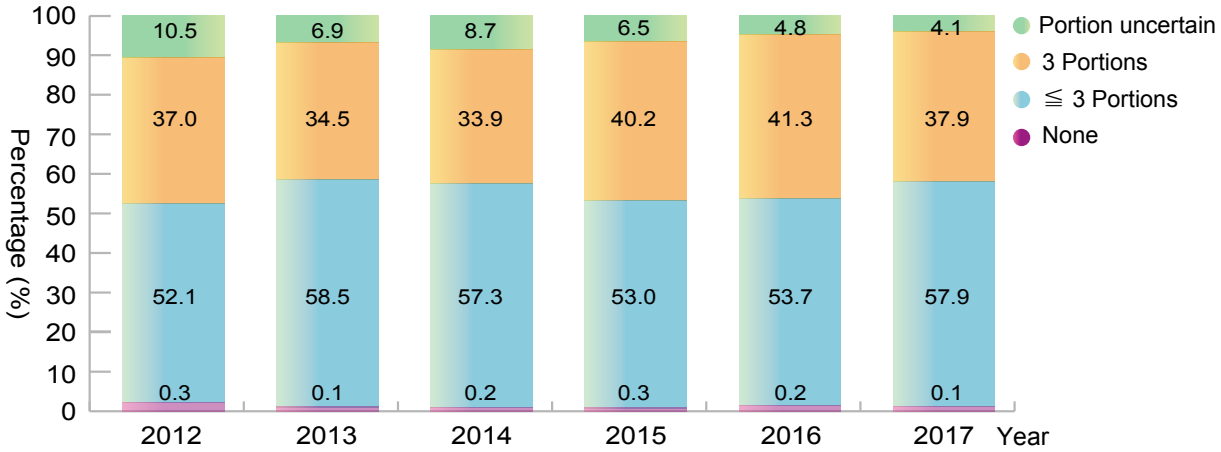
According to data collected from the "2012 - 2017 working population survey on health promotion and tobacco hazards prevention at the workplace", which shows that in 2017, 37.9% of employees ate over three vegetables a day, a decrease of 3.4% compared to 2016 (Figure 4-7). 31.2% ate over 2 species of fruit a day, a decrease of 2.1% compared to 2016. (Figure 4-8). As for body weight, in 2017 55.6% were within the normal

Figure 4-6 2004~2017 Smoking Rates of Workplace Employees



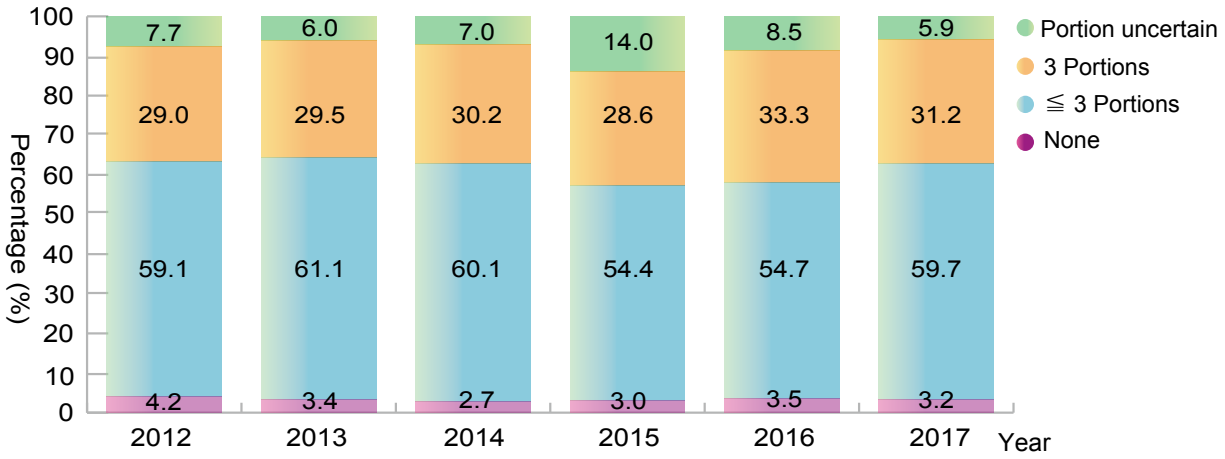
Source: 2017 working population healthy behavior survey

Figure 4-7 2012-2017 Vegetable Consumption Rate of Workplace Employees



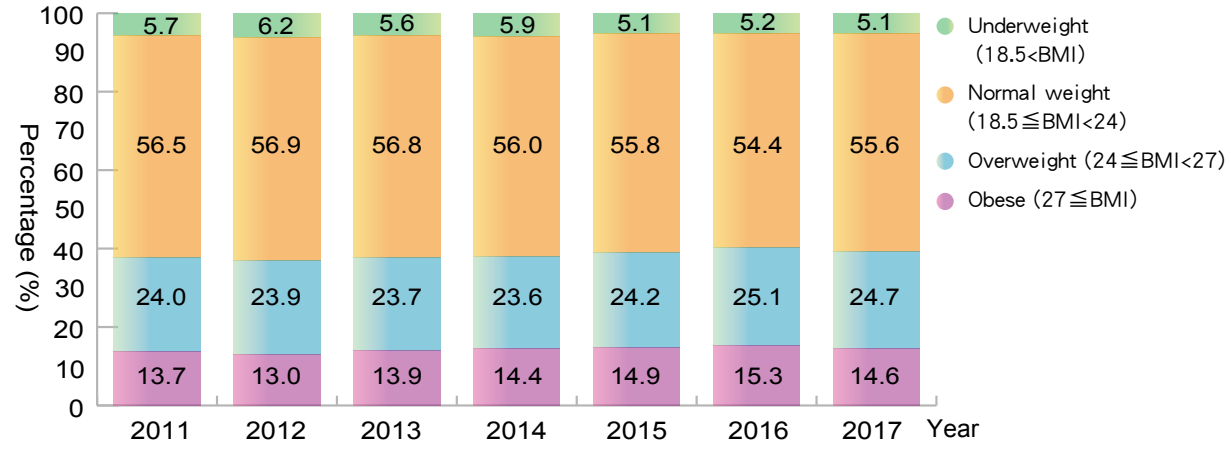
Source: 2017 working population healthy behavior survey

Figure 4-8 2012-2017 Fruit Consumption Rate of Workplace Employees



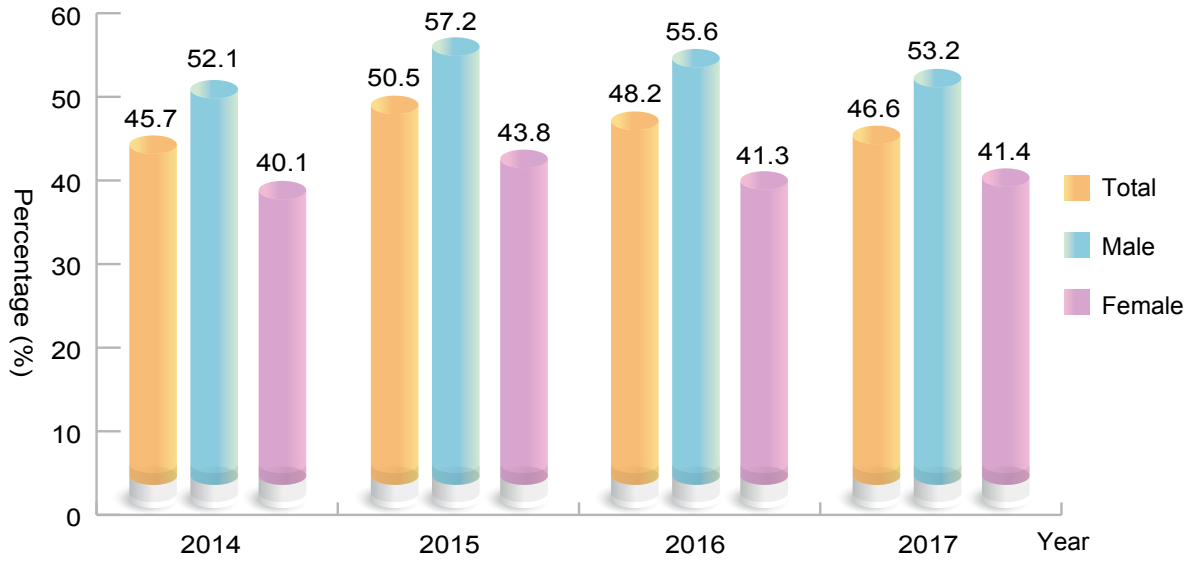
Source: 2017 working population healthy behavior survey

Figure 4-9 2011-2017 BMI Condition of Workplace Employees



Source: 2017 working population healthy behavior survey

Figure 4-10 2014-2017 Exercise Rates of Workplace Employees (At least 150 minutes weekly)



Source: 2017 working population health y behavior survey

weight range, an increase of 1.2% compared to 2016 (Figure 4-9). According to the WHO, the recommended amount of exercise for the working population was 150 minutes per week. The 1.6% decrease in the proportion of the working population exercising an average of 150 minutes in 2017 compared to 2016. For male workers, 53.2% of them exercised more than 150 minutes per week, a decrease of 2.4% compared to 2016. For female workers, 41.4% of them exercised more than 150 minutes per week, an increase of 0.1% compared to 2016 (Figure 4-10). The data shows that it's necessary to continue to promote healthy weight management plans, exercise, and healthy eating and drinking program in workplaces.

Section 5 Health Promoting Institutions

Status Quo

1. Establishment of International Network of Health Promoting Hospitals

In 2006, the WHO published the "Implementing Health Promotion in Hospitals: Manual and Self-Assessment Forms", which provided hospitals with a structure, system, process and quality assessment for evaluating 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 2016, over 700 hospitals representing 40 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. Taiwan Becomes a Health Promoting Hospital Hub in the Asia-Pacific Region

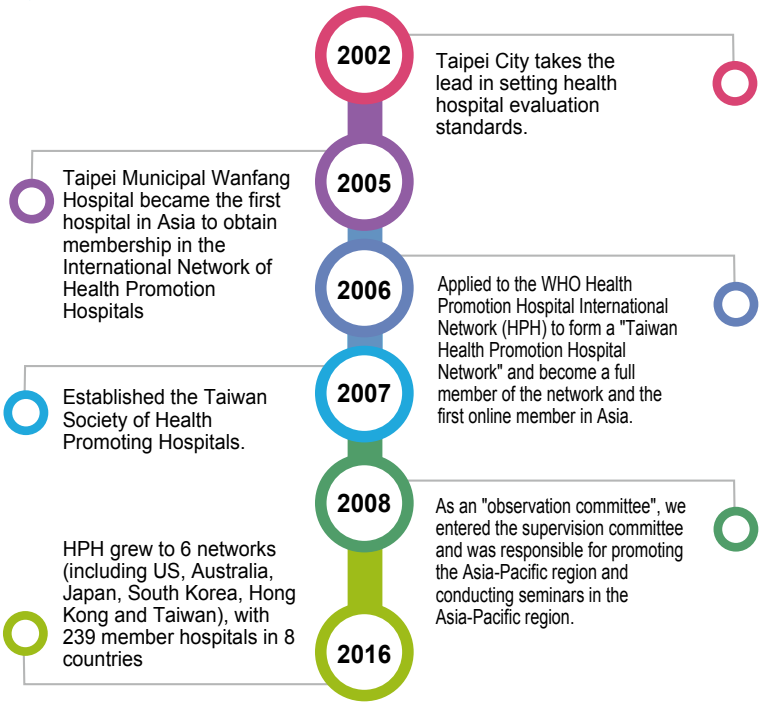
Taipei City took the lead in formulating Healthy Hospital evaluation standards in 2002. During the same year, Taipei Municipal Wan Fang Hospital began promotion of the initiative. In 2005, it became the first Asian hospital to be qualified for membership of the International Network of Health Promoting 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, Taiwan applied to the International Network of Health Promoting Hospitals (HPH) for the establishment of a Taiwan network. The Taiwan Network of Health Promoting Hospitals was established and became the first HPH network member in Asia.

In the meantime, HPA 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 Dr. 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 Dr. Shu-Ti

Figure 4-11 Development of Health Promoting Institutions



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 matured into six national networks (in America, Australia, Japan, South Korea, Hong Kong and Taiwan) in 2016, with a total of 239 member hospitals in 8 countries. Taiwan has played a pivotal role in spreading the health promoting hospital concept within Asia.

Target Indicators

There were 160 hospitals which became members of the WHO International Network of Health Promoting Hospitals by the end of the year 2017.

Policy Implementation and Results

1. Health Promoting Hospitals and International Contacts

(1) Training and Growth of Health Promoting Hospitals

A. By the end of 2017, Taiwan had 163 healthcare organizations (148 hospitals, 2 long-term care facilities, and 13 health bureaus, see Figure 4-12 and 4-13) that were successfully certified and entitled to join the WHO International Network of Health Promoting Hospitals. The Taiwan HPH Network has remained the largest network within the international network since 2012.

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 2017, 21 health bureaus and 106 healthcare institutions within their jurisdiction implemented this work plan. HPA promoted the following mandatory topics: age-friendly healthcare and obesity control

C. The "2017 International Health Promoting Healthcare Institution Conference" brought together health promoting hospitals, age-friendly healthcare institutions and smoking-free hospitals. This seminar, invited Hanne Tønnesen Executive Secretary of the International Secretariat for Network of Health Promoting Hospitals, Jürgen M. Pelikan Director of the WHO Collaborating Centre for Health Promotion in Hospitals and Health Care and Dr. Dong Chun Shin from Yonsei University in South Korea. In the afternoon, they also presented Health Promotion Innovation Program Awards to 488 experts, scholars, health bureau and hospital employees, from 28 institutions.

2. Promote Low-carbon Hospitals, the Medical Industry is Dedicated to Environmental Protection

(1) Establishing a Taskforce on HPH and Environment

To assist the healthcare sector in mitigating the impacts on the environment, the International HPH Network Secretariat passed a resolution to hand the WHO appointed task of promoting climate and environment issue over to Taiwan in 2009. In 2010, during the 18th International HPH conference in Manchester, United Kingdom, Taiwanese people proposed and received approval from the General Assembly and Governance Board to establish a "Taskforce on HPH and Environment". The Tzu Chi Foundation was handed the reign of this task force in 2014. By the end of 2017, a total of 184 domestic and foreign healthcare institutions and organizations had joined this task force, including 174 Taiwanese hospitals (Figure 4-14), 6 foreign hospitals, and 4 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 will have dropped by 13% in 2020 (164,648 tons) compared to 2007, which is the equivalent to the carbon uptake of 445 Da'an Forest Parks, or 34 New York Central Parks. By analyzing the data related to energy-saving and reduction of carbon emissions provided by domestic low-carbon hospitals from 2007 to 2016, the number of hospitals, total floor area, and sickbeds of hospitals in 2016 significantly increased compared to 2007. However, the total carbon emissions were reduced by 2.57% compared to 2007,

with a decrease of 32,541.7 tons, the equivalent of 83.65 Da An Forest Parks. By calculating the reduction of carbon emissions as the carbon emission per sick bed, the declarative objective of 13% reduction was calculated to be requiring an equivalent of reducing 2.1 tons of carbon emissions per sickbed by the year 2020;

Figure 4-12 Taiwanese Members of WHO HPH Network 2006-2017

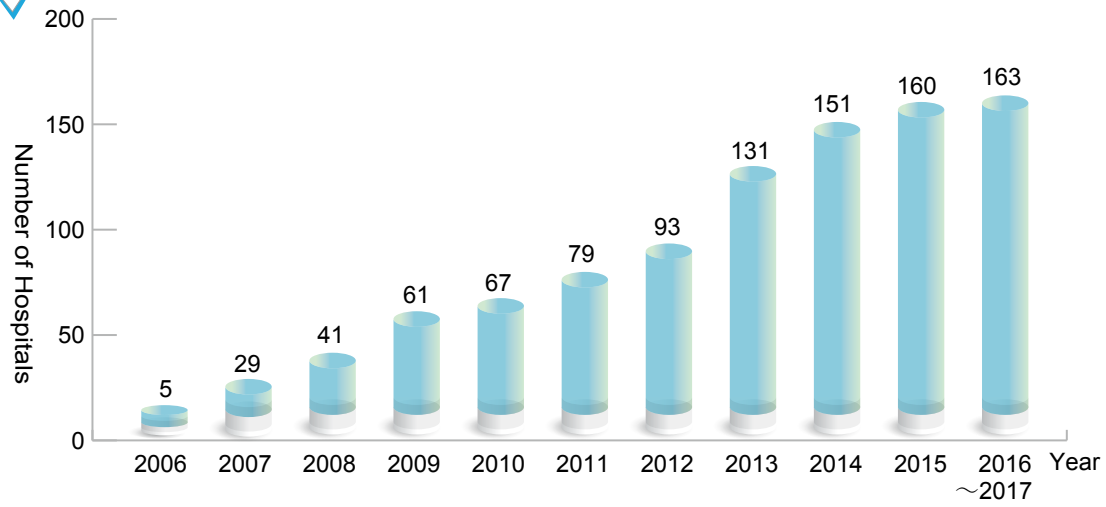
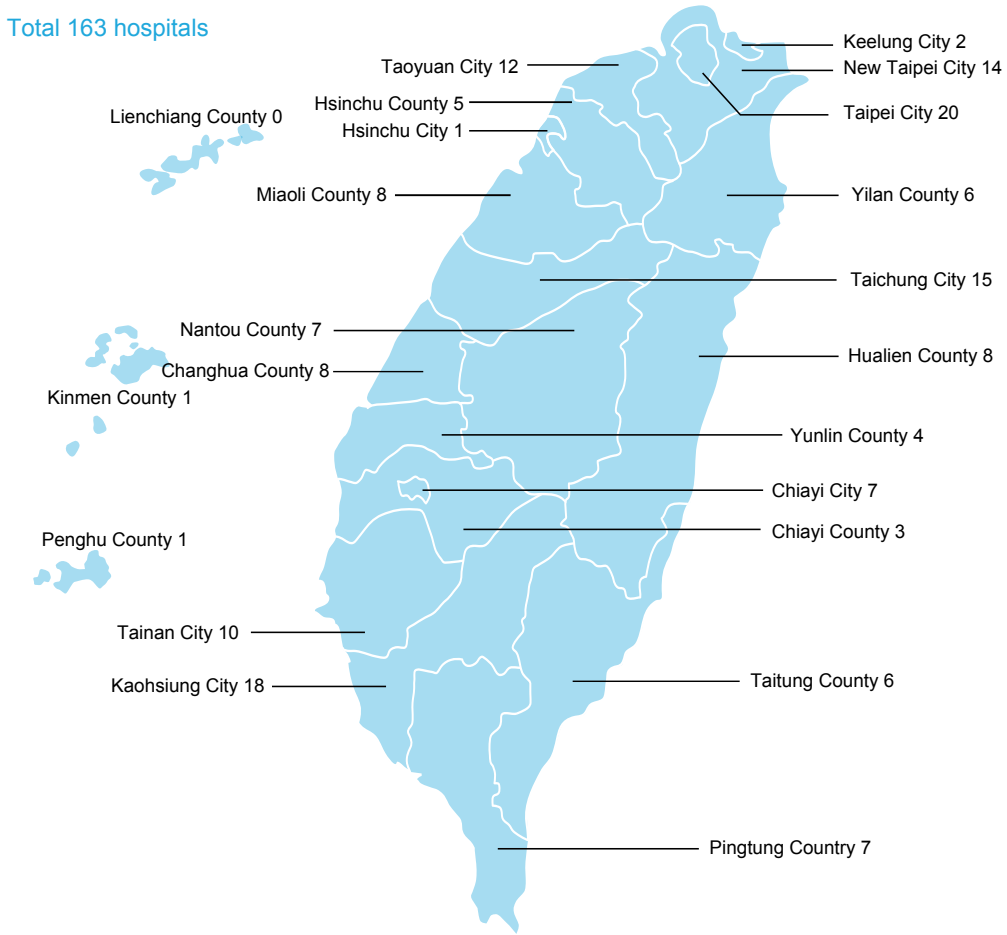


Figure 4-13 2017 HPH Network Membership by City and County Distribution Chart



Note: There are currently no HPH members in Lianjiang County and Kinmen County

1.6 tons of carbon emissions reduction per sickbed has been achieved by the year 2016, which was 76.2% of the projected goal.

(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 exchange experience. In 2017, HPA organized three workshops in Northern Central and Southern Taiwan for hospitals to learn about implementation and promotion of energy conservation, along with carbon reduction practices. The workshops attracted 215 attendees in total. HPA also arranged expert teams to visit 15 hospitals for field diagnosis, and provide professional counseling services on environment-friendly measures.

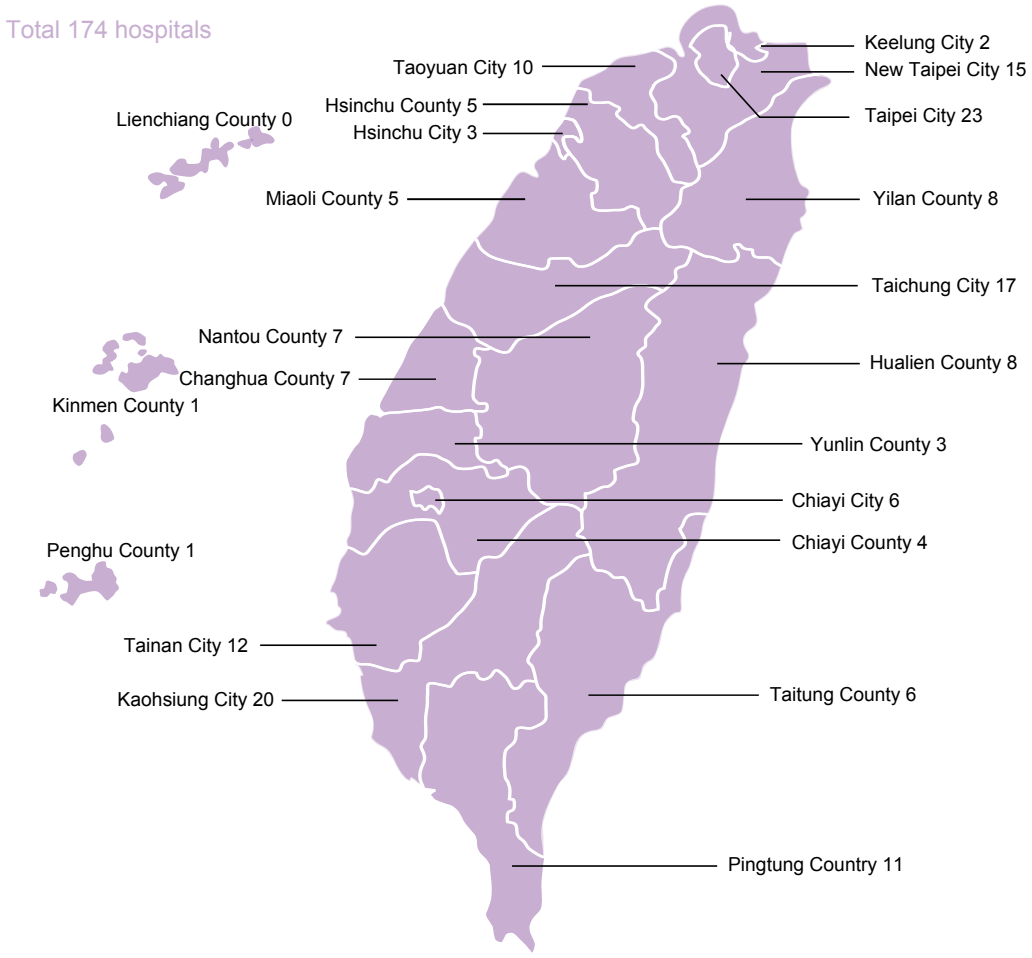
(3) Publication of a Green Hospital Guidebook and Assessment Tools

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 (HCWH), and modifying it to accommodate Taiwan's healthcare situation. The assessment form encompassed 8 major dimensions (Leadership, Chemicals, Waste, Energy, Water, Transportation, Food, and Buildings) and 84 action items.

In 2017, HPA sent out the self-assessment forms to 174 domestic low-carbon hospitals, and 101 of them

Figure 4-14 2017 Domestic Low-Carbon Hospital by County and City



responded. According to an initial analysis, hospitals' performances in leadership, waste reduction, energy efficiency, water conservation and green buildings were better than average, with an average execution rate about 88.23%~94.73%. However, there are still rooms for improvement with regards to transportation (74.63%) and low carbon diet (75.51%).

Meanwhile, the HPA has also established a platform to collect and analyze hospitals' performance in the field of energy conservation, assisting the 174 hospitals in their data on carbon emissions.

(4) Promoting Healthy Hospitals – Uniform Certification

Since 2006, when Taiwan first joined the International HPH Network 163 hospitals have become members, making Taiwan's bloc the largest part of the Network. In 2017, to provide hospitals with a more focused health promotion models, the HPA in concert with new evaluation standards refining evaluation rules, combined visits and optimizing verification. This was undertaken by adopting a patient-focused method (PFM) with evaluation committee members conducting on site evaluations and concrete activities focused on patients. These included health knowledge, shared medical decision making and the participation of patients' family members as a basis for healthy hospital certification. By 2017, 91 hospitals had received certification. In the future, the promotion of healthy hospitals will be expanded to include: diabetes health promotion institutions, kidney disease health promotion institutions, cancer diagnosis quality certification, baby-friendly hospitals, tobacco free hospital service quality improvements, mental health hospitals etc. As a result, healthy hospitals will be able to promote more detailed and diverse health promotion services.

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

The event "International Environment-Friendly Hospital Teamwork Best Practice Award was presented in 2016 to the Taipei Medical University Shuang Ho Hospital and Jen-Ai Hospital Dali. These awards were scheduled to be given to the winning hospitals at the 25th International Conference of Health Promoting Hospitals and Health Services" in Vienna, Austria.

Figure 4-15 Eight Focal Points in Self Assessment of Environmentally Friendly Actions Taken by Hospitals

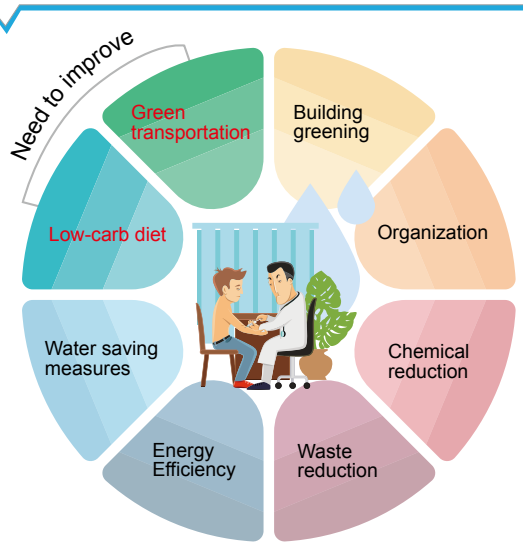
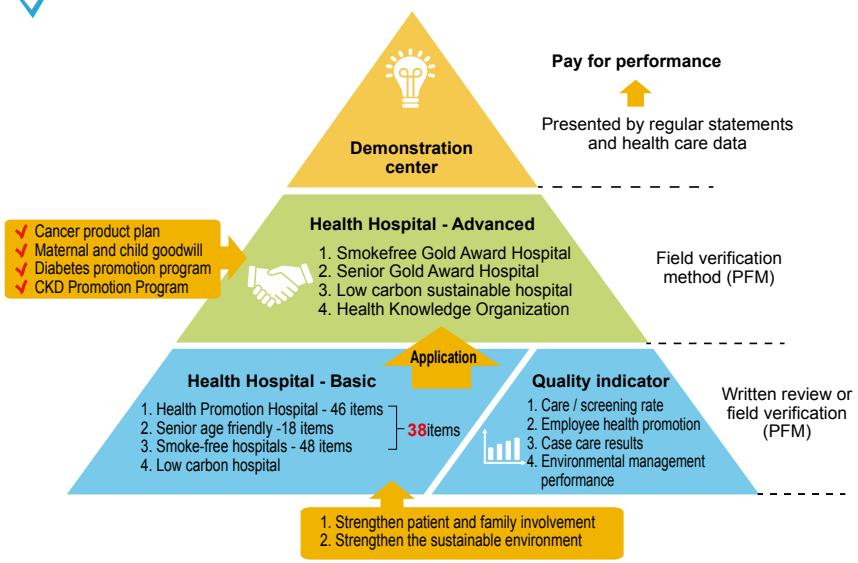


Figure 4-16 Healthy Hospital certification Framework



Chapter 5

Healthy Ageing

Active Aging

Preventing Frailty and Dementia Friendly

Age-friendly Environment and Caring City

Highlights

In 2017, health centers and medical institutions in 22 cities and counties partnered with 2,519 Community Care Centers to hold health promotion activities, increasing the partnership rate to cover 97% of care centers nationwide.

97%

Partnership rate

469

Age-friendly health care institutions

By 2017, a total of 469 age-friendly health care institutions had already received certification.

In 2017, up to 35,000 seniors organized teams to take part in seniors health promotion competitions, with 61 teams from cities and counties across Taiwan participating. Over a seven year period more than 500,000 seniors took part.

500,000

Thousand seniors participated

In 2002, WHO began promoting "Active Ageing," in the hope of developing ageing as a positive experience, while also encouraging seniors to not only focus on their physical and mental health, but also continue to play an active role in social, economic and cultural affairs, the goal being the promotion spiritual growth and the maintenance of an active lifestyle.

Taiwan has officially been an ageing society since 1993 and in 2017 the number of people aged 65 or over totaled 3,268,013 or 13.9% of the total population. Given a persistently low birth rate and the ageing of postwar baby-boomers, it is expected that 14% of the population will be 65 years of age or older in 2018. This would mean that Taiwan is what is generally known internationally as an "aged society." Moreover, if current trends hold, Taiwan will become a super-aged society in 2025, when the number of those 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 in the aging population, the size of the middle-aged population has also gradually increased and their health has had a great impact on society, with particular focus being paid to the topics of health promotion and disease prevention for middle-aged and elderly people. As such, there is an urgent need for changes in the healthcare environment and services currently provided. It is hoped that by reducing the occurrence of illnesses among the middle aged and seniors, it will be possible to create a friendly city environment that optimizes the health and well being of seniors, thereby controlling or reducing the risks and other negative influences caused by diseases, so that we might upgrade their quality of life.

Section 1 Active Ageing

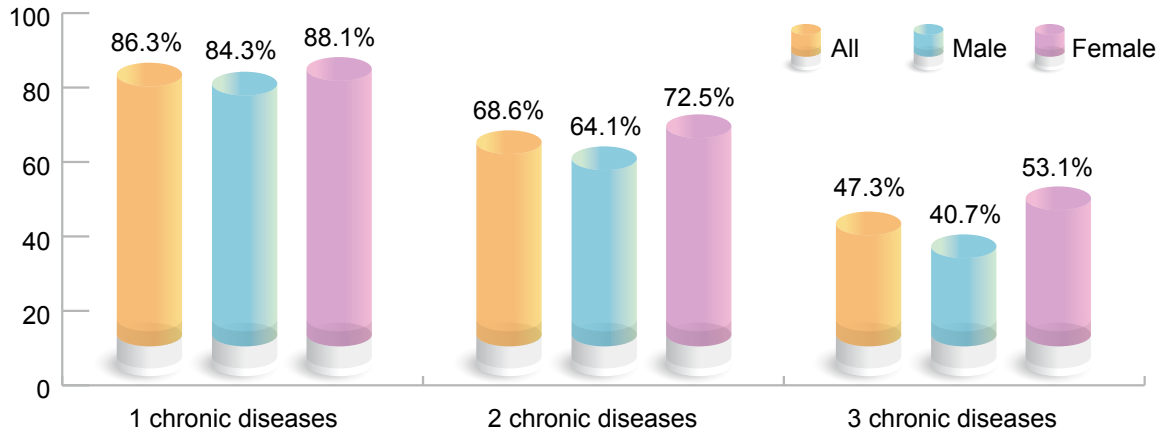
Status Quo

Average life expectancy in Taiwan was 80.0 years in 2016, 76.8 years for men and 83.4 years for women. Longer lives present new challenges as the "2013 National Health Interview Survey" demonstrated, with more than 80% (86.3%) of seniors reporting having been diagnosed with at least one chronic disease, including more women than men (see Figure 5-1). Studies show 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 the middle-aged and seniors are needed.

Target Indicators

1. More than 57% of seniors ages 65 or above had a regular exercise rate of more than 150 minutes per week.

Figure 5-1 Citizens Over 65 Years Old Who Report They Have Been Diagnosed with a Chronic Disease Diagnosis



Sources:
1. 2013 "National Health Interview Survey"
2. The 17 types of chronic diseases include: hypertension, diabetes, heart disease, strokes, 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.

2. In 2017, the smoking rate of people over 65 fell below 10%.
3. In 2017, approximately 1,800,000 people used adult prevention healthcare services.
4. All 22 counties and cities in Taiwan promoted age-friendly cities.
5. In 2017, more than 300 institutes passed 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 the Ministry of the Interior's Community Care Center program. These emphasize health promotion issues that address the specific needs of seniors, such as healthy diet, exercise, prevention of falls, drug use safety, prevention of chronic diseases, health examinations and blood pressure measurement. Other steps taken to build a comprehensive age-friendly health environment and service include the promotion of age-friendly health care and age-friendly cities.

Summary of Achievements:

1. Outstanding Achievements in Preventative Healthcare Services for Adults by Age

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 2017, approximately 1.88 million people took advantage of these services (including 970,000 people aged 65 or over), which led to a utilization rate of 30.2% (Figures 5-2 and 5-3). The results of 2017 NHIS showed that 60% of people over age 40 have received health checkups (Including the free adult prevention healthcare services provided by the government and expensed health checkups. Through adult prevention healthcare services, in 2016 the abnormal rates for high blood pressure, blood sugar, and cholesterol were 20.7%、9.1% and 28.0%, 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.)

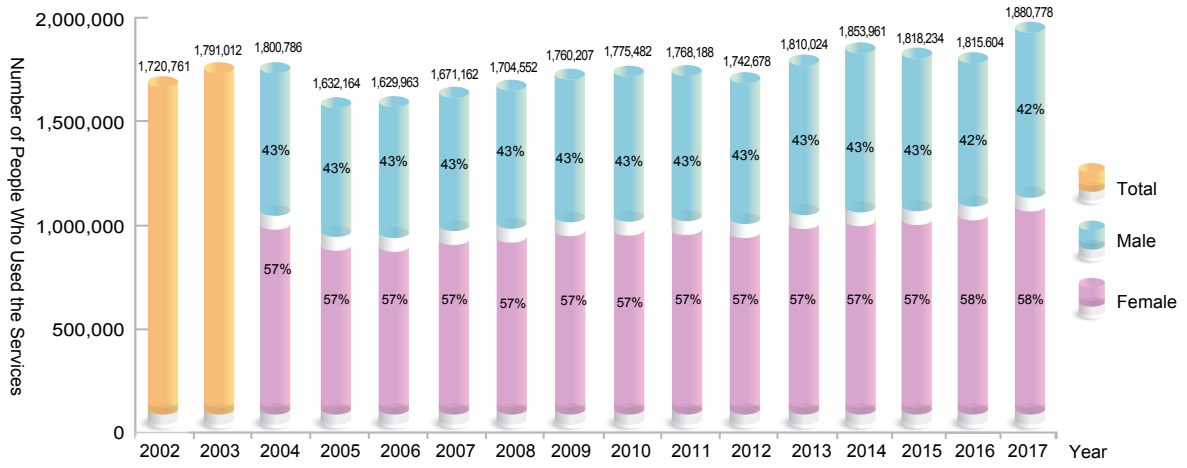
2. Expanding Integrated Screening Services

Since 2002, HPA has encouraged county and city governments to consolidate their medical resources. This includes integrating screening already used in adult preventive health care services and cancer detection. In 2017, 21 counties and cities had carried out these changes, serving over 470,000 people. From 2003-2017, the number of people served exceeded 4,790,000.

3. Senior Health Promotion

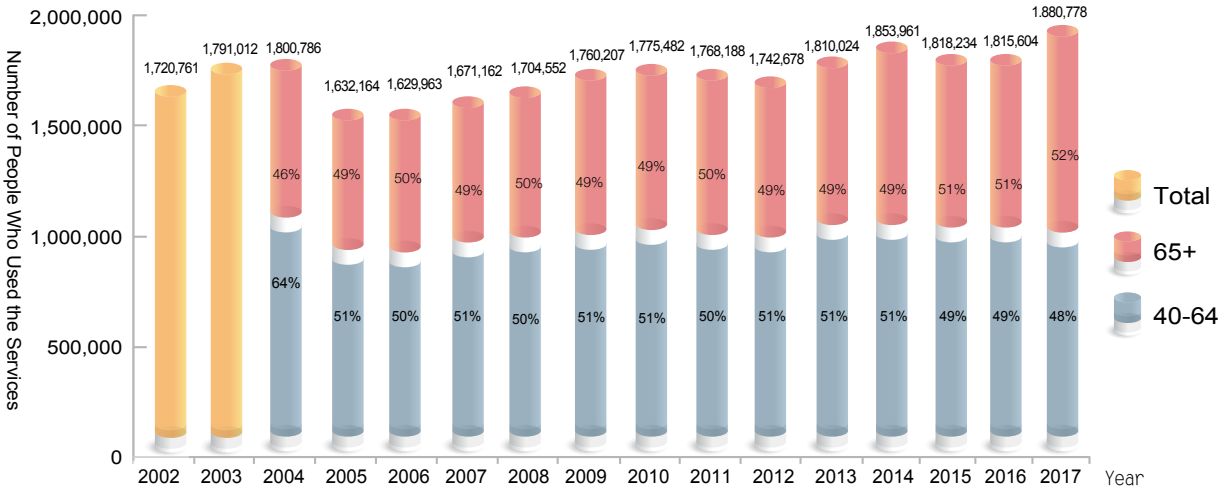
(1) Integrating Local Resources to Promote Senior Health

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



Source: National Health Insurance Administration

Figure 5-3 Annual Use of Preventive Health Care Services for Adults, by Age



Sources: National Health Insurance Administration

President Tsai Ing-wen attends the "2017 Youthful Seniors Together" event to Encourage seniors to lead more active lives

"2017 Youthful Seniors Together" Energetic Stage Group Gold Medal

The HPA advanced senior health promotion by adopting the WHO's Ottawa Charter and Bangkok Charter. Through cooperation with health departments and community medical institutions, the agency integrated local resources such as the concepts of healthy cities, safe communities, health promoting communities, community care centers and senior citizens learning centers. In addition, health promotion activities were conducted according to the specific characteristics and needs of seniors in communities, the aim being to protect their independence and allow them to live healthy, autonomous lives. When seniors are less dependent, they can also play a more active role in society and once again become a useful societal resource. A wide range of senior health promotion activities were launched by medical institutions and local health bureaus in concert with other community groups. As a result, the number of people served in 22 counties and cities was 100%, far exceeding target levels. In 2017, a total of 849 classes were held, attended by 22,326 people.

(2) Grandma and Grandpa Get Moving -National Competition for Senior 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 increased the opportunities available to grandmas and grandpas to interact more in daily life through exercise and gatherings. Mutual learning and support encouraged seniors to take part in physical activity and enriched their lives, helping them remain happy and positive, slowing physical deterioration and enhancing their social participation.

(3) Enhancing Preventive Health Care Services for the Elderly

The HPA conducted chronic disease prevention and senior health promotion, improving early detection of chronic diseases, referrals and follow-up services. In 2016, approximately 930,000 people aged 65 and older received adult preventive healthcare services. In 2017, the person-time of Taiwan Smokers Helpline users who aged 65 and elder is 2,474, and the person-time of tobacco cessation service users who aged 65 and elder is 66,069.

Section 2 Preventing Frailty and Dementia Friendly

Status Quo

The WHO has pointed out that smoking, drinking alcohol, insufficient physical activity and unhealthy diets are key risk factors for non-communicable diseases. An appropriate amount of physical activity reduces the risk of cardiovascular diseases, diabetes, colorectal cancer, breast cancer and depression. It also reduces the risk of hip joint and spinal injury. Research indicates that exercise can also reduce the risk of deterioration and dementia in seniors. The WHO suggests that those aged 65 year and older should undertake a minimum of 150 minutes moderate exercise per week. It also recommends that seniors engage in exercises to promote balance and prevent falling three times a week.

In 2017 the HPA began to conduct SOF (Study of Osteoporotic Fractures) criteria for Frailty of senior aged 65 and over in response to rapid population ageing and to help long-term care 2.0 identify seniors at potential risk of deterioration in the community, while also providing health education and necessary referrals. A total of 195,360 evaluations were completed in one year. These were divided into SOF (Study of Osteoporotic Fractures) assessment tools, depression and falling accident surveys. An initial analysis indicates that: (1) Early stage debility: 25,990 (13.3 %); (2) Debility 6,951 (3.6%); (3) Fallen in the past year: 9,158 (4.7%); and (4) Suffering from depression: 2,792 (1.4%).

Target Indicators

100 % coverage was achieved in early stage debility prevention and health promoting services.

Policy Implementation and Results

1. Improving Training in Sports and Health – from Teachers to Casses to Teaching Materials

In 2016, the HPA commissioned the Taiwan Physical Therapy Association to develop an empirically-based exercise intervention model designed to reverse debility. From June-September 2017, 14 “Sport and Health Teacher Training” sessions were held for medical and sports experts based on this model. A standardized 16-hour training program focused on keynote talks, group discussions, and practical applications was

provided with priority given to experts with community promotion experience. HPA also produced a "Resource Toolkit" (electronic and real world), providing teachers who completed the training with a teacher handbook to promote community classes, teaching materials, plans and tools etc. The content of these materials is also regularly upgraded, providing teachers with a rich selection of resources and content on which to base their classes. A total of 1,598 people completed the training program.

2. Actively Building Community-Oriented Health Management

(1) The HPA held 229 "Seniors Health Promotion in the Community Program – Sport and Health Classes" in 15 counties and cities across Taiwan as part of an outreach service using trained sports and health teachers to build a more comprehensive model for the provision of senior services in the community. The program takes 16 hours over eight weeks and included classes on empirically-based "sports intervention models," "healthy ageing" and "understanding faculty training." By encouraging seniors to attend classes it is possible to enhance their self-health management capability, establish spontaneous mutual assistance health promotion groups, create age-friendly communities based on care and interaction, enabling them to live a healthy, autonomous and respectful life. In order to assess the courses, the HPA offered guidance and evaluation for two programs each in north, central, south and east Taiwan. A total of 140 people passed the pre-test and 127 the post-test, with all participants demonstrating a clear improvement in multi-function physical fitness tests.

(2) On October 30 2017, the HPA held a "Seniors' Health – More Exercise, More Energy" press conference, to promote "sport and health classes," with course content that allows seniors to engage in muscle strength training any place and any time.

"Seniors' Health – More Exercise, More Energy" Press Conference

3. Health Bureaus Promoting Senior Health Through Competitions

More than 35,000 participants in 61 teams from counties and cities across Taiwan in took part in the 2017 Seniors Health Promoting Competition. The average age of participants was about 72, over 170,000 in total, and over a seven year period more than 500,000 seniors took part.

Sport and Life Handbook

4. Sport and Life Handbook, Instructing Seniors on How to Lead a Healthy Life

In 2017, the HPA issued a "Sport and Life Handbook," based on research undertaken in Taiwan and overseas. This offers suggestions to seniors and other citizens on how to make physical activity an integral part of one's life in a safe environment. It also emphasizes how daily activity makes it possible to improve physical balance, muscle strength, suppleness and cardiovascular fitness, as a basis for a healthy old age.

5. Comprehensive Promotion of Dementia Prevention Work

(1) HPA produced dementia-friendly living environment health education leaflets and related dementia prevention promotional materials, handbooks, fliers, media promotion cards and online courses, for basic level medical staff, public health personnel and the general public.

(2) HPA undertook education promotional work on dementia to improve the understanding of dementia among community residents and seniors. More than 40,000 people take part in related activities every year.

(3) HPA also sought to improve promotional work on the "10 Warning Signs for Dementia" in concert with the Ministry of Transportation and Communication's "Driving License Management System for Seniors."

(4) HPA invited civic groups, medical groups, local government health bureau officials and medical institutions to attend a wide range of nationwide promotional activities in concert with World Alzheimer's Month.

Section 3 Age-friendly Environment and Caring City

Status Quo

The HPA has promoted age-friendly cities since 2010 and in 2017 made healthy cities the focus of this campaign, while promoting an age-friendly, dementia-friendly and caring community program. The building of a healthy public policy framework includes environment, services and policy, utilizing improvements in hardware facilities and software to better connect communities, businesses, charities, religious groups etc. and build community partnerships. In this way, the strength of the community is enhanced so that seniors, those suffering from dementia and chronic illnesses or receiving palliative care are no longer merely looked after, but also able to live independent and autonomous lives. They may even be able to participate in society for example as volunteers or by sharing their experience and knowledge or by assisting homecare help. The ability to continue making a contribution creates the dream blueprint of "less disease, slower ageing and living well," enhancing quality of life well into old age.

Policy Implementation and Results

1. Promoting Age-friendly Cities – from Public Policy to County-city Environments

Figure 5-4 Eight Areas of Focus in the WHO's "Global Age-friendly Cities: A Guide"

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. (Fig. 5-4). In 2010, the HPA chose Chiayi City as its pilot age-friendly city, with a view to gradually expanding the program to other counties and cities. By 2013, the agency had already promoted age-friendly cities in 22 counties and cities in Taiwan, making it the first country in the world in which all counties and cities signed the Dublin Declaration to promote age-friendly cities.

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

We encourages 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 elderly social participation and respect policies in the local sphere.

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

Learning activities of the annual training workshop, forum, achievement campaign, and poster exhibition were carried out by the promotion team. Advanced promotion strategies and experiences were provided to relevant promotion personnel of both county and city governments. In May and July 2017, workshop classes were held for new promotional staff and senior management in the 22 counties and cities of Taiwan to help them hone their strategies and enhance experience sharing. On October 21, Dr. Basia Belza from the University of Washington was invited to discuss the benefits of large community stores allowing seniors to shop and walk around their outlets, as a reference point for county and city colleague involved in promoting age-friendly environments.

The HPA held the "Healthy City and Age-Friendly City Award Selection" with 22 counties and cities registering in an effort to seek recognition and affirmation for their success. In 2017, a total of 410

applications were received competing for 22 kinds of awards, with 96 agencies receiving awards. A total of more than 300 county and city representatives, experts, and scholars participated.

From August-September 2017, the HPA held "Caring City Workshops – Age-Friendly, Dementia-Friendly, Palliative Care Friendly," attended by Professor Allan Kellehear from Bradford University in the UK and Associate Professor Dr. Amy Chow from the Social Work Department at the University of Hong Kong. Both speakers discussed their experience promoting the caring city concept and approaches to providing supportive care to community residents. Through the workshops community public health healthcare and volunteer organizations and members of civic groups were able to brainstorm on the provision of community support in situations relating to life, illness, tragedy and death. The objective was that after returning to their respective communities participants would devise concrete plans and implementation strategies so that seniors, whether healthy, suffering from disability or dementia, can still make a contribution to the places they live and thereby lives of value. A total of 250 participants attended the workshop.

2. Promotion of Institution Certification and Widespread Adoption of Age-friendly Healthcare

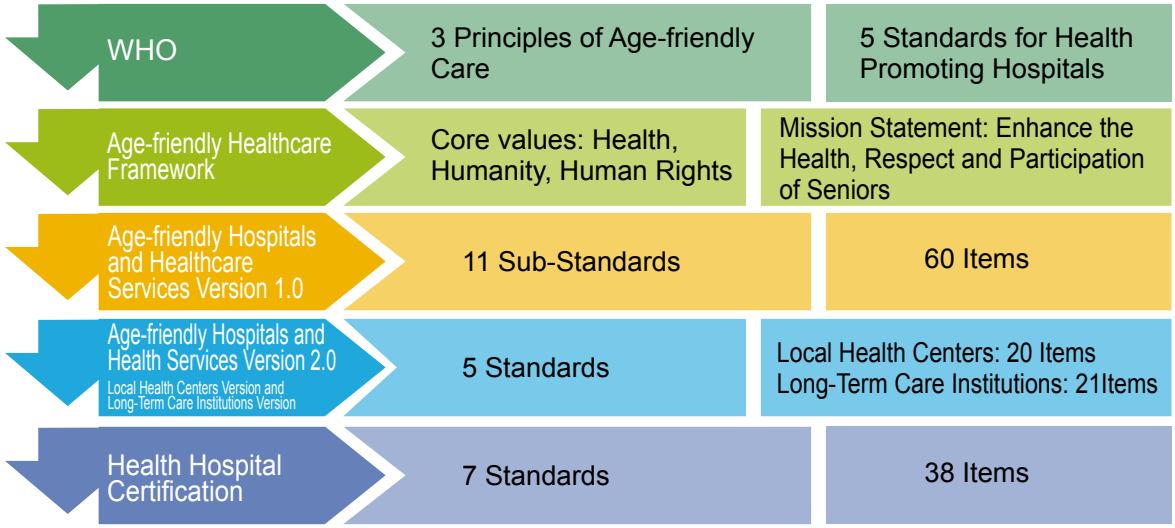
(1) The promotion of "Recognition of Age-friendly Hospitals and Health Services"

In response to the rapid ageing of Taiwan's population, and to assist healthcare institutions prepare in a timely fashion. HPA has developed "Taiwan's Framework of Age-friendly Hospitals and Health Services Version 1.0 ", 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 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. In 2016, due to the simplification of the assessment policy, we consolidated the recognition of age-friendly hospitals and health services into health hospital certification. For the service patterns of different health care institutions, we develops "Taiwan's Framework of Age-friendly Hospitals and Health Services Version 2.0- Local Health Centers Version and Long-Term Care Institutions Version", encompassed management policy, communication and services, friendly environment, health promotion (long-term care institutions for employee and resident health promotion) and community services and referrals. (Figure 5-5).

(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, HPA started conducting age-friendly healthcare professional training courses, and provided training for medical

Figure 5-5 Understanding "Age-friendly Hospitals and Healthcare Certification" in Taiwan

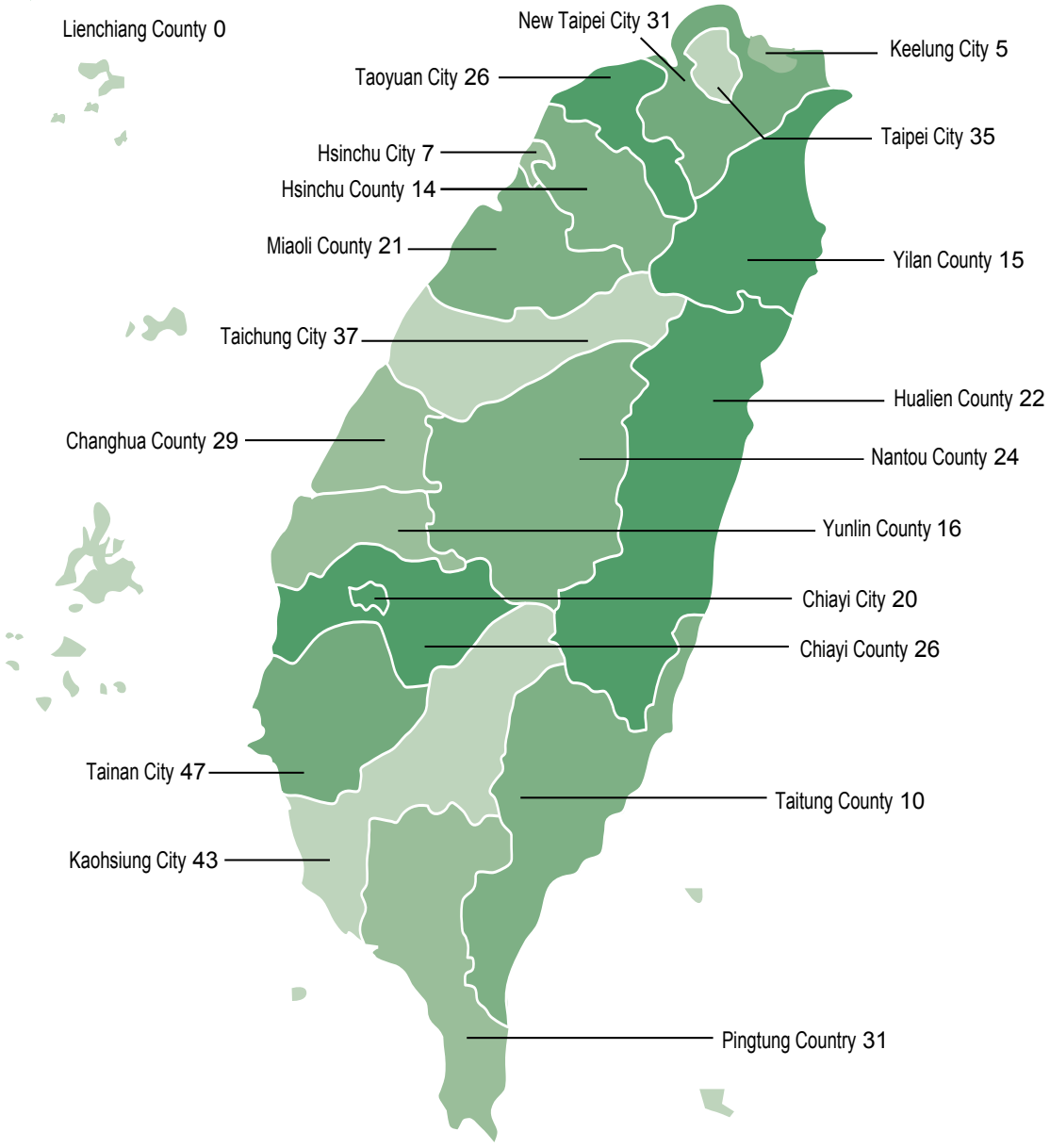


staff in related fields. In order to encourage benchmark learning, we conducted annual model award and competitions for creative proposals and writings. At the end of the year, we presented awards at the "Age-Friendly Healthcare Annual Award Ceremony". In 2017, it was the 7th year of the ceremony, and 645 people from 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

HPA plans to achieve certification of 500 healthcare institutions between the year 2014 and 2018. In 2017, HPA provided certifications to 469 institutes (Figure 5-6, includes all 182 hospitals, 216 local health centers, 1 clinic and 70 long-term care institutes). The annual target of certifying all hospitals and senior nursing homes affiliated with the Ministry of Health and Welfare have been achieved.

Figure 5-6 Prevalence of Hypertension by Gender and Age, 2017



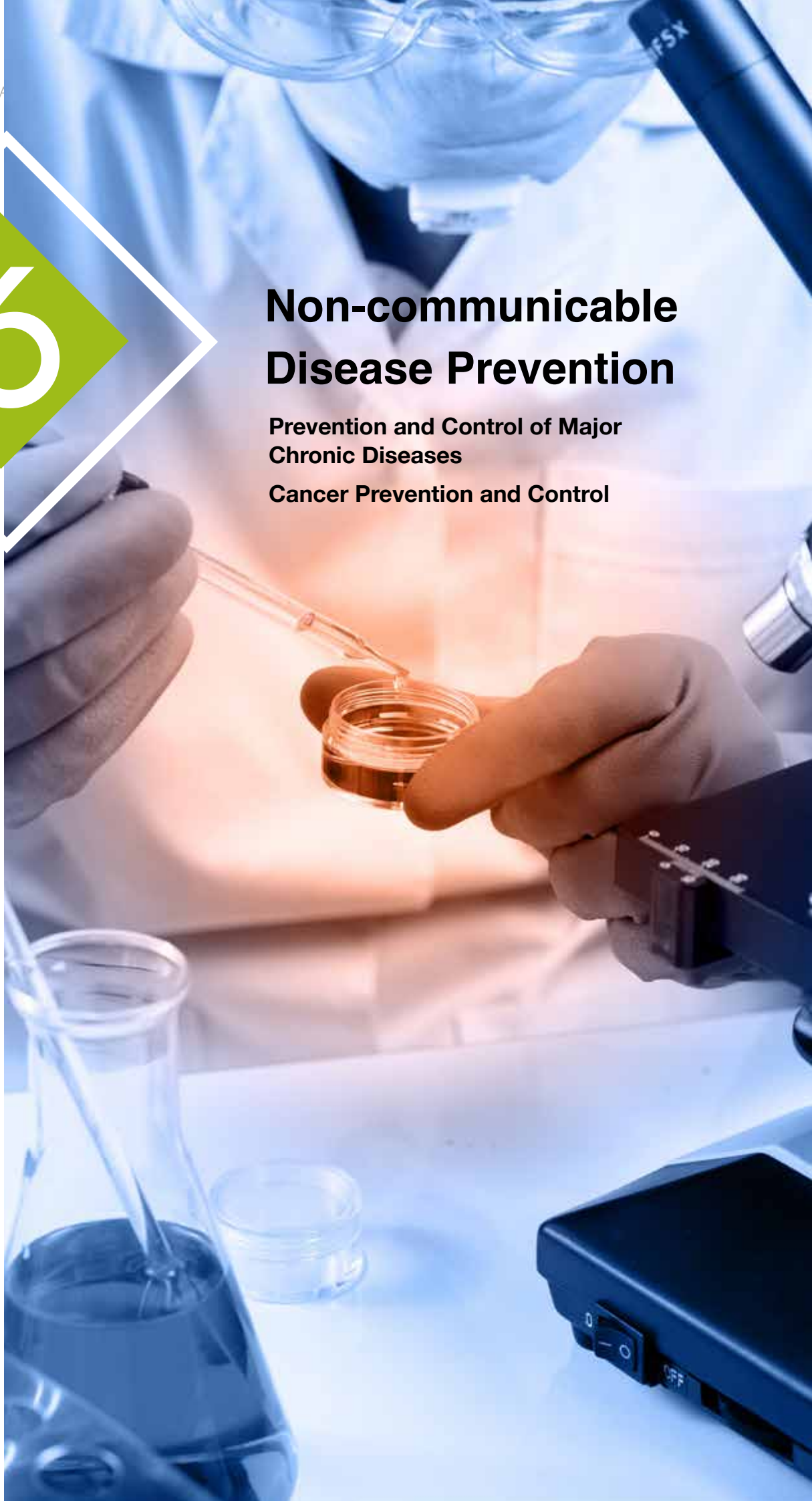
Note: Lianjiang County does not have Age-friendly hospitals and health service

Chapter 6

Non-communicable Disease Prevention

Prevention and Control of Major Chronic Diseases

Cancer Prevention and Control

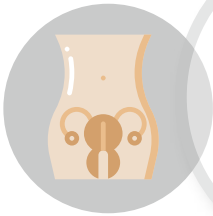


Highlights

97.8%
National coverage rate

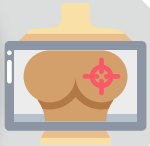
In 2017, we pushed for the establishment of 540 diabetes support groups, and achieved 97.8% coverage in counties, towns, cities and regions across Taiwan.

Achieved a cervical cancer screening rate of 72.5% among women aged 30-69 over the past three years.



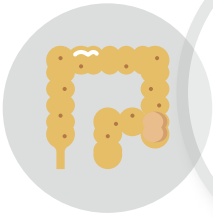
72.5%
Cervical cancer screening

39.9%
Mammogram screening



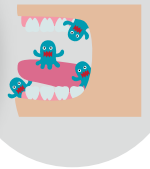
Achieved a breast cancer mammogram screening rate of 39.9% among women aged 45-69 over the past two years.

Achieved a colorectal cancer screening rate of 41.0% among people aged 50-69 over the past two years.



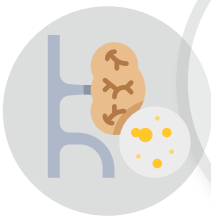
41.0%
Colon cancer screening

50.1%
Oral cancer screening



Achieved an oral cancer screening rate of 50.1% among betel nut consumers and smokers over the age of 30 in the past two years.

In 2017, there were 242 diabetic health promotion centers and 178 kidney disease preventative health promotion centers.



242
Diabetes health promoting institutions

178
Kidney disease health promoting institutions

According to statistics from 2017, the main causes of death among Taiwanese people (Figure 6-1) included chronic diseases such as 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 later in life. These conditions account for approximately 60% of total deaths, and the government clearly needs to take them seriously. Diseases can be detected early through health screening, which can also prevent key chronic diseases and actively help to create a healthy support environment, thus enabling to stay healthy as they age.

Section 1 Prevention and Control of Major Chronic Diseases

Status Quo

Based on the 2014-2017 "National Nutritional Health Condition Change Survey," the prevalence of hypertension, hyperglycemia and hyperlipidemia (the 3Hs) in people over age 20 was as follows: the prevalence of hypertension and hyperlipidemia was approximately 20% for both males and females, with 4.81 million people having hypertension, and 4.13 million hyperlipidemia. The prevalence of hyperglycemia was approximately 10% or 1.92 million people with diabetes (see Figures 6-1~6-3). Among the top 10 causes of death, 3Hs related diseases include coronary disease (ranked 2nd), cerebrovascular diseases (ranked 4th), diabetes (ranked 5th), hypertension related diseases (ranked 8th), and kidney diseases (ranked 9th). The total number of deaths from such diseases was 53,697 in 2017 compared with 53,725 in 2016. The number of people who died from coronary diseases decreased by 28 (0%), the number of people dying from cerebrovascular diseases fell by 168 (0.8%), and the number of people with diabetes was down by 115 (1.2%). In contrast, the number of people dying from hypertension related diseases increased by 191 (3.2%), and from fromnephritis, kidney disease, and kidney pathology rose by 155 people (3.0%).

In addition, people tend to become increasingly vulnerable to the 3Hs (hypertension, hyperglycemia and hyperlipidemia), nephritic disease and metabolic syndrome with age. Women over 80 are more susceptible

Table 6-1 2017 10 Leading Cause of Death in Taiwan

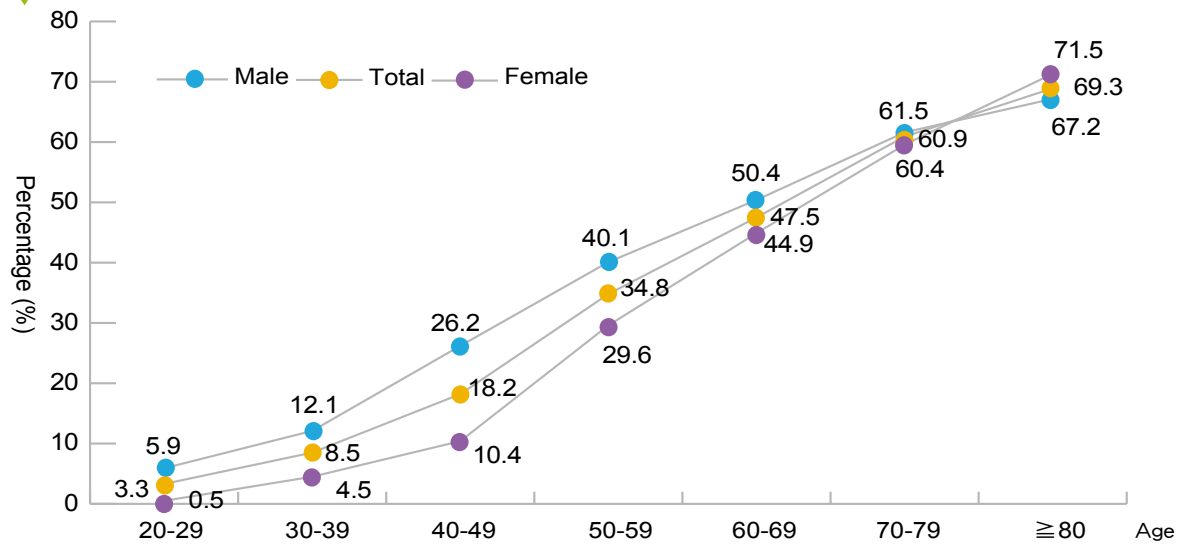
	Cause of Death	Number of Deaths	Crude Death Rate(see Note 1)	Standardized Death Rate(see Note 2)
1	Malignant neoplasms	48,037	203.9	123.4
2	Heart disease (other than hypertensive diseases)	20,644	87.6	48.5
3	Pneumonia	12,480	53.0	26.5
4	Cerebrovascular disease	11,755	49.9	27.5
5	Diabetes mellitus	9,845	41.8	23.5
6	Accidental injury	6,965	29.6	21.9
7	Chronic lower respiratory tract disease	6,260	26.6	13.3
8	Hypertensive disease	6,072	25.8	13.3
9	Nephritis, kidney disease, and kidney pathology	5,381	22.8	12.4
10	Chronic liver disease and cirrhosis	4,554	19.3	12.6

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

to hypertension and hyperlipidemia than men, women over 60 are more susceptible to hyperglycemia than men. Moreover, people with the 3Hs have a greater chance of developing cardiovascular disease and nephritic disease or even dying.

Given the increasing prevalence of chronic disease in Taiwan, the HPA has set metabolic syndromes, diabetes, cardiovascular diseases, and kidney diseases, among others, as the focus of chronic disease prevention work. 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 also appear at

Figure 6-1 Prevalence of Hypertension by Gender and Age, 2014-2017 (over 20 years old)

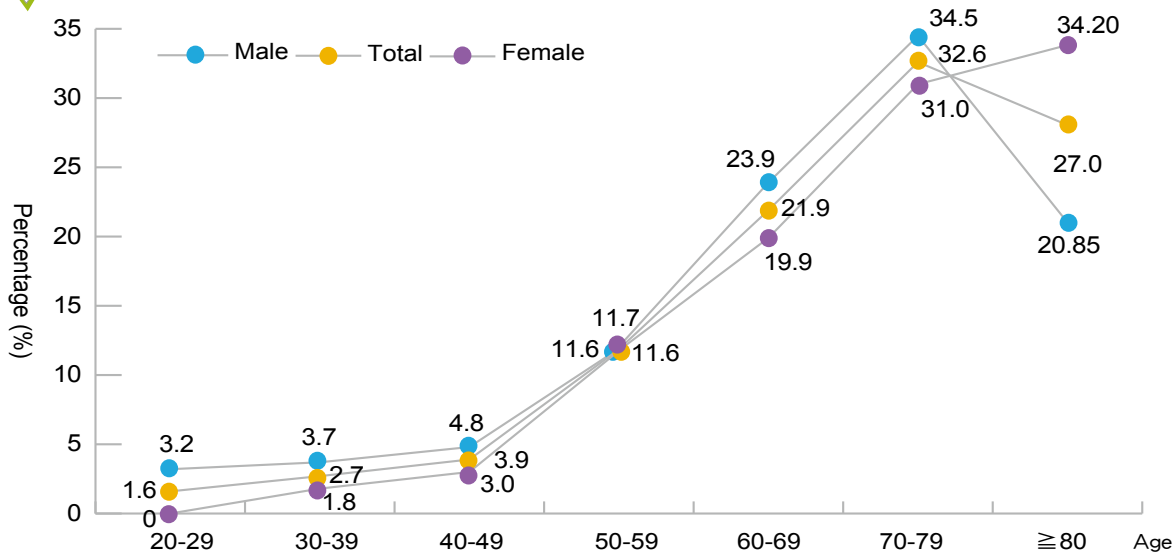


Source: Nutrition and Health Survey in Taiwan (NAHSIT), 2014-2017

Note: 1. Hypertension is defined as those having systolic blood pressure≧140mmHg, diastolic blood pressure≧90mmHg or those respondents using blood pressure medication.

2. Sample size means effective sample size for indicators, and all results were weighted.

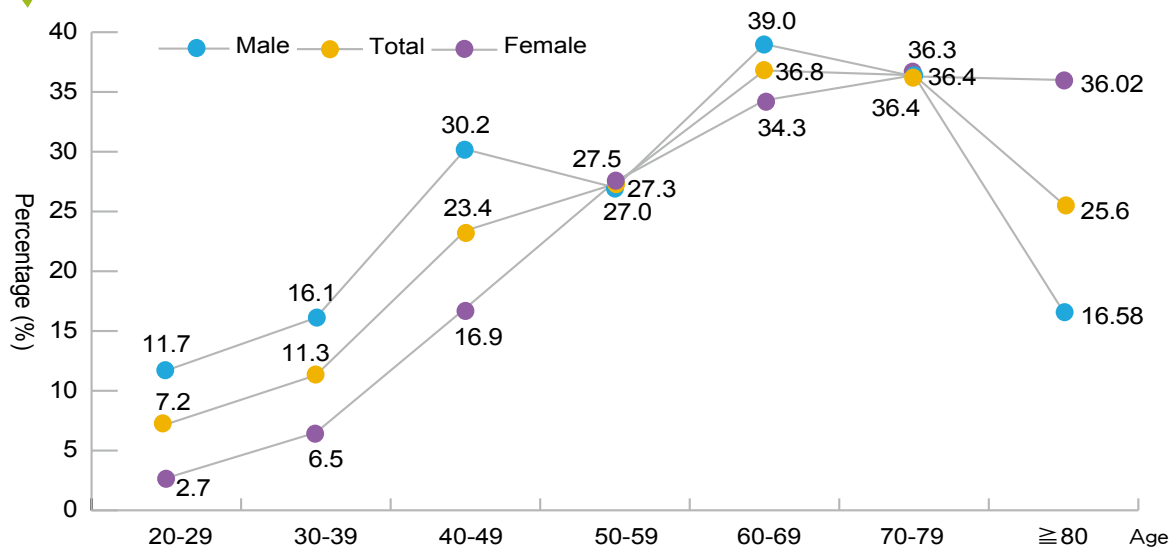
Figure 6-2 Prevalence of Hyperglycemia by Gender and Age, 2014-2017 (over 20 years old)



Source: Nutrition and Health Survey in Taiwan (NAHSIT), 2014-2017

Note: Hyperglycemia is defined as patients with blood glucose test value of≧126mg/dL (7.0mmol/L) or those respondents using hyperglycemic agents.

Figure 6-3 Prevalence of Hyperlipidemia by Gender and Age, 2014-2017 (over 20 years old)

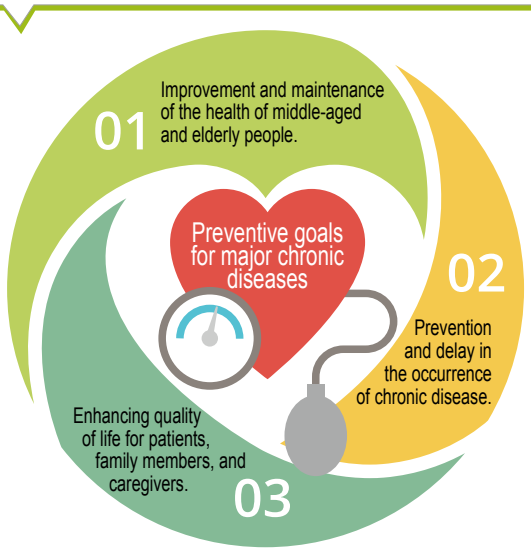


Source: Nutrition and Health Survey in Taiwan (NAHSIT), 2014-2017

Note: Hyperlipidemia is defined as patients with serum cholesterol≧240 mg/dL, serum triglycerides≧200 mg/dL or those respondents using lipid lowering drugs.

any stage of life. When such diseases emerge, physical limitations or disability gradually appears, reducing the patient's quality of life. Such diseases can negatively affect health in the long term, and also worsen gradually. HPA has therefore stipulated preventive goals for major chronic diseases, see figure 6-4:

Figure 6-4 Preventive Goals for Major Chronic Diseases



Target Indicators

1. In 2017, awareness of ideal waist circumference reached 53.3% among males and 53.6% among females aged over 18.
2. In 2017, there were 242 diabetic health promotion centers and 178 kidney disease preventative health promotion centers.
3. In 2017, HPA pushed for the establishment of 540 diabetes support groups, and achieved 97.8% coverage within the counties, towns, cities and regions of Taiwan.

Policy Implementation and Results

1. Public Promotion - Raising Health Awareness Among the Public

(1) Diversifying 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) Diversifying Promotion Channels

In response to special days dedicated to such chronic diseases as diabetes mellitus, hypertension, heart diseases, kidney diseases and asthma, the HPA

cooperates with local health departments, civic groups and community organizations to hold press conferences and other publicity events. It also promotes causes through schools, communities, the internet, magazines, radio, TV, vehicle ads, and convenience stores.

Important events are as follow

A. In 2017, HPA spread awareness of topics such as prevention of metabolic syndrome, chronic kidney disease, diabetes and cardiovascular disease through various channels including television, radio and magazines. In addition, we also revised and printed handbooks and leaflets, including "Community Asthma Healthcare Manual," "Taiwan Chronic Obstructive Pulmonary Disease Comprehensive Manual" etc. Resources and medical institutes were also made available for health education and advocacy.

B. Reacting to World Diabetes Day in 2017, 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 promote "Women and diabetes - our right to a healthy future." This included press conferences, group outings, hiking, and performance events. As a result, public awareness and understanding of diabetes improve. Approximately 500 people participated in these events.

C. In concert with 2017 World Hypertension Day (May 17th) and the theme "Know Your Numbers," HPA worked with Taiwan Hypertension Society, Taiwan Pharmacist Association, Taiwan Millennium Foundation to establish a national blood pressure measuring network. This was initially introduced in community drug stores, 7-ELEVEN millennium stations, and Cosmed, etc. with more than 1,500 blood pressure measuring stations. Through the provision of nearby and convenient blood pressure measuring services and community drug store pharmacist counseling, people learned to more effectively manage their blood pressure. In addition, in order to improve public awareness of high blood pressure, HPA worked with Taiwan Hypertension Society and Taiwan Pharmacist Association to organize "May Blood Pressure Measuring Month" event in which approximately 60,000 people participated (Figure 6-5).

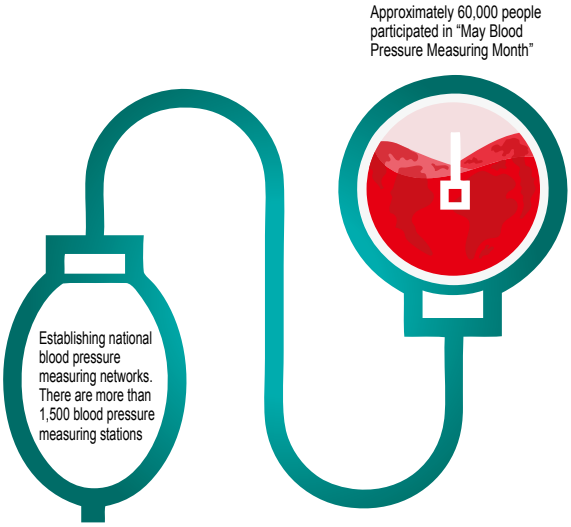
D. "2017 Physical Examination and Promotional Activities for Metabolic Syndrome" in 2017:

(A) The "89 Days of Measuring Waistlines" event was conducted in concert with Father's Day. With the "Wish Blue Belt" campaign, it is proposed to "use a healthy waistline to make a wish for the happiness of the family". In the month of the event, we will provide belt-shaped waist tape with 10 well-known channels such as the chain of supermarkets and chain drugstores. We also using an interactive website and virtual reality technology, interactive games were designed to enhance people's understanding of standard waistline measurements. A total of 12,226,000 people were touched.

(B) Cooperate with the World Hypertension Day, cooperate with the Taiwan Hypertension Society to handle the press conference and health check-up activities of the 9th National Health Month, and combine the health care bureaus of all counties and cities in the 673 chain supermarkets in Taiwan. There are 200 stores in the chain drug store, which help the people to measure their waist circumference and blood pressure. At least 336,781 people participated during the blood pressure activity from May 20th to June 7th.

E. In response to World Kidney Day in March 2017, HPA worked with the Taiwan Society of Nephrology, county and city health bureaus, and medical institutes from around the country to hold a chronic kidney disease prevention awareness event. Kidney care

Figure 6-5 2017 World Hypertension "Know Your Numbers" Achievement



2017 World Hypertension
"Know Your Numbers" Achievement

activities were held in eight counties and cities across Taiwan, with a total of 4,411 people participating. HPA also held 12 kidney disease prevention seminars across Taiwan, improving public awareness of kidney disease prevention. In addition, 5 chronic kidney disease care network workshops were held, in which a total of 867 people participated.

F. In concert with "Go Red for Women," we joined with women in Taiwan to host Facebook events, printed promotional material and distributed them to cardiovascular disease clinics in health promotion hospitals. We also encourage women to exercise more frequently and increase their awareness of cardiovascular health.

2. More Popular - Urged High-risk Groups to pay Attention to Health Improvement by Improving their Behavior, and Ability to Manage Their Own Health

(1) Convenient and Intensive Blood Pressure Measuring Services

In order to ensure blood pressure measuring service locations are convenient and accessible to 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 administration agencies, community care centers, activity centers, drug stores, malls and workplaces. In addition, the HPA also advised local governments on promoting metabolic syndrome and diabetes prevention, added waistline measurement at blood pressure stations, and promoted metabolic syndrome prevention in 677 communities.

(2) Deepening the Campus Awareness for Chronic Disease Prevention

The HPA provided seven additional training sessions on prevention of chronic disease for school administrators, nurses and nutritionists at elementary school, junior and senior high school and colleges. In 2017, a total of 1,064 people attended.

(3) Short Distant Operations of Diabetic Support Groups

In order to enhance care access for groups at high risk of diabetes, the HPA promoted diabetes patient support groups across Taiwan (Figure 6-6). Healthy diet, weight control and blood sugar monitoring events were also held. In 2017, HPA completed an inventory of the operational conditions and resources available to national diabetic support groups, and presented awards to 100 outstanding diabetic support groups. We also stipulated diabetic community support group network structures and operational procedures to develop a support group efficiency resources indices.

Figure 6-6 **Increase the Accessibility of Health Promotion for High risk Diabetics**

(4) Community Advocacy

In 2016, 22 local health bureaus across Taiwan integrated community resources, such as district offices, neighborhood offices, and community care points, to disseminate information on the 3Hs (hypertension, hyperglycemia and hyperlipidemia) and chronic kidney disease prevention throughout local communities. A total of 4,843 events were held, attended by over 260,000 seniors aged 65 and over.

(5) Nearby Medical Training Courses

In 2017, the HPA held 24 "Adult Preventative Health Care Training Courses" and "Evidence-based Preventative Medicine Courses" attended by more than 1,200 healthcare providers. These courses sought to ensure that doctors in various specialties wishing to provide adults with preventative health care services can easily access training and all medical practitioners are familiar with the concept of "evidence-based preventative medicine."

3. Considerate system - Promoting Self-Awareness and Self-management in Health

(1) Accreditation of Diabetes Shared-Care

HPA promoted shared-care networks for diabetes in 22 counties and cities, and also established an accreditation system for diabetes medical care staff. In addition, the "Standards for Accreditation of Diabetes Shared-Care Networks Medical Staff," were revised to include new classifications for pharmaceutical experts, simplifying the process of specialist nursing and nutrition accreditation, and extending the period of validity of this medical accreditation. In 2017, a total of 9,366 people were accredited for clinical care.

(2) Value Preventive Management

In 2017, there were 242 diabetes health promoting institutions. These provided internships to 1,665 diabetes health education staff and handled 435,769 cases involving National Health Insurance Coverage for Improving Diabetes Treatment. In addition, through community medical networks, from front end preventive healthcare use, diabetes, and early chronic kidney disease management and health education, HPA established evaluations, healthcare procedures and QA surveys at basic level clinics, in order to upgrade the management and energy of basic medical institutes in providing chronic disease prevention services.

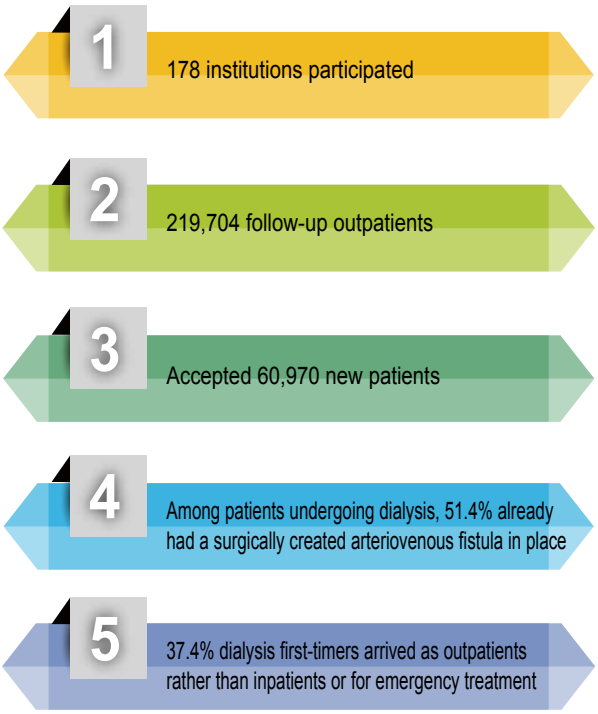
(3) Medical Quality Certification Label

In 2017, HPA designed and awarded the Diabetes Health Care Promotion Institution Label, reassuring the public about their choice of medical center. A 2017 Health Promotion and Healthcare Institute Achievement Award Ceremony was also held, with nine benchmark best-in-class institutions commended and eight praised for their performance in caring for new diabetes patients. Special awards were given to 21 institutions, awards for outstanding overall implementation results to 4 institutions, and special awards to 14. HPA also awarded accreditation to 17 new institutions at the 2018 ceremony.

(4) Comprehensive Dialysis Treatment

Health officials established a cross-departmental, interdisciplinary model of specialized care to delay and lessen the development of chronic kidney disease (CKD) and assist patients preparing for dialysis. Since 2004, HPA has entrusted the Taiwan Society of Nephrology with the advancement of health promotion institutions focusing on kidney ailments. In 2017, 178 of these institutions with 219,704 follow-up outpatient patients, accepted 60,970 new patients. Among patients undergoing dialysis, 51.4% already had a surgically created arteriovenous fistula in place and 37.4% dialysis first-timers arrived as outpatients rather than inpatients or for emergency treatment. Significant improvement was apparent in all available figures.

Figure 6-7 **Health Promotion Achievements in Nephrology**



(5) Adopt Case-by-case Management

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. The system was later integrated with other CKD databases. By the end of 2017, 237 hospitals had registered a total of 180,000 cases.

(6) 3H Heart Rescue Healthcare

In order to promote 3Hs (hypertension, hyperglycemia and hyperlipidemia) and coronary disease prevention, HPA helped hospitals establish cross-department work teams and healthcare administrators. Since 2015, HPA has 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 the cross-department work teams and healthcare administrators plan. Through good 3H controls, tobacco cessation services, regular exercise, and compliance with medical interventions and follow-up measures, HPA has established quality indices and promoted coronary disease prevention and management.

(7) Comprehensive Advocacy of COPD

In 2017, the HPA conduct three advocacy events in concert with World COPD Day with the objective of upgrading the healthcare quality of COPD. Through tobacco hazard mechanism policies, HPA continues to disseminate health education to the public. For example, a total of 690 people participated in tobacco hazard prevention, tobacco cessation, and say no to second hand smoking events. In addition, three medical staff COPD prevention awareness seminar training sessions were held in which 191 people participated. The "Taiwan COPD Comprehensive Healthcare Manual" was also published in order to ensure COPD patients receive good disease control and delay the progress of diseases, creating comprehensive patient, medical staff, public health prevention healthcare.

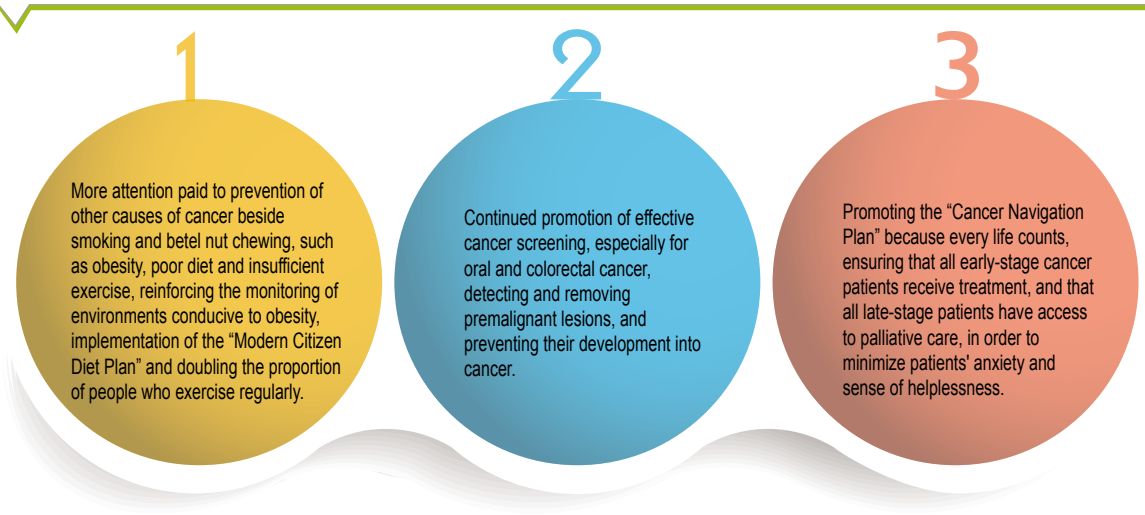
Section 2 Cancer Prevention and Control

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. The HPA received a 2010 Taiwan Sustainable Development Award for Excellence in Project Execution from the Executive Yuan's National Council for Sustainable Development for its 1st National Cancer Prevention and Control Program (2005-2009). In 2010, the HPA echoing 2nd National Cancer Prevention and Control Program (2010-2013). Its primary strategy was to expand the provision of cancer screening services. In the 3rd National Cancer Prevention and Control Program (2014-2018) that focus has shifted from treatment and early detection to prevention with three new major points.

Status Quo

In 1979, the Ministry of Health and Welfare (formerly the Department of Health, Executive Yuan) issued an administrative order that asked hospitals with 50 beds or more to submit summarized reports containing the 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 Control Act went into effect. Article 11 of the statute stipulates

Figure 6-8 Three New Focal Points in the 3rd National Cancer Prevention and Control Program



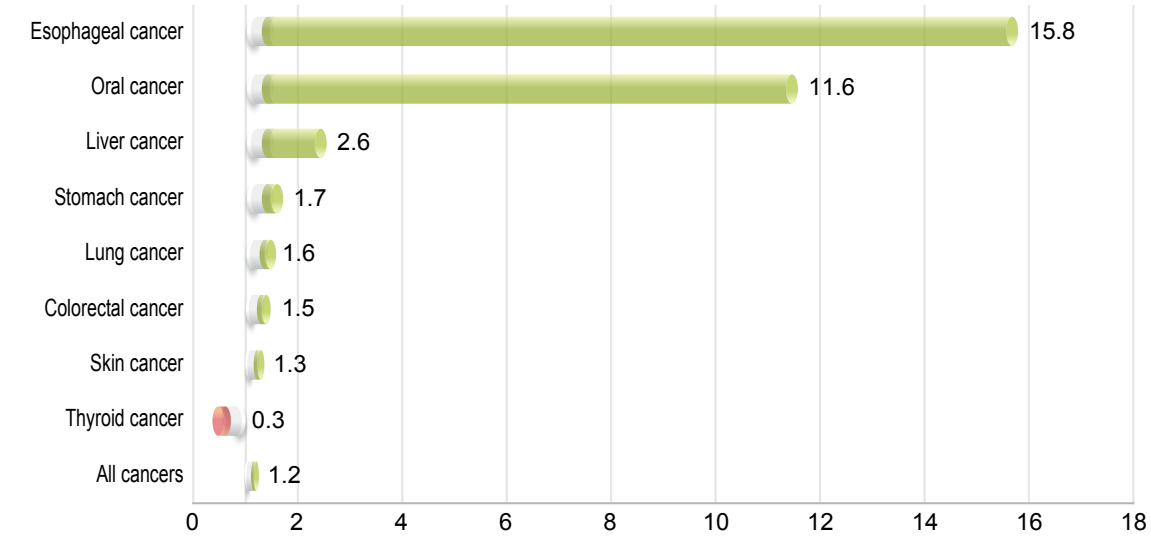
that "in order to build up a databank related to cancer control, medical care institutions engaged in cancer control shall submit related information to academic research institutions commissioned by the central competent authority," in order to collect cancer related information.

1. Incidences of Cancer – An Overview

According to data from Taiwan Cancer Registry, in 2015, 105,156 patients were diagnosed with cancer (56,642 were men, 48,514 were women, the standardized incidence rate of 302.0 people per 100,000 population (336.5 were men, 273.1 were women). The median of age is 63 years old (64 for men, 61 for women). As for the standardized occurrence rate for cancer, men are at higher risk from cancer, with 1.2 times more than women. The incidence of esophageal cancer and oral cancer are 15.8 and 11.6 times that for women, due to higher smoking and betel nut chewing rates in men (Figure 6-9).

As for the new cases of cancer, the top 10 cancers in 2015 were: (1) Colorectal cancer, (2) Lung cancer, (3) Female breast cancer, (4) Liver cancer, (5) Oral

Figure 6-9 2015 Cancer Standardized Incidence Rates by Gender in Taiwan



Sources: HPA, MOHW cancer registries in 2015 (Excluding In Situ Carcinoma)
Age-standardized incidence rates were calculated using the WHO's world population age-structure in 2000. (Unit: per 100,000 people)

cancer, (6) Prostate cancer, (7) Stomach cancer, (8) Skin cancer, (9) Thyroid cancer, (10) Esophageal cancer. (For national cancer incidence rates. (Tables 6-2, 6-3, 6-4)

2. Understanding Cancer Mortality

Ministry of Health and Welfare mortality statistics show that 48,037 people died of cancer in 2017 (including 29,346 males and 18,691 females), accounting for 28.0

Table 6-2 Incidence Rate for 10 Leading Cancers in 2015

Order	Primary Site	Cases	Age-standardized Incidence Rate (per 100,000 people)
1	Colorectal	15,579	43.0
2	Lungs, bronchus, and trachea	13,086	35.7
3	Female breast	12,360	73.0
4	Liver and intrahepatic bile ducts	11,420	31.8
5	Oral cavity, oropharynx, hypopharynx	7,628	22.5
6	Prostate	5,106	29.4
7	Stomach	3,849	10.3
8	Skin	3,799	10.0
9	Thyroid	3,618	11.9
10	Esophageal	2,587	7.4
	All cancers	105,156	302.0

Notes: 1. Ranking is based on incidences.
2. Age-standardized incidence rates were calculated using the WHO's world population age-structure in 2000.
3. Source: HPA, MOHW cancer registries in 2015

Table 6-3 Incidence of 10 Leading Cancers among Men in 2015

Order	Primary Site	Cases	Age-standardized Incidence Rate (per 100,000 people)
1	Colorectal	8,968	52.1
2	Liver and intrahepatic bile ducts	7,884	46.5
3	Lungs, bronchus, and trachea	7,660	44.2
4	Oral cavity, oropharynx, hypopharynx	6,965	42.3
5	Prostate	5,106	29.4
6	Esophageal	2,415	14.2
7	Stomach	2,351	13.2
8	Skin	2,044	11.6
9	Urinary bladder	1,510	8.5
10	Non-hodgkin Lymphoma	1,425	8.8
	All cancers	56,642	336.5

Notes: 1. Ranking is based on incidences.
2. Age-standardized incidence rates were calculated using the WHO's world population age-structure in 2000.
3. Source: HPA, MOHW cancer registries in 2015

Table 6-4 Incidence of 10 Leading Cancers among Women in 2015

Order	Primary Site	Cases	Age-standardized Incidence Rate (per 100,000 people)
1	Female breast	12,360	73.0
2	Colorectal	6,611	34.9
3	Lungs, bronchus, and trachea	5,426	28.5
4	Liver and intrahepatic bile ducts	3,536	18.2
5	Thyroid	2,729	17.9
6	Cervix	2,440	14.1
7	Skin	1,755	8.7
8	Stomach	1,498	7.7
9	Corpus uteri	1,485	8.6
10	Ovary, fallopian tubes, or uterine broad	1,434	9.0
	All cancers	48,514	273.1

Notes: 1. Ranking is based on incidences.
2. Age-standardized incidence rates were calculated using the WHO's world population age-structure in 2000.
3. Source: HPA, MOHW cancer registries in 2015

Table 6-5 Mortality Rate of 10 Leading Cancer in 2017

Order	Cause of cancer	Cases	Age-standardized Mortality Rate (per 100,000 people)
1	Cancers of trachea, bronchia and lung	9,235	23.1
2	Liver cancer and intrahepatic bile duct cancer	8,402	21.6
3	Colon, colorectal cancer, and anal cancer	5,812	14.4
4	Female breast cancer	2,377	12.6
5	Oral cancer	2,842	7.8
6	Prostate cancer	1,392	6.9
7	Stomach cancer	2,304	5.6
8	Pancreatic cancer	2,082	5.3
9	Esophageal cancer	1,797	4.8
10	Cervical cancer and other unindicated cervical cancers	651	3.2
	All cancers	48,037	123.4

Note: 1. Ranking is based on age-standardized 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, Ministry of Health and Welfare.

percent of all deaths. The age-standardized mortality rate was 123.4 per 100,000 people (160.8 for males and 90.2 for females). The top 10 fatal cancers in 2017 were: (1) Lung cancer, (2) Liver cancer, (3) Colorectal cancer, (4) Female breast cancer, (5) Oral cancer, (6) Prostate cancer, (7) Stomach cancer, (8) Pancreatic cancer, (9) Esophageal cancer, and (10) Cervical cancer for more data on cancer mortality rates. (Tables 6-5, 6-6 & 6-7).

Table 6-6 Mortality Rate of 10 Leading cancers among Men in 2017

Order	Cause of cancer	Cases	Age-standardized Mortality Rate (per 100,000 people)
1	Cancers of trachea, bronchia and lung	5,837	31.6
2	Liver cancer and intrahepatic bile duct cancer	5,749	31.8
3	Colon cancer, colorectal cancer, and anal cancer	3,298	17.6
4	Oral cancer	2,643	15.2
5	Esophageal cancer	1,659	9.3
6	Stomach cancer	1,457	7.6
7	Prostate cancer	1,392	6.9
8	Pancreatic cancer	1,139	6.3
9	Non-Hodgkin's lymphoma	709	3.9
10	Bladder cancer	635	3.2
	All cancers	29,346	160.8

Note: 1. Ranking is based on age-standardized 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, Ministry of Health and Welfare.

Table 6-7 Mortality Rate of 10 Leading Cancers among Women in 2017

Order	Cause of cancer	Cases	Age-standardized Mortality Rate (per 100,000 people)
1	Cancers of trachea, bronchia and lung	3,398	15.9
2	Liver cancer and intrahepatic bile duct cancer	2,653	12.3
3	Colon cancer, colorectal cancer, and anal cancer	2,514	11.6
4	Female breast cancer	2,377	12.6
5	Pancreatic cancer	943	4.4
6	Stomach cancer	847	3.9
7	Cervical cancer and other unindicated cervical	651	3.2
8	Ovarian cancer	644	3.4
9	Non-Hodgkin's lymphoma	483	2.4
10	Leukemia	414	2.3
	All cancers	18,691	90.2

Note: 1. Ranking is based on age-standardized 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.

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

Ministry of Health and Welfare statistics on causes of death show that cancer has been the leading cause 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 2017 it was 123.4 (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 302.0 per 100,000 people in 2015 (Figure 6-10).

Based on a 10-year analysis of standardized cancer incidence rates from 2006 to 2015, cancers among men increased by an average of 8.7%, with prostate cancer (34.2%) increasing most and stomach cancer (25.0%) falling most. Cancers among women increased by an average of 19.3%, with thyroid cancer (89.4%) increasing most and cervical cancer (34.7%) falling most (see Figures 6-11, 6-12).

Target Indicators

Upgrading the Cancer Screening Rate:

1. Achieved a cervical cancer screening rate of 72.5% among women aged 30-69 over the past three years.
2. Achieved a breast cancer mammogram screening rate of 39.9% among women aged 45-69 over the past two years.
3. Achieved a colorectal cancer screening rate of 41.0% among people aged 50-69 over the past two years.
4. Achieved an oral cancer screening rate of 50.1% among betel nut chewers and smokers over the age of 30 in the past two years.

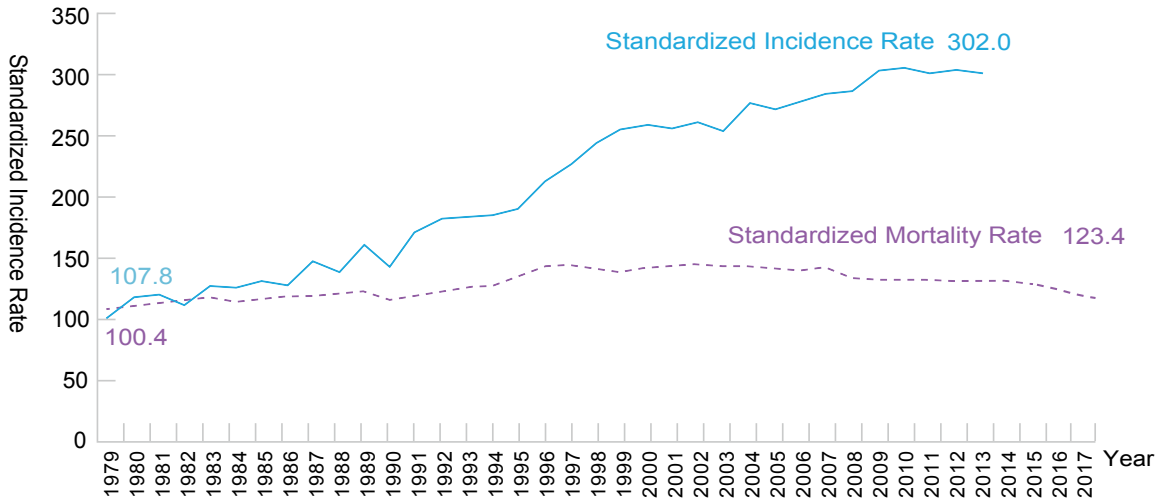
Policy Implementation and Results

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 three HPV vaccines. These have been seen to be 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 HPA type 16 and 18 comprises 70% of all cervical cancer infections. The 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) and it was renewed in 2017 (Figure 6-13).

According to the recommended gradual phase-in of the vaccine by the WHO, we will first choose groups who are less likely to have pap smear screenings (Note:

Figure 6-10 Cancer Standardized Incidence and Mortality Rates in Recent Years



Note: 1. Cancer incidence and mortality rate sources: HPA, MOHW 2015 registered cancer data and 2017 Statistics on Cause of Death, Department of Statistics, MOHW.
2. Age standardized rate: Calculated based on the WHO's standard world population age-structure in 2000.

Figure 6-11 **Age-Standardized Incidence Rates of the 10 Leading Cancers for Men, 10-Year Change, 2006-2015**

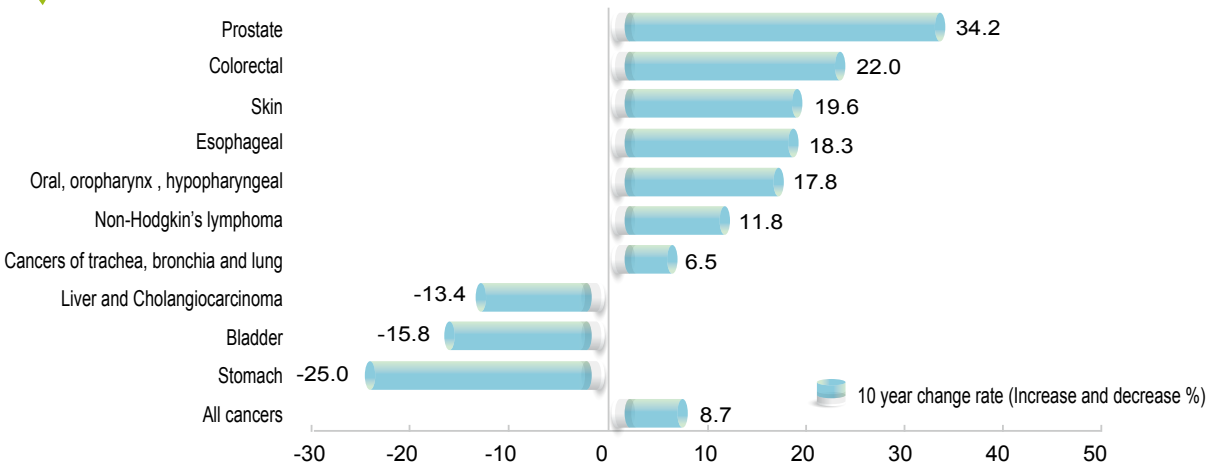


Figure 6-12 **Age-Standardized Incidence Rates of the 10 Leading Cancers for Women, 10-Year Change, 2006-2015**

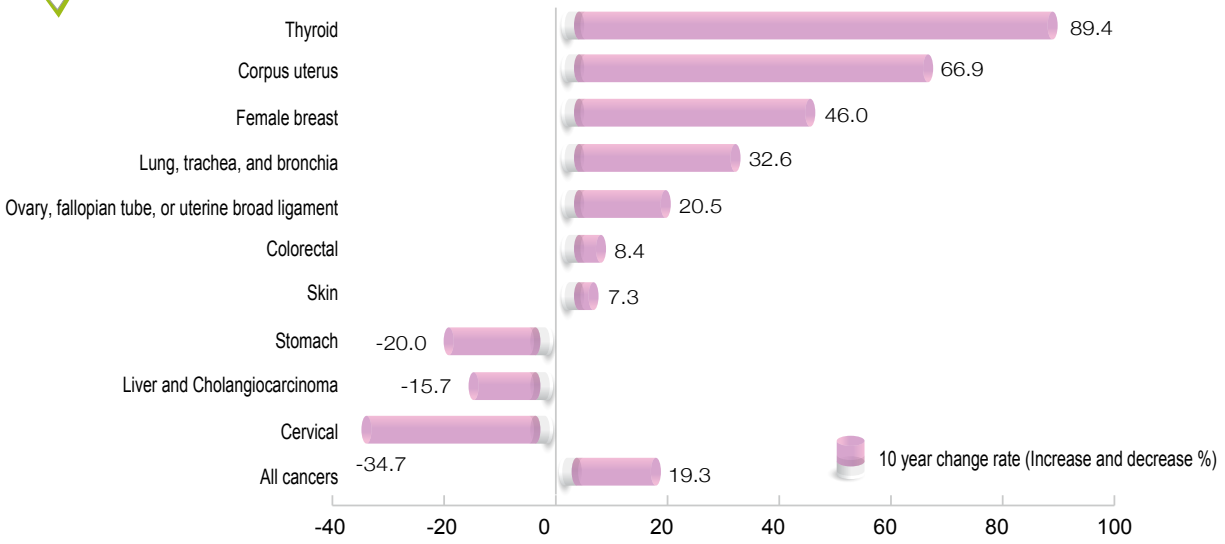


Figure 6-13 **2017 Renewed Opinions on HPV Vaccine Psition Paper**

HPV vaccine position paper

The primary subject of the vaccine would be 9-14-year-old girls who have not yet become sexually active. It is most effective

Where feasible, affordable and cost effective and where it does not affect the primary subject and cervical cancer screening plan, we recommend that older adolescent females should be secondary targets.

economically disadvantaged and aboriginal regions have lower pap smear screening rates). The tobacco surcharge will be used to subsidize HPV vaccination.

2. Promoting Screening for Leading Cancers

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 20-30%; and oral mucosa tests can reduce oral cancer mortality rates by 40%. In recent years, the government has put a lot of effort into cancer screening. (Figure 6-14)

(1) Emotional Appeals and Health Broadcasts through Diverse Channels

In order to reinforce public awareness of cancer screening provided by the government, HPA began actively cooperating with health bureaus, health centers, medical institutions, and civic organizations, to broaden provision of cancer screening services and advocacy events. We also utilized diverse media channels to promote cancer screening services and advocate for the concept of regular screening. Promotional films were used to call on the public to take the threat of cancer seriously, and remind everybody to undergo screening, regular checkups, and in the event of a positive test, the importance of follow-up diagnoses.

Figure 6-14 Cancer Screening Promotional Schedule

1995	The government began to offer pap smear screening to women over 30 years old / the age 30.
1999	The government began to offer oral cancer screening to people aged 18 or over who smoke or chew betel quid.
July 2002 – June 2004	Breast cancer screenings were divided into two stages: high-risk women were first identified by means of questionnaires before undergoing mammograms.
2004	The government started conducting fecal immunochemical tests for people aged 50-69.
July 2004	Incorporated breast X-ray screenings into preventive health care services for women aged 50-69.
November 2009	Expanded the scope of breast cancer screening to include women aged 45-69.
January 2010	Added women aged 40-44 who have relatives within a second degree of kinship who have had breast cancer (such relatives include paternal grandmothers, maternal grandmothers, mothers, daughters, sisters).
2010	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 quid (including those who have quit).
June 2013	In order to safeguard the health of more people and meet the needs of different age ranges and societal groups, in June 2013 the government changed the age of those eligible for colorectal cancer screening to 50-75, while the age of eligibility for oral cancer screening for aboriginals who chew betel quid (or have given it up) has been lowered to 18.

In 2017, HPA targeted adolescents, and conducted a “Betel quid hurts your mouth” prevention writing competition. It also upgraded student awareness of betel quid prevention, highlighted the health hazards of betel quids, organized a say no to betel quids campaign and encouraged betel quid chewing and cigarette smoking family members and friends to undergo oral cancer screening services.

HPA produced cervical cancer health education manuals, abridged versions, and information videos, including the female cancer screening health shorts "No happiness is leaked" and "Reminder" (30 seconds). Through laid back conversations between family members, we reminded women of the importance of conducting regular cancer screenings (mammogram and pap smears). The survey showed the percentage of people who are aware the government subsidizes free cancer screenings. 70% of respondents were aware of the types of cancer screening subsidized by the government. In addition, 84% of people who knew that the government subsidizes free cancer screening services were satisfied with those services.

(2) Subsidizing Hospitals so that Cancer Screening Becomes Part of Their Organizational Culture

In 2017, HPA commissioned 231 medical institutes to conduct "Cancer Quality Improvement Planning." Those hospitals established clinic cancer screening reminder systems, and one-stop service windows for positive individual referrals. HPA also worked with local health authorities to undertake community screening, and organized hospital health education and betel quid cessation classes. Efforts were also made to change the approach of hospitals that has tended to prioritize treatment over prevention. This revolutionized the medical culture and operational approach of hospitals. A total of 2,736,000 people underwent screening for four cancers, a screening rate that was 45.6% of the national level. The screening rate was double that over the same period in 2009 (cervical cancer screening increased by a factor of 1.1, breast cancer screening by a factor of 2.1, oral cancer screening by a factor of 5.4, and colorectal cancer screening by a factor of 20.7). More than 35,000 people were found to have precancerous pathological changes and cancer.

(3) The Main Outcome of Cancer Screening has been Lower Mortality

In 2017, 5.07 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 saved. Details are listed below (Table 6-8).

A. Cervical cancer

In 2017, 2.167 million cervical pap smear screenings were administered to women over the age 30, increasing the percentage of women aged 30-69 who have undergone screening for cervical cancer over the past three years to 72.5%. Pre-cancer was detected in 10,000 of these women, while 3,833 were found to have cancer (data from telephone research).

Table 6-8 2017 Results for 4 Cancer Screening

Items	Subject	Screening policy	2017 Screening Results
Cervical cancer	Women over age 30	Pap smear test once a year. (Recommended once every three years)	72.5% of 30-69 year old women have undergone a pap smear test within the last 3 years (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	39.9% of 45-69 year old women have undergone mammogram screening in the past two years
Oral cancer	1. Those aged 30 or above who chew betel quid (or have given up) or smoke. 2. Aboriginal people aged 18-30 who chew betel quid (or have given up).	One oral mucus checkup every 2 years	50.1% of those aged 30 or above who chew betel nut (or have given up) or smoke have undergone oral screening within 2 years
Colorectal cancer	People aged 50-74	One fecal immunochemical test every two years	41.0% of those aged 50-69 have undergone a fecal immunochemical test in the past two years.

In 1995, the Department of Health began to provide women over the age of 30 with annual pap smears. The standardized cervical cancer mortality rate fell by 71% between 1995 and 2017, from 11 to 3.2 people per 100,000. The standardized cervical cancer incidence rate also decreased by 68%, from 25 per 100,000 in 1995 to 8.6 per 100,000 in 2015.

B. Breast cancer

In 2017, the HPA provided mammogram tests to 847,000 women aged 45-69. Approximately 4,081 cases of breast cancer were detected (the screening rate was 39.9%).

C. Colorectal cancer

The screening rate among people aged 50-69 in 2016 and 2017 was 41.0%. Tests were conducted on a total of 1,283,000 people in 2017; 35,075 were found to have tumors and 2,596 found to have colorectal cancer.

D. Oral cancer

In 2017, HPA screened a total of 784,000 people. The screening rate for people who are over 30 years old, chew betel quids and smoke has increased from 28% in 2009 to 50.1% in 2017. A total of 3,435 people were found to have oral cancer precancerous lesions and 1,231 were found to have oral cancer.

(4) Evaluation and Accreditation, Improving Quality of Cancer Screening Services

A. The HPA commissioned the Taiwan Society of Pathology to certify institutions that offer cervical pathological diagnoses and improve the quality of screening operations. In 2017, it completed follow-up inspections at 42 institutions and a total of 120 institutions were certified by the end of 2017.

B. 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 were completed at 204 institutions by 2016, and a total of 207 institutions certified by the end of 2017.

Table 6-9 2011-2017 Number of People Who Underwent Screening for 4 Major Cancers (unit: 10,000 people)

Cancer Screening Type	2010	2011	2012	2013	2014	2015	2016	2017
Cervical cancer screening	215	215	215	218	218	217	214	217
Breast cancer screening	53	56	67	70	80	77	79	85
Oral cancer screening	80	87	98	98	101	94	93	78
Colorectal cancer screening	102	79	112	103	125	118	126	128

Table 6-10 2010-2017 Screening Rates for 4 Major Cancers

Cancer Screening Type	2010	2011	2012	2013	2014	2015	2016	2017
Cervical cancer screening	72% (Telephone survey)	-	77% (Telephone survey)	76% (Telephone survey)	73.5% (Telephone survey)	74.5% (Telephone survey)	72.1% (Telephone survey)	72.5% (Telephone survey)
Breast cancer screening	21.7%	29.5%	32.5%	36%	38.5%	39.5%	39.3%	39.9%
Oral cancer screening	32%	40%	52.5%	54%	54.3%	56.1%	55.1%	50.1%
Colorectal cancer screening	23.4%	32.2%	34.2%	38.2%	40.7%	42.0%	40.7%	41.0%

Table 6-11 2010-2017 Number of People with Precancerous Lesions for 3 Major Cancers

Types of cancers	2010	2011	2012	2013	2014	2015	2016	2017
Cervical cancer screening	11,985	10,369	9,637	9,996	10,756	10,474	10,071	9,655
Oral cancer screening	2,081	3,845	3,445	3,703	4,370	4,095	3,572	3,435
Colorectal cancer screening	21,102	17,479	23,775	26,207	36,229	33,529	34,725	35,075

Table 6-12 2010-2017 Number of people with 4 major cancers

Types of cancers	2010	2011	2012	2013	2014	2015	2016	2017
Cervical cancer	5,656	4,797	4,045	4,191	4,186	4,014	3,833	3,951
Breast cancer	2,550	2,820	3,166	3,307	3,680	3,701	5,587	4,081
Oral cancer	1,659	1,428	1,232	1,274	1,395	1,361	1,322	1,231
Colorectal cancer	2,101	1,800	2,001	2,030	2,490	2,352	2,349	2,596

The above information includes In Situ Carcinoma

C. For institutions conducting fecal immunochemical test, the HPA commissioned the Corporation Aggregate Taiwan Society of Laboratory Medicine to conduct qualification checks and service improvement work. A total of 147 institutions conducting fecal occult blood tests had been checked by the end of 2017. The group also completed 2 external quality control tests and extended on-site assistance to institutions that failed to meet standards.

D. The HPA commissioned the Taiwan Dental Association and Taiwan Neck and Head Society to provide training on oral mucosa tests. In 2016, training was provided to 268 dentists and 225 ENT doctors. Local

governments were also authorized to conduct oral mucus educational training for non-dental and ENT doctors. A total of 412 doctors from other specialties went on to provide oral cancer screening services.

E. In order to provide training and guidance for medical institutions in conducting oral cancer screening services, in 2017, the HPA collaborated with local health centers to hold practical training events at medical institutions conducting oral cancer testing (a total of 7 health centers), and also helped them incorporate this testing into their routine operations. In addition, in order to provide people with more convenient screening services, HPA authorized county and city health bureaus to conduct oral mucous checkup training for non-dentists and ENT doctors, so more medical professionals are able to conduct screening services.

3. Quality of Cancer Treatment

(1) Driving History of Cancer Diagnosis and Quality Certification.

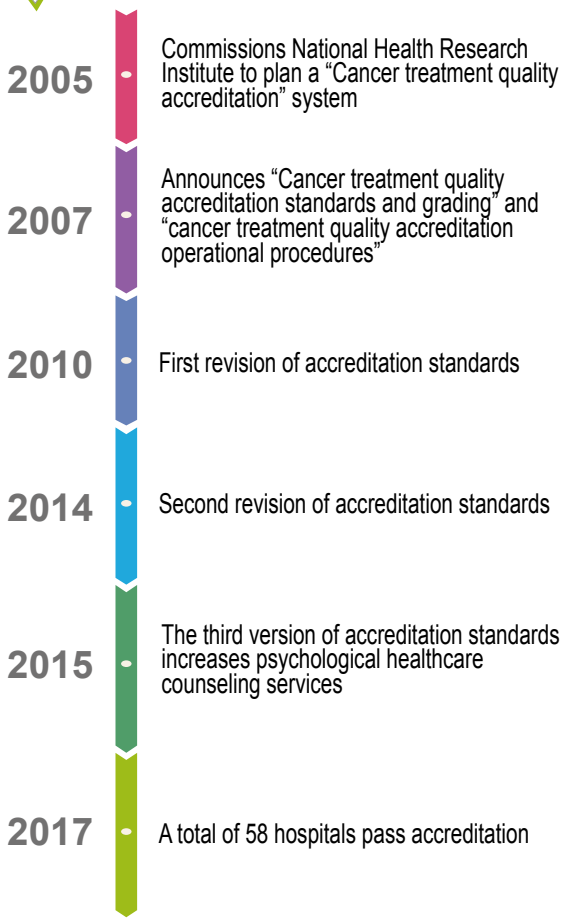
HPA introduced a set of guidelines to improve the quality of cancer care in 2005. In 2017, 94 medical institutions received subsidies to implement the "Hospital Cancer Care Quality Improvement Plan." HPA also provided subsidies for care and services crucial to the overall quality of cancer care but which 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 rate of cancer patients. HPA's quality accreditation regarding cancer treatment has continued to improve (The promotional history is seen in Figure 6-15). At the end of 2017, a total of 58 hospitals were accredited and qualified to apply to establish medical centers. The notice is posted on the website for reference.

(2) Accreditation of Cancer Care Quality has Greatly Improved

Pathology and image reports are important sources of evidence for clinical doctors when it comes to treating cancer patients. In 2007 and 2010, HPA started developing cancer pathology and image reports (CT and MRI). Currently, necessary items have been developed for 19 types of cancer pathology reports and 20 cancer image reports. In addition, in order to monitor the healthcare quality of standard cancer treatment in the country, HPA has since 2004 developed cancer treatment

Figure 6-15 Brief History of Cancer Treatment Quality Accreditation



core monitoring indices (Cervical cancer, breast cancer, oral cancer, colorectal cancer, liver cancer, lung cancer, and stomach cancer). Core indices enable hospitals to self-monitor the quality of standard cancer treatment. HPA regularly uses experts to conduct cancer treatment index analyses of the cancer related databases declared by hospitals to monitor the cancer prevention work at hospitals.

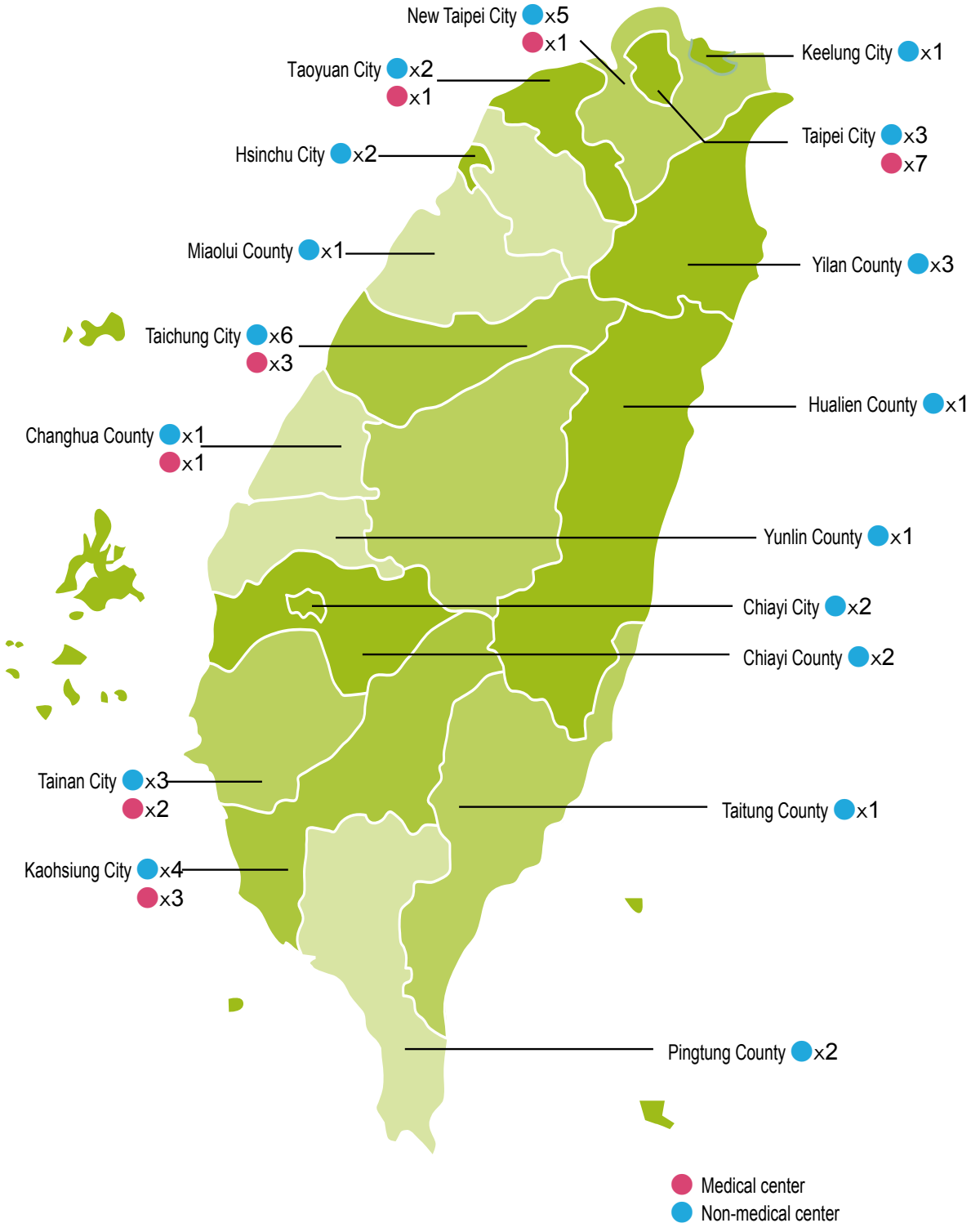
As advances are made in medical technology, cancer indices should be regularly reviewed and discussed by medical teams based on clinical practice needs, to fulfill current cancer treatment practices, achieve the goal of continuous improvement and upgrade the quality of cancer treatment.

4. Cancer Patients and Palliative Care

(1) Caring Services for Cancer Patients

Advanced medical technologies have made it

Figure 6-16 Scatter Map of Hospitals that Passed Cancer Treatment Quality Certification in 2015



possible for cancer patients to survive longer. This has created a greater need for integrated, continuous and multifaceted care services. The HPA has run a cancer patient service program since 2003, to help cancer patients cope with the physical, mental and social strain of illness.

In 2017, HPA subsidized direct service plans for cancer patients, thus providing then and their family members with telephone care, rehabilitation products, psychological support, library books, counseling services, volunteer training, household rehabilitation, nutritional support, daytime healthcare, relaxation services, and cancer prevention materials etc. These services were provided to approximately 26,000 patients.

In order to establish cancer patient service networks, HPA provided subsidies to hospitals to upgrade cancer treatment quality, while also establishing inter-hospital medical healthcare trial plans for cancer. A total of 66 hospitals joined forces to create a "Cancer Resources Center." By integrating resources inside and outside the hospitals, nurses, social workers, and psychologists are better able to provide integrated cancer services so that patients and their families can return home and feel confident in their treatment. These services were used about 120,000 times in 2017. 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 better understand the needs and difficulties faced by hospitals, and provide them with expert proposals.

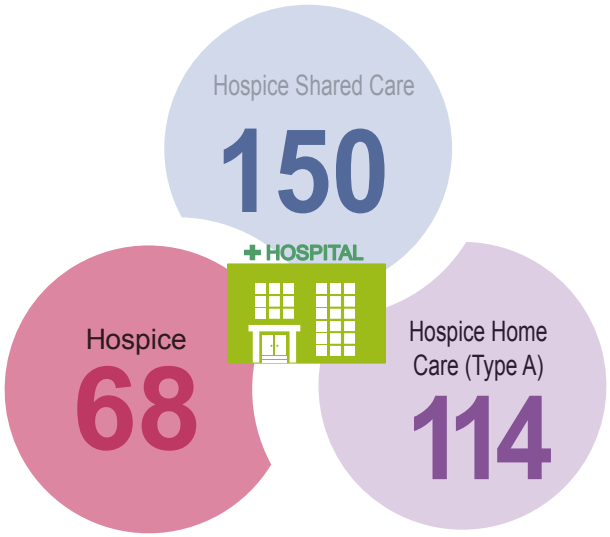
(2) The Importance of Hospice and Palliative Care

The Ministry of Health and Welfare has promoted hospice and palliative care since 1996. At the same time as a 2000 pilot program to incorporate hospice care into the National Health Insurance program, Taiwan became the first country in Asia to implement the Hospice and Palliative Care Act.

In order to provide the healthcare services to whom are cancer patient out of hospice unit, in 2004, HPA teamed up with the Taiwan Hospice Organization to provide "shared-care" 8 hospitals on a trial basis. The number of hospitals receiving subsidies to conduct these services was increased to 34 in 2005. At the end of 2017, the number of "shared-care" hospitals grew, greatly upgrading patients' use of palliative healthcare.

Being honest with cancer patients is the first stepping stone in helping them to achieve good palliative

Figure 6-17 Hospitals Providing Palliative Services in Taiwan at the end of 2017



healthcare. In 2014, HPA subsided hospitals to establish standards by which cancer patients are made aware of the reality of their illness based on the patient's willingness to know. Based on the promotional difficulties faced by hospitals, HPA shot videos that advocate the importance of being honest with cancer patients that were uploaded on the HPA website and YouTube, with multiple language version (Mandarin, Taiwanese, Hakka, and English etc) DVDs sent to all medical institutes, local health offices and service centers, long term healthcare institutes, and cancer related civic groups. these organizations would play the videos for free, thereby advocate the importance of being honest with patients.

To further enhance the quality of hospice and palliative care, the HPA established collective palliative healthcare services and guidance mechanisms, along with related training for cancer prevention staff and palliative healthcare teams. In 2017, five professional societies were selected, and promotional work conduct among general medical staff, spiritual/pastoral care professionals, cancer patient groups, patients, and their families. A total of 58 sessions were conducted with a total of 3,715 participants. In addition, HPA also subsidized civic groups to expand palliative care awareness events on college campuses, in aboriginal regions and among senior cancer patient groups, palliative care workers and the general public, thereby further promoting palliative work.

Chapter 7

Special Topics

Women's Health

Rare Diseases Prevention and Treatment

Disadvantaged Group Health Promotion

Highlights

0800-00-5107

Menopausal counseling hotline

Provides toll-free menopausal helpline, in order to solve the problems of menopausal symptoms for women.

Rare disease medical service network

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.

5 versions

Friendly new immigrant service

Finished printing Vietnamese, Khmer, Thai, Indonesian, and England versions of "Pregnancy health manual" and "Children's health manual", and provide new immigrant women with reproductive healthcare and children preventive services.

1,889

Yu Cheng patient healthcare

Continue to provide Yu Cheng patients with services in order to safeguard their right to health care.

over age 55

Aboriginal free oral cancer screening

Providing aborigines who chew betel quid with 1 free oral cancer screening every 2 years from age 18, those aged over age 55 with 1 adult preventive healthcare service, partially free second-generation smoke cessation service for aborigines, provide HPV vaccine for aborigines and 7th grade girls on outlying islands.

In the 1998 World Health Report, "Life in the 21st Century: A Health Plan for All", the WHO emphasized the concept of health equality, which indicated that the prevention of risk factors and diseases should involve different strategies and courses of action as are appropriate to differing genders, races, and incomes, as well as 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 menopause, osteoporosis, and incontinence. Issues high on the list of health concerns faced by disadvantaged groups are the reproductive health of foreign spouses and the oral health of people with physical or mental disabilities, as well as care for rare diseases, including Yu Cheng patients. In order to truly actually achieve the three goals of health development, health protection, and disease prevention, and thus the ultimate aim of health equality, we should focus 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 2016, life expectancy of female was 83.4 years. Women aged 50 or older accounted for 38.2% of the entire population. Also, the average menopausal age was about 50, indicating that women have a lot of time left to live after going through menopause. In the Nutrition and Health Survey of Taiwan conducted by the Department of Health from 2013 to 2016, 1,733 people aged 50 or above older were found to have osteoporosis through checkups using Dual-energy X-ray absorptiometry (DXA). Of these, 9.3% were suffering from lumbar osteoporosis and femoral neck osteoporosis. The corresponding percentages were 6.2% for men and 12% for women, indicating that women suffer more from this problem than men.

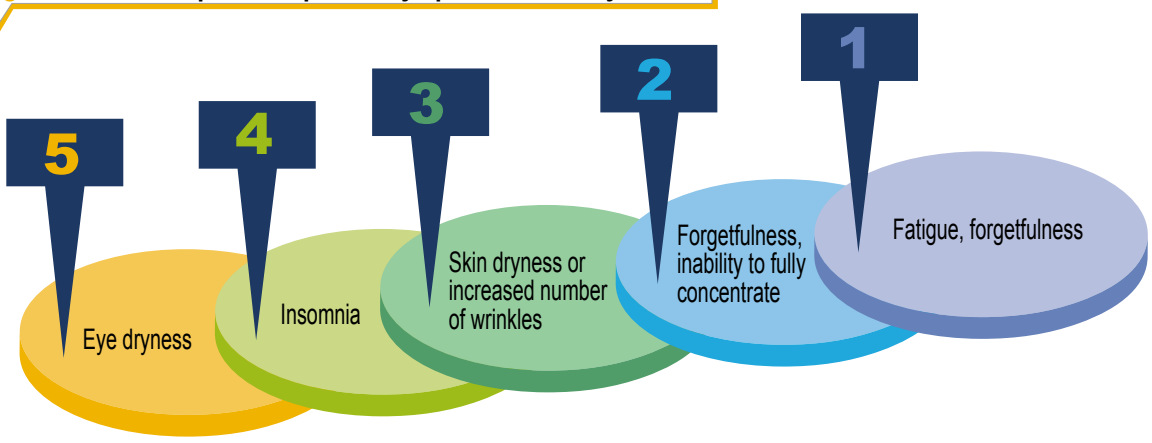
Furthermore, the severity of osteoporosis among women increased with age. According to the 2017 National Health Interview Survey, the likelihood of being diagnosed with osteoporosis increases with age, particularly after menopause. Around one out of every five women over 50 suffer from osteoporosis (20.4%), while the figure is even higher for women over the age of 65, with 30.2%. The same survey indicates that in Taiwan, 40.2% of women aged 45-49 have irregular periods or amenorrhea caused by menopausal changes. 88.1% of women aged 50-54 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 menopause through press releases, lectures, and its specially established

Policy Implementation and Results

1. The Best Companion, Toll-free Menopause Counseling Hotline

To provide caring services to women in menopause, the toll-free hotline "0800-00-5107" was set up to answer questions about the climacteric menopause. In 2017, counseling services were provided to more than 7,991 individuals, with average time of 32.5 minutes. Amongst the major inquiries for calls were blood

Figure 7-1 The Top 5 Menopausal Symptoms Listed by Women



vessel symptoms (such as hot flashes, night sweats, heart palpitations, etc.), sleep (such as insomnia, sleep disorders, etc.), sexual function (such as vaginal dryness, pain with intercourse, etc.), and spiritual mentality (such as seeking emotional relief and the need to be listened to). The top five bothersome syndromes suffered by women during menopause are shown in Figure 7-1.

2. Warm Services · Fully Upgrade Healthcare Quality for Menopause

To improve the counseling service quality of nurses and volunteers for menopausal women and expand the circulation of service information for menopausal women, climacteric counselor training courses were conducted. In 2017, 128 counselors were trained and held menopause health care activities. The courses of such camps covered social changes during the climacteric period, self-health strategies, etc.

To elevate the nursing quality of medical personnel for menopausal women, climacteric educational training sessions for medical personnel were also held nationwide (north, central, south, and east). Experts in the climacteric domain were invited to give lessons with contents covering related syndromes of menopause, common menopause counseling and nursing, self-healthcare, and management strategies, among other topics. The events are shown in Figure 7-2. Promotional cards and posters of the hotline for menopause healthcare counseling were printed to be sent to every medical hospital and institution, as well as female groups nationwide.

Figure 7-2 2017 Menopausal Education and Training and Related Event Achievements

Section 2 Rare Diseases Prevention and Treatment

Status Quo

In order to encourage early diagnosis and treatment of rare diseases and help patients get the drugs and special nutritional foods for the maintenance of life, in 2000 Taiwan promulgated the Rare Disease and Orphan Drug Act, becoming the fifth nation in the world to introduce legislation specifically designed to protect rare disease patients (Table 7-1). 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 two revisions in January 2005 and December 2010, following these amendments, healthcare provision for sufferers of rare diseases and support for their families is more comprehensive.

In 2000, Taiwan launched a reporting mechanism for rare diseases. 14,587 cases had been reported through this mechanism by the end of 2017. 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 and medical care facilities 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

1. Coordinating with Law Revision · Care Subsidy

In coordination with the revision of the Rare Disease and Orphan Drug Act, the name of the Regulations on Rare Disease Medical Subsidy was changed to the Regulations on Rare Disease Medical Care Fee Subsidy It was revised and announced on September 8th 2017. The subsidy standards of Subparagraph 7, Paragraph 1, Article 2 and Paragraph 4, Article 5 of the Regulations on Rare Disease Medical Subsidy were included in the attached table of Paragraph 3, Item 1, Article 2 of the Regulations on Rare Disease Medical Care Fee Subsidy. On Sept, 22 the same year Subparagraph 7, Paragraph 1 of Article 2 and Paragraph 4, Article 5 of the Regulations on Rare Disease Medical Subsidy were cancelled.

Table7-1 Comparison of Legislation to Protect Rare Disease Patients Internationally

Countries	USA	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	Rare Disease and Orphan Drug Act
Definition of Prevalence of a Rare Disease	75/100,000	40/100,000	11/10,000	20/100,000	1/10,000
Legislative protection	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 required by rare disease patients	Research and development of drugs	Research and development of drugs	1. Promoting rare disease prevention 2. Providing drugs for use

2. Assist patients · Appropriate services

(1) Ensure the Right 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 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 a Review Channel

The Review Committee for Rare Diseases and Orphan Drugs was established. By the end of 2017, the Committee had reviewed, certified and declared 218 rare diseases. They had also listed 99 orphan drugs and 42 nutritional supplements, determined their indications, and reviewed applications for treatment subsidies.

3. Complete Structure · Medical Network

(1) Establishing Logistics Center

A rare disease special nutritional food and drug logistic center was established. In 2017, subsidies of approximately NT$ 60 million were extended for the storage and supply of 40 nutritional supplements and 11 emergency drugs.

(2) Providing Special Subsidy

Providing the medical subsidies for rare diseases not covered by national health insurance. The types and number of people are show in Figure 7-3 below.

(3) Prevention Work Incentive

On June 6th 2016, we announced and executed the "Regulations on Rewards and Subsidization for Rare Diseases". In 2017, there were a total of 16 rare disease prevention work subsidy plans.

(4) Giving Care Support

On September 2nd 2016, we announced and executed "Regulations on Care Services for Rare Diseases and Rare Genetic Defects". In 2017, we conducted the "entrusting the planning of rare disease healthcare project. We entrusted in the visit of dispatched professional staff, notify the effect of related diseases, provide patients and family members with psychological support, maternity attentiveness, healthcare consultation services contents and execution methods. According to the planning structure, we conducted the "rare disease healthcare service plan", entrusting medical centers to provide patients and families with related services.

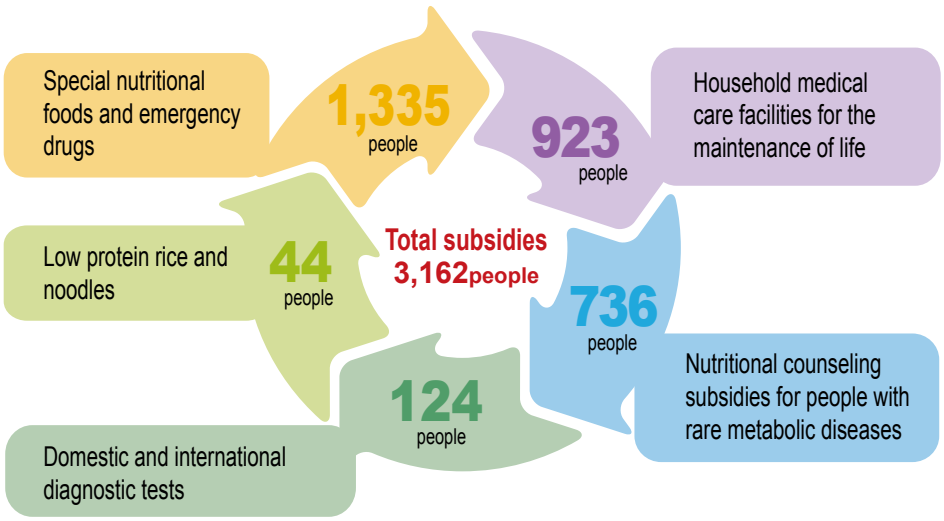
(5) Establishing Genetic Counseling Center

Through genetic counseling centers of 14 medical centers that pass qualification evaluations, we provide genetic disease and rare disease medical service (Including prenatal genetic diagnosis, newborn screening, genetic disease checkup, and genetic counseling, etc).

4. Using media · Active advocacy

In terms of conducting the research, education, and advocacy of rare disease prevention, in 2017, we conducted a total of 13 patient, patient group, sponsor, and medical institute seminar, and subsidize patient group conducting of advocacy events. We produced the

Figure 7-3 2017 Subsidies for rare diseases not covered by national health insurance



"1/10,000 story, 1/10,000 love" care for rare disease micro movie and "Grasp the moment, light up the hope of rare disease" medical staff rare disease medical subsidy resources educational film.

Section 3 Disadvantaged Group Health Promotion

I. New Immigrant Reproductive Health

Status Quo

According to the statistics of the Department of Household Registration, Ministry of Interior in 2017, there were 138,034 marriages registered in Taiwan, with a total of 276,068 people. Of the total number of newlyweds, 254971 (92.36%) were native-born; 8,950 (32.4%) were from Mainland China (including Hong Kong and Macau); and 12,147 (4.4%) were foreign-born. Of foreign-born brides in 2017, most were from South-East Asia. Most foreign-born grooms came from other areas (Figure 7-4). In 2017, the total number of foreign and Mainland spouses reached 21,000 people. Foreign spouses reached 12,100 people, accounting for approximately 57.58%. Spouses from Mainland China, Hong Kong, and Macau reached 8,950 people, which took up 42.42%. According to the statistics of Ministry of Interior, the total birth rate was 6.08% in 2017 (Figure 7-5).

Target Indicators

The completion rate of having reproductive health guidance and consultations reached 95% or more for new immigrants spouses in 2017.

Policy Implementation and Results

HPA has worked together with Ministry of the Interior to implement the 'Foreign and Mainland Chinese Spouses Childbirth Health Management Program' to help new immigrants improve their reproductive health, and to help them to adapt to a new life in Taiwan.

Figure 7-4 Nationality of Foreign Spouses in Registered Marriages of ROC Citizens in 2017

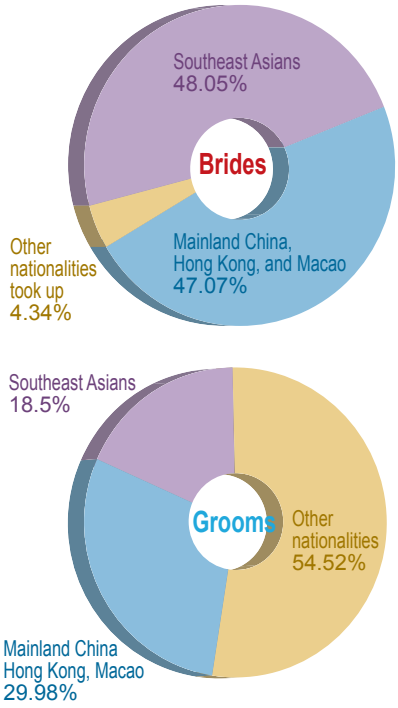
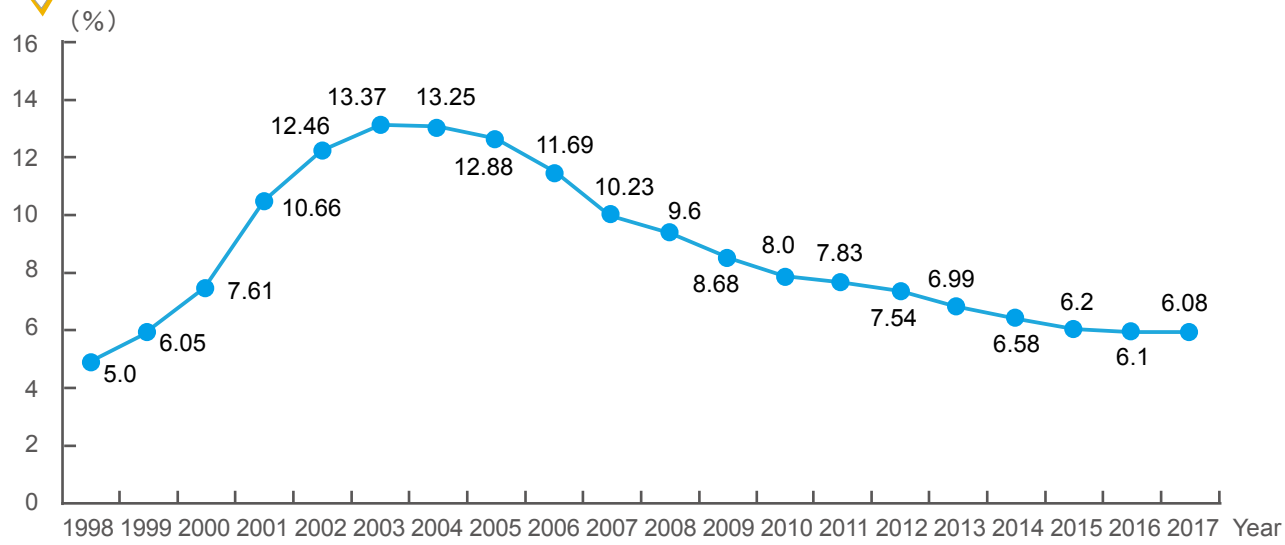
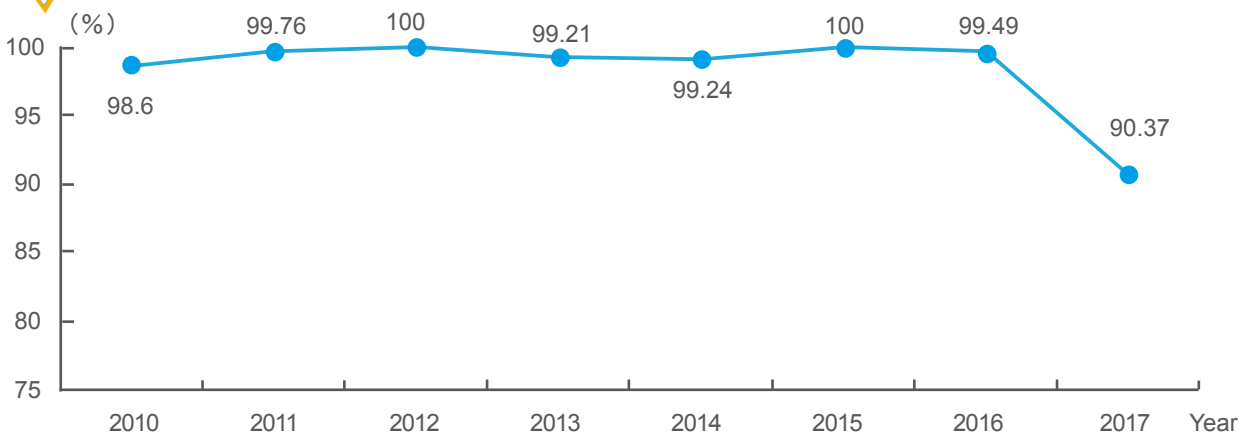


Figure 7-5 Percentage of Births with a Foreign Parent, 1998-2017



Sources: Department of Statistics, Ministry of the Interior

Figure 7-6 2013-2017 New Immigrant Reproductive Health Card Issue Rate



Sources: HPA Maternal and Child Health Management System

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

1. Reproduction Care, Registered Health Care Card Management

In collaboration with local health departments and centers, to implement maternal healthcare and instruction, the HPA actively promoted reproductive health care cards designed specifically for foreign and mainland Chinese spouses and their children (Figure 7-6) and 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 referred for treatment. In 2017, 6,768 new health cards were issued, a 90.37% card-establishment rate. 3,909 cards were issued for foreign spouses, a rate of 91.85%. 2,859 cards were issued to Mainland China spouses, a rate of 88.43%.

2. Interpreter Training · Reinforcing Communication

In order to help foreign spouses cope with language barriers when receiving medical treatment, we have continued to encourage local government health bureaus to apply for the "Guiding New Immigrant Talent Training and Use Plan" of the "New Immigrant Development Fund" of the Ministry of the Interior. 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 2017, the Ministry of the Interior's New Immigrant Development Fund had subsidized 17 counties and cities to provide interpretation services in reproductive health care.

3. Prenatal Subsidies · Complete Healthcare

Since 2005, the HPA has drawn on the Ministry of the Interior's New Immigrant Development Fund 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 a budget to allow for this subsidy. In 2017, subsidies worth a total of NT$ 5,320,187 were provided for 10,962 prenatal exams.

4. Formulating and Issuing Health Education Materials · Multiple Languages

In order to help foreign spouses overcome language barriers, the HPA has developed reproductive health

Figure 7-7 Health Education Materials in Multiple Languages

educational materials in multiple languages. Publications in 2016 included "Maternal Health Handbook" and "Children Health Handbook" in Vietnamese, Khmer, Thai, Indonesian and English. These were sent to health bureaus in every county and city for distribution to healthcare centers to be used in the education of new immigrant female spouses on reproductive health.

II. 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. Facing this problem, in recent years, the government continues to assist Yu Cheng patients, and provide better healthcare. The important course of events is shown in Figure 7-8.

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

1. Recorded Services

By the end of 2017, a total of 1,889 cases were registered by the HPA, including 1,263 first generation of Yu Cheng patients and 626 second generation Yu Cheng e patients.

2. Protection of Rights and Interests

Since 1979, following the occurrence of PCB poisoning (Yu Cheng), the government actively provides various healthcare services (Table 7-2), in order to protect the medical rights and interests of patients.

3. Healthcare

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, chest x-ray, abdominal ultrasound, 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 2017, a total of 632 patients received this free health check-up service (the overall participation rate was 33.4%).

Figure 7-8 The Course of Government Assistance to Yu Cheng Patients

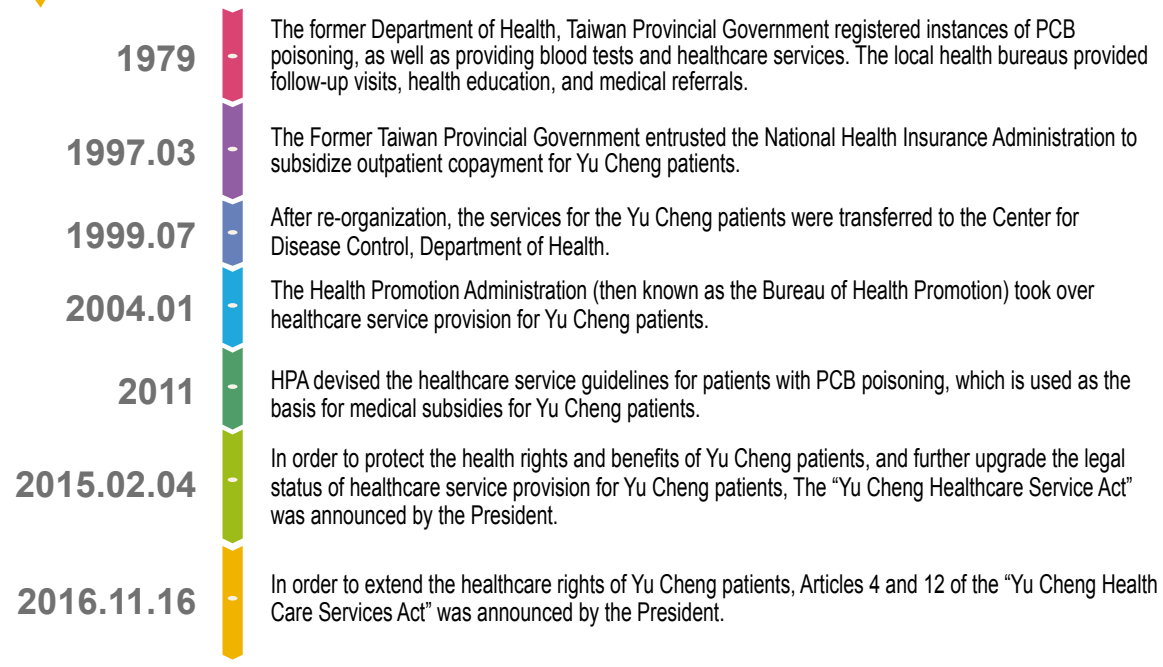


Table7-2 Government Provision of Healthcare Services for Yu Cheng Patients

Time	Important services
1979	Since the occurrence of PCB poisoning (Yu Cheng), the government actively provided various healthcare services, not only does it provide first 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.
February 4th 2015	Announced the "Yu Cheng Healthcare Service Act ". Other than continuing the original services, items that are feature as part of the new act are: The birthdates of the first-generation Yu Cheng patients have been expanded from 1979 to 1980, and spouses and blood relatives who passed away before the act was passed are entitled to apply for one-time solatium NT$ 200,000 within two years.
November and December 2015	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 interests, and should not be discriminated against. When their legal rights and interests are violated, the government should provide legal assistance. 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".
November 16th 2016	We revised Articles 4 and 12 of "Yu Cheng Patients Health Care Services Act". We loosened the criteria of official documents that prove poison exposure for Yu Cheng patients. The solatium object may extend to parents for claim objects without spouse and lineal relative or lineal descendants, the deadline of the claim for solatium can be extended to August 9th, 2020.

4. Medical Subsidies

By the end of 2017, HPA subsidized outpatient copayments for 20,094 Yu Cheng patients, and inpatient copayments for 132 patients, as well as organized one training session for 90 health office staff members.

5. Payment for Blood Relatives

Regarding payment for blood relatives of Yu Cheng patients, the acceptance dates for applications runs from August 10th 2015 to August 9th 2020. As of the end of 2017, 202 Yu Cheng patients' solatium had been paid by the government.

6. Collective Promotion

On August 29th 2017, we conducted the "2017 first meeting of the Ministry of Health and Welfare's Yu Cheng Patient Healthcare Promotion Committee" , which was composed of representatives from the HPA, the Ministry of Labor, and the Ministry of Education, as well as, Yu Cheng patients, expert scholars, and representatives from the Taiwan Yu Cheng Victim Support Association. Together, they all promoted Yu Cheng patient healthcare.

III. Promoting Healthcare for the Physically and Mentally Misabled

Status Quo

According to the monthly social welfare statistics of the Ministry of Health and Welfare, as of 2017, 1,167,450 people were regarded as physically and/or mentally disabled. The majority of sufferers are male (56.64%). With regards to age, 40.76% of sufferers are over 65 years of age, and 25.12% are between 45 and 49 years of age. According to the recorded disability classifications, 31.42% suffer from physical disabilities, and 13.22% of them suffered the misfortune of having lost vital organs.

Since 1996, National Health Insurance has been providing adult health checkup services. Although the funding structure has changed slightly since then, the HPA has been in charge of such check-ups. According to the "Medical Service Institute Prevention Healthcare Service Act", adult prevention healthcare services for people aged 40 to 64 must be 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 fulfill our goals of upgrading people's health through medical processes, we constantly evaluate 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. Institution Certification · Mental and Physical Care

As of December 2017, 469 domestic medical institutes (182 hospitals, 216 health offices, and 1 long term healthcare institution) had been certified by the age-friendly hospitals and health services. The accreditation standards include universal design principles, which include the accessible design for physically and mentally disabled people and age-friendly design spirit which provide holistic healthcare for physically and mentally disabled people.

2. All Kinds of Screenings · Important Services

Services provided for physically and mentally disabled people shown in Table 7-3.

IV. Aboriginal Health Promotion

Status Quo

According to statistics from the Council of Indigenous Peoples, there are 16 aboriginals in Taiwan: the Amis, Atayal, Paiwan, Bunun, Beinan, Drekay, Tsou, Say-Siyat, Yami, Thao, Kavalan, Taroko, Sakizaya, Seediq, Hla'alua, and Kanakanavu. The aboriginal population is 560,000, which accounts for 2% of the total population. In order to take care of aborigines where possible, the HPA provides preventive healthcare that covers them for life. In addition, in order to promote the health of citizens, we subsidize local governments according to the population structures within their regions (including aboriginal regions), disease patterns, and lifestyle changes. We undertook the "Community Health Building Plan" in the hopes 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. Adult Preventive Healthcare

In 2017, we provided adult prevention healthcare services to 32,000 aborigines over the age of 55. In 2018, we estimate that services started above will be provided to 33,000 aborigines.

2. Reproductive Healthcare Guidance

In 2017, local communities were subsidized to

Table7-3 Service Contents Provided for Physically and Mentally Disabled People

Health checkup	Based on internationally recognized empirical evidence and according to the age and risks of individuals, we provide adult prevention healthcare services once every three years. In 2016, 160,527 people made use of these services and were deemed physically and/or mentally disabled. The overall usage rate was 25.3%.
Cancer screening	The Tobacco Surtax on Cigarette Consumption shall be used to conduct one eligible cancer screening every 2~3 years. In total, 5,070,000 people were served nationwide in 2017. The cervical cancer and breast cancer screening rates were 42.6% and 30.7%, respectively.
Other important service projects	Taking depression as an example for health checkup services, 152,689 people were provided such services in 2016. Furthermore, we have actively promoted services for infants, children, women, and elderly on an annual basis, ensuring that we were providing important health promotion services for physically and mentally disabled people.

promote hygiene care work projects to provide aboriginal women with comprehensive birth care guidance on the pregnant and puerperal periods, infant care and counseling, and related resource referral services, with an achievement rate of 100%.

3. Tobacco Cessation Medical Services

As of the end of 2017, there were 4,034 contracted medical institutions that can provide cessation service without copayment for aboriginals, thus covering 99.4% of townships and cities nationwide. Through mobile medicine program, the coverage can reach 100%. In total, 12,478 times of services were provided to mountain and off-island regions and the aboriginal population.

4. Betel Quid-free Supportive Environment

In 2017, we promoted a betel quid-free environment for those who wanted to give up betel quid in 11 aboriginal communities and schools with high betel quid chewing rates. Since 2017, we have worked together with college service teams, and provided tobacco and betel quid-free health hazard prevention advocacy services in 20 aboriginal townships with high betel quid chewing rates. In 2017, 18,911 aboriginal people over the age of 18 underwent oral mucus checkups. 54 of them had precancerous lesions, and 7 had cancer.

5. Community Health Building

In 2017, "the Community Health Building Plan" subsidized a total of 19 county and city health bureaus, 82 community health centers, and 17 community units. These regions include: (1) Wulai District, New Taipei City, (2) Ditmanson Medical Foundation Chiayi Christian Hospital (Alishan Township, Chiayi County) (3) inistry of Health and Welfare Taitung County (Taitung County Jinfeng Township), (4) Hualien County Spiritual and Charitable Association (Hualien City, Hualien County), (5) Hualien County Niuli Community Exchange Association (Shofeng Township, Hualien County), (6) Hualien County Xincheng Township Health Office, (7) Hualien County Ji'an Township Health Office, (8) Hualien County Ruisui Township Health Office, (9) Hualien County Yuli Township Health Office.

Table7-4 Enhancing Preventive Halthcare Service Contents for Aborigines

July 1st 2010		Provide aborigines who are 55 years or older with adult prevention healthcare services once a year, in contrast with the 65 years of age required for the general population.
2011		Print the "Adult Prevention Healthcare Service Manual, aboriginal version", and distributed it at 55 aboriginal health offices to aborigines who fulfilled the checkup qualifications.
		We subsidize aborigines and low-income middle school female students to receive HPV vaccines. In 2012, we extended the subsidies to middle- and low-income middle school female students. In 2011, a total of 3,654 people in the aboriginal region. 1,348 people in 2012, 1,414 people in 2013, 1,299 people in 2014, and 1,166 people in 2015.
2012		To increase the maternal health of aboriginal women and the health of their children, local communities have been subsidized to promote hygiene care work projects that include the health of aboriginal child-bearing women (aged 20-45) in the administration and provide comprehensive guidance on maternal care of the pregnant and puerperal periods, baby care, etc., as well as counseling and referral services. The achievement rates in 2014, 2015 and 2016 were 90%, 90.5% and 100% respectively.
2013	March 1st	For people who receive tobacco cessation services in mountainous regions and outlying islands, their medicine fee is partially covered.
	June 1st	Aborigines who chew betel quid (including those who have quitted) can receive one oral mucus checkup every two years from as early as 18 years of age.
November 1st 2015		For aborigines who receive tobacco cessation services in non-mountainous regions and outlying islands, their medical fee is partially covered.

Chapter 8

Health Promotion Infrastructure

Health Literacy
Health Information and Healthcare Cloud
Health Communication and Nudge
Health Surveillance
International Cooperation

Highlights

1. People over age 40's self-awareness rate of hypertension, hyperglycemia, and hyperlipidemia have increased.
2. 72.5% of women aged 30 to 69 have received pap smear tests within the past 3 years.
3. Knowledge of cirrhosis and liver cancer reached 92.4% among people aged 25 to 64.

Increase health literacy

19,470,000

People visited the HPA website

To aid the HPA in using diverse channels to disseminate health information, we have already established the HPA official website and 12 other health-themed websites. In 2017, 19,470,000 people visited the HPA website.

National Health Interview Survey: In 2017, we interviewed 21,111 people, with a interview completion rate of 72.8%. This has helped to provide a larger data set to be used as references for planning citizen health promotion and medical healthcare services.

21,111

National Health Interview Survey

Increase international exchange

- A total of 9 domestic and international seminars.
- 21 international forums and workshops were held.
- 135 foreign guests from 26 countries visited.

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 towards health promotion and which meet public demand, local health bureaus must serve the people whilst simultaneously emphasizing quality, availability, accessibility, timeliness and cost efficiency. (Figure 8-1) Public bodies must regularly and systematically undertake health surveillance work, continuously collect data related to citizens' health and risk factors, and make optimal use of health communication channels. These actions provide a foundation for health promotion strategies.

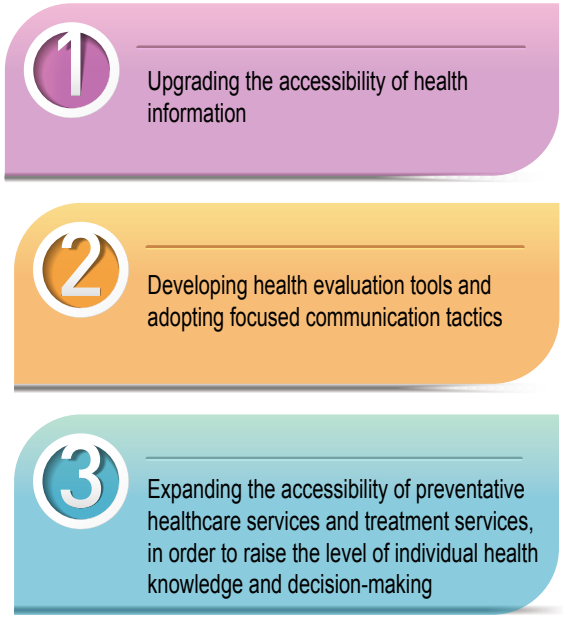
In addition, the HPA is eager to share its accomplishments in health promotion with the international community. We draw upon various media sources, including the internet, to facilitate international communication and cooperation, thus realizing our vision of a global village.

Section 1 Health Literacy

Status Quo

In order to improve health literacy regarding tobacco hazards, cancer, chronic disease prevention, women and children's health, active aging, and health weight management, HPA has focused on the process of empowerment through the following three strategies (Figure 8-1), in order to upgrade the health literacy of citizens.

Figure 8-1 **Empowerment Strategies**



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 2016, it is clear that the self-awareness rate, medication rate, and control rate of hypertension, hyperglycemia, and hyperlipidemia have increased. In addition, telephone survey on health promotion conducted in 2017 have indicated that 72.5% of women aged 30 to 69 have received pap smear tests within the past 3 years, 92.5% are aware of cervical cancer policies. 92.4% of people aged between 25 and 64 agree that patients with Hepatitis B or C can bring their conditions under control if they receive regular follow-up and treatment.

Policy Implementation and Results

1. Bringing Health Information Closer

(1) Analyzing Information Requirements and Evaluating Communication Channels

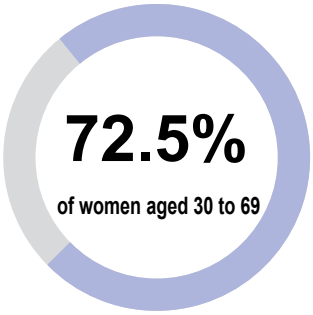
We have worked to understand and deliver our messages through research and development, evaluations, tests, revisions, and monitoring, which have been produced fliers, posters, manuals, lifesize cardboard cutouts, and DVDs on cancer prevention, chronic diseases prevention, tobacco control, women and 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) Coordinating with Important Festivals, and Deepen Local Advocacy

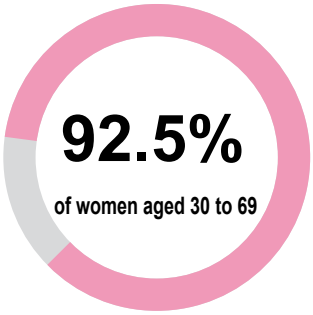
We have worked to coordinate with international events, topics and folk festivals to drive social topic advocacy. Some of the festivals we have co-operated with include World Diabetes Day and World Obesity Day. We have also worked to drive advocacy through participation in local events such as Chinese New Year, Women's Day, Dragon Festival, and Mid-Autumn Festival.

We have announced information related to healthy eating and drinking, cancer, tobacco prevention, women and children's health, and healthy weight management. In addition, local government health bureaus, folk groups and community resources have worked to conduct press conferences, send out press releases, and hold large-

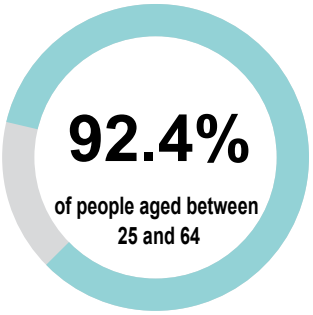
Figure 8-1 2017 Telephone Survey on Health Promotion



Telephone survey on health promotion conducted in 2017 have indicated that 72.5% of women aged 30 to 69 have received pap smear tests within the previous 3-year period



92.5% of women aged 30 to 69 are a ware of cervical cancer policies.



92.4% of people aged between 25 and 64 agree that patients with Hepatitis B or C follow-up and treatment can lower the risks of cirrhosis and liver cancer as long as they receive regular checkups.

scale promotional events. Through work with schools, communities, Internet, magazines, radio stations, TV, vehicle advertisement and convenience stores, we also attempt to promote non-communicable disease prevention.

(3) Establishing and Developing Smart Technology and Communicating Health Literacy

A. Facebook and Line social media platforms are leveraged to target young people to increase health literacy and promote HPA information.

B. Fact vs. Fiction Website Area: We have established a special area on the HPA website where explanations to certain conditions and diseases can be logically laid out, and where rumors can be refuted.

C. E-Learning Platform: We worked together with Directorate-General of Personnel Administration, Executive Yuan to develop a medical platform that helps to promote continuous learning

(4) Developing Suitable and Diverse Regional Communication Methods for all Communities

Due to discrepancies in consumption of digital media brought about by urbanization, we targeted mass media channels in the countryside in Central and Southern Taiwan. For example, by working with regional broadcast radio stations, cable television system owners, community groups and television voicemail (or text message) providers, we have established systems to provide people with important health information.

(5) Promote Health Communication, and Upgrade the Quality of Teaching Materials

In order to improve health communication achievements and improve the quality of health education materials so that materials can embrace health literacy and have the highest broadcast efficiency, HPA referred to domestic and international material evaluation indices known as PEMAT and CDC Clear Communication Index. Through expert meetings and empirical evidence, we established uniform material grading indices and evaluation procedures. We also stipulated user manuals to be referenced for producing health education materials, and gave health service staff the opportunity to select and develop appropriate educational materials. As a vehicle for health information communication, we were able to demonstrate high broadcast effectiveness.

(6) Non-communicable Disease Prevention, Doctor-patient Shared Decision Making

Taking health promotion and non-communicable disease prevention as topics, we were able to produce decision making supplementary tools to be used by patient and doctor, and helped popularize their use within different levels of medical institutes. We also assisted with communication between physicians and patients.

We helped patients understand the risks and benefits of different kinds of screening or disease treatment methods, improved patient or people health literacy, promoted greater involvement in health decisions, and upgraded personal healthcare quality.

2. Health Literacy and Evaluation Tools, Tailored Strategies

(1) Simplified Information, in Depth Explanation

Through the healthy hospital plan and age-friendly healthcare service institute plan, we have established friendly, supportive, respecful, and accessible treatment environments. Through our policies, we have also provided professional medical services and public

health field experts and scholars with the adjustment and rebuilding techniques that they might need. Important content, key messages, and techniques related to health promotion have been simplified for consumption by the end user.

(2) Starting Locally, Evaluation and Adjustment

We have helped to develop local health literacy assessment tools, and provided professional staff with the information they need to implement health literacy evaluations and surveys, understand people's needs, and reinforce public health literacy. The end goal is improving the benefits of health promotion and healthcare as a reference for adjusting health education strategies.

For example, a diabetic patient health literacy evaluation tool has been developed, and plans to make use of this tool have been unveiled. Likewise, we have done the same for chronic kidney disease. When it comes to healthy weight management surveys, we have provided guidance on scope and evaluation of these surveys.

(3) Differentiated Strategies for Upgrading 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, health weight, and tobacco control.

3. Expanded the Accessibility of Prevention Healthcare Services and Healthcare Services which Provide Personal Health Information

(1) Adult Prevention Healthcare Services

A. We continue to encourage people to use adult preventive healthcare services provided by the government. Through health checkups, it is possible to discover physical abnormalities at an earlier stage, starting with results through to explanation of these results and then referrals and checkups.

B. We also provide tobacco cessation, alcohol cessation, betel quid cessation, regular exercise, healthy drinking and eating, healthy weight, and accident hazard prevention health counseling.

C. By helping people to make early adjustments to bad habits and control risk factors, we hope to increase health literacy, and prevent the threat of diseases.

(2) We Have Established Toll-free Counseling Services

We have established toll-free counseling services. For example, we have set up a pregnant women care line 0800-870870, and tobacco cessation line 0900636363, and provide personalized health problem counseling services through professional recommendations to help people judge and make healthy decisions.

Section 2 Health Information and Healthcare Cloud

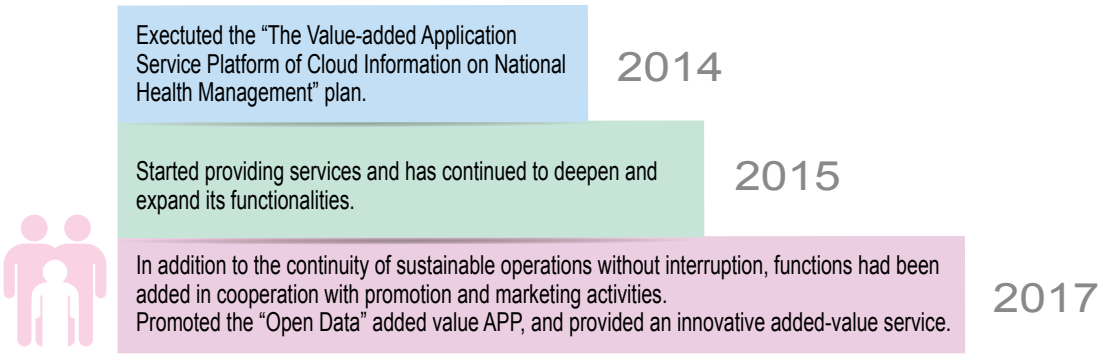
Status Quo

In recent years, the advancement of global communication technologies and the popularity of wireless networks and smartphones has led to the development of innovative mobile applications. For example, people can now search for daily information such as weather, routes to a local medical institution, even make a doctor's appointment all through their smartphones. In response to market needs, new communication technologies focuses 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

To take advantage of the excellent ICT cloud computing technologies of Taiwan and closely integrating citizens' health management with mobile services, this administration has promoted the "Healthcare Cloud" sub-plan under the Ministry of Health and Welfare's Cloud Computing Project. The promotion schedule is seen Figure 8-3. We hope that more people may use the mobile and diversified channels to obtain proper health information, as well as preventive care services to facilitate the health of all people. 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.

Figure 8-3 Promotion Schedule of "Healthcare Cloud" Sub-plan



The achievements of this project were as follows:

1. The Expansion and Maintenance of the Wellness Platform and Mobile APP

We provided the public with a convenient, all-in-one, smart, and comprehensive health management tools (Figure 8-4). This APP helps to increase the usage population and help improve national health knowledge and skills. The platform helps individuals cultivate healthy new lives in order to implement the objective of holistic and national health.

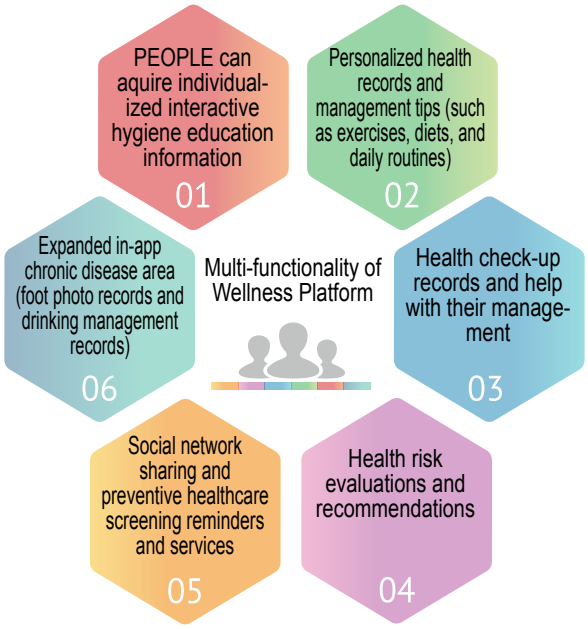
2. Expanded and Maintained the Healthcare Record Platforms.

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 the "Open Data" Platform

In 2017, we initially published 221 data items. We continue to cooperate with the government's Open Data policy to upgrade the quality of open data. Through the transparency of policy implementation, we also promote and encourage all circles to use and develop various kinds of health promotion added value application services, in order to improve citizen health and well-being.

Figure 8-4 Multi-fun Ctionality of Wellness Platform



Section 3 Health Communication and Nudge

Status Quo

1. Health Communication, Very Important

The major functions of health communication are “Creation”, “Collection”, and “Sharing of Healthy Information”. People access health information through television, advertisements, newspapers, magazines, outdoors, social media, etc., which are not only diversified but also fast. Furthermore, all kinds of health information can be communicated via the Internet and media to effectively convey health promotion, prevention and treatment of diseases, and other health-related messages.

To promote healthy information via various channels, we have already established the HPA official website and 12 other sub-networks with health themes. We also published the HPA Health Newsletters. In response to the development of social networks, HPA already established social web pages such as the HPA Facebook page, Line, YouTube channel and other social network platforms(Figure 8-6). The main websites provided by this administration are listed as table 8-1. Our goal is to allow members of the public to access health information through the Internet without facing any obstacles.

Policy Implementation and Results

In order to provide people with correct, accessible, and easily executed health messages, and ensure the greatest broadcast reach and impact, HPA developed “Health literacy friendly material evaluation indices and user guides” as the reference for producing health materials. The guides covered a total of 6 aspects (content, languages and styles, organizations and editing, numerical reading, visual images, and layout and arrangement), along with 21 grading items.

In 2017, HPA completed evaluation of 62 pieces of health material, and promoted “health communication

Figure 8-5 Open Data Platform Information Themes

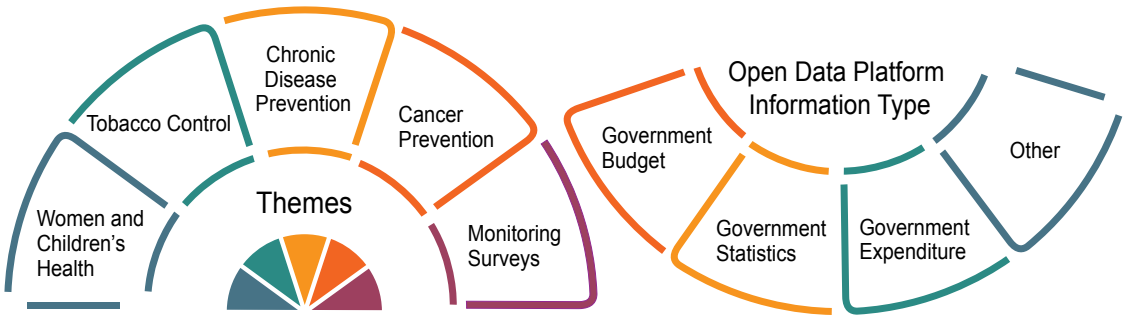
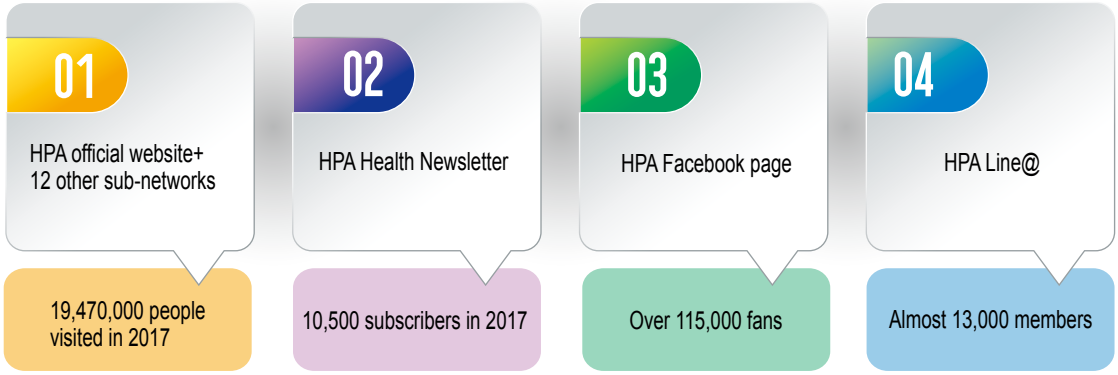


Figure 8-6 Internet Health Communication Benefits



material selection event." We led all circles to develop quality health promotion materials. Through event selection and promotion, we upgraded the production quality of domestic materials, and improved their activation.

(1) Reinforce Benefits with National Health Material Submissions

In advance of holding the "Recruitment Activity of Health Communication Materials," the HPA invited health bureaus, medical institutes, and colleges to collectively participate. A total of 588 works were selected, with 271 works fulfilling "Health Literacy Friendly Material Evaluation Indicators." They were uploaded on the HPA website and Health 99 website for people to search and use. We conducted a "Health Materials: Created by You"press conference which was integrate with VR interactive facilities to promote with this year's "Recruitment Activity of Health Communication Materials" excellent award-winning works.

The new vision of "Healthy Housekeeper APP" was provided on-site for trial and download, as were gifts. The HPA media advocacy event merged information about the platform with promoting platform use. By conducting this activity, as well as the exposure and publicity in the news media, this administration's proactive dedication and solid achievement in the smart health domain was clearly shown.

(2) Reverse Stereotypes

On August 30th 2017, we conducted a core capability workshop on "The Happy Harmony of Public Health and Media Channels." We gathered partners from county and city health bureaus and HPA colleagues to participate. In the courses, lecturers shared examples of how to use interactive and engaging methods to simplify complicated medical and health education information so that people might be able to more clearly understand health literacy issues. We also helped to promote health literacy friendly material evaluation index tools across the world.

Table 8-1 HPA Provides Health Communication Main Website and APP

Website name	Home page	Description
Health Promotion Administration, Ministry of Health and Welfare https://www.hpa.gov.tw/		The Administration of Health Promotion website provide functions include: (1) Explain the missions of the HPA's various units and the services they offer to the public, and to provide contact information. (2) We have established a special area of truth where explanations can be given and rumors refuted on the HPA website. (3) Provide information on health topics that cater to different sements of the population, such as free health check, maternal, newborn, and child health, adolescent care, healthy aging, oral care, optical care, assisted reproduction, rare disease concern, tobacco control, 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) Provide academic and other unit research, include: "Resource download," "health monitoring and statistics," and "health bureau services." (5) 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. (6) In order to fulfill the need of different age groups and reading habits, we also provide an "English version," "mobile version," and"RSS subscription" for people to select from

Website name	Home page	Description
HPA Facebook Page https://www.facebook.com/hpagov/		1. The HPA disseminate accurate health information through providing the most convenient channel, with easily understandable language and interactive platforms. The page currently has over 115,000 fans, with more than 13,000,000 messages viewed. We will continue to communicate with the public through this interactive platform by way of written and interactive content. 2. Content is divided into six categories: Health communication monthly theme; press releases and press conferences; festival and health theme days; regular posts (health information, policy advocacy); healthcare truth and rumors; and interactive posts (using the graffiti wall event to advocate health knowledge and interaction). 3. The main vision is to update the HPA "Health Communication Month" theme monthly.
Health 99 Website https://health99.hpa.gov.tw/		1. The website features 1,500 recorded media extracts and audio publications from the Ministry of Health and Welfare along with other related agencies and civil healthcare organizations; and in total features 4,700 articles categorized according to the health education material themes. 2. Provide online search, download, and lecture request and giveaway services. 3. The website provides the newest health news, special columns, healthcare truth and rumor Q&A, and online health checkups.
Healthy Workplace Website https://health.hpa.gov.tw/		1. The website focuses on a healthy workplace. Through website messages, we actively advocate all kinds of health promotion methods and healthy workplace accreditation and application tools. 2. Contents include: Workplace health promotion information, accreditation application area, resource area, exchange garden, and links to other websites and fan pages.
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.
The Pregnant Women Care Website https://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 name	Home page	Description
Website for Adolescents (Sexual Health e-learning) https://young.hpa.gov.tw/		Providing juvenile, families, and instructors with appropriate references for sexual knowledge and its teaching materials.
Tobacco Control Website http://health99.hpa.gov.tw/		1. The Tobacco Control Website is devoted to promoting tobacco control 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, tobacco hazards, the Tobacco Hazards Prevention Act, tobacco control strategies, smoking cessation services, smoke-Free Taiwan environments, past events, download, smoking behavior surveys, event info, local tobacco control, and health and welfare surchanqes on tobacco, etc.
Taiwan Smokers' Helpline Website http://www.tsh.org.tw		Taiwan Smokers' Helpline website introduces our services and offers information to help smokers make smoking cessation plan. This website also includes the latest news, success stories, Q&A, and events.
The HPA Smoking Cessation Management Center http://ttc.hpa.gov.tw/		1. This website provides information related to our smoke cessation services. 2. Application procedures for smoking cessation services, operational know-how, Q&A, and smoke cessation training courses. 3. Public areas: provision of quitting skills, cessation medication and service information methods for people who are willing to quit. 4. Service status: a list of medical institutions that provide smoking cessation services in each county and city, and the services volume in each county and city.
Website for Disclosure of Ingredients in Tobacco Products https://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 https://health99.hpa.gov.tw/Tobacco/ContentList.aspx?MenuId=372		Translation of advanced tobacco control messages globally and successful tobacco control case studies for presentation to domestic tobacco control harzard 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/		The website provides healthcare staff, the general public, media, and health personnel with access to health data through searches of health indicators. 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.

APP	Icon	Detailed explanation
Good Pregnancy Protection APP		This APP enables new parents and their families to access information on pregnancy; childcare; postnatal nutrition and weight management; physical and psychological adjustments; and breastfeeding; all from the convenient touch of a smart phone 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.
Wellness APP		Expands the functionality and services of the healthcare cloud in order to continue to promote health promotion policies, upgrade national health literacy, and authorize self-health management. Since the establishment of healthcare cloud platform, we continue to respond to the trend and development of new technology. In 2017, we conducted display version revision and function expansion. Other than universality of mobile devices, the design can adjust display functions according to the size of device screens. We also add member health insurance card accreditation, team (agency) registered membership and community interaction (Comrades group) functions. We also added an expanded in-app chronic disease area (foot photo records and drinking management records).

2. Nudge is Very Important

Nudge theory was proposed by 2017 Nobel Economics Prize winner, University of Chicago Business School Professor, Richard Thaler. All over the world, the theory was applied in many public policy areas. HPA is still in the learning process regarding light strategy use in health promotion area concepts and practical methods.

In response to the increased number of hand shaken beverage stores in Taiwan, the ratio of Taiwanese people drinking sugared beverages is too high. In order to reduce sugar consumption of citizens, HPA evaluated whether to use the nudge strategy on hand-shake beverage sugar reduction topics and conduct related research. The goal is not to damage consumers' freedom of choice, but rather to nudge them so that they will choose sugar-free or less sugared hand-shake beverages.

The research contents of HPA include using eye movement monitoring for field inspection, in depth interviews, or potential need analyses of target groups to explore the consumer behaviors surrounding hand-shake drinks. Expert scholars from related areas have also been invited, and along with stakeholder workshops have been held to help create multiple nudge strategies for future practical applications.

Section 4 Health Surveillance

Status Quo

In the face of the demographic transition toward an aged society with a low birth rate, and the increasing threats of non-communicable diseases for all citizens in Taiwan, there is an emergent need of evidence-based data for decision making WHO has recommended that all countries work to establish non-communicable disease surveillance systems to cover mortality, morbidity, and risk factors, in accordance with the differential availability of national resources.

Since the establishment of HPA, surveillance systems that covers thr whole population and different age groups have gradually being developed based on the need of health indicators, empirical data and evidence

for policy-making and internalional comparison. Though the regular and periodical health survegs, we are able to collect data that are not available from vital statics or administrative reporting, so that we may strengthen the evidence based policy making and program implementation for health promotion.

Policy Implementation and Results

In order to establish a systematic national health surveillance system for non-communicable diseases (monitoring survey method seen in Figure 8-7), we continue to collect, analyze, and disseminate health surveillance results. 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.

Important surveillance survey items are seen in Table 8-2. The 2017 community-based interview surveys include: "National Health Interview Survey", "Taiwan Birth Cohort Study", and "Nutrition and Health Survey in Taiwan ." As for the student self-administered questionnaires, we completed "Global Youth Tobacco Survey " for middle school and high school students, and "Global school-based Student Health Survey " and "Taiwan Adolescent to Adult Longitudinal Study". With regards to telephone surveys, we have completed "Smoking Behavior Survey" and "Health Promotion Surveillance System" for citizens aged over 15 years old.

1. National Health Interview Survey

HPA worked together with National Health Research Institute, and integrated all the preceding large and small national health surveys. Since 2001, we have conducted National Health Interview Surveys every 4 years. We used interview survey methods to gather information about citizens' health and service needs, and thereby we monitored the changes and trends of health status among general population and explored related factors. In 2017, we visited 21,111 people, with an interview completion rate of 72.8%. This helped to create a data set which we could use in planning national health promotion and healthcare services.

2. Taiwan Birth Cohort Study

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 and the large-scale sample were surveyed at 6 months, 18 months, 3 years and 5 years and a half, and 8 years old, and with a brief telephone interview at 7 years and 9 years.

In 2017, we officially inspected samples of 12-year-old children and conducted follow-up interviews, as we gradually look to construct the health picture of children in Taiwan in the 21st century.

Figure 8-7 National Health and Surveillance System for Non-communicable Diseases Monitoring System

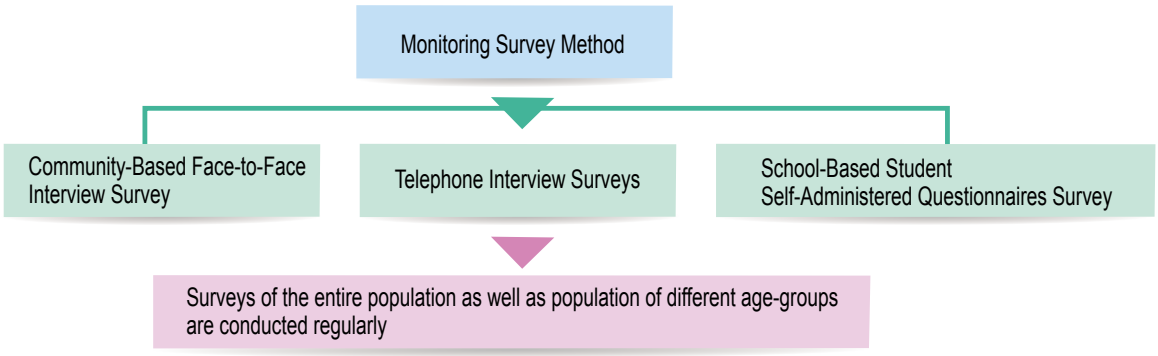


Table 8-2 Important Monitoring Surveys Over the Years

● cross-sectional survey → longitudinal survey

Survey Series	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Community-Based Face-to-Face Interview Survey													
National Health Interview Survey	●				●				●				●
Taiwan Longitudinal Study on Aging			→				→				→		
Taiwan Fertility and Family Survey				●				●				●	
Taiwan Birth Cohort Study	→	→	→	→	→	→	→		→	→			→
Nutrition and Health Survey in Taiwan	●	●	●	●		●	●	●	●	●	●	●	●
Student Self-administered Survey													
Tobacco Survey of Junior High School Students		●		●		●	●	●	●	●	●	●	●
Tobacco Survey of Senior High School, Vocational School and Junior College Students	●		●		●		●	●	●	●	●	●	●
Health Survey of Junior high school students		●		●		●		●		●		●	
Health Survey of Senior High School, Vocational School and Junior College 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				●	●	●	●	●	●	●	●	●	

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.

3. Nutrition and Health in Taiwan Survey

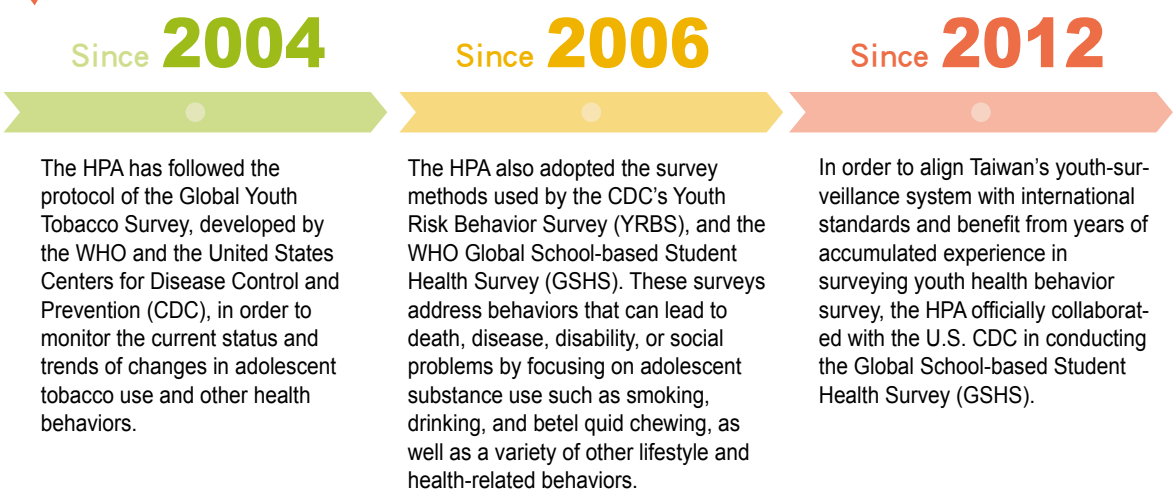
Nutritional status is an important factor that influences health, and is an important index for health amongst citizens. A citizen's nutritional monitoring survey is needed to understand the nutritional status of citizens, and since 1980 we started conducting nutritional survey plans. This set of surveys involve interviews with people of different ages, and take longer time on gathering information from all age groups. Accordingly, data set availability is not sufficiently timely. For this reason, there is a need to establish a comprehensive regular citizen nutritional monitoring plan.

The "Nutrition and Health in Taiwan Survey" was originally conducted by the former Department of Health Food and Drug Administration. Since 2013, this plan has been taken over by the HPA. The main goals are different than the random selection surveys of the past. From 2013 to 2016, we established a stable national representative information database. Through this, we can understand nutritional situation and drinking behaviors, and stipulate national nutrition related policy indices as references. From 2013 to 2016, we completed surveys on 11,072 individuals (interview completion rate 68.7%). 9,420 individuals were checked physically. Currently, we are conducting the surveys running from 2017 to 2020. By the end of 2017, a total of 2,804 people had been interviewed (interview completion rate of 73.1%), and 2,598 people had been physically checked. The interviews, physical checkups and evidence analysis information are used as references for the stipulations of national nutrition and non-communicable disease policies.

4. Global Youth Tobacco Survey and Global School-based Student Health Survey

In order to monitor the current status and trends of changes in adolescent tobacco use and other health behaviors. The development course of adolescent smoking and health behavior surveys is shown in Figure 8-8. The GYTS and GSHS surveys were conducted on junior or senior high school students 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; while the GSHS in 2013 continued to conduct on national representative sample of high school students. The HPA also cooperated with the US CDC on revising survey protocol and the questionnaire that have been applied since 2013.

Figure 8-8 Development Course of Adolescent Smoking and Health Behavior Surveys



As for the GSHS, the surveys were conducted on junior or senior high school students in alternate years. In 2017, the subjects were high school, and vocational school students (Grades 1 to 3). The two surveys were both completed in June 2017 with 43,983 students completed the GYTS (a response rate of 90.3%); 5,302 students completed the GSHS (a response rate of 86.4%). Through this survey, we can understand the current situation and trends of changes in adolescent smoking and health behavior. We are to provide increased data points that promote adolescent and campus tobacco prevention policies, and which help with children and adolescent health promotion services planning.

5. Taiwan Adolescent to Adult Longitudinal Study

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.In 2017,we conducted a large-scale cohort survey, to follow up 16,265 students , the with a response rate of 92.8%.The data analyze collected covered areas such as electronic cigarettes, resilience, bullying, and diet, the study could also analyze health behavioral development and related factors of teenagers and provide the policy recommendation to government for promoting adolescent health.

6. Adult Smoking Behavior Survey, Behavioral Risk Factor Surveillance System

Since 2004, we referred to the US Behavioral Risk Factor Surveillance System, National Health Interview Survey, and Global Adult Tobacco Survey as tobacco use behavior questionnaires. Each year, we conducted the Adult Smoking Behavior Survey using Computer Assisted Telephone Interviewing System (CATI), and made use of individuals over 18 as subjects. The survey which established an adult smoking prevalence statistics database focused on smoking behaviors, second hand smoke exposure, and related factors to conduct surveys. In order to compare Taiwan with the rest of the world, we started interviewing subjects aged 15 years or above since 2013. In 2016, we successfully interviewed 25,970 people, and in 2017, we interviewed 26,019 people. Through this survey, we can understand the situation and change trends of citizens smoking, and provide relevant data points which help with the monitoring and evaluation of tobacco hazard work achievements and policy references.

In addition, since 2007, we have referred to the US BRFSS, and planned monitoring surveys for citizens over age 18 that monitor important diseases (diabetes and metabolic syndromes, high blood pressure, and kidney disease). We also seek to measure the prevalence of health risk behavior, and the status of preventive healthcare services. The age of the subjects was adjusted to over 15 in 2013 to make it easier to compare to international surveys. The survey serves as an evaluation index for related units, and the survey contents are not limited to health risk behaviors. In order to respond to the survey purposes, since 2017, the name was changed to “Health Promotion Surveillance Survey.” In 2017, we visited 24,638 people, and we are now able to provide relevant data for monitoring, planning, and evaluation of health promotion work and intervention benefits.

7. Popularizing Use of “Interactive Online Query System for Health Indicators”

Since 2004, HPA has started to use information technology and network techniques, and unveiled its plan to establish web-based health index interactive health search websites (Network address: https://olap.hpa.gov.tw/). Currently, we have opened search information items including: “National Health Interview Survey”, “Taiwan Global School-Based Student Health Survey (Junior High School),” “Taiwan Global School-Based Student Health Survey (Senior High School),” “Taiwan Global Youth Tobacco Survey (Junior High School),” “Taiwan Global Youth Tobacco Survey (Senior High School),” “Adult Smoking Behavior Survey,” “The Behavioral Risk Factor Surveillance System,” “Taiwan Longitudinal Study on Aging,” “Taiwan Fertility and Family Survey”, and “Birth Reporting System”. These 10 databases have in the process opened up more than 700 health indicators.

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, for provision of user-friendly, individualized data query service, and thereby improving the quality and utilization of the website.

8. Application of Survey and Research Databases

With regards to non-communicable disease health monitoring surveys, HPA's goal is to provide reference information as needed for policy decisions, information on the results of implementation, and promotion guidance. In order to increase the information available for policy application, not only do we focus on the monitoring survey reports being printed and published, but also provide press releases that disseminate survey results and support promotions. In addition, through the Interactive Online Query System for Health Indicators, we are able to quickly provide statistics from monitoring surveys across subject areas.

In order to effectively reach the goals of "protecting personal health privacy, promoting health information sharing, and reducing overlapping resources", in 2011, Ministry of Health and Welfare established the Health and Welfare Data Science Center" in 2011 (originally called the Collaborative Center of Health Information Application). 2012, the HPA has continually provided the raw data of series of health survey to the center for use. Currently, we have transferred 6 reporting databases and 9 surveys. We have entrusted to set up two thematic databases. The contents are seen in Figure 8-12. According to the data classification principles of the Ministry of Health and Welfare in the hope that personal data protection principles can be complied with to expand the pool of resources and increase the overall usage rate of the databases in order to provide the overall value of monitoring and investigating resources.

Section 5 International Cooperation

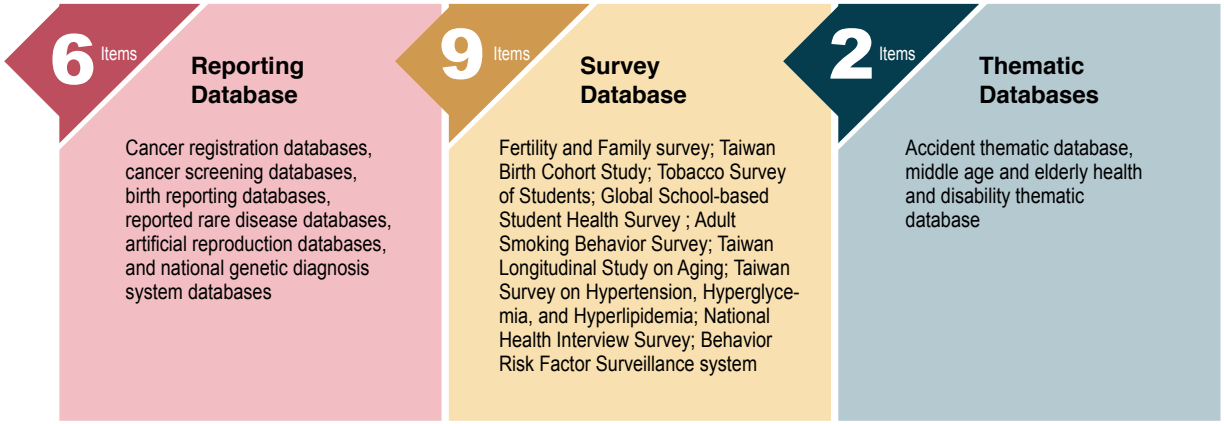
Status Quo

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. As well as attending the APEC and WHO and other technological conferences, the HPA has also actively pursued a greater degree of exchange, cooperation, and experience sharing between its various projects and the WHO Center for International Cooperation, international academic institutions and foreign governments. The HPA also participates in global and regional health promotion conferences, holds many national and international health seminars, receives international expert guests, and attends important international seminars, in order to share our 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 2017, we conducted a total of 9 international meetings and attended 21 important international seminars, workshops, meetings and forums. A total of 135 guests from 26 countries visited the HPA.

Policy Implementation and Results

1. Becoming the Global Focal Point: Large-scale International Conferences

Figure 8-9 Health and Welfare Data Science Center Application Information



(1) 2017 Global Health Forum in Taiwan

Ministry of Health and Welfare, Ministry of Foreign Affairs, and HPA collectively conducted the seminar which promotes Inspiration, Action, and Movement（IAM）: Implementation of Sustainable Development Goals (SDGs). The morning meeting focused on the progress of sustainable development goals, reflection, actions, and advocacy. The afternoon meeting focused on the starting point of SDGs, which explores the Current situation and future planning of all the countries, including response to non-communicable diseases, strategies of 2035 tuberculosis elimination, integration of traditional Chinese and Western medicine, health system reform, and transformation of integrated healthcare, mental health, and oral health topics.

In this forum, we invited international medical health organization experts and scholars such as European Public Health Association Director Martin McKee, World Federation of Public Health Associations (WFPHA) Director and Australian Public Health Association CEO Michael Moore, and Director of the WHO Collaborating Centre for Health Promotion in Hospitals Prof. Jürgen M. Pelikan to make speeches. We established social networks (Facebook and Twitter) and immediately shared related messages. HPA relied on the experience of Young Gasteiners in the European Health Forum Gaustin. We invited 5 Young Gasteiners to visit Taiwan. In 2017, we formed a task group with 6 domestic and 5 foreign scholars and conducted forum records and speaker interviews. During the meeting, we announced and shared related messages on social networks on a daily basis. Amongst the 76 visirors from 35 nations taking part were important medical health organization leaders and international health department directors, deputy directors, representatives, medical officials, and experts. A total of 1,010 people participated in the meeting.

(2) Asia Pacific Health Promotion Capacity Building Forum

In recent years, the burden and challenge of global medical health has shifted its attention to non-communicable diseases and the development of it is leaning toward disease prevention. In order to reinforce public health prevention and health promotion service measures, the development of public health and health promotion talent is crucial. Through conducting the Asia Pacific Health Promoting Capacity Building Forum, we were able to reinforce collaboration within the Asia Pacific region and create a culture of exchange between those working in public health, academia, service, and

Healthy time: Meeting healthy aerobics, all the visirors stand up and exercise

2017 Global Health Forum opening ceremony in Taiwan

government sectors, thereby upgrading the core ability of public health across nations.

In this forum, we invited scholars and government officials from Japan, Singapore, Malaysia, Thailand, Indonesia, Sri Lanka, and Australia to take part. Amongst those in attendance to collectively sign the "Taipei Declaration" were the chairman of the organization, Masamine Jimba, deputy chairman Wah-Yun Low, Chief Secretary Bruce Maycock, and regional representatives and government representatives. The content was related to building health promoting capacity abilities. This includes assessment, planning, implementation, evaluation, research, communication, leadership, and partnership, along with understanding the connections between health topics. A total of 140 central and local health experts participated and received great feedback.

Signing "Taipei Declaration" in Asia Pacific Health Promotion Capacity Building Forum

(3) 2017 Pre-conference Seminar on Global Tobacco Control Policy Research and Development, and the 9th Cross-Strait Conference on Tobacco Control

Smoking is the main risk factor causing deaths globally. The global population of smokers has risen from 870 million people in 1990 to 1.1 billion people in 2018. Each year, 7 million people die because of smoking. There are over 7,000 chemical materials in tobacco products, and 93 of those ingredients are carcinogens and hazardous materials. 15 of them is listed as a first-class carcinogen by IARC. The purpose of this meeting was to use tobacco control policy evaluation exchange to ensure that tobacco prevention policy evaluation work is connected across the world. Through the hosting of this seminar, we hope to allow tobacco control prevention workers to increase their understanding of internationally accredited tobacco policy evaluation tools. By ensuring that tobacco control talent has a better understanding of such tools, it is hoped that this will assist Taiwan to realize the future of a tobacco-free environment.

In 2017, the Pre-conference Seminar on Global Tobacco Control Policy Research and Development invited Dr. Geoffrey Fong, Hong-Gwan Seo from Korean Smoking and Health Association Hong-Gwan Seo and domestic Experts and scholars. Through exchange, we promoted the activation and development of Taiwan tobacco control prevention policies. A total of 88 people participated. In the 9th Cross-Strait Conference on Tobacco Control , we invited WHO high level policy consultant Judith Mackay and ITC global chairman Dr. Geoffrey Fong to take part. The expert

Asia Pacific Health Promotion Capacity Building Forum opening ceremony

scholars conducted adolescent tobacco control smoking, cessation services, hookah, and electronic cigarette topic reports. With regards to the academic reports, we arranged smoking cessation services and broadcasts on these themes. We introduced Taiwan's smoking cessation service system, achievements over the years, and examples of medical staff professional training and continuous education. We exhibited the exclusive smoking cessation communication methods used in Taiwan. HPA used current perspectives "Taiwan tobacco control" as the theme. We made a speech on Taiwan's implementation on FCTC regulations, promoted tobacco control experiences and important achievements, and planned to promote the revisons to tobacco hazard prevention act and future prospects. A total of 423 people participated (367 Taiwanese), and 94 theses were submitted (52 theses came from Taiwan).

The 9th Cross-Strait Conference on Tobacco Control

(4) Conducted 6 Session in 2017

We conducted the "2017 Conference on Health Promoting Hospitals and Healthcare Institutions," "2017 Elderly Exercise Policy Community Life Building Seminar," "2017 Health Promotion School International Accreditation Workshop," "2017 Framework Convention on Tobacco Control (FCTC) International Conference," "Compassionate City Workshop," and "2017 Pre-conference Seminar on Global Tobacco Control Policy Research and Development." A total of 6 sessions were conducted, with 1,279 people participating.

2. Stepping onto the Global Stage: Important International Meetings, Speeches, or Forums

(1) 25th Health Promoting Hospital Conference

The International Health Promoting Hospital (HPH) Network is an official network established by the WHO. The goal is to help hospitals to transform from the role of traditional diagnostic treatment to health promotion and disease prevention. This matches the theme of the Conference , which is: "Health Promotion Strategies to Achieve Reorientation of Health Services: Evidence-Based Policies and Practices."

The 9th Cross-Strait Conference on Tobacco Control photo

25th Health Promoting Hospital Conference : 5 Hospitals in Taiwan won the International Golden Award Accreditation for Global Tobacco-free Healthcare Service Network

In this conference, a total of 550 people took part, with 250 people coming from Taiwan (45.5%). 493 theses from Taiwan were accepted (oral: 56 theses, mini oral theses: 68 theses, posters: 369 theses). This was 70% of the total 704 theses accepted. Since 2010, we have been crowned as champion for 8 straight years. The WHO's International HPH network has conducted "health promoting hospital global best practice awards" since 2012. Taiwan has won the best thesis abstract award and best thesis poster for 6 consecutive years.

25th Health Promoting Hospital Conference: HPH GA

25th Health Promoting Hospital Conference: HPA Director-General Ying-wei Wang made a speech at the main opening ceremony.

25th Health Promoting Hospital Conference

A. Opening Ceremony and Plenary Speech

Theme: Celebrating Achievements from the Past, Identifying Challenges for the Future

The theme of this seminar was celebrating achievements from the past, identifying challenges for the future. HPA Director-General Ying-wei Wang was invited to make a speech at the main opening ceremony. The topic was "The Uniqueness of Taiwan's HPH Network, What Makes This Network So Successful?" He shared the key successes of Taiwan's health promotion hospital experience, including how Taiwan uses the interaction triangle of government, academia, and hospitals to form health promotion hospitals.

B. Hosting Workshop

(A) Theme: Symposium on Health Literacy Improvement After Applying the Concept of Share Decision Making in Health Promotion Hospitals

(B) Director-General Ying-wei Wang was the host. The speakers were Prof. Marie- Anne Durand (USA), Prof. Nilay Shah (USA), and Taiwan Adventist Hospital Chief Hui-ting Huang (Taiwan). A total of 45 people participated. In order to be able to view this meeting without time and geographical restrictions, HPA used ZOOM online meeting room to conduct live broadcast for all colleagues. A total of 25 people from the Joint Commission of Taiwan, hospital representatives, scholars, and colleagues from HPA were online.

(2) 20th European Health Forum Gastein

European Health Forum Gastein is the most prominent medical health leadership level meeting in Europe. It is the important platform for health related industrial, government, and academic exchange in Europe. The theme of this meeting was "Health in All Politics–A Better Future for Europe." Through participation at this seminar, we exchanged opinions and had the chance to learn and share our experiences with influential international leaders in the health field worldwide.

A. Conducting Aparallel Forum

(A) Theme: Health Inequity: Threats and Opportunities

(B) We invited famous health inequality field scholars Michael Marmot, and Asia-Pacific regional experts, including Prof. Sharon Friel, Dr. Katsunori Kondo, and Prof. Dong-liang Chiang from National Taiwan University(NTU) in order to discuss policies which lead to health inequality, along with the Current situation, and achievements which lead to eliminating inequality in Asia Pacific regions.

B. Conducting Bilateral Talks

New European Health Forum Gaustin Chairman Dr. Clemens Auer, Chief Secretary Kahr Gottlieb, and Prof. Martin McKee conducted bilateral talks. Both sides held communications regarding the topic of future young scholar training and the EGFH seminar.

(3) 15th World Congress on Public Health

The World Congress on Public Health was conducted by WFPHA, which has a close working relationship with the WHO. We also worked together with public health organizations and related international organizations conduct the meeting. The theme of the meeting is "Voice, Vision, Action." Through this meeting, we shared our experiences in the health promotion field with global participants, and hosted stand exhibitions, in order to exhibit Taiwan's achievements in health promotion and public health, and in order to increase the international visibility of health promotion in Taiwan.

The HPA arranged an exhibition of "Setting approach of Life Course Health Promotion", which covered a ride range of achievements from maternal and child health, totacco control, cancer prevention, to health promoting schools, workplaces, age-friendly cities and healthcare institutes. A poster of injury prevention

20th European Health Forum Gastein- Conducting aparallel forum: HPA Director-General Ying-wei Wang hosted the discussion

20th European Health Forum Gastein- Conducting aparallel forum

related topics was presented. The participants from the HPA and the Taiwan Public Health Association also had interations with global professionals during the congress.

(4) International Meeting and Speech

In 2017, we were invited to a number of workshops and meetings, including "The Economist - Healthcare in Asia", "Global Religious Elderly Palliative Medicine Core Workshop," "APEC 2017 International Workshop on Adaptation to Population Issue," "12th Asia Pacific Hospice Conference," "49th Asia Pacific Academic Consortium for Public Health Conference, APACPH," "2017 International Forum on Quality and Safety in Healthcare (IFQSH)" "APEC 7th Policy Dialogue and and Workshop on HPV and Cervical Cancer," and "5th AHLA International Health Literacy Conference" international meeting and invitation speech.

3. Sharing International Experience: International Cooperation Plan

In order to strengthen the survey techniques and data analysis capabilities which go into collecting information on adolescent smoking and health behaviors in Taiwan, and also so that data can be compared across different cultures, therefore the HPA worked with US Centers for Disease Control and Prevention, and conducted the Global Youth Tobacco Survey (GYTS)

15th World Congress on Public Health

and Global School-based Student Health Survey (GSHS). 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 in Taiwan. Through this study, we explored the life stress, social environments, and health conditions of elderly people in Taiwan, to enhance our understanding about the factors that are associated with the health of middle aged and elderly people in Taiwan.

Appendix

HPA Chronological Highlights in 2017

Time	Summary of Chronicles
January 18	The "2016 Community and Workplace Health Promotion Results Meeting" presented 137 awards to individuals and groups for obesity prevention, outstanding contributions to the creation of a healthy community and outstanding healthy work places. At the same time, a "Health i Smart Forum" was held, to share experiences on promoting "Smart Health Cities" and "Smart Health Workplaces" together with a "Health i Smart Exchange Forum" to encourage local government health departments to use technology in the provision of healthcare. The meeting was attended by 276 people.
February 14	The Health Promotion Administration (HPA) held a video conference with Public Health England (PHE) and the two sides exchanged experiences dealing with dementia prevention strategies. The meeting was chaired by HPA Director-General Wang Ying-wei and five members of PHE took part. The heads of the Department of Nursing and Heath Care and the Social and Family Affairs Administration under the Ministry of Health and Welfare were also invited to attend. At the meeting, PHE's Dr.Charles Alessi, HPA Community Health Division head Lin Li-ju and Taiwan Alzheimer Disease Association Secretary-General Tang Li-yu discussed the experiences of both sides and private sector groups as a reference for future work to prevent dementia.
March 6	Three scholars from Saku University in Japan visited the HPA to learn more about national health and longevity policy and arranged to visit Zhongshan District health services center in Taipei City.
March 7	Chia-Yi Christian Hospital organized "Maternal and Infant Health Care Improvement Project in the Kingdom of Swaziland" and held seed teacher training classes. A total of 13 students visited the HPA to exchange opinions and learned about related laws and promotional practices in the field of reproductive health, breastfeeding, maternal and infant health care in Taiwan.
March 21-22	The "2017 National Health Assembly Conference" was held in Chiayi County with about 240 participants from the HPA and representatives from local government health departments across Taiwan. The conference addressed the theme "Working Together to Promote Active Aging and Create Age Friendly Society." The HPA, Department of Nursing and Heath Care and the Social and Family Affairs Administration under the Ministry of Health and Welfare delivered plenary sessions, with health bureaus and health centers invited to share their experience. In addition, the meeting also presented Awards of Evaluation of Health Care Conducted by Health Bureaus of Local Governments in 2016 and Performance Awards and the 10th Golden Health Bureau Awards.
March 28-31	Upon the Economist Group's invitation, Vice Minister Tsai Sen-Tian of the Ministry of Health and Welfare led his team to attend the "Health Care Forum War on Cancer 2017: Affordable Cancer Care in Asia" on March 30. Besides sharing with other attendees Taiwan's policies regarding cancer care as a keynote speaker for "Keynote Panel 1: Priorities in Funding and Delivering Cancer Care," Vice Minister Tsai also visited several public and private health organizations in Singapore, as well as the Biopolis of Singapore, in order to make the most out of this trip and support the government's New Southward Policy.

Time	Summary of Chronicles
March 28-April 1	Pontifical Academy for Life and the Maruzza Foundation held "Defining the Essence of Palliative Care for Older People: Religions Together," and a multinational seminar on hospice care for seniors. HPA Director Wang Ying-wei was invited to attend the seminar and in addition to sharing Taiwan's experience in hospice and spiritual care with different religions from around the world at the round table, also signed a charter calling on the world to embrace universal human rights and values by providing seniors with more care and support.
April 1-7	HPA attended the 15th World Congress on Public Health in Melbourne Australia. These events focued on promoting health throughout life and various fields, showcasing Taiwan's achievements in promoting the health of women and children, tobacco control, cancer prevention, health promotion schools, workplaces and age-friendly cities and health care institutions.
April 6	Announcement of newly added rare diseases "Methylmalonic Acidemia and Homocystinuria (Cb1 C type)"
April 12	HPA recommended Chia-Yi Christian Hospital, Kaohsiung Veterans General Hospital, E-Da Hospital, Cathay General Hospital and Cardinal Tien Hospital for ENSH-Global Network for Tobacco Free Health Care Services Gold Certification. Also received an award at the "2017 Global Tobacco Free Health Care Services Gold Forum event" in Vienna, Austria.
April 12-14	More than 250 participants from Taiwan attended the "25th International Conference on Health Promoting Hospitals and Health Services" in Vienna, Austria, with 480 submitted papers accepted, 121 of which were oral reports, an increase of about 40.7% on the past and the highest ever. HPA Director-General Wang Ying-wei was invited to speak on the experience of health promoting hospitals and the keys to their success in Taiwan during his opening ceremony speech. The conference also organized a parallel meeting on improvements in health literacy following the introduction of shared decision making by health promoting hospitals. Tung's Taichung MetroHarbor Hospital received the conference' Global Model Hospital Award, which for the sixth consecutive year was won by a hospital from Taiwan.
April 18	Revised "Notices for Medical Service Institutions Proceeding with Preventive and Healthcare Services", which went into effect on May 1st, 2017.
May 2	HPA Convenes pressed conference to announce 2014 data on cancer in Taiwan, including diagnosis of different types of cancer in men and women, number of patients, rate of occurrence etc. Using colorectal cancer as an example, HPA reminded the public of the importance of regular screening and emphasize that cancer prevention was everyone' responsibility. It was also noted that the high incidence of colorectal and breast cancer in Taiwan were directly related to unhealthy lifestyles and obesity. As such, "healthy living and regular screening" were the best ways to prevent such cancers.

Time	Summary of Chronicles
May 12	Seven participants at the "Taiwan-United States Health and Welfare Policy Symposium", including Ms. Kim Malsam-Rysdon, Secretary of the South Dakota Department of Health, Mr. Thomas Miller, Chief Medical Officer, Alabama Department of Public Health, Mr. Brent Earnest, New Mexico Human Services Department Secretary, and Dr. Pikuei Tu, Director of the Policy and Organizational Management Program at Duke University visited the HPA to better understand health promotion, non-communicable disease and risk factor prevention in Taiwan, where they also engaged in discussion and idea exchanged.
June 3	Announced "Concerns Over Major Hereditary Diseases in Children With Birth Defects After Natural Childbirth," which came into effect the same day.
July 1, 8, 15, 22	HPA held four public hearings on the revision of national nutritional standards at Ministry of Health and Welfare Tainan Hospital, Taichung China Medical University Hospital, National Taiwan University College of Medicine and Hualien County Health Bureau auditorium with 430 attendees.
July 16-19	The United Nations Population Fund and the Vietnamese Ministry of Health held an International Workshop on Population Ageing in APEC member countries. This provided a forum for APEC economic members/economies to discuss countermeasures to population ageing and related challenges. HPA Director-General Wang Ying-wei was invited to talk on "Promoting Age-Friendly Cities in Taiwan," detailing the promotion of age-friendly cities and active ageing in the face of population ageing in Taiwan, exchanging ideas and sharing experiences with UN representatives and international experts.
July 27-28	HPA Director-General Wang Ying-wei attended the "12th Asia Pacific Hospice Conference" also visiting the Saw Swee Hock School of Public Health at the National University of Singapore and the Singapore Health Promotion Board, to understand Singapore's health promoting school and workplace policies and strategies. He also shared Taiwan's experience in the fields and engaged in international exchange.
August 15-20	As a member of the Asia-Pacific Academic Consortium for Public Health (APACPH) HPA attended the APACPH General Assembly and conference held in Seoul, South Korea. HPA Director-General Ying-wei Wang speaks on "Health Policy and Paradigm Shift", sharing public health experience and results in Taiwan. Scholars from National Taiwan University, Taipei Medical University, Kaohsiung Medical University, and Chung Shan Medical University present papers, marketing the results of public health and medical care policies in Taiwan, which was an example of professional diplomacy.
August 17	Revision of the Tobacco Hazards Prevention Act was sent to the Ministry of Health and Welfare for approval on August 16th, 2017 and submitted to the Executive Yuan for review on August 17th.

Time	Summary of Chronicles
August 22-25	7th APEC High Level Meeting on Health and the Economy (HLM) and Workshop on HPV and Cervical Cancer was held in Vietnam, the only major public health related multilateral international exchange and cooperation platform in which Taiwan had member status. Taiwan was invited to discuss its policies and experience in preventing the Human Papillomavirus (HPV) and cervical cancer. At the workshop, HPA explained Taiwan's HPA vaccine plan and future planning while also arranging bilateral meetings and exchanged with various member countries, establishing a foundation for future cooperation.
August 23-27	The 2017 International Forum on Quality and Safety in Healthcare was held in Malaysia, bringing together healthcare leaders and practitioners from different countries to discuss practical experiences in the field. Participants exchanged ideas on how to improve quality and patient safety in healthcare. The HPA was invited to speak on "What is Palliative Care?" and discussed policy experience and outcomes in the provision of hospice care in Taiwan.
September 3	HPA organized "2017 Pre-conference Seminar on Global Tobacco Control Policy Research and Development" to discuss ways in which Taiwan canned learn from international tobacco control work. The event was attended by 88 participants from six countries who discussed the impact of SimSmoke MPOWER on tobacco control, the experience of South Korea in tobacco control and assessments of international tobacco control policies as a basis for the promotion and development of tobacco control policy in Taiwan.
September 3-5	HPA-sponsored John Tung Foundation held the "9th Cross Strait Conference on Tobacco Control" at National Taiwan Hospital International Convention Center to promote exchanges between Mainland China, Taiwan, Hong Kong and Macau on results in tobacco control. It also served as a declaration of Taiwan's adherence to the norms detailed in the WHO Framework Convention on Tobacco Control (FCTC). The event was attended by WHO senior policy advisor Judith Mackay, International Tobacco Control Policy Evaluation Project founder Dr. Geoffrey Fong and other experts who presented papers on preventing tobacco use among young people, smoking cessation services, hookah, electronic cigarettes etc. The HPA delivered a paper on "The Current Situation and Prospects for Tobacco Control Policy in Taiwan." This details how Taiwan had implemented FCTC rules, experiences in promoting tobacco control, important results and future prospects for the comprehensive revision of the Tobacco Hazards Prevention Act. A total of 423 participants took part in the conference including 367 from Taiwan, with 94 papers submitted (52 from Taiwan).
September 7-9	The "Asia Pacific Health Promotion Capacity Building Forum" was held by the Asia Pacific Academic Consortium for Public Health (APACPH) and Taiwan's Collaborating Centers for Health Promotion (CCHP). Scholars and government officials from Japan, Singapore, Malaysia, Thailand, Indonesia, and Sri Lanka were invited to attend and the "Declaration of Taipei", signed by APACPH Chairman Masamine Jimba, Vice Chairman Wah-Yun Low, Secretary-General Bruce Maycock, regional representatives, officials, etc. This Declaration commited the signatories to work together to strengthen health promotion and capacity building in key public health areas worldwide. The forum was attended by more than 140 central and local health professionals.

Time	Summary of Chronicles
September 8	Based on the revision of rules detailing the scope of the medical expenses subsidy in the "Rare Disease and Orphan Drug Act" existing subsidy procedures and content were extended to provide individuals suffering from rare diseases with more comprehensive care. In concert, the "Regulations Governing Medical Subsidies for Rare Diseases" was renamed "Regulations Governing Medical Care Subsidies for Rare Diseases."
September 14	HPA held "Benchmarking Symposium for Cancer Centers and Medical Care Quality Summit" to discuss transferring the quality treatment model followed by cancer centers. HPA Director-General Wang Ying-Wei had a speech on "Shared Decision Making Focused in Patients" and shared experiences in improving the quality of cancer diagnosis and treatment. There were about 350 participants, including doctors, nurses, psychologists and cancer registrars and other healthcare professionals attended.
September 22	Based on the revision of rules detailing the scope of the medical expenses subsidy in the "Rare Disease and Orphan Drug Act," original subsidy standard rules on amount and proportion of drug cost subsidies in the "Regulations Governing Medical Care Subsidies for Rare Diseases" was added to an addendum to Article 7 of the same law. As a result, subsidy standards in subparagraph 7, paragraph 1, Article 2 and paragraph 4, Article 5 of the "Regulations Governing Medical Subsidies for Rare Diseases" were abolished.
September 23	HPA and Sports Administration under the Ministry of Education organized the "2017 National Sports Policy Conference" On that day the two agencies signed an undertaking that the "Sports Administration and Health Promotion Administration will work together to create the sporting activities for elderly and active lifestyle in the communities in Taiwan." This document promised continued cooperation to promote sport for all and physical activity nationwide. The seminar adopted the theme "active living, healthier life" invited Honorary Professor Ken Fox from the University of Bristol in the UK and Honorary Professor Yoriko Atomi from the University of Tokyo to discuss their experiences promoting related policies. Director Chu Hui-chuan from Taipei City Songshan District Health Center, winner of a 2016 Gold Public Health Centers Award for its promotion of "Community Active Living," was also invited to serve as a panelist on a roundtable conference, with about 300 people in attendance.
September 26	HPA and K2 Education Administration organized "Health Promoting School International Certification Workshop." At this event, international experts (Professor Albert Lee from the Chinese University of Hong Kong, Honorary Professor Lawrence St. Leger from Deakin University in Australia, Professor Didier Jourdan from Blaise Pascal University in France and Professor Noy S. Kay from Indiana University in the United States) discussed new international knowledge, reflect on current promotional methods and how to strengthen community links and emotional health. They also discussed how to enhance the competence of health promoting schools to ensure students and teachers are healthier. A total of 94 people attended the workshop.

Time	Summary of Chronicles
September 29	HPA held a Seniors Nutritional Health Promotion Seminar titled "New Era in Dietary Nutrition for Seniors" inviting experts from the fields of medicine and nutrition as well as representatives from seniors groups to attend. The emphasis is on offering guidance to seniors on how to be able to eat a healthy and balanced diet to help promote good nutritional intake and remain active.
October 4-6	HPA held a parallel forum titled "Health Inequity: Threats and Opportunities" at the 2017 European Health Forum Gastein (EGFH) held in the Austrian town of Gastein to discuss health inequality policies in the Asia Pacific region, the current situation and efforts to eliminate inequality. As part of this, bilateral conversations were held with European Health Forum Gastein Chairman Dr. Clemens Auer and Secretary-generals Dorli Kahr Gottlieb and Professor Martin McKee. There was also discussion of training for young academics on both sides and cooperating with the AGFH.
October 12	HPA held the "2017 Youthful Seniors Together" national championships at which seniors showcase their vitality and artistic talent. The event was attended by President Tsai Ing-wen, Deputy Minister of Health and Welfare Dr. Jui-Yuan Hsueh and HPA Director-Greneral Wang Ying-wen. The final included 17 outstanding regional and offshore teams. Participants were an average of 69.3 years old, had a combined age of 50,000 years and 15 competitors are over 90. The oldest participant was 96. Competitors showed their self confidence and appealed by displaying their talent at singing, dancing and theater.
October 21	A combination of health promotion hospitals, age-friendly health care institutions and tobacco free healthcare services held the "2017 International Conference on Health Promotion and Health Care Service." Invited speakers included Hanne Tønnesen, chief executive officer of the International Health-Promoting Hospital Secretariat, Jürgen M. Pelikan, director of the WHO Collaborating Centre for Health Promotion in Hospitals & Health Care and Dr. Dong Chun Shin from Yonsei University in South Korea. They also presented awards for innovative health promotion programs to 28 medical institutions. A total of 488 experts, academics, department of health representatives and hospital employees attended the conference.
October 22-23	Ministry of Health and Welfare, and Ministry of Foreign Affairs held the "2017 Global Health Forum in Taiwan" focused on the theme "Inspiration, Action, and Movement (IAM): Implementation of SDGs)" in conjunction with the United Nation's 17 Sustainable Development Goals 2030 and the long-term objective of improving national health and wellbeing. A number of renowned international experts and Taiwan academics, officials and experts attended the forum where they discussed how to fully realize the sustainable development goals through effective planning. The forum had 57 speakers from 35 countries and about 1,010 local expert participants.

Time	Summary of Chronicles
October 24-25	PA held "2017 International Conference on Tobacco Control" inviting international experts Professor Tania Voon from Melbourne Law School, University of Melbourne, Professor Nick Wilson from the Department of Public Health, University of Otago, New Zealand, Professor Sarah Roache from Georgetown University Law Center, United States, Dr. Takahiro Tabuchi from the Osaka International Cancer Institute. Together with local experts in the fields of tobacco control and trade law participants exchanged experiences and discussed "tobacco litigation," "new tobacco product controls," "non-smoking environments," "tobacco control and sustainable development goals" and "medical burdens and the responsibility of the tobacco industry." The conference was attended by 87 participants.
November 8-9	HPA organized "Compassionate City Workshop – Age-Friendly, Dementia-Friendly, Hospice-Friendly." Speakers included Professor Allan Kellehear from the University of Bradford in the UK, Associate Professor Amy Y. M. Cho from the Department of Social Work and Social Administration, University of Hong Kong and Lu Pao-ching Deputy Minister of Health and Welfare. About 250 people attended the workshop including representatives from industry, government and academia in the fields of medicine and social affairs, as well as members of the public. Through keynote speeches and discussions of the topics of age-friendly, dementia-friendly and hospice-friendly, participants address ways in which healthy seniors or those are disable and suffering with dementia can continue to live locally, make a contribution and live lives of self worth.
November 9	HPA visited the US Centers for Disease Control and Prevention's National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP). Also took the opportunity to visit Center Director Dr. Ursula Bauer and organized five meetings to exchange opinions with the which had long worked with HPA and the Centers' Department for Cancer, Diabetes and Cardiovascular Disease Prevention.
November 12-14	The "5th AHLA International Health Literacy Conference" was held in Kuala Lumpur, Malaysia. In order to showcase Taiwan's achievements in health care and strengthen expertise at international health events, the HPA Director-General Wang, Ying-wei shared the experience about "Health Literacy in Taiwan Health Care Services" and showed the poster titled "Relationship between Health Literacy and Experienced Involvement in Shared Decision-making among Adults in Taiwan," to exchange Taiwan experiences with South Asian Countries.
November 14	November 14th is "UN World Diabetes Day." In concert with the declared theme for 2017 "Women and Diabetes - Our Right to a Healthy Future," HPA, the Taiwanese Association of Diabetes Educators, Formosan Diabetes Care Foundation, Taiwanese Association of Persons with Diabetes and Miaoli County Government held a lantern lighting activity and conducted diabetes prevention promotional work to remind people of the importance of controlling/ preventing diabetes.

Time	Summary of Chronicles
November 15	Based on the ultimate objective (Endgame) embraced by various countries of reducing the number of people who smoke to below 5% of the total population, HPA organized a "2017 Pre-conference Seminar on Global Tobacco Control Policy." Invitees included Dr. Elizabeth A Smith from the University of California San Francisco, Professor Prakit Vathesatogkit, Executive Secretary of the Action on Smoking and Health Foundation in Thailand and Professor Lam Tai-hing, school of Pubic Health, the University of Hong Kong. Local participant Dr. Kao Chih-wen discussed tobacco control policies in Taiwan as they related to FCTC/Endgame. This combination of local and overseas perspectives allowed the seminar to discuss tobacco control strategies in different countries and analyzed priorities with an eye to working towards the FCTC/Endgame. A total of 57 participants attended the seminar.
November 17, 24, December 1	HPA held three "2017 Active Aging Forum" to solicit opinions on active aging related subjects. Experts in various areas shared research and policy analysis developed and applied to health care for the middle aged and seniors in Taiwan. A total of 200 participants attended each forum.
November 24	The HPA's "National Health e Academy" Learning Section received the "e Public Service Forum" Class Contribution Award from the Directorate-General of Personnel Administration.
November 28	HPA held award ceremony for the 2016 outstanding healthcare institutions of "Quality Improvement Measures for Smoking Cessation Services". A total of 56 outstanding healthcare institutions were selected of which 18 also receive awards for "Cessation Medication Service Champion", "Cessation Education Service Champion", "Cessation Success Rate Champion", "Effectiveness of Smoking Cessation Champion".
November 30	HPA held the "Betel Nut Prevention and Control Day 20th Anniversary" awards ceremony, forum and press conference. The forum looked separately at the two main issues of prevention and oral cavity cancer care, inviting the participation of individuals from the fields of public health, medical care, media, farmers, NGOs and cancer sufferers. Seven medical staff and volunteers received certificates of appreciation for their successful work in areca prevention. A project with the Ministry of Education invited art work submissions from elementary, junior high and senior high schools, as well as colleges and universities, with three outstanding works selected from each category, ensuring that more people learned about the need to prevent the consumption of betel quid.
December 12	HPA held "2017 National Workplace Health Promotion Seminar" at National Taiwan University Hospital International Convention Center. Awards were presented for outstanding excellent healthy workplaces (28), healthy workplace excellent promotion staff (2 individuals), active workplace innovation award (5) and local government health department promoted healthy workplaces (10). Papers were presented on "Workplace health policy," "Labor health service networks" and "Workplace innovation strategies" with officials from Taipei City Government's Department of Health and workplace promotions personnel sharing their experience of promoting healthy workplaces. About 200 participants attended the event and "The Special Edition of Excellent Healthy Workplaces in Taiwan" was published to showcase successful examples.

Time	Summary of Chronicles
December 13-31	Introduction of first "thirdhand smoke" tobacco hazard education interactive experience vehicle. This invited visitors to play the interactive game "Tobacco hazard detective and the chamber of the thirdhand smoke incident" in which players had to find the remnants of thirdhand smoke. This activity made tobacco control education part of daily life and taught the public about the danger to health posed by third-hand smoke. In conjunction with schools at all levels, business districts, seniors/communities a total of 12 interactive and promotional activities were held with nearly 10,000 participants.
December 21	The 3,581st Cabinet meeting of the Executive Yuan reviewed and adopted the "Revised Tobacco Hazards Prevention Act." The revised law introduced more stringent management of E-cigarettes, banned flavored cigarettes, expanded the use of pictorial warnings, expanded the ban on smoking in indoor public spaces, increased fines for repeat offenders, banned name sponsorship by tobacco firms, added legal and medical support and banned authorized advertising copying goods used for smoking.
December 24	The "2017 Smoke Free Home Coloring Competition" was aimed at preschool students and received 27,874 submissions. A ceremony was held where the top 44 works receive awards, with the award-winning pieces exhibited at fixed locations, included as part of a touring exhibition with the interactive experience vehicle and calendars produced, to enhance the impact of the message.
December 28	In order to enhance the efficacy of published data, 2015 cancer incidence data was published. Statistical analysis indicated that a further 105,156 individuals had contracted cancer, which meant that someone found they have cancer an average of every five minutes in Taiwan. Colorectal cancer remained the most frequent type of cancer for the 10th year in a row, though there was negative growth in the absolute number of people for the first time, making it the fastest falling type of cancer both in terms of absolute numbers and rate of occurrence. These figures were an indication that screenings for colorectal cancer was gradually having an impact and this was used to underscore emphasize to the public the importance of cancer screening.
December 29	Legislative Yuan completed first reading of the "Revised Tobacco Hazards Prevention Act" which was sent to the Social Welfare and Environmental Hygiene Committee for review.

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