

Health Promotion  
Administration  
**Annual Report**  
**2019**

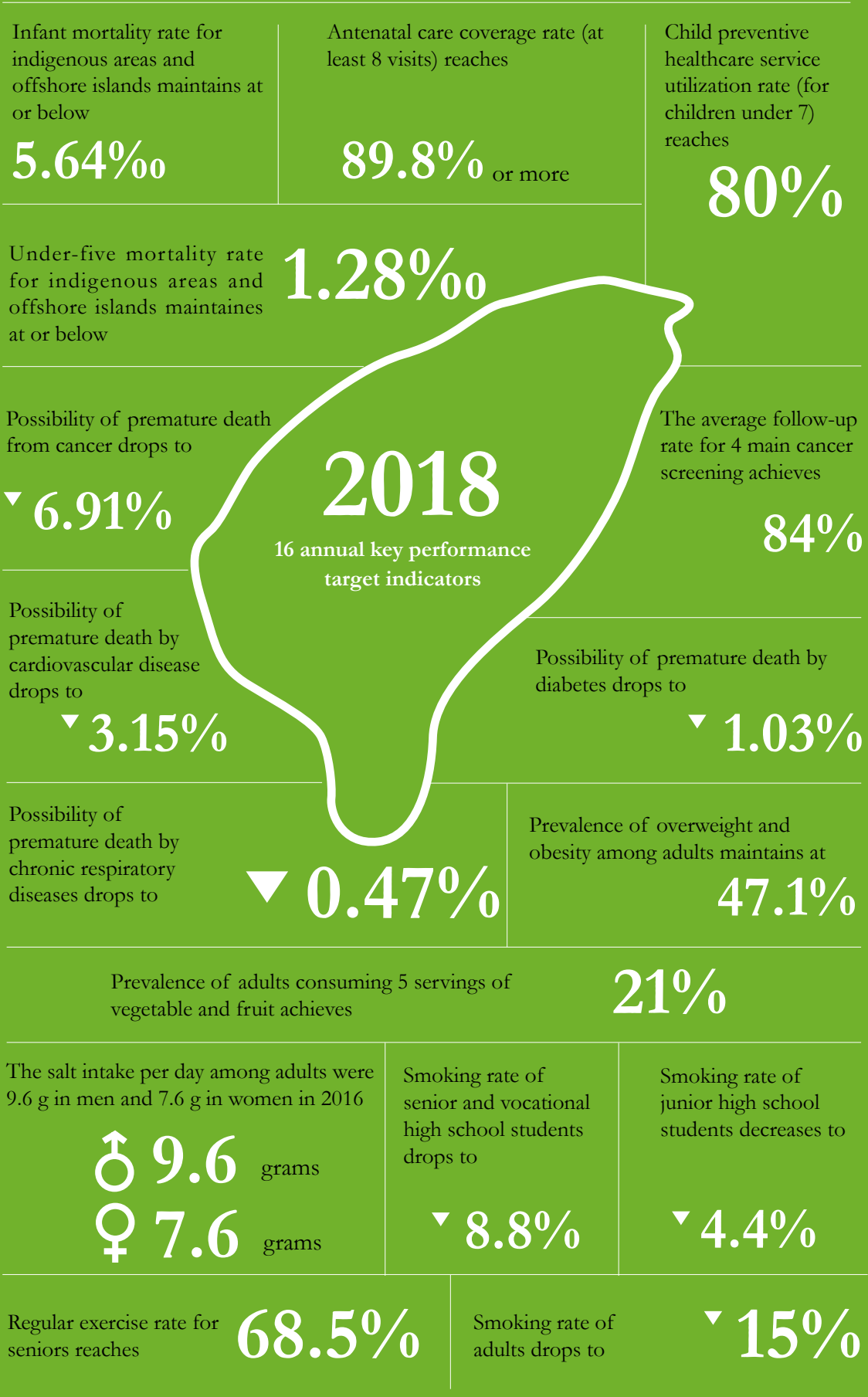


## HPA Decoding

Since  
2001

The Health Promotion Administration of the Ministry of Health and Welfare (HPA) 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 12<sup>th</sup>, 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 23<sup>rd</sup>, 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.

PUBLIC HEALTH  
OF TAIWAN





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## Preface by the Director-General

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### Healthy birth, healthy life, slow aging, dignified living Creation of a healthy, age-friendly, and caring environment across all settings

The United Nations (UN) urged all member nations to actively promote maternal and child health in the “Millennium Declaration” released in 2000, with the goal of enhancing the well-being of everyone in the world. In response to global aging and health trend changes, the UN has proposed “Sustainable Development Goals (SDGs)” and formulated the goal: to “ensure healthy lives and promote well-being for all at all ages”. The UN also emphasized the importance of preventing non-communicable diseases and realizing Universal Health Coverage (UHC). It also indicated that investments in health systems are the most effective way to realize SDGs and UHC.

### Setting a sound foundation for our public health systems and cooperating with all circles of society for our national health

To implement SDGs and decrease premature death rate, HPA continues to provide services to prevent non-communicable diseases including cancer screening, tobacco hazards prevention, and chronic disease care in cooperation with local governments and national and international partners from various fields. We have also adopted numerous health policies targeted at life courses of different ethnic groups. Concrete achievements in 2018 can be summarized as follows:

In the field of maternal and child health, 162 baby-friendly hospitals and clinics have passed relevant certifications, encompassing 74.6% of all newborn infants. The exclusive breastfeeding rate for the first six months of life reached 46.2%, which significantly exceeds the global average of 36% and is only slightly lower than the global target value of 50% in 2025 set forth by the World Health Organization (WHO). The sex ratio at birth dropped from 1.090 in 2010 to 1.069 in 2018.


As for tobacco hazards prevention, HPA pioneered an interactive vehicle to promote education on tobacco hazards. Educational activities related to health issues and tobacco hazards prevention have been expanded in cooperation with the Ministry of Education (MOE) and local departments of health. The adult smoking rate dropped from 21.9% in 2008 to 13.0% in 2018. The smoking rate of junior high school students decreased by a margin of 63.8% from 7.8% in 2008 to 2.8% in 2018. The smoking rate of senior and vocational high school students decreased by a margin of over 45.7% from 14.8% in 2007 to 8.0% in 2018. The second-hand smoke exposure rate in non-smoking public areas fell



from 23.7% in 2008 to 5.4% in 2018. Taiwan is making steady progress toward the target of a 30% relative reduction in tobacco use by 2025 set by WHO.

In the field of active aging, we have organized various community activities in collaboration with local units with reference to WHO concepts to encourage seniors to leave their homes to socialize. We also actively promote community programs for the prevention and delay of disability, as well as elderly health management. “Community Nutrition Promotion Centers” with seniors as the main care recipients have been set up in all cities and counties to ensure the provision of professional guidance by nutritionists. A total of 2,181 dementia-friendly organizations nationwide have been enlisted for the formation of a Dementia Guardian Network. As many as 608 healthcare organizations have passed age-friendly certifications. This by far exceeds the goal of 500 successfully certified healthcare organizations for the five-year period from 2014 to 2018. As far as the promotion of healthy hospital is concerned, we have adopted streamlined standards and modular certifications in four categories with the goal of establishing a “Healthy Hospital” certification mechanism. Health literacy, Shared Decision Making (SDM), and patient family participation have been incorporated into the context of implementing Patient Focused Method (PFM).

In the field of chronic disease prevention, we actively promote screening for the four main cancers. Cancer screening was administered to a total of 5.08 million individuals in 2018, which led to the early detection of around 60,000 cases of pre-cancer lesions and cancer symptoms. HPV vaccination is administered for all female students in their first year of junior high school. Over 70,000 students are expected to benefit from this service. The promotion of a betel quid prevention mechanism in cooperation with all ministries,



councils, and commissions has resulted in a decrease of the betel quid chewing rate among males to 8.4%. Spiritual care and community-based palliative care services are also actively implemented. Chronic disease management has been strengthened through the diabetes and kidney disease shared care network. In the field of healthy diets, we have released a new version of “Daily Dietary Guidelines” and “National Dietary Indicators” as well as the “My Plate” balanced diet chart, combined with nutrition tips to assist the public in the implementation of healthy lifestyles with balanced diets. A cooperation blueprint has been developed in cooperation with the Sports Administration of the MOE to facilitate the formulation of physical activity strategies for citizens. Empowerment of the general public, primary healthcare personnel, and medical personnel nationwide is achieved through enhancement of the functions of health promotion information sharing platforms, cross-system integration, and data interfaces in smart and healthy cities, community hospitals and clinics. As a result of all these initiatives, the premature death probability of citizens suffering from the four major chronic diseases (cancer, diabetes, cardiovascular disease, and chronic respiratory disease) exhibits a declining trend compared to 2010.

We also decreased the urban-rural health divide through the implementation of pilot programs aimed at the promotion of maternal-infant care, health behavior and prevention of accident injuries, gastric cancer, the three “highs” (hypertension, hyperglycaemia, and hyperlipidaemia), and hepatitis C in Taitung, Hualien, and Pingtung County. An asset-oriented community development strategy has been adopted to facilitate the provision of adequate health promotion services, thereby improving the health of local citizens.



## **One World, One Health**

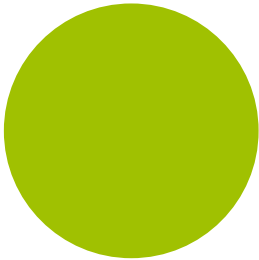
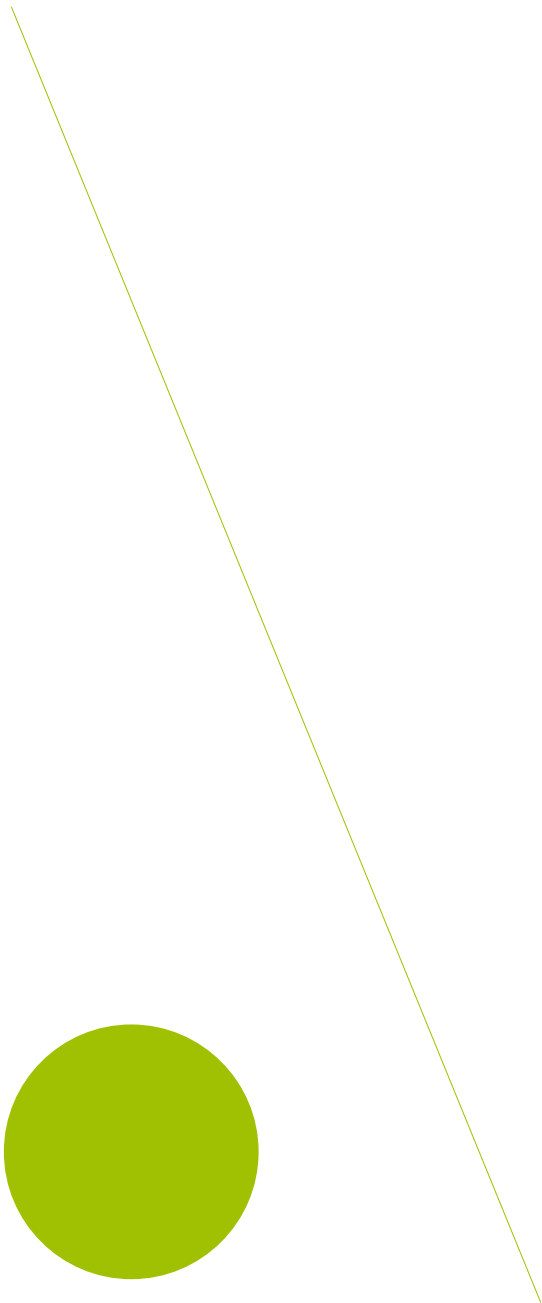
The four major risk factors (smoking, unhealthy diets, insufficient exercise, and excessive alcohol consumption) represent the principal causes for the incidence of non-communicable diseases. We are firmly committed to the provision of precise, personalized healthcare services tailored to the needs of our citizens. This includes the provision of health promotion and preventive healthcare services from birth to death, the implementation of various initiatives to delay disability and promote active aging, the decrease of premature death rates, and creation of an environment conducive to healthy and dignified aging. We also contribute to the reduction of carbon emissions through the promotion of low-carbon hospitals nationwide and participate in joint efforts to create a global environment conducive to sustainable health.

**Director-General  
Health Promotion  
Administration Ministry  
of Health and Welfare**



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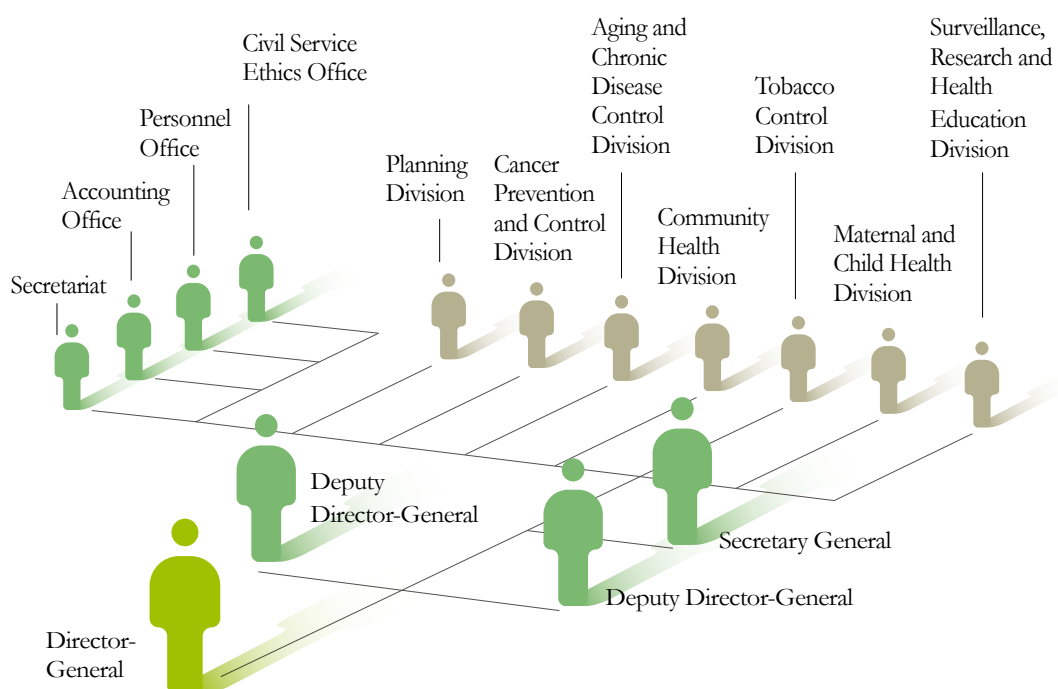
About HPA



## Organization and Major Duties

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.



**Figure1-1** Organizational Structure

## **Organization and Mission**

The HPA gives priority to four major initiatives: enhancing health literacy and promoting healthy lifestyles; promoting preventive healthcare and 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 in the country's counties and cities, hospitals and other medical institutions, and private groups to implement health policies and to build a healthy environment for the entire population (Figure 1-2).

## **Health Promotion – Vision and Challenges**

Based on the Alma-Ata Declaration of 1978 and the Ottawa Charter of 1986, the HPA proactively promotes “Health in All Policies” (HiAP). It is “an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts.” The ultimate goal is to achieve “Health for All”, 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 created to empower people in different settings, thus making the pursuit of health a trend and enhancing the status of health promotion in public policy.

## 2018 Administrative Goals

### The goals of administration in 2018

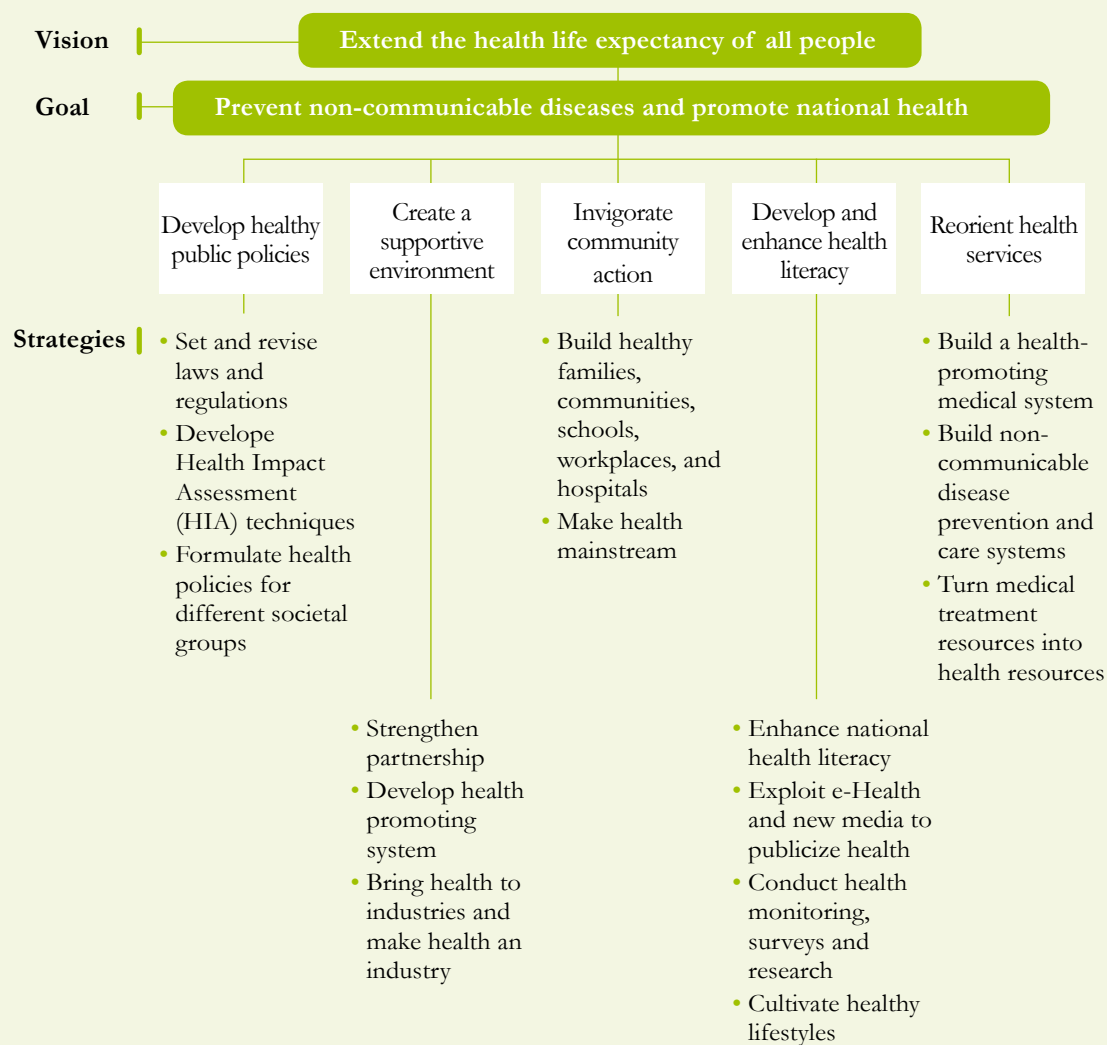
Building a physical and psychological health supportive environment  
Increasing holistic health promotion across life-span

#### Goals

- 1.** Nurturing of healthy lifestyles, creation of healthy workplaces, promotion of national nutrition and obesity prevention, promotion of cigarette and betel nut prevention work, provision of diverse tobacco cessation services, creation of tobacco and betel nut-free supportive environment
- 2.** Comprehensive women and children birth healthcare service environment, continued enhancement of healthcare for all life courses from pregnancy and birth to healthy growth, improved health promotion for aborigines and new immigrants
- 3.** Reinforcement of comprehensive health assessment services for seniors, creation of age-friendly health communities and cities, promotion of social engagement by seniors, reinforcement of prevention and management of chronic diseases, reduction of disabilities and improvement of life quality
- 4.** Reinforcement of cancer prevention and early diagnosis, increase of the rate and quality of follow-up for positive cancer screening results, promotion of precision medicine, implementation of patient-centered shared decision making (SDM), provision of integrated palliative and holistic health care, reduction of cancer death rates
- 5.** Reinforcement of education and empirical research on the health impacts of air pollution, refinement of national health indicators and non-communicable disease monitoring systems, establishment of senior and national nutrition data warehouses, reinforcement of the collection and analysis of information pertaining to groups in different regions, implementation of evidence-based policies
- 6.** Promotion of health information service platform integration, adoption of information and communication technologies, establishment of a platform for sharing of health promotion and health education resources and personalized health management services, promotion of empowerment of the general public and primary personnel



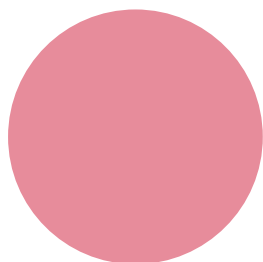
**Figure1-2 Organizational task of the HPA**



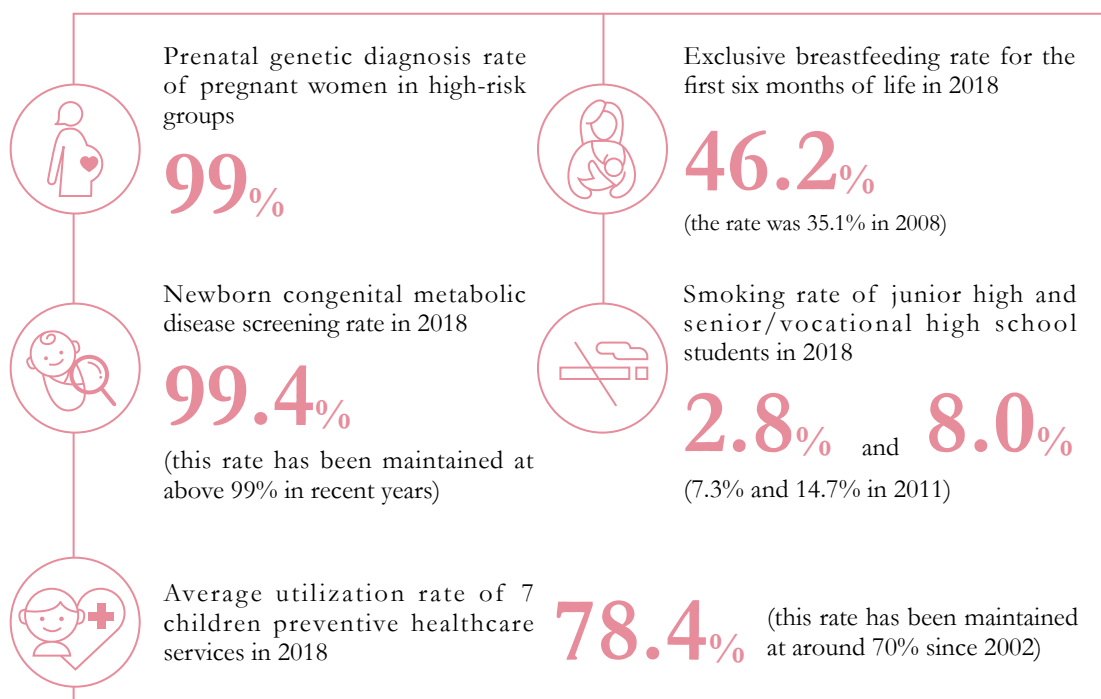
**Figure1-3** The vision, goals and strategies of the HPA

# 2 Healthy Birth and Growth

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Adolescent Health	30







The impacts of social change and multicultural development have transformed society, as well as family structures and functions, which has 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 increase in childbearing age, developmental delay amongst children, premature birth, teenage smoking and premarital pregnancy. As such, the HPA endeavors to reinforce the nation's healthcare system and create a safe and healthy environment conducive to the physical and mental development of expectant mothers, infants, children and teenagers.

## Maternal Health

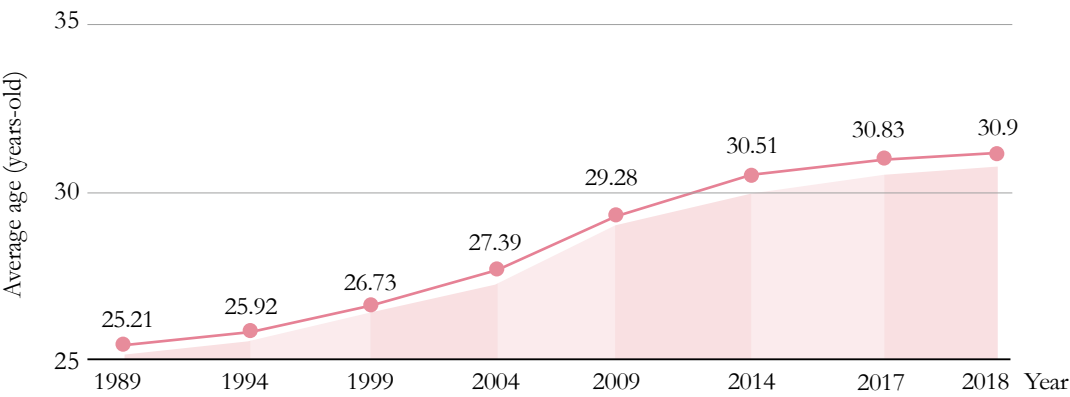
### Status Quo

In 1989, Taiwanese women had their first child at an average age of 25.2 years old. By 2018, the average age was 30.9 years old (Figure 2-1). Structural analysis of a trend toward late childbirth is clearly evident (Figure 2-2). The maternal mortality ratio in 2018 was 12.2 per 100,000 individuals. Compared with 35 OECD member countries in 2016, Taiwan's maternal mortality ratio ranked 30<sup>th</sup>.

### Target Indicators

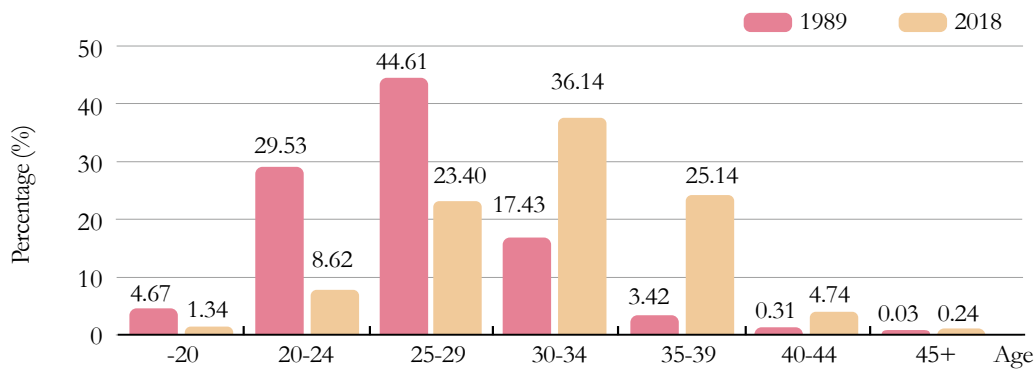
1. In 2018, the average utilization rate of pregnant women visiting 10 prenatal care sessions exceeded 90%, and more than 97% of women visited prenatal at least one time.

2. More than 99% of women with high-risk pregnancies underwent prenatal genetic diagnosis and follow-up.



Source: 1989-2018 number of live 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)

Figure2-1 Average age of first birth for women in Taiwan



Source: 1989 and 2018 number of live 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)

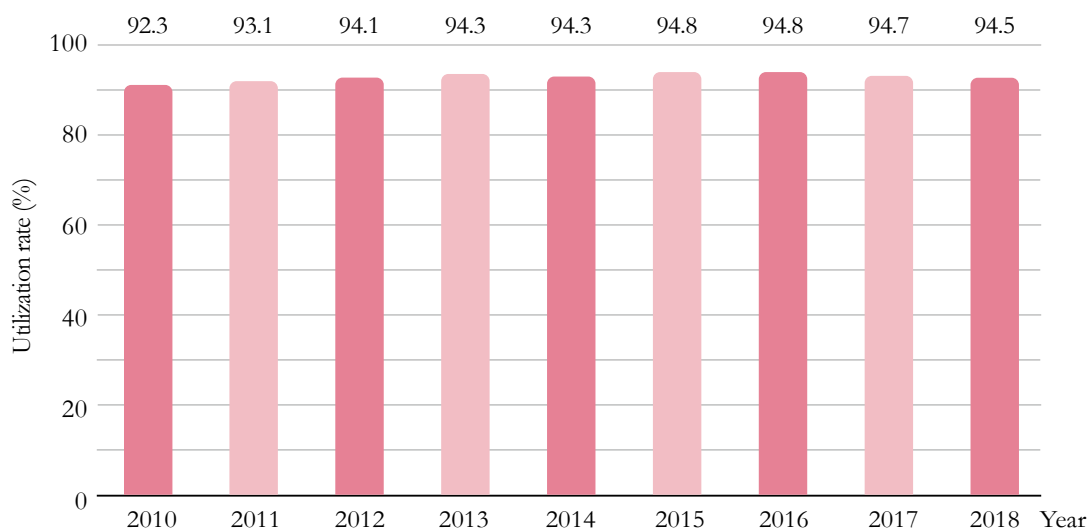
Figure2-2 Percent distribution of live births by age of mother (1989, 2018)

## Policy Implementation and Results

### 1. Heartfelt healthcare: Establish systematic birth healthcare service

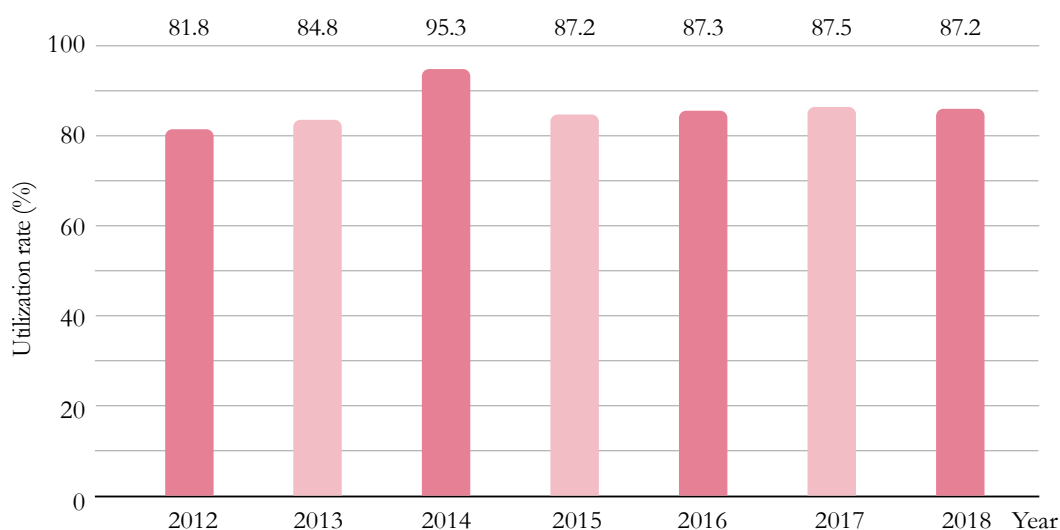
#### (1) From prenatal examination to healthcare, we comprehensively protect pregnant mothers

In order to promote the health of expectant mothers, the HPA subsidizes 10 prenatal caresessions for pregnant women. The utilization rate of this service has reached 90% (Figure 2-3). In 2018, 1.638 million pregnant women used the prenatal care sessions. The average utilization rate of women attending at least 10 prenatal care sessions is 94.5%.



Source: Data from Prenatal Care Sessions 2007-2018 and 2007-2018 Birth Reports

**Figure2-3 The average utilization rate of women attending 10 prenatal care sessions**



Source: 2012-2018 Group B Streptococcus Screening System, data from the 7-9 Prenatal Examinations

**Figure2-4 Group B streptococcus screening rate**

Since 2012, we have conducted Group B streptococcus screening for women at the 35<sup>th</sup> to 37<sup>th</sup> weeks of pregnancy. In 2018, a total of 158,572 women were screened, with 33,189 women tested positive (20.66%) (Figure 2-4). Since November 2014, we started promoting prenatal healthcare instruction services for pregnant women. Two evaluations and healthcare instructions were provided during the first and third trimester of pregnancy. In 2018, a total of 278,709 women were served, and 683 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**

We establish a genetic disease prevention network (Figure 2-5) with primary and secondary prevention measures or fertility selection for all life stages from marriage, pre-pregnancy, pre-delivery, and birth to adulthood to decrease the incidence of congenital malformations.

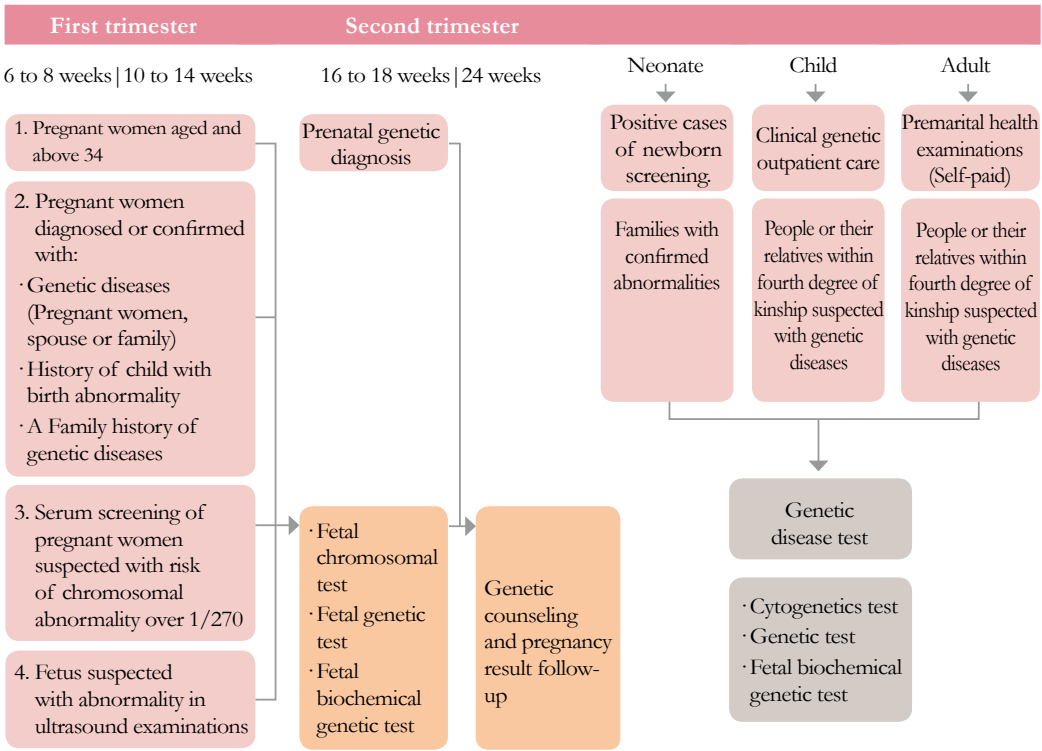
**(3) Genetic service results of reproductive stage**

- 1. Screening for Thalassemia in Pregnant Women: In 2018, a total of 328 women were tested for thalassemia genetic testing, of whom 102 were found to be carriers of thalassemia major.
- 2. Prenatal Genetic Diagnosis for High-Risk Pregnancies: A total of 42,593 tests were subsidized. As many as 36,879 of these tests were conducted for advanced maternal age (34 years or older) pregnancies. The testing rate reached 62.4% (Figure 2-6). Abnormalities were detected in 1,387 cases, accounting for 3.26% of all prenatal tests. Tracking, counseling, or referral to relevant medical institutions has been implemented by hospitals, clinics, or public health systems in charge of sample testing.

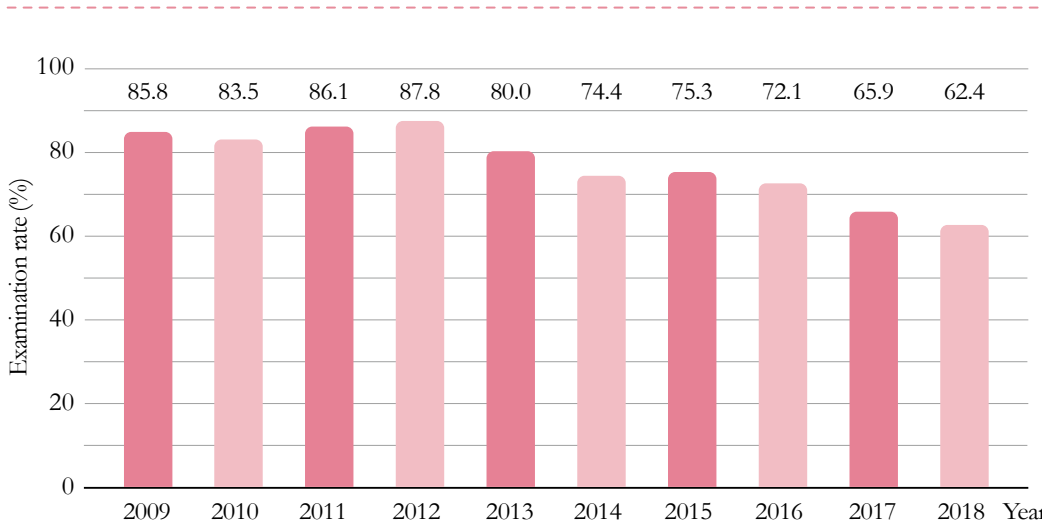
**HPA Provides Genetic Services for the Reproductive Stage**



- Genetic disease testing and counseling related to reproductive health: In 2018, a total of 11,982 individuals took such tests. Of these, 616 people were found to have chromosomal abnormality, 974 were thalassemia carriers, and 6,043 showed evidence of other conditions.
- Regular reviews of qualifications of designated institutions for genetic and rare diseases to ensure the quality of genetic counseling, diagnosis, treatment, and testing: In 2018, a total of 27 clinical cytogenetics testing institutions, 13 genetic testing institutions, and 14 genetic counseling centers passed relevant reviews.



**Figure2-5** The hereditary genetic disease prevention network



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

**Figure2-6** Percentage of pregnant woman aged and above 34 receiving prenatal genetic diagnosis subsidies

**(4) Pregnant women healthcare counseling**

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 stress, and necessary referrals for health counseling, care and support services. In 2018, there were 19,141 calls through the enquiry hotline, and the website received 2,116,388 hits.



**(5) Implementation of a health management pilot program for pregnant women**

HPA gradually implemented this pilot program in 2017 to reduce maternal and infant mortality rates and health inequality. In 2018, in cooperation with 24 prenatal checkup hospitals and clinics within their area of jurisdiction health departments in six cities and counties received subsidies for the provision of health education (incl. childcare), follow-up care, and referral services (mainly provided by phone and supplemented by home visits) for pregnant women in high-risk groups during pregnancy and within 6 weeks after childbirth. In 2018, the number of targeted service recipients was 1,424. The number of actual service recipients reached 1,212, which represents an achievement rate of 85.1%.

**Pregnant Women in High-risk Groups**

Local health bureaus received subsidies for the provision of health education (incl. childcare), follow-up care, and referral services (mainly provided by phone and supplemented by home visits) during pregnancy and within 6 weeks after childbirth

A white line-art illustration of a pregnant woman in profile, holding her belly with a heart symbol inside.

**Health Management Pilot Program for Pregnant Women in High-risk Groups**

**< Health risk factors**

- Tobacco, alcohol, betel quid, multifetal pregnancies/
- History of premature birth/
- Definite diagnosis of gestational hypertension/
- Definite diagnosis of gestational diabetes
- Substance abuse and mental health issues

**< Socioeconomic risk factors**

- Below 20 years of age/
- Low-income and mid-low-income households/
- Incomplete senior or vocational high school education or below

**< Cases of irregular prenatal checkups**

## **2. Complete childbirth health management laws and regulations**

### **(1) Complete assisted reproduction regulations and institutions**

Taiwan has introduced a series of laws aiming to ensure the appropriate development and use of assisted reproduction technologies, and to protect the rights of infertile couples, sperm and egg oocytes donors, and children conceived through assisted reproduction. The Assisted 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 Assisted Reproduction Institution Permits, Regulations for Verification of Kinship on Sperm/Oocyte Donors and Receptors, Regulations for Assisted 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 2018, a total of 85 institutions have been permitted as assisted reproduction institutions.

### **(2) Continue to review Genetic Health Law draft amendment**

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 returned to the administrative agencies for review. HPA has deliberated the revision and amendment of the Genetic Health Act and its renaming to Reproductive Health Law and continues to invite experts and stakeholder groups to engage in relevant deliberations and discussions. We adopted a resolution in the National Conference on Judicial Reform in 2017 regarding the implementation of an adequate judicial or administrative dispute resolution mechanism to safeguard the right of minors and married women to choose abortion. The Administration emphasizes that legal amendments must be based on a general social consensus regarding respect for life, minors, women, and family values.

### **(3) Improving the quality of prenatal and ultrasound examinations**

Currently, we provide 10 prenatal examinations and 1 ultrasound examination, in order to fulfill the health needs of pregnant women. Cooperating with the new medical and technological development, we continue to use scientific evidence foundations for review and improvement. Since 2014, we administered Hepatitis B blood serum labeling test (HBsAG, HBeAG) in the 1<sup>st</sup> prenatal examination, not in the original 5<sup>th</sup> prenatal examination, and increased the prenatal screening subsidies.

In addition, in order to improve the antenatal ultrasonic inspection quality, we collect the international methods and related references, conduct expert meetings, and investigate 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.

# Infant and Child Health

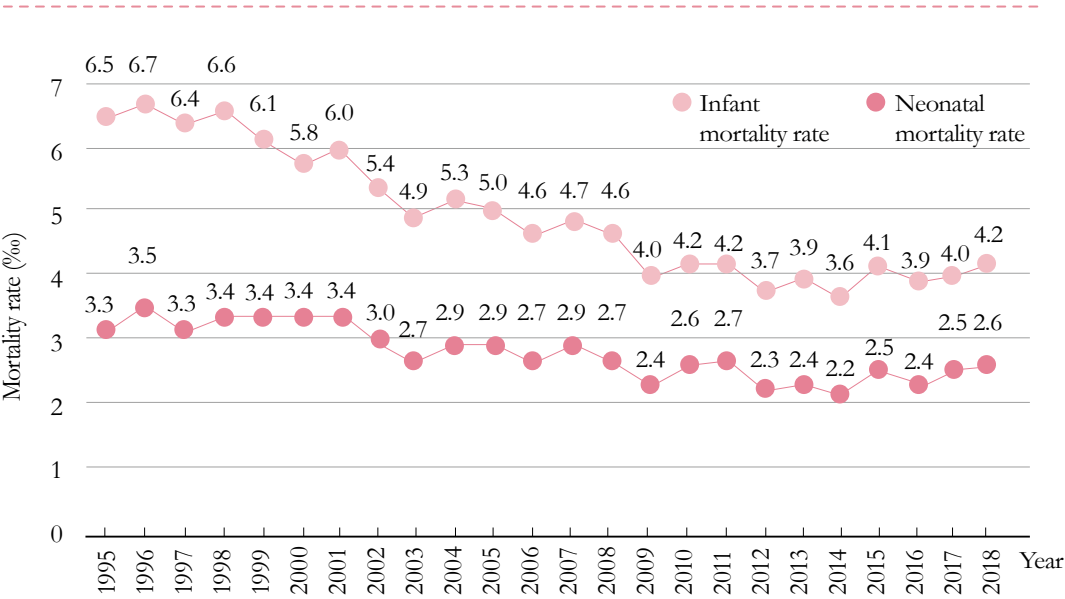
## Birth and Death

### 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 2.6‰ in 2018. The infant mortality rate has also decreased from 6.5‰ in 1995 to 4.2‰ in 2018 (Figure 2-7). Compared with the 36 OECD countries, Taiwan's neonatal mortality rate ranks 21<sup>st</sup>, and infant mortality rate ranks 28<sup>th</sup> in 2018.

The HPA's statistics of birth reporting system reveal that there was a total of 181,084 births in Taiwan in 2018 (Figure 2-8). Among them, 9.74% of live births had low birth weight (less than 2,500 grams) and 0.96% of live births had extremely low birth weight (less than 1,500 grams) (Figure 2-9).

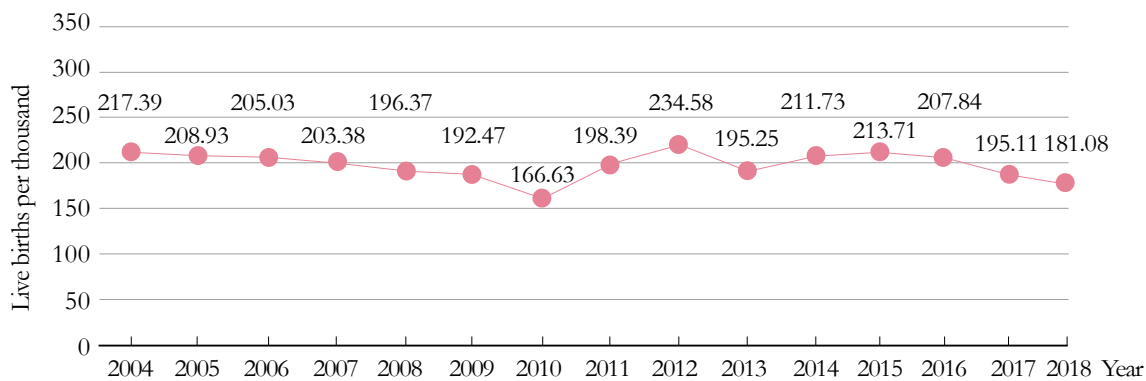
Under natural conditions, sex ratio at birth (male:female) is approximately 1.04-1.06. However, preference for males has long been a persistent phenomenon in Asian societies. Taiwan's sex ratio at birth decreased from 1.09 in 2010 to 1.069 in 2018. The sex ratio for third child and above has also decreased to 1.098. According to our sustainable development goal proposal, we set our goal for sex ratio in 2020 to be 1.068, which has become the target vale of our annual efforts (Figure 2-10).



Sources: 2018 Causes of Death Statistics, MOHW

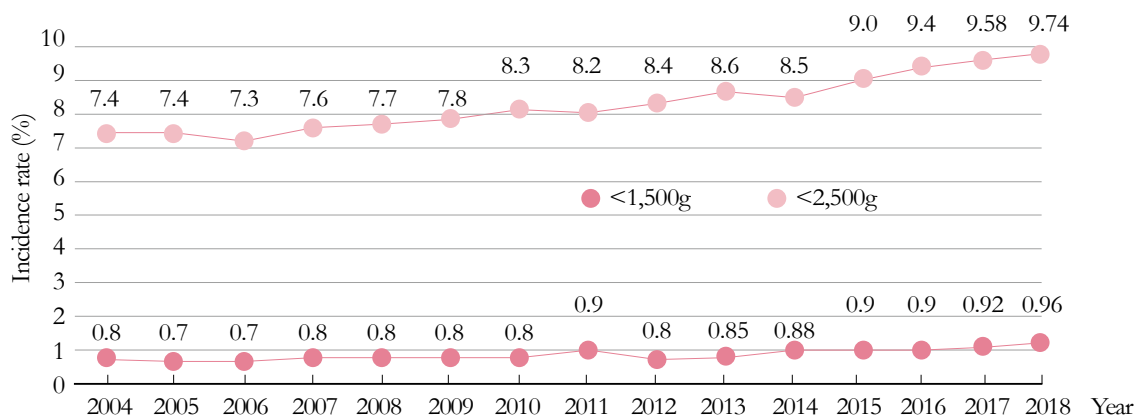
Figure2-7 Neonatal and infant mortality rates in recent years





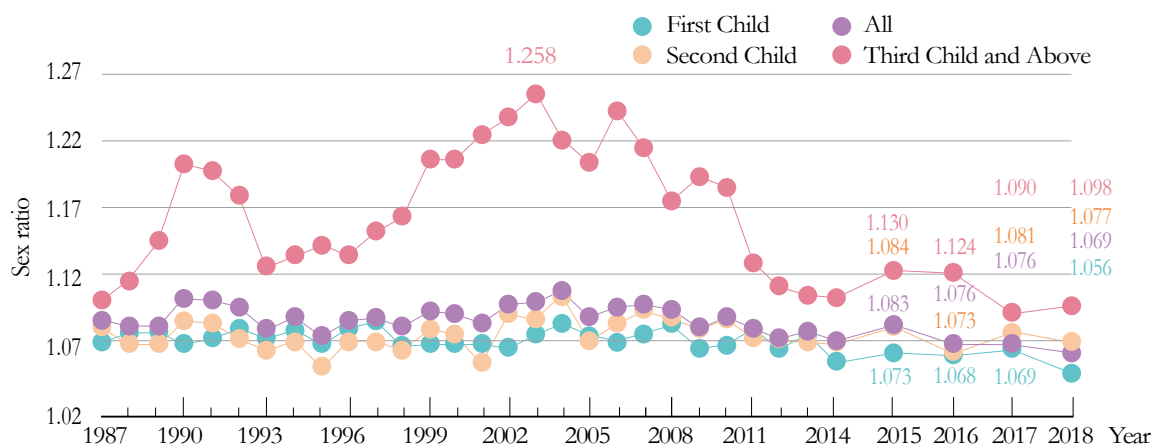
Sources: HPA Statistics of Births Reporting System

Figure2-8 Live births reported in recent years



Sources: HPA Statistics of Birth Reporting System

Figure2-9 Annual incidence rate of low birth weight and extremely low birth weight in infants



Sources: HPA Statistics of Birth Reporting System

Figure2-10 Sex ratio (males to females) of live births by order of birth

HPA is fully committed to the promotion of breastfeeding policies to ensure the healthy growth of infants and children. The exclusive breastfeeding rate in the first month of life reached 67.2% in 2018, while the breastfeeding rate for the same period increased to 95.7% in 2018. In addition to early detection and treatment of abnormalities, the constant provision of a sound healthcare system is a key prerequisite to healthy growth and development of infants and children.

Target Indicators

1. Screen rate of congenital metabolic disorders for newborns was more than 99% in 2018.
2. The utilization rate of children’s preventive health care services was 80% and above in 2018.
3. Breastfeeding rate: according to WHO recommendation, the HPA has aimed to push Taiwan’s exclusive breastfeeding rate in the first 6 months of life 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. Establishment of a Children’s Health Promotion Committee to advance health education and research and development of relevant technologies

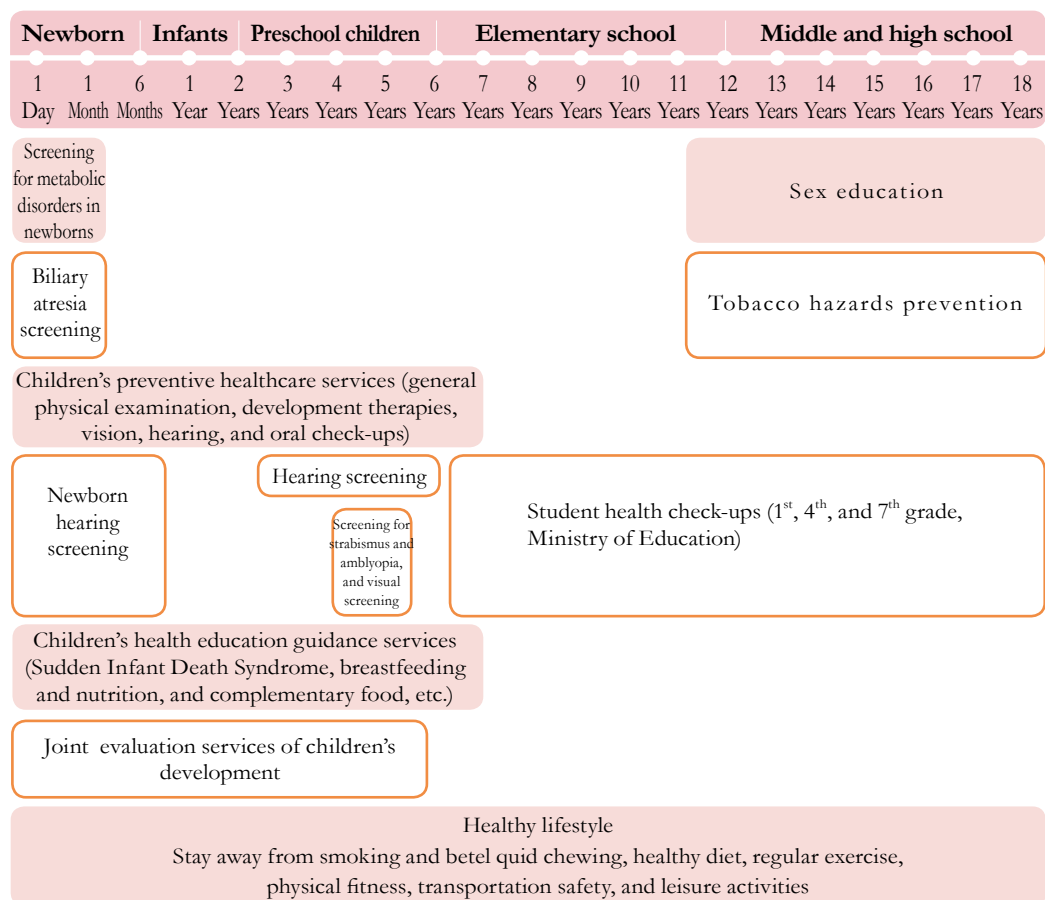
The Children’s Health Promotion Committee, established in 2006, deliberates child health policies and policies to enhance the physical and mental development of infants and children. It improves care service systems for child health and safety and promotes child health education and research and development of health technologies.

2. Establishment of a sound child healthcare system and provision of seven major services

We establish comprehensive child healthcare services (Figure 2-11) for infants and children in Taiwan.

(1) Implementation of the Birth Reporting System

Birth reporting has been fully implemented since 1995 to give health and household registration units at all levels a clear grasp of demographic statistics and data pertaining to neonates in high-risk groups. As of 2004, birth reporting data is posted online. A total of 183,254 births were reported in 2018. Live births and stillbirths amounted to 181,804 (98.82%) and 2,170 (1.18%), respectively.



**Figure2-11 Infant and child health policies**

**Table2-1 Abnormalities detected amongst newborns in 2018**

Screening Items	Prevalence ratio	Number of abnormalities
Glucose-6-Phosphate dehydrogenase deficiency (G-6-PD)	1:54	3,360
Congenital hypothyroidism (CHT)	1:671	269
Congenital adrenal hyperplasia (CAH)	1:12,033	15
Phenylketonuria (PKU)	1:22,561	8
Homocystinuria (HCU)	0	0
Isovaleric acidemia (IVA)	0	0
Maple syrup urine disease (MSUD)	0	0
Galactosemia (GAL)	0	0
Methylmalonic acidemia (MMA)	1:45,122	4
Type 1 glutaric acidemia (GA 1)	1:180,488	1
Medium-chain acyl-CoA dehydrogenase deficiency (MCAD)	0	0
Total		3,657

\*A total of 180,488 newborns were screened in 2018.

## **(2) Providing screening services for newborns**

Newborn Congenital Metabolic Disorders screening service has 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 Newborn Congenital Metabolic Disorders. This helps to lessen the impact of issues. In 2018, a total of 180,488 newborns underwent screening, with a total screening rate of 99.4%, and 3,657 of them were found to have abnormalities. The conditions and diseases for which screenings were carried out, along with prevalence ratios and abnormality numbers, are shown below in Table 2-1.

## **(3) Providing hearing screening for newborns**

As of March 2012, subsidized hearing screening services are provided for all neonates with R.O.C. nationality within three months after birth. Subsidies for each screening amount to NT\$700. In 2018, 312 medical institutions provided such screening services. A total of 176,345 neonates were screened, which represents a screening rate of 98.1%. Hearing loss was diagnosed in 744 cases. Hearing screening services are also provided for preschool children in communities or daycare centers. A total of 117,545 children were screened in 2018. Screening and rescreening rates reached 81.8% and 98.2%, respectively.

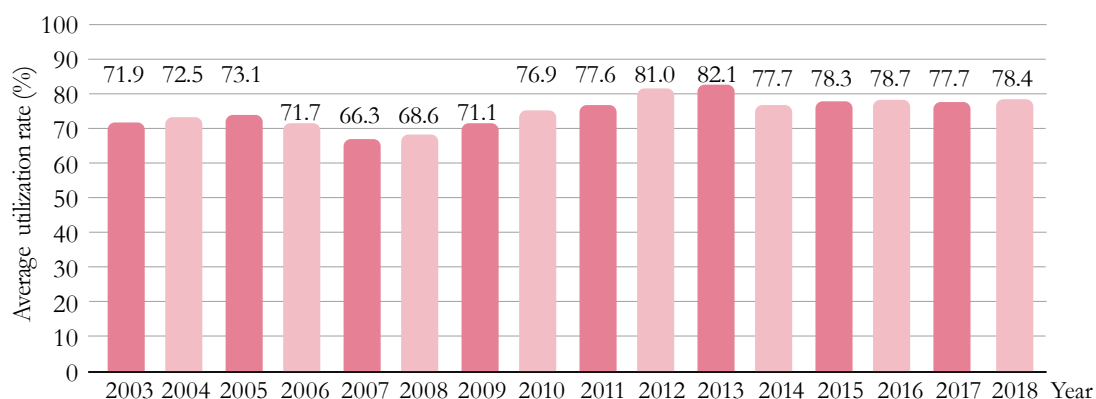
## **(4) Providing children's preventive healthcare for children**

Seven times of children's preventive healthcare services are provided to children under the age of 7 by pediatricians or family physicians in designated clinics and hospitals with the goal of offering continuous health management services to facilitate early detection and treatment of abnormalities. Since 2003, service utilization rates have been maintained at around 70%. A total of 1.071 million children were served in 2018, which represents an average 7-time utilization rate of 78.4% (Figure 2-12).

The "Child Health Education Guidance Service Subsidy Program" was launched in 2013. In November 2014, child health education guidance services were expanded from two times for children under the age of 1 to seven times for children under the age of 7. Physicians provide one-on-one health education guidance for primary caregivers of children. In 2018, a total of 923,000 individuals were served, which represents an average 7-time utilization rate of 67.6% (Figure 2-13).

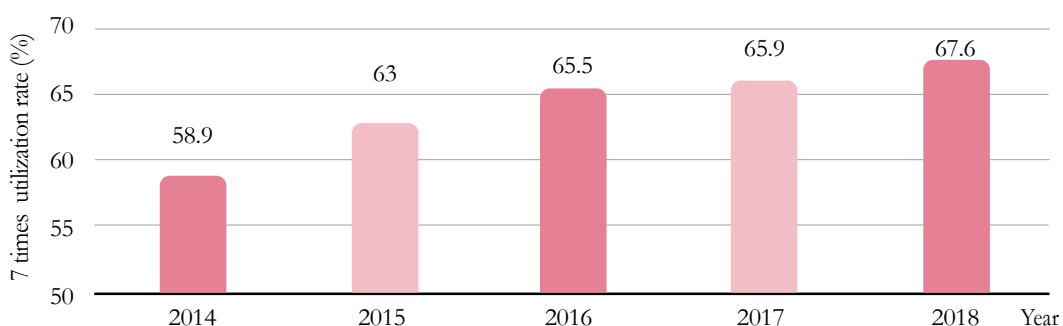
## **(5) Subsidies for locally establishing joint evaluation centers for children's development**

As of 2010, HPA provides guidance to medical institutions for joint evaluation services children's development for based on the number of children under the age of 6 and the availability of medical resources in respective cities and counties, with the goal of offering accessible and integrated services for children with suspected developmental delay and facilitating early intervention. A total of 51 joint evaluation centers children's development for nationwide received subsidies in 2018.



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

**Figure2-12** Average utilization rate of children's preventive healthcare services



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

**Figure2-13** Average utilization rate of children's health education guidance

**Table2-2** Accreditation of baby-friendly hospitals

Item \ Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of certified hospitals	38	58	74	77	81	82	94	94	113	144	158	163	176	177	182	187	180	162
Exclusive Breastfeeding Rate for the first month of life (%)	-	-	-	46.6	-	-	-	62.7	64.4	65.7	68.6	71.9	70.8	68.0	67.5	66.2	-	67.2
Exclusive Breastfeeding Rate for the first six months of life (%)	-	-	-	24.0	-	-	-	35.1	41.2	44.5	45.6	49.6	48.7	45.8	45.4	44.8	-	46.2
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	74.6

**(6) Creating a breastfeeding-friendly environment to increase the breastfeeding rate**

The HPA implements a baby-friendly hospital accreditation system as a way of fostering positive change at hospitals, so as to eliminate hospitals to 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). The HPA has continued to reinforce cross-sectoral coordination to make workplaces as breastfeeding-friendly as possible.

**(7) Implementing the Public Breastfeeding Act**

In order to protect the rights of mothers to breastfeed in public places, the “Public Breastfeeding Act” was implemented in November 2010. This act stipulates that no person can prohibit or prevent a mother from breastfeeding in a public place, or force her to leave for doing so. The act also specially stipulates that public places should be equipped with breastfeeding rooms with clear signage. In 2018 a total of 2,235 public places across Taiwan were equipped with breastfeeding rooms, and 1,186 public places had voluntarily established facilities in accordance with these new regulations.

**3. Effectively rectifying imbalances in gender ratios at birth**

The HPA, the Department of Medical Affairs, and the Food and Drug Administration have jointly formed a Sex Ratio at Birth (SRB) task force to protect the right to life of the fetus, eliminate gender discrimination, and prevent social issues caused by gender imbalance. The task force closely monitors the SRB of hospitals, clinics, and midwives to strengthen detection of violations. As a result, SRB dropped from 1.090 in 2010 to 1.069 in 2018.

**Vision Healthcare**

**Status Quo**

In Taiwan, myopia is a major health 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 problem for school-aged children worsen every year. The prevalence of myopia in first graders was 19.8% and for sixth graders was 70.6%. Since high myopia increases the risk of eye-related complications, therefore, through children’s vision screening services poor vision problems are diagnosed at an early stage for timely referral and treatment.

**Target Indicators**

- 1. Mid-term Indicators (2020): Prevent further increase in the myopia prevalence (maintain the 2017 value of 19.8% in 1<sup>st</sup> graders and 70.6% in 6<sup>th</sup> graders ( $\leq -0.5D$ , 50 degrees)).

**Table2-3    Percentage of Taiwanese students aged 6-18 with myopia**

Grade \ Year	1986	1990	1995	2000	2006	2010 (%)		2017
	(%)	(%)	(%)	(%)	(%)	≤ -0.25D	≤ -0.50D	(%)
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. From 1986-2006 myopia prevalence was defined as  $\leq -0.25D$ .
2. HPA-commissioned epidemiological survey on children and adolescent vision surveys in 2017. Myopia prevalence in 2017 was defined as  $\leq -0.5D$ .

- 
2. Long-term Indicators (2025): Prevent further increase in the myopia prevalence (maintain the 2017 value of 19.8% in 1<sup>st</sup> graders and 70.6% in 6<sup>th</sup> graders ( $\leq -0.5D$ , 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 myopia, strabismus and amblyopia. Referrals and follow-up management are provided when warranted so that treatment can be rendered in a timely fashion HPA cooperated with the Ministry of Education (MOE) in implementing a vision health program intended for both preschool and school children, lest they are afflicted with myopia, which can easily lead to high myopia later in life. All in all, the HPA strives to establish a comprehensive network of vision health services for preschool children in cooperation with ophthalmology associations, local communities and local public health bureaus, in to undertake health promotion campaigns, health education, screening, and referrals.

#### 1. Preventive vision care for children to develop regular check-up habit since childhood

Pediatricians or family physicians carry out assessments based on eye development stages through children’s preventive healthcare services and implements pupil, visual fixation, ocular position (strabismus and amblyopia cover tests), cornea, and Random-dot Stereogram tests.

#### 2. Child vision, strabismus, and amblyopia screening coupled with referral counseling for greater convenience

In addition to vision, strabismus, and amblyopia screening services for preschool children aged 4 and 5 nationwide, HPA provides referral and counseling services for children with vision abnormalities. In 2018, a total of 421,948 children received screening services, which represents a screening rate of 100%. The referral rate for children with vision abnormalities reached 99.59%.

3. Joint promotion of child vision care through cross-ministerial cooperation

Health education, screening, and research are implemented through cross-ministerial cooperation. Child vision care is jointly promoted on the basis of empirical approaches.

4. Joint protection of child vision through constant assessment of the effectiveness of preventive measures

Children’s and Adolescent Vision Monitoring and Survey Program are conducted, together with constant assessment of the effectiveness of myopia prevention.

5. Vision care made simple through daily outdoor activities

Vision care through education on beneficial activities are promoted, such as daily outdoor activities for 2-3 hours, no screen time for children under 2, and no excessive near work activity, and 10 minutes of rest after every 30 minutes of eye usage.

2018 Vision Care Promotion Activities

- 1 Organization of a live streaming activity titled “Consumer electronics ruin the eyes of our children and causes eye diseases” which attracted over 90,000 viewers.
- 2 Organization of an activity titled “Smart Tips for Child Eyecare” which generated a total of 1,068 comments.
- 3 In-depth interviews of primary caregivers of children under the age of 6 to get a better understanding of the motivations and views of parents regarding exposure to and usage of consumer electronics by toddlers.
- 4 Design and printing of educational posters titled “Myopia is a Disease – Combat Poor Vision” and distribution and display of posters in health bureaus, kindergartens, junior high and elementary schools, as well as ophthalmology clinics.



Adolescent Health

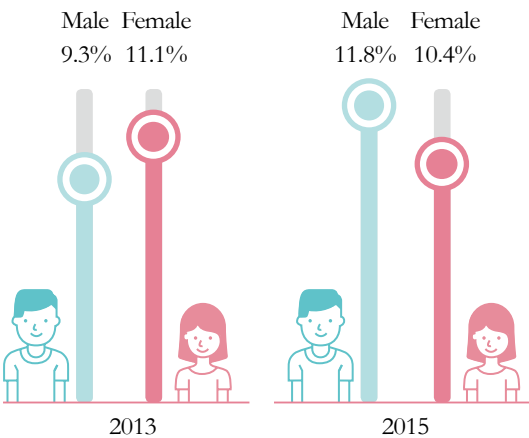
Adolescent Sexual Health

Status Quo

Against the backdrop of social progress and liberalization trends, sexual attitudes and behavior of adolescents have evolved significantly. A survey of the health behavior of senior/vocational high school and junior college students reveals that 15- to 17-year-old female adolescents are more likely to engage in sexual behavior than their male counterparts. By 2015, the percentage had slightly decreased for both sexes. An observation of the most recent sexual behavior and contraception rates reveals that the contraception rate of male students dropped between 2013 and 2015, while that of female students increased. This clearly indicates that self-protective sexual education concepts of female students are already mature, while those of their male counterparts need reinforcement (Figure 2-14, 2-15).

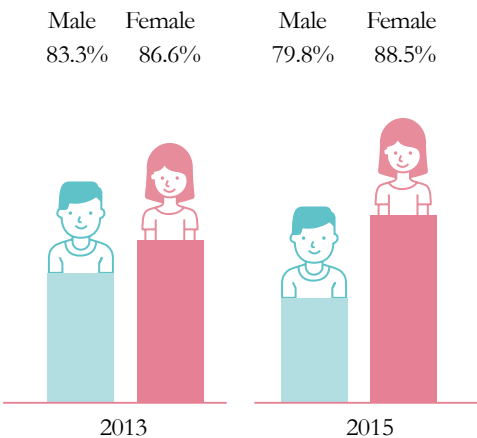


The Ministry of the Interior population data showed that the fertility rate of teenage females aged 15-19 in Taiwan was 4‰ in 2018, a significant drop compared to 6‰ in 2007 (see Figure 2-16). The fertility rate amongst this age group in Taiwan in 2018 was lower than those of the United States (22.3‰), the United Kingdom (14.4‰), Australia (11.9‰), Sweden (4.4‰), and Japan (4.1‰), but it was higher than that of South Korea (1.3‰) in 2018. Early sexual behavior may result in unintended 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.



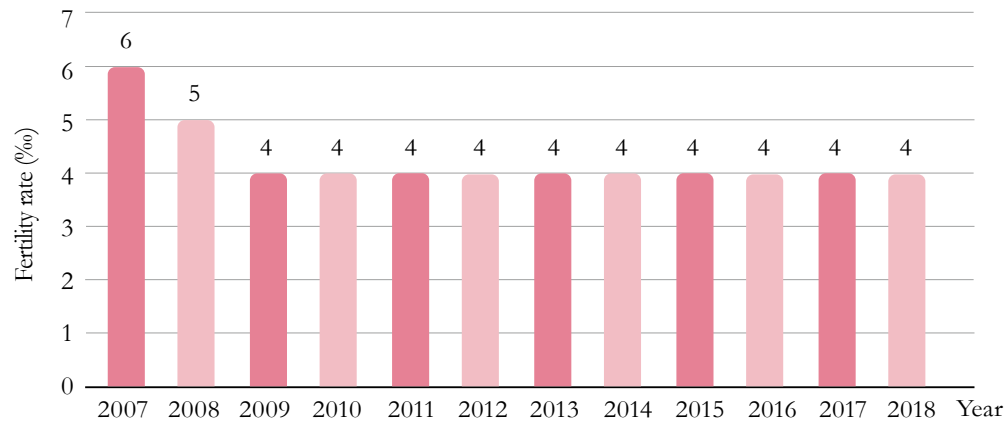
Source: 2017 Statistics of Health Promotion

**Figure2-14**  
Age 15-17 adolescent sexual behavior rate



Source: 2017 Statistics of Health Promotion

**Figure2-15**  
Age 15-17 adolescent most recent sexual behavior contraception rate



Source: Ministry of the Interior statistics

**Figure2-16** Age 15-19 adolescent girl fertility rate amongst girls in Taiwan 2002-2018

## Target Indicators

Reduce the adolescent fertility rate amongst girls aged 15-19 to less than 4‰ in 2018.

## 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 well-being. This goes a long way toward reducing underage births and increasing the use of contraception amongst teenagers.

### **1. Sex e-school, online search for the correct sexual knowledge**

The sex e-school website (<https://young.hpa.gov.tw/index/>) was established to provide parents and teachers with correct sexual knowledge information and teaching materials. We also have professional staff respond to people's questions in the QA section. In 2018, we conducted comprehensive review of network structures. 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 11 correct-rumor articles and 23 health education documents in 2018, and 51,534 people searched the website.

### **2. Planning and pilot implementation of certification of adolescent-friendly medical institutions and empowerment of medical personnel**

In 2018, HPA selected four hospitals and one clinic for on-site trial evaluations in an attempt to expand health care service capabilities for adolescents, improve the accessibility of adolescent-friendly healthcare, and develop relevant frameworks, standards, and self-assessment charts required for the provision of adolescent-friendly medical care services in domestic healthcare institutions. In addition, a total of eight adolescent-friendly care empowerment courses were organized for medical personnel. The number of participants reached 653. Four digital courses (Outline of Adolescent Medical and Health Care, Ethical Laws and Policies Governing Adolescent Health Care in Taiwan, Global Standards for Adolescent Health Care Quality, and Shared Decision Making in the field of Adolescent Health Care) were designed to provide adolescent-friendly care related knowledge and skills.

# Tobacco Control in Schools

## Status Quo

In 2009, after the new stipulations of Tobacco Hazards Prevention Act was implemented, with the promotion of all the policies, the smoking rate of junior high school students decreased by over 60% in 2018, and 40% for senior and vocational high school students (Figure 2-17). We are gradually marching toward the goal of reducing smoking rate by 30% in 2025 set by WHO NCD.

## Target Indicators

In 2018, the smoking rate of junior high school students was less than 4.4%, and the smoking rate of senior and vocational high school students fell to less than 8.8%.



Sources: HPA Global Youth Tobacco Survey (GYTS)

Figure2-17 Smoking rate in adolescents

## Policy Implementation and Results

### 1. Joint efforts to combat tobacco use on campuses

HPA implements the Campus Tobacco Hazards Prevention Program in cooperation with MOE through various strategies including tobacco hazards prevention education, promotion of tobacco-free campus environments, and smoking cessation education. Tobacco hazards prevention spot checks are carried out in coordination with MOE and local governments. As a result of these efforts, second-hand smoke exposure rates on junior high school and senior/vocational high school campuses dropped to 6.6% and 13.3% respectively in 2018. Significant improvements have been achieved in the field of smoking rates and second-hand smoke exposure rates of students, faculty, and staff members.

### 2. Enhancement of knowledge and skills in the field of adolescent tobacco hazards prevention through participation of schools

We conducted “2018 Project for Tobacco Control Work in Young Group Area.” Through subsidization and guidance visit, a total of 35 schools participated. We worked with MOE to conduct “Young Generation Excellent Performance Award Ceremony and Demonstration” Moreover, we award people with excellent performance, highlight sharing, upgrade teachers’ and students’ knowledge and skills toward tobacco hazards prevention.

### 3. Smoking cessation and combating of tobacco use made easy through integration of resources

Integrating local health department and social resources, through propaganda events or subsidizing community health creation plan, we gather civil groups or community volunteers 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. We reveal the test results of tobacco vendors 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 2,251 people, and 1,915 have completed tobacco cessation education.

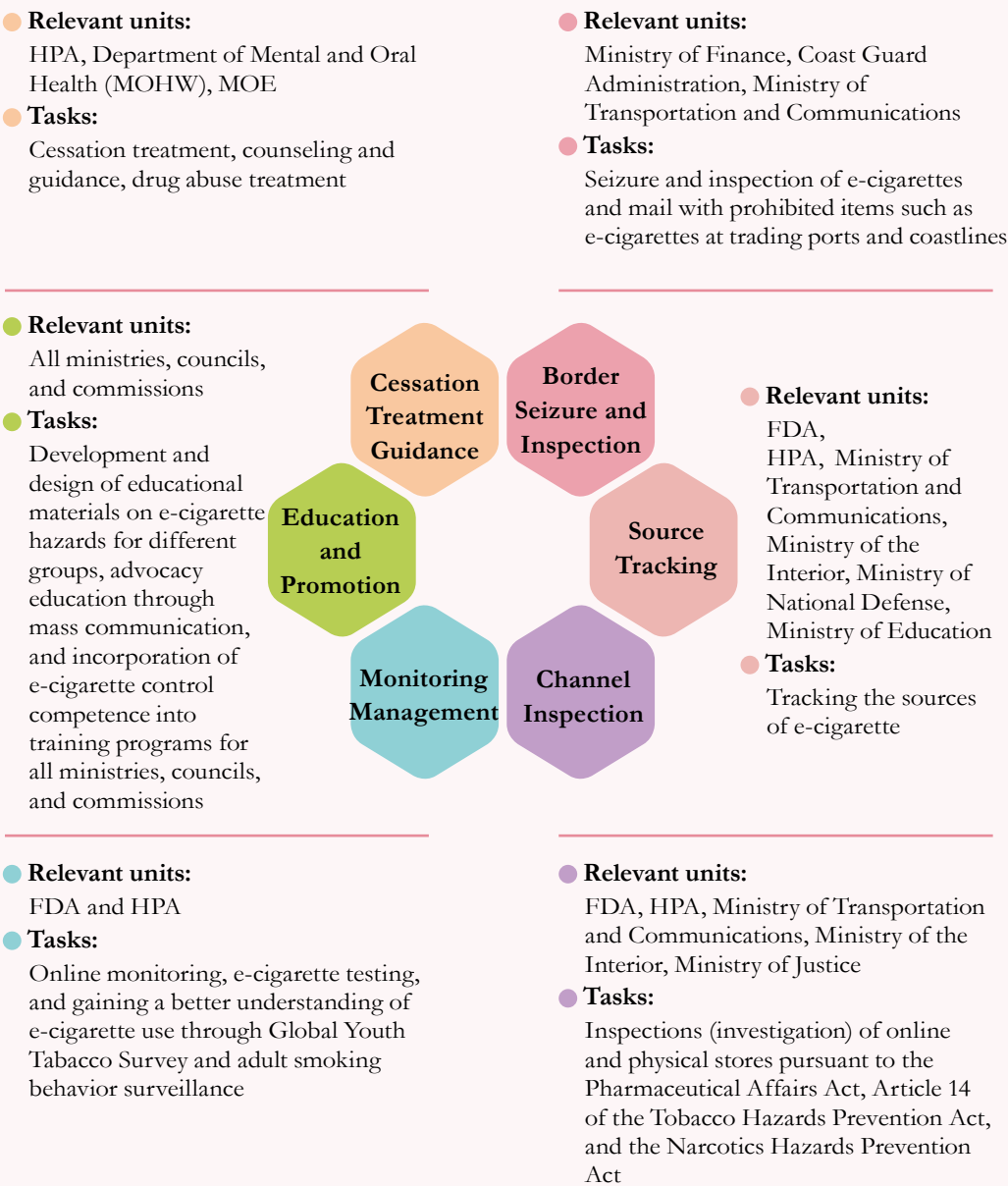
### 4. Cross-ministenal cooperation and prevention of e-cigarette use

Cross-ministenal cooperation to prevent e-cigarette use encompasses the following six aspects: border seizures and inspection, source tracking, channel inspections, monitoring management, education boardcasting, and cessation guidance, etc. According to a survey on adolescent smoking behavior, e-cigarette usage rates of junior high school and senior/vocational high school students increased from 2.0% and 2.1% in 2014 to 3.7% and 4.8% in 2016, respectively. The government relied on cross-ministerial cooperation to decrease these rates to 1.9% and 3.4% in 2018. Newly formulated e-cigarette control regulations will be incorporated into the draft amendment to the Tobacco Hazards Prevention Act to ensure applicability of regulations governing smoking cessation age and service recipients, non-smoking areas, and smoking cessation education to e-cigarettes. The first reading procedures

for this draft amendment in the Legislative Yuan have already been completed in 2017. Upon passing of this amendment, more clearly defined regulations will exist for the control of e-cigarettes.

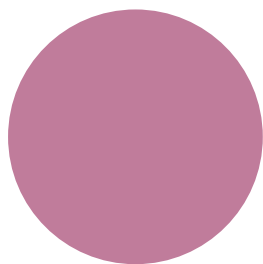
5. Tireless efforts in the field of campus tobacco hazards prevention

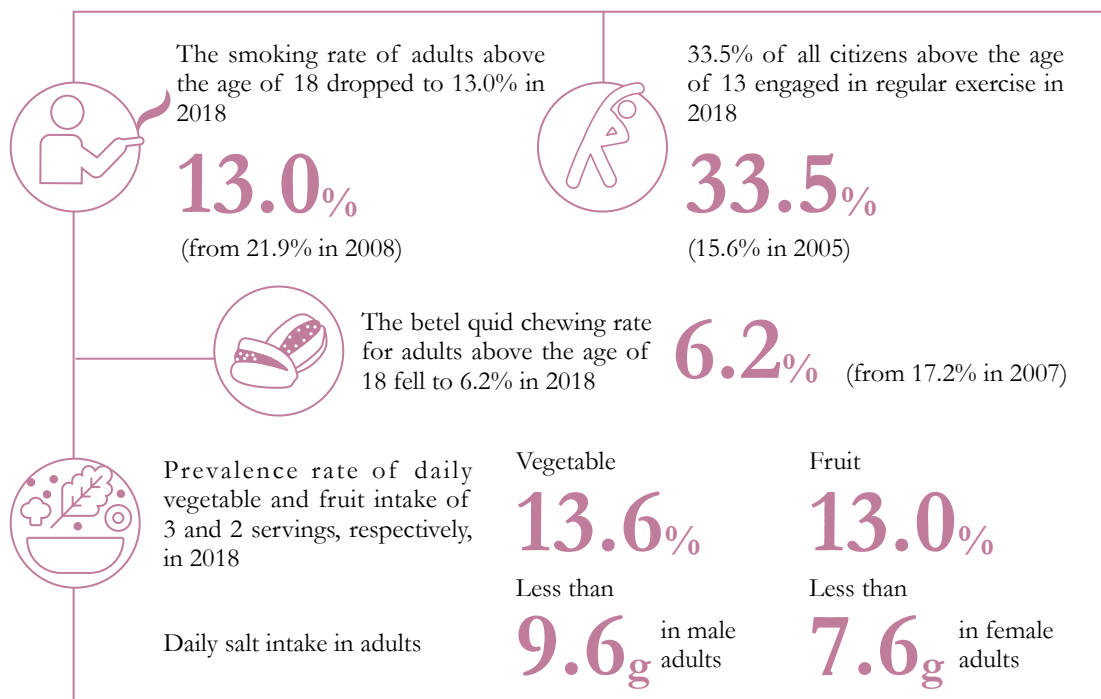
Through overall quantitative goals, guidance, and assessment methods, we conduct campus tobacco hazards prevention spot checks, expand campus tobacco hazards prevention propaganda events, create tobacco-free campuses, implement tobacco cessation education, and reinforce campus tobacco prevention work.



# 3 Healthy Living

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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.

## Prevention and Control of Tobacco Hazards

### Status Quo

HPA is firmly committed to the implementation of the Tobacco Hazards Prevention Act, maintenance of second-hand smoke exposure rates in non-smoking areas below 10%, and establishment of supportive tobacco-free environments. At the same time, it provides diversified smoking cessation services in an attempt to make professional smoking cessation conveniently available for people in all professions and help them to successfully break free from the shackles of their smoking addictions.

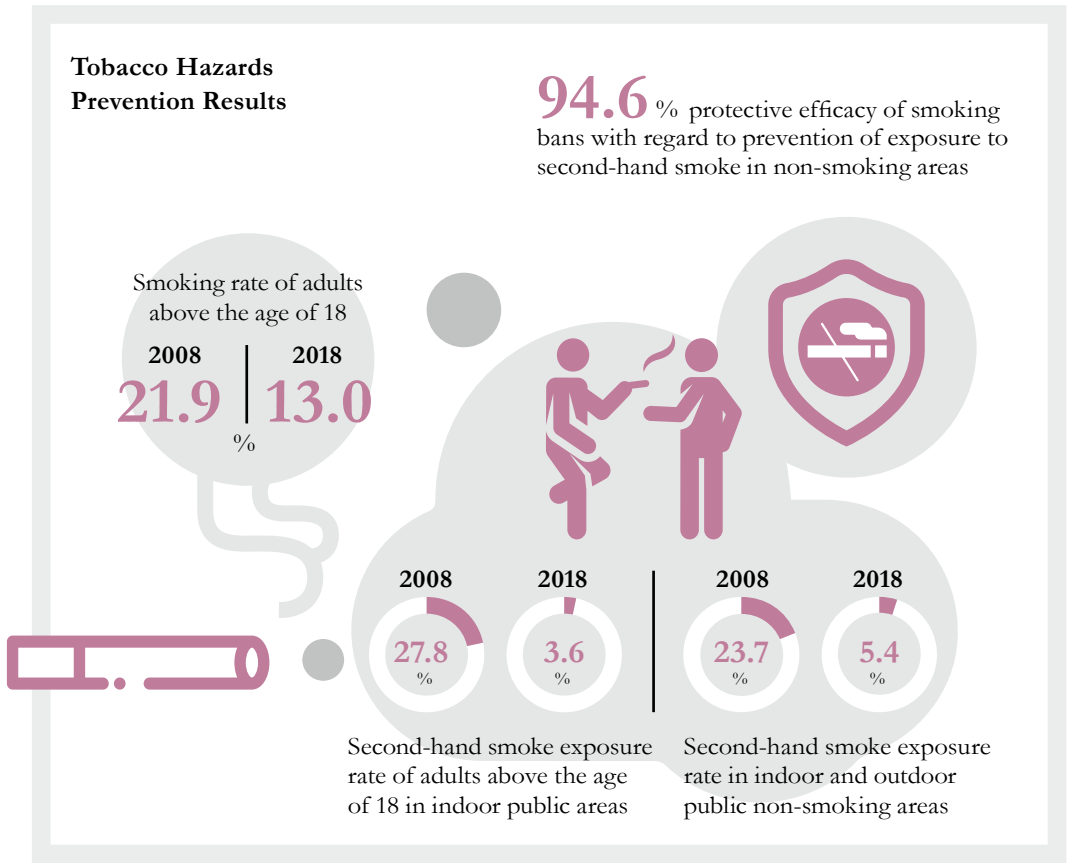
Since the new provisions set forth in the Tobacco Hazards Prevention Act took effect in 2009, HPA has achieved the following results in the field of tobacco hazards prevention through the promotion of various strategies.

The smoking rate of adults above the age of 18 dropped from 21.9% in 2008 to 13.0% in 2018 (Figure 3-2). Taiwan is making steady progress toward the target of a 30% relative reduction in tobacco use by 2025 set by WHO NCD. In addition, the second-hand smoke exposure rate of adults above the age of 18 in indoor public spaces dropped significantly from 27.8% in 2008 to 3.6% in 2018 due to a gradual expansion of non-smoking areas. The second-hand smoke exposure rate in indoor and outdoor public non-smoking areas also decreased considerably from 23.7% in 2008 to 5.4% in 2018. The smoking ban has a protective efficacy of 94.6% with regard to prevention of exposure to second-hand smoke in non-smoking areas.

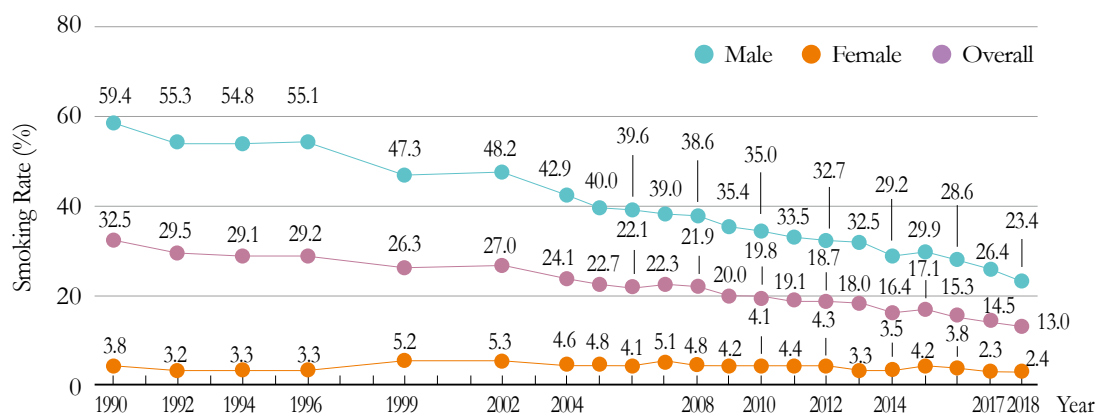
Segmentation of smoking cessation services

- Assistance in smoking cessation for chronic patients and patients before certain surgeries
- Strengthening of education on smoking hazards on World No Tobacco Day
- Organization of Quit & Win Contests
- Utilization of nudging for smokers
- Provision of on-site services for groups with high smoking rates
- Utilization of tailor-made smoking cessation strategies based on shared decision making (SDM)

Figure3-1  
Strengthen comprehensive smoking cessation services







Source:

1. Data from 1990 to 1996 was derived from household interviews conducted by the Taiwan Tobacco & Liquor Corporation.
2. Data for 1999 was based on the information of the survey carried out by Prof. Li Lan.
3. Data for 2002 was based upon health-related information collected from household interviews conducted by the HPA for the “2002 National Survey on Knowledge, Attitude, and Practice of Health Promotion for the Taiwan Region.”
4. Data from 2004 to 2018 was based upon smoking-related information of the general public collected via telephone interviews conducted by the HPA for the “Adult Smoking Behavior Survey.”
5. Data from 1999 to 2018, the definition of smokers refers to anyone who had smoked more than 100 sticks (5 packs) of cigarettes, and had smoked in the last 30 days.

**Figure3-2 Smoking rate of adults aged 18 and above in Taiwan**

In the future, HPA will promote integrated education encompassing smoking and betel quid cessation, create tobacco-free environments and legal amendments, increase the size of cigarette warning labels, and provide second-generation smoking cessation services. In addition, the training of professional smoking cessation education personnel will be intensified. Smoking cessation education and case management services will be rendered in a face-to-face manner. Smoking cessation education, guidance, and counseling services are provided by professional teams at workplaces and in schools through integration of resources within the area of jurisdiction. The Tobacco Health and Welfare Surcharge is utilized to assist smokers in ending their habit and increase smoking cessation success rates. Investigations of illegal sale of tobacco products to minors under 18 at places such as traditional stores and betel quid kiosks will be intensified to eradicate sources of tobacco products for adolescents. An all-out education campaign will be launched in cooperation with all circles of society to create supportive tobacco-free environments.

### Target Indicators

The smoking rate of people above the age of age 18 was under 15.0% in 2018.

## Policy Implementation and Results

### 1. Continued enforcement of the “Tobacco Hazards Prevention Act”

Emphasis has been placed on carrying out compliance checks, expanding the network of 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) Health bureaus in all cities and counties are actively committed to law enforcement, inspections, and guidance. In 2018, the number of inspected cases nationwide exceeded 680,000 with over 4.37 million individual inspections. A total of 7,038 disciplinary citations were issued. Total fines amounted to over NT\$112.66 million. Fines imposed for 50 cases of violations of the provisions governing the promotion or advertising of tobacco products set forth in Article 9 of the Tobacco Hazards Prevention Act exceeded NT\$76.65 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 hazards prevention volunteers.
- (3) The HPA provides a “Complaints on Tobacco Hazards Hotline” at 0800-531-531 to deal with public inquiries and reports relating to the Tobacco Hazards Prevention Act. In 2018, the Hotline dealt with approximately 3,359 public inquiries and 1,487 complaints, all of which were passed on to the relevant local health bureau to be dealt with.
- (4) The HPA actively promotes revision of the “Tobacco Hazards Prevention Act.” The key points of those revisions included electronic cigarette management, prohibition of flavored cigarettes, enlargement of pictorial warnings on tobacco products, expansion of smoking-free areas, increased fines for repeat offenders, prohibition of named sponsorship by tobacco industry, increase of legal and medical assistance, 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. Establishment of smoke-free supportive environments and reduction of smoking rates and second-hand smoke exposure rates

To help people stay healthy, the HPA supports smoke-free environments in parks, communities, restaurants, schools, workplaces, and the military. 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 Family: In 2012, HPA developed “Smoke-free Family Play Books” as a vehicle to teach children about the dangers of tobacco and the courage to say no to smoking. In this way, through children’s language and video media experience, tobacco control becomes an integral element of kindergarten and elementary school resources. HPA encourages teachers to use anti-tobacco teaching materials



### In 2018, we helped 35 colleges promote tobacco control programs in campus

- ① Promoting “Project for Tobacco Control Work in Youth Group Area,” to guide 35 colleges or universities to promote tobacco control programs in campus
- ② Organizing the “Open casting call Maxim” event
- ③ Students persuade shop owners to become smoke-free shops
- ④ Advocating tobacco and betel quid control in the remote areas
- ⑤ Inviting kindergarten students to act as “anti-smoking ambassadors” to persuade family members to say no to smoking
- ⑥ Smoke-free campus debate contest



Smoking ban announcements in surrounding environments have been completed for 78.7% of all secondary and primary schools (a total of 2,867).

to which children can relate, thereby improving the efficacy of tobacco prevention work.

In addition, a Google online survey was conducted to determine the usage conditions of “Smoke-free Family Play Books” and facilitate recommendations. The questionnaire return rate reached 27% (1,805 questionnaires). A total of 98% of the responding educators believe that the books are suitable for kindergartens and 96% expressed the willingness to use the same books for tobacco hazards prevention education in the future. As many as 98% of the respondents are satisfied with the contents of the books.

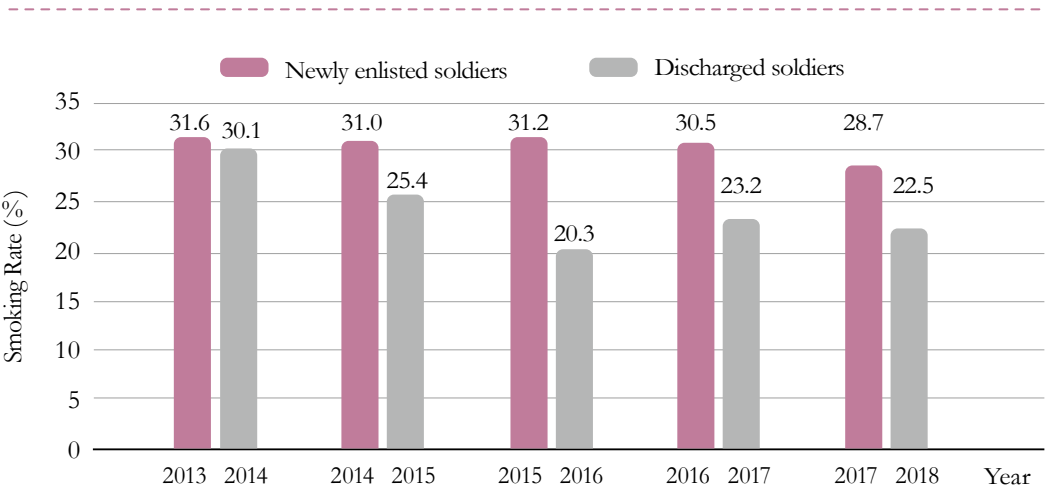
B. Campus: According to Paragraph 13 of Item 1 Article 15 of the Tobacco Hazards Prevention Act, local governments shall voluntarily announce the surrounding environment (including school gates, parent pick-up areas, sidewalks, etc.) of

schools below senior high schools under their jurisdiction as non-smoking places, and clearly mark the scope of the smoking ban. In 2018, 35 colleges and universities were guided to implement Campus Tobacco Hazards Prevention Program.

C. Military: The HPA and Medical Affairs Bureau under the Ministry of National Defense worked together to promote tobacco control work in the military by drafting policy and providing tobacco treatment services, health education promotional materials and counselors. On average 300 tobacco cessation counselors were trained every year and we established a “tobacco cessation counselor family” network. In 2013, smoking rate of newly enlisted soldier was 31.6%, but it fell to 28.7% by 2017. In 2014, the smoking rate of discharged soldiers was 30.1%, and it dropped to 22.5% in 2018. The smoking rate exhibits a decreasing trend.



Five types of aerobic exercises to quit smoking.



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

Figure3-3 Smoking rate of national soldiers

D. Hospitals: hospitals joined Global Network for Tobacco Free Healthcare Services and transferred online certification standards into indicators and key evaluation standards for tobacco-free hospitals. By 2018, 213 hospitals had joined this network. A total of 50 hospitals worldwide earned gold awards



2018 Global Network for Tobacco Free Healthcare Services (GNTH) Gold Forum Award



In Taiwan, 18 hospitals have received the honor, making Taiwan with the greatest number of Gold-level hospitals in 2018.

1999	2011	2018
Global Network for Tobacco Free Healthcare Services	Taiwan jointed the network in 2011 and became the first network in the Asia-Pacific.	<ul style="list-style-type: none"><li>● In Taiwan, 213 hospitals have joined the network.</li><li>● 50 hospitals throughout the world garnered this gold forum award. In Taiwan, 18 hospitals received the honor, making Taiwan with the greatest number of Gold-level hospitals in 2018.</li></ul>

Education and promotion of tobacco hazards prevention through various methods in 2018



Yu Cheng-Ching (Harlem), a local celebrity, was enlisted as an endorser for a promotional video of the 2018 “Quit & Win” contest. This clip projects a bold and healthy image and attitude, based on the slogan “Let’s Quit Smoking – You Can Do It!” Viewers are encouraged to enlist their friends to make contributions to create a friendly, smoke-free environment.

Tobacco hazards education was integrated into daily life by tobacco control education vehicles with “Tobacco Hazards Detective-Mystery of Third-hand Smoke” interactive game which disseminates tobacco hazards prevention information when players search for remains of third-hand smoke during the game. The vehide will tour schools, communities and large events around Taiwan. In addition to tobacco hazards information, the activities also integrated visual healthcare, sexual education, healthy body weight and preventing dementia issues on HPA’s health promotion work with fun. This has created an immense response from students and the public; over 200 activities with about 210,000 participants were organized from 2017 to 2018.

HPA cooperates with media and youtubers in the communication of topics related to tobacco hazards prevention in simple, easily understandable terms. Relevant initiatives include an online activity titled “30 facts you should know about e-cigarette and heat-not-burn products,” informative popular science clips titled “When will the Vicious Cycle of Smoking End?” and “Anti-smoking Squad,” as well as creation of image and text contents by bloggers. The goal is to provide an in-depth analysis of nicotine addictions, toxic chemical substances, and hidden dangers in various shapes to remind the public of the dangers of tobacco products.



Diversified media channels are employed to reinforce education on third-hand smoke hazards. Multimedia ads such as “Dad’s three-hand smoke,” “Have you ever heard of third-hand smoke,” “Smoke-free Great Times: Pregnancy,” and “Smoke-free Great Times: Pets” have been produced. A clip titled “The Numerous Advantages of Smoke-Free Households” has been created in cooperation with the online celebrity “turtledrawturtle”. The goal is to raise the public awareness of tobacco hazards issues via different channels.

HPA also organized a “Be Smoke Free, Super on Campus” program and a “Say No to Smoking” educational press conference and display educational information at over 4,272 spots nationwide.

**(2) Fostering education on tobacco hazards prevention through various channels**

Media advocacy was centered around the health hazards posed by second- and third-hand smoke, the smoking cessation service and the risk of e-cigarette. HPA combined TV, radio, outdoor media, print media and tobacco control education vehicles touring schools, workplaces, and communities to deliver the message and improve the effectiveness of smoking prevention work.

**3. We provide comprehensive and accessible smoke cessation services to assist smokers to change their habit and reduce obstacles. Smokers receive assistance in their efforts to quit smoking through outpatient smoking cessation treatment, toll-free phone counseling, and smoking cessation courses.**

- (1) Second Generation Smoking Cessation Service Payment Scheme: In 2018, 191,514 were served, with 705,953 visits and the six-month cessation success rate was 26.4%, helping 50,000 people to quit smoking. In the short term, it is estimated that more than NT\$270 million will be saved in medical health insurance expenditure and in the long term more than NT\$21.2 billion in social and economic benefits.
- (2) Smoker’s Helpline: From 2003-2018, telephone counseling received 1,241,387 calls and a total of 336,647 individuals were helped to set cessation plans. The success rate for cases that received multiple counseling sessions exceeded 40% in 2018.
- (3) Smoking Cessation Classes: In 2018, local governments held a total of 422 classes, with approximately 5,441 participants.

0800-63-63-63  
(Taiwan smoker's  
helpline)  
Mon-Sat, AM9-PM9

## Second-generation Smoking Cessation Services

**20%** discount



**4,000**  
institutions

In 2012, over 4,000 healthcare institutions and community pharmacies provided medical treatment services for smoking cessation.



Smoking cessation medication is subsidized through the Tobacco Health and Welfare Surcharge, which ensures that drug fees don't exceed NT\$ 200 each time. Regions that lack medical resources are entitled to an additional 20% discount, while aborigines, low-income households, and smokers in mountainous regions, and offshore islands are eligible for full exemption.



Certain healthcare institutions or community pharmacies offer professional support and care to smokers willing to undergo smoking cessation treatment in coordination with smoking cessation health educator.

## 4. Establishment of a long-term research and monitoring system

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 2018, 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.

A “Tobacco Product Testing and Research Program” has been adopted. In all, 57 tests have been carried out to determine the nicotine, tar, and carbon monoxide content in the main smoke stream of 57 domestic and imported cigarettes as well as the amounts of 50 different heavy metals and nitrosamine contents. The test results for all sampled tobacco products reveal that the nicotine and tar contents of 8 smuggled and 2 inferior tobacco products exceed the maximum amounts stipulated in the Tobacco Hazards Prevention Act. In addition, the indicated values on 4 tobacco product containers exceed the allowable error range of the test values and have therefore been forwarded to local health bureaus for investigations.

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 and relevant provisions of the Tobacco Hazards Prevention Act since 2009. As of 2018, 83 businesses had submitted filings on 4,792 tobacco products. Through the new “Tobacco Information

Declaration System,” tobacco suppliers can upload the “publicly-declared information” on websites, disclosing the composition of tobacco products and providing the public with real time information. From April 2010 when the website was established to 2018, 226,563 people browsed the website, with 14,322 people in 2018.



2018 County and City Tobacco Control Exchange Workshops

## 5. Improving talent training

- (1) In order to improve the problem analysis skills of colleagues responsible for tobacco hazards prevention from the health bureaus, to enhance relevant knowledge and skills in practice and plan stipulation as well as to provide communication and learning platforms among counties and cities, the HPA held two Tobacco Control Exchange Workshops, in the eastern and northern regions of Taiwan with a total of 173 participants.
- (2) A shared-care model for smoking cessation has been developed to increase the depth and breadth of smoking cessation services provided by professional medical personnel to meet the different needs of service recipients. In 2018, 474 physicians participated in smoking cessation therapist training, 280 dentists participated in the basic training in the context of the smoking cessation service training program, 52 dentists participated in the intermediate training, 481 health educators participated in advanced courses on smoking cessation education, and 226 pharmacists participated in advanced smoking cessation educator courses.
- (3) In 2018, HPA conducted four basic training classes with 213 participants and one advanced training class with 50 participants to reinforce awareness of regulations and enhance the law enforcement techniques of inspection personnel.

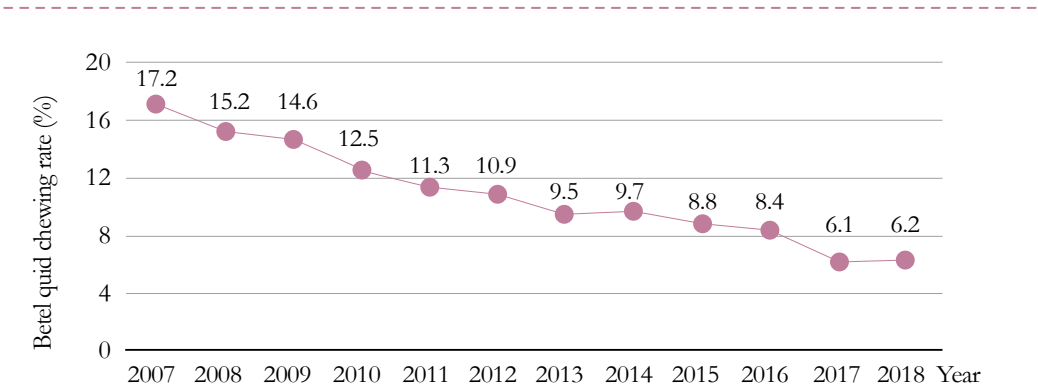


# Prevention and Control of Betel Quid Hazards

## Status Quo

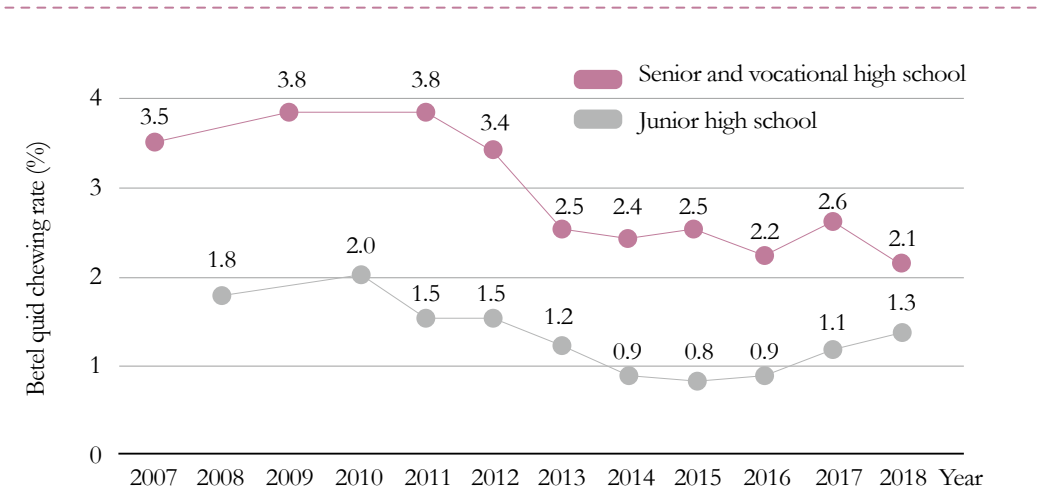
The International Agency for Research on Cancer (IARC) has already confirmed that betel quid is a Group 1 carcinogen. Betel quid chewing is one of the leading causes of oral cancer in Taiwan. Over 7,000 new cases of oral cancer have been reported since 2012. Close to 90% of these patients are betel quid chewers. Compared to smokers and alcoholics, betel quid chewers are at a higher risk to develop oral cancer.

It is estimated that around 970,000 adults over 18 are betel quid chewers. Around 900,000 of them are male. A 10-year trend chart of male adult betel quid chewing rates indicates a decrease by 59.2% (Figure 3-4). Betel quid chewing rates of junior high school and senior/vocational high school students dropped to 27.7% and 40.0% respectively (Figure 3-5).



- 1. Source: Behavioral Risk Factor Surveillance Surveys (BRFSS) from 2007 to 2017, 2018 Health Promotion Survey (HPS), and Adult Smoking Behavior Survey (ASBS)
- 2. Betel Quid Chewing Rate: Refers to individuals who have consumed betel quid within the past 6 months.

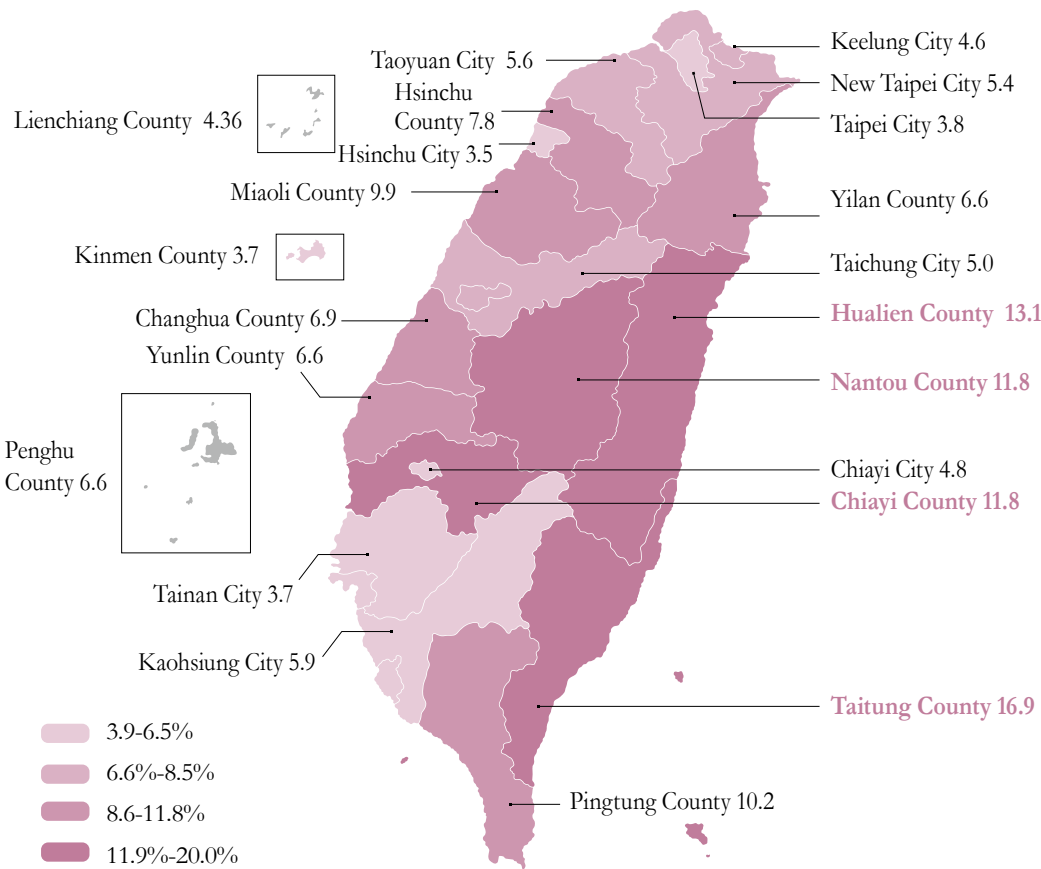
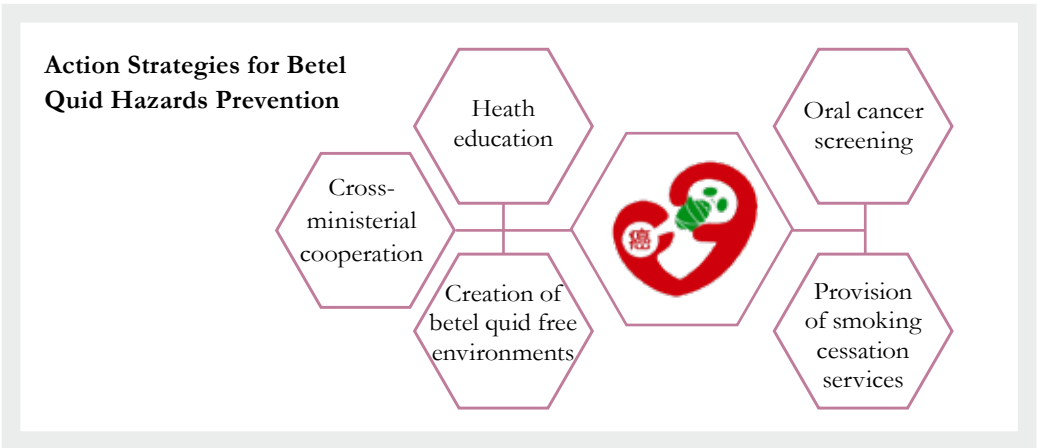
Figure3-4 Betel quid chewing rate among adult males over 18 in Taiwan



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

Figure3-5 Betel quid chewing rate among adolescents

In 1997, the Executive Yuan declared December 3<sup>rd</sup> as “World Areca Prevention Day” to raise public awareness of betel quid hazards. Government agencies at all levels implement measures for the prevention of betel quid hazards and strive to create betel quid free environments in communities, on campuses, at military bases, and at workplaces with high betel quid chewing rates through cross-ministerial cooperation and tapping of NGO resources.



1. Source: 2018 Health Promotion Survey (HPS) and Adult Smoking Behavior Survey (ASBS)  
 2. Betel Quid Chewing Rate: Refers to those who have consumed betel quid within the past 6 months.

**Figure3-6** 2018 betal quid chewing rate among adult males over age 18 by city/county

## Target Indicators

In 2018 betel quid chewing rate for men over the age of 18 is less than 7%.

## Policy Implementation and Results

### 1. Multi-channel education campaign

Family members and friends who are betel quid chewers and smokers are encouraged through educational efforts on diverse channels to undergo oral cancer screening. Betel quid hazards prevention is implemented in communities and at workplaces in cities and counties with a high prevalence of betel quid chewing and oral cancer. In addition, betel quid-free and tobacco-free campuses are promoted to reduce the risk of exposure of adolescents to betel quids. Life skills in the field of betel quid and tobacco hazards prevention are incorporated into after-school tutoring programs with the aid of social welfare organizations.

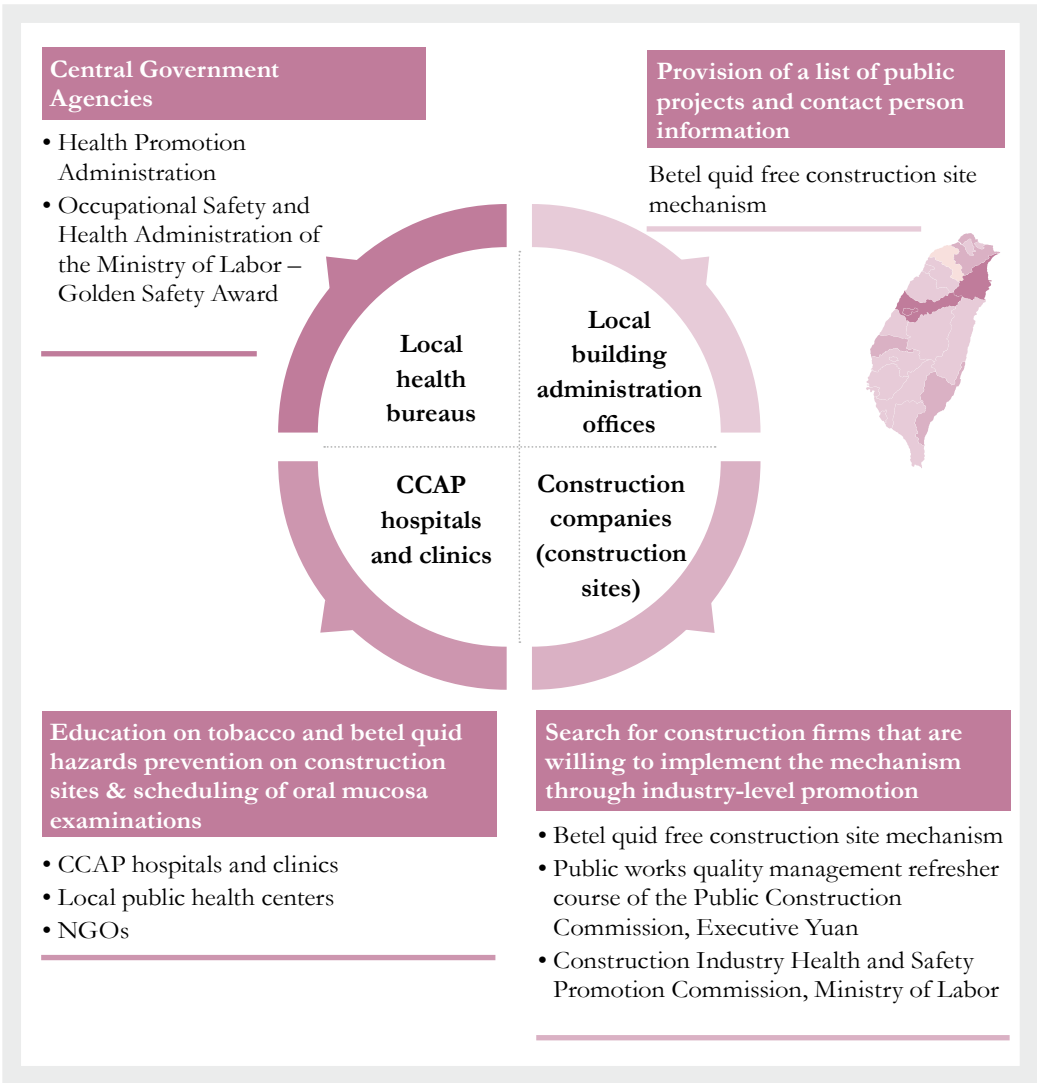
### 2. Intensification of cross-departmental and cross-unit links and joint combat of betel quid chewing

HPA establishes supportive betel quid-free environments through usage management, decrease of supply, and expansion of screening services through cross-departmental and cross-unit cooperation.

#### (1) Cross-ministerial and cross-departmental cooperation to promote the creation of supportive betel quid-free environments in industries with high betel quid chewing rates

In line with national cancer prevention policies to encourage active implementation of betel quid hazards prevention by employers in industries with high betel quid chewing rates, the Occupational Safety and Health Administration of the Ministry of Labor selects public works with outstanding achievements in the field of occupational safety and health and golden safety award. Compliance with national policies, implementation of worker protection items, such as cancer screening are listed as selection criteria. Selected projects are eligible for exemption from tender bonds, performance bonds, or maintenance bonds.

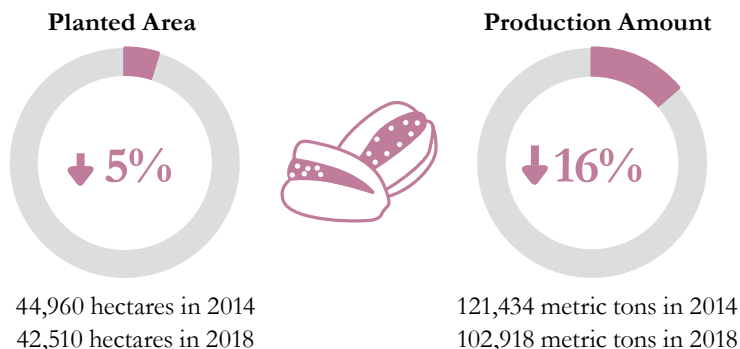
HPA has developed a mechanism for supportive betel quid free environments in the context of public works through cross-departmental cooperation with local governments. This mechanism is being implemented on a trial basis in Taichung City and Yilan County through cooperation with the building administration offices and health bureaus of local governments. Oral cancer screening services are provided at construction sites for workers without fixed employers with the goal of creating betel quid free environments on construction sites.



**(2) Decrease of supply and reinforcement of environmental inspections**

The Council of Agriculture of the Executive Yuan utilizes the tobacco hazards prevention and healthcare funds to decrease supply, reinforce source control, and monitor the conversion of abandoned betel quid plantations to other crops. The “Betel Quid Plantation Conversion Program” was adopted in 2014. The Environmental Protection Administration of the Executive Yuan enforces the provisions set forth in Article 50-1 of the Waste Disposal Act stipulating that individuals spitting of betelquid juice or fiber shall be required to attend a four-hour class to help them break their habit of chewing betel quid. Over 4,000 individuals have attended these classes since their inception in 2014.

## Achievements in the Decrease of Betel Quid Planting Areas and Production Amounts



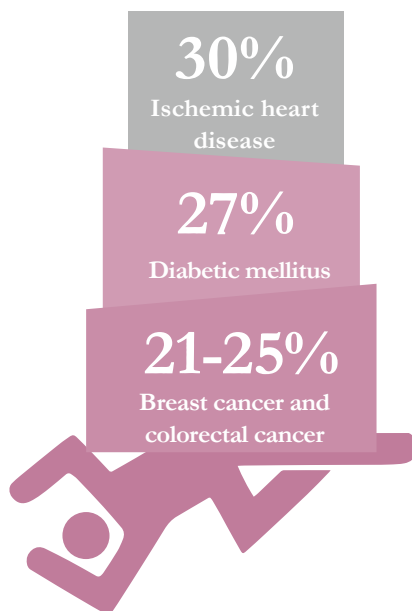
## Promoting Physical Activity

### Status Quo

Physical inactivity is the fourth leading risk factor for global mortality and is associated with 6% of deaths annually. It is only surpassed by hypertension (13%), tobacco use (9%), and hyperglycemia (6%). In 2011, WHO pointed out that physical inactivity affects individual health (Figure 3-7), increases medical expenditures and social costs, and generates a huge burden for governments and societies.

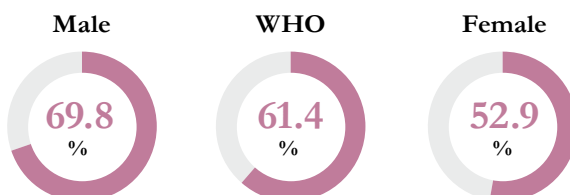
The results of a “Current Exercise Survey” (Figure 3-8) conducted by MOE in 2018 clearly shows that the proportion of citizens who engage in regular exercise is still stagnant. HPA has been promoting walking through a campaign titled “Ten Thousand Steps A Day Keeps Diseases At Bay” since 2002.

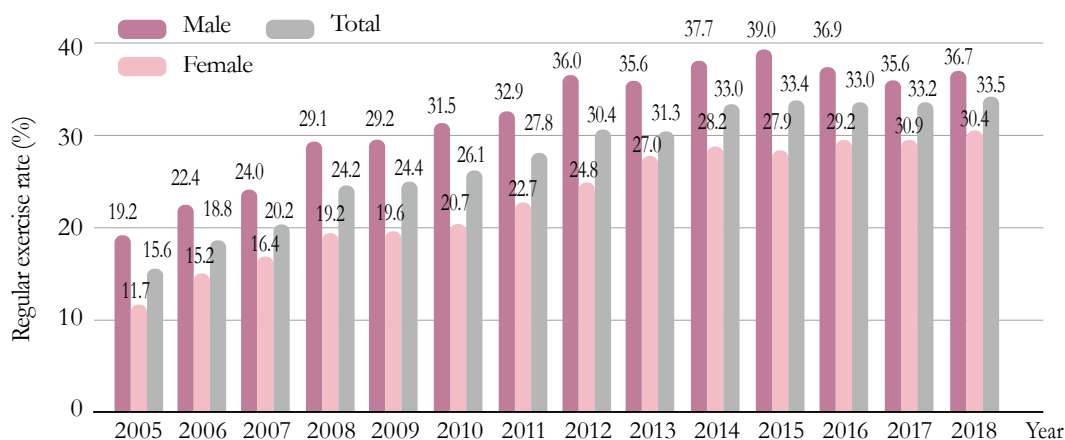
### Lack of Physical Activity



**Figure3-7** Impact of lack of physical activity on individual health

Weekly exercise amount for people above the age of 13 recommended by WHO:





1. Sources: 2005-2015 Sports City Surveys from the Sports Administration (MOE) and 2016-2018 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

**Figure3-8 2005-2018 Ratio of people above the age of 13 who engage in regular exercise in Taiwan**

## Target Indicators

The 2018 target was 46.3% of citizens to exercise regularly.

## Policy Implementation and Results

### 1. Cross-ministerial cooperation to promote national physical fitness

The “Executive Yuan Sports Development Committee,” 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. The council cooperates with the Sports Administration, Ministry of Education to promote national sports.

HPA organized a symposium on sports and health for all titled “Creation of a Sports City to Level Up Health” on July 28, 2018 in cooperation with the Sports Administration of the Ministry of Education. Bob Heere, President of the North American Society of Sport Management and professor at University of North Texas, and Kuno Shinya, professor at University of Tsukuba were invited to share practical experiences in the promotion in the Netherlands and Japan. In addition, 300 representatives from industry, academia, society, and media were asked to share their promotion experiences and future vision based on the theme of “health, LOHAS, and love of sports.”



Blueprint for cooperation between the Sports Administration (MOE) and Health Promotion Administration (MOHW)



HPA organized the 2018 “Creation of a Sports City to Level Up Health” seminar in cooperation with the Sports Administration

## 2. Multimedia programs to promote a wide range of physical exercise

HPA develops physical activity guidelines for different age groups and chronic patients with health bureaus, public health center personnel, community sports coaches, and physical fitness instructors as the main promoters. Health-related physical fitness is advocated in handbooks and videos on webpages, Facebook, mobile APP ads, and e-Newsletters. This enables the public to obtain physical activity information through diverse channels.

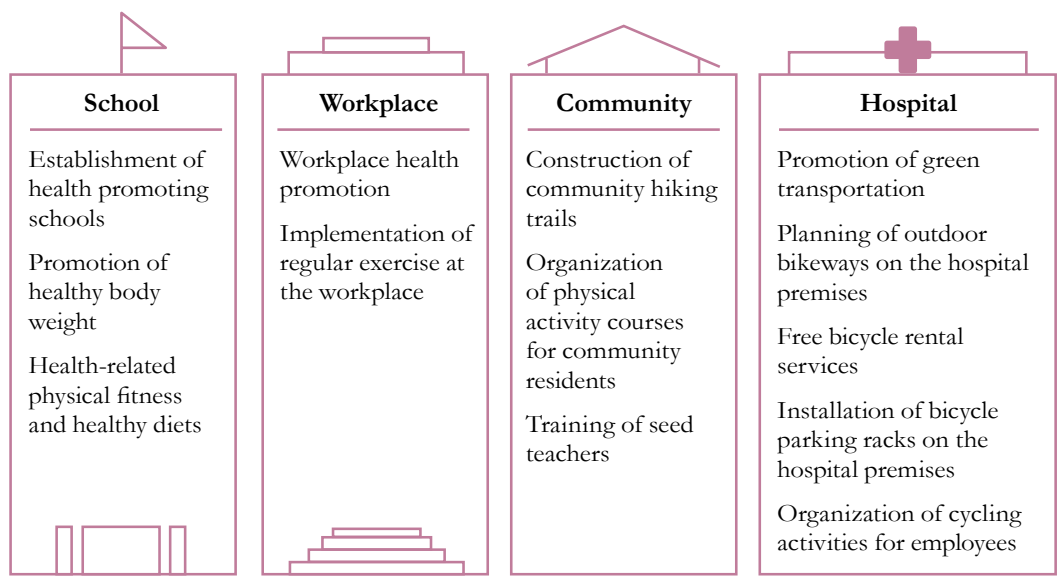
In 2018, HPA organized the following three physical activities: an online activity titled “No Time for Exercise – Keeping Fit is So Easy” in March, a flash mob activity titled “No Time For Exercise – Simple Workouts During Commutes” in September, and a photo upload activity of the same name in December. HPA will continue to promote communication on topic of physical activities by utilizing the Internet and on-site activities.

- ① Physical Activity Guide for All Citizens
- ② Physical Activity Guide for All Citizens – Seniors
- ③ Physical Activity Booklet
- ④ Body exercise for salaried employees
- ⑤ Healthy Exercise for Seniors

Healthy  
Workplace  
Information  
Network



3. Promotion of health-related physical fitness and body weight in cooperation of different areas



National Nutrition

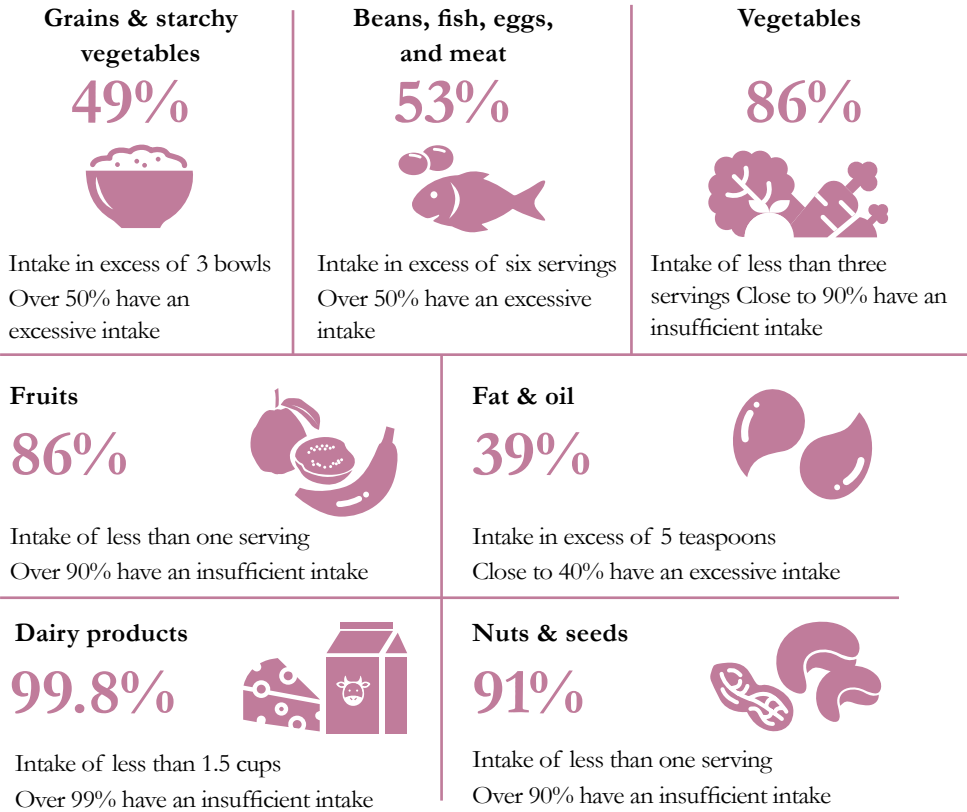
Status Quo

The “Nutrition and Health Survey” in Taiwan for 2013-2016 shows that daily diets of citizens deviate from the Daily Dietary Guidelines for daily calorie demands of 2,000. This clearly indicates that daily diets still fail to conform to the recommended standards and ratios.

Numerous studies indicate that unhealthy diets are one of the leading causes of non-communicable diseases. Nutrition policies in Taiwan therefore mainly focus on the dissemination of accurate concepts pertaining to healthy diets and balanced intake of health-improving foods, enhancement of nutrition conditions in Taiwan, and improvement of nutrition literacy. HPA aims to propagate the importance of healthy diets through monitoring nutrition conditions in Taiwan, formulating health-related public policies, and raising nutrition literacy through diverse channels. The ultimate goal is to enhance public health and prevent chronic diseases.



Intake of the Six Food Groups among Citizens Aged 19 to 64



1. Source: Nutrition and Health Survey in Taiwan for 2013-2016
2. In accordance with the recommended number of servings for the six food groups based on a daily calorie demand of 2,000, the recommended daily intake of grains & starchy vegetables, beans, fish, eggs & meat, and fat & oil for adults aged 19-64 is three bowls, six servings, and five teaspoons, respectively.
3. In accordance with the Daily Dietary Guidelines, the intake of vegetables, fruits, dairy products, and nuts & seeds should reach three servings, two servings, 1.5 cups, and one serving, respectively.

Target Indicators

The prevalence rates of a daily vegetable intake of three servings and fruit intake of two servings reached 13.6% and 13.0% in 2018, respectively. Male adults had a daily salt intake of less than 9.6g, and female adults had an intake of less than 7.6g.

Policy Implementation and Results

1. 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) HPA actively promotes the enactment of the Nutrition and Healthy Diet Promotion Act and has submitted a draft to the Executive Yuan.
- (3) Iodine policies are implemented in cooperation with the Food and Drug Administration. HPA has also requested the K-12 Education Administration (MOE) to amend the provisions governing table salt in School Lunch (in boxes or barrels) Purchase Contract Templates as follows: “Salt: Certified iodide salt, iodine containing salt, or iodine added salt.”
- (4) A ban on trans fat is promoted in cooperation with the Food and Drug Administration, while a ban on PHOs (partially hydrogenated oils) in food products was successfully imposed on July 1<sup>st</sup>, 2018.

## Nutrition and Healthy Diet Promotion Act

2017

Reviewed and approved  
by the Legal Affairs  
Committee of the  
Ministry of Health and  
Welfare in November  
2017.

Submitted to the  
Executive Yuan for the  
5<sup>th</sup> time in December  
2017.

2018

Submitted to the Executive Yuan for the 6<sup>th</sup> time in April 2018.  
Review by the Executive Yuan in July 2018.

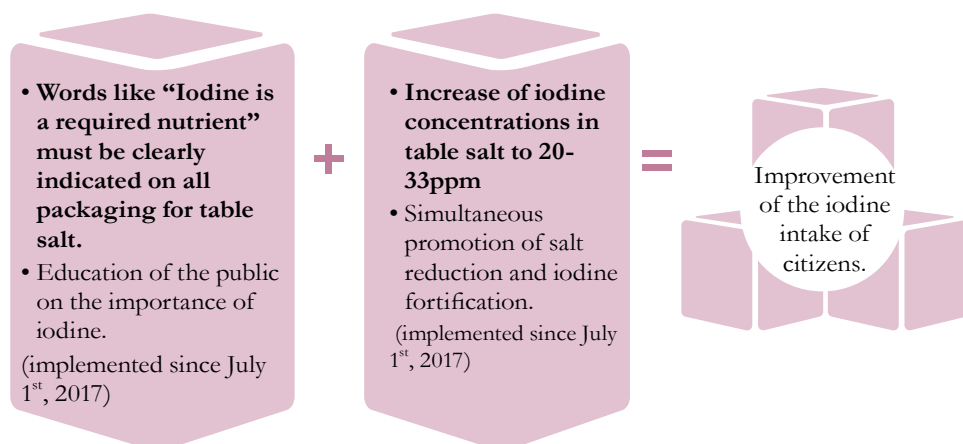
Resubmission to the Executive Yuan on August 17<sup>th</sup>, 2018  
upon amendment in accordance with review opinions of the  
Executive Yuan.


Adjustment of text styles in accordance with the  
recommendations of the Legal Affairs Committee of the  
Executive Yuan on September 4<sup>th</sup>, 2018

(Executive Yuan discussions are currently being scheduled).

## Implementation of iodine policies

Between 2014 and 2017, the iodine intake of citizens over 7 years of age only met the minimum standards prescribed by WHO. HPA therefore actively promotes salt iodine labeling and policies governing increase of maximum iodine concentrations in salt.



-  Constant monitoring of iodine concentrations in the urine of citizens and the iodized salt coverage rate in school and household lunches

2. Construct a health supporting environment

HPA promotes calorie and nutrition labeling for food items, proposes guidance for providers in the development of healthy box meals, and urges workplaces and hospitals to provide healthy diets and clearly label calorie amounts. It has also formulated healthy procurement principles and urges the public and private sector to ensure that all purchased food products conform to “health” principles.

An initiation press conference titled “Community Nutrition Promotion Center – We Care About Your Nutrition” was held in the Presidential Office Building on August 27<sup>th</sup>, 2018. Vice President Chen Chien-Jen gave an address formally announcing the establishment of “Community Nutrition Promotion Centers” nationwide to implement comprehensive nutrition education services for seniors in communities as the main target group.

As of December 31<sup>th</sup>, 2018, a total of 979 group nutrition education activities had been organized for 33,900 seniors. A total of 783 culinary service providers and centers and institutions serving seniors in communities had received guidance in the provision of senior-friendly healthy diets.

Community Nutrition Promotion Centers have been Established in 22 Counties and Cities with Seniors as the Main Target Group



Health Promotion Administration

- Training of community dietitians
- Design of community nutrition promotion handbooks
- Development of community nutrition care training and compilation of relevant handbooks to delay disability



Local health bureaus

- Promotion of community nutrition education
- Analysis of nutrition problems of local residents
- Training of community care personnel
- Guidance for communities in the provision of senior-friendly healthy diets

23\* Promotion Centers  
\*2 centers were established in Chiayi City  
22 county and city governments

HPA cooperates with community care service systems (ABC mode), neighborhood long-term care stations, community care centers, joint dining centers, community health units, agriculture & home economics courses, and meal providers.

3. Revision of various nutrition standards

HPA has released new versions of various nutrition standards including the “Daily Dietary Guidelines,” “National Dietary Indicators,” and nutrition recommendations for each life stage in March 2018. The “My Plate” balanced diet chart which utilizes plate images to illustrate the recommended ratios of each food group combined with nutrition tips was issued in May 2018 with the goal of assisting the public in the implementation of healthy lifestyles with balanced diets.





4. The importance of healthy diets

The importance of healthy diets is propagated through news releases, press conferences, and promotional flashcards in coordination with major events and festivals.

Promotion of healthy diets through diverse channels

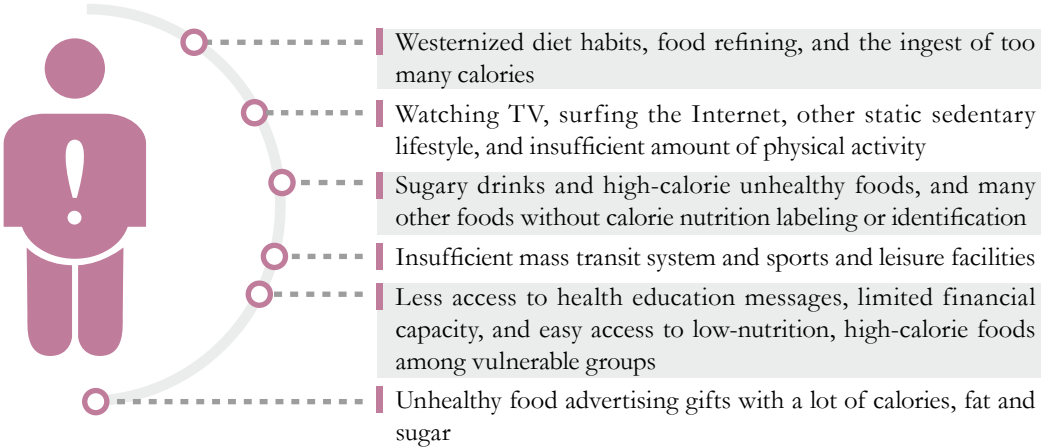


-  HPA has uploaded a video titled “Three Tips for Sugar Reduction” to its official YouTube channel.
-  On occasion of the 2018 “Taiwan Culinary Exhibition” in Taipei World Trade Center-Hall 1, HPA held a press conference to officially announce the “My Plate” diet chart and set up a booth to educate the public on balanced diets and nutrition tips.

# Obesity Prevention

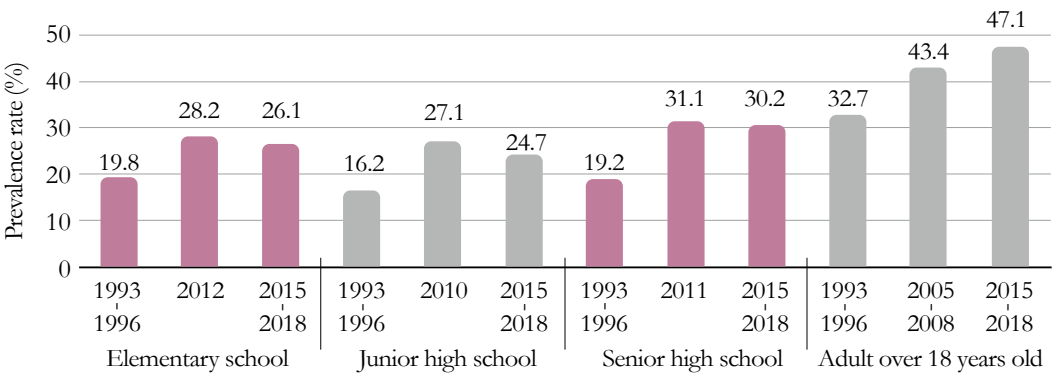
## Status Quo

The HPA’s “Nutrition and Health Survey 2015-2018” 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 has also been mitigated (Figure 3-10). The main cause of obesity is calorie intakes exceeding calorie expenditure, and other causes are unhealthy diets, lack of physical activity, and environmental factors.



1. Sources: Nutrition and Health Survey in Taiwan
2. 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.”
3. For an adult a BMI of  $\geq 24 \text{ kg/m}^2$  is overweight or obese.

**Figure3-9 The main reason for the increase in the prevalence of overweight and obesity in Taiwan**



1. Sources: Nutrition and Health Survey in Taiwan
2. 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.”
3. For an adult, a BMI of  $\geq 24 \text{ kg/m}^2$  is overweight or obese.

**Figure3-10 Overweight and obesity prevalence in Taiwan**

## 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 settings

- (1) Building healthy cities, with health promoting hospitals, workplaces, schools and communities
- (2) Implementing breastfeeding regulations in public places to enhance breastfeeding rates and reduce childhood obesity
- (3) Conducting the “Nutrition and Health Survey in Taiwan” to monitor bodyweight trends

### 2. Comprehensive information and systems to improve the obesogenic environment

- (1) HPA aims to establish a health information environment and assess obesogenic environments in communities, schools, workplaces, and hospitals through utilization of “environmental assessment tools for obesity prevention in communities, ” in cooperation with health agencies in all cities and counties. Localized action and improvement plans are formulated to enhance obesity prevention effectiveness.
- (2) HPA further strives to establish healthy diet supply systems. The Administration offers guidance to businesses in the development of healthy box meals, provides menus with clearly labeled calorie amounts, and implements healthy procurement and school nutrition standards. Healthy diet guidance is implemented in the vicinity of campuses and workplaces and hospitals are urged to provide healthy diets and clearly label calorie amounts.
- (3) The HPA has established physical activity resource 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.

### 3. Re-orienting health services

The incorporation of obesity prevention empirical guidelines into healthy hospital accreditation standards is implemented on a trial basis. In addition, a booklet titled “100+ Questions on Obesity” and e-learning training videos have been released to reinforce proper referral and adequate treatment of obesity cases.

### 4. Strengthening community action

HPA integrates cross-departmental resources and forms support teams for the organization of diverse educational activities in communities, schools, workplaces, and hospitals to boost healthy weight management. Press conferences are organized, and news releases are issued to create environments conducive to daily exercise and promote a social climate beneficial to healthy weight management.



5. Developing people’s skills to implement healthy living

Educational tools, teaching materials, and health manuals with incorporated healthy body weight concepts were developed for children and adolescents. Health communication videos such as “Less Sugar, ” “Less Salt, Better Health, ”and “Body Exercise” were broadcast on TV and Youtube to enhance the literacy of citizens in the field of healthy weight management.



Accident and Injury Prevention

Status Quo

Between 1987 and 2018, the main causes of death of accident injuries in Taiwan were transportation accidents, accidental falls, accidental poisoning, drowning, and accidents due to fire (Figure 3-11). In 2018, accident injuries were the leading cause of death among children and adolescents (Table 3-1), while traffic accidents accounted for the majority of deaths in all age groups (Table 3-2).

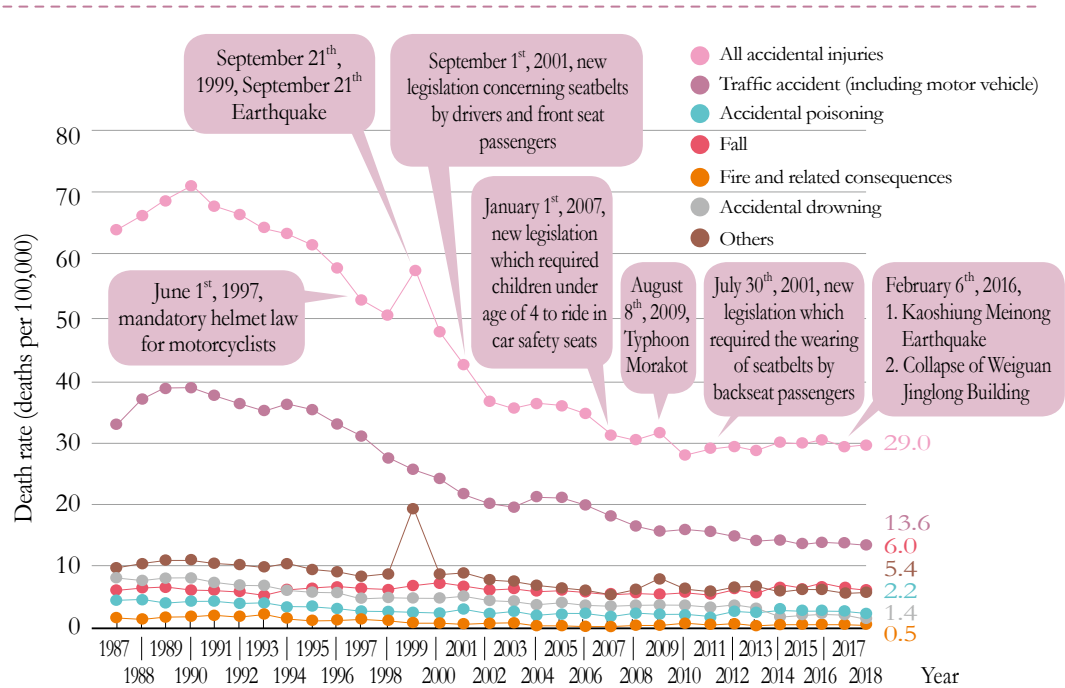
In addition, the standardized mortality rate associated with slips, trips, and falls of seniors over 65 has been gradually rising in recent years. In 2018, a total of 3,141 elderly citizens died of accident injuries, which is the ninth leading cause of death in this age group. The death rate of accidental falls is only surpassed by that of traffic accidents (Table 3-2).

Sudden Infant Death Syndrome (SIDS) is a leading cause of death among infants. According to causes of death statistics published by MOHW, it ranks as the 4<sup>th</sup> to 6<sup>th</sup> leading cause of death among infants every year.

## Policy Implementation and Results

### 1. Gradual decrease of accident injury mortality rates

Injury prevention and safety promotion issues have been incorporated into the “Healthy People 2020 White Book” to gradually decrease accident injury mortality rates.



**Figure3-11 Main causes of deaths from accidents and their mortality in Taiwan from 1986-2018**

**Table3-1 Top 5 causes of death for 0~19 age group in 2018**

Cause of Death	0 years old	1-4 years old	5-9 years old	10-14 years old	15-19 years old
No.1	Accidental and adverse effects	Accidental and adverse effects	Malignant neoplasms	Accidental and adverse effects	Accidental and adverse effects
No.2	Diseases of heart (except hypertensive diseases)	Malignant neoplasms	Accidental and adverse effects	Malignant neoplasms	Malignant neoplasms
No.3	Pneumonia	Diseases of heart (except hypertensive diseases)	Pneumonia	Diseases of heart (except hypertensive diseases)	Diseases of heart (except hypertensive diseases)
No.4	1. Accidental and adverse effects 2. Malignant neoplasms	Pneumonia	Diseases of heart (except hypertensive diseases)	Pneumonia	Pneumonia
No.5	Chronic lower respiratory diseases	Nephritis, nephrotic syndrome, and nephrosis	Cerebrovascular disease	Cerebrovascular disease	Diabetes mellitus

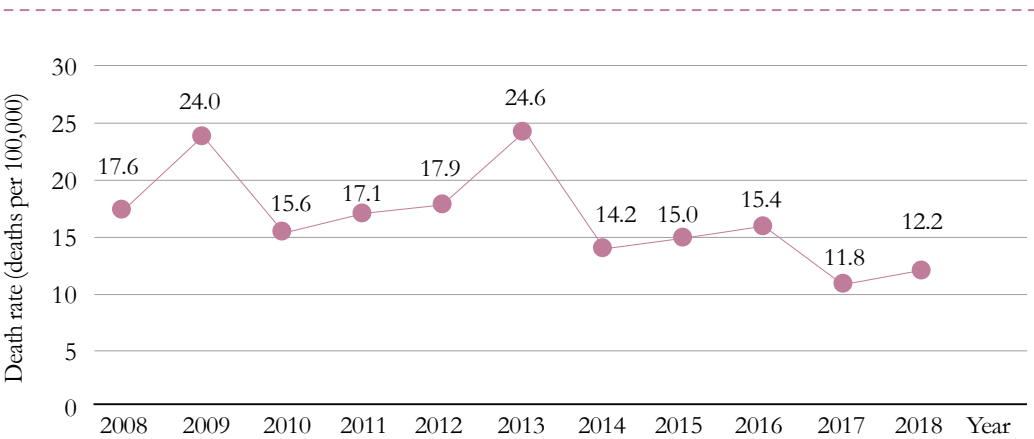
Source: 2018 Causes of Death Statistics, MOHW



**Table3-2** Three major causes of accidental death in children and adolescents in 2018

Cause of Death	0-19 years old	20-64 years old	65 years old above
No.1	Traffic accidents 240 People (5.4/10 <sup>5</sup> )	Traffic accidents 1,710 People (10.8/10 <sup>5</sup> )	Traffic accidents 1,259 People (34.9/10 <sup>5</sup> )
No.2	Others 55 People (1.2/10 <sup>5</sup> )	Accidental falls 537 People (3.3/10 <sup>5</sup> )	Accidental falls 860 People (23.9/10 <sup>5</sup> )
No.3	Accidental drowning and submersion 32 People (0.7/10 <sup>5</sup> )	Accidental poisoning 455 People (2.8/10 <sup>5</sup> )	Others 809 People (22.4/10 <sup>5</sup> )

Source: 2018 Causes of Death Statistics, MOHW



Sources: 2018 Causes of Death Statistics, MOHW

**Figure3-12** SIDS Death Rate in Taiwan 2008-2018

**2. Safeguarding the personal and home safety of children**

The personal and home safety of children is jointly protected in line with policies and bills of all ministries, councils, and commissions. The goal is to enhance the quality of child education and care and thereby improve their safety and health.

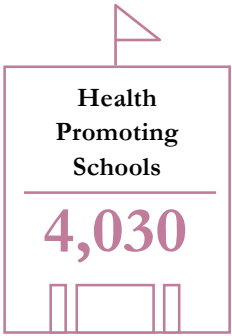
**3. Creation of a safe home environment for young children**

- (1) “Poential hidden dangers for infants and young children in homes” have been included in the Children Health Education Manual as a reference for improvements of unsafe home environments by parents and primary caregivers.
- (2) A self-assessment form for the “prevention of accident injuries” and important reminders for “emergency treatment of burns and gas accident injuries” and “handling of emergencies” are provided in the Children Health Education Manual to enhance the competence of parents and caregivers in the field of accident injury prevention, increase the quality of child healthcare, and minimize impacts of risk factors on the health of children. Subsidies are available for child health education services and guidance.

- (3) Existing accident injury related databases in Taiwan are utilized for statistical analysis to gain a clear understanding of accident injury conditions and long-term trends in Taiwan as a reference for the formulation of prevention strategies and intervention effectiveness evaluation.
- (4) Health promoting schools are in the planning stage and safety education issues are promoted.

In the context of the **“Child Health Education Guidance Service Subsidy Program,”** physicians provide full health education guidance seven times for parents or caregivers of children under the age of 7. Relevant contents include information on sudden infant death syndrome and accident injury prevention (implemented since July 1<sup>st</sup>, 2013).

Since 2002, MOE and MOHW 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 2018, there were 4,030 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 2018, in order to reinforce school efforts to reduce accidental injury, the HPA included **“accidental injury prevention”** as a specific issue in the fourth annual health promoting school international certification process.

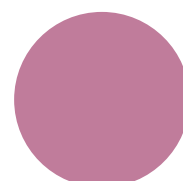


**4. Promotion of differentiated fall prevention intervention models for seniors in communities**

- (1) The HPA integrates healthy cities, community health creation and community care service stations to promote senior health in the community based on the characteristics and specific needs of seniors. “Muscle strength training posters” and a handbook with a CD titled “Fall Prevention Tips for Seniors” have been printed for local health bureaus to promote fall prevention education through diverse channels and advocate fall-prevention exercises for seniors with the ultimate goal of improving muscle strength, gait, and balance and thereby enhance fall prevention literacy.
- (2) Frailty screening is gradually promoted in cooperation with hospitals and health bureaus to facilitate identification of groups at high risk of falls, referral for follow-up assessment and intervention, and reduction of the risk of falls.

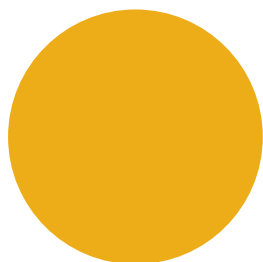
## **5. Protection of our children and prevention of SIDS**

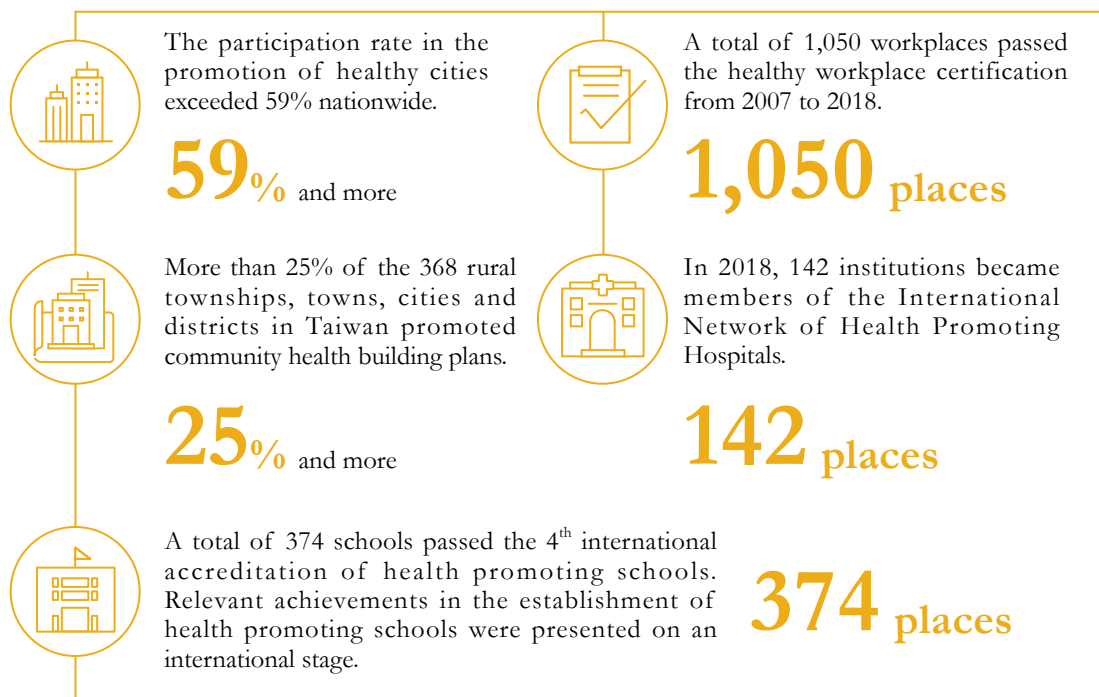
- (1) The HPA continues to monitor number of deaths and mortality rate related to SIDS based on statistical data on Causes of Death Statistics published by MOHW.
- (2) In order to reinforce health educational guidance given to parents and main caregivers, we reference measures proposed by the American 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 Children Health Education Manual given to parents of all newborns.
- (3) SIDS prevention guidance has been listed as one of the key items of childhealth education guidance services provided by physicians for infants aged 0-2 months and 2-4 months.
- (4) The new editions of the Maternal Health Education Manual and Children Health Education Manual caretakers included a section on “Shaken Baby Syndrome.” This informs baby about the risks of shaking and details alternative techniques to comfort a crying baby, to avoid vigorous shaking or rocking to stop it from crying.



# 4 Healthy Environment

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**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, including:**



#### **Healthy cities**

Health values and principles are incorporated into urban planning. Health-promoting public policies are formulated through cross-departmental and interdisciplinary cooperation, while diversified basic networks are created through the utilization of non-governmental resources and existing healthcare systems. The goal is to foster community participation and build partnerships to solve community health issues and realize healthy lifestyles.



#### **Health promoting schools**

Health promotion competence is integrated into campus life and education through the formulation of school health policies. In addition, a campus environment conducive to health learning is created through the integration and participation of community resources with the ultimate goal of improving the overall health of faculty and staff members and students.



#### **Healthy workplaces**

HPA works with employers, employees and society to promote the health and well-being of workers 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**

Health promoting hospitals is a medical or health service organization that aim to “improve the health benefits for patients, employees and community through the development of structures, cultures, decision-making and procedures.” This is the organizational change as a strategy to improve health from the medical processes.

# 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 response to the concept of a “healthy city,” Taiwan first introduced the concept of a healthy city in 1995.

## Target Indicators

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

## Policy Implementation and Results

### Continued promotion of healthy cities

A total of 12 cities and counties and 13 regions received guidance in the promotion of healthy cities. As a non-governmental organizations, they were permitted to join the Alliance for Healthy Cities (AFHC), which is actively supported by the WHO Western Pacific Regional Office (WPRO) as a non-governmental organization.

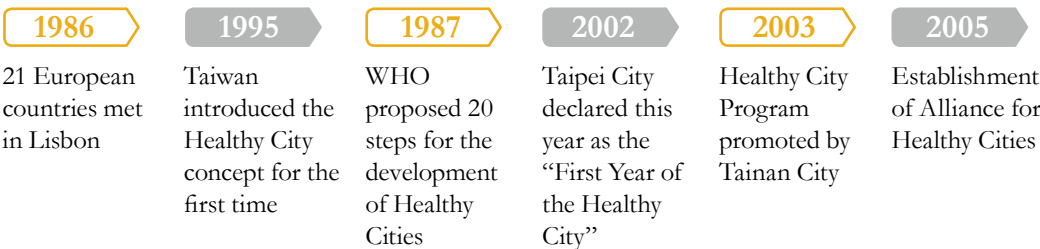
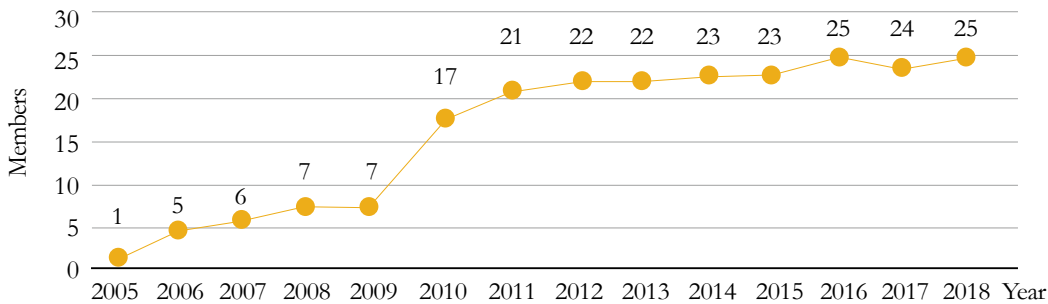
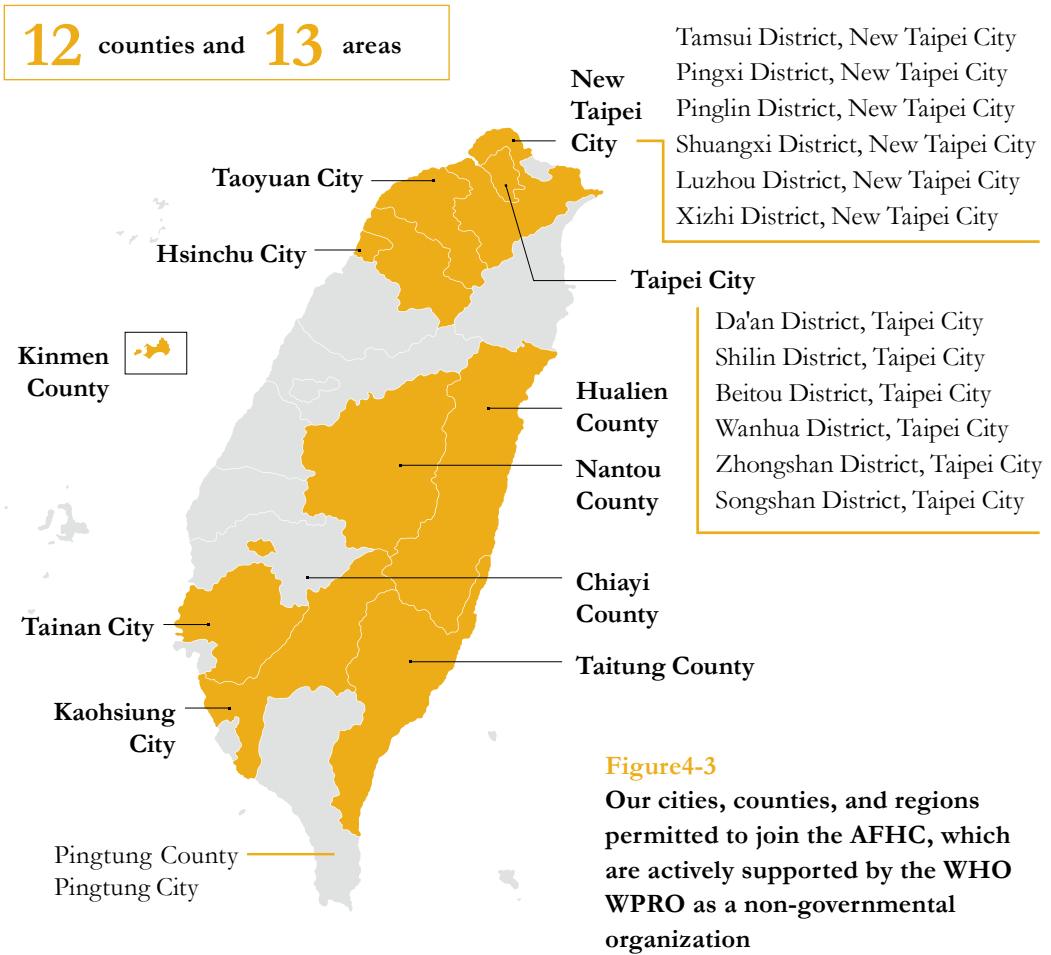


Figure4-1 Development of healthy cities



Source: Health Promotion Administration

Figure4-2 Number of members participating in the Western Pacific Alliance to Healthy Cities (AFHC) in Taiwan 2005-2018



**Table4-1**    List of AFHC awards won by Taiwan in 2018

Award	Recipient
Award for Creative Developments in Healthy Cities – Planning for Resilience and Emergency Preparedness	Tainan Healthy City Association
Award for Creative Developments in Healthy Cities – Achieving SDGs through Healthy Cities Programs	Kaohsiung Healthy Harbor City Association
Award for Creative Developments in Healthy Cities – Good Health Systems towards Universal Health Coverage	Xinyi Health Promotion Association
Award for Creative Developments in Healthy Cities – Planning for Resilience and Emergency Preparedness	Xizhi Health Promotion Association
Award for Creative Developments in Healthy Cities – Achieving SDGs through Healthy Cities Programs	Taoyuan Healthy Promotion Association
Award for Creative Developments in Healthy Cities – Planning for Resilience and Emergency Preparedness	Healthy City Promotion Association
Award for Creative Developments in Healthy Cities – Achieving SDGs through Healthy Cities Programs	Hsinchu City Healthy City Promotion Association

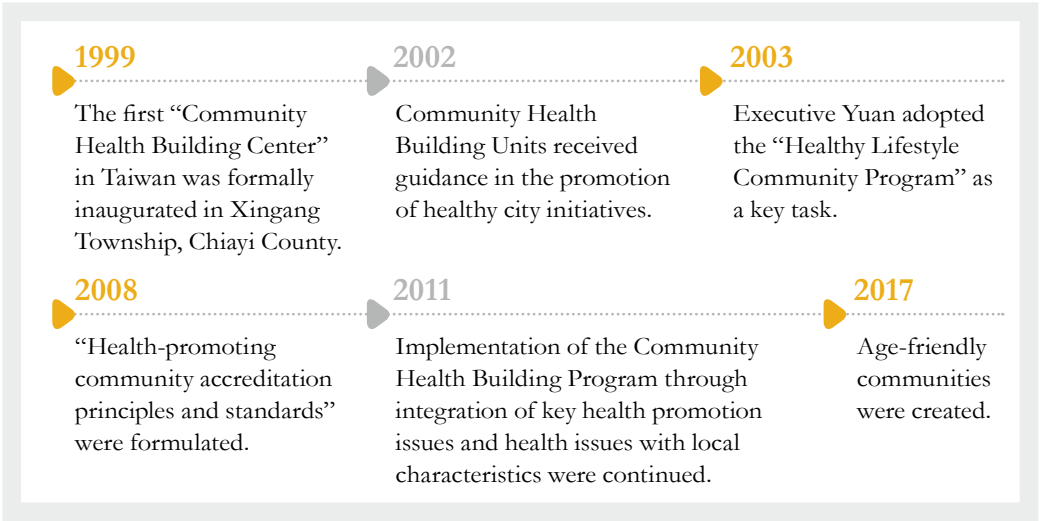
Source: Health Promotion Administration

\*Awarded once every 2 years

# Healthy Communities

## Status Quo

HPA aims to induce community residents to value their personal health and develop health behavior through utilization of locally available internal and external resources. The goal lies in the joint development of a healthy community vision, the identification and solution of community health issues, and the creation of healthy communities.



## 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

Using the community as a platform, in 2018, HPA sponsored 20 cities and counties , 83 public health centers and 17 community units to organize active aging issues and promote health promotion for the elderly in the community.

### 1. Comprehensive inspections and improvements of an age-friendly and safe environment

Safety inspections were conducted for 2,824 households and environmental improvements were carried out for 1,689 households to ensure the age-friendly and safe home environments.

### 2. Organization of physical health promotion classes for seniors in the community

A total of 447 community physical health and health promotion classes for seniors were organized. These classes were attended by 19,619 elderly citizens.



3. Promotion of healthy diets for seniors

- (1) 169 healthy meal demonstration teaching events for seniors were attended by a total of 11,397 individuals.
- (2) 542 healthy diet lectures for seniors were attended by a total of 13,383 individuals.

4. Organization of oral health seminars for seniors

We organized 404 oral health seminars for seniors with 14,795 participants.

5. Promotion of educational activities for the prevention of dementia

We organized educational activities on the prevention of dementia: 597 events attended by 35,834 participants.

6. Actual participation in community health building

Number of volunteers to receive a volunteer service handbook and participate in community health building was 2,758.

Table4-1 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 hazards 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 hazards 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 main cancers, smoke-free communities, betel nut free communities, safe communities, health promotion communities for seniors, etc.	
2011	HPA designated “screening for 4 main 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 and tobacco hazards control (including smoking cessation) 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) and improvement in obesogenic environments as core campaigns.	* Safety promotion and local health characteristics

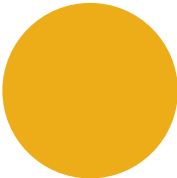
Year	Designated Issues	Optional Issues
2014	HPA designated smoking, alcohol and betel quid control, active aging, obesity prevention (diet and exercise), salt intake reduction, and creating active living and exercise communities as core campaigns.	* Safety promotion, children’s visual and oral health, 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 aging (physical health, healthy diet, oral health, community participation, health check-ups and screening, dementia prevention)	–
2018	Active aging (physical health, healthy diet, oral health, community participation, health check-ups and screening, dementia prevention)	Dementia-friendly environment and community care

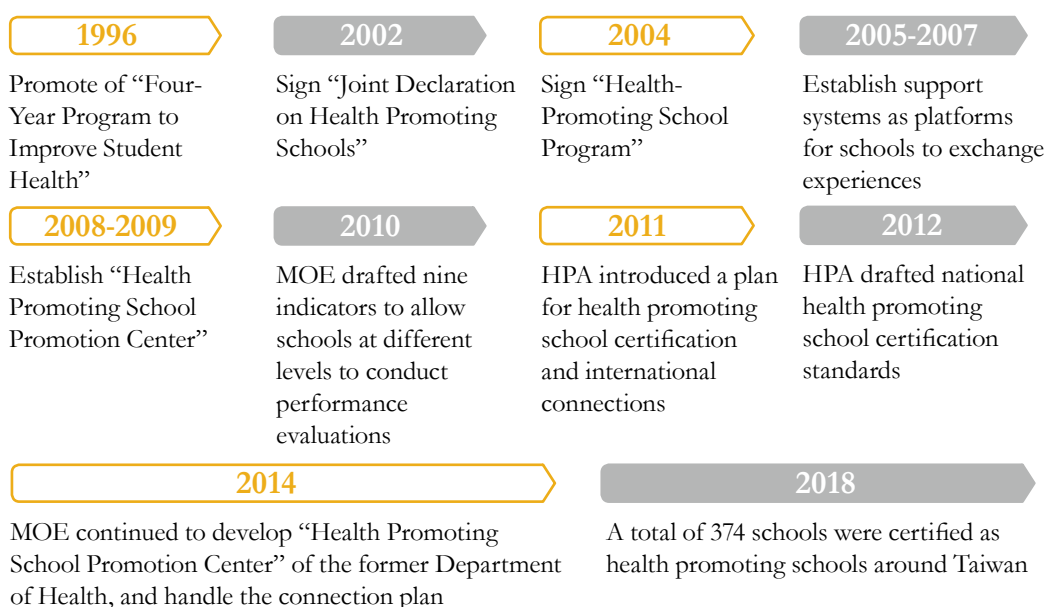
\* Customized issues

## 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.” Since 2002, both the former Department of Health and MOE have worked in accordance with the six major components of health promoting schools set by WHO: 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 MOE, Jong-Tsun Huang, signed a “Joint Declaration on Health-Promoting Schools.”





**Figure4-4 Development of Health Promoting Schools**

### Target Indicators

A total of 350 schools passed the 4<sup>th</sup> international accreditation of health promoting schools. Relevant achievements in the establishment of health promoting schools were presented on an international stage.

### Policy Implementation and Results

#### 1. Comprehensive promotion of a health promoting schools program, with many schools opting to participate

By the end of 2018, as many as 3,873 schools under the level of high school/ vocational high school were fully initiating the health promoting school program. A further 157 colleges and universities also opted to join the ranks of health promoting schools.



## **2. Six issues promoted by health promoting schools**

The implementation strategy for health-promoting schools is based on the six main categories prescribed by WHO. This strategy is fully deployed on campuses to create a healthy and joyful learning environment. In 2018, 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. Revision of health promoting school international certification standards and processes**

In 2018, a total of 121 schools participated in the accreditation process which consists of six standards, twelve substandards, and twenty-four scoring items. Written reviews and on-site visits were conducted by the central accreditation committee. Gold award-winning schools were determined in final reviews by the international accreditation committee. Taiwanese schools garnered 5 gold awards, 31 silver awards, 23 bronze awards, and 18 commendations for outstanding achievements in the implementation of health promoting school concepts. Among the schools that have gained recognition, 10 schools earned excellence awards in the added-value initiative for special issues (healthy body weight or accident injury prevention). HPA presented the aforementioned schools with their awards in a health promoting school international accreditation award ceremony combined with a presentation of relevant achievements.

## **4. Formulation of international accreditation tool guidelines for health promoting schools**

The goal is to give implementation personnel a better understanding of health promotion concepts and enable them to utilize accreditation standard indicators as guidelines for evaluation tools and implementation strategies. Guidance for actual operations of health promotion guidance committees or health promotion personnel in schools is offered through the provision of examples and practical operation interfaces in reference books.

## **5. Sharing of achievements in the implementation of health promoting school concepts with international audiences**

Taiwan participated in the 11<sup>th</sup> European Conference on Public Health held in 2018 in form of a lunch symposium. Achievements in the implementation of campus-oriented health promotion were shared and discussed in a presentation titled “Setting approach and human resources: the case of health promotion in schools.”

# Health Workplaces

## Status Quo

WHO in the 4<sup>th</sup> International Conference on Health Promotion in 1997 clearly revealed that a healthy organization should include 4 major elements: health promotion, occupational health and safety, human resource management and sustainable development. As such, creating a healthy workplace means not only decreasing the occurrence of occupational diseases but also proactively protecting and promoting the health of every worker in the workplace.



## Target Indicators

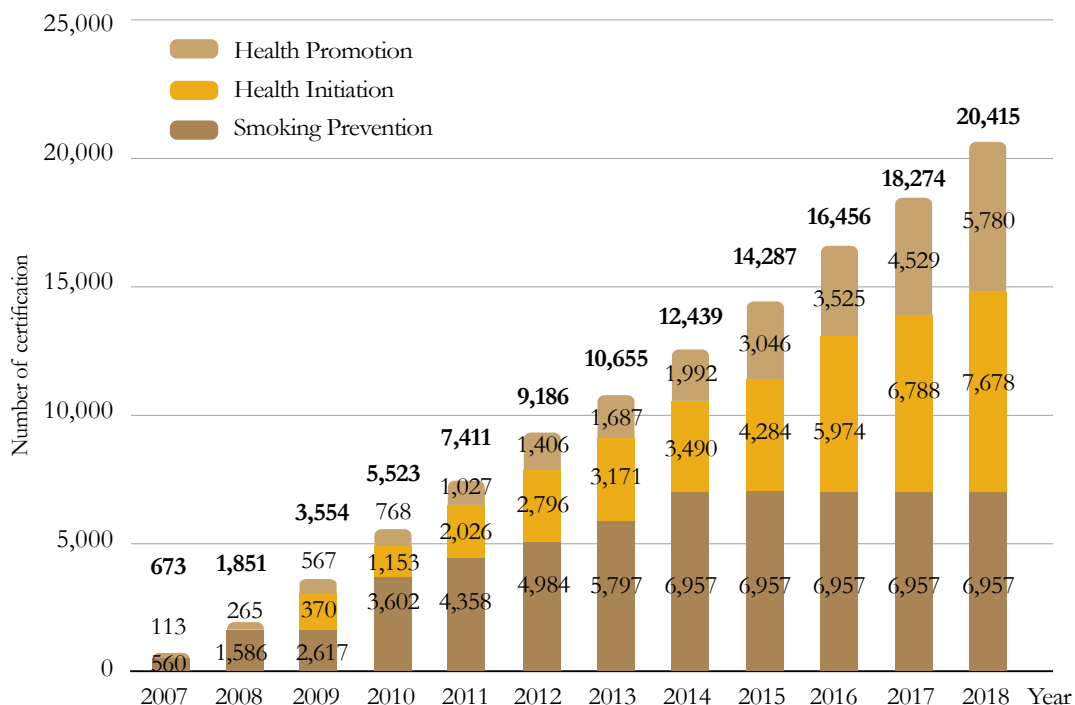
In 2018, there were 1,050 certified healthy workplaces in Taiwan and HPA handled the selection and commendation of excellent healthy workplaces.

## Policy Implementation and Results

### 1. Advancing health promotion and tobacco hazards prevention in workplaces

HPA encourages workplaces to advance health promotion issues, including physical activity, healthy diets, tobacco and betel quid hazards prevention, healthy bodyweight management, 4 main cancer screenings, adult preventative care services, chronic disease management, women’s workplace health and mental health promotion.

- (1) In cooperation with a professional counseling team, HPA provides on-site guidance for 153 workplaces in 2018, and organized 9 guidance workshops for healthy workplace.
- (2) HPA actively promotes Healthy Workplace Certification, including the Health Initiation Badge and Health Promotion Badge. In 2018, a total of 2,141 workplaces passed the certification. The certification content is as follows:



**Figure4-5 Cumulative number of certified healthy workplaces from 2007 to 2018**

1. Health Initiation Badge: the workplace that has achieved results in smoking prevention better than those required in the Tobacco Hazards Prevention Act, and the workplace has already begun activities related to health promotion.
  2. Health Promotion Badge: the workplace that has 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.
  - (3) In 2018, we commended 32 workplaces as outstanding in this regard and 3 staffs as Excellent Healthy Workplace Promoter.
  - (4) In 2018, HPA hosted a competition of “No Time for Exercise? Keeping Fit at Workplace Made Easy” with a golden award for creativity (in the field of dynamic workplaces) in order to innovatively expand and promote a workplace climate conducive to physical activity. In the first stage, local Public Health Bureaus conducted a preliminary selection to recommend 44 workplaces. In the second stage, a committee conducted document review to select 20 workplaces for “honorable mentioned award.” In the third review stage, briefings were presented by the top 10 Honorable Mentioned teams, and an online voting of workplace videos of the top 10 proposals was held by HPA. A total of 9,176 votes determined the two Distinguished Honor Awards and three Excellent Awards.
- 2. The HPA conducted surveys of the health promotion and smoking status of the working population every two years, and tracked the effectiveness of healthy workplace promotion continuously.**

# Health Promoting Institutions

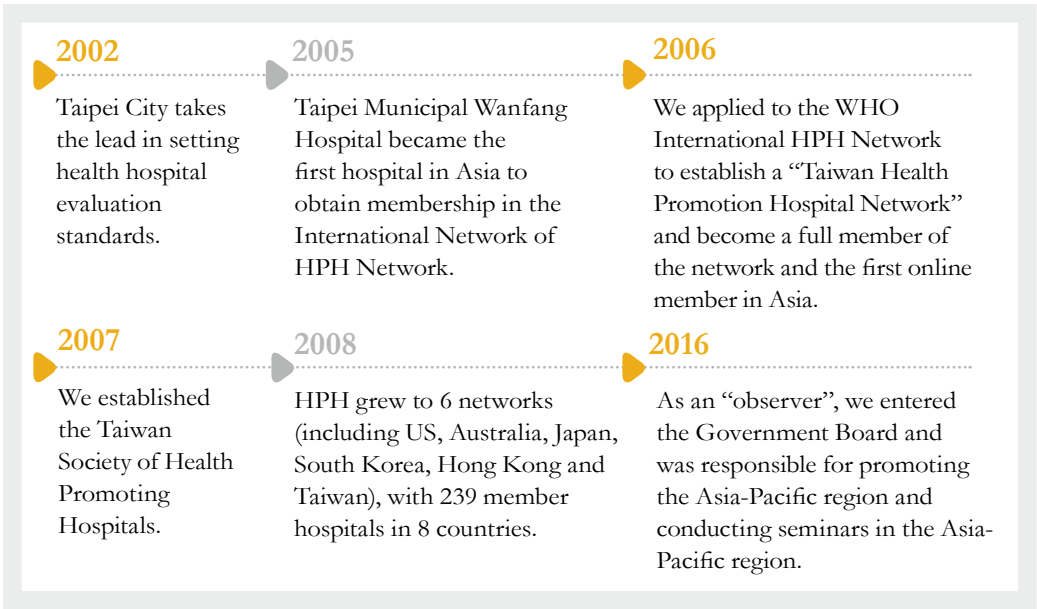
## Status Quo

In 2006, the WHO published the “Implementing Health Promotion in Hospitals: Manual and Self-Assessment Forms” to provide 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 2018, over 597 hospitals representing 20 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 (HPH).

## Target Indicators

142 hospitals became members of the WHO International HPH Network by the end of 2018.



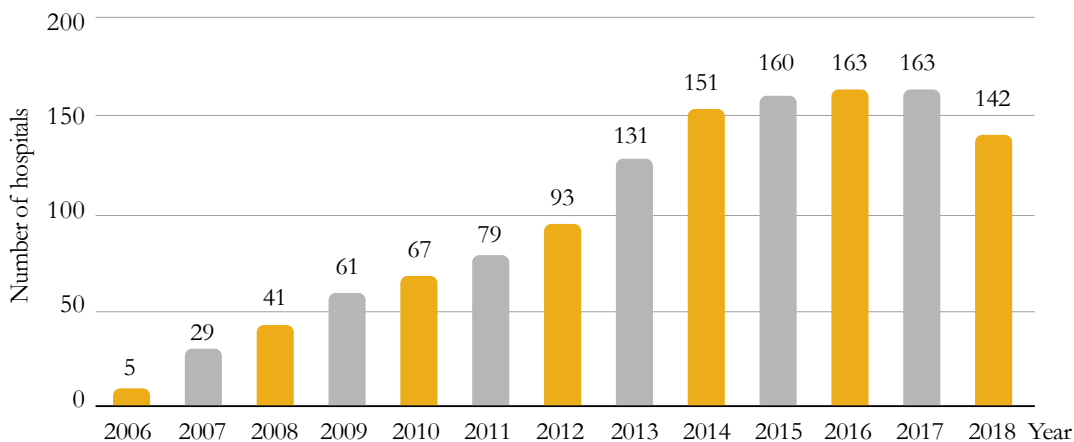
## Policy Implementation and Results

### 1. Health Promoting Hospitals and International Contacts

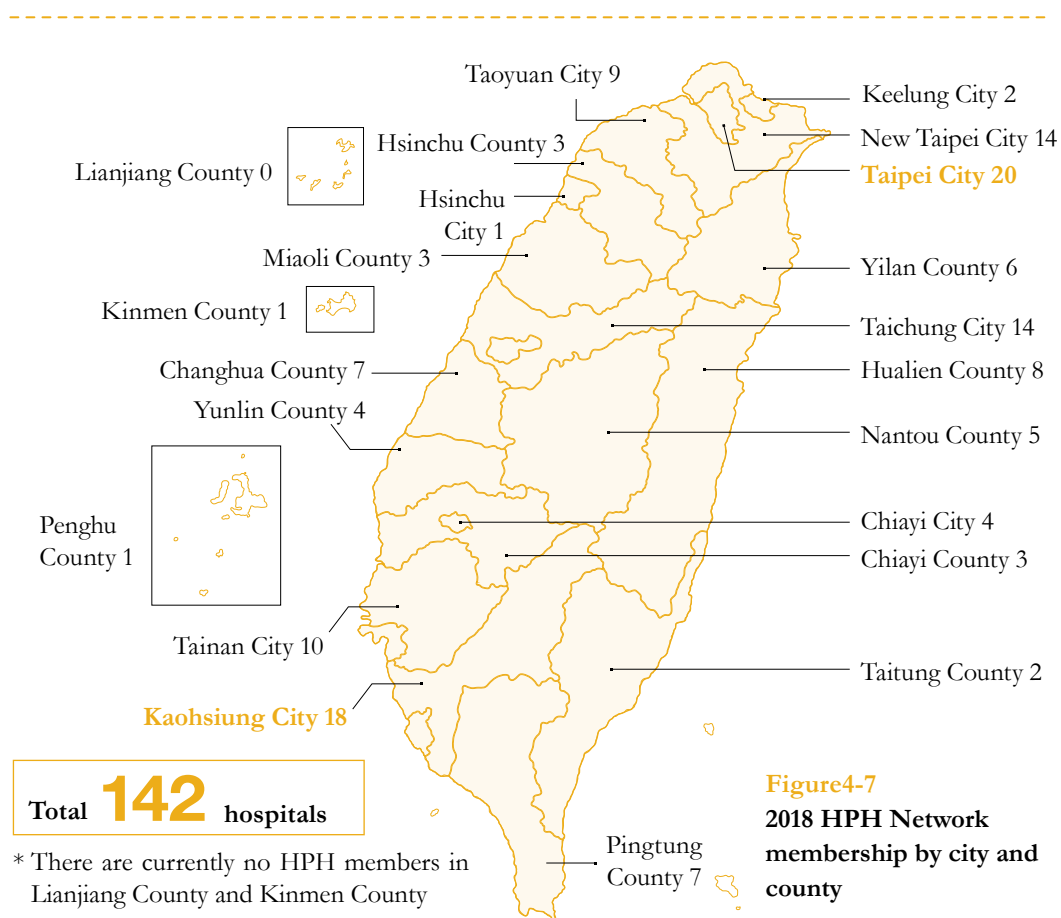
#### (1) Training and Growth of Health Promoting Hospitals

A. By the end of 2018, Taiwan had 142 health care organizations that were successfully certified and entitled to join the International HPH Network, include 139 hospitals, 1 long-term care service institution, and 2 public health centers (see Figure 4-6 and 4-7). The Taiwan HPH Network has remained the largest network within the international network since 2012.





**Figure4-6 Taiwanese members of WHO HPH Network 2006-2018**



**Figure4-7 2018 HPH Network membership by city and county**

B. As of 2012, HPA sponsors a Work Program for the Promotion of Participation by Healthcare Organizations in Health Promotion for health bureaus in cities and counties that cooperate with healthcare organizations within their jurisdiction in order to strengthen partnerships between health bureaus and healthcare organizations and integrate preventive healthcare service resources. In 2018, HPA sponsored cooperation between health bureaus in 17 cities and counties and 80 healthcare organizations in the joint promotion of health promotion issues such as age-friendly healthcare, healthy workplaces, and doctor-patient shared decision making.



C. The “2018 International Health Promoting Healthcare Institution Conference” was jointly organized by health-promoting hospitals, age-friendly healthcare organizations, and smoke-free hospitals. Especially, Dr. Nilay D. Shah, healthcare policy research consultant of the Mayo Foundation for Medical Education and Research, was invited to deliver a keynote address on “Patient Engagement in Health Promotion.” The event drew around 400 participants.

2. Promotion of low-carbon hospitals for the medical industry to be dedicated to environmental protection

(1) Establishment of a taskforce on HPH and environment

By the end of 2018, a total of 184 domestic and foreign healthcare institutions and organizations had joined “Task force on HPH and Environment, ” including 174 Taiwanese hospitals (Figure 4-8), 6 foreign hospitals, and 4 foreign healthcare institutions.

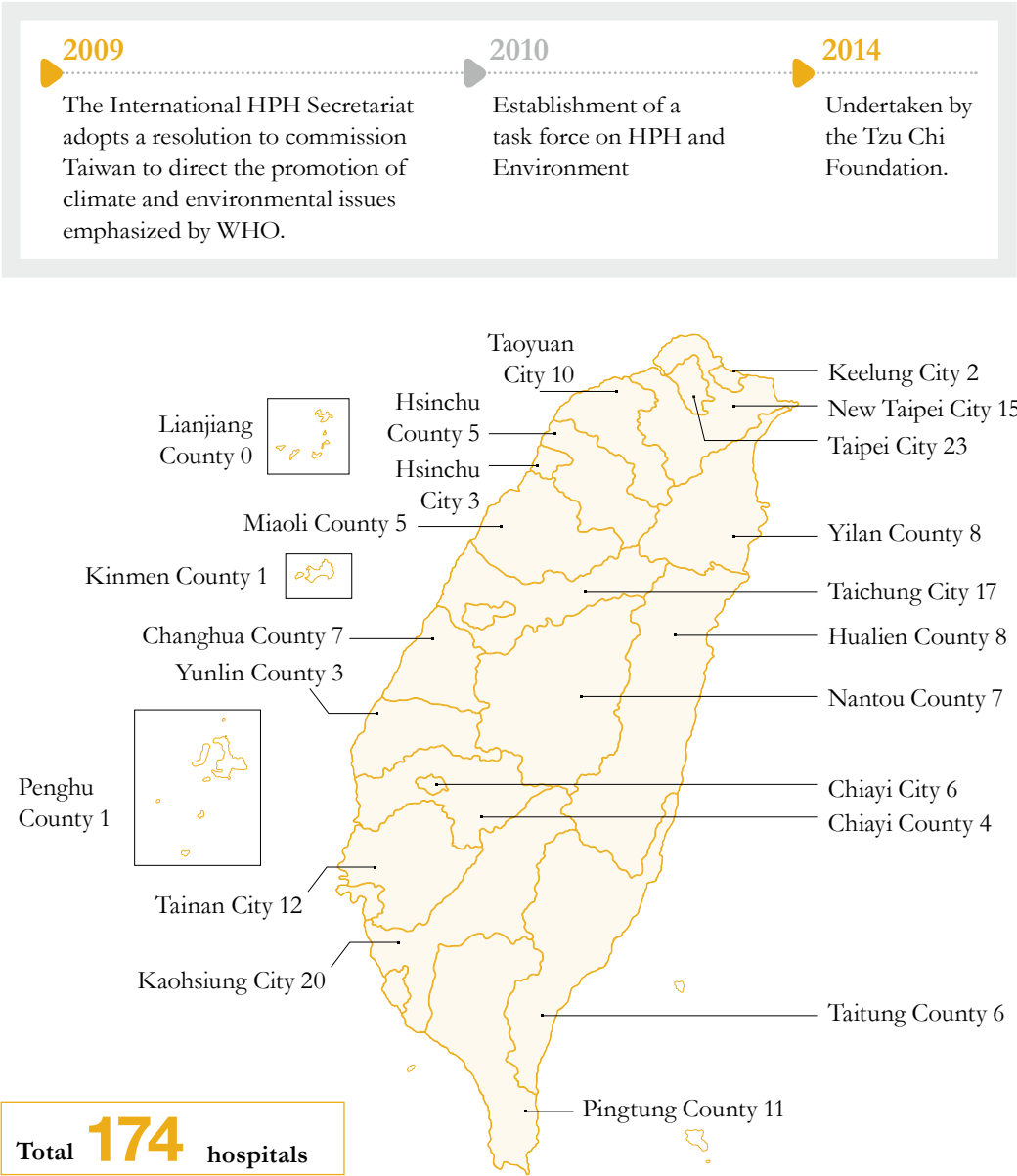


Figure4-8 2018 domestic low-carbon hospitals by city and county

In 2010, HPA launched the “Medical Community as Vanguard to Save the Earth with Carbon Reduction” campaign in Taiwan, and 128 hospitals pledged their support for this campaign. It is estimated that the campaign will result in a reduction of carbon emissions by 13% (164,648 metric tons) between 2007 and 2020, which is equivalent to the annual carbon absorption capacity of 445 Daan Forest Parks or 34 New York Central Parks. An analysis of the energy conservation and carbon reduction data reported by low-carbon hospitals in Taiwan reveals that the total carbon reduction effect (reduction of CO<sub>2</sub> emissions) between 2007 and 2017 amounts to 54,165.9 metric tons (4.28%), which is equivalent to the carbon absorption of 146.4 Daan Forest Parks. If the stated goal of a carbon reduction of 13% is calculated on the basis of carbon emissions per hospital beds, annual carbon reductions of 2.052 metric tons per bed are required to achieve the aforementioned goal. By 2017, carbon emissions had been reduced by around 2.055 metric tons per bed, which represents a goal achievement rate of 100.1%.

In 2018, in line with the 1<sup>st</sup> stage Green House Gas (GHG) emission control objectives for the residential and commercial sector of the GHG Reduction Promotion Initiative sponsored by the Ministry of Economic Affairs, the Ministry of Health and Welfare must achieve CO<sub>2</sub> emission reductions of 63,300 metric tons in the 1<sup>st</sup> stage from 2015 to 2020. With 2011 as the base year, total reduction by 2018 amounted to 38,800 metric tons, which represented an achievement rate of 61.3%.

**(2) Guidance and subsidization of low carbon hospitals**

In 2018, information meetings were held for the “Guidelines for Implementation of Climate-Smart Hospitals” in northern, central, and southern Taiwan, respectively. The goal was to give hospitals a full grasp of the guideline contents by focusing on the guideline framework, operational definitions, and international trends in the field of climate change. On August 23<sup>th</sup>, 2018, a Climate-smart Hospital Press Conference was held to present the program for promotion of low-carbon hospitals. In the future, advanced indicators and guidelines will be formulated to facilitate self-examinations and adjustments by hospitals and transform them from low-carbon hospitals into environmental education centers.



**Figure4-9** Eight Focal Points in Self-Assessment of Environmentally Friendly Actions Taken by Hospitals

(3) Self-assessment of eco-friendly actions by hospitals

In 2012, HPA developed the “Self-Assessment Forms for Environment-friendly Hospital Initiative” in line with local needs, drawing upon the “Global Green and Healthy Hospital Agenda” developed by Health Care Without Harm (HCWH). The forms feature 8 major dimensions and 84 action items. A total of 133 low-carbon hospitals carried out such assessments in 2018. A preliminary analysis revealed that the average implementation rate of the aforementioned six dimensions by local hospitals was from 89.22% to 96.33%. Improvements were only required in the dimensions of low-carb diets (76.68%) and green transportation (72.42%).

(4) Promotion of healthy hospitals

In 2018, a total of 184 hospitals (22 medical centers, 83 regional hospitals, and 79 district hospitals) acquired healthy hospital certifications. In the future, hospitals will be encouraged to apply for advanced certifications including “Smoke-free Gold Award Hospital” and “Low Carbon Sustainable and Health Literacy Organization” on the foundation of basic healthy hospital certifications. In addition, nephrology health promotion organizations, cancer screening and care quality certifications, baby-friendly hospitals, diabetes/chronic nephrology health promotion organizations will be promoted in sync.

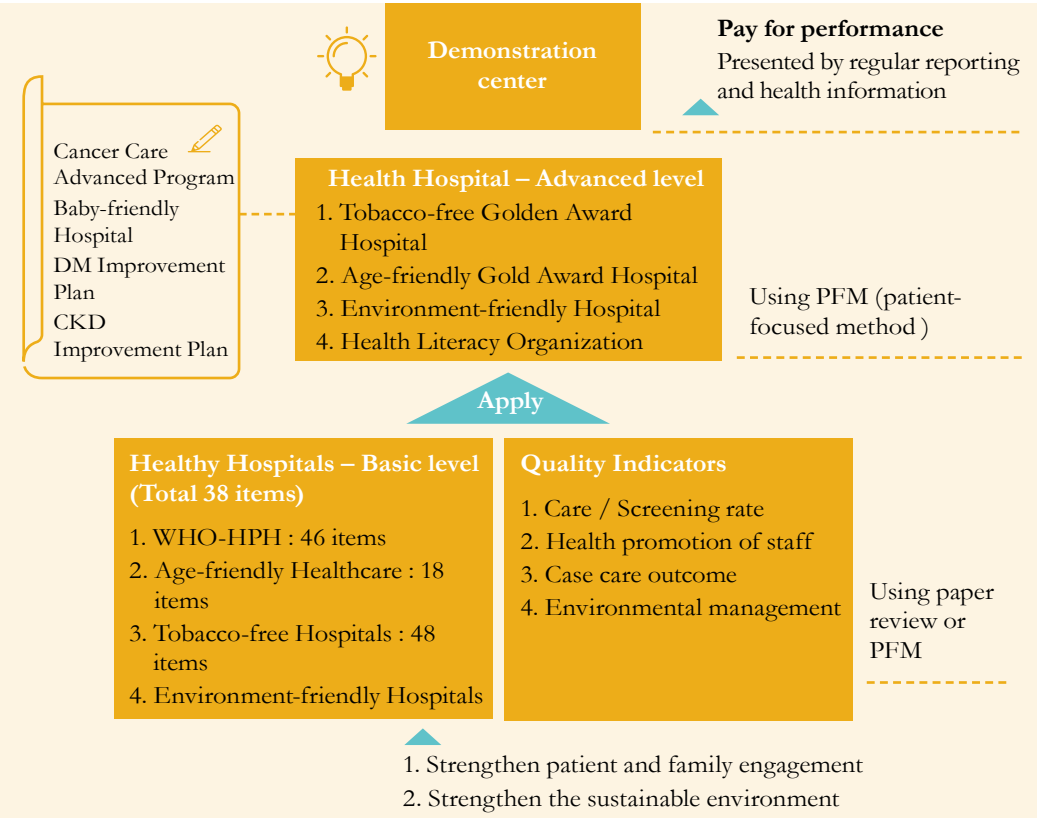
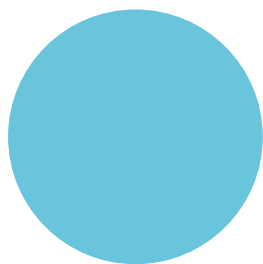
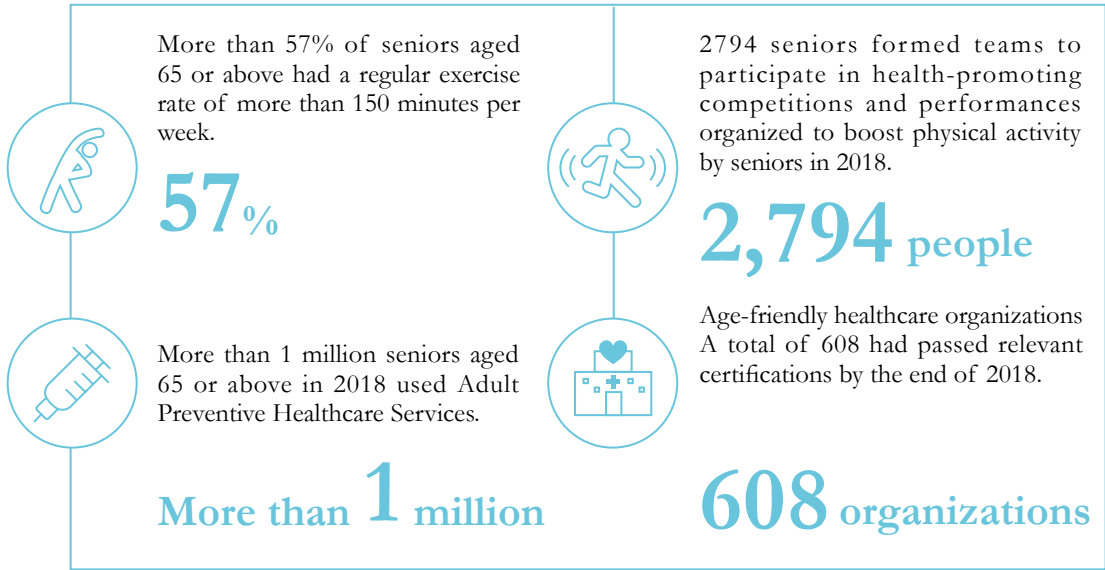


Figure4-10 Healthy hospital certification concept

# 5 Healthy Aging

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Preventing Debility and being Dementia-friendly	87
Age-friendly Environment and Compassionate City	89





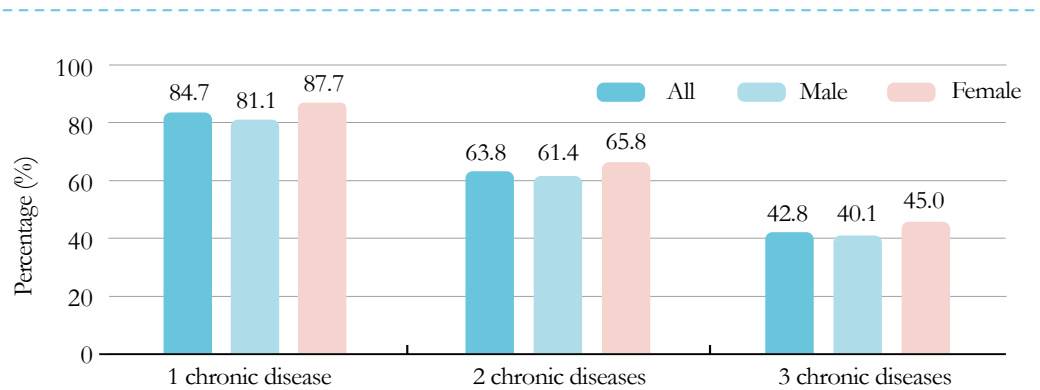
In 2002, WHO began promoting “Active Aging,” in the hope of developing aging as a positive experience, while also encouraging seniors to not only focus on their physical and mental health, but also continue to play an active role in social, economic and cultural affairs. The goal is to promote spiritual growth and maintain an active lifestyle.

Taiwan has officially been an aging society since 1993 and in 2018 the number of people aged 65 or over totaled 3,433,517 or 14.6% of the total population. Given a persistently low birth rate and the aging of postwar baby-boomers, it is expected that 20% of the population will be 65 years of age or older in 2018. This would mean that Taiwan is now 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 countries. In addition to the rapid increase in the aging population, the size of the middle-aged population has also gradually increased. Their health has had a great impact on society, and thus we need particular focus on 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 environments 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. Through controlling or reducing the risks and other negative influences caused by diseases, we might upgrade their quality of life.

# Active Aging

## 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 “2017 National Health Interview Survey” demonstrated, with more than 80% (84.7%) of seniors reporting having been diagnosed with at least one chronic disease, among which more women than men (Figure 5-1). Studies show that the most common chronic diseases among seniors are hypertension and diabetes mellitus, while women are vulnerable to osteoporosis.



Sources: 2017 “National Health Interview Survey”

1. Sample size: 3,283 (1,531 male, 1,752 female)
2. The 17 types of chronic diseases include: hypertension, diabetes, heart disease, stroke, lung or respiratory disease (bronchitis, emphysema, pneumonia, lung disease, and asthma), arthritis or rheumatism, gastric ulcers or stomach illness, liver or gallbladder disorder, hip fractures, cataracts, kidney disease, gout, spinal bone spurs, osteoporosis, cancer, hyperglycemia and anemia.
3. Weighted percentages

**Figure5-1** Citizens aged 65 or above who report they have been diagnosed with chronic diseases

## Target Indicators

1. More than 57% of seniors aged 65 or above had a regular exercise rate of more than 150 minutes per week.
2. In 2018, the smoking rate of individuals aged over 65 fell below 10%.
3. In 2018, approximately 1,000,000 individuals used Adult Preventive Healthcare Services.
4. All 22 cities and counties in Taiwan promoted Age-friendly Cities.
5. In 2018, more than 500 institutes passed the Age-friendly Healthcare Institution Certification.

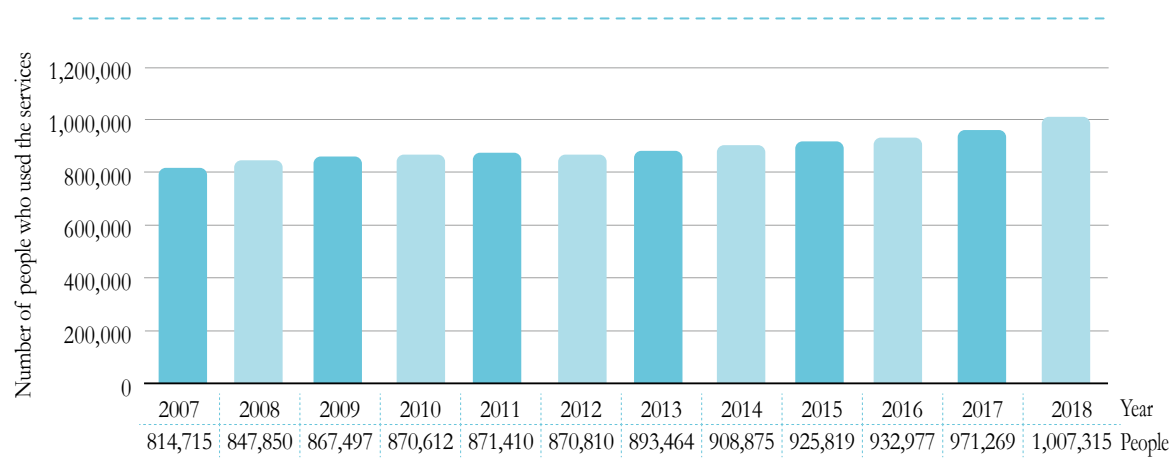
## Policy Implementation and Results

Policies governing preventive healthcare services, integrated screening services, and health promotion for seniors are implemented in accordance with the unique characteristics and needs of seniors in communities. Relevant issues include healthy diets, exercise,

fall prevention, drug safety of seniors, chronic disease prevention, health screening, and blood pressure measurement. In addition, HPA promotes Age-friendly Healthcare Institutions and Cities with the goal of creating age-friendly healthcare environments and services.

1. A rising number of seniors aged 65 or above utilizing Adult Preventive Healthcare Services

The government offers preventive healthcare services to seniors aged 65 or above once a year. Service contents include physical check-ups, blood and urine tests, and health counseling (Figure 5-2). A total of 1.007 million seniors received such services in 2018, which represents an increase by 3.7% (971,000 individuals) compared to 2017. This led to the detection of 210,000 (22.1%) new cases of hypertension, 91,000 (9.6%) new cases of hyperglycemia, and 226,000 (23.7%) new cases of hyperlipidemia.



Source: Health insurance payments for preventive healthcare

Figure5-2 Utilization of Adult Preventive Healthcare Services by seniors aged 65 or above between 2007 and 2018

2. Expanding integrated screening services

Since 2002, HPA has encouraged city and county governments to consolidate their medical resources. This includes integrating screening already used in adult preventive healthcare services and cancer detection. In 2018, a total of 21 cities and counties had carried out these changes, serving over 280,000 people. From 2003-2018, the number of people served exceeded 5,080,000.

3. Promoting senior health

(1) Integrating local resources to promote senior health

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, we 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 is to strengthen 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. In 2018, HPA subsidized 20 cities and counties, including 83 public health centers, and 17 community units (a total of 100 community health building units), with communities as the main platform. Active aging and health promotion courses for seniors in communities were promoted. A total of 447 health promotion courses for seniors in communities were organized and attended by 19,619 elderly citizens.

## **(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. This has 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. In 2018, a total of 2,794 seniors formed 61 teams to represent their cities and counties in competitions and performances. The average age of participants was 70. As many as 125 contestants were aged 90 or above. The total age of all participants exceeded 170,000 years. Over the past eight years, over 500,000 seniors have participated in these competitions and performances.

## **(3) Enhancing preventive healthcare services for the seniors**

In 2018, a total of 3,792 seniors aged 65 and older received tobacco cessation counseling hotline service and 67,880 received tobacco cessation services.



# Preventing Debility and being Dementia-friendly

## Status Quo

The WHO points out that regular physical activity of moderate intensity helps reduce the risk of cardiovascular diseases, diabetes, colon cancer, breast cancer, depression, and hip joint or spine fractures. Academic research indicates that adequate exercise also reduces the risk of debility and dementia. The WHO suggests that those aged 65 years and above should do at least 150 minutes of moderate-intensity physical activity throughout the week. It also recommends that seniors perform physical activity to promote balance and prevent falls three times a week.

As of 2018, HPA assesses debility of seniors aged 65 or above in Taiwan via SOF (Study of Osteoporotic Fractures) and depression and fall prevention questionnaires. A total of 218,966 seniors underwent assessments. A preliminary analysis reveals that 30,386 (13.9%) seniors are in a stage of prefrailty, while 6,734 (3.1%) of the assessed seniors are in a stage of frailty. As many as 9,782 (4.5%) of the assessed seniors had suffered falls within the past year, while 2,847 (1.3%) suffer from depression.

## 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 classes to teaching materials

In 2016, HPA commissioned the Taiwan Physical Therapy Association to develop an evidence-based sports intervention model to reverse debility. Based on this model, 14 batches of 16-hour standardized “sports and health Teacher Training” courses was offered for professionals in the fields of medicine and sports from June to September 2017. In addition, a “Resources tool kit” (electronic and real world) has been created to provide teachers with teaching handbooks, materials, lesson plans, and teaching aids required for courses offered in communities and thereby replenishes resources and contents. A total of 1,598 trainees successfully completed this training program.

In 2018, HPA offered courses on the prevention and delay of debility for the training of teachers and assistants. Basic training courses were offered in 15 batches for a total of 1,472 trainees. Featured courses were organized in two batches for a total of 875 trainees.

In addition, three evidence-based, interventionist, operable, and creative service plans with clearly defined contents, intervention targets, excellent extendability, and high cost-efficiency were developed in the “Debility Prevention and Delay Research Program”.

**2. Actively building community-oriented health management**

- (1) HPA held 229 “Seniors Health Promotion Courses in the communities” in 15 cities and counties as an outreach service with trained sports and health instructors. Contents include the evidence-based “sports intervention model,” “healthy aging,” and “cognitive function training.”
- (2) Service recipients include seniors suffering from debility as well as subhealthy and healthy elderly citizens. A total of 14 cities and counties received subsidies for the organization of seniors health promotion courses in 291 sessions of courses in addition to 508 outreach service courses. The number of service recipients exceeded 35,000. A total of 2,548 elderly citizens received health management services with preference given to seniors suffering from multiple chronic diseases and debility. A preliminary analysis of pre-test and post-test data for participants indicates that 12-week intervention facilitates the maintenance and improvement of interpersonal interactions and emotional functions, and reduces incidence of falls among seniors.

**3. Health Bureaus promoting senior health through competitions**

More than 35,000 participants in 61 teams from cities and counties across Taiwan took part in the 2018 Seniors Health Promoting Competition. The average age of participants was about 68, with over 100,000 years in total. Over an eight year period, more than 530,000 seniors took part.

HPA has adopted the “Debility Prevention and Delay Guidance Network Program” to facilitate the development of community guidance and evaluation procedures and standards. A total of 12 awards for groups with outstanding performance, such as the “community management award,” “senior health management award,” and “creative sustainability award,” are presented in the “Outstand Groups Commendation Meeting.” The goal is to recognize achievements and efforts of participating in community units.

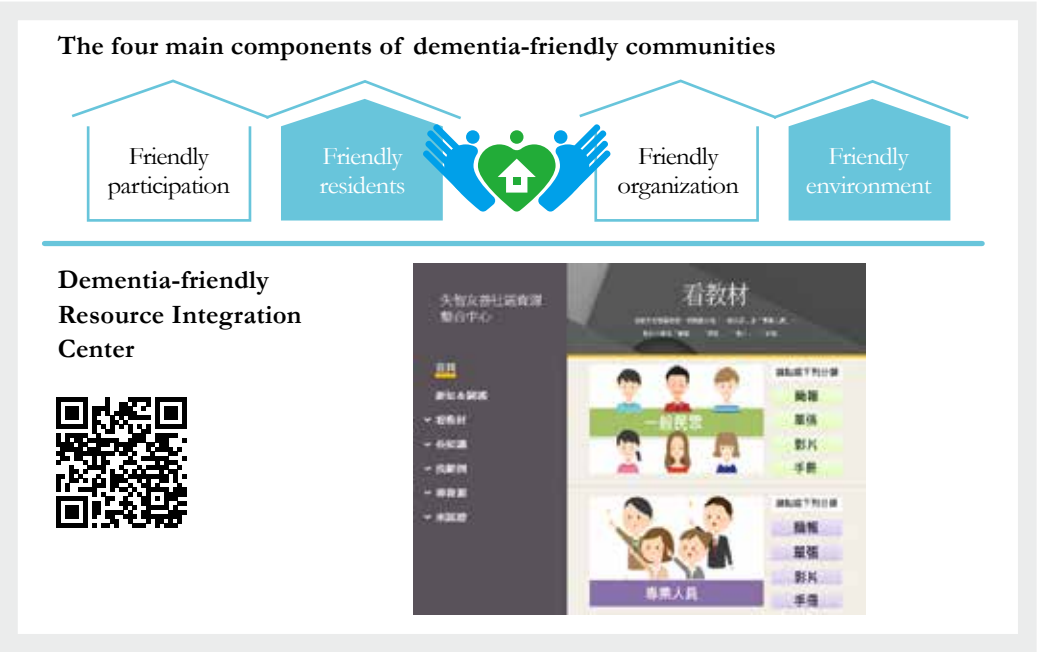
**4. Instructing seniors on how to lead a healthy life with sports and life handbook**

In 2018, we continued to publish “Sports 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. The handbook 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 promoting of dementia prevention work

- (1) The government promotes “dementia-friendly communities” and subsidizes 22 cities and counties in the implementation of the “Dementia Prevention Program” to develop living spheres centered around dementia patients and their families. Community networks were utilized to enlist 37,000 dementia-friendly ambassadors and 2,181 dementia-friendly organizations. A total of 315 diversified dementia-friendliness educational activities were organized with the goal of forming dementia protection networks (Figure 5-5).
- (2) HPA has established a “Dementia-friendly Resource Integration Center,” which has collected and stored 86 documents, 138 health education materials, 8 presentations, and 8 videos related to dementia from all over the world, available for the general public and relevant groups.



Age-Friendly Environment and Compassionate City

Status Quo

The HPA has promoted age-friendly cities since 2010 and in 2017 made healthy cities the focus of this campaign, to promote an age-friendly, dementia-friendly and caring community program. The building of a healthy public policy framework includes environment, services and policy. We need to improve hardware facilities and software to better connect communities, businesses, charities, religious groups, etc. to 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. The ability to continue to make

a contribution creates the dream blueprint of “less illness, slower aging and living well, ” enhancing quality of life well into old age.

Policy Implementation and Results

1. Promoting age-friendly cities

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 (Figure 5-3). In 2010, the HPA chose Chiayi City as its pilot age-friendly city. By 2013, we had already promoted age-friendly in 22 cities and counties in Taiwan, making it the first country in the world in which all cities and counties signed the Dublin Declaration to promote age-friendly cities.



Figure5-3 Eight domains of focus in the WHO’s “Global Age-friendly Cities: A Guide”

(1) Formulating public policy for age-friendly cities

Municipal and county governments are encouraged to incorporate the promotion of age-friendly cities into their administrative policies and establish age-friendly city promotion committees as decision-making centers for program implementation with the mayors/magistrates as chairpersons.

(2) Building an age-friendly supportive environment

To improve the urban environment, reduce barriers and increase social engagement, HPA has developed plans that compound with the needs of elderly population in all 22 cities and counties in Taiwan.

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

In 2018, HPA organized a “workshop on active-aging networks for university and college faculty members” to maximize the impact of age-friendly actions. Faculty members of geriatrics and gerontology departments at local universities and colleges were enlisted to participate in the creation of cooperation platforms and formation of partnerships. Implementation personnel of municipal and county governments were provided with advanced implementation strategies and experiences and 22 cities and counties were offered guidance in program implementation.

The HPA held the 2018 “Healthy City and Age-friendly City Award,” with a total of 405 submissions. A total of 58 award-winning units were honored in a public ceremony.

2. Promoting institution certification and widespread adoption of age-friendly healthcare

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

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 Healthy Hospital Certification. For the service patterns of different health care institutions, we develop “Taiwan’s Framework of Age-friendly Hospitals and Health Services Version 2.0 – Local Health Centers Version and Long-term Care Institutions Version,” This encompasses management policy, communication and services, friendly environment, health promotion (long-term care service institutions for employee and resident health promotion) and community services and referrals (Figure 5-4).

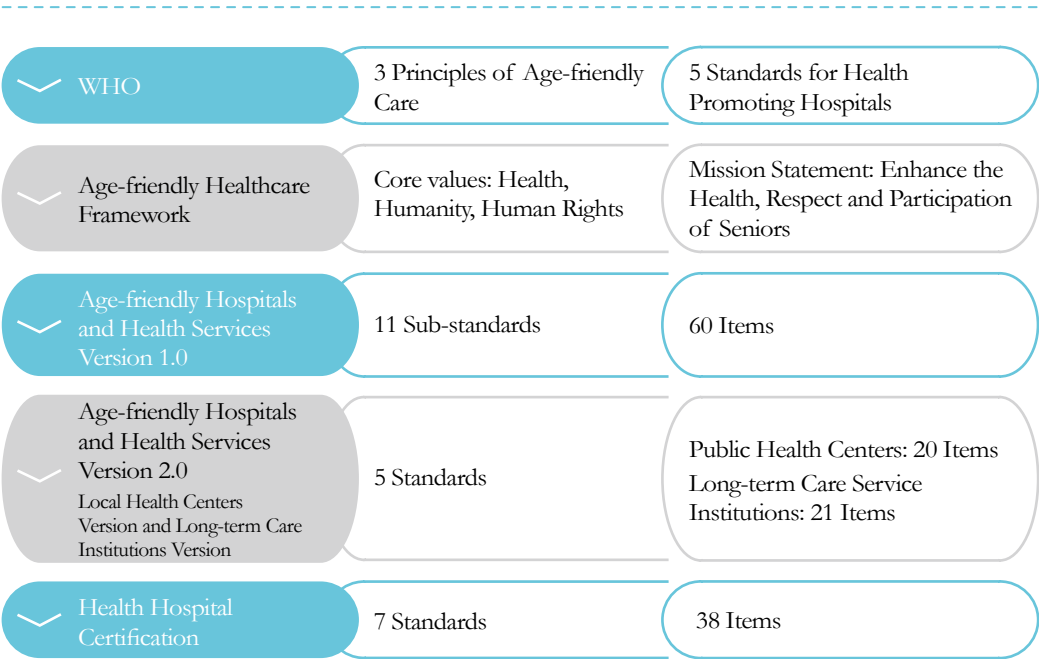
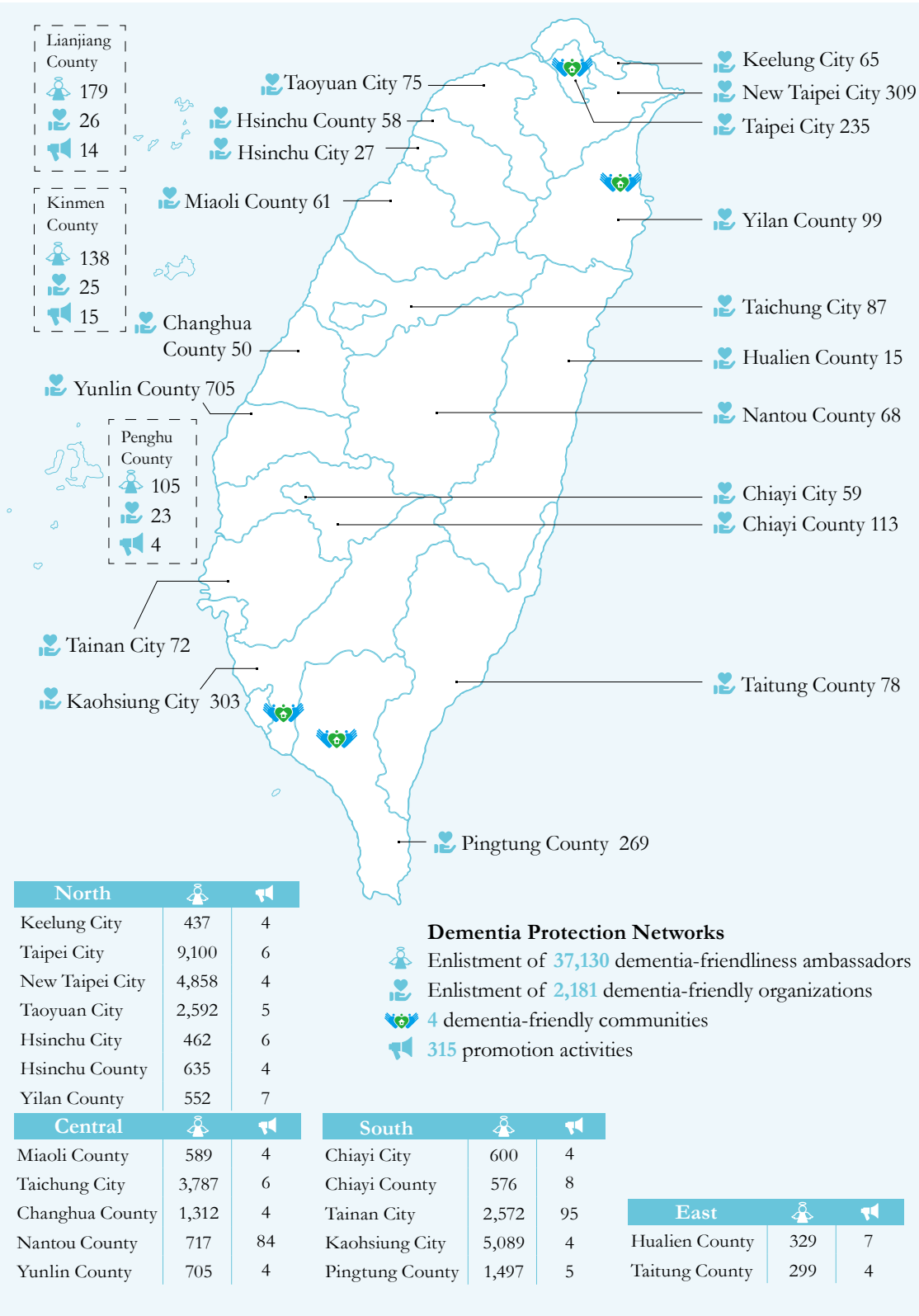


Figure5-4 “Age-friendly Hospitals and Healthcare Certification” in Taiwan

(2) Age-friendly hospitals and health services guidance and development

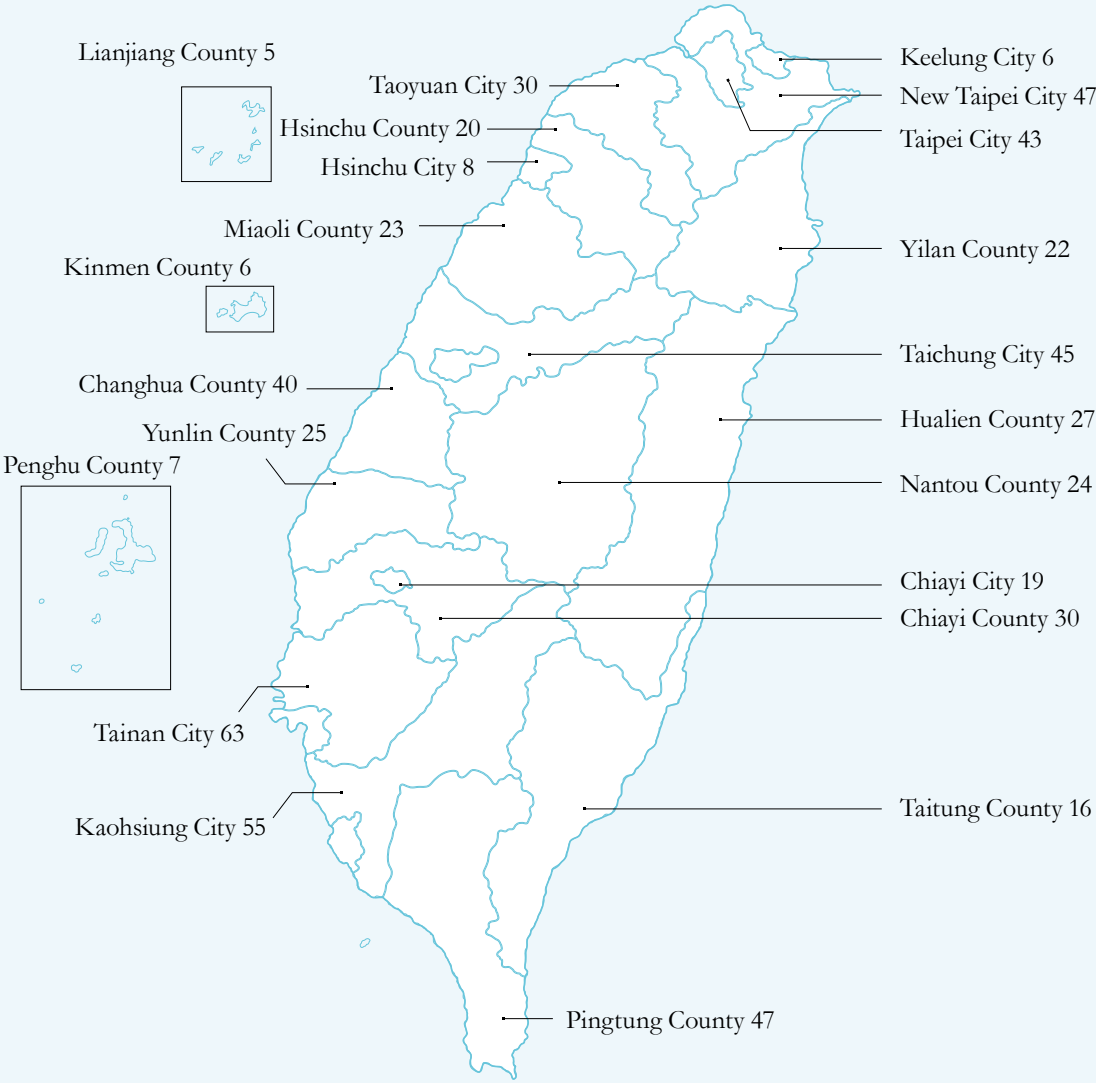
In 2011, certifications were promoted at the hospital-level. In 2012, promotion efforts were extended to clinics (community care networks) and long-term care service institutions. As of 2015, professional training courses are provided for age-friendly



healthcare organizations. At the end of 2018, the 8<sup>th</sup> “Presentation of Achievements and Awards for the Promotion of Age-friendly Healthcare Organizations” was organized to spur a trend of age-friendly healthcare organizations.

**(3) Full promotion of age-friendly healthcare institutions**

HPA promoted the completion of the certification of 500 health care institutions in the five years from 2014 to 2018, and a total of 608 institutions have passed the certification by the end of 2018 (Figure 5-6), including 200 hospitals, 330 public health centers, 1 clinic and 77 long-term care service institutions.



Age-friendly healthcare organizations

Total **608**

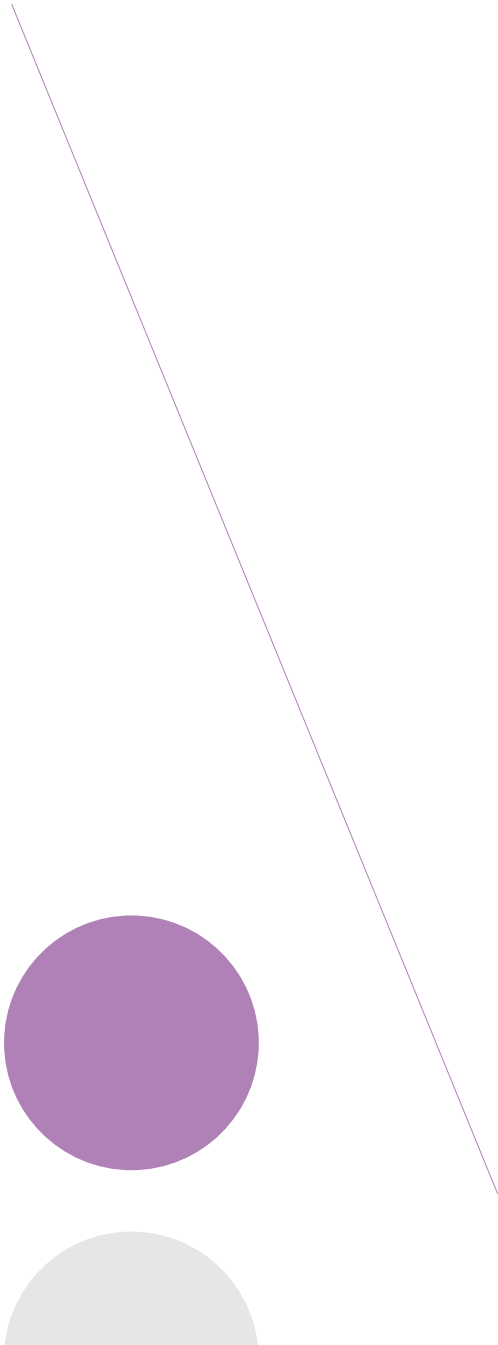
**Figure5-6** Distribution of age-friendly healthcare institutions in 2018



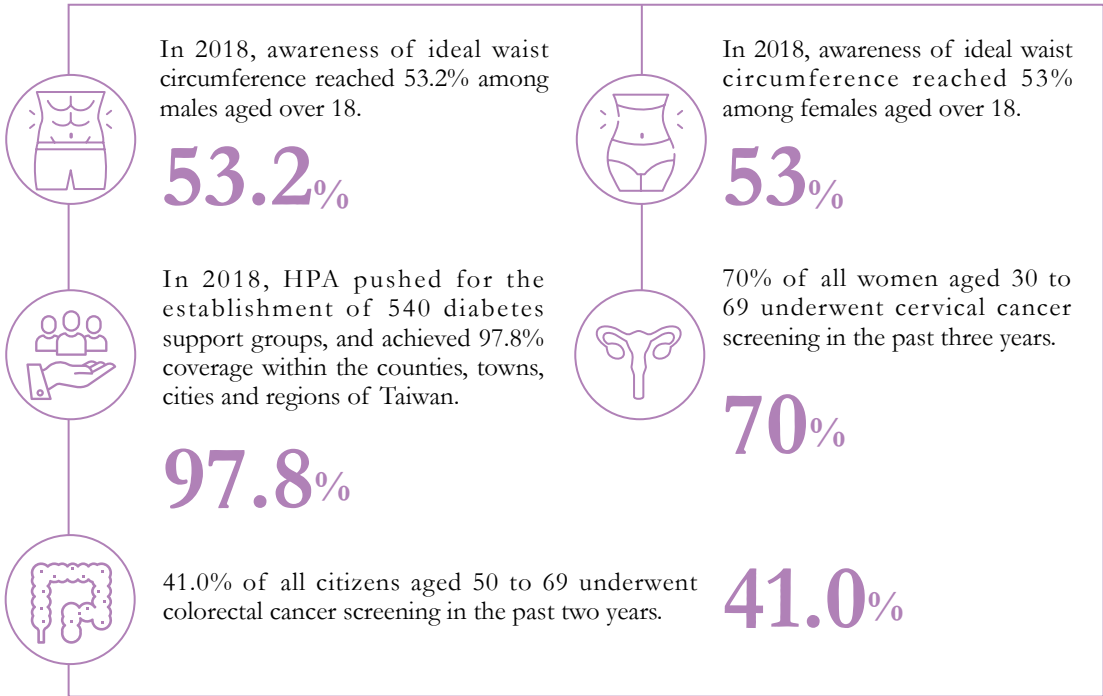
# 6

# Non-Communicable Disease Prevention

Prevention and Control of Major Chronic Diseases	96
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In 2018, chronic diseases represented the leading cause of death (Table 6-1) in Taiwan. These diseases which are a commonly encountered problem during the aging process account for almost 60% of all deaths. HPA aims to achieve early detection through health screening and active creation of a health-supportive environment.

**Table6-1 2018 10 Leading Cause of Death in Taiwan**

Cause of Death	Numbers of Death	Crude Death Rate*	Standardized Death Rate**
1 ★ Malignant neoplasms	48,784	206.9	121.8
2 Heart disease (other than hypertensive diseases)	21,569	91.5	48.8
3 Pneumonia	13,421	56.9	27.4
4 Cerebrovascular disease	11,520	48.9	26.1
5 Diabetes mellitus	9,374	39.8	21.5
6 Accidental injury	6,846	29.0	21.1
7 Chronic lower respiratory tract disease	6,146	26.1	12.7
8 Hypertensive disease	5,991	25.4	12.8
9 Nephritis, kidney disease, and kidney pathology	5,523	23.4	12.3
10 Chronic liver disease and cirrhosis	4,315	18.3	11.6

Sources: Cause of Death Statistics, MOHW

\* Death rate calculated per 100,000 people

\*\* The standardized death rate is based on the 2000 WHO world population and age structure

# Prevention and Control of Major Chronic Diseases

## Status Quo

According to the results of the “Nutrition and Health Survey in Taiwan” (NAHSIT) 2015-2018, around 4.87 million citizens suffered from hypertension, while approximately 4.09 million and 1.76 million were afflicted with hyperlipidemia and diabetes, respectively (Figure 6-2, 6-3, 6-4). Five of the 10 leading causes of death are associated with hypertension, hyperglycemia, and hyperlipidemia. Cardiac disease, cerebrovascular disease, diabetes, hypertensive disease, and nephrosis ranked 2<sup>nd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 8<sup>th</sup>, and 9<sup>th</sup>, respectively.

Chronic diseases represent the leading cause of premature death. HPA has formulated goals for the prevention of major chronic diseases (Figure 6-1). Metabolic syndrome, diabetes, cardiovascular disease, and chronic kidney disease (CKD) have been listed as major targets of prevention. In addition, HPA has initiated “the first stage of

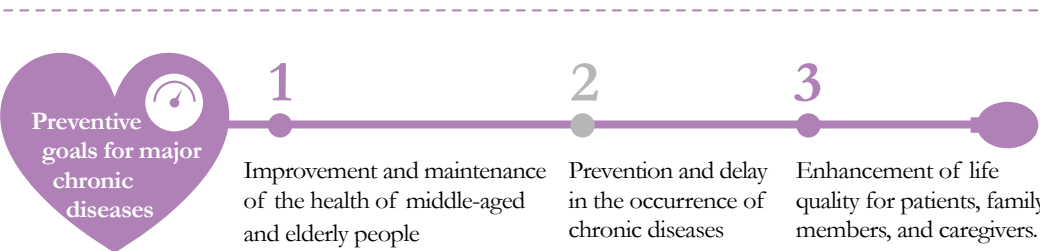
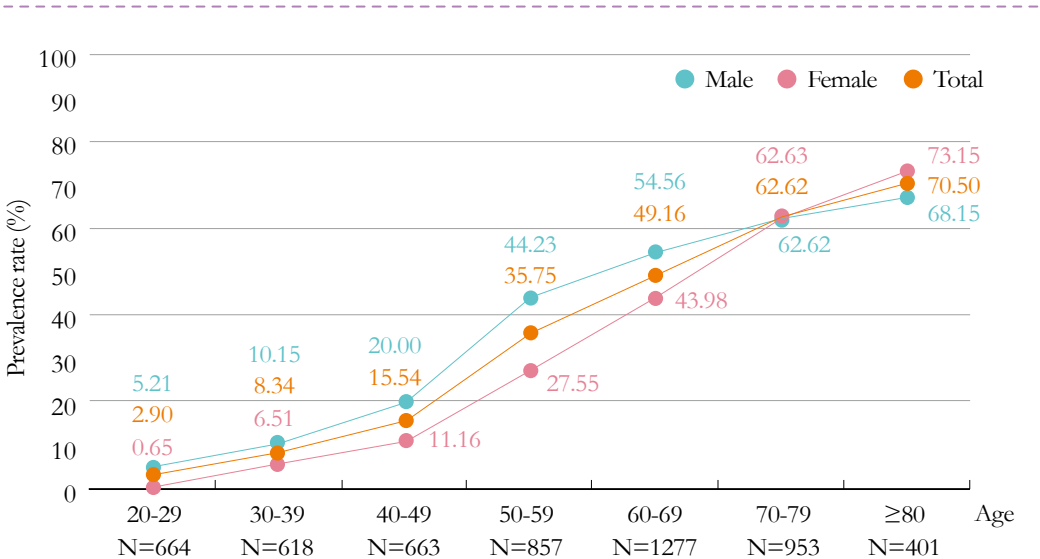


Figure6-1 Preventive goals for main chronic diseases

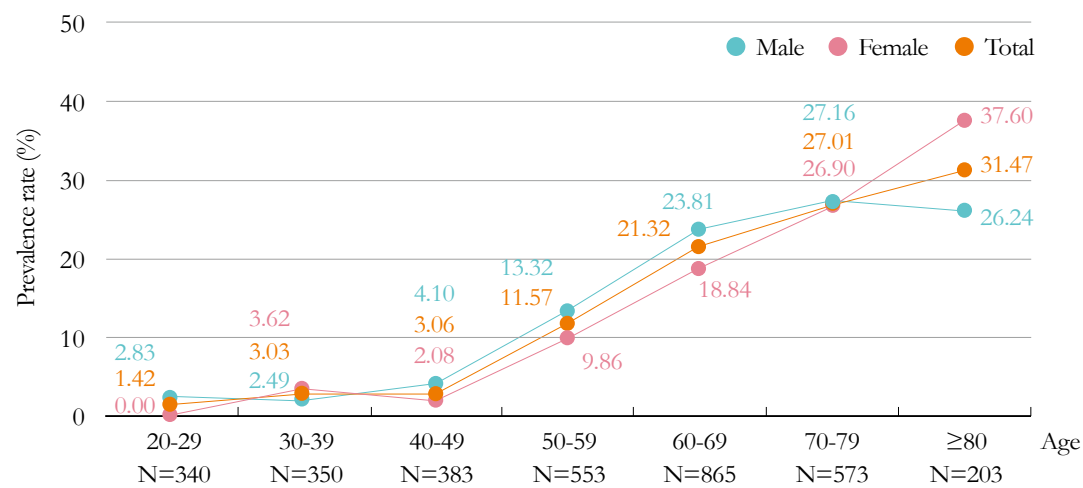


Source: Nutrition and Health Survey in Taiwan (NAHSIT), 2015-2018

1. Denominator: Sample with blood pressure measurement values of health check stations. Home blood pressure measurement values are adopted for conversion if no health check station measurements are available.
2. Numerator: Definition of high blood pressure: Systolic pressure  $\geq 140$ mmHg, diastolic pressure  $\geq 90$ mmHg, or patients on antihypertensive medications
3. The results were weighted.

Figure6-2 Prevalence of hypertension by gender and age, 2015-2018

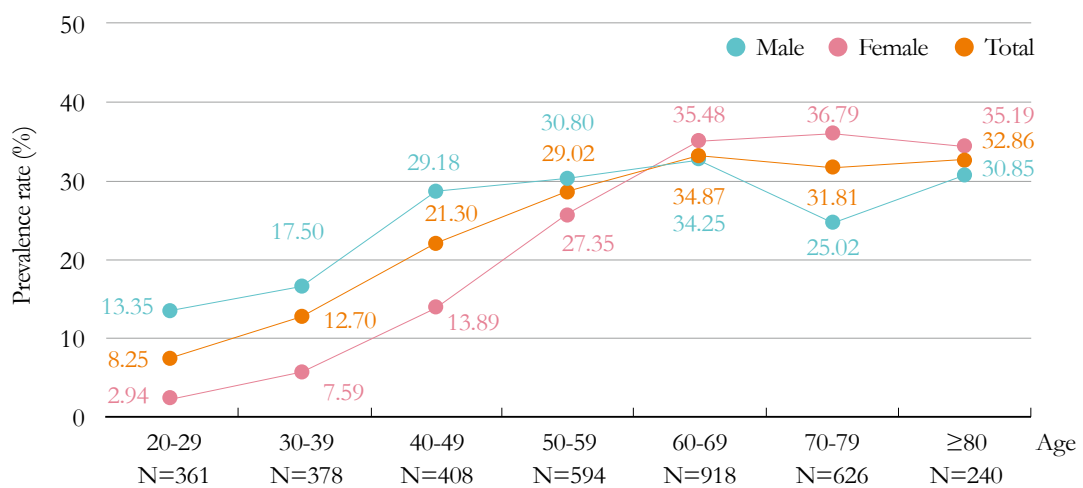
the National Cardiovascular Disease Prevention Program (2018-2022). ” A cross-departmental and cross-ministerial “Cardiovascular Disease Prevention Council” has been formed to enhance the health literacy of the public and healthcare systems with regard to cardiovascular diseases.



Source: Nutrition and Health Survey in Taiwan (NAHSIT), 2015-2018

1. Denominator: Sample with fasting blood glucose test
2. Numerator: Definition of hyperglycemia: fasting blood glucose  $\geq 126\text{mg/dL}$  ( $7.0\text{mmol/L}$ ) or patients on antihyperglycemic medications
3. The results were weighted.

**Figure6-3** Prevalence of hyperglycemia by gender and age, 2015-2018



Source: Nutrition and Health Survey in Taiwan (NAHSIT), 2015-2018

1. Denominator: Sample with excessive cholesterol or triglycerides
2. Numerator: Definition of hyperlipidemia : Total cholesterol $\geq 240\text{mg/dL}$ , or triglycerides  $\geq 200\text{mg/dL}$ , or patients on antihyperlipidemic medications (including. self-proclaimed use of antihyperlipidemic medications or use of medications with antihyperlipidemic effects without self-proclaimed use)
3. The results were weighted.

**Figure6-4** Prevalence of hyperlipidemia by gender and age, 2015-2018

## Target Indicators

1. In 2018, awareness of ideal waist circumference reached 53.2% among males and 53% among females aged over 18.
2. In 2018, there were 255 diabetic health promotion centers and 191 kidney disease preventative health promotion centers.
3. In 2018, 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. Raising health awareness among the public

#### (1) Diversifying health care promotion

We design educational leaflets, posters, and self-care manuals for the prevention of hypertension and strokes and promotion of adult health checks.

#### (2) Diversifying promotion channels

We organize press conferences, large-scale educational activities, and promotion through various channels for international chronic disease awareness days, with the aid of health bureaus, NGOs, and community resources.

1. In 2018, 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,” “Chronic Kidney Disease Health Management Manual,” etc. Resources and medical institutes were also made available for health education and advocacy.
2. Public concern and awareness on diabetes prevention was aroused through synchronized promotion of “The Family and Diabetes,” the theme of the 2018 World Diabetes Day, in cooperation with the Diabetes Association of the Republic of China (Taiwan), the Taiwanese Association of Diabetes Educators, the Formosan Diabetes Care Foundation, the Taiwanese Association of Persons with Diabetes, and the Health Bureau of Taichung City Government.
3. In coordination with the World Hypertension Day (May 17<sup>th</sup>) and the theme “Know Your Numbers” (Understand your blood pressure) in 2018, HPA has organized an awareness campaign titled “May Blood Measurement Month” since 2017 in cooperation with Taiwan Hypertension Society and Taiwan Pharmacist Association. Over 80,000 citizens participated in this campaign between 2017 and 2018. In addition, convenient and highly accessible blood pressure measurement services were provided for the public at different community locations (e.g., administrative agencies, community care centers, activity centers, pharmacies, malls, and workplaces). Community pharmacists also provided counseling services and assistance to the public in blood pressure management. Over 3,200 blood pressure measurement stations are currently available nationwide.

4. In 2018, HPA organized the “2018 Metabolic Syndrome Screening Diagnosis and Education Event” and the “August 9<sup>th</sup> Waist Circumference Measurement Day” on occasion of Father’s Day based on the theme of “Love.” The goal of the latter event was to raise the concern of citizens for their own waist circumference health and that of their family and friends. During the month of the event, paper tape measures for waist circumference measurement were provided in cooperation with 13 renowned convenience and drug store chains in Taiwan. A total of 25.85 million individuals were reached through online and social media promotional campaigns.
5. On occasion of 2018 World Kidney Day, HPA organized a CKD prevention and health communication activity in cooperation with Taiwan Society of Nephrology, city and county health bureaus, and hospitals and clinics nationwide. A fair activity titled “Conquer Your Life By Loving Your Kidneys” was organized in nine cities and counties. This activity drew a total of 4,876 participants. HPA also organized a total of 12 lectures on CKD prevention and health education with a total of 947 attendants nationwide and five workshops on CKD care networks with a total of 871 attendants to provide the public with a better understanding of CKD prevention.
6. On occasion of “Go Red for Women” 2018, HPA encouraged women to get into the habit of regular exercise and heighten their concern for cardiovascular diseases through diverse promotional channels including a celebrity endorsement campaign on Facebook, printing of flyers, road running events, and press conferences.

## **2. Urging high-risk groups to pay attention to health promotion by improving their behavior, and ability to manage their own health**

### **(1) Convenient and intensive blood pressure measurement services**

In order to ensure blood pressure measuring locations are convenient and accessible to the general public, local governments’ health departments integrated the community resources at their disposal to establish 3,200 additional blood pressure measurement stations, in addition to hospitals and clinics, at administration agencies, community care centers, activity centers, drug stores, malls and workplaces.

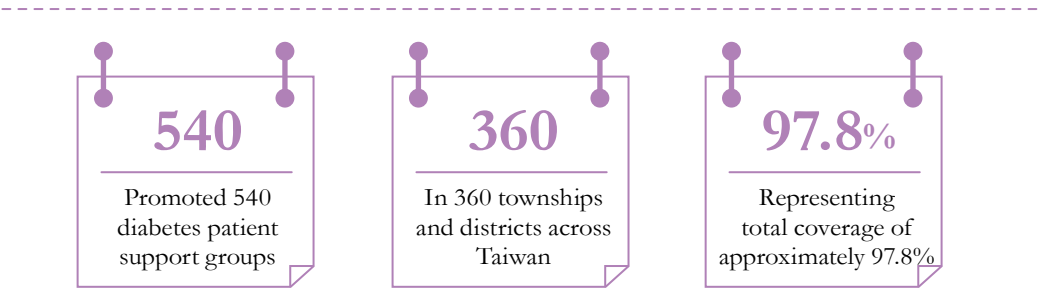


### **(2) Deepening the campus awareness for chronic disease prevention**

Editing and printing a manual on the “Prevention of Major Chronic Diseases and Case Management on Campus” to give different types of schools a better understanding of chronic diseases and case management and boost the prevention of such diseases.

**(3) Operating short-range 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 6-5). Healthy diet, weight control and blood sugar monitoring events were also held.



**Figure6-5 Increase the accessibility of health promotion for high risk diabetics**

**(4) Community advocacy**

In 2016, a total of 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**

“Adult preventive healthcare training courses” and “evidence-based preventive medicine courses” were organized to reinforce the understanding of key concepts in the field of evidence-based preventive medicine among professional medical personnel. A total of 19 such events were organized in 2018.

**3. Promoting self-awareness and self-management in health**

**(1) Accreditation of diabetes shared-care**

HPA promoted shared-care networks for diabetes in 22 cities and counties, and also established an accreditation system for diabetes medical care staff. In addition, the “Standards for Accreditation of Diabetes Shared-Care Networks for 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 2018, a total of 10,808 people were accredited for clinical care.

**(2) Preventive management**

In 2018, there were 255 diabetes health promoting institutions. These provided internships to 1,939 diabetes health education staff and handled 445,841 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

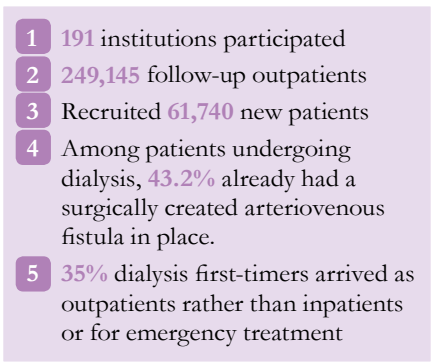
clinics, in order to upgrade the management and energy of basic medical institutes in providing chronic disease prevention services.

**(3) Medical quality certification badge**

In 2018, HPA designed and awarded the Diabetes Health Care Promotion Institution Badge, reassuring the public about their choice of medical centers. A 2018 Health Promotion and Healthcare Institute Achievement Award Ceremony was also held, with twelve benchmark best-in-class institutions commended and eight praised for their performance in caring for new diabetes patients. Special awards were given to 16 institutions, awards for outstanding overall implementation results to 7 institutions, and special awards to 14 institutions.

**(4) Comprehensive dialysis treatment**

Since 2004, HPA has entrusted the Taiwan Society of Nephrology with the advancement of health promotion institutions focusing on kidney ailments. In 2018, a total of 191 of these institutions with 249,145 follow-up outpatient patients, accepted 61,740 new patients. Also, 43.2% of all dialysis patients have undergone placement of a vascular access for dialysis treatment, while 35% of all patients receive dialysis treatment for the first time in an outpatient environment not requiring hospitalization or emergency care.



**Figure6-6**  
**Achievements of health promotion institutions for CKD in 2018**

**(5) Case-by-case management**

The “Chronic Kidney Disease Case Management and Joint Care Information System” was established in 2005 and has been integrated with other CKD related databases. By the end of 2018, a total of 250 hospitals and clinics had utilized this system featuring 216,887 cases.

**(6) Comprehensive advocacy of COPD**

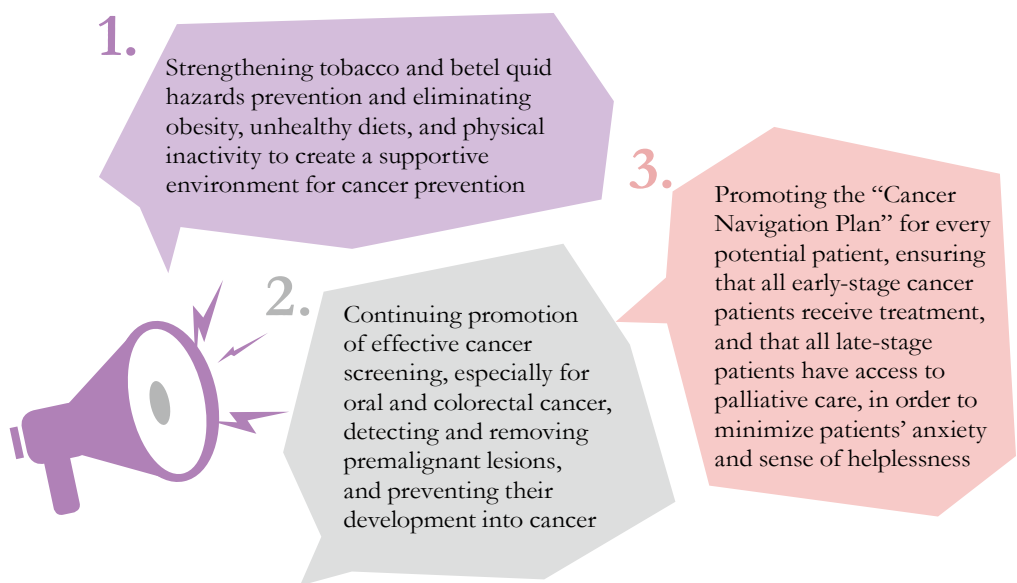
In coordination with World Chronic Obstructive Pulmonary Disease Day, two national press conferences were held to convey smoking cessation concepts to the public in 2018. A total of 100 people participated in these events. In addition, two COPD educational workshops on COPD were conducted for medical professionals to enhance their professional knowledge and skills, train health education personnel, and improve the quality of patient care. A total of 71 medical professionals successfully completed these courses.



# 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 1<sup>st</sup> National Cancer Prevention and Control Program (2005-2009). In 2010, the HPA continued the 2<sup>nd</sup> National Cancer Prevention and Control Program (2010-2013). Its primary strategy was to expand the provision of cancer screening services. In the 3<sup>rd</sup> National Cancer Prevention and Control Program (2014-2018), that focus has shifted from treatment and early detection to prevention with three new major points.

## The Major Focuses of the 3<sup>rd</sup> National Cancer Prevention and Control Program



### 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 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.



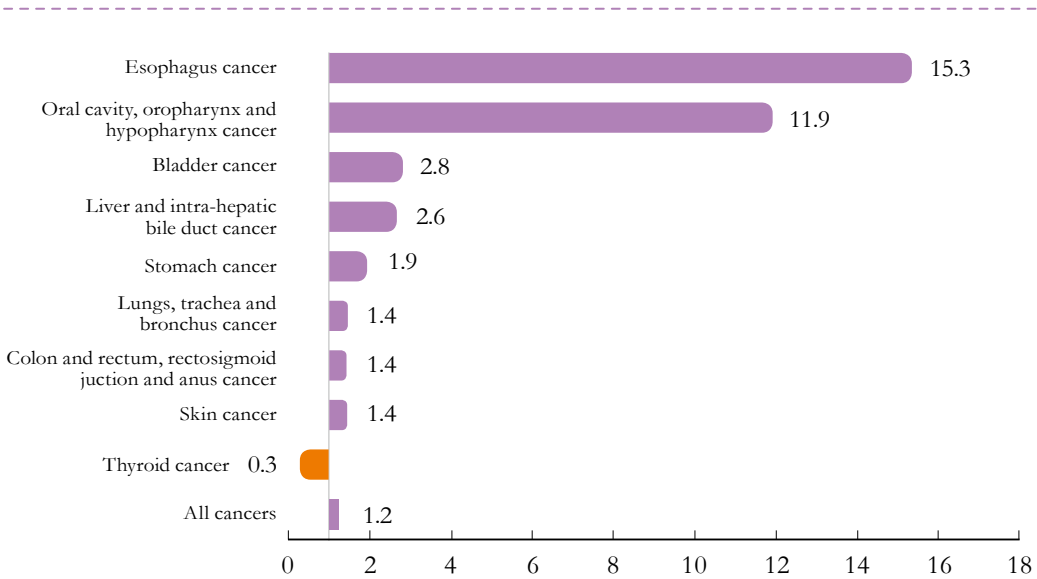
1. Incidences of Cancer

According to data from Taiwan Cancer Registry, in 2016, a total of 105,832 patients were diagnosed with cancers (56,854 were men, 48,978 were women), and the standardized incidence rate was 296.7 people per 100,000 people (330.0 were men, 269.1 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 15.3 and 11.9 times that for women, due to higher smoking and betel quid chewing rates in men (Figure 6-7).

As for the new cases of cancer, the top 10 cancers in 2016 were: (1) Colorectal cancer, (2) Lung cancer, (3) Female breast cancer, (4) Liver cancer, (5) Oral cancer, (6) Prostate cancer, (7) Stomach cancer, (8) Skin cancer, (9) Thyroid cancer, (10) Esophageal cancer (Figure 6-8, 6-9, 6-10).

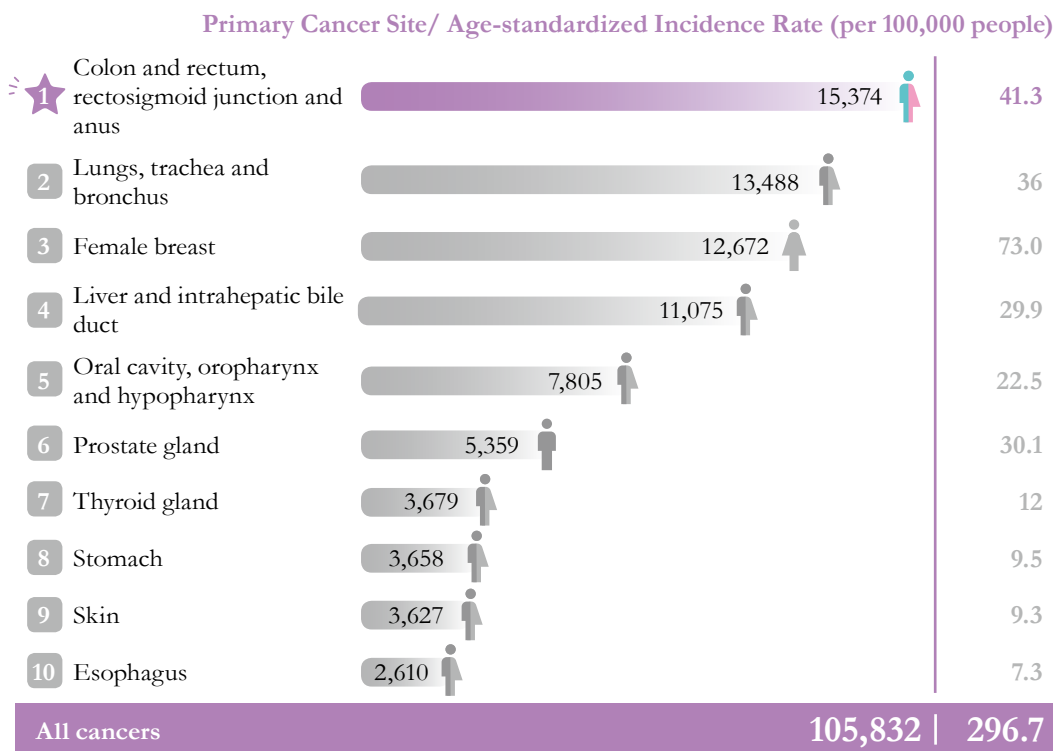
2. Cancer mortality

Ministry of Health and Welfare’s cause of death statistics show that 48,784 people died of cancer in 2018 (including 29,624 males and 19,160 females), accounting for 28.2% of all deaths. The age-standardized mortality rate was 121.8 per 100,000 people (158.5 for males and 89.3 for females). The 10 leading causes of cancer death in 2018 were cancers of the (1) trachea, bronchus and lung, (2) liver and intrahepatic bile ducts, (3) colon, rectum and anus, (4) breast (female), (5)oral cavity, (6) prostate, (7) stomach, (8) pancreas, (9) esophagus, (10) cervix and uterus (Figure 6-11, 6-12 , 6-13).



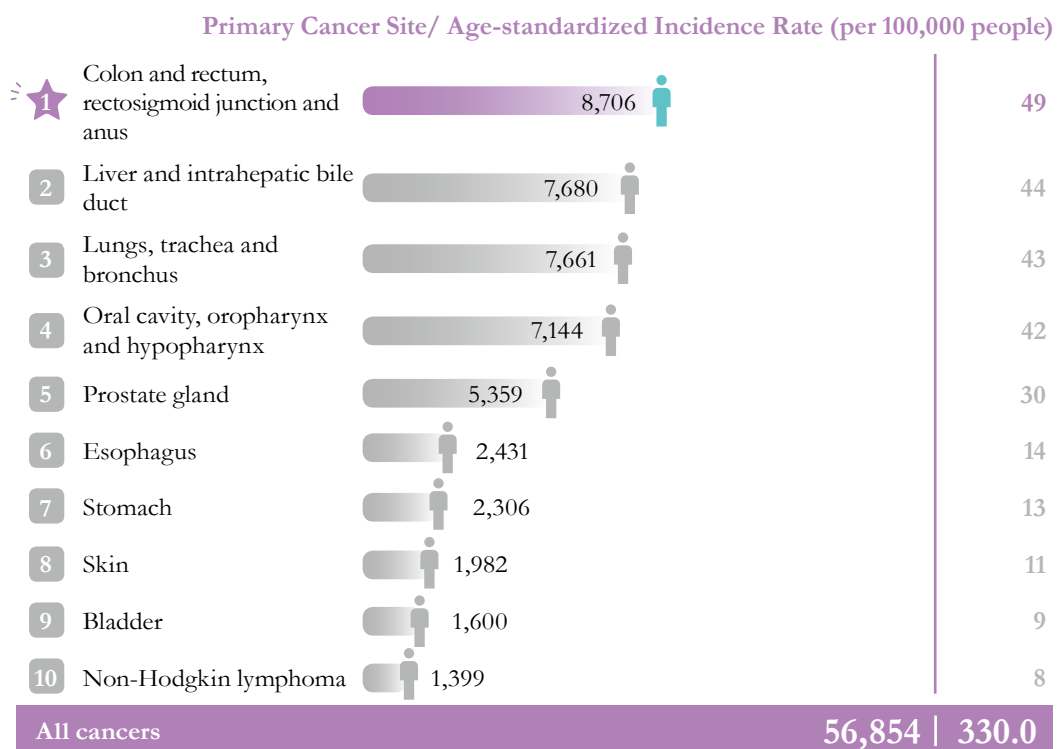
1. Sources: HPA, MOHW cancer registries in 2016 (excluding carcinoma in situ)  
2. Age-standardized incidence rates were calculated using the WHO’s world population age-structure in 2000. (Unit: per 100,000 people)

Figure6-7 Sex rates in age-standardized incidence major cancers, 2016



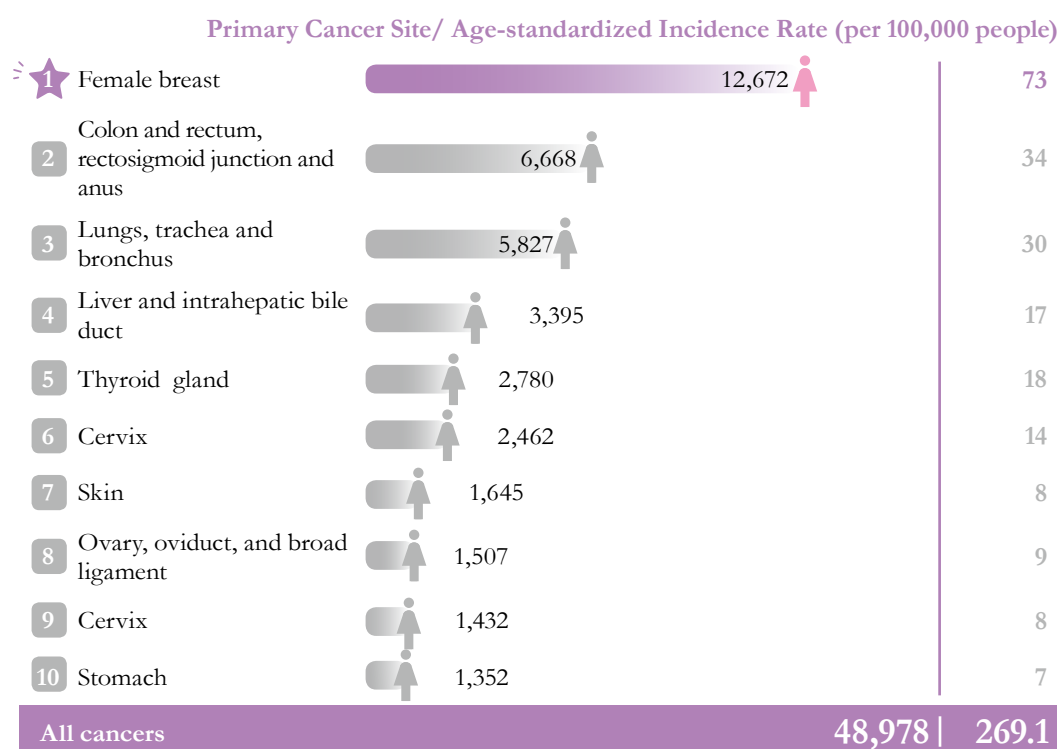
1. Source: HPA, MOHW cancer registries in 2016
2. Ranking is based on incidences.
3. Age-standardized incidence rates were calculated using the WHO's world population age-structure in 2000.

**Figure6-8 Incidence rate for 10 leading cancers in 2016**



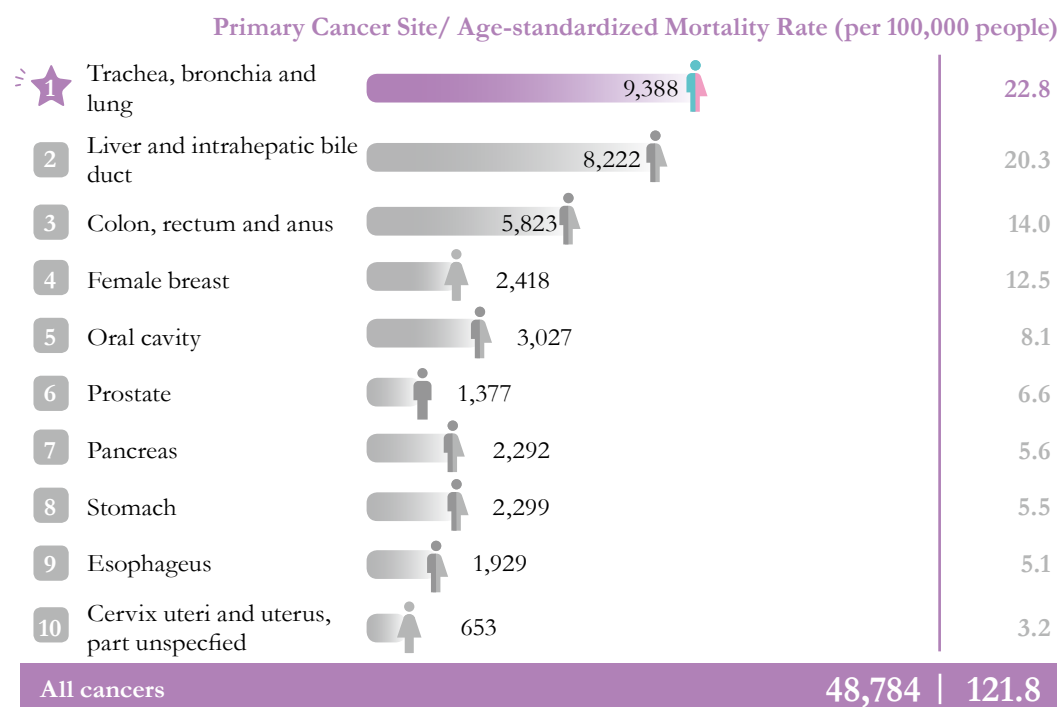
1. Source: HPA, MOHW cancer registries in 2016
2. Ranking is based on incidences.
3. Age-standardized incidence rates were calculated using the WHO's world population age-structure in 2000.

**Figure6-9 Incidence of 10 leading cancers among men in 2016**



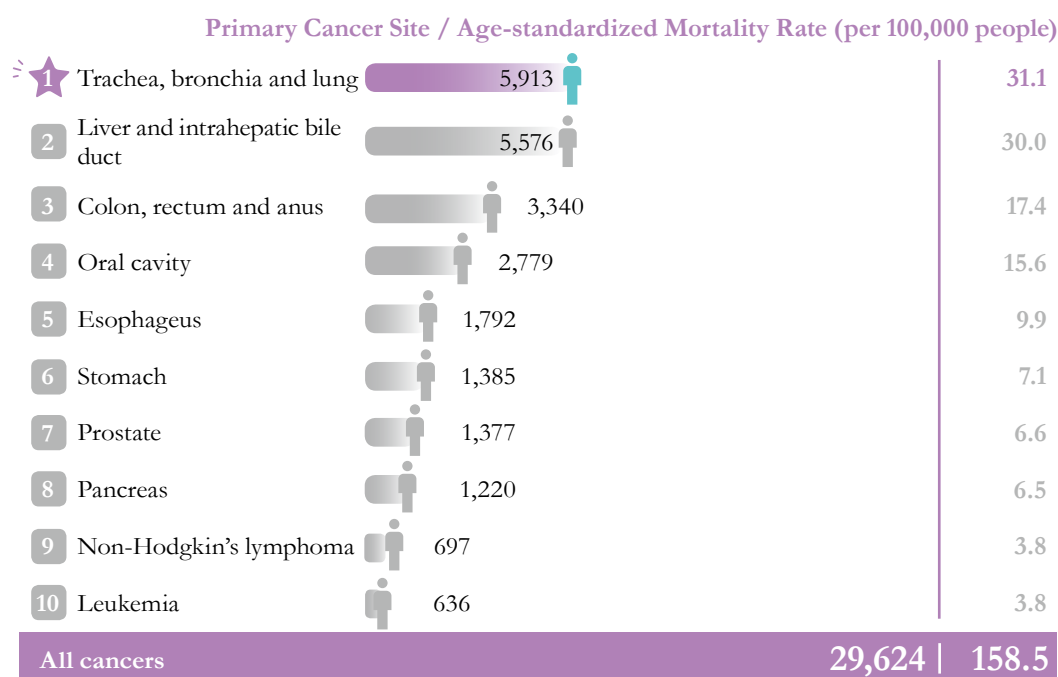
1. Source: HPA, MOHW cancer registries in 2016
2. Ranking is based on incidences.
3. Age-standardized incidence rates were calculated using the WHO's world population age-structure in 2000.

**Figure6-10 Incidence of 10 leading cancers among women in 2016**



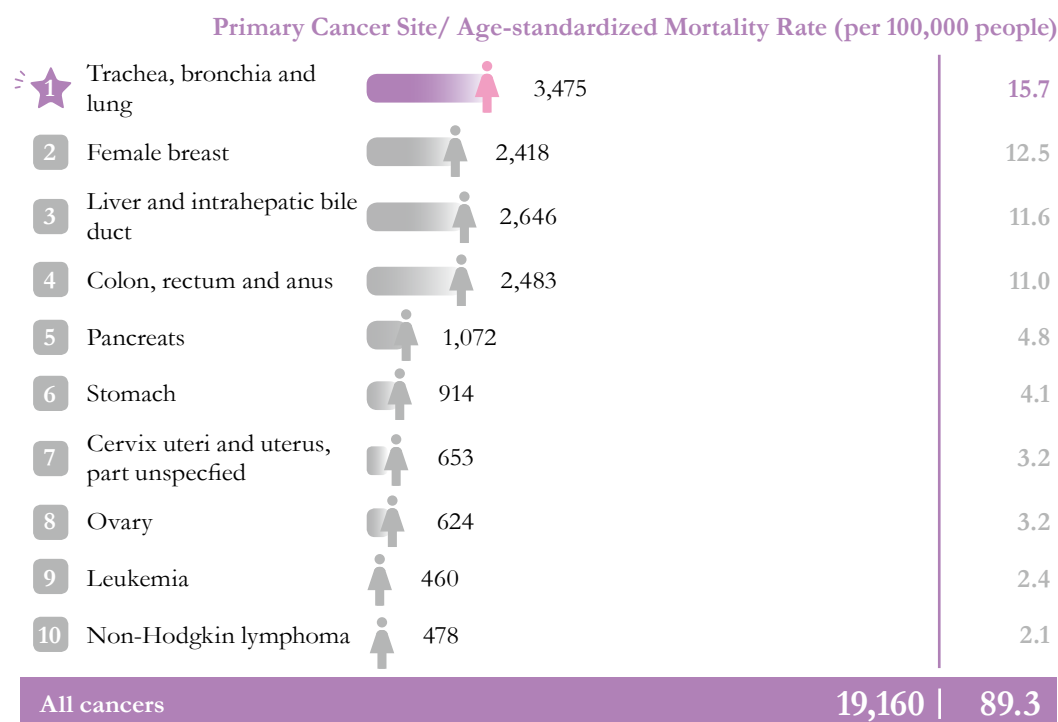
1. Source: Causes of Death Statistics, MOHW.
2. Ranking is based on age-standardized mortality rate.
3. Age-standardized rates were calculated using the WHO's world population age-structure in 2000.

**Figure6-11 Mortality rate of 10 leading cancer in 2018**



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

**Figure6-12 Mortality rate of 10 leading cancers among Men in 2018**



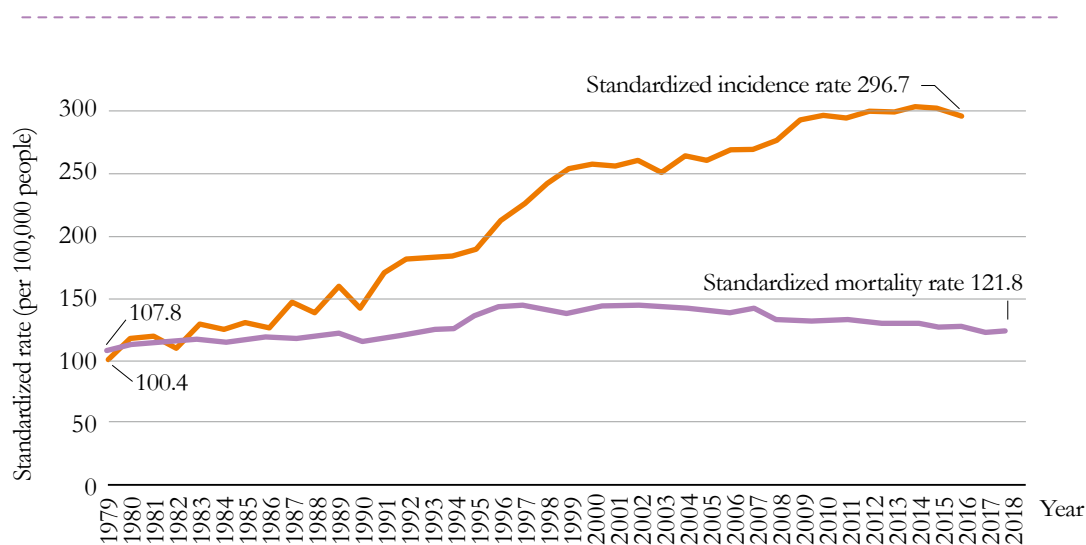
1. Source: Causes of Death Statistics, MOHW.
2. Ranking is based on age-standardized mortality rate.
3. Age-standardized rates were calculated using the WHO's world population age-structure in 2000.

**Figure6-13 Mortality rate of 10 leading cancers among women in 2018**

3. Comparison of increase/decrease in annual cancer incidence and mortality in recent years

Cause of death statistics of the MOHW reveal that cancer has been the leading cause of death in Taiwan since 1982. In accordance with calculations based on the 2000 world population age structure, the age-standardized mortality rate of cancer in Taiwan gradually rose from 115 deaths per 100,000 people in 1982 to 144.3 deaths in 1997. In the following ten years, the mortality remained within a range of 138 to 114.3 before dropping to 121.8 in 2018. Within the same period, the age-standardized incidence rate of cancer also gradually increased from 110.9 cases per 100,000 people in 1982 to 269.7 cases in 2016 (Figure 6-14) with a slightly declining tendency in recent year.

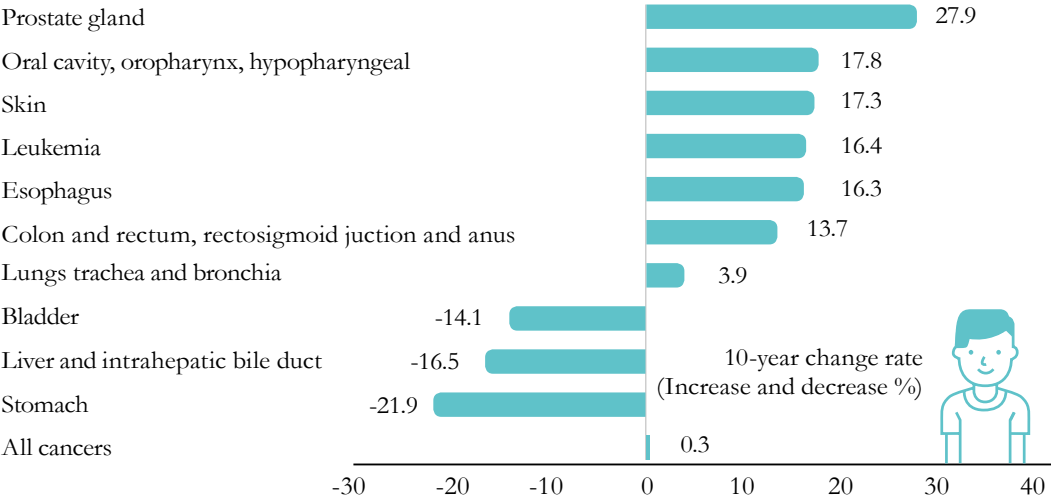
Based on a 10-year analysis of standardized cancer incidence rates from 2007 to 2016, cancers among men increased by an average of 0.3%, with prostate cancer (27.9%) increasing most and stomach cancer (21.9%) falling most. Cancers among women increased by an average of 11.1%, with thyroid cancer (66.9%) increasing the most and cervical cancer (36.2%) ( Figure 6-15, 6-16).



1. Sources: HPA 2016 registered cancer data and 2017 Cause of Death Statistics, MOHW.
2. Age standardized rate: Based on the WHO's standard world population age-structure in 2000

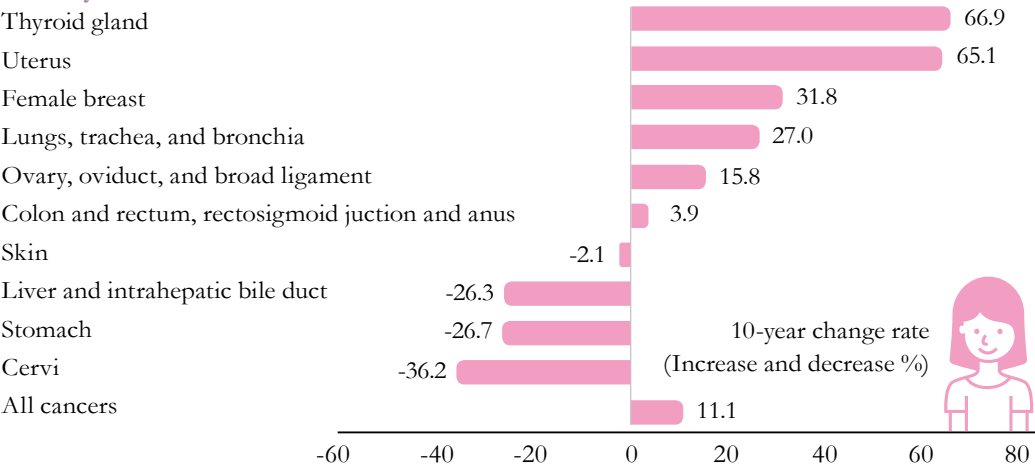
Figure6-14 Cancer standardized incidence and mortality rates in recent years

Primary Cancer Site



**Figure6-15** Age-standardized incidence rates of the 10 leading cancers among men, 10-year change, 2007-2016

Primary Cancer Site



**Figure6-16** Age-standardized incidence rates of the 10 leading cancers among women, 10-year change, 2007-2016

## Target Indicators

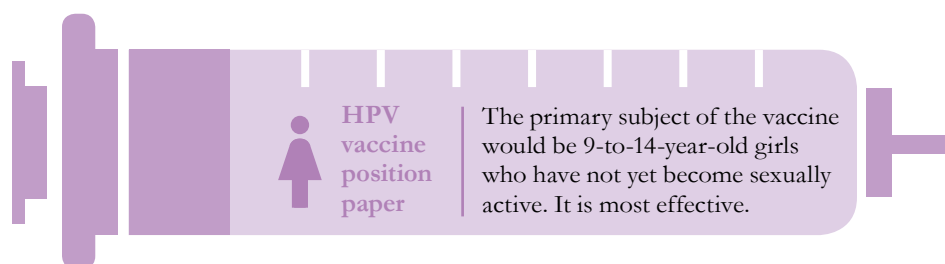
Upgrading the cancer screening rate:

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

## Policy Implementation and Results

### 1. HPV Vaccination

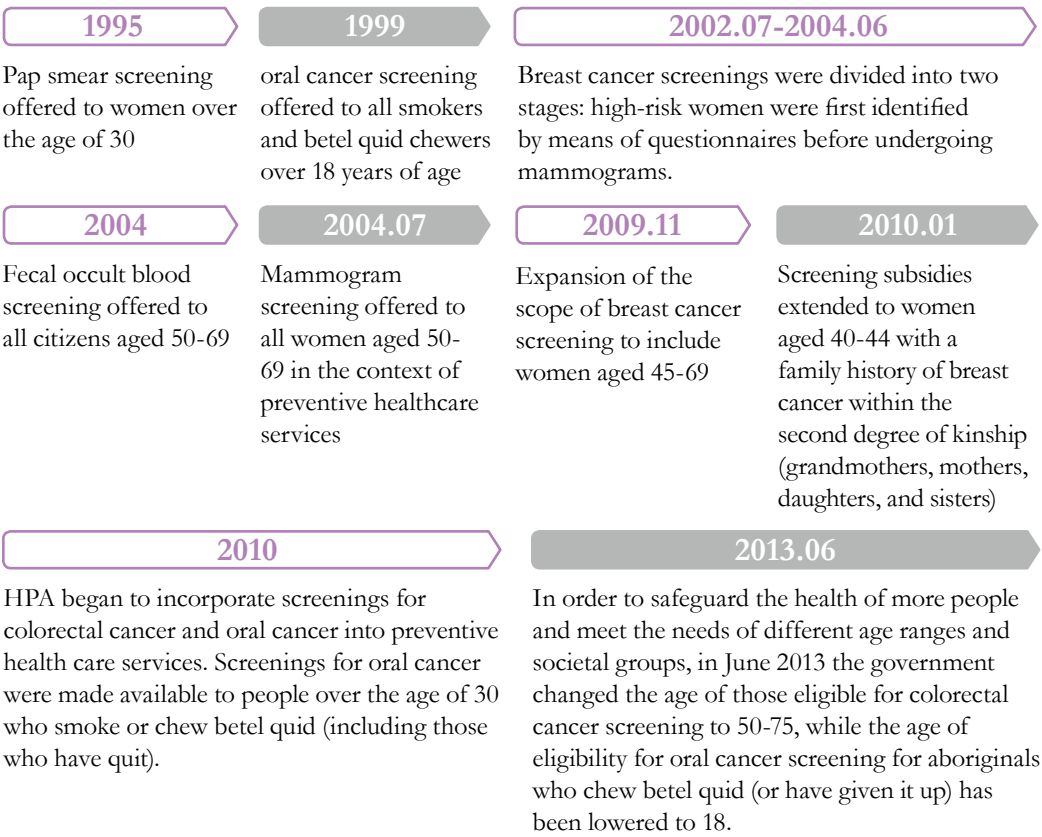
Studies show that persistent HPV infection is a necessary cause of cervical cancer. HPV vaccines have been proved to be safe and effective in preventing at least 70% of cervical cancer. WHO recommends that routine HPV vaccination should be included in National Immunization program (Figure 6-17). Currently, more than 90 countries had introduced HPV vaccination program to girls who live in mountain areas, offshore islands, low-income and middle-low income households, and vaccination program has gradually expanded to nationwide. On December 25<sup>th</sup>, 2018, the national HPV vaccination program to all 13 years old girls had been introduced.



**Figure6-17 Human papillomavirus vaccines: WHO position paper, May 2017**

### 2. Promotion of Screening for Leading Cancers

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 can reduce breast cancer mortality rates by 20-30%; fecal occult blood tests can 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 6-18).



**Figure6-18 Cancer screening promotional schedule**

**3. Continued promotion of 4 cancer screening in 2018**

**(1) Perceptual appeals to strengthen multiple channels of communication**

Cancer screening services and cancer prevention and control-related health communication activities are actively expanded in cooperation with health bureaus and centers, hospitals and clinics, and NGOs and promoted through diverse media channels and educational and promotional videos.

HPA creates cervical cancer health education manuals, guides “for dummies,” and educational video clips including female cancer screening and health communication tapes titled “Perfect Happiness” and “Reminder” (30 seconds). The goal is to remind women of the importance of regular cancer screenings (mammogram screening and pap smear screening) through relaxed conversations of family members and explanations of professional physicians. HPA went a step further by conducting phone surveys which indicate that 70% of all citizens are aware of which cancer screenings are fully subsidized by the government. In addition, 84.7% of all respondents expressed satisfaction with cancer screening services.







**(2) Subsidies for hospitals to make cancer screening part of their organizational culture**

In 2017, HPA commissioned 217 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 have tended to prioritize treatment over prevention. This revolutionized the medical culture and operational approach of hospitals. A total of 2,730,000 people underwent screening for four cancers, accounting for 45.6% of the national level. The screening rate has doubled over the same period in 2009. Cervical cancer screening has 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) Lower mortality as the main outcome of cancer screening**

In 2018, a total of 5.08 million screenings were carried out for cervical cancer, breast cancer, colorectal cancer, and oral cancer. A total of 12,000 cases of cancer and 48,000 cases of pre-cancer were detected, and 60,000 lives saved. Details are listed below (Table 6-2).

**Table6-2 Cancer prevention and control items and achievements**

Item	Subject	Screening policy	2018 Screening results
 Cervical cancer	Women over <b>age 30</b>	Pap smear test once a year. (Recommended at least once every three years)	70% 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. <b>Those aged 30</b> or above who chew betel quid (or have given up) or smoke 2. Aboriginal people <b>aged 18-30</b> who chew betel quid (or have given up)	One oral mucus checkup every 2 years	744,000 betel quid chewers (including those who have quit the habit) or smokers aged 30 or above have undergone oral cancer screening within the past two years.
 Colorectal cancer	People <b>aged 50-74</b>	One fecal immunochemical test every two years	40.8% of those aged 50-69 have undergone a fecal immunochemical test in the past two years.

1. Cervical cancer

In 2018, a total 2.179 million cervical pap smear screenings were administered to women over the age of 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 cases of these women, while 3,833 were found to have cancer (data from telephone research).

2. Breast cancer

In 2018, mammogram screenings were performed for 861,000 women aged 45-69, resulting in a screening rate of 39.9%. This led to the detection of 4,380 cases of breast cancer.

3. Colorectal cancer

In 2018, fecal immunochemical tests (FIT) were performed for 1.313 million citizens aged 50-69, resulting in the detection of 34,000 cases of precancerous lesions and 2,463 cases of colorectal cancer. The FOBT screening rate reached 40.8% for citizens aged 50-69.




4. Oral cancer

In 2018, a total of 744,000 citizens underwent oral cancer screenings, which led to the detection of 3,654 cases of precancerous lesions and 1,312 cases of oral cancer.

Table6-3 2010-2018 number of people who underwent screening for four major cancers (Unit: 10,000 people)



Cancer Screening Type	2010	2011	2012	2013	2014	2015	2016	2017	2018
 Cervical cancer screening	215	215	215	218	218	217	214	217	218
 Breast cancer screening	53	56	67	70	80	77	79	85	86
 Oral cancer screening	80	87	98	98	101	94	93	78	74
 Colorectal cancer screening	102	79	112	103	125	118	126	128	131
Total	450	437	492	489	524	506	512	508	508

Table6-4 2010-2018 screening rates for 3 major cancers

Cancer Screening Type	2010	2011	2012	2013	2014	2015	2016	2017	2018
 Cervical cancer screening	72%	-	77%	76%	73.5%	74.5%	72.1%	72.5%	70%
 Breast cancer screening	21.7%	29.5%	32.5%	36%	38.5%	39.5%	39.3%	39.9%	39.9%
 Colorectal cancer screening	23.4%	32.2%	34.2%	38.2%	40.7%	42.0%	40.7%	41.0%	40.8%

\* As of 2018, target value estimation methods have been adjusted and revised and regular monitoring is now based on screening quality indicators such as positive predictive values and detection rates.

**Table6-5    2010-2018 number of people with precancerous lesions for 3 major cancers**

Cancer Screening Type	2010	2011	2012	2013	2014	2015	2016	2017	2018
 Cervical cancer	11,985	10,369	9,637	9,996	10,756	10,474	10,071	9,655	10,072
 Oral cancer	2,081	3,845	3,445	3,703	4,370	4,095	3,572	3,435	3,654
 Colorectal cancer	21,102	17,479	23,775	26,207	36,229	33,529	34,725	35,075	34,052
Total	35,168	31,693	36,857	39,906	51,355	48,098	48,368	48,165	47,778

**Table6-6    2010-2018 number of people with 4 major cancers**

Cancer Screening Type	2010	2011	2012	2013	2014	2015	2016	2017	2018
 Cervical cancer	5,656	4,797	4,045	4,191	4,186	4,014	3,833	3,951	3,992
 Breast cancer	2,550	2,820	3,166	3,307	3,680	3,701	5,587	4,081	4,380
 Oral cancer	1,659	1,428	1,232	1,274	1,395	1,361	1,322	1,231	1,312
 Colorectal cancer	2,101	1,800	2,001	2,030	2,490	2,352	2,349	2,596	2,463
Total	11,966	10,845	10,444	10,802	11,751	11,428	13,091	11,859	12,147

\*The above information includes carcinoma (in situ)

**(4) Quality improvement of cancer screening services**

1. The HPA commissioned the Taiwan Society of Pathology to certify institutions that offer cervical pathological diagnoses and improve the quality of screening operations. In 2018, it completed follow-up inspections at 40 institutions and a total of 121 institutions were certified by the end of 2018.
2. The Radiological Society of the Republic of China has been commissioned to conduct reviews of the qualifications of medical care institutions engaged in mammogram screening as well as follow-up reviews and quality enhancement tasks. By the end of 2018, a total of 213 medical care institutions had passed such reviews.
3. For institutions conducting fecal immunochemical test, the HPA commissioned the Corporation Aggregate Taiwan Society of Laboratory Medicine to conduct qualification checks and ensure service improvement work. A total of 158 institutions conducting fecal occult blood tests had been checked by the end of 2018. The group also completed 2 external quality control tests and extended on-site assistance to institutions that failed to meet standards.
4. The Taiwan Dental Association and the Taiwan Head and Neck Society have been entrusted with the implementation of the “Oral Mucosa Testing Quality Enhancement Program.” In 2018, cities and counties were authorized to provide training on oral mucosa testing to a total of 323 non-dental and non-otolaryngologist practitioners and thereby enable them to engage in oral cancer screening services. Over the years, a total of 6,500 trainees have successfully completed such training courses resulting in the expansion of oral screening service channels.

5. In 2018, HPA also provided active on-site guidance for hospitals and clinics (6 public health centers) that are outliers in the field of oral cancer screening indicators to enable them to provide high-quality screening services. Such guidance efforts are listed as routine annual work tasks.

4. Quality of cancer treatment

(1) Promotion history of cancer diagnosis and quality certification

In 2005, HPA promulgated the Regulations for Cancer Care Quality Assurance Measures pursuant to the Cancer Control Act and entrusted hospitals with program implementation to enhance the quality of cancer diagnosis and treatment. In 2018, a total of 94 hospitals were entrusted to implement the “Program for Advancement of Cancer Care Quality in Hospitals.” HPA also makes constant efforts in the field of cancer care quality certifications (see Figure 6-19 for the implementation history) due to the fact that quality of cancer treatment has a huge impact on the survival rates of cancer patients. By 2018, a total of 58 hospitals nationwide have passed such certifications, which have been listed as a main evaluation criterion for applying medical centers. In addition, relevant information is posted on the official website as a reference for citizens seeking medical treatment.



Figure6-19 Brief history of cancer treatment quality accreditation

(2) Significant enhancement of the quality of cancer care

Pathology reports and imaging reports are provided as a key reference for diagnosis and treatment of cancer patients by clinical physicians. A total of 19 pathology report items and 20 imaging report items have been developed. In addition, eleven core measurement indicators for cancer treatment have been devised to facilitate monitoring of the treatment and care for the most common cancers in Taiwan. These core indicators are utilized by hospitals for independent internal monitoring of cancer care quality. In addition, expert groups analyze cancer treatment indicators based on cancer-related data files submitted by hospitals to monitor cancer control and prevention implementation conditions in each hospital and achieve the goal of care quality enhancement.

5. Cancer patients and palliative care

(1) Caring services for cancer patients

Advanced medical technologies have made it possible for cancer patients to survive longer. This has created a greater need for integrated, continuous and multifaceted care services. 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, providing them 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, 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 established inter-hospital medical healthcare trial plans for cancer. A total of 73 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

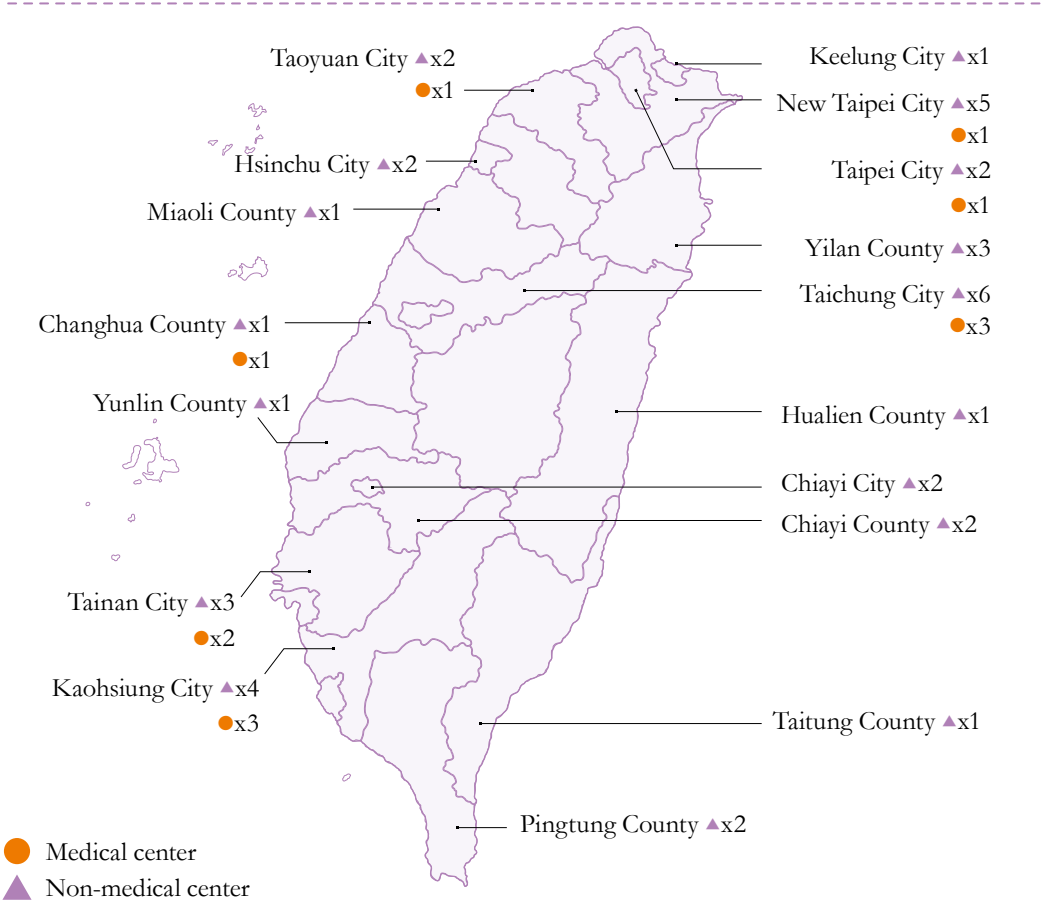


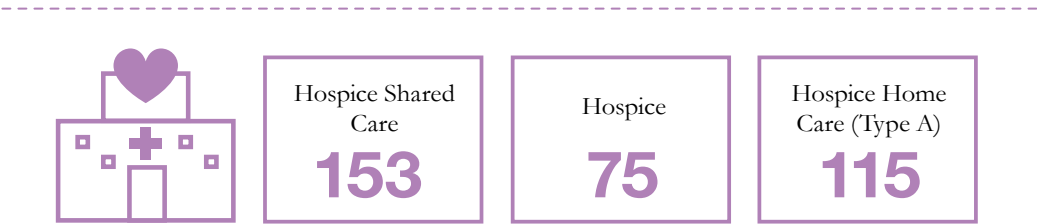
Figure6-20 Scatter map of hospitals that passed cancer treatment quality certification in 2018

feel confident in their treatment. These services were used about 120,000 times in 2018. 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 advice.

**(2) The importance of hospice and palliative care**

As of 1996, the Ministry of Health and Welfare is fully committed to the provision of hospice and palliative care. In 2000, it adopted a “Pilot Program for the Incorporation of Hospice and Palliative Care into NHI coverage.”

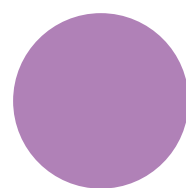
In 2004, HPA implemented “Hospice Shared Care Services” on a trial basis in eight hospitals in cooperation with Taiwan Hospice Organization. In 2005, subsidies were extended to 34 hospitals. By the end of 2018, the number of hospitals providing hospice and palliative care services had increased to 343, including 75 hospitals providing inpatient hospice care, 153 hospitals providing hospice shared-care services and 115 hospitals providing home-based hospice care (Type A) (Figure 6-21). The utilization rate of hospice and palliative care of cancer patients increased significantly. In 2018, 61.4% of all cancer patients received such services in the year prior to death.



**Figure6-21 Hospitals providing palliative services in Taiwan at the end of 2018**

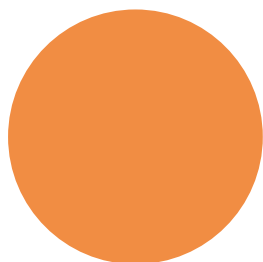
HPA adopted the “2014 Hospital Cancer Care Quality Enhancement Program” to assist hospitals in the development of quality management mechanisms and procedures pertaining to diagnostic disclosure. When cancer patients are admitted to outpatient treatment or hospitalized, their willingness to be informed is assessed. Educational videos on the importance of cancer diagnostic disclosure have been created and uploaded to the HPA website and Youtube to aid hospitals in their implementation efforts. CDs in different languages (Mandarin, Taiwanese, Hakka, and English) have been produced and distributed to all hospitals, clinics, public health centers in cities and counties, long-term care service institutions, cancer care-related NGOs, and other organizations where contents can be broadcast free of charge. The ultimate goal is to step up public education on the importance of diagnostic disclosure.

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 2018, twenty professional societies were selected, and promotional work was conducted among general medical staff, spiritual/pastoral care professionals, cancer patient groups, patients, and their families. A total of 119 sessions were organized with a total of 8,310 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.

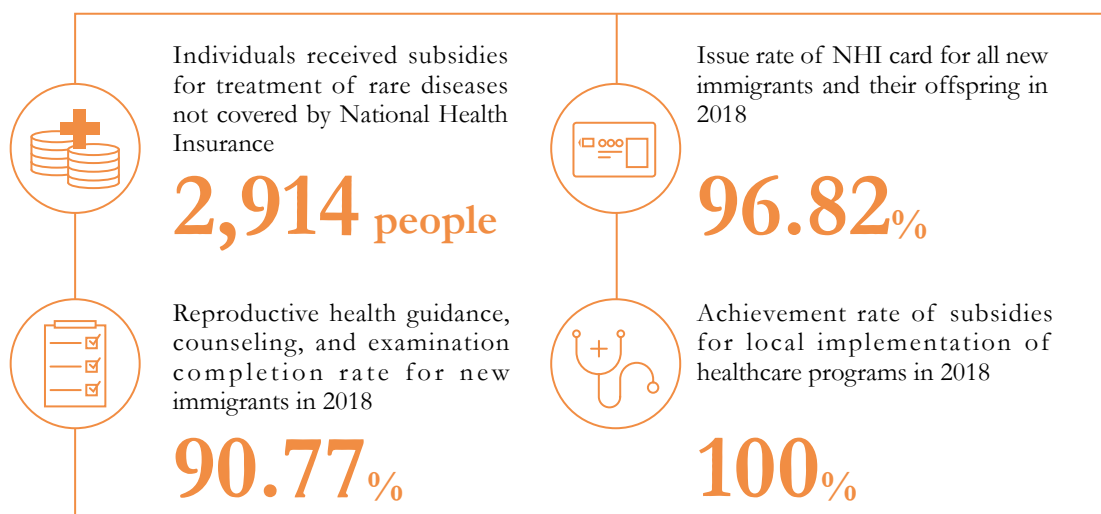


# 7 Peculiar Groups

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In 1998, World Health Organization published the “Life in the 21<sup>st</sup> Century: A Health Plan for All, ” in which the concept of “health equality” was specifically put forward. It also indicated that different strategies and response models should be used for groups of differing genders, races, and incomes, as well as mental and physical disabilities. Bridging the health divide through the three key concepts of health promotion, health protection, and disease prevention, we need to adopt different strategies, programs, methods, interventional measures as the primary task in the field of health equity.

## Women’s Health

### Status Quo

Taiwan is now experiencing growth in the size and proportion of older persons. In 2017, life expectancy of female was 83.7 years. Women aged 50 or over comprised 37.3% of female population. Also, the average age for menopause is 50, indicating that women spend nearly half of their adult time in menopausal state. According to the “Nutrition and Health Survey of Taiwan (2014 to 2017)” conducted by the Department of Health, a total of 1,676 people aged 50 or above suffered from osteoporosis as measured by Dual-energy X-ray absorptiometry (DXA). Of these, 7.8% suffered from lumbar osteoporosis or femoral neck osteoporosis. The corresponding percentages were 5.8% for men and 9.6% for women which indicated that women were more likely to suffer from osteoporosis 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. One in 5 women over the age of 50 suffered from osteoporosis (20.4%), while the figure is even higher for women over the age of 65 (30.2%). This survey also indicated that in Taiwan, 40.2% of women aged 45-49 have irregular periods or amenorrhea caused by menopausal changes. A total of 88.1% of women aged 50-54 have irregular periods or amenorrhea.

## Policy Implementation and Results

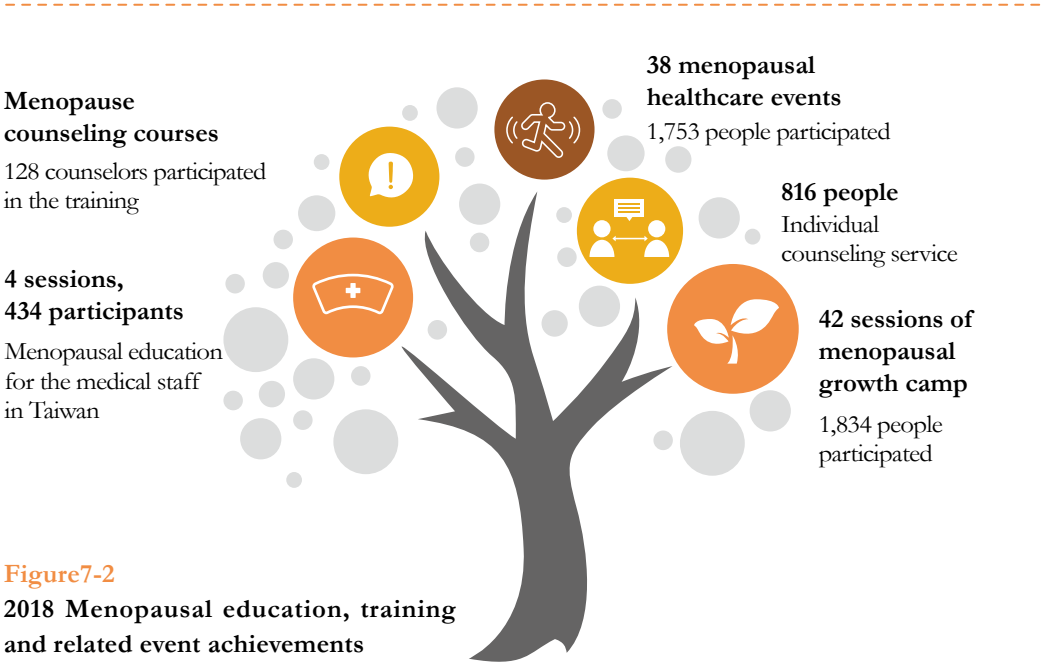
### 1. Menopause helpline

We set up a menopause helpline “0800-00-5107” to provide consultation service related to menopause related questions. In 2018, counseling services were provided to more than 6,402 individuals.

### 2. Counselor training courses and menopause healthcare camps

To improve the counseling service quality of medical staff, nurses and volunteers for menopausal women and increase public awareness of self-help and wellness-enhancing strategies among menopause women, in 2018, 145 counselors were trained and menopause health care activities were conducted. The activities covered social changes during the menopausal state, menopause, self-management and wellness-enhancing strategies, etc.

In 2018, menopause training was provided for medical personnel across the country. Training contents included menopause symptoms, healthcare information, and self-management strategies. Doctor-patient shared decision-making auxiliary tables and videos based on the theme of “Menopause – What hormones do I need to aid treatment?” have been promoted and distributed to 10 hospitals and clinics. The results of this campaign are shown in Figure 7-2.








# 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. Three legal amendments were adopted in January 2005, December 2010, and January 2015, respectively. By the end of 2018, a total of 15,619 rare disease cases had been reported.

## 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.

Countries offering legislative protection for rare disease patients					
					
	U.S.A.	Japan	Australia	EU	Taiwan
Year of Legislation	1983	1993	1998	2000	2000
Name of Law	US Orphan Drug Act modified by the Federal Food, Drug and Cosmetic Act	Partial Amendments Law amended two previous Laws	Additions made to the Regulations of the Therapeutic Goods Act 1989	Regulation (EC) No. 141/ 2000	The 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

## Policy Implementation and Results

### 1. Assistance to patients in the acquisition of adequate 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 that 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) Establish a review system

The Review Committee for Rare Diseases and Orphan Drugs was established. By the end of 2018, the Committee had reviewed, certified and declared 220 rare diseases. They had also listed 105 orphan drugs and 103 nutritional supplements, determined their indications, and reviewed applications for treatment subsidies.

### 2. Solid Structure of Medical Network

- (1) A rare disease special nutritional food and drug logistic center was established. In 2018, subsidies of approximately NT\$ 70 million were extended for the storage and supply of 45 nutritional supplements and 11 emergency drugs.
- (2) We aimed to provide medical subsidies for rare diseases not covered by National Health Insurance.
- (3) Prevention and control are encouraged pursuant to the “Regulations on Rewards and Subsidization for Rare Disease.” A total of eight programs were subsidized in 2018.
- (4) Care assistance is provided pursuant to the Regulations Governing Healthcare Services for Rare Disease and Rare Genetic Defects. Nine institutions (operating under eight medical centers) were commissioned to provide patients and their families with psychological support, maternity attentiveness care, and care counseling services. A total of 5,040 individuals received such services in 2018.
- (5) Fourteen certified genetic counseling centers, affiliated under medical centers, provide medical services for genetic and rare diseases.

### 3. Active advocacy through various media

In terms of research, education, and advocacy of rare disease prevention in 2018, we conducted a total of 12 information meetings for patients, sponsors, and medical institutes. We also subsidized patient groups for advocacy events, and sponsored a micro promotional film “1/10,000 story, 1/10,000 love” to be broadcast on the Internet and on Facebook.



### 2018 Subsidies for rare diseases not covered by National Health Insurance

**900** people

Individuals received subsidies for the purchase of household medical care facilities for the maintenance of life

**47** people

Individuals received subsidies for the purchase of low-protein rice and noodles

Total subsidies  
**2,914**  
individuals

**1,382** people

Individuals received subsidies for the purchase of special nutritional food and emergency drugs for rare diseases

**458** people

Individuals received subsidies for nutritional counseling for people with rare metabolic diseases

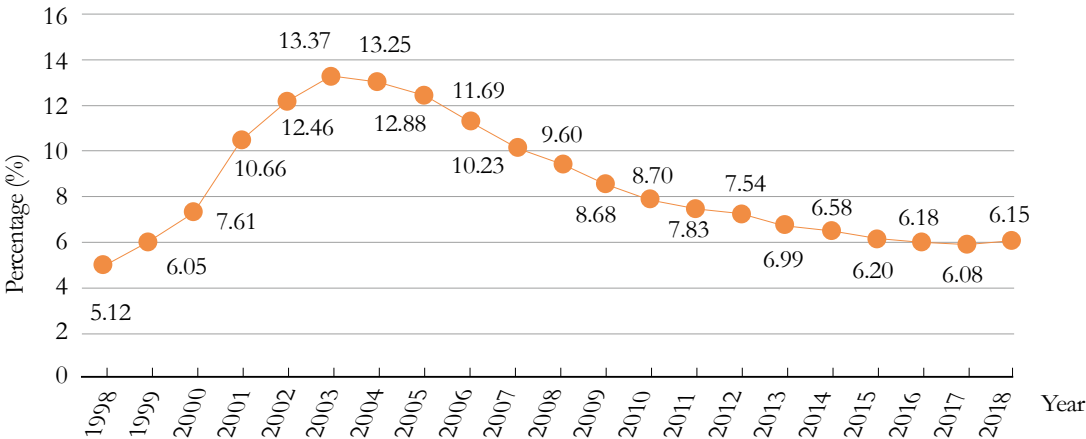
individuals received subsidies for domestic and international diagnosis and testing **127** people

## Disadvantaged Group Health Promotion

### New Immigrant Reproductive Health

#### Status Quo

In 2018, the number of foreign and Chinese spouses reached 20,608, with spouses from foreign countries and China/Hong Kong/Macao accounting for 60.13% and 39.87%, respectively. Their newborns accounted for 6.15% of all births in 2018 (Figure 7-3).



Sources: Department of Statistics, Ministry of the Interior

**Figure7-3** Percentage of births with a foreign parent, 1998-2017

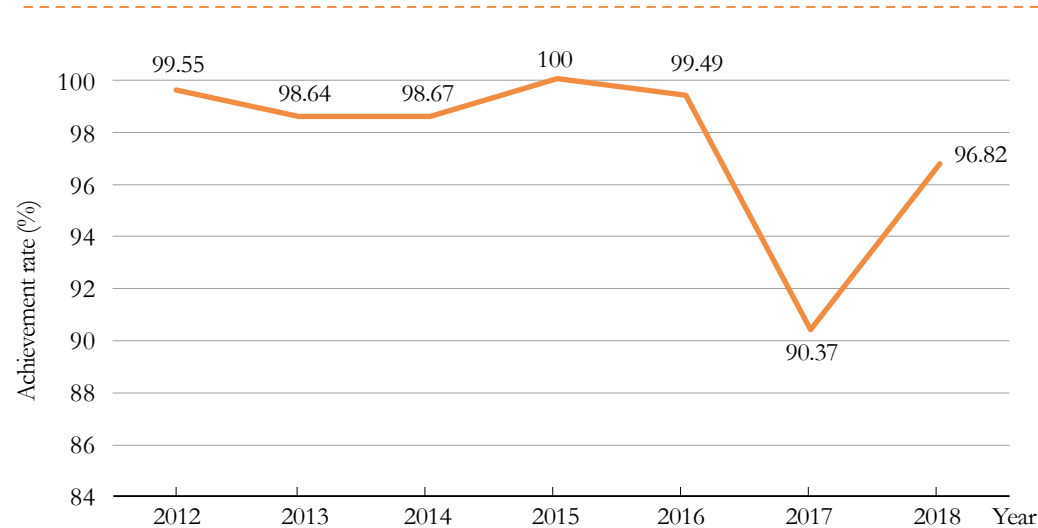
## Target Indicators

The completion rate of having reproductive health guidance and consultations reached 90.77% or more for new immigrants spouses in 2018.

## Policy Implementation and Results

### 1. Reproduction care and registered healthcare card management

NHI card issue management is promoted through health bureaus/centers in each city and county (Figure 7-4). Referrals and treatment services are provided for detected high risk groups or abnormal cases. In 2018, cards were issued to 7,479 individuals, representing a card issue rate of 96.82%.



Sources: HPA Maternal and Child Health Management System

**Figure7-4** 2012-2018 New immigrant reproductive health card issue rate

### 2. Interpreter training to reinforce communication

Local health bureaus are encouraged to submit applications to the “New Immigrant Development Fund” of the Ministry of the Interior in the context of the “Guidance Program for the Training and Utilization of New Immigrant Interpreters” to overcome obstacles in the field of communication and medical treatment. The goal is to assist health bureau/center personnel to use interpreting services when they provide reproductive healthcare guidance. In 2018, a total of 17 cities and counties submitted applications for subsidies to the New Immigrant Development Fund.

### 3. Prenatal subsidies and complete healthcare

HPA provides subsidies for prenatal examinations to foreign mothers who have recently immigrated and are not yet covered by Nation Health Insurance. In 2018, total subsidies of NT\$ 5,143,885 were awarded in around 10,370 cases.

4. Formulation and issuing of health education materials in multiple languages

“Pregnancy Health Manuals” and “Child Health Manuals” were released in five languages and distributed to health bureaus in all cities and counties to be forwarded to medical care institutions for the provision of reproductive healthcare services.

Healthcare for Yu Cheng Patients

Status Quo

In 1979, in the Taichung and Changhua regions, contamination of rice bran oil from polychlorinated biphenyl (PCB, used as a heating medium in the deodorization stage of rice bran oil refining) and its thermal denatured byproducts through splits in pipes led to over 2,000 residents suffering from PCB poisoning (Yu Cheng Patients).

According to research, PCB poisoning may cause long-term damage to the liver, immune system, and nervous system, as well as more immediate effects, such as chloracne, pigmentation, and eyelid gland dysfunction. The government establishes a healthcare system for Yu Cheng patients and continues to provide services in order to safeguard their right to healthcare (figure 7-5).

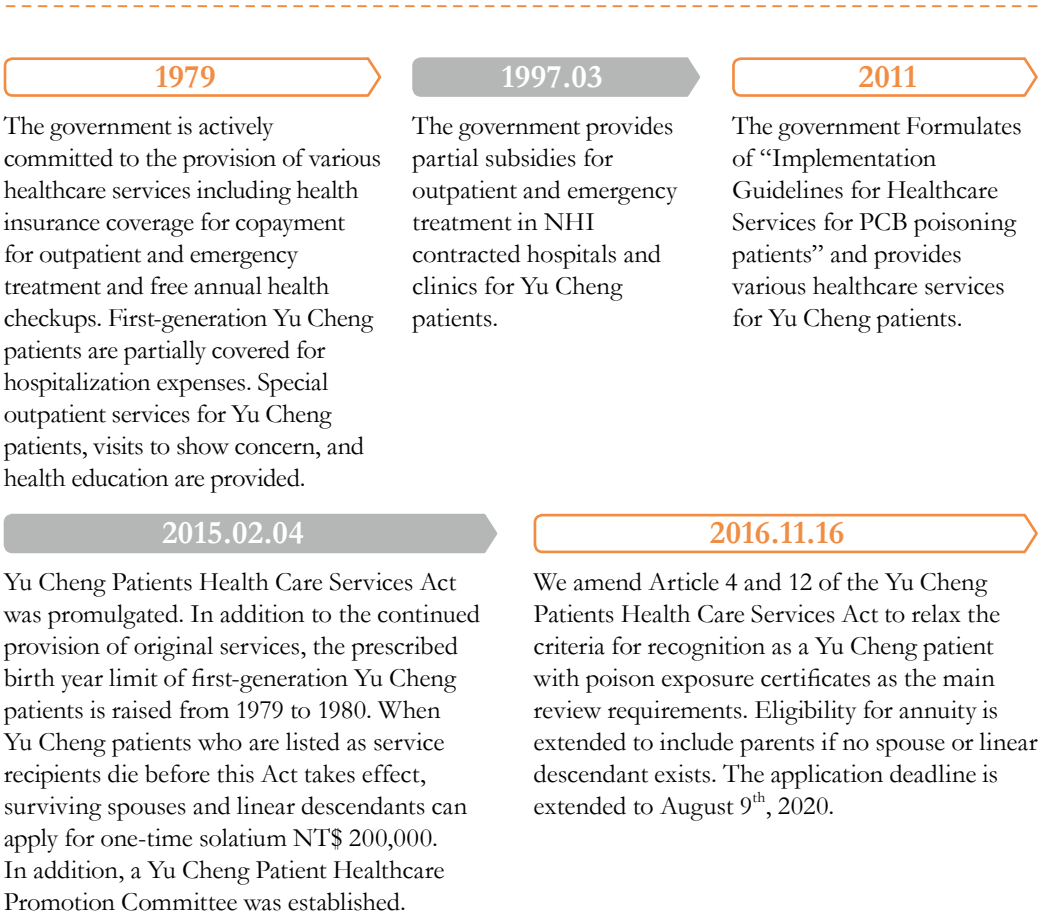


Figure7-5 The course of government assistance to Yu Cheng patients

## Target Indicators

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

## Policy Implementation and Results

### 1. Registration services

By the end of 2018, a total of 1,888 cases were registered by the HPA, including 1,257 first generation of Yu Cheng patients and 631 second generation of Yu Cheng patients.

### 2. Protection of rights and interests

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

### 3. Healthcare

Local health offices within each city and county arrange free health check-ups for Yu Cheng patients at hospitals. These 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 2018, a total of 681 patients received this free health check-up service (the overall participation rate was 36.07%).

### 4. Medical subsidies

By the end of 2018, HPA subsidized outpatient copayments for 20,750 Yu Cheng patients, and inpatient copayments for 105 patients, as well as organized one training session for 71 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 10<sup>th</sup> 2015 to August 9<sup>th</sup> 2020. As of the end of 2018, 238 Yu Cheng patients' solatium had been paid by the government.

### 6. Collective promotion

Meetings of the MOHW "Yu Cheng Patient Healthcare Promotion Committee" were held on August 3 and November 28, 2018. Invited participants included representatives of HPA, the Ministry of Labor, and the Ministry of Education as well as Yu Cheng patients, experts and scholars, and representatives of the Taiwan Yu Cheng Victims Support Association. The committee aims to collectively promote healthcare services for Yu Cheng patients.





## Promoting Healthcare for the Physically and Mentally Disabled

### Status Quo

As of 2018, according to the monthly social welfare statistics of MOHW, 1,173,978 people were regarded as physically and/or mentally disabled. The majority of sufferers are male (56.1%). With regards to age, 41.94% of sufferers are over 65 years of age, and 18.19% are between 50 and 59 years of age. According to the recorded disability classifications, 30.95% suffer from physical disabilities, and 13.04% of them suffered the misfortune of having lost vital organs.

The government provides adult preventive healthcare services once every three years for citizens aged 40-64 to facilitate early interventional health management and early detection of risk factors such as hypertension, hyperglycemia, and hyperlipidemia, chronic cardiovascular and hepatic disease, and nephrosis. Polio patients aged 35 or above, seniors aged 65 or above, and indigenous citizens aged 55 or above are entitled to adult preventive healthcare services 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 and mental and physical care

By the end of 2018, a total of 608 healthcare institutions (200 hospitals, 330 public health centers, 77 long-term care service institutions, and 1 clinic) had passed age-friendly certifications. Relevant criteria include universal design principles, obstacle-free design for the mentally and physically disabled, and age-friendly design with the goal of providing holistic care for the mentally and physically challenged.

2. All kinds of screenings and important services

Services provided for physically and mentally disabled people are shown in Table 7-1.

Table7-1 Service contents provided for physically and mentally disabled people

Adult preventive healthcare services	In 2018, a total of 158,088 mentally and physically disabled citizens received such services, which represents an overall utilization rate of 24.3%.
Cancer screening	Citizens who meet relevant criteria are eligible for cancer screenings once every two to three years. In 2017, a total of 5.07 million individuals nationwide underwent such screenings. The cervical and breast cancer screening rates of mentally and physically disabled citizens reached 42.6% and 30.7%, respectively.
Other important service projects	Taking depression as an example for health checkup services, 152,689 people were provided with such services in 2016. Furthermore, we have actively promoted services for infants, children, women, and the elderly on an annual basis, ensuring that we were providing important health promotion services for physically and mentally disabled people.



## Health Promotion for Indigenous

### Status Quo

Statistics released by the the Council of Indigenous Peoples reveal that Taiwan has around 560,000 indigenous citizens, accounting for 2% of the total population. HPA provides preventive healthcare cycles covering all stages and areas of the human life cycle. In addition, local governments receive subsidies in accordance with regional characteristics (including indigenous areas), population distribution, and changes in disease and lifestyle patterns. The “Community Health Building Program” has been adopted to facilitate community participation in gaining a better understanding of local health demands and the joint resolution of community health issues through integrated coordination of local resources in communities.

### Target Indicators

We continue to enhance the provision of adult preventative health services to indigenous people and acquire an understanding of the utilization Status Quo.

### Policy Implementation and Results

#### 1. Adult preventive healthcare services

In 2017, adult preventive healthcare services were provided for around 32,000 indigenous citizens aged 55 or above. In 2018, the Program for Prevention and Control of Hepatitis C in Indigenous Townships in Mountainous Regions has been adopted in line with the “Hepatitis C Flagship Program” of the Ministry of Health and Welfare. This program aims to subsidize the treatment and tracking of positive cases of Hapatitis B and C determined through screenings in conformity to adult preventive health care in Alishan Township in Chiayi County, Taoyuan District in Kaohsiung City, and Xiulin and Zhuoxi Townships in Hualien County.

#### 2. Reproductive healthcare guidance

In 2018, local communities were subsidized to promote hygiene care projects to provide indigenous 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 2018, there were 4,238 contracted medical institutions to 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%.

### **4. Betel quid free supportive environment**

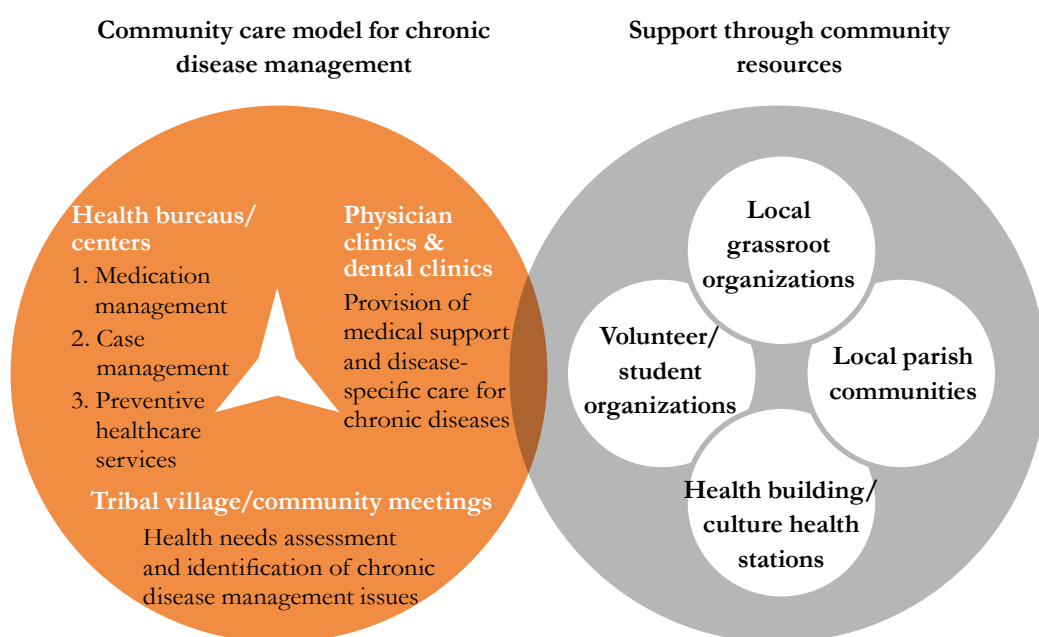
In 2017, in cooperation with college and university volunteer teams, education on the prevention of health hazards associated with tobacco and betel quid was provided in 20 indigenous townships in cities and counties with high betel quid chewing rates. In 2018, oral mucus checkups were administered for a total of 16,890 indigenous citizens aged 18 or above. These checkups led to the detection of 46 cases of precancerous lesions and 5 cases of oral cancer.

### **5. Chronic disease management**

In 2018, Haiduan Township in Taitung County, Xiulin Township in Hualien County, and Mudan Township in Pingtung County received subsidies for the implementation of the “Chronic Disease Management Pilot Program for Indigenous Peoples.” Relevant contents include reinforced medication management, household-centered case management, integration of different preventive healthcare services (e.g., adult health exams, cancer screening, and child health exams), and strengthened IDS service support. The implementation model is shown in Figure 7-6.

### **6. Community health building**

In 2018, a total of 19 local health bureaus, 82 public health centers, and 17 community units received subsidies in the context of the “Community Health Building Program.” Subsidized areas included 9 health building locations in indigenous regions, namely (1) Wulai Township in New Taipei City, (2) Alishan Township in Chiayi County (Ditmanson Medical Foundation Chia-Yi Christian Hospital), (3) Jinfeng Township in Taitung County (MoHW Taitung Hospital), (4) Hualien City in Hualien County (Hualien Chih Siou Ji Shan Association), (5) Shoufeng Township in Hualien County (Hualien Country Nou-Li Intercommunity Association), (6) Xincheng Township in Hualien County (Xincheng Township Public Health Center), (7) Jian Township in Hualien County (Jian Township Public Health Center), (8) Ruisui Township in Hualien County (Ruisui Township Public Health Center), and (9) Yuli Township in Hualien County (Yuli Township Public Health Center).



**Figure7-6** Implementation model for chronic disease management programs

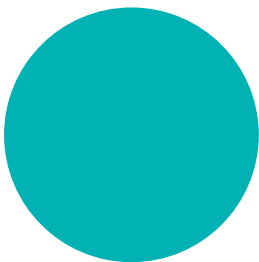
**Table7-2** Enhancing preventive healthcare service contents for indigenous people

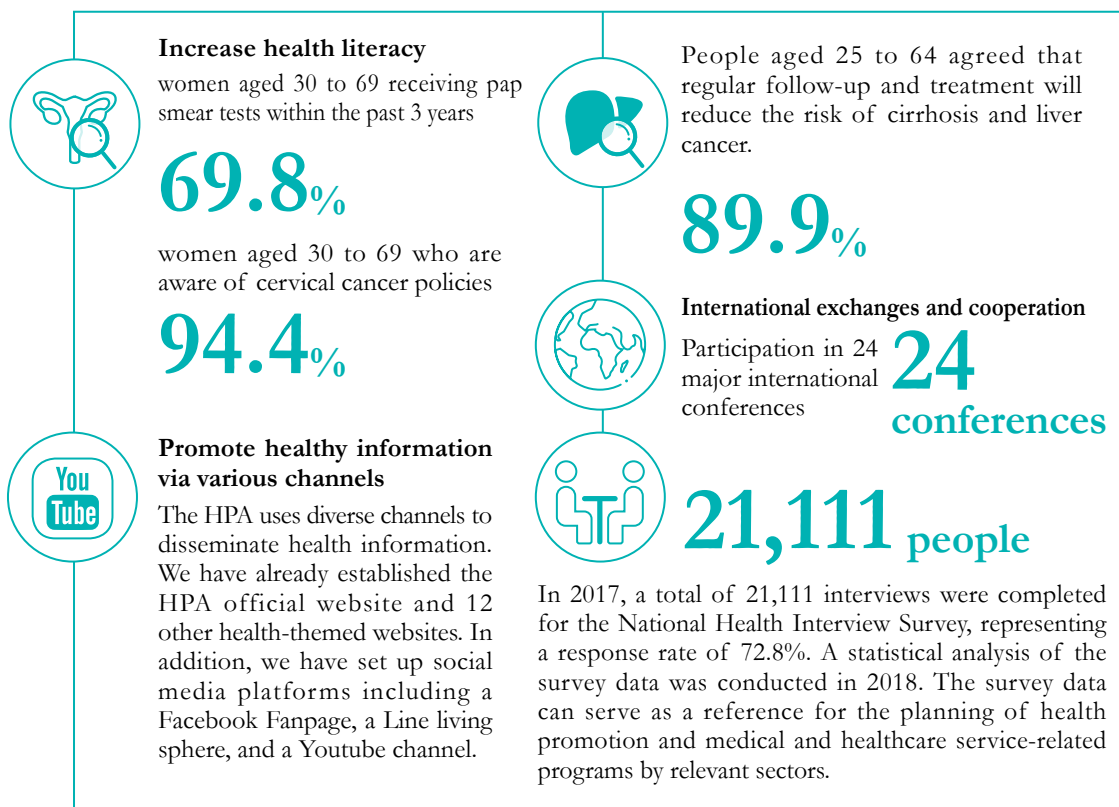
Time	Important services
July 1 <sup>st</sup> 2010	We provide indigenous people who are 55 years or older with adult prevention healthcare services once a year, in contrast with the 65 years of age required for the general population.
2011	<p>We print the “Adult Prevention Healthcare Service Manual–Aboriginal Version,” and distributed it at 55 indigenous public health centers to indigenous people who fulfilled the checkup qualifications.</p> <p>We provide HPV vaccination program to girls who live in indigenous regions, offshore islands, low-income households, and gradually extended vaccination to girls who live in middle-low income households. The national HPV vaccination program to all 13 years old girls had been introduced by the end of 2018.</p>
2012	To increase the maternal health of indigenous women and the health of their children, local communities have been subsidized to promote hygiene care projects that include the health of indigenous 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.
March 1 <sup>st</sup> 2013	For indigenous people who receive tobacco cessation services in mountainous regions and outlying islands, their medicine fee is partially covered.
June 1 <sup>st</sup>	Indigenous people 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 1 <sup>st</sup> 2015	For indigenous people who receive tobacco cessation services not in mountainous regions or outlying islands, their copypment medical fee is partially covered.

# 8

## Health Promotion Infrastructure

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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 to 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, in order 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.

## Health Literacy

### Status Quo

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

Based on information derived from two periods 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. The results of the telephone survey on health promotion are shown in Figure 8-2.

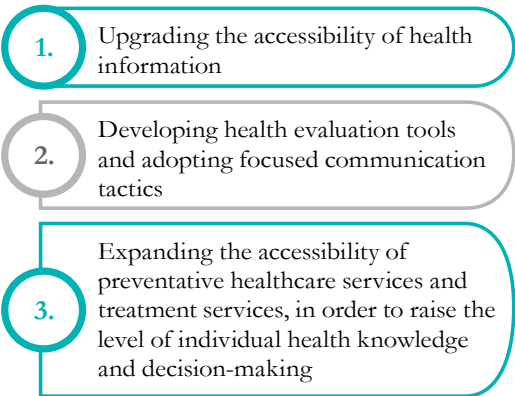


Figure8-1 Empowerment strategies

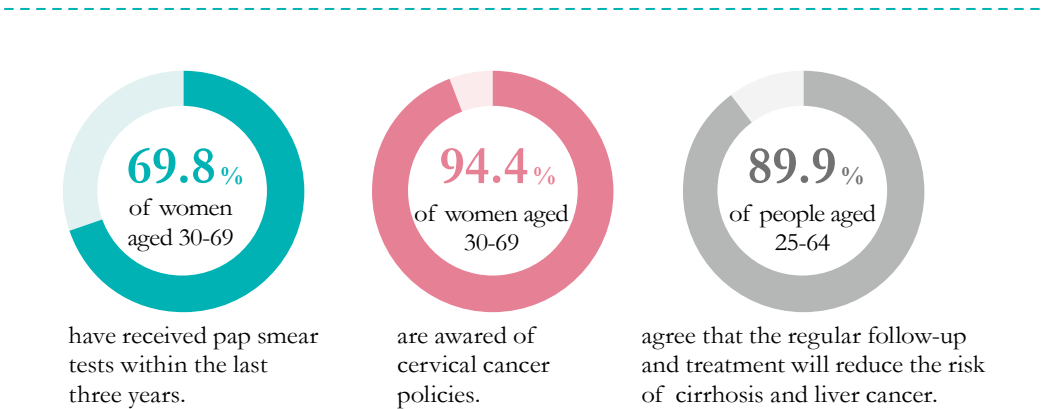


Figure8-2 2018 Telephone survey on health promotion

## Policy Implementation and Results

### 1. Bringing health information closer

#### (1) Analyzing information requirements and evaluating communication channels

Health literacy is disseminated through diverse channels including the creation of educational materials on cancer, chronic disease, and tobacco hazards prevention, maternal and child health, and healthy bodyweight management based on research, assessments, testing, revisions, and monitoring as well as the release of manuals on child health, marital health, healthy lifestyles through exercise, and fall-prevention tips for seniors.

#### (2) Coordinating with important festivals to deepen local advocacy

We 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’s 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-scale promotional events. Through our 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**

1. Facebook and Line social media platforms are leveraged to target young people to increase health literacy and promote HPA information.
2. 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.
3. 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) Promoting health communication and upgrading the quality of teaching materials**

Health literacy-friendly indicators have been formulated as a reference for the creation of health education materials on the foundation of Patient Education Materials Assessment Tool (PEMAT) and the CDC Clear Communication Index based on expert discussions and empirical evidence to enhance health communication effects and the quality of health-related materials.

### **(6) Promoting non-communicable disease prevention and 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 patients and doctors, and further popularized 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 the public's health literacy, promoted greater involvement in health decisions, and upgraded personal healthcare quality.

## **2. Tailored strategies for health literacy and evaluation tools**

### **(1) Simplified information and in depth explanation**

Through the healthy hospital plan and age-friendly healthcare service institute plan, we have established friendly, supportive, respectful, 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 use by the end user.

### **(2) Evaluation and adjustment with local perspectives**

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. We understand people's needs and reinforce public health literacy. The end goal is to improve 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 patients. When it comes to healthy weight management surveys, we have provided guidance 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, healthy weight, and tobacco hazards prevention.

## **3 Expanded accessibility of prevention healthcare services and healthcare services which provide personal health information**

### **(1) Adult prevention healthcare services**

1. We encourage optimal utilization of adult preventive healthcare services provided by the government, early detection of physical abnormalities, and referral to treatment services covered by NHI.
2. We also provide tobacco cessation, alcohol cessation, betel quid cessation, regular exercise, healthy drinking and eating, healthy weight, and accident hazards prevention health counseling.
3. By helping people to make early breaks from bad habits and control risk factors, we hope to increase health literacy and prevent the threat of diseases.

### **(2) Provision of toll-free phone counseling services for individual health issues and facilitation of healthcare decisions by the public through professional recommendations**

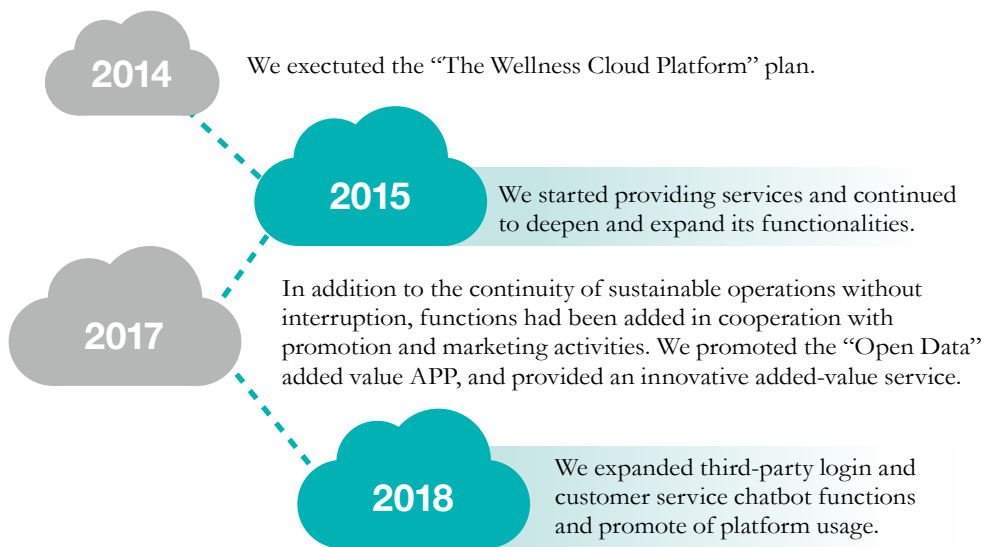
# Health Information and Wellness Cloud

## Status Quo

The widespread availability of information and communication technologies, Wi-Fi, and mobile devices, has made our daily lives more convenient. Smart health management has also been enhanced through the adoption of cloud technology applications in different fields such as exercise, diets, and weight control. Steady progress is being made toward holistic, comprehensive, and universal health promotion services.

## Policy Implementation and Results

HPA has adopted the “Wellness Cloud” Sub-Plan (schedule shown in Figure 8-3) in the context of the Taiwan Health Cloud Program of the Ministry of Health and Welfare to ensure optimal utilization of the outstanding local cloud technologies and a perfect synthesis of health management and mobile services. These programs aim to provide the public with accurate health information and preventive healthcare services and boost the development of the health promotion service industry through industry-government-academia collaboration with the ultimate goal of promoting the health of local citizens.



**Figure8-3** Promotion schedule of “Wellness Cloud” sub-plan

## Achievements of this Project

### 1. Expansion and maintenance of the Wellness Cloud Platform and Mobile APP

We provided the public with a smart, convenient, all-in-one, and comprehensive health management tools (Figure 8-4). This APP helps to increase the usage population and help improve national health knowledge and skills.

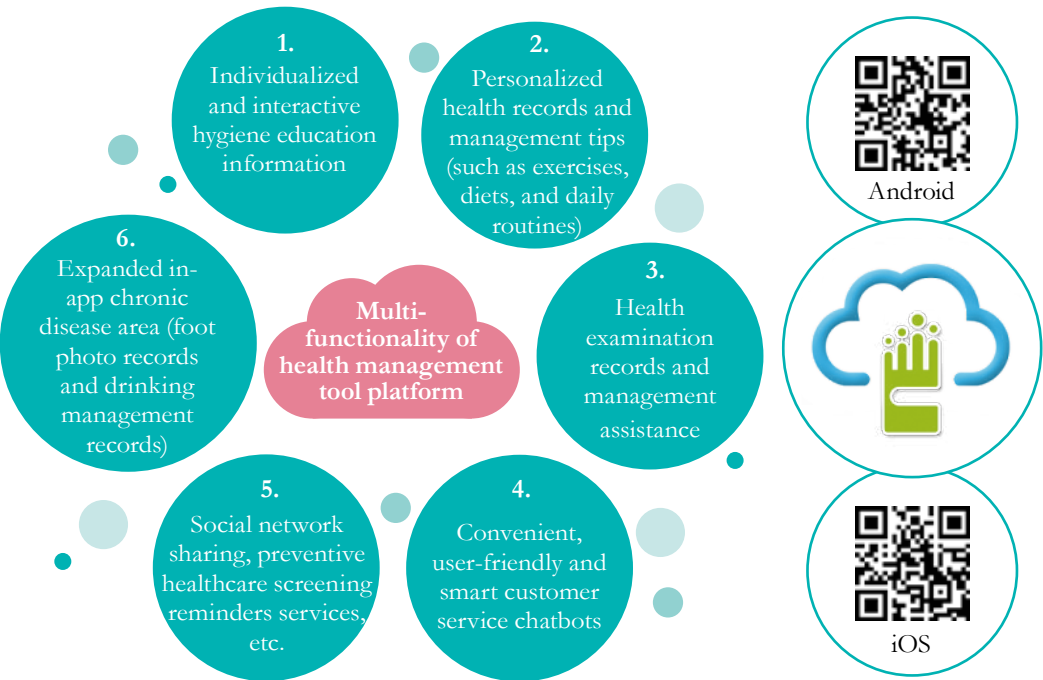


Figure8-4 Conceptual framework of comprehensive health management tools platform

### 2. Expansion and maintenance of the portal of preventive health information system

HPA provides the public with services associated with this portal. Upon online identity authentication, queries of personal preventive healthcare records including child health checkups, prenatal checkups, adult health exams, and cancer screenings are available in the platform.

### 3. Expansion and maintenance of “Open Data Platform”

By 2018, a total of 227 data sets had been made available. The quality of available data will be constantly enhanced in line with open data policies of the government. All circles of society are encouraged to utilize and develop health promotion-related value-added applications to enhance public health and well-being.

# Health Communication and Nudge

## Status Quo

HPA utilizes multiple channels to communicate health information. The Administration has also set up an official website and 12 health-themed subsites, a Facebook Fanpage, a Line living sphere, and a Youtube channel and releases a national health e-newsletter with the goal of utilizing the distanceless and borderless qualities of the Internet to provide local citizens with health promotion services and information anytime and anywhere.

## Policy Implementation and Results

HPA has developed “Review Indicators and Usage Guidelines for Health Literacy-friendly Materials” as a reference for creation of such materials with the goal of providing the public with accurate, accessible, and easy-to-implement health information. These guidelines encompass the six dimensions of contents, terms and style, structure and editing, value literacy, visual images, and layout. In 2018, HPA completed reviews for a total of 81 health-related materials.

### 1. Diversity of transmission methods

A “Health Communication Material Selection Activity” was organized to motivate all circles of society to develop high-quality health promotion materials, enhance the quality of domestically produced materials, and popularize their use by all circles of society. A total of 662 works were submitted for these activities. In all, 307 of these works conformed to the “Health Literacy-friendly Material Review Indicators.” All these materials were made available to the public on the HPA website and the Health 99 Education Resource Website. HPA also organized an award ceremony and press conference titled “Learning from past experiences – A New Age of Health and Well-being” to showcase award-winning works of this year’s selection activity. A public health “nostalgia” area was set up to present healthcare-related scenes of the 1960s and 70s and illustrate the historical evolution of public health care in Taiwan. The goal was to provide the public with multi-faceted health information via modern and traditional transmission channels in line with development trends in the field of media communication.

### 2. Vivid marketing campaigns

HPA organized a media core competency workshop titled “Flipped Media – Ushering in a New Wave of Health Literacy,” which was attended by colleagues from the Ministry of Health and Welfare and HPA. This workshop taught participants how to utilize social marketing techniques, gave them a better understanding of how to provide the public with clear, concise, and easy-to-understand health education information, and enhanced their capabilities in the field of media campaign planning through adoption of a vivid team-based learning (TBL) approach to maximize media communication effects.

3. Nudge

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 2017, HPA adopted a nudge strategy for the issue of sugar reduction in hand-shaken tea drinks and relevant research with the goal of nudging consumers to select sugar-free or low-sugar drinks without affecting their freedom of choice. HPA also employed this strategy for the promotion of colorectal cancer screening to increase the willingness of the public to undergo such screenings through distribution of health education leaflets and various activities.



In 2018, HPA organized a Nudge Workshop in the context of the National Healthcare Conference. This workshop was attended by representatives of local health bureaus/centers. The participants learned how to utilize behavioral economics principles to gain a deeper insight into neglected factors of the decision architecture of the general public and thereby guide them to adopt decisions to further their own self-interest. Nudge-based strategies are widely adopted by advanced countries to affect the behaviors of citizens.

In addition, nudge strategies have been integrated into health promotion intervention measures to popularize nudge concepts and guide the public to automatically choose healthy behaviors. In 2018, HPA organized a “National Healthcare Nudge Competition” for 12 cities and counties. In addition, the main themes of this health promotion strategy program were cancer screening, tobacco hazards prevention, healthy diets, exercise, and weight loss. During the competition, HPA established a consulting group to help participating group to think creatively through nudge methods and handed in their program. The results of the competition were presented on December 21<sup>st</sup>, 2018. A jury awarded “Golden, Silver, and Outstanding Contribution Awards” based on scores for the integrity, feasibility, nudge characteristics, and cost



“Wanhua District Health Center, Taipei City” won the “Golden Award” in the National Healthcare Nudge Competition.

effectiveness of reviewed programs. Only “Most Popular Award” was voted by the present participants.

The concepts of nudge were incorporated in healthcare policies through this nudge competition. The government participants learned to use nudge techniques to make people to choose healthier decisions for their own good. This not only enable people to do “small changes with big benefits,” but also greatly enhances the effectiveness of healthcare policies.

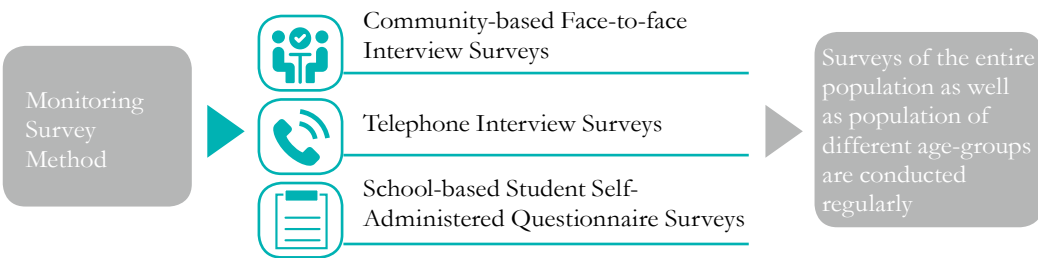
## Health Surveillance

### Status Quo

HPA has established National Health Surveillance in the fields of maternal and child health, diets and nutrition, prevention and control of non-communicable diseases, and active aging to provide an objective reference for policy formulation and assessment of program effectiveness. HPA also implements health surveillance surveys for population at all stages of the lifespan, creation of databases, and statistical analysis to strengthen innovation in the fields of technologies and methods and bring Taiwan in sync with international trends.

### Policy Implementation and Results

Goal-oriented national health surveillance data is collected and analyzed in accordance with national health administration reference needs. The goal lies in the gradual perfection of national health and non-communicable disease surveillance mechanisms and constant enhancement of surveillance system performance. Personal interviews of community residents, telephone surveys, and self-administered questionnaire surveys are jointly implemented (Figure 8-5) to collect unobtainable information from existing registration or reporting system to provide objective evidence for policy formulation and effectiveness assessment (Figure 8-6).



**Figure8-5** National health and surveillance system for non-communicable diseases monitoring system



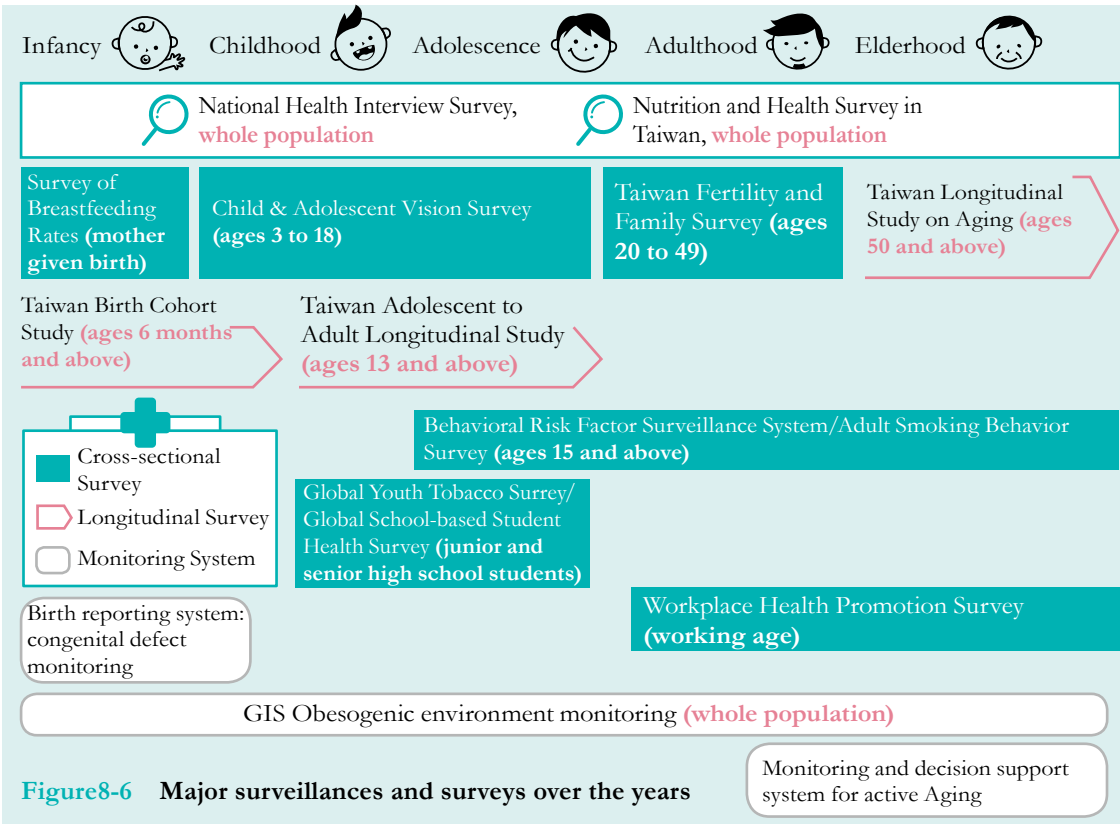


Figure8-6 Major surveillances and surveys over the years

1. National Health Interview Survey

Changes and trends in citizens’ health conditions and service needs are monitored and relevant factors are explored to gain a clear understanding. HPA has developed National Health Interview Survey (NHIS) in cooperation with National Health Research Institutes. The first of these surveys which are administered in four-year intervals was completed in 2001. This cross-sectional health interview survey is currently the largest survey conducted in a single year in Taiwan. The most recent survey was completed in 2017. The number of interviewees reached 21,111, representing a response rate of 72.8%. The survey was followed by statistical analysis conducted in 2018 as a reference for the planning of national health promotion and healthcare service (Figure 8-7).

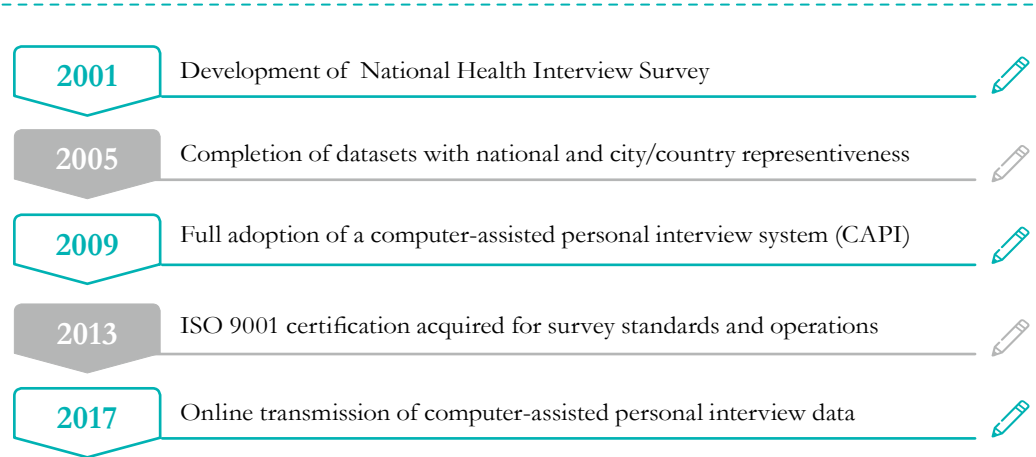
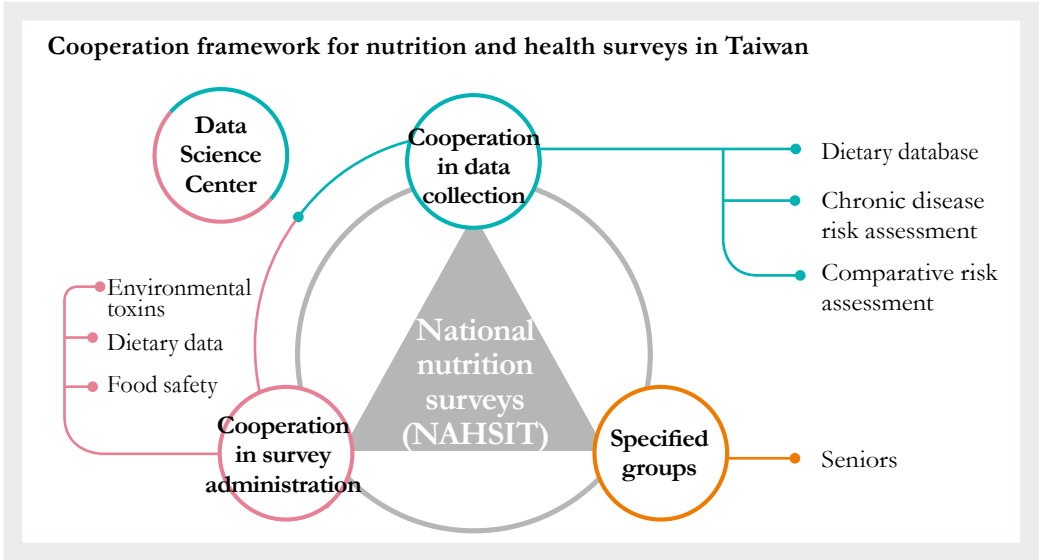


Figure8-7 Milestones of National Health Interview Surveys in Taiwan



## 2. Nutrition and Health Survey in Taiwan

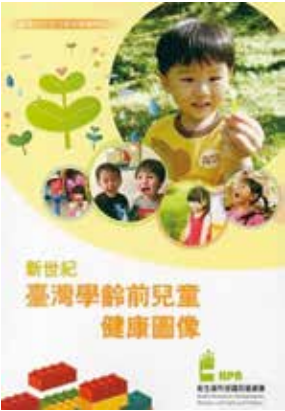
Since 1980, Taiwan conducts Nutrition and Health Surveys as a reference for nutrition and non-communicable disease policy making. Since 2013, HPA administer this survey with the purpose to establish stable, long-term, and real-time national monitoring data in the four-year cycle. During the period, the national representative data can be obtained. The survey include questionnaires, physical examinations, and biochemical tests. In 2018, the elder samples and questionnaire contents were increase in order to monitor elder people’s sample representativeness for groups with different background characteristics.



## 3. Taiwan Children and Adolescent Cohort Study

As of 2003, HPA conducts “Taiwan Birth Cohort Study” to gain a clear understanding of child growth, development, and health conditions in Taiwan and explore the impact of social environments on child health and development. The research subjects are a probability sample of infants born in 2005. A baseline survey was conducted at age 6 months with follow-up surveys at age 18 months, 3 years, 5.5 years, 8 years, and 12 years. In 2018, a telephone survey was administered for the pilot sample of now 13-year-olds. The “Health Profile for 21<sup>st</sup> Century Preschool Children in Taiwan” was released by compiling the survey results at age 3 and 5.5.

In 2015, HPA further conducted a “Taiwan Adolescent to Adult Longitudinal Study” with a randomly selected sample of junior high school students, senior/vocational high school students, and junior college



freshmen as research subjects based on the fact that a longitudinal study is required to gain a deeper insight in the complex factors affecting health behavior formation, development, and change among adolescents. A representative longitudinal cohort study for adolescents has been initiated with a baseline survey sample of 18,645 individuals. In 2018, surveys of senior high school and university freshmen were completed.

In July and August 2018, HPA held a discussion forum on child and adolescent health data and policies. The forum was organized to spur translation of research results into policies and discussion of action strategies. The results of longitudinal cohort studies for children and teenagers were published. Relevant items included health and medical care, social psychology, family environments, and care for preschool children as well as factors affecting health behavior development on the part of adolescents at the junior or senior high school stage.

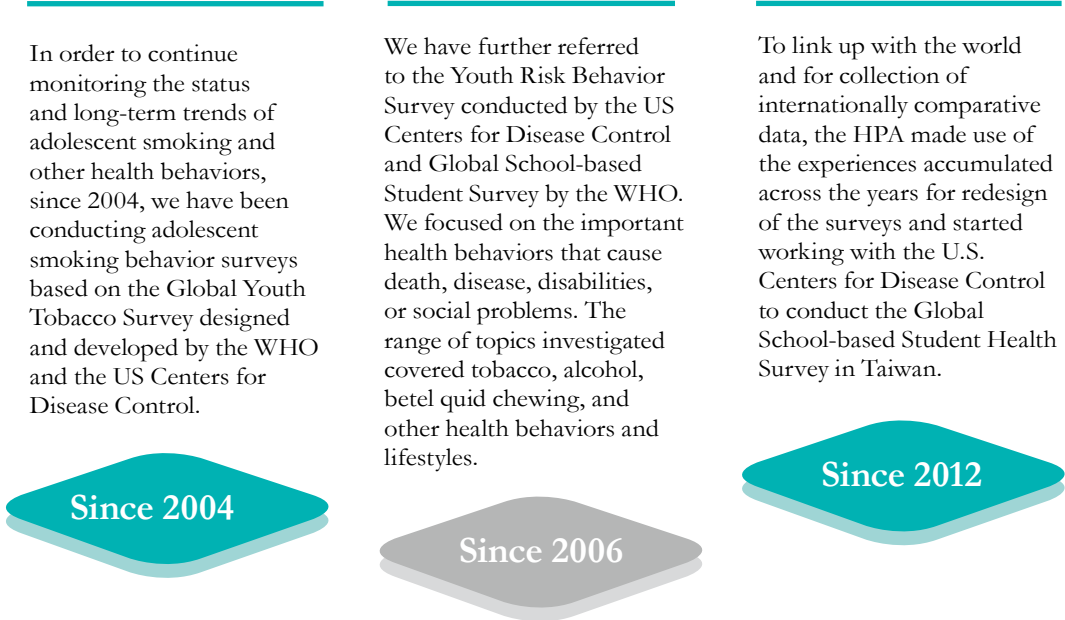
#### **4. Adolescent Smoking and Health Behavior Survey**

Current conditions and long-term trends of adolescent smoking and health behavior in Taiwan are constantly monitored. These two surveys provide a better understanding of current conditions and long-term trends in these topics and serve as a reference for relevant sectors in the promotion of tobacco hazards prevention policies among adolescents on campuses and the planning of health promotion service programs for children and adolescents.

The development history is shown in Figure 8-8. Initially, surveys were administered for junior high school and senior/vocational high school (junior college year 1 to 3) students on a rotational basis. Questionnaires were filled out anonymously and collectively administered in sampled classes.

As of 2011, adolescent smoking behavior surveys are carried out for junior high school and senior/vocational high school students representing the entire country and all cities and counties in the respective year, while adolescent health behavior surveys for the sample representing the whole country are still administered on a rotational basis between the junior and senior schools. In 2018, the latter survey was conducted on junior high school students.

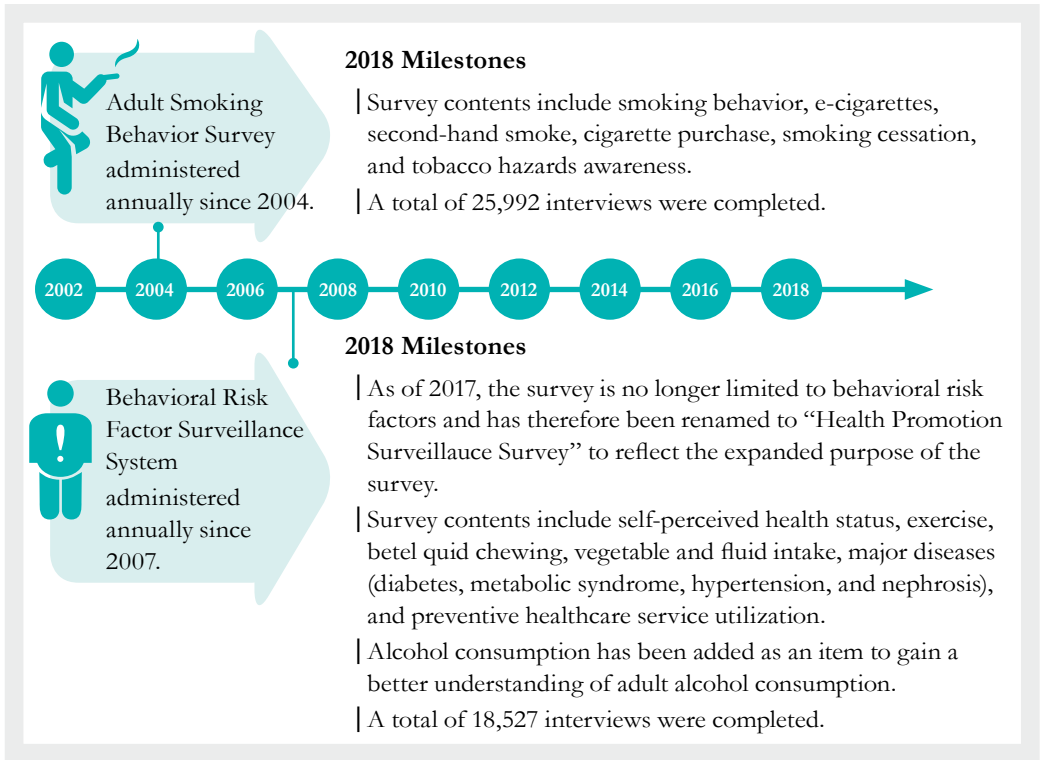
The aforementioned two surveys were administered between March and June 2018. A total of 44,905 respondents/5,703 respondents completed the adolescent smoking behavior/health behavior surveys, representing a response rate of 89.9% and 92.7%, respectively.



**Figure8-8** Development course of adolescent smoking and health behavior surveys

**5. Adult Smoking Behavior Survey and Behavioral Risk Factor Surveillance System**

As of 2004, HPA administers Adult Smoking Behavior Surveys with reference to the design and contents of US “Behavioral Risk Factor Surveillance System, National Health Interview Surveys, ” and “Global Adult Tobacco Surveys” to gain a better understanding of current conditions and trends in the field of adult smoking behavior, second-hand smoke exposure, and relevant factors as a reference for the monitoring and evaluation of smoking hazards prevention effects and relevant policies. As of 2007,



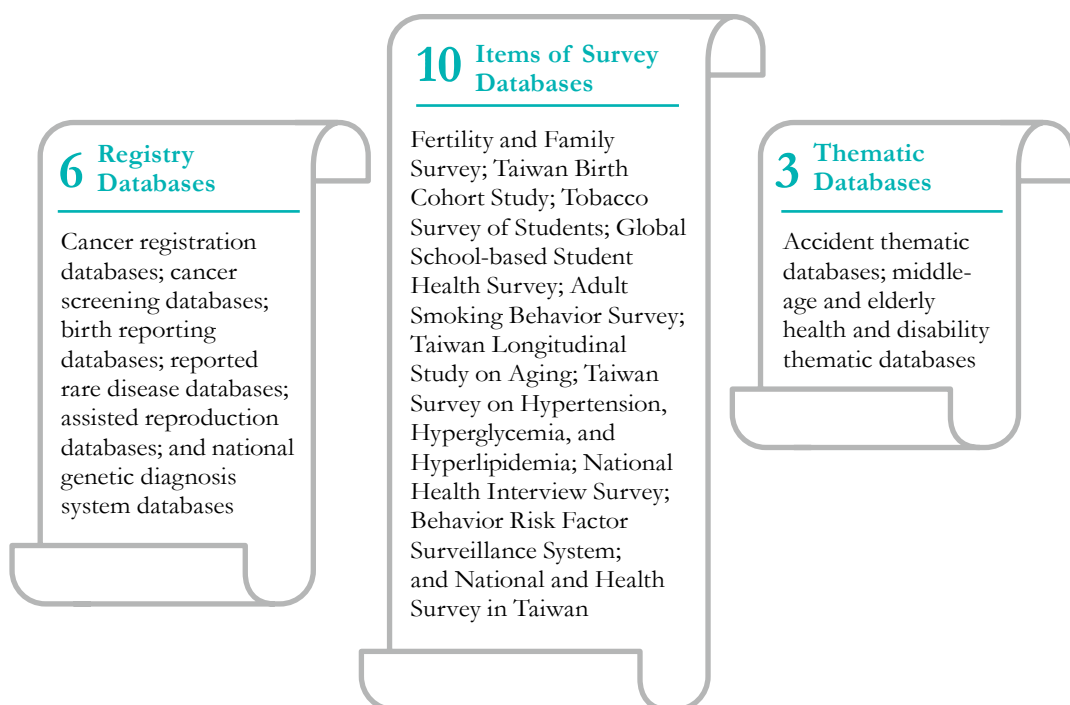
HPA further conducts “Behavioral Risk Factor Surveillance Surveys” (also known as “Health Promotion Surveillance Surveys”) with reference to the US “Behavioral Risk Factor Surveillance System” to monitor prevalence rates of major non-communicable diseases and health-risk behaviors as well as preventive healthcare service utilization conditions among adults as a reference for the monitoring, planning, and evaluation of the effectiveness of health promotion services and intervention.

These two surveys are conducted by a computer-aided telephone interviewing system (CATI) and were initially for adults aged 18 or above. In 2013, the age limit was lowered to 15 or above to facilitate international comparisons.

## **6. Application of surveillance survey data**

HPA compiles the analysis results of surveillance survey data into published result reports. In addition to participation in related symposia and publication of articles in journals, research projects are carried out in accordance with relevant administrative needs. A website titled “Health Indicator 123 – Interactive Online Query System for Health Indicators” was set up to rapidly provide interested parties with descriptive analysis results for surveillance survey data. Queries of the following ten databases with over 700 health indicators are currently available: “National Health Interview Surveys, ” “Global Youth Tobacco Survey, ” “Global School-student Health Survey, ” “Adult Smoking Behavior Surveys, ” “Behavioral Risk Factor Surveillance System, ” “Taiwan Longitudinal Study on Aging, ” “Taiwan Fertility and Family Surveys, ” and “Birth Reporting System. ”

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 (originally called the Collaborative Center of Health Information Application), and in 2012, the HAP has continually provided the raw data of series of health survey to the center for use. Currently, we have transferred 6 reporting databases and 10 surveys. The project to set up three thematic databases was also commissioned. The contents are seen in Figure 8-9. According to the data classification principles of Ministry of Health and Welfare for personal data protection, we also 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.

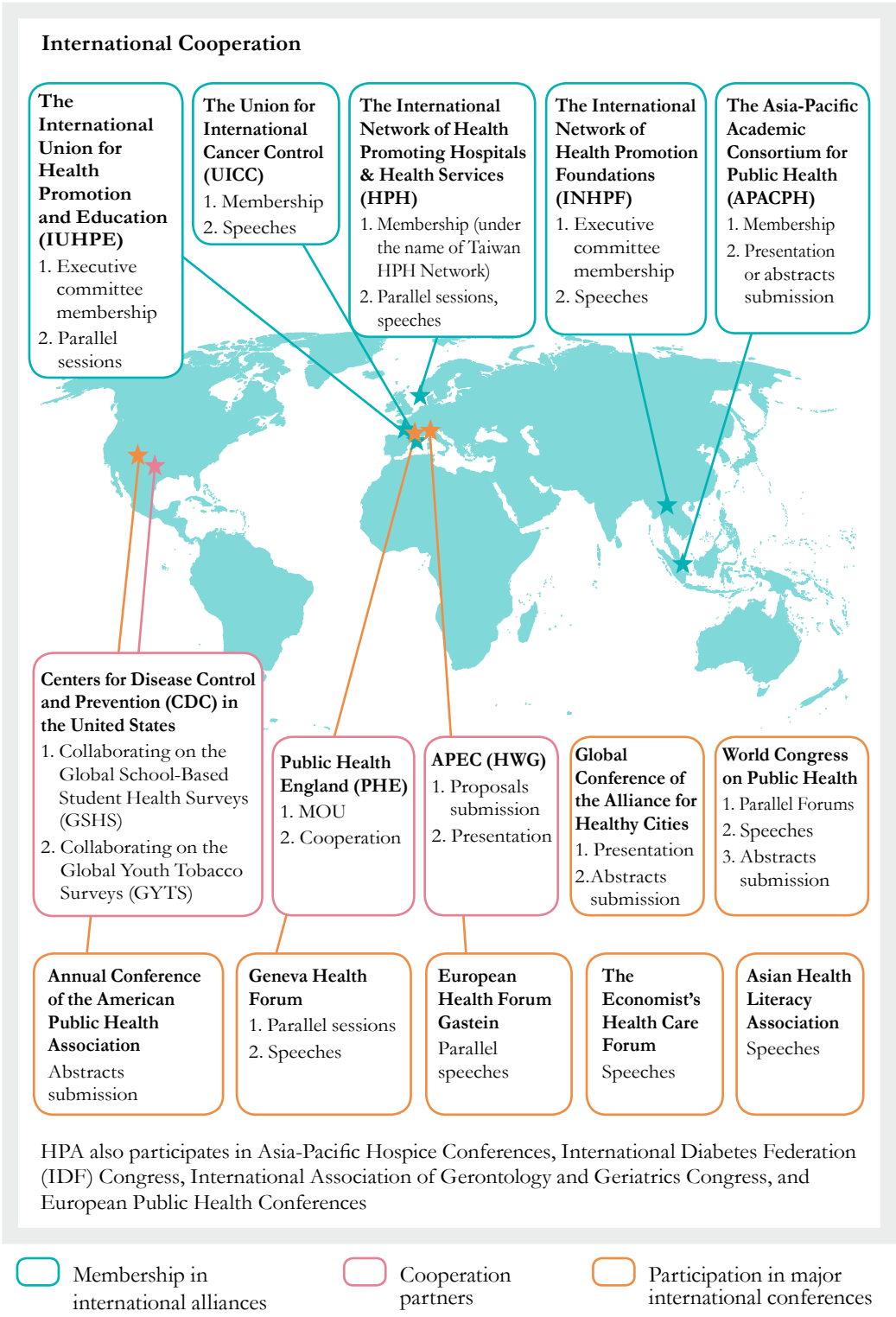


**Figure8-9** Data imported to Health and Welfare Data Science Center by HPA

## 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-related technical meetings, the HPA has also actively pursued a greater degree of exchange, cooperation, and experience sharing with 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 diseases prevention and health promotion. These measures not only increase Taiwan's international visibility, but also raise international recognition of our various policies. The HPA is currently a member of six major international health promotion alliances. It has signed a cooperation agreement with Public Health England and collaborates with the Centers for Disease



Control and Prevention (CDC) in the administration of relevant surveys. In 2018, we conducted a total of 4 international meetings and attended 24 important international seminars, workshops, meetings and forums. A total of 137 guests from 24 countries visited the HPA.



## Policy Implementation and Results

### 1. Becoming the global focus in large-scale international conferences

#### (1) 2018 Global Health Forum in Taiwan

The Ministry of Health and Welfare, the Ministry of Foreign Affairs, and HPA jointly organized a forum based on the theme of “Resilience: New Challenges and Opportunities for Global Health.” The goal was to explore how to maximize resilience in the face of various challenges including the rising prevalence of unpredictable natural disasters, man-made disasters, and diseases associated with modern civilizations and make preparations for the future against the backdrop of constantly changing healthcare systems. Parallel events focused on the theme of resilience in attempts to explore current conditions and future planning needs in various countries. Relevant issues included natural disaster emergency response measures, challenges and opportunities associated with psychological resilience, promotion of national HPV vaccination, health literacy programs, global disease burdens, and non-communicable disease health promotion.

Numerous experts and scholars from international healthcare organizations including Mr. Martin Mc Kee, professor of European public health at the London School of Hygiene and Tropical Medicine, Mr. Michael Moore, CEO of the Public Health Association of Australia and former President of the World Federation of Public Health Associations, and Prof. Jürgen M. Pelikan, Director of the WHO-CC Health Promotion in Hospitals and Health Care at the Austrian Public Health Institute, were invited to give speeches. In addition, a social media presence was established on Facebook and Twitter to share relevant information in a real-time manner. The forum had an attendance of around 1,200 participants including 68 VIP guests and leaders of major international healthcare organizations from 34 countries (health ministers, deputy ministers, representatives, health officials, and experts).



1. Address by Chen Chien-jen, Taiwan's Vice President
2. Opening speech by H.E. Archbishop Silvano Maria Tomasi, Apostolic Nuncio and member of the Dicastery for Promoting Integral Human Development

## **(2) 2018 Healthy Aging Summit**

The HPA participated in the 2018 Healthy Aging Summit from July 16 to 17, 2018, which was jointly organized by the United States Department of Health and Human Services (DHHS) and the American College of Preventive Medicine (ACPM), to present research results in the field of age-friendly environments and middle-aged and senior health literacy in Taiwan. The HPA also showcased highlights in the promotion of age-friendly environments and healthcare policies in Taiwan. After the summit, the HPA delegates visited federal governmental agencies and relevant offices in the vicinity of the venue for exchanges on relevant affairs.



We applied for booth space to showcase highlights in the promotion of age-friendly environments and healthcare policies in Taiwan.

## **(3) 17<sup>th</sup> World Conference on Tobacco or Health (WCTOH)**

The 17<sup>th</sup> World Conference on Tobacco or Health, which is sponsored by WHO, was held in Cape Town, South Africa from March 6 to 9, 2018. Over 2,500 scholars, experts, researchers, and health professionals engaged in this field as well as representatives of non-governmental organizations (NGOs) and government agencies from more than 150 countries assembled to discuss tobacco hazards prevention. The conference presented the official stance of WHO and new developments in the field of tobacco hazards prevention in addition to disclosing the latest strategies of tobacco companies. Discussions were conducted on new tobacco product types, tobacco hazards affecting adolescents and women, and relevant strategies and responses, with the goal of presenting global insights in the field of tobacco prevention and improving tobacco prevention results in each country.

The conference featured discussions on the current implementation status of the Framework Convention on Tobacco Control (FCTC) in all countries worldwide as well as controls and issues associated with e-cigarettes and heat-not-burn products. All participants shared their experiences in the promotion of tobacco hazards prevention. HPA displayed three posters to share achievements and experiences in the field of tobacco hazards prevention in Taiwan.

## **(4) 2018 Asia Pacific Health Promotion Capacity Building Workshop**

In August 2017, Taiwan and the Asia Pacific Academic Consortium for Public Health (APACPH) co-established the Collaborating Center for Health Promotion (APACPH-CCHP). HPA held “Asia Pacific Health Promotion Capacity Building Workshop” from October 30<sup>th</sup> to November 3<sup>rd</sup>, 2018. APACPH-CCHP invited eight senior scholars and two high-position government officials from Australia, Japan, Singapore, Malaysia, Thailand, Indonesia, and Sri Lanka as workshop instructors. There were 36 officials, young scholars, and other representatives of the younger generation from Taiwan, Malaysia, Thailand, Indonesia, Sri Lanka, and Vietnam engaged in the implementation of health promotion practices to share their implementation experiences and learn from one another.





Group photo of participants in the “1<sup>st</sup> Asia Pacific Health Promotion Capacity Building Workshop”

APACPH-CCHP provided international cooperation opportunities for research and practical exchanges. The goal lies in the building of health promotion capacity for the Asia-Pacific Region with a focus on key countries covered by the New Southbound Policy, the development of systematic and proactive mechanisms, the gaining of a better understanding of current and future health-related issues, and the reduction of health risks. Joint efforts are made to enhance health promotion practices in the Asia-Pacific Region and develop core health promotion capacities for the whole world. Health promotion and public health talents in Taiwan get a chance to reach out to the world to be in sync with international standards, increase the international visibility of Taiwan and thereby achieve the goal of sustainable development.

## **2. Stepping onto the global stage to join important international meetings, speeches, or forums**

### **(1) 26<sup>th</sup> Health Promoting Hospital Conference**

The International HPH Network is an network website set up by WHO to assist hospitals in the transition process from traditional diagnosis and treatment modes to health promotion and disease prevention practices. Taiwanese professionals accounted for 40.2% of all participants in this conference. The 378 selected papers submitted by Taiwan made up 52% of all selected papers (a total of 732). As of 2012, the International HPH Network presents “International HPH Awards For Outstanding Fulfilment of HPH Strategy.” Taiwanese hospitals have garnered this award for six consecutive years (Kaohsiung Medical University Chung-Ho Memorial Hospital earned the award in 2018). In addition, four local hospitals (Taipei Medical University Hospital, Min-Sheng General Hospital, Mennonite Christian Hospital, and National Taiwan University Hospital Yunlin Branch) were also honored with the tobacco-free hospital gold award.

HPA Director-General Wang Ying-Wei was invited to give a speech in the main venue and share with the audience how Taiwan assists hospitals in the transition from a simple provider of medical services to an all-around provider of health promotion services through policy deliberation. Taiwanese hospitals seize opportunities of interactions between hospitals and citizens to provide health promotion and chronic disease care services in accordance with public needs. In addition, HPA organized a workshop titled “New positioning for Healthy Hospital:

health-literate orientation” hosted by Dr. Wang Ying-Wei., Prof. Karin N. Jay (U.S.A), Prof. Jürgen M. Pelikan (Austria), Dr. Liu Yi-Lien, Director of the Longtan Min-Sheng Hospital, and Dr. Tsai Tsung-Lung, Director of the Ministry of Health and Welfare Puzi Hospital, were invited to participate in the discussions.

## **(2) 2018 International Conference on Tobacco Hazards Prevention in Taiwan**

Taipei Medical University and Taiwan Medical Alliance for the Control of Tobacco were commissioned to organize the “2018 International Conference on Tobacco Hazards Prevention in Taiwan” on November 30, 2018 in response to health challenges posed by traditional cigarettes, e-cigarettes, and new tobacco products. This event had an attendance of around 80 participants.

## **(3) 6<sup>th</sup> AHILA International Health Literacy Conference in 2018**

HPA co-organized sessions on Health Literacy for Aging, Health Literacy, SDM and HPH as well as cervical cancer prevention and HPV testing & vaccination health literacy–worldwide perspectives. Local and international experts and scholars were invited to participate with the goal of strengthening international cooperation and presenting the current state of health literacy development in Taiwan. We also hope to extend efforts to clinical applications and national policies and stimulate international exchanges in the field of public health in Taiwan. Participating international experts and scholars came from 26 countries in Asia, the Middle East, Oceania, Europe, the Americas, and Africa, while local experts were representatives of government agencies, the healthcare industry, non-governmental health promoting and educational organizations, and academic units. This event had an attendance of around 240.

# **3. Sharing international experience: international cooperation plans**

## **(1) International cooperation plans**

As of 2004 and 2012 respectively, HPA collaborates with the U.S. Centers of Disease Control (CDC) in the administration of “Global Youth Tobacco Surveys (GYTS)” and “Global School-based Student Health Surveys (GSHS)” to bring local adolescent smoking and health behavior surveillance surveys in sync with international trends and facilitate cross-cultural comparative studies on relevant issues.

The “Social Environment and Biomarkers of Aging Study (SEBAS)” represents a long-term cooperation project between HPA, Georgetown University, and Princeton University. This study aims to explore life stress, social environments, and health conditions of seniors in Taiwan and gain an in-depth understanding of factors affecting the health of middle-aged and senior citizens. A meeting was held with professor Maxine Weinstein, SEBAS project director, to discuss the compilation of past research achievements and matters related to data application while HPA representatives were in America to attend the Health Aging Summit in July 2018.

Against the backdrop of global population aging, a key prerequisite for a thriving and



sustainable society is to improve the health of seniors and enhance their productivity. The HPA also participated in the “Aging Readiness and Competitiveness Project” sponsored by the American Association of Retired Persons (AARP) and US Foreign Policy Analytics. National reports were issued based on data published by national governments and interviews of personnel in industry, government, academic, and research units. The report earned positive comments and Taiwan is recognized to be the first country in the world to embrace across-the-board promotion of the age-friendly city concept. And Taiwan has also achieved Universal Health Coverage (UHC) and is the 13<sup>th</sup> country to adopt dementia policies. The release of this national report has also raised the international visibility of Taiwan’s efforts in the field of elderly policy implementation.

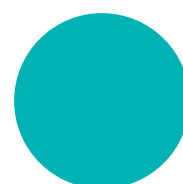
## **(2) Exchanges and sharing in the field of health data analysis applications**

On October 24<sup>th</sup>, 2018, HPA also convened a meeting with Dr. Nilay Shah, Director of the Division of Health Care Policy and Research at Mayo Clinic to discuss possible cooperation in the fields of health data linkage and integrated application as well as healthcare provider data linkage.

On October 24<sup>th</sup>, 2018, HPA also conducted discussions with members of the Institute for Health Metrics and Evaluation (IHME) who attended the 2018 Global Health Forum in Taiwan. Discussion participants included Professor Mohsen Naghavi, who specializes in global disease burden and cause-of-death statistics, Meghan Mooney, Assistant Director of Engagement, and Dr. Fatima Marinho from the Department of Non-Communicable Diseases Surveillance and Health Promotion in Brazil, who serves as an external review expert of IHME. The discussions focused on data sources, result analysis, and cross-national comparison in the field of global disease burdens and the HAQ Index (Health Access and Quality Index). In addition, exchanges were conducted on the accuracy of data from Taiwan utilized by IHME as well as data sources and relevant techniques and methods.

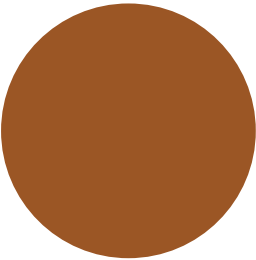
## **(3) Exchange forum on smart healthy life and active aging**

On October 16<sup>th</sup>, 2018, HPA representatives conducted discussions with Professor María Teresa Arredondo Waldmeyer and Associate Professor María Fernanda Cabrera Umpiérrez from Polytechnic University of Madrid, who have hosted and participated in various multinational technology research programs sponsored by EU, as well as numerous local scholars and experts from the National Health Research Institutes and National Cheng Kung University. The discussions focused on exchanges in the field of information and telecommunication technologies and their application in the areas of smart healthy life and active aging.

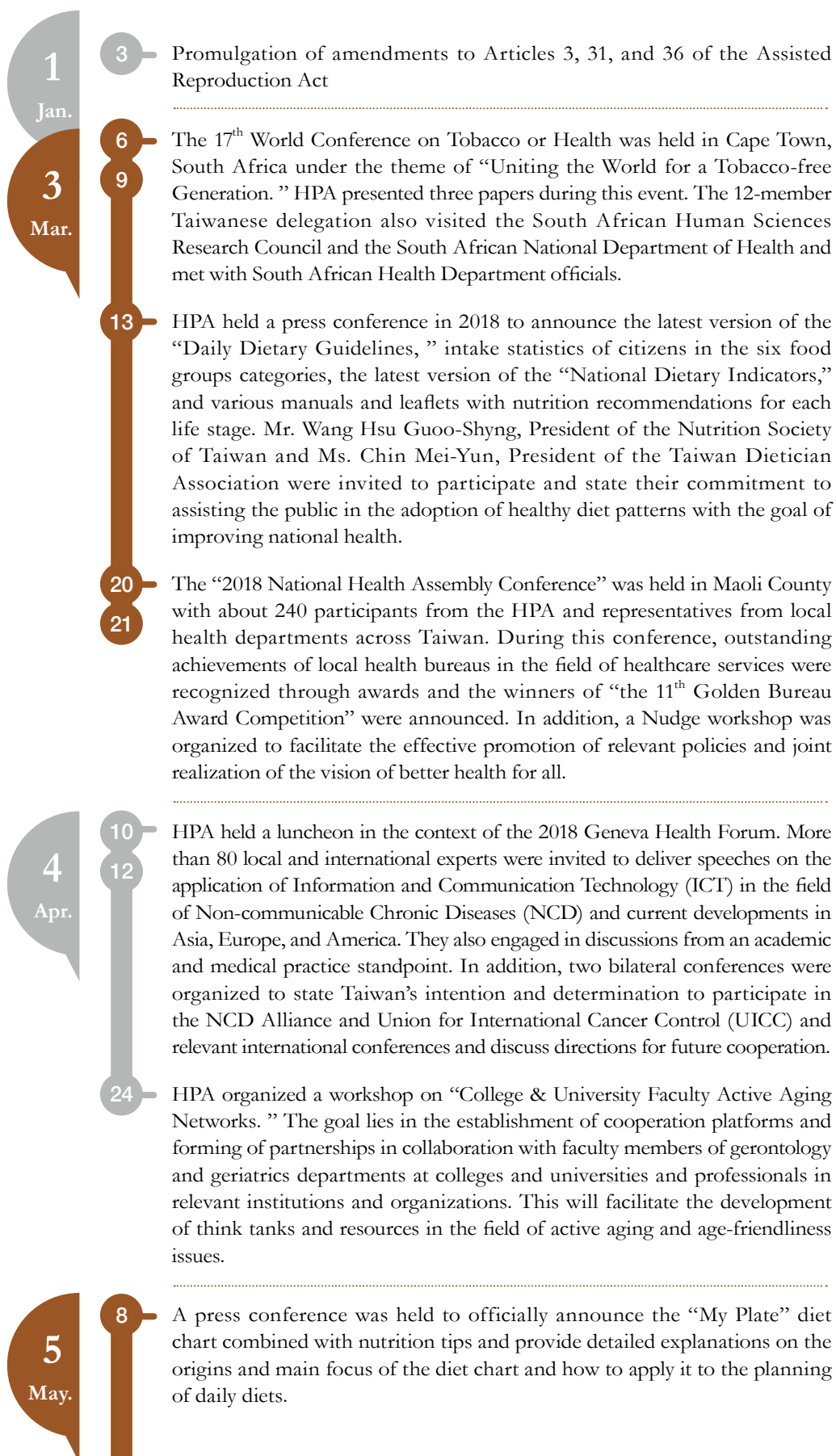


# Appendix

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## Summary of Great Events in 2018



5

May.

23

Promulgation of amendments to Articles 2, 8, and 13 of the Cancer Control Act

30

Official announcement regarding the addition of two rare diseases including the Dravet syndrome and correction of the names of four rare diseases including Trimethylaminuria, ICD-10-CM codes, and rare disease category serial numbers

6

Jun.

6

The Global Network for Tobacco Free Healthcare Services (GNTH) held the “2018 Global GOLD Forum Event” in Bologna, Italy. All forum members were invited to share tobacco-free hospital implementation results and unique aspects. Local hospitals (Taipei Medical University Hospital, Min-Sheng General Hospital, Mennonite Christian Hospital, and National Taiwan University Hospital Yunlin Branch) garnered four of the fifteen Tobacco-free Hospital Gold Awards presented at this event. This forum serves as a platform for Taiwan to present its achievements and unique experiences in the implementation of tobacco-free hospital concepts to international audiences and conduct international exchanges to learn from the precious experiences of other countries.

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During a visit by Ruth Etzel, Director of the Office of Children’s Health Protection, US Environmental Protection Agency (USEPA), to HPA, exchanges were conducted on opportunities for cooperation in the field of child health protection program proposals. This visit also gave HPA personnel an opportunity to get a better understanding of how USEPA educates and trains medical personnel and the public on environmental health-related issues.

7

12

The “11<sup>th</sup> National Conference on Health Promotion and Environmental Health 2018” was held in Bangkok under the theme of “Miracle of the First 1,000 Days: Maternal & Child Nutrition, Growth and Development” with an attendance of over 1,200. In a special session on the theme of “Health Promotion: International Experiences” on June 28, HPA delivered a report on “Policies of the 1,000 days in Taiwan” and “Baby-friendly Hospital Initiative in Taiwan.” During the conference, exchanges were conducted with Dr. Wachira Penjuntr and Dr. Amporn Benjaponpitak, Director-General and Deputy Director-General of the Ministry of Public Health, Thailand, and heads of subordinate bureaus and departments. In addition, communication channels for future bilateral cooperation were established.

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Jul.

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HPA participated in the 2018 Healthy Aging Summit in Washington D.C., USA. During this summit, HPA Deputy Director-General Ms. Yu Li-Hui presented a paper on age-friendliness to share achievements of Taiwan in the promotion of age-friendliness with participants in the summit. Upon conclusion of the summit, visits to government agencies in the vicinity of the venue were arranged. During these visits, HPA personnel conducted exchanges with the National Institute on Aging (NIA) on old-age exercise, nutrition, frailty, and dementia prevention and discussions with the National Center for Health Statistics (NCHS) on health monitoring methods and statistical analysis. HPA also visited the Center for Injury Research and Policy at John Hopkins University to conduct exchanges on traffic accident prevention and home safety issues. In addition, HPA engaged in discussions with Age-friendly DC, Bernice Fonteneau Senior Wellness Center, and National Programs of All-inclusive Care for the Elderly (PACE) Association on age-friendliness, communities, and healthcare.



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Jul.

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Revision of the “Directions Regarding Medical Institutions Providing Preventive Healthcare Services,” effective as of August 1<sup>st</sup>, 2018

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HPA organized five workshops on the “Promotion of Dementia-friendly Community Practices” in Pingtung County, Yunlin County, Taipei City, Kaohsiung City, and Yilan County, respectively, to promote dementia-friendly pilot community programs and nationwide dementia-friendly initiatives. Around 380 participants attended these workshops. The ultimate goal is to develop local action programs by harnessing the organizational capabilities of communities.

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Organization of a discussion forum titled “The Future of Our Nation – Child and Adolescent Health Data and Policies” in the NTUH International Convention Center to present the results of child and adolescent related research programs and solicit policy recommendations and action strategy proposals.

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HPA organized a seminar on sports and health for all titled “Creation of a Sports City to Level Up Health” in cooperation with the Sports Administration of the Ministry of Education in 2018. This event featured a roundtable discussion by the central and local governments. Bob Heere, Director of the North American Society of Sport Management, and Kuno Shinya, professor at University of Tsukuba shared practical experiences in the promotion in the Netherlands and Japan. In addition, around 300 industry, academia, civil society, and media representatives were invited to participate in this seminar.

8

Aug.

3

HPA organized a “Biennial Academic Conference on School Nursing and Health Education in the Asia-Pacific Region” in cooperation with the School Nurses Association of R.O.C. and the K-12 Education Administration of the Ministry of Education. Professor Regina Lai Tong Lee, former executive representative of the WHO Collaborating Center in the Western Pacific and HPA Director-General Wang Ying-Wei delivered keynote speeches. This conference had an attendance of around 700.

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Director-General Wang Ying-Wei and the Leader of Community Health Division participated in the 14<sup>th</sup> international conference of International Federation on Ageing (IFA) with the theme of “Towards a Decade of Healthy Ageing – From Evidence to Action. ” This event gave Taiwanese representatives a chance to gain a better understanding of implementation conditions in foreign countries and thereby enhance program implementation efficiency in Taiwan. In addition, a visit to Mount Sinai Hospital and discussions with representatives of the Toronto Council on Aging were arranged to facilitate exchanges on age-friendliness issues.

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The nationwide 2018 Senior Energy and Vitality competition was held in New Taipei City, Changhua County, Tainan City, and Hualien County, respectively. A total of 2,417 seniors up to the age of 100 gave live performances. HPA Deputy Director-General Ms. Yu Li-Hui and Director Lu Chung-Jen of the Sports Administration personally attended this event to cheer for the senior performers.

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Aug.

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The “APEC Third Senior Officials Meeting, SOM3” were convened in Papua New Guinea. The Executive Committee of the Life Science Innovation Forum held an event titled “APEC Roadmap on Cervical Cancer Prevention and Control” on August 13. HPA Deputy Director-General Chen Jun-chiu was invited to give a speech on the health and life hazards posed by cervical cancer for women in Taiwan and the process and challenges of HPV vaccination policy formation from the perspective of epidemiology in Session 4: Building a Resilient Prevention and Immunization Eco-system. In addition, HPA, EJ Waramin, a manager from Papua New Guinea, and Charles Harvey, Regional Director Vaccine Public Policy Asia Pacific, MSD, shared policies and practical experiences in the implementation of HPV vaccination programs.

21

Promulgation of amendments to the “Regulations for Inquiring Kinship Information of Concern to the Children Born Through Assisted Reproduction,” effective as of August 21<sup>st</sup>, 2018

23

HPA organized a press conference on “Climate Smart Hospitals” in Taiwan Adventist Hospital. Representatives of the Environmental Protection Administration of the Executive Yuan and three healthy hospitals were invited to share concrete achievements in the field of energy conservation and carbon reduction including low-carbon diets, power savings, and water savings in the transition process from a major energy consumer to a climate smart hospital. HPA also arranged on-site demonstrations and presented results in the promotion of climate smart hospitals in three stages. In the future, it is planned to provide guidance for hospitals in the transformation into an environmental education center in close cooperation with the EPA.

27

HPA held a press conference titled “Community Nutrition Promotion Centers – We Care About Your Nutrition.” Vice President Chen Chien-jen, Mr. Cho Jung-tai, Executive Yuan Secretary General, Mr. Ho Chi-kung, Deputy Minister, Ministry of Health and Welfare, HPA Director-General Wang Ying-Wei, and Ms. Jin Hui-min, Representative Director of Taiwan Dietitian Association, personally attended this event to participate in the Kick-off Ceremony and announce the launch of “Community Nutrition Promotion Centers” all over the country. The goal was to affirm the commitment to delaying disability and long-term care and give the public a better understanding of “Community Nutrition Promotion Center” service contents through this press conference. Seniors are encouraged to utilize these services to enhance their nutrition literacy.

31

On occasion of “2018 World Alzheimer’s Month,” HPA held a press conference titled “Breaking the Myths and Stigma of Dementia” to announce the creation of a “Dementia-friendly” mark and debut the educational video “I Have Dementia But I Still Can...” A dementia patient was invited to serve as the host and Ms. Kate Swaffer, Chair of Dementia Alliance International gave an address.

9

Sep.

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HPA proceeded to Sabah, Malaysia, to participate in the 50<sup>th</sup> Asia-Pacific Academic Consortium for Public Health Conference held under the theme of “Milestone Event – Moving Forward to Address New Challenges in Regional Health.” HPA Director-General Wang Ying-Wei was invited to share Taiwanese experiences in speeches during the conference and parallel events. This conference helped increase the visibility of HPA at APACPH and spur exchanges with APACPH member nations.



9

Sep.

13

The Sports Administration of the Ministry of Education organized a series of activities on occasion of the “2018 National Hiking Day” in cooperation with HPA. Administration Director, Ministry of Education Sports, Kao, Chin-Hsung and HPA Executive Secretary Wang Yi-ren jointly attended the kick-off press conference. The ROC Sports Federation, the Chinese Taipei Alpine Association, the Chinese Taipei Mountaineering Association, and sponsors such as Merrell and Mizuno were also invited to participate in this event. HPA encouraged citizens all over the country to take part in these activities and engage in physical exercise.

14

On September 14, HPA held a press conference titled “I Have Dementia, But I Can!” It also organized a community event titled “Let’s Join Hands to Create a Dementia-friendly Environment” from September 14 to 16 in cooperation with the Taiwan Alzheimer’s Disease Association. A series of dementia prevention activities were launched in 22 cities and counties.

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HPA Deputy Director-General Chen Ran-chou led a delegation to attend the World Cancer Congress organized by the Union for International Cancer Control (UICC) in Malaysia. During the Leaders Summit, she exchanged cancer control experiences with ministers from different countries, cancer control organizations (IARC, NCD Alliance, ACS), and experts from all over the world. HPA presented three papers and publicized cancer control achievements in Taiwan by both exhibition.

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Oct.

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The Malaysian Ministry of Health and its Health Promotion Board held the 4<sup>th</sup> Health Promotion Conference in Kuala Lumpur. In the context of this event, HPA organized a Symposium titled “Health Behavior Improvements on the Foundation of Evidence-based Medicine.” Over 200 distinguished guests participated in this event, which was very warmly received. Participants engaged in lively discussions on health-promoting hospitals in Taiwan and expressed a desire to intensify interactions with Taiwan in this field. Exchanges and discussions conducted with numerous Malaysian health officials during the evening banquet helped increase the visibility of Taiwan in the field of health affairs in addition to exploring intentions and possible modes of cooperation in the context of the New Southbound Policy to set a solid foundation.

5

The “2018 Active Aging Competition Finals” were held in the New Taipei City Banshu Gymnasium. The contest was supervised by President Tsai Ing-Wen, Ms. Lu Bao-Jing, Deputy Minister of the Ministry of Health and Welfare, Legislator Wu Yu-chin, and Director Lu Chung-Jen of the Sports Administration. The Beitou Guandu Senior Troupe and Taichang Community Development Association in Dongshi, Taichung garnered gold awards in the “Vitality on Stage” and “Dynamic Rhythm” categories respectively.

5

Promulgation of amendments to “Regulations for Verification on Kinship between the Sperm/Oocyte Donor and the Recipient”



- 11 The US Environmental Protection Agency paid a formal visit to EPA Minister Lee Ying-yuan. HPA Director-General Wang Ying-Wei attended this meeting as a representative of the Ministry of Health and Welfare. The US delegation was comprised of Ms. Jane Nishida, EPA Acting Assistant Administrator for EPA's Office of International and Tribal Affairs (OITA), EPA Senior Program Manager in Northeast Asia, Mr. Phillip Loosli, Economic Officer of the American Institute in Taiwan (AIT), and Ms. Guo Meijun, environmental technology specialist. The US delegation and representatives of ROC government ministries and councils engaged in discussions on the current progress and future directions of the children's environmental health initiative.
- 12 The US Environmental Protection Agency also paid a formal visit to Mr. Ho Chi-kung, Deputy Minister, Ministry of Health and Welfare. The meeting was attended by HPA Director-General Wang Ying-Wei, the US delegation comprising of Ms. Jane Nishida, EPA Acting Assistant Administrator for EPA's Office of International and Tribal Affairs (OITA), EPA Senior Program Manager in Northeast Asia, Mr. Phillip Loosli, Economic Officer of the American Institute in Taiwan (AIT), and Ms. Guo Meijun, environmental technology specialist, and representatives of the ROC Environmental Protection Administration. The participants conducted exchanges on child health issues.
- 17 The 8<sup>th</sup> Alliance for Healthy Cities Global Conference (AFHC 2018) was held under the theme of "Our Cities, Our SDGs, Our Journey." Over 700 participants from Korea, Japan, Hong Kong, Malaysia, Australia, and China attended this conference, while mayors and other representatives of cities in 10 nations participated in the mayors' forum. A total of 93 Taiwanese representatives took part in these events. Taiwan also garnered 7 (35%) of the 20 Innovation Awards in four major categories presented in this conference.
- 19
- 24 Dr. Nilay Shah, Chair of the Division of Health Care Policy & Research, Department of Health Sciences Research at Mayo Clinic was invited to attend the "2018 Global Health Forum" in Taiwan, which was organized by HPA. He engaged in consultations and discussions on health data linkage and integrated application as well as healthcare provider data linkage and possible directions of future cooperation with local scholars, experts from medical institutions, and representatives of the Department of Statistics, Ministry of Health and Welfare, and HPA.
- 26 Chung Shan Medical University, Asian Health Literacy Association, and Taichung City Government jointly organized the "6<sup>th</sup> AHLA International Health Literacy Conference" in 2018. HPA co-organized sessions on Health Literacy for Aging, Health Literacy, SDM and HPH as well as cervical cancer prevention and HPV testing & vaccination health literacy—worldwide perspectives. Local and international experts and scholars were invited to participate in these sessions.

10

Oct.

27

Professor Mohsen Naghavi, Meghan Mooney, Assistant Director of Engagement, and Dr. Fatimo Marinho, external reviewer of the Institute for Health Metrics and Evaluation (IHME) were invited to participate in the “2018 Global Health Forum” in Taiwan. They engaged in discussions and exchanges with local scholars and representatives of the Department of Statistics, Ministry of Health and Welfare, and HPA regarding the accuracy of data on Taiwan utilized by IHME for global disease burden indicators as well as data sources and relevant techniques and methods. The goal of this event was to increase the participation and contributions of the public sector and academic circles in Taiwan in the field of global health assessments and cross-national comparisons.

28

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Ministry of Health and Welfare and Ministry of Foreign Affairs held the “2018 Global Health Forum in Taiwan” focused on the theme “Resilience: New Challenges and Opportunities for Global Health.” The goal was to explore how to maximize resilience in the face of various challenges including the rising prevalence of unpredictable natural disasters, man-made disasters, and diseases associated with modern civilizations and make preparations for the future against the backdrop of constantly changing healthcare systems. Parallel events focused on the theme of resilience in attempts to explore current conditions and future planning needs in various countries. Relevant issues included natural disaster emergency response measures, challenges and opportunities associated with psychological resilience, promotion of national HPV vaccination and health literacy programs, global disease burdens, and non-communicable disease health promotion. During the event, relevant information was shared in a real-time manner on Facebook and Twitter. The forum had 68 speakers from 34 countries (leaders of major healthcare organizations worldwide and ministers, deputy ministers, and representatives of health ministries) and about 1,200 local expert participants.

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HPA held the “First Asia Pacific Health Promotion Capacity Building Workshop” at Taipei Medical University based on the core concepts of the “Declaration of Taipei.” The workshop focused on the following three core competencies: program planning, implementation, and assessment, building of partnerships, and multiculturalism and tolerance in the Asia-Pacific region. The event aimed to promote resource sharing and establishment of a talent networks in the field of non-communicable diseases through sharing of practical experiences.

11

Nov.

15

HPA held an educational press conference titled “Be Smoke Free, Super on Campus” to protect children and adolescents from the hazards associated with tobacco products, e-cigarettes, and heat-not-burn products. The Ministry of Health and Welfare, the Ministry of Education, and Legislators Wu Kuen-yuh and Chen Yi-ming issued a joint appeal “Taiwan’s New Generation—Say No to Addiction” to encourage 4.06 million faculty members and students to join hands in efforts to enlist children as “Anti-Smoking Ambassadors” and exhibit the “10 Superpowers” in the context of the “Be Smoke Free, Super on Campus” campaign endorsed by the local celebrity Harlem Yu.



11

Nov.

16 HPA convened the “14<sup>th</sup> Central Cancer Prevention & Control Conference,” which was hosted by Premier William Lai. The conference was attended by Ms. Yang Shi-hua, acting Secretary General of the Ministry of Health and Welfare, HPA Director-General Wang Ying-Wei, and representatives of the Ministry of the Interior, Ministry of National Defense, Ministry of Finance, Ministry of Education, Ministry of Labor, Environmental Protection Administration, Council of Agriculture, and relevant ministries and councils.

20 HPA and the Ministry of Education held a press conference titled “Life Skills in Sync with Healthy Body Weight.” HPA Director-General Wang Ying-Wei was present to announce the key learning points and core competencies in the field of physical fitness of the 12-year Basic Education Curriculum Guidelines and joint promotion of the “incorporation of life skills into healthy body weight education.”

23 HPA and the K-12 Education Administration of the Ministry of Education jointly organized the “4<sup>th</sup> Award Ceremony and Presentation of Achievements in International Accreditations for Health-promoting Schools in 2018.” Mr. Chen Shih-chung, Minister of Health and Welfare, gave an address and presented the awards. The event was also attended by HPA Director-General Wang Ying-Wei, HPA Deputy Director General Ms. Yu Li-hui, Mr. Wang Ming-yuan, Deputy Director of the Department of Planning of the Ministry of Education, and Ms. Tai Shu-fen, Deputy Director-General of the K-12 Education Administration. A total of 87 awards were presented and a total of 200 participants attended the event.

28 Promulgation of the amendments to the “Genetic and Rare Diseases Testing Institution Qualification Examination Criteria,” effective as of November 28<sup>th</sup>, 2018

28 HPA organized the “A New Age of Health and Wellbeing”—a health communication material selection activity, award ceremony, and presentation of achievements. A total of 662 materials were submitted. In all, 80 works stood out as exceptional. At the same time, a “Public Health Artifact Exhibition” was organized. A total of 310 individuals contributed to this great undertaking.

29

12

Dec.

5 HPA organized the 2018 Healthy City and Age-friendly City Award Ceremony. Mr. Hsueh Jui-yuan, Deputy Minister of the Ministry of Health and Welfare was invited to present the awards. Close to 200 guests including Tainan Deputy Mayor Chang Shao-yuan, Mr. Lin Yi-te, Senior Executive Officer of Lienchiang County Government, and heads of award-winning city/county government bureaus and departments and district offices or their representatives attended this ceremony.

12 The “11<sup>th</sup> International Conference on Maternal and Child Health Handbooks” was held in Bangkok by the International Committee on the MCH Handbook. The event was attended by 447 participants from 10 countries. HPA representatives gave an oral presentation on a paper titled “Taiwan’s Experience in MCH Handbook” and a poster presentation on “The application of digitalized MCH handbook in Taiwan.” HPA utilized this event to visit MCH institutions and engage in exchanges with participants from different countries.

14

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Dec.

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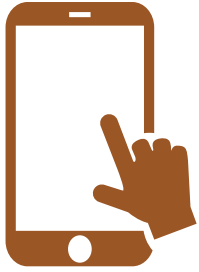
HPA and the Ministry of Education jointly organized the “2018 Conference for the Recognition and Presentation of Outstanding Achievements in Tobacco Hazards Prevention at Colleges and Universities–Tobacco-free Youth.” A total of 20 schools with excellent results in this area were recognized in this conference, which drew a total of 135 participants. Young students make joint efforts to improve the health of college and university students and raise anti-smoking and tobacco-free awareness by relying on creative and dedicated communication campaigns.

25

HPA organized an “Active Aging Discussion Forum” on December 25, 2018 to promote the health and well-being of seniors, create an age-friendly environment, and increase social engagement and employment of middle-aged and senior citizens. All circles of society were invited to actively participate in the discussions, which were centered around the three major issues of social engagement, health care, and dementia delay.

27

HPA released the 2016 cancer incidence statistics. A total of 105,832 new cases were reported in 2016. The age-standardized incidence rate reached 296.7 cases per 100,000 population in 2016. From a long-term perspective, the age-standardized incidence rate in Taiwan has exhibited a fluctuating tendency in recent years, while the mortality rate has declined steadily. An analysis of the age-standardized incidence rates of the ten leading cancers reveals that liver, stomach, and skin cancer have exhibited a declining tendency for 7 consecutive years (colorectal cancer has also seen a decrease), while the incidence rates of lung, oral, prostate, and esophageal cancer have seen ups and downs. The incidence rate of breast cancer has remained constant, while that of thyroid and cervical cancer has increased.



## List of HPA Affiliated Websites and Apps



### Website of HPA

Provision of different types of information related to HPA services and website sections for different health-related topics in line with public needs



### Website of Health 99

Provision of different types of health education materials created by the Ministry of Health and Welfare and its affiliated agencies and non-governmental healthcare organizations including the latest health-related news, columns, and rumors



### Website of Information of Healthy Workplace

This website disseminates information on methods for implementation of health promotion campaigns at workplaces all over Taiwan as well as healthy workplace certifications and applications.



### Cancer Registry Interactive Query System

Provision of data on cancer incidence and epidemiology for queries by the general public, academic circles, and health units as a reference for cancer prevention and control programs and relevant assessments by health administration units and hospital jurisdictions



### Website of Maternal and Infant Healthcare

This cloud-based maternal and infant healthcare platform enables new generation expectant mothers to access pregnancy and childbirth-related knowledge and cloud-based management tools during pregnancy periods and prenatal checkups in a convenient manner.



### Adolescent Sex E-school

Provision of accurate sex information and educational materials for queries by adolescents, parents, and, teachers and online replies by professional personnel to questions asked by citizens



#### Website of Smokers' Helpline Service Center

This website provides smoking cessation hotline information, professional mental counseling for smokers, service descriptions, the latest findings, Q&A, and event information.



#### Website of Quit Smoking Therapy Service Center

Provision of smoking cessation service information including application for smoking cessation services, smoking cessation information, and lists of healthcare institutions contracted for smoking cessation services



#### Information Website for Tobacco Product Ingredients

Pursuant to the provisions set forth in Article 8 of the Tobacco Hazards Prevention Act, tobacco product ingredients, additives, and emissions reported by manufacturers and importers shall be disclosed periodically and voluntarily to give the public a better understanding of tobacco product ingredients and associated hazards.



#### GLOBALink Website

This website makes local tobacco hazards prevention specialists, medical journalists, academic units, government agencies, and NGOs aware of international tobacco hazards prevention policies and legislation, relevant practical research, and successful experiences in the field of tobacco hazards prevention through translation.



#### Health Indicator 123-Interactive Queries of National Health Indicators

This website provides information on health indicators for queries by healthcare personnel, citizens, media workers, and personnel engaged in health-related fields.





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