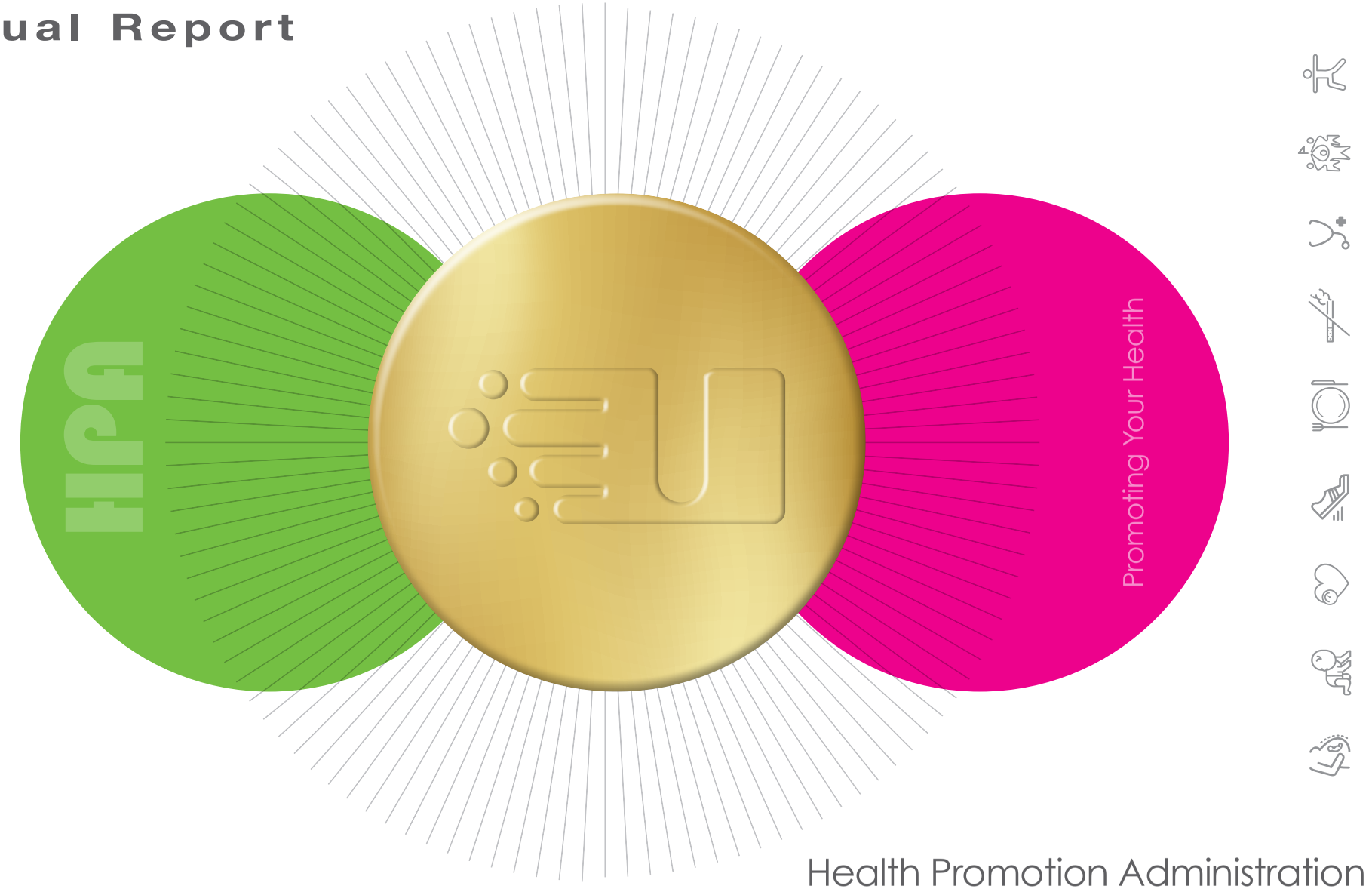
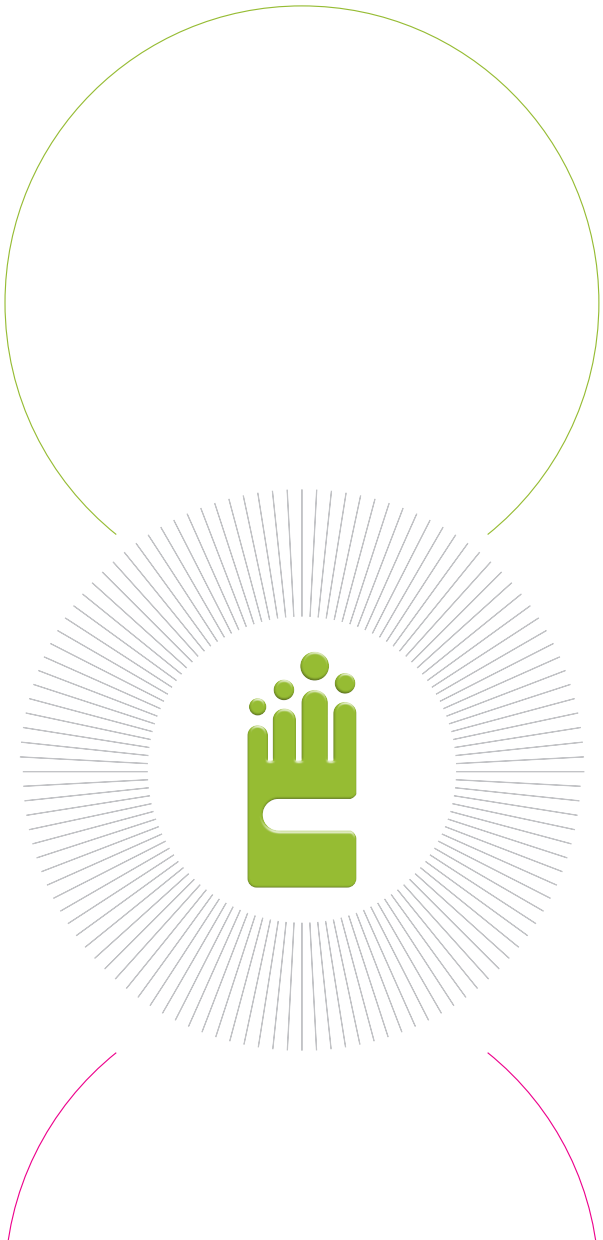
2021

Annual Report



Health Promotion Administration
Ministry of Health and Welfare



Health Promotion Administration, Ministry of Health and Welfare, Executive Yuan was formerly known as the Bureau of Health Promotion Department of Health. It was established in 2001. It was created by the merger of the Division of Health Care, Department of Health and its 3 research institutes responsible for women and children health and chronic disease prevention. In 2013, it was upgraded from “bureau” to “administration.” It upholds the spirit of “Prevention is better than cure.” We reinforce preventive medicine and community health, intimately integrate social welfare and cross-functional resources, implement the concept of womb to tomb, citizen health promotion from family to community. The goal is to extend the longevity of citizens’ health, and reduce health inequality, so that the citizens of Taiwan can live longer and better despite wealth disparity, region, gender, and ethnicity.

The concept behind the design of the HPA’s logo is an open hand with four fingers and a thumb across the palm. This configuration symbolizes that the HPA will “safeguard” all citizens. The 4Ps repre-sented by the 4 fingers are Protection (protecting the health of all citizens from the effect of health hazards), Prevention (preventing disease through diet, exercise and screening), Promotion (promoting health by molding a healthy living environment, and enhancing health options and equality), and Partici-pation (joint participation in health promotion by all citizens). The thumb means Partnership, representing that promotion of the health of all citizens requires industry-government-academia-public-media cross-area hand-in-hand cooperation. Furthermore the “green” color was specifically chosen because it has a gentle effect on the eye, so it will make people feel relaxed, calm and comfortable; it also represents growth and vitality, and symbolizes constant renewal and growth in the natural world.

3 Key Policies

Establish supportive and healthy environments

Prevent and control non-communicable diseases

Promote holistic health promotion across full life-span

4 Missions

Enhance health literacy and promote healthy lifestyles

Spread preventative healthcare and promote effective prevention and screening

Upgrade healthcare quality and improve chronic disease control and prognosis

Create a friendly and supportive environment and bolster healthy options and equality

6 Policy Goals

Nurture healthy lifestyles and create healthy settings

Establish comprehensive healthcare service environment and reproductive care for women and children

Promote vitality and harmonious aging and create age-friendly health environment

Reinforce cancers and chronic diseases prevention and control

Reinforce national health indices and non-communicable disease monitoring system and implement evidence-based policies

Reinforce eHealth and increase the health empowerment of the people

7 Major Policy Plans

Second Viral Hepatitis Prevention Program (2017~2020)

First National Cardiovascular Disease Prevention Program (2018-2022)

Fourth National Cancer Prevention and Control Program (2019-2023)

Tobacco Control Program

Smart Healthy Lifestyle Construction—Big data and ICT value-added application (2017-2020)

Holistic health promotion and addiction prevention study (2017-2022)

Advancing Taiwan's Environmental Health—Beginning With Enviromental Exposure Health Impact Assessment for Children Living around Petrochemical Industrial Parks (2019-2022)

2020

14 annual key performance target indicators

6.24‰

Infant mortality rate for indigenous areas and offshore islands maintained at or below 6.24‰, the average of the last three years.

1.43‰

Under-five years of age mortality rate for indigenous areas and offshore islands maintained at or below 1.43‰, the average of the last three years.

4.0‰

Infant mortality rate maintained at, or lower than, 4.0‰.

2.4‰

Newborn mortality rate maintained at, or lower than, 2.4‰.

11.2

Death rate for pregnant women (every 100,000 live births) Maintain at, or lower than the average of 11.2 in the past 3 years

7.33%

Probability of premature death from cancer dropped to 7.33%.

84.75%

The average follow-up rate for 4 main cancer screening achieved 84.75%.

3.49%

Probability of premature death by cardiovascular diseases dropped to 3.49%.

0.99%

Probability of premature death by diabetes dropped to 0.99%.

0.45%

Probability of premature death by chronic respiratory diseases dropped to 0.45%.

47.1%

Prevalence of overweight and obesity among adults maintained at 47.1%.

Vegetables Fruits

15.0%, 14.5%

Prevalence of adults consuming 3 servings of vegetables and 2 servings of fruits achieved 15.0% for vegetables and 14.5% for fruits.

♂9.2g ♀7.3g

The salt intake per day among adults was 9.2 grams for men, and 7.3 grams for women.

12.9%

Smoking rate for adults lowered to 12.9%.

CONTENTS

Preface by the Director-General

Building a resilient and inclusive public health policy

The challenge for global health governance

Amongst issues of global health governance, non-communicable diseases (NCDs) (such as cardiovascular disease, cancer, chronic respiratory tract disease and diabetes) have always been a public heath focus that the WHO has called on each country to pay attention to over the long-term. These issues includes effective prevention and control of NCDs through inter-agency cooperation, health considerations in all public policy (Health in All Policy), national health action plans and the goal of reducing the burden of NCDs for national health. The global impact of Covid-19 in 2020 further highlighted the importance of primary care and the public health system, which should to be closely linked to resources use in a coordinated way to develop more resilient and inclusive health promotion and non-communicable disease management policies.

Holistic protection multi-dimensional health services

Answering the call of the WHO, the HPA plans health promotion policies for all citizens in different stages of life and actively builds a health supporting environment. The concrete achievements in 2020 were.

In terms of women and child health work, together with the Ministry of Education and local governments, the Nursery Health Promotion Expanded Trial Program was promoted and early intervention child health measures implemented. A total of 100 nurseries were recruited to address the four issues of visual health, accidental injury prevention, dietary nutrition and healthy body. Health handbooks and health education handbooks for pregnant women and children were also comprehensively revised to make them easier to read and use.

In the area of tobacco hazards prevention, besides strictly prohibiting e-cigarettes and encouraging local governments to draw up e-cigarette hazards prevention self-governing ordnances, the draft amendment of the Tobacco Hazards Prevention Act continues to be actively promoted and new tobacco products strictly controlled, amongst other things. Diverse smoking cessation and advocacy services are also provided. In 2020 alone, smoking cessation services were provided to 130,000 people and the 6-month cessation success rate was 29.5%, with over 41,000 people helped to quit smoking. With this success, we are moving towards the target of 30% reduction in smoking rate by 2030 set by the WHO.

Regarding healthy food, a "Food Calendar" handbook has been made with the Council of Agriculture, allowing people to more easily improve their nutritional situation in daily life.

In the area of NCDs prevention, screening for the four main cancers was promoted with more than 6,000 hospitals through the year. A total of 4.54 million people were served and 62,000 people were found to have precancerous lesions and cancer. People-centered management of various chronic

diseases has been established and care quality increase plans for chronic diseases (including the three highs, cardiovascular diseases, diabetes and kidney diseases) have been actively implemented. Through provision of adult preventive health services to almost 2 million people a year, problems are discovered and intervention carried out early.

Also, in coordination with the National Hepatitis C Eradication Policy Program, from September 28, 2020, people aged 45-79 years of age (40-79 for indigenous people) have been allowed one preventive health hepatitis B and C screening in their lifetime. It is estimated that at least 160,000 more people will benefit from this measure annually and 17,000 to 20,000 additional hepatitis B and C patients can be identified annually.

In light of the aging of Taiwan's population, the HPA has promoted the Dementia-friendly Community Plan with 22 cities and counties. As of the end of 2020, a total of 41 dementia-friendly communities had been established, 415,000 dementia-friendly angels and 9,328 dementia-friendly organizations recruited, greatly increasing the dementia care service coverage rate and allowing Taiwan to achieve an important indicator of the WHO's Global Dementia Action Plan.

Better health, stronger together

The health of all citizens is our mission. Looking forward, the HPA will continue to enhance the current operating model as the foundation, continuing to raise the level of the cooperative relationship with basic level public health system and partners through communication, coordination and team cooperation. We will strive to move towards leanness and convenience to increase effectiveness and provide effective and concrete health services that people can appreciate with respect to the health issues closely related to daily life.

Director-General

Health Promotion Administration
Ministry of Health and Welfare

About HPA

Organization and Major Duties

With the director-general in overall charge of the HPA, it has two deputy director-generals and one secretary-general. There are seven operational divisions and four administrative offices (Figure 1-1). Their main responsibilities include:

1. Planning, coordinating and implementing health promotion policies and formulating related laws and regulations.
2. Planning, executing and supervising matters related to cancers, cardiovascular diseases, and other major non-communicable diseases.
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.

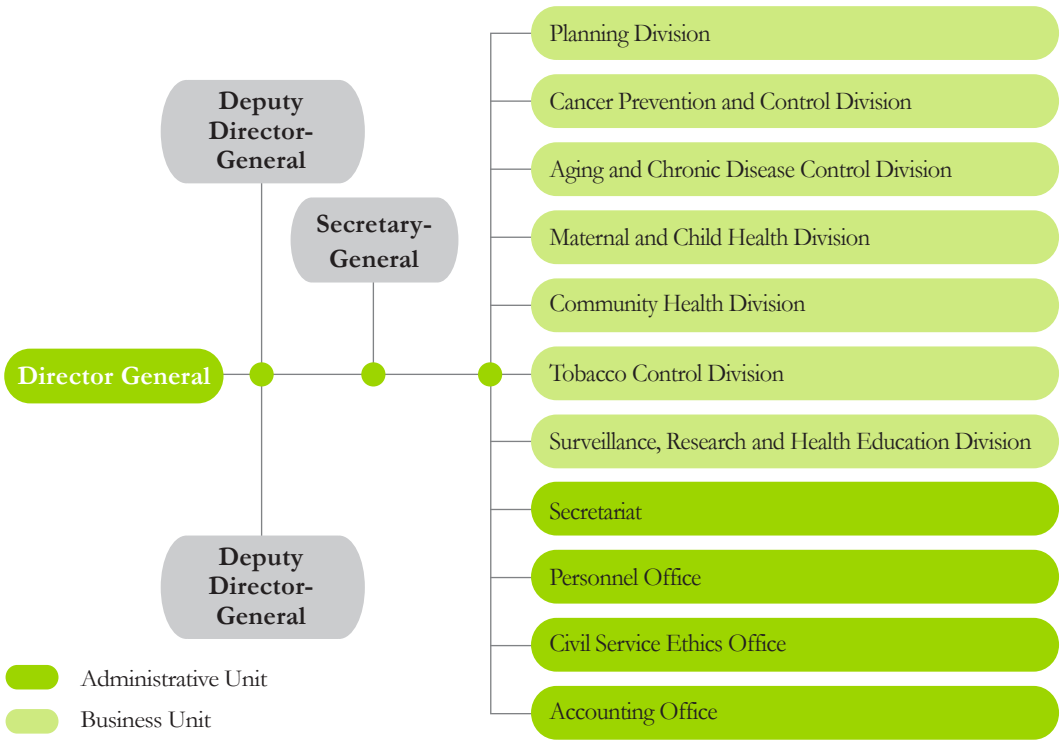


Figure 1-1 Organizational structure

Organizational and Mission

The HPA gives priority to four major initiatives: enhancing health literacy and promoting healthy lifestyles; promoting preventive healthcare, 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 childhealth, 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 about 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. It also works with private groups to implement health policies and to build a healthy environment for the entire population (Figure 1-2).

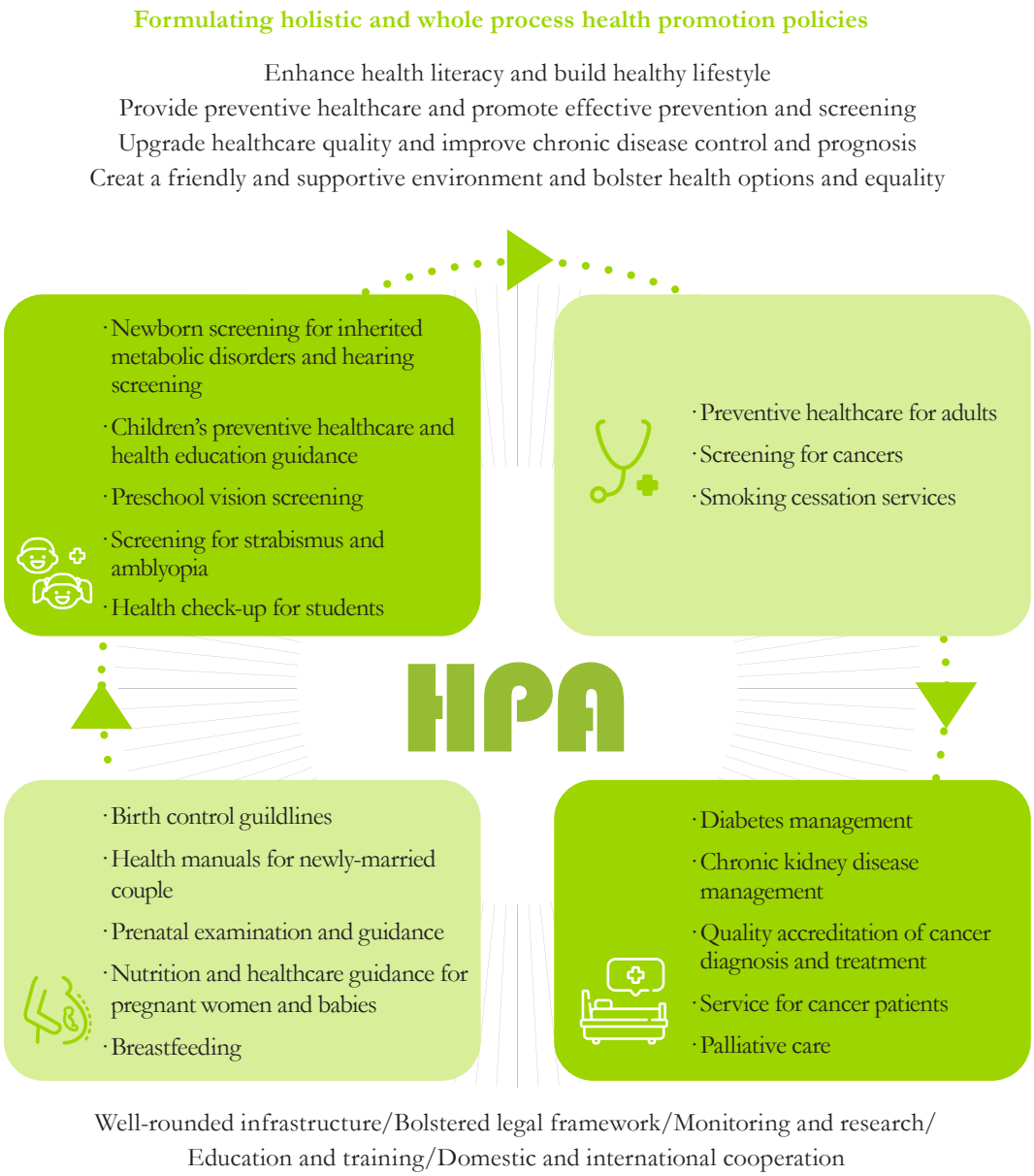


Figure 1-2 Organizational tasks of the HPA

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). The ultimate goal is to achieve "Health for all," as articulated by the World Health Organization(WHO), while gradually rectifying health inequality.

2020 Administrative Goals

Policy guildline: Implement long-term care policy, develop aging healthcare, and community prevention and supportive service models, reinforce dementia community healthcare services, and promote extensive community prevention and postponed disability healthcare service network

Policy goals: Build a physical and psychological health supportive environment
Increase holistic health promotion across full life-span

Operative goals:

1. Nurture healthy lifestyles, create healthy workplaces, promote national nutrition and obesity prevention, promote cigarette and betel quid prevention work, provide diverse tobacco cessation services, and create tobacco and betel-quid-free supportive environment

2. Build a comprehensive women, children reproductive healthcare service environment, continue the enhancement of healthcare for all life courses from pregnancy and birth to healthy growth, and improve health promotion for aborigines and new immigrants

3. Reinforce comprehensive health assessment services for seniors, create age-friendly health cities and communities, promote social engagement by seniors, reinforce prevention and management of chronic diseases, reduce disabilities and improve life quality

4. Reinforce cancer prevention and early diagnosis, increase the rate and quality of follow-up for positive cancer screening results, and reduce cancer death rates

5. Reinforce education and empirical research on the health impacts of air pollution, refine national health indicators and non-communicable disease monitoring systems, establish senior and national nutrition data warehouses, reinforcement of the collection and analysis of information pertaining to groups in different regions, and implement evidence-based policies

6. Promote health information service platform integration, adopt information and communication technologies, develop personalized health management services, and promote empowerment of the general public and health personnel

2 Healthy Birth and Growth

A beautiful chapter of life

exceeded **90%**

In 2020, the average utilization rate of pregnant women attending 10 prenatal care sessions exceeded 90%.

more than **99%**

Screening rate of congenital metabolic disorders for newborns was more than 99% in 2020.

more than **80%**

The utilization rate of children's preventive health care services was above 80% in 2020.

Children and Adolescent Vision Monitoring and Survey Program is conducted together with constant assessment of the effectiveness of myopia prevention.

8 hospitals **2** clinics

In 2020, we provided guidance for eight hospitals and two clinics for adolescent-friendly healthcare. We aim to expand and upgrade teen healthcare capability.

5.4%, 12.2%

In 2019, the smoking rates for middle school and high school students were 5.4% and 12.2%.

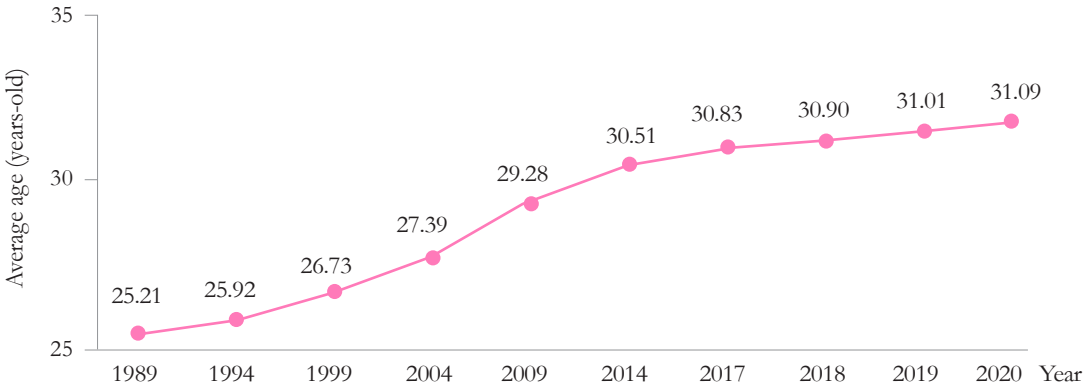
2

Social changes and the effect of cultural diversity are bringing changes to society types and family structures and functions. Promoting sound mental and physical development of pregnant women, babies and infants, children and teenagers, strengthening the care system and building healthy and safe environment are all focuses of the HPA's policies.

Maternal Health

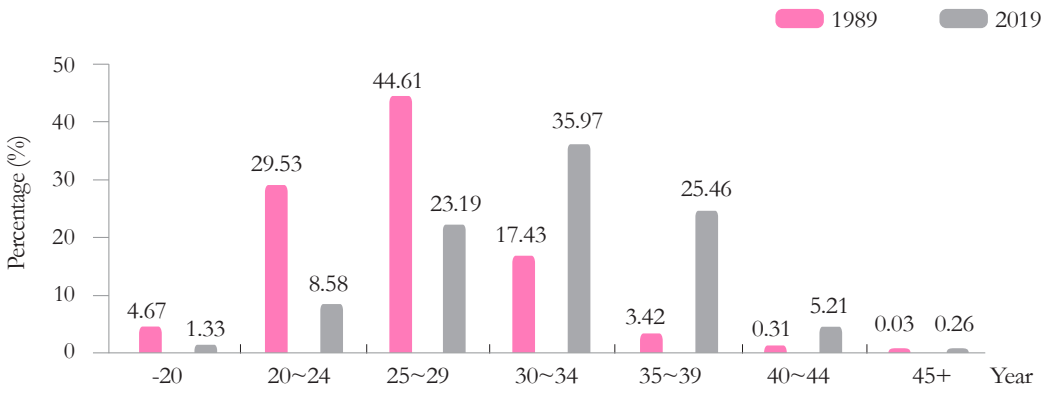
Status Quo

In 1989, Taiwanese women had their first child at an average age of 25.2 years old. By 2020, the average age was 31.09 years old (Figure 2-1). A trend toward late childbirth is clearly evident (Figure 2-2). The maternal mortality ratio in 2020 was 13.0 per 100,000 individuals. Compared with 36 OECD member countries in 2018, Taiwan's maternal mortality ratio ranked 29th.



Source: Ministry of the Interior. 1989-2020 number of live births by age of mother, average age of mother, and average age of first birth

Figure 2-1 Average age of first birth for women in Taiwan



Source: Ministry of the Interior. 1989-2019 number of live births by age of mother, average age of mother

Figure 2-2 Percentage distribution of live births by age of mother (1989, 2019)

Target Indicators

1. In 2020, the average utilization rate of pregnant women attending 10 prenatal care sessions exceeded 90%.
2. More than 99% of women with high-risk pregnancies underwent prenatal genetic diagnosis and follow-up.

Policy Implementation and Results

1. Establish systematic birth healthcare service

(1) From prenatal care sessions to healthcare, fully protect pregnant mothers

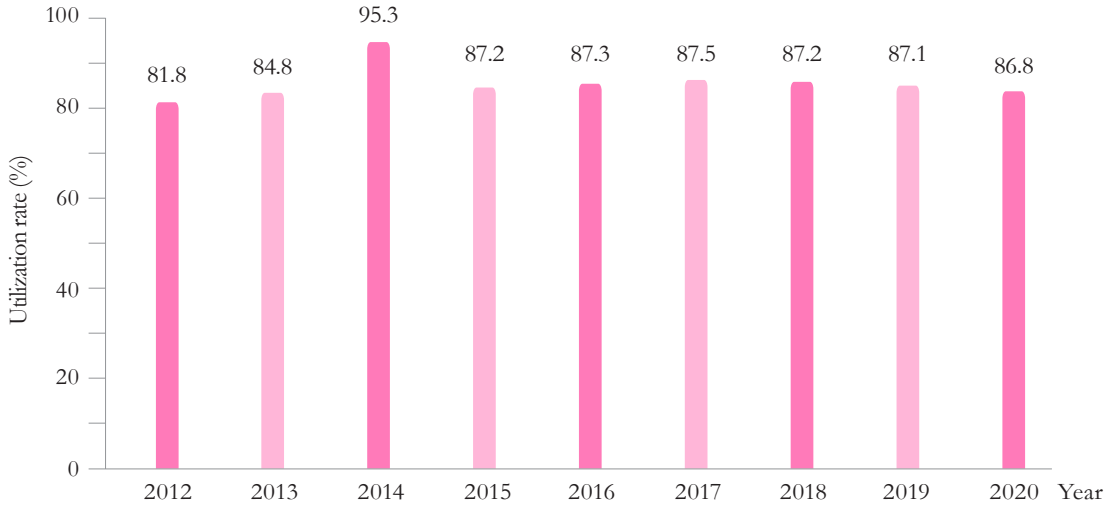
In order to promote the health of expectant mothers, the HPA subsidizes 10 prenatal care sessions for pregnant women. The utilization rate of this service has reached 90% (Figure 2-3). The average utilization rate of women taking at least 10 prenatal care sessions is 96.1%. In 2020, this service was used around 1,475,000 times.

We conduct Group B streptococcus screening for women at the 35th to 37th weeks of pregnancy. In 2020, a total of 142,197 women were screened, with average use rate of 86.8% with 29,528 women testing positive (20.34%), a positive rate of 20.34% (Figure 2-4).

In November 2014, we started promoting prenatal healthcare instruction services for pregnant women. In 2020, a total of 259,751 people were served, and 1,276 National Health Insurance (NHI) contracted hospitals and midwifery clinics joined this project. In addition, 1,931 physicians and midwives have qualified to provide services.

Source: Data from 2010-2020 prenatal care sessions and 2010-2020 birth reports

Figure 2-3 The average utilization rate of women attending 10 prenatal care sessions



Source: 2012-2020 Group B streptococcus screening system, data from the 7-9 prenatal examinations

Figure 2-4 Group B streptococcus screening rate

(2) Comprehensive genetic testing services

We have established 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, birth, and even to adulthood, to decrease the incidence of congenital malformations.

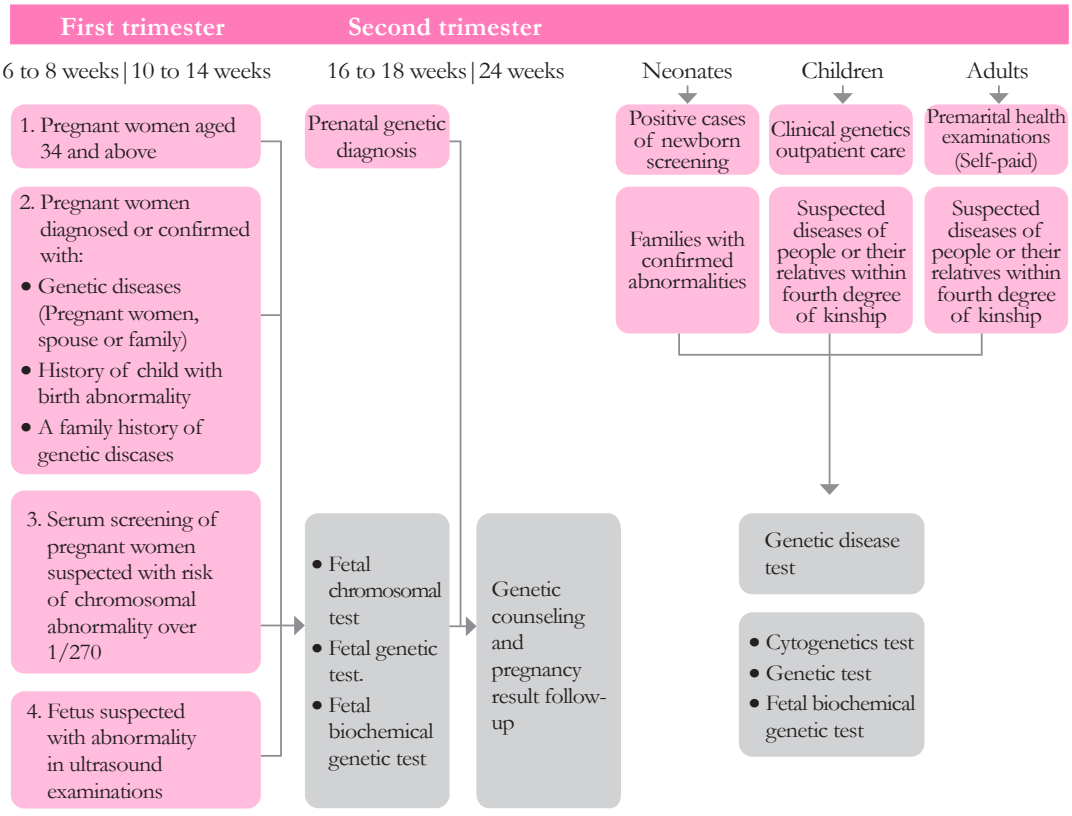
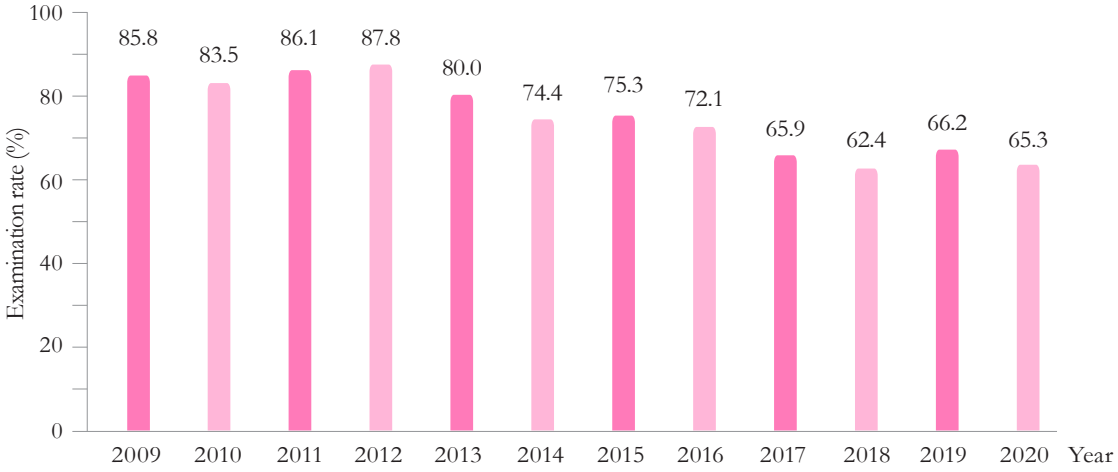


Figure 2-5 The hereditary genetic disease prevention network

(3) Genetic service results of reproductive stage

1. Screening for Thalassemia in Pregnant Women: In 2020, a total of 238 women were subject to thalassemia genetic testing, of whom 65 were found to be carriers of thalassemia major.
2. Prenatal Genetic Diagnosis for High-Risk Pregnancies: A total of 40,341 tests were subsidized in 2020. A total of 35,654 of these tests were conducted for advanced maternal age (34 years or older pregnancies). The testing rate reached 66.2% (Figure 2-6). Abnormalities were detected in 1,308 cases, accounting for 3.24% of all prenatal tests. Tracking, counseling, and referrals to relevant medical institutes have been implemented by hospitals, clinics and public health systems. The completed abnormal follow-up rate was 99%.
3. Genetic disease testing and counseling related to reproductive health: In 2020, a total of 11,323 individuals took such tests. Of these, 553 people were found to have chromesomal abnormality, 840 were thalassemia carriers, and 3,052 showed evidence of other conditions.
4. Regular reviews of designated institutions for genetic and rare diseases: To ensure the quality of genetic counseling, diagnosis, treatments, and testing, in 2020, a total of 27 clinical cytogenetics laboratories, 13 genetic laboratories, and 14 genetic counseling centers passed relevant reviews.



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

Figure 2-6 Percentage of pregnant woman aged 34 and above 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 (0800-870-870) for pregnant women, our cloud pregnancy APP and our pregnancy care website (https://mammy.hpa.gov.tw). This care session 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 2020, there were 19,131 calls through the enquiry hotline, and the website received 2,244,037 hits.

(5) Program follow-up care of pregnant women and infants in high-risk groups

Since 2017, HPA has cooperated with local health bureaus to implement program for follow-up care of pregnant women and infants in high-risk groups. In 2020, HPA subsidies 11 health bureaus of Yilan County, Hualien County, Taitung County, New Taipei City, Miaoli County, Taichung City, Nantou County, Yunlin County, Chiayi County, Kaohsiung City and Pingtung County, working in cooperation with 96 medical institutions to provide health education, follow-up care and referral services to high-risk pregnant women from pregnancy to 6 weeks/6 months after delivery.

(6) Pregnant women's healthcare awareness

In order to encourage pregnant women to pay attention to prenatal checkups, premature birth, high risk birth and pregnancy nutrition, we provide necessary health educational information and produce related health educational information and products. Through diverse channels, we advocate pregnant women's healthcare awareness, to protect the health of mothers' and infants'.

2020 Pregnant Women's Healthcare Awareness Promotional Events

1. Ten popular pregnancy topics for dummies: In 2020, we focused on all parents in Taiwan, using the Internet to collect survey of 4 themes: pre-pregnancy preparation, postpartum healthcare, and psychological health of pregnant women. There were over 3,000 parents from 20 pregnancy care counties and cities were surveyed. We produced 10 popular pregnancy topics for dummies, providing the most practical to correct pregnancy information to protect the health of mothers and infants.

2. Pregnancy diary: In order to solve the confusions of parents during all stages of pregnancy, we especially produced the tetralogy of "Pregnancy diary." We provided the most useful pregnancy steps, helping parents to nurture healthy babies happily.

3. Pregnancy nutritional manuals and videos: In order to reinforce pregnant women's nutritional literacy, in 2020, we issued the "Nutritional pregnancy–Eating correctly is healthy for babies and mothers" manuals and pregnancy nutritional videos. We provided information and diet principles, broke the diet myth of pregnant women, advocated weight control during pregnancy. These information was uploaded on the Health 99 Plus website for people to search.

(7) New version of pregnant women's health handbook and health education handbook

Pregnant health handbook and health education handbook are provided by medical staff according to prenatal checkup schedule for pregnancy checkup services, helping pregnant women to record pregnancy checkup results. At the same time, we provide healthcare information and messages during pregnancy period. In June 2020, we published new versions of pregnant women' health handbook and health education handbook, using environment protecting papers and improved the storage interlayer, in order to upgrade convenience, and provide easy-to-read record formats and healthcare information, so reading can be more smooth. We also rearranged important items that need to be recorded, so medical staff and pregnant women can easily record health checkup information, and using QR CODE design on the related theme page, so searching for information can be more convenient and faster.

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 reproductive technologies, and to protect the rights of infertile couples, sperm and oocyte donors, and children conceived through assisted reproduction. The Assisted Reproduction Act was promulgated and implemented in 2007, which was followed by the Regulations for Inquiring Kinship Information of Concern to the Children Born through Assisted Reproduction, Regulations for Assisted Reproduction Institution Permits, Regulations for Verification on Kinship between the Sperm/Oocyte Donors and the Recipient. 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 2020, a total of 92 institutions had been approved 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 3 times. However, the Legislative Yuan review was unfinished, and the draft 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 its renaming to Reproductive Health Law and continued inviting experts and stakeholder groups to engage in relevant deliberations and discussions. In addition, in line with a resolution of 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, HPA emphasizes that legal amendments must be based on a general social consensus regarding respect for life, minors, and women.

(3) Improve the quality of prenatal and ultrasound examinations

Currently, we provide 10 prenatal examinations and 1 ultrasound examination. Since 2014, we have administered Hepatitis B blood serum labeling test (HBsAg, HBeAg) in the first prenatal examination, and increased the prenatal screening subsidies.

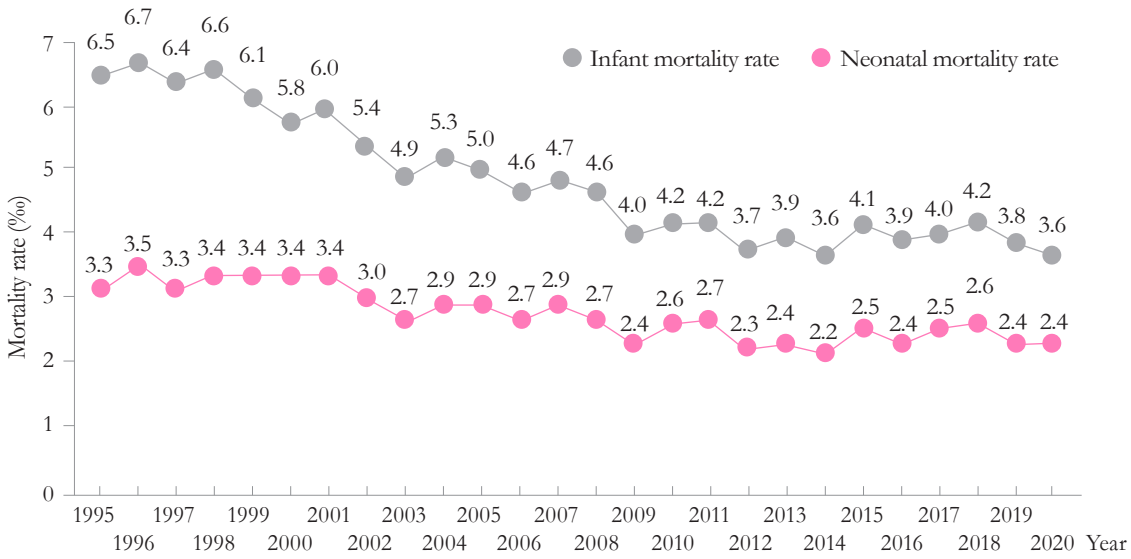
In addition, in order to improve the antenatal ultrasonic inspection quality, we also drew up the current prenatal ultrasound examination index, which include the educational training courses of all members. They are available on the website for members and medical staff.

Infant and Child Health

Birth and Death

Status Quo

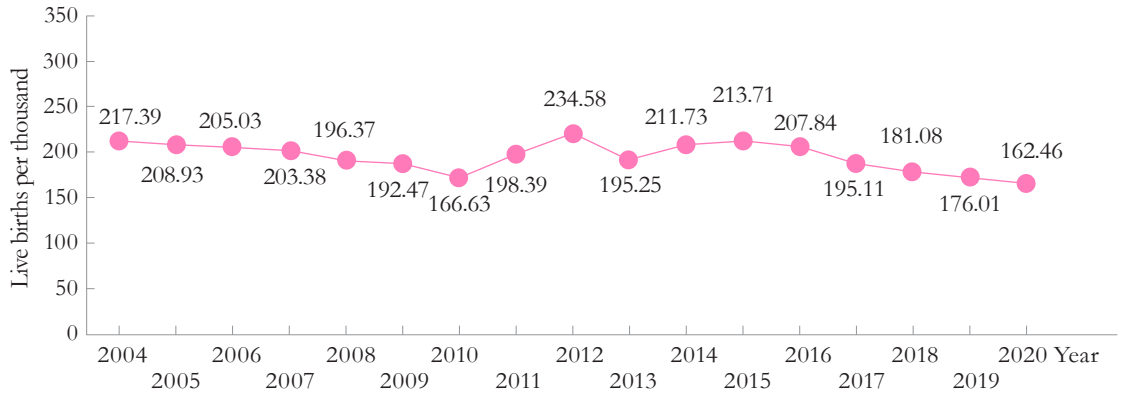
The infant mortality rate is one of the key indicators of a country's child health status. Taiwan's neonatal mortality decreased to 2.4‰ in 2020. The infant mortality rate also decreased to 3.6‰ in 2020 (Figure 2-7). Compared with the 37 OECD countries, Taiwan's neonatal mortality rate ranks 20th, and infant mortality rate ranks 22nd in 2020.



Source: 2020 Causes of Death Statistics, MOHW

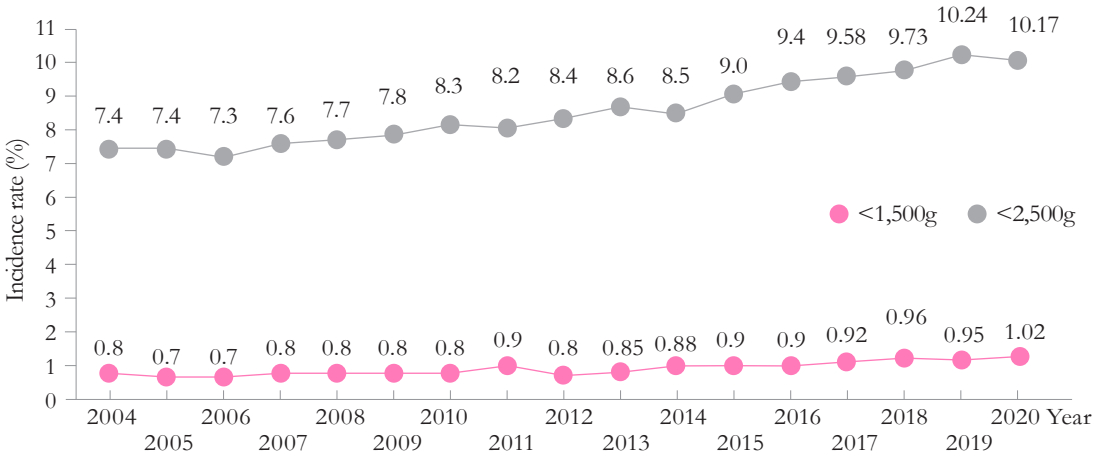
Figure 2-7 Neonatal and infant mortality rates in recent years

According to HPA's birth reporting system, in 2020 there were a total of 162,455 live births reported in Taiwan (Figure 2-8). Among which, 10.17% of live births have low birth weight (less than 2,500 grams) and 1.02% of live births have extremely low birth weight (less than 1,500 grams) (Figure 2-9).



Source: HPA Statistics of Births Reporting System

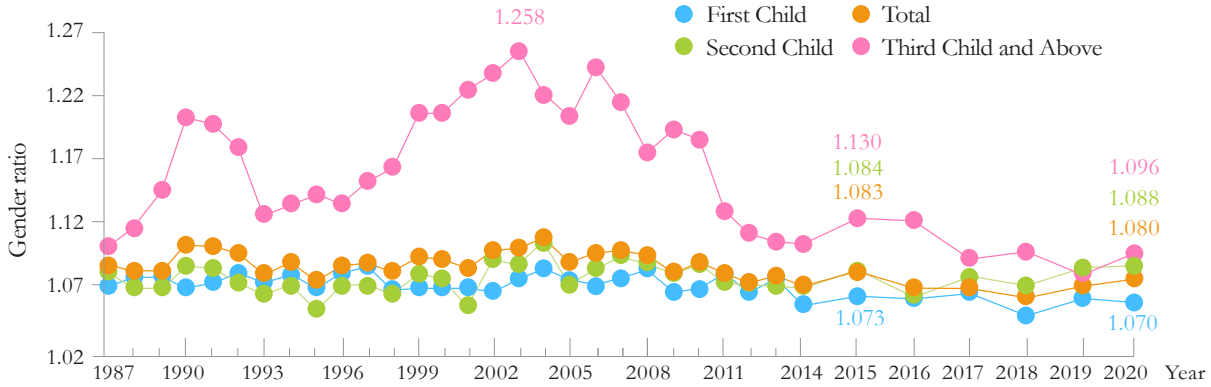
Figure 2-8 Live births reported in recent years



Source: HPA Statistics of Birth Reporting System

Figure 2-9 Annual incidence rate of low birth weight and extremely low birth weight in infants

Under natural conditions, sex ratio at birth (male:female) is approximately 1.04-1.06. Taiwan's sex ratio at birth decreased from 1.083 in 2015 to 1.080 in 2020. The sex ratio for a third child and above was also changed from 2015 of 1.130 dropped to 1.096 in 2020. (Figure 2-10).



Source: HPA Statistics of Birth Reporting System

Figure 2-10 Sex ratio (males to females) of live births by order of birth

Target Indicators

1. Screening rate of congenital metabolic disorders for newborns was more than 99% in 2020.

2. The utilization rate of children's preventive health care services was above 80% in 2020.

Policy Implementation and Results

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, endeavors should be geared towards the establishment of a supportive environment conducive to health and safety.

1. Establishing 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. Creating a friendly growth environment for the growth of infants and children and promoting health service policies (Figure 2-11)

(1) Implementing of the Birth Reporting System

Birth reporting has been fully implemented 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. A total of 164,496 births were reported in 2020. Live births and still births amounted to 162,455 (98.76%) and 2,062 (1.24%), respectively.

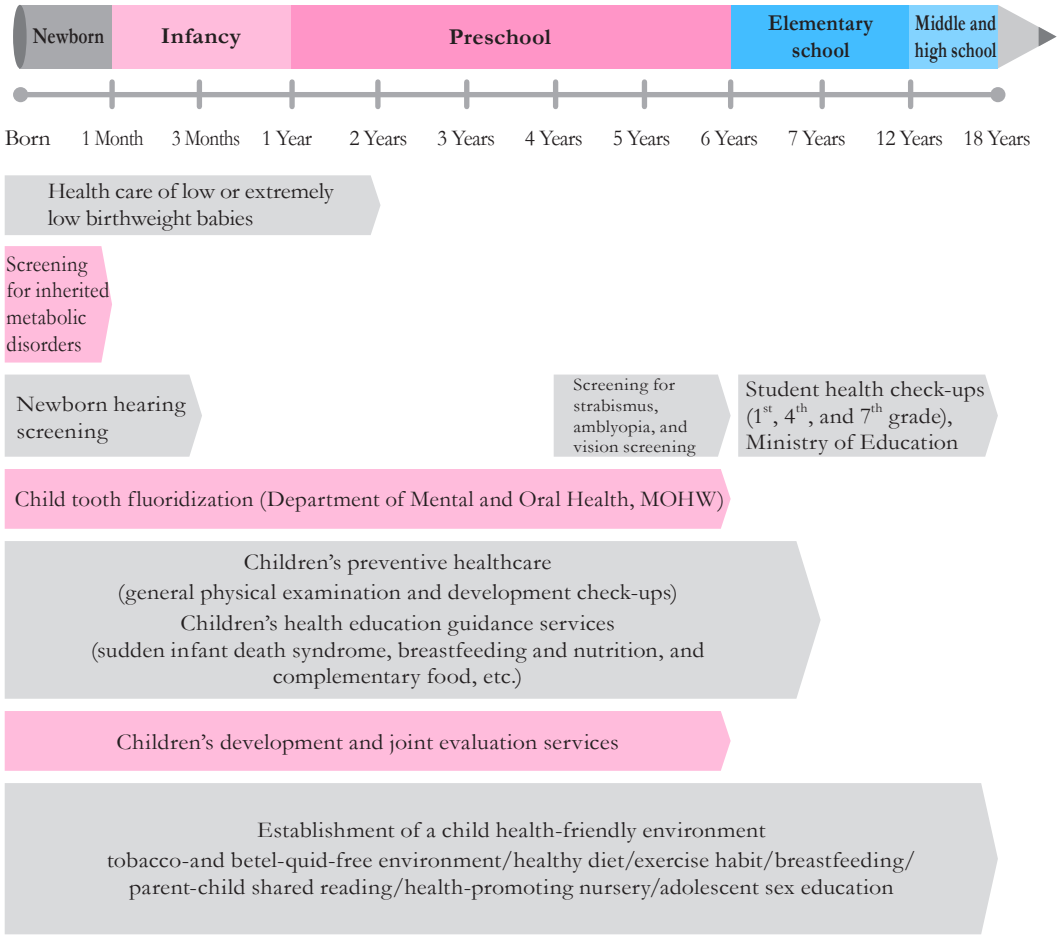


Figure 2-11 **Infant and child health policies**

(2) Providing healthcare for infants with low and very low birth weights

In order to reinforce healthcare services for premature babies, HPA published the "Premature infants diary" for parents with premature infants. They are suitable for premature infants using adjusted age (current date-due date) before 2 years of age. It is provided to parents for recording their infant's birth condition, medical records, and growth milestone, as an the important reference for medical staff to reinforce the communication between physicians and patients, and as an important record for families nurturing of premature infants.

(3) Providing screening services for newborns

Alongside a screening rate of over 99% in 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 to disorders. In 2020, a total of 161,579 newborns underwent screening, with a total screening rate of 99.6%. A total of 3,638 cases were found to have abnormalities. The conditions and diseases along with prevalence ratios and abnormality numbers, are shown below in Table 2-1.

Table 2-1 **Abnormalities detected amongst newborns in 2020**

Screening Items	Prevalence ratio	Number of abnormalities
Glucose-6-Phosphate dehydrogenase deficiency (G-6-PD)	1:49	3,292
Congenital hypothyroidism (CHT)	1:577	280
Congenital adrenal hyperplasia (CAH)	1:17,953	9
Phenylketonuria (PKU)	1:26,929	6
Homocystinuria (HCU)	0	0
Isovaleric acidemia (IVA)	0	0
Maple syrup urine disease (MSUD)	0	0
Galactosemia (GAL)	1:80,789	2
Methylmalonic acidemia (MMA)	1:20,197	8
Type 1 glutaric acidemia (GA 1)	0	0
Medium-chain acyl-CoA dehydrogenase deficiency (MCAD)	0	0
Citrullinemia Type I (CIT I)	1:14,689	11
Citrullinemia Type II (CIT II)	1:10,098	16
3-Hydroxy-3-Methyl-Glutaric Acidemia (HMG)	0	0
Holocarboxylase Synthetase Deficiency (HCSD)	1:161,579	1
Propionic acidemia (PA)	0	0
Carnitine transporter defect (PCD)	1:16,157	10
Carnitine palmitoyl transferase deficiency Type I (CPT I)	0	0
Carnitine palmitoyl transferase deficiency Type II (CPT II)	0	0
Very long-chain acyl-CoA dehydrogenase deficiency (VLCAD)	1:53,859	3
Glutaric acidemia type II (GAII)	0	0
Total		3,638

*A total of 161,579 newborns were screened in 2020.

(4) Providing hearing screening for newborns

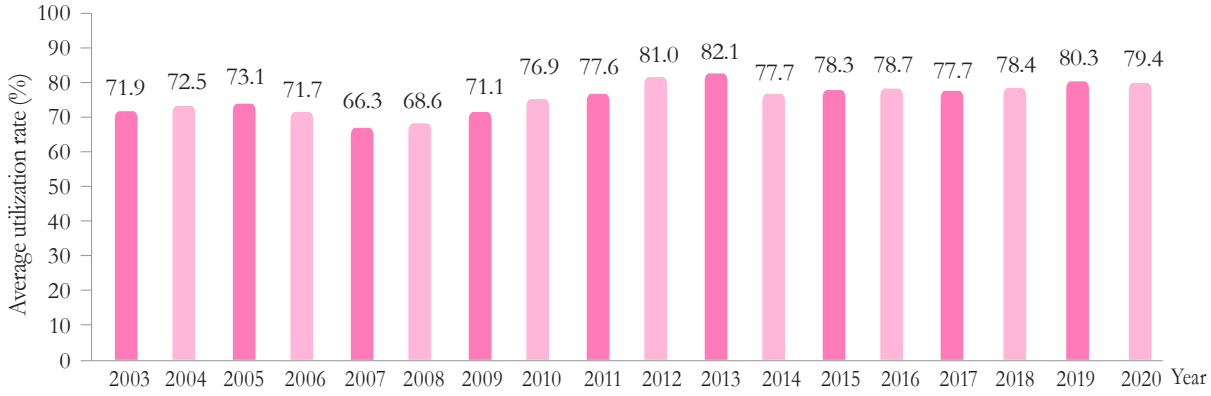
In March 2012 we began providing hearing screening for all newborns before 3 months of age with ROC nationality, with a subsidy of NT$700 provided for each case. At the end of December 2020, a total of 160,697 newborns had been screened, with a screening rate of 99.1% and 825 newborns were diagnosed with hearing.

(5) Providing preventive healthcare services

Seven times 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 it is to facilitate early detection and treatment of abnormalities. Approx 991,000 million children were served in 20192020, which represents an average 7-time utilization rate of 79.4% (Figure 2-12).

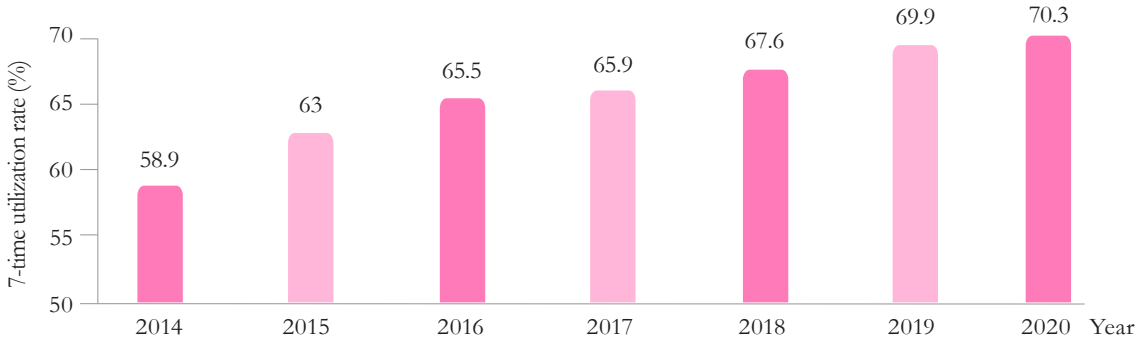
The "Child Health Education Guidance Service Subsidy Program" was launched in 2013. In November 2014, child health education guidance services were expanded for children

under the age of 7 to seven times. Physicians provide one-on-one health education guidance for primary caregivers of children. In 2020, approx 878,000 individuals were served, which represents an average 7-time utilization rate of 70.3% (Figure 2-13).



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

Figure 2-12 Average utilization rate of children's preventive healthcare services



Source: Child health education guide application information, number of children under the age of 7 from the Ministry of the Interior

Figure 2-13 Average utilization rate of children's health education guidance

(6) Subsidies for locally established children's development and joint evaluation centers

From 2010, HPA has provided guidance to medical institutions for children's development and joint evaluation services 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 children's development and joint evaluation centers has received guidance in 2020.

(7) Establishing breastfeeding-friendly growth environment for infants and children

A. Creating a friendly environment to increase the breastfeeding rate

Mother's breast milk is the best nutritional source. In order to support mothers' breastfeeding, HPA implements a baby-friendly hospital accreditation system

as a way of fostering positive change at hospitals, so as to eliminate hospitals offering infant formula for free or at a lower price. This is done so that the act of breastfeeding can be normalized. The HPA has continued to reinforce cross-sectoral coordination to make workplaces as breastfeeding-friendly as possible.

In 2020, a total of 157 medical institutions passed the accreditation, which covered 73.2% of born babies in Taiwan. The exclusive breastfeeding rate for infants under 6 months old was 37.9%.

B. Implementing the Public Breastfeeding Act

The "Public Breastfeeding Act" was implemented in November 2010. In 2020 a total of 2,513 public places across Taiwan were equipped with breastfeeding rooms, and 1,190 public places had voluntarily established facilities in accordance with these new regulations.

C. Publishing new versions of children health handbook and children health education handbook

In order to reinforce children's healthcare, in 1995, we started to provide children's preventive healthcare services, and at the same time published the first-generation children health handbook, which can be closer to the using habits for parents and caregivers, and help medical staff to easily evaluate and grasp the children's growth and development conditions. In 2020, HPA updated the contents of children's health handbook and children's health education handbook. In addition to renewed contents and information, there are also three highlight points: Children development screening items added warnings to remind parents and doctors of early detection, added age 3-4 visual checkup reminder, and Snellen visual chart for children to distinguish easily, and enlarged fonts, and new graphic design.

D. Advocate parent-child shared reading, in order to improve interaction

In 2017, we started to advocate parent-child shared reading. The main objective of parent-child shared reading is the healthy development of infants and children. We work together with pediatricians, baby-friendly institutions and postpartum nursing care centers for co-promotion, and publishing produce parent-child shared reading, materials to improve awareness and provide health educational tools for medical staff, in order to increase parent-child interactions. This is helpful for the brain growth, language development, and comprehensive abilities for children, thus promoting healthy development of children.

E. Deep rooting, health promoting kindergarten

In order for early intervention of children health promotion measures, in 2018 HPA actively promoted health promoting kindergarten pilot program. The focus was on the kindergarten health policy, children's health techniques and behaviors, and parents' communication and community resources, integrated with the 4 major health topics (visual healthcare, accident injury prevention, diet nutrition, and health awareness). We intervened with the health promotion project to be integrated with daily courses and

events. In order to attract more counties and cities to participate, in 2020 6 counties and cities (New Taipei City, Taichung City, Chiayi City, Tainan City, Kaohsiung City, and Hualien County) with a total of 100 kindergartens participated in the pilot program, and central and local teachers and caregivers were also provided with appropriate.

Vision Healthcare

Status Quo

According to the 2017 Children and Adolescent Vision Monitoring Surveys (Table 2-2), there was an increase 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.

Table 2-2 Percentage of Taiwanese students aged 6-18 with myopia

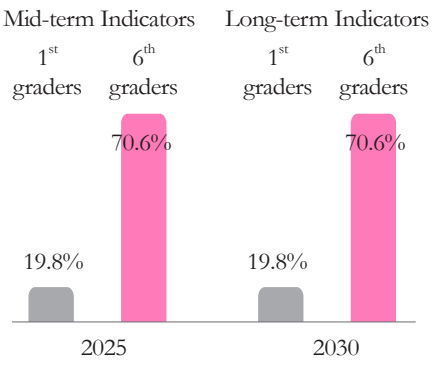
Year / Grade	1986 (%)	1990 (%)	1995 (%)	2000 (%)	2006 (%)	2010 (%)		2017 (%)
						≦-0.25D	≦-0.50D	
Grade 1	3.0	6.5	12.8	20.4	19.6	21.5	17.9	19.8
Grade 6	27.5	35.2	55.8	60.6	61.8	65.9	62.0	70.6
Grade 9	61.6	74.0	76.4	80.7	77.1	-	-	89.3
Grade 12	76.3	75.2	84.1	84.2	85.1	-	-	87.2

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 ≦ -0.25D.
2. HPA-commissioned epidemiological survey on children and adolescent vision surveys in 2017. Myopia prevalence in 2017 was defined as ≦ -0.5D.

Target Indicators

1. Mid-term Indicators (2025): Prevent further increase in the myopia prevalence to maintain the 2017 value of 19.8% in 1st graders and 70.6% in 6th graders (≤-0.5D, 50 degrees).
2. Long-term Indicators (2030): Prevent further increase in the myopia prevalence to maintain the 2017 value of 19.8% in 1st graders and 70.6% in 6th graders (≤-0.5D, 50 degrees).



Policy Implementation and Results

The HPA offers screening services to preschool children aged 4-5 years for myopia, strabismus and amblyopia. Referrals and follow-up management are provided when

warranted. HPA cooperated with the Ministry of Education (MOE) in implementing a vision health program intended for both preschool and school children. 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 order 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 to implement pupil check-up, visual fixation, ocular position (strabismus and amblyopia cover tests), cornea check-up, 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 years nationwide, HPA provides referral and counseling services for children with vision abnormalities. In 2020, a total of 417,490 children received screening services, which represents a screening rate of 100%. The referral rate for children with vision abnormalities reached 99.09%.

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 and Adolescent Vision Monitoring 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 over 120 minutes, no screen time for children under 2 years, no more than 1 hour screen time per day for children of above 2 years, avoid excessive near work activity, and 10 minutes of rest after every 30 minutes of eye usage.

2020 Vision Care Promotion Activities

- We designed the "Return the mobile, children don't cry-Using parenting strategies to solve parenting with screen products dilemma" handbook. The contents include "With eye, there is no barrier to create new vision for children" internet fundraising event. We collected and shared creative strategies for children to stay away from screen products. There was a total of 244 submissions. According to pertinency of themes, creativity, and feasibility, child education and ophthalmic experts provided child caregivers with knowledge of myopia prevention and response to the digital era.

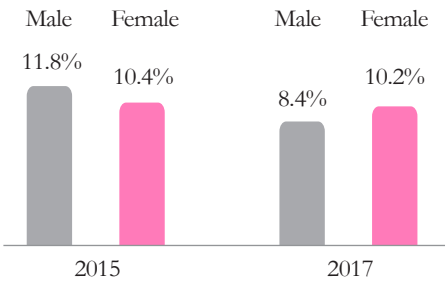
- We designed the "Kindergarten health promotion tool kit" manuals to provide teachers, children, and parents knowledge regarding vision healthcare, nutrition/obesity prevention, accidental injury prevention, and physical activities, with correct concepts, educational cases, and overall methods.

Adolescent Health

Adolescent Sexual Health

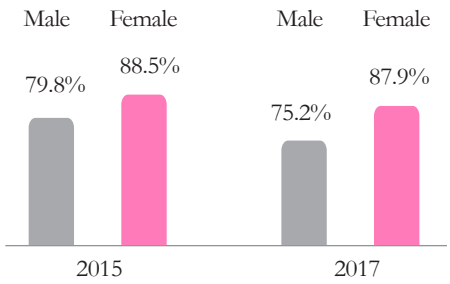
Status Quo

A survey of the health behavior of senior/vocational high school and junior college students in 2017 reveals that the rate of 15 to 17 adolescent sexual behavior had slightly decreased for both sexes comparing to 2015. An observation of the most recent sexual behavior and contraception rates in 2017, the rate for both sexes had also slightly decreased comparing to 2015(Figure 2-14, 2-15).



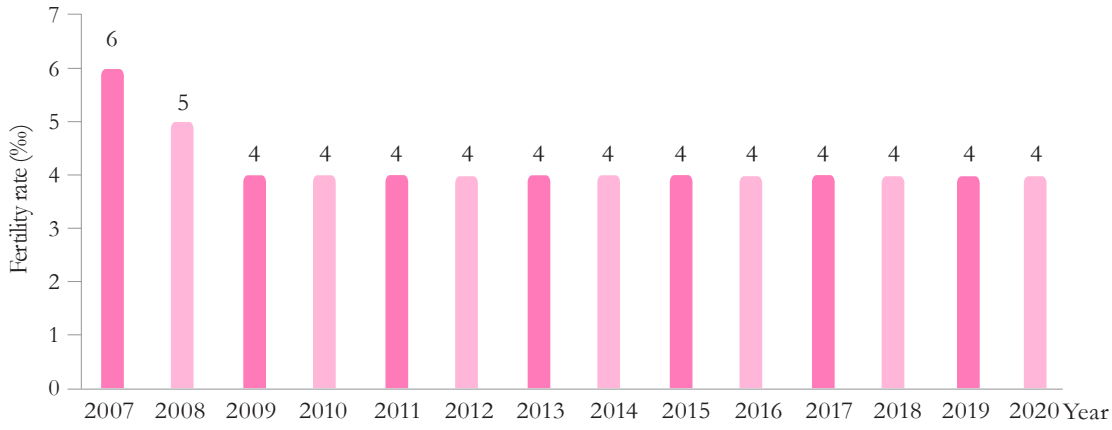
Source: 2019 Statistics of Health Promotion

Figure 2-14 Age 15-17 Adolescent Sexual Behavior Rate



Source: 2019 Statistics of Health Promotion

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



Source: Ministry of the Interior statistics

Figure 2-16 Age 15-19 adolescent fertility rate amongst girls in Taiwan 2007-2020

The Ministry of the Interior population data showed that the fertility rate of teenage females aged 15-19 in Taiwan was 4‰ in 2020, a significant drop compared to 6‰ in 2007 (see Figure 2-16). The fertility rate amongst this age group in Taiwan in 2019 was lower than those of the United States (20.3‰), the United Kingdom (13.7‰), Australia (11.9‰), Sweden (4.5‰), and Japan (4.1‰), but it was higher than that of South Korea (1.3‰) in 2017 (Source: 2019 WHO World Health Statistics and 2019 Ministry of the Interior Statistics). Early sexual behavior may result in unintended pregnancy for adolescents who lack economic foundation and are still immature physically and mentally.

Target Indicators

Maintain or reduce the adolescent fertility rate amongst girls aged 15-19 to less than 4‰ in 2020.

Policy Implementation and Results

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 adolescents. Parents and teachers with correct sexual knowledge information and teaching materials. We added 15 rumor correction articles and 72 health education documents in 2020. A total of 184,763 people searched the website.

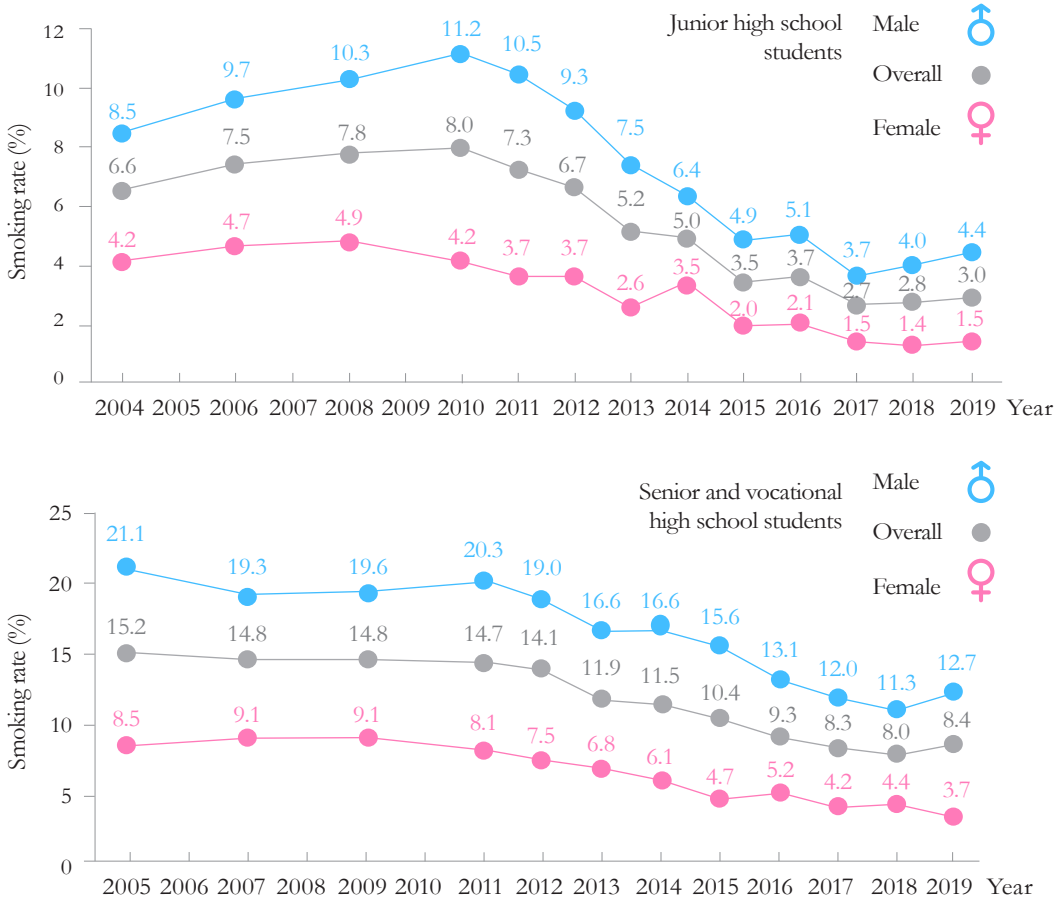
2. Pilot implementation of certification of adolescent-friendly medical institutions and empowerment of medical personnel

In 2019, four hospitals and one clinic were certified as adolescent friendly hospitals. In 2020, we provided guidance for eight hospitals and two clinics for adolescent friendly healthcare. We aim to expand and upgrade teen healthcare capability. Four digital courses on adolescent friendly healthcare knowledge and skills were made and provided to related health professionals for self-study. A total of 2,691 people completed the courses from 2019.

Tobacco Control for Adolescents in Schools

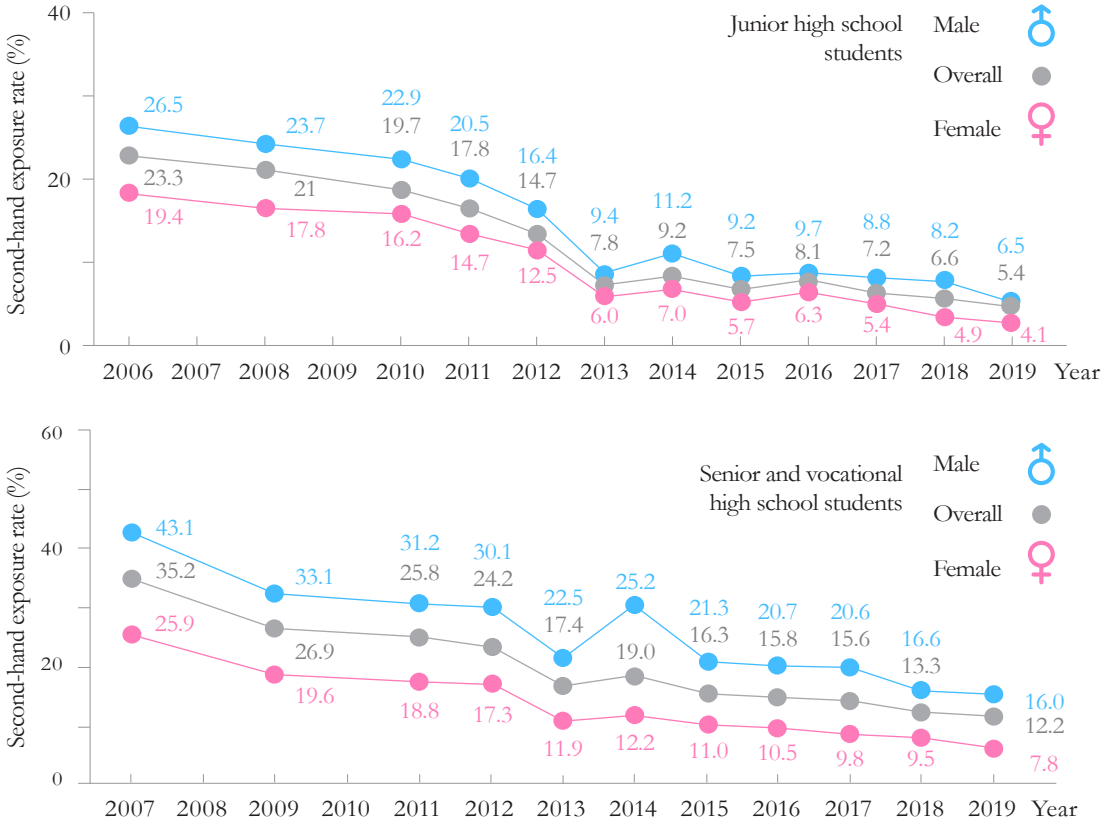
Status Quo

In 2019, the smoking rates for junior high school and senior and vocational high school students were 3.0% and 8.4%. Compared to 2.8% and 8.0% in 2018, there were slight increases, with no statistical disparity (Figure 2-17). The second-hand smoke exposure rates on campus were 5.4% and 12.2% in 2019, with slight decreases compared to 6.6% and 13.3% in 2018 (Figure 2-18). Overall, the smoking rates for junior high school and senior and vocational high school students were under control, but adolescent e-cigarette use rate was 4.2%, up by 1.5% in 2018. (For other indicative statistics of Global Youth Tobacco Survey, please refer to the HPA's Statistics of Health Promotion.)



Source: HPA Global Youth Tobacco Survey (GYTS)
In 2019, the annual surveys were changed to biennial surveys. 2020 was not a survey year. Therefore, there were no statistics in 2020.

Figure 2-17 Smoking rate in adolescents



Source: HPA Global Youth Tobacco Survey (GYTS) over the years.
In 2019, the annual surveys were changed to biennial surveys. 2020 was not a survey year. Therefore, there were no statistics in 2020.

Figure 2-18 Adolescent exposure to second-hand smoke on campus over the years

Policy Implementation and Results

In order to prevent children from getting in touch with any tobacco products, HPA referred to the 7 effective strategies in the 2012 Surgeon General Report and continued to promote strategies and measures of children and adolescent tobacco prevention and control. Important achievements are as follows:

1. Raising the price of cigarettes

Raising the price of cigarettes is one of the most cost-effective strategies for tobacco prevention and control, especially for adolescents. HPA continues to follow Article 4 to evaluate the levy quota every two years.

2. Working with media to conduct anti-tobacco advocacy

In 2020, we focused on anti-electronic cigarette advocacy. Responding to the habits of adolescents using the Internet and social media, we established a dedicated webpage for e-cigarettes' hazards information to increase message exposure. Through broadcast, television, newspapers, magazines, the Internet, and social media websites, we helped people overturn the myth and establish correct tobacco product and e-cigarettes hazards knowledge.

3. Prohibiting tobacco ads

According to Article 9 of the Tobacco Hazards Prevention Act, we reinforced inspection and arbitration to prohibit tobacco product ads, sales, and sponsors. Besides, we monitored smoking images in television and movies, worked with the NCC to urge business owners to reinforce warnings. We also monitor illegal ads and sales of electronic cigarettes on the internet, then provide the violation list to the internet content protection organization iWIN to put them on the blacklist to effectively prevent adolescents from receiving inappropriate information.

4. Keeping tobacco products away from adolescents

We worked together with local health bureaus, NGOs, and community volunteers to monitor and prohibit business owners surrounding schools from selling tobacco products to adolescents. Under Article 12 of the Tobacco Hazards Prevention Act, people under 18 must not smoke. A total of 1,901 cases were fined, with 1,722 completing tobacco cessation education. We actively promote the revision of Tobacco Hazards Prevention Act to raise the legal age for smoking from 18 to 20 and to prohibit the manufacturing, import, sales, supply, exhibition, advertisement, and use of flavored tobacco products and electronic cigarettes to construct the origins of regulation of electronic cigarettes.

5. Establishing tobacco-free in public and workplaces

Through local governments, we continue to conduct school educational promotion to create a tobacco-free school environment. According to Article 15, Category 1, and Item 13, the local governments should stipulate the surroundings of high schools (including school entrances, parent pick-up areas, sidewalks, etc.) to be smoke-free locations and mark the specific areas. At the end of 2020, a total of more than 20,000 smoke-free areas were established (including arcades in front of convenience stores and coffee shops, school entrances and school-surrounding sidewalks, bus shelters, etc.).

6. Establishing community sources to promote tobacco-free families

We revised the "3D Tobacco-free gamebooks" developed by HPA and produced a teaching video. In 2020, we sent the revised books to more than 6,000 kindergartens and local government health bureaus to help all counties and cities promote tobacco-free family to keep children away from tobacco hazards.

7. Promoting school courses for tobacco prevention on campus

HPA and the Ministry of Education worked together to include the cigarettes and electronic cigarettes as mandatory topics in the health promotion school plan. We revised the Campus Tobacco Hazards Prevention Plan to include tobacco (including electronic cigarettes) hazards prevention knowledge into the course contents, upgraded teachers' professionality, and reinforced electronic cigarette management on campus.

3 Healthy Living

Elegant daily tempo

12.9%

The smoking rate of adults above the age of 18 was under 12.9% in 2020.

7%

The betel-quid chewing rate for adults above the age of 18 fell to 7% in 2019.

33.0%

Regular sport and exercise rate increased to 33.0%.

14.8% , 12.3%

In 2017, the prevalence rate for adult daily consumption of three portions of vegetables was 14.8%, and the prevalence rate was 12.3% for two portions of fruits.

Obese students at elementary school, junior high schools and senior high schools has gradually decreased. Obesity in adults has also been mitigated.

In 2020 National Healthy People white paper, injury prevention and safety promotion issues were included, with the aim of gradually reducing accidental injury and death.

3

According to a report issued in 2012 by the World Health Organization (WHO), the four major non-communicable diseases (cancers, diabetes, cardiovascular diseases, and chronic respiratory diseases) now account for approximately 68% of deaths worldwide. In Taiwan that figure is nearly 80%. Smoking, lack of exercise, unhealthy diet 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 (IARC) has listed betel quids as a Group 1 carcinogenic agent for humans.

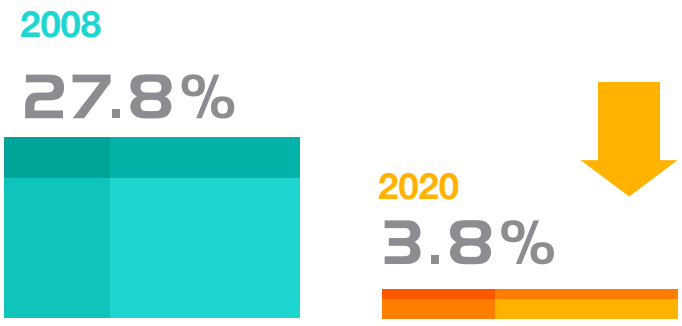
HPA actively advocates for health promotion, health education and the dissemination of health related information. We have also sought to work with civil society to create a healthier environment.

Prevention and Control of Tobacco Hazards

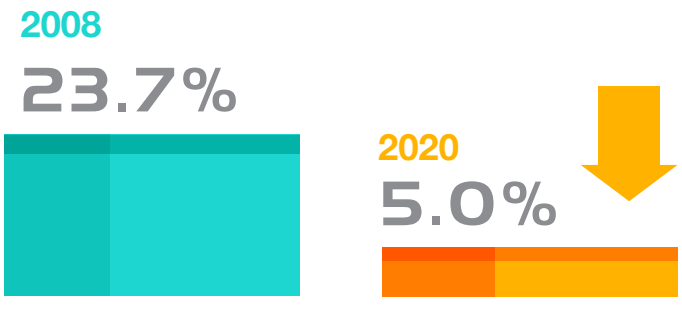
The WHO states that smoking cigarettes can lead to cardiovascular and respiratory diseases, and more than 20 types of cancer. Each year it causes more than 8 million deaths worldwide. In addition, contact with second and third hand smoke will also increase the risks of cancer and heart diseases.

Status Quo

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.

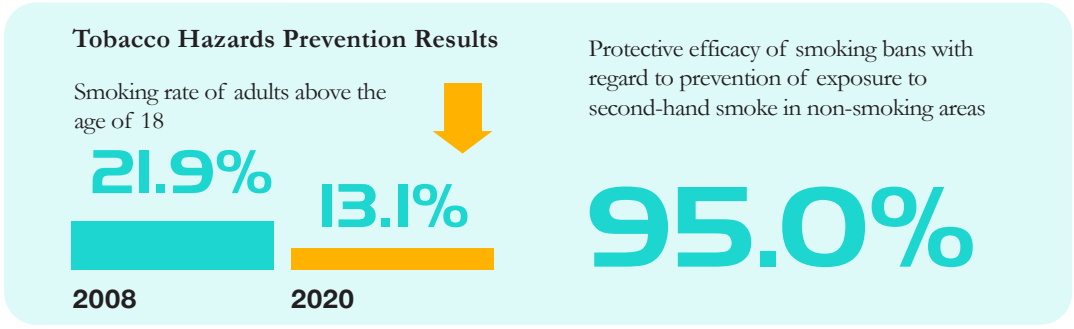


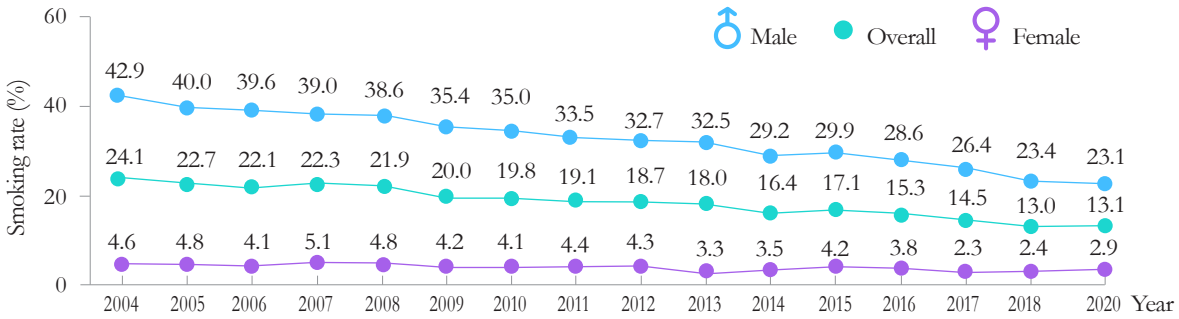
Second-hand smoke exposure rate of adults above the age of 18 in indoor public areas



Second-hand smoke exposure rate in indoor and outdoor public non-smoking areas

The smoking rate of adults above the age of 18 dropped from 21.9% in 2008 to 13.1% in 2020 (Figure 3-1). 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 areas dropped significantly from 27.8% in 2008 to 3.8% in 2020 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 5.0% in 2020. The smoking ban has a protective efficacy of 95% with regard to prevention of exposure to second-hand smoke in non-smoking areas. However, the electronic cigarette use rate for people over age 18 was 1.7% in 2020, which was increase from 0.6% in 2018 increase for people. (Regarding other statistical indicators of Adult Smoking Behavior Survery for people over age 18, please refer to HPA's Statistics of Health Promotion.)





Source:

1. The subjects of the HPA's Adult Smoking Behavior Survey over the years have been people aged over 18. In 2019, survey frequency was changed to once every two years. 2019 is not a survey year; therefore there are no statistics for 2019.
2. Definition of "smoker": a person who has smoked more than 100 cigarettes (five packs) in the past and has smoked in the past 30 days.

Figure 3-1 Smoking rate of above the age of 18 in Taiwan

The emergence of noved and emerging nicotine and tobacco products in recent years has become an important topic of future tobacco hazards prevention and control. MOHW completed the announcement of the amendment of Tobacco Hazards Prevention Act from May 29th to July 28th, 2020. the amendment was sent to Executive Yuan for evaluation on October 20th, 2020. The key point includes adding the definition of "tobacco-like products." We fully prohibit the manufacturing, import, sale, supply, advertisement, and use of electronic nicotine and non-nicotine delivery systems. We use a health risk evaluation mechanism to strictly control new types of tobacco products (for example, heated tobacco products). The legal age

for using tobacco products has been raised to 20. We prohibit flavored cigarettes, expande outdoor and indoor tobacco-free areas, increase the area of warning labels, and prohibit tobacco sponsorship. In the meantime, we continue to promote "tobacco-free workplace." We combine corporate power, and bring tobacco cessation services into workplaces.

Target Indicators

The smoking rate of people above the age of 18 was under 12.9% in 2020.

Policy Implementation and Results

1. Continued enforcement of the Tobacco Hazards Prevention Act

We continue to execute inspection work, provide educational plans for tobacco hazards prevention for specific groups of people, reinforce tobacco hazards prevention advocacy, and promote local tobacco hazards prevention work.

(1) Proactive law enforcement, inspection and guidance

Health bureaus in all cities and counties are actively committed to law enforcement, inspections, and guidance. In 2020, the number of inspection cases nationwide exceeded 490,000 with over 4.15 million individual inspections. A total of 6,125 disciplinary citations were issued. Total fines amounted to over NT$41.19 million. Fines exceeding NT$10.81 million were imposed on 8 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.

(2) Training activities held to enhance the professionalism of tobacco hazards prevention

By holding study 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) Tobacco hazards complaints hotline

The HPA provides a "Tobacco Hazards Complaints Hotline" at 0800-531-531 to deal with public inquiries and reports relating to the Tobacco Hazards Prevention Act. In 2020, the Hotline dealt with 3,189 public inquiries and 1,345 complaints, all of which were passed on to the relevant local health bureau to be dealt with.

2. Renewed graphic health warnings on tobacco packaging

(1) Printed designs on tobacco product containers are one of the methods for promoting tobacco products. Article 11 of WHO Framework Convention on Tobacco Control mandated that Parties shall display health warnings for cigarette packages. These warnings shall cover at least 30% of the container area (50% is recommended). On January 11st, 2009, Taiwan has implemented the 1st version of 8 graphic health warnings and cessation related information. The stipulated areas of warnings should not be covered less than 35% on the front and back of tobacco packaging. The 3rd version of 8 graphic health warnings were revised on June 14th, 2019. It was officially implemented on July 1st, 2020 (Figure 3-2).

Figure 3-2 The 3rd version of graphic health warnings on tobacco packaging

(2) In 2020, all the county and city health bureaus inspected the labeling on tobacco packaging for a total of 144,577 times. We inspected the labeling and the exhibiting of tobacco product selling venues 136,673 times. There were 6 violations, with a total fine of NT$6,143,000.

3. Establishment of smoke-free supportive environments and reduction of smoking rates and second-hand smoke exposure rates

(1) Promoting campus cooperation and establishing a smoke-free campus

HPA and the MOE worked together to promote the Campus Tobacco Hazards Prevention Plan to reinforce campus tobacco hazards prevention work. (For strategies regarding adolescent tobacco hazards prevention and control, please refer to Chapter 2.)

(2) Tobacco-free policy to enhance prevention work in the military

Over the years, HPA subsidized Ministry of Defense Medical Affairs Bureau to implement "Armed Forces Tobacco Hazard and Betelnut Prevention Integration Plan." We promoted tobacco hazards prevention work in armed forces. In 2020, the smoking rate for volunteer armed forces officers and soldiers was 18.8%, which was lower compared to the 20.08% in 2019.

(3) 2020 Quit and Win Event

HPA entrusted John Tung Foundation to hold the 2020 Quit and Win Event. The competition lasted from May 2nd to May 29th. Despite Covid-19, spokesperson Li Luo promoted the event with the slogan of "Tobacco cessation increases immunity." Approximately 11,732 people signed up.

(4) Advocatcy of tobacco free parks and greenlands, to protect people's recreational health

HPA announced that other than smoking areas, smoking was prohibited in national parks, national natural parks, designated scenic areas, and forest recreation areas on April 1st, 2014. Taiwan is the second nation in the world to prohibit smoking in park greenland. At the end of 2020, there were a total of 46,541 inspected cases. A total of 2,308 sanctions were handed out, with fines of NT$4.56 million.

(5) Multiple platforms and channels for tobacco hazards prevention

Focusing on second hand, third hand smoke, tobacco cessation, and electronic cigarette risks, we integrate diverse dissemination methods of television, broadcast, social network marketing, outdoor media, and print media, in order to upgrade the advocacy benefits of tobacco prevention and control (Figure 3-3).

On Yahoo Kimo, we established the themes and worksheets of "Winning friendship and health, experts say don't touch this." We remain the public of advocate the hazards of e-cigarettes products.

Social media artists like "Three bad pig brothers," "Chico and Chica," and "It's blank" worked together to produce anti-tobacco labels and showed them on FB fan pages, to increase communication with social network fans and people in the forums.

Figure 3-3 Education and promotion of tobacco hazards prevention through various methods in 2019

4. Diverse and accessible tobacco cessation services

Article 14 of WHO Framework Convention on Tobacco Control stipulates that signatories must plan the national tobacco cessation service system. The convention parties also officially passed the implementation principles, which state that: National tobacco cessation plans should be based on empirical evidence and cover all facets. This includes systematically finding smokers and giving tobacco cessation recommendations, establishing tobacco cessation hotline services, and training staff to provide face-to-face behavioral support. The plans also include upgrading accessibility of medicine, providing free or affordable medicine, and systematically supporting the execution of tobacco cessation steps. Tobacco cessation treatment should cover all venues and service providers, both inside and outside of the system. In response to the different tobacco cessation needs of people, HPA provides diverse tobacco cessation services. These include medical institutions providing tobacco cessation treatment and health education and free hotline for tobacco cessation services and tobacco cessation classes.

(1) Smoking cessation services: To offer smokers with comprehensive and accessible smoking cessation services, the HPA launched the Smoking Cessation Services Subsidy Program in 2002. In 2012, the subsidies for smoking cessation services were expanded to cover all the medication fees, with only 20% copayment required (maximum NT$200) in accordance with the NHI program. Smoking cessation therapy and health education services were delivered by physicians, dentists, pharmacists and other healthcare professionals in 3,500 medical institutions, including medical centers, regional hospitals, district hospitals, health centers, clinics, and pharmacies. The services covered over 99.4% of townships and cities nationwide,

reaching 100% with mobile medicine program and making it convenient for people to find smoking cessation services in nearby communities.

Through smoking cessation aids and professional consulting and support, 139,544 people stopped smoking (492,889 times) in 2020. The six-month point smoking cessation success rate was 29.5%, helping 41,165 people stop smoking. In the short term, an estimated NT$225 million in national health insurance expenditure has been saved and over NT$17.2 billion socio-economic benefits will be created over the long term.

Figure 3-1 Smoking cessation service history

<table>
<tr><th></th><th colspan="5">Smoking Cessation Services</th><th colspan="4">Second Generation Smoking Cessation Services</th></tr>
<tr><th>Year
Items</th><th>2002</th><th>2003</th><th>2004</th><th>2005</th><th>2006</th><th>2012.
3.1</th><th>2012.
9.1</th><th>2014.
5.1</th><th>2015.11.1</th></tr>
<tr><td>Doctor qualification</td><td>Family medicine
Internal medicine</td><td colspan="2">Family medicine
Internal medicine
Psychiatry</td><td colspan="3">Specialized physicians</td><td colspan="2">Dentists</td></tr>
<tr><td>Course of treatment</td><td colspan="3">We subsidize 1 treatment per year, for 8 weeks to be completed in 90 days</td><td colspan="6">We subsidize 2 treatments each year, with 8 weeks for each treatment (each treatment includes treatment in 8 weeks and health education 8 times).
Tobacco cessation treatment and health education are conducted by the same medical staff on the same day. Only one item can be declared. Each treatment is completed in 90 days.</td></tr>
<tr><td>Clinics/ Hospitalization Emergency/ Pharmacies</td><td colspan="5">Outpatient clinic</td><td>Outpatient clinic
Hospitalization/
Emergency</td><td colspan="2">Clinics/Hospitalization
Emergency/Pharmacies</td></tr>
<tr><td>Smoking cessation treatment service fees</td><td colspan="3">NT$250/time</td><td>NT$350/
time</td><td colspan="5">NT$250 /time</td></tr>
<tr><td rowspan="2">Smoking cessation drug fees</td><td colspan="3">NT$250/week</td><td>NT$400/
week</td><td>NT$250/
week</td><td rowspan="2">-</td><td colspan="3" rowspan="2">*Subsidized according to the quota
*Copayment comparable to healthcare insurance (not exceeding NT$200 each time)
*Aborigines, low-income households, mountain and outlying regions
*20% exemption for regions that lack medical resources</td></tr>
<tr><td colspan="3">-</td><td colspan="2">Low-income households: NT$500 dollars/Week</td></tr>
<tr><td>Smoking cessation health education and case management fee</td><td colspan="5">-</td><td colspan="4">NT$100/time</td></tr>
<tr><td>Smoking cessation case tracking fee</td><td colspan="5">-</td><td colspan="4">NT$50/time
(follow-up in 3 months and 6 months)</td></tr>
</table>

(2) Smokers' helpline: Referring to the California tobacco cessation helpline, in 2003, we entrusted NGOs to establish Asia's first "smoking cessation hotline service center." With the convenience and confidentiality of the telephone, together with professional psychological counseling, we provide toll-free helpline services (0800-63-63-63). The smoking cessation helpline provides referrasls, counseling, and promotion services according to caller's request.

Smoking cessation counselors and smokers come up with a plan together, and related information is provided. In order to understand the status of smoking cessation for each individual, when the individual management service ends, we continue to trace the status of exsmokers. We conduct follow-up surveys of telephone smoking cessation successful rate. From 2003 to 2020, a total of 147,507 people received services. Among them, 388,377 people are under individual management. The cessation success smoking rate is over 40%.

(3) Tobacco cessation class: All the local government health bureaus, health offices, and medical institutes conduct tobacco cessation classes. Through the guidance of professional staff and mutual encouragement and support of team members, we help smokers understand the risks of smoking and teach them how to handle tobacco addiction. Through the arrangement of diverse courses, we help people who are willing to quit smoking. In 2020, local government health bureaus held 330 tobacco cessation classes, and a total of 3,505 people participated.

5. Establishment of a long-term research and monitoring system

The HPA has established long-term smoking behavior monitoring systems to evaluate 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 2020, the HPA keep estimating the declaration of tobacco product information the evaluation of media promotion the inspection of tobacco product information, the evaluation of efficacy of law enforcement and the assessment of policies.

A "Tobacco Product Testing and Research Development Program" had tested 53 cigarette products (domestic imported and local inspection) to measure the nicotine, tar, and carbon monoxide content in the main smoke stream. Also tested the content of heavy metal and nitrosamine for 50 cigarette products. The test results for all sampled tobacco products revealed that 1 smuggled and 1 imported tobacco products whose nicotine and tar contents exceed the maximum amounts stipulated in the Tobacco Hazards Prevention Act. All have been applied severe penalties with Tobacco and Alcohol Administration Act by Ministry of Finance.

In order to comply with the stipulation of WHO Framework Convention on Tobacco Control, we publicized the information of toxic tobacco ingredients, additives, and burned emissions on the website. According to the stipulations of Tobacco Hazards

2020 Tobacco hazards prevention and control personnel training results

- We held the "County and City Tobacco Prevention Exchange Workshop." A total of 60 participated from 22 counties and cities.
- Due to the effect of Covid-19, the number of medical staff participating in educational training decreased. We trained 471 smoking cessation physicians, 43 smoking cessation dentists, 10 people for tobacco cessation health educational training, 367 tobacco cessation health educational staff, and 73 tobacco cessation health educational medical staff.
- Four courses on regulations basic training for beginners were held with 220 participants; one advanced course was held, with 50 participants.

Prevention Act, in 2020, a total of 449 Tobacco manufacturing and import companies declared 4,042 tobacco products provided public with tobacco information on the tobacco information website. The website was publicized in April 2010, having been browsing by 344,096 people. In 2020, there were 19,669 people who searched the website.

6. Strict control of electronic cigarettes before revision

(1) If the electronic cigarettes are found to contain drugs, they violate "Statute for Narcotics Hazards Control." If they contain nicotine or are said to have treatment effect, they violate the Pharmaceutical Affairs Act. There are criminal penalties for both. If cigarette shape looks like tobacco products, manufacturers will be fined according to Article 14 of Tobacco Hazards Prevention Act, with the maximum fine of NT$50,000.

(2) Before amendment, MOHW encouraged all counties and cities to control electronic cigarettes according to local autonomy ordinance. Eight counties and cities have done so. These include Hsinchu City, Taichung City, Chiayi City, Kaohsiung City, Yilan County, Taoyuan City, Hsinchu County, and Chiayi County. The main regulations include that people under age 18 are prohibited from smoking electronic cigarettes or related products.

(3) In 2020, local government health bureaus inspected 277,050 times according to Tobacco Hazards Prevention Act. A total of 149 cases were fined, for a sum of NT$360,000.

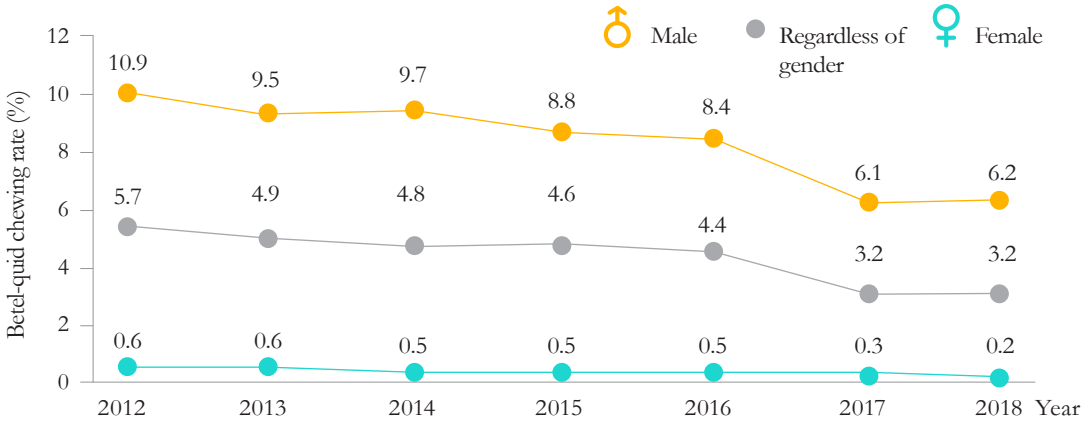
(4) HPA monitored online electronic cigarette sales and the Facebook fan pages. We requested online shopping platforms to ban the products on websites under their authority or product screening control mechanism APP, and asked all the local government health bureaus to reinforce the banning of electronic cigarettes.

Prevention and Control of Betel-quid Hazards

Status Quo

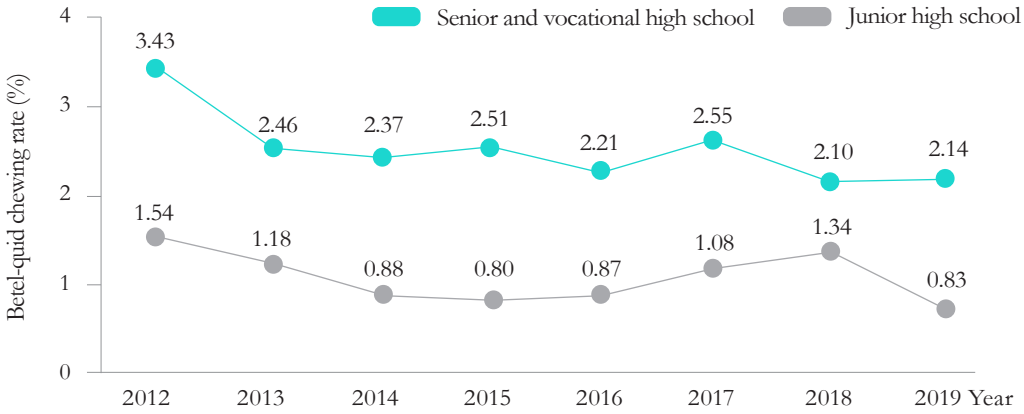
The International Agency for Research on Cancer (IARC) has confirmed that betel quids are Group 1 carcinogens. Betel-quid chewing is one of the leading causes of oral cavity in Taiwan. Over 7,000 new cases of oral cavity have been reported since 2012. Close to 90% of these patients are betel-quid chewers.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

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 43.1% (Figure 3-4 Remark 3). Betel-quid chewing rates of junior high school and senior/vocational high school students from 2012 to 2019 dropped to 46.1% and 37.6%, 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
3. The HPA stopped handling health promotion behavior surveys and adult smoking behavior surveys in 2019.

Figure 3-4 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

Figure 3-5 Betel-quid chewing rate among adolescents

In 1997, the Executive Yuan declared December 3rd as "Taiwan 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.

Action Strategies for Betel-quid Hazards Prevention

- Heath education
- Creation of betel-quid-free environments
- Provision of betel-quid cessation services
- Oral cavity screening
- Cross-ministerial cooperation

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 cavity screening. 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. Inter-disciplinary connection of government agencies to jointly prevent 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.

Construction companies (construction sites)

Search for construction companies that are willing to implement the mechanism through industry-level promotion

- Betel-quid-free construction site mechanism
- Public works quality management refresher course organized by the Public Construction Commission, Executive Yuan
- Cooperation with Construction Occupational Safety and Health Committee, Occupational Safety and Health Administration, Ministry of Labor

CCAP hospitals and clinics

Education on tobacco and betel-quid hazards prevention on construction sites & scheduling of oral mucosa examinations

- CCAP hospitals and clinics
- Local public health centers
- NGOs

Local building administration offices

Provision of a list of public projects and contact person information

Betel-quid-free construction site mechanism

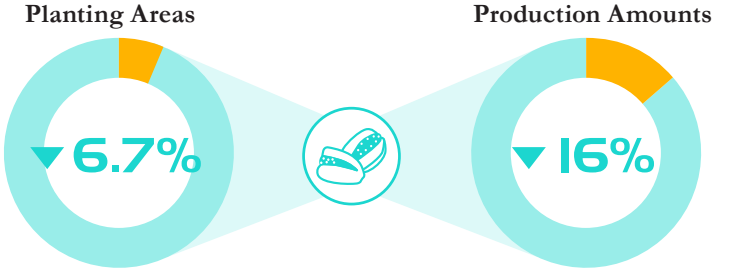
Local health bureaus

Central government agencies

- Health Promotion Administration
- Occupational Safety and Health Administration of the Ministry of Labor – organizing the Golden Safety Award

3. Decrease of supply and reinforcement of environmental inspections

Achievements in the decrease of betel-quid planting areas and production amounts



44,960 hectares in 2014
41,965 hectares in 2019

121,434 metric tons in 2014
103,766 metric tons in 2019

Physical Activity Promotion

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 3-6), increases medical expenditures and social costs, and generates a huge burden for governments and societies.

According to the results of the Ministry of Education's 2020 Current Exercise Survey (Figure 3-7), the percentage of people regularly engaging in sport and exercise in Taiwan increased from 27.8% in 2011 to 33.0% in 2020, an increase of 5.2%.

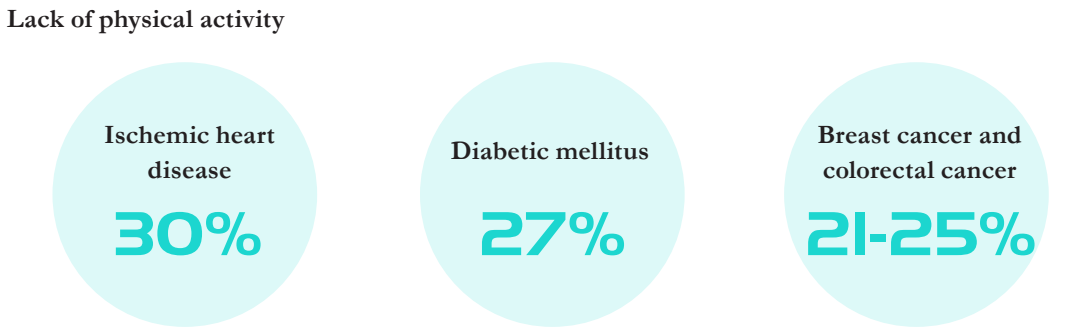
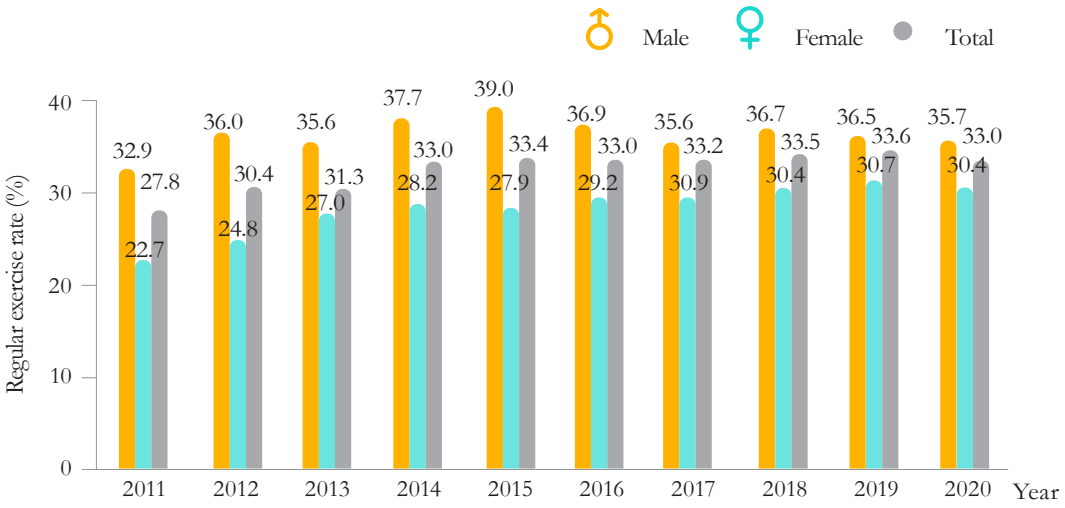


Figure 3-6 Impact of lack of physical activity on individual health



1. Source: 2011-2015 Sports City Surveys from the Sports Administration (MOE) and 2016-2020 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.

Figure 3-7 2011-2020 Ratio of people above the age of 13 engaging in regular exercise in Taiwan

Policy Implementation and Results

1. Cross-ministerial cooperation to promote national physical fitness

The Executive Yuan established the Executive Yuan Sports Development Committee, with Minister without Portfolio Chang Ching-sen as convenor. It cooperates on a regular basis with the Ministry of Health and Welfare.

On November 20th, 2020, HPA and MOE invited Environmental Protection Administration Executive Yuan (EPA), Industrial Development Bureau (Ministry of Economic Affairs), Tourism Bureau (Ministry of Transportation and Communication), Chinese Taipei Alpine Association, Environmental Quality Protection Foundation, and Taiwan Institute of Sustainable Energy to host the "2020 the Post-Pandemic Era-Sport for all and Health Policy Conference." Researcher James F. Sallis of USA, Professor Yin Leng Theng of Singapore, and Professor Kawanishi Masashi conducted online speeches. They promoted the concepts of "promoting exercise, conserving energy and reducing carbon emission, economy, and entertainment. Approximately 200 people participated. The participants conducted group discussions, using central and local resources to integrate NGOs services, health promotion courses, and exercise instructors, to promote exercise for all citizens.

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

With health bureau/unit personnel and community sports and health instructor as the targets of promotion, HPA develops physical movement guides for people in different age groups, chronic disease patients and other special groups. It also makes handbooks and films that are shown on various media channels, allowing people to obtain related information from different channels.

We continue to advocate healthy physical fitness for people in Taiwan. We encourage them to find time to exercise at anyplace. We hosted wave band physical activity themed healthy broadcast. On June 11st, we hosted the "Active Life Go! My home is also a fitness center" press conference and prize drawing event. We encourage people to do household exercise in daily lives, to maintain healthy physical fitness. On September 30th, we worked together with MOE Sports Administration to host "New pandemic prevention life, exercise with Wu Gang" press conference. We use the concepts of 4E (exercise advocacy, energy conservation and carbon reduction, economy, and entertainment). We encourage people to exercise more. In December, we showed the film of "My home is also a fitness center (story version) on YouTube. It had 430,000 views.

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

School	Establishment of health promoting schools | Promotion of healthy body weight | Health-related physical fitness and healthy diets
Workplace	Workplace health promotion | Implementation of regular exercise at the workplaces
Community	Construction of community hiking trails | Organization of physical activity courses for community residents | Training of seed teachers
Hospital	Promotion of green transportation | Planning of outdoor bikeways on the hospital premises | Free bicycle rental services | Installation of bicycle parking racks on the hospital premises | Organization of cycling activities for employees

National Nutrition

Status Quo

The "Nutrition and Health Survey" in Taiwan for 2014-2017 indicates that our citizens, daily diets still fail to conform to the recommended standards and ratios.

A large amount of research shows that unhealthy diets are one of the main causes of non-communicable diseases. It is hoped that by monitoring the health of citizens, setting healthy public policies, disseminating nutrition knowledge through diverse channels and advocating the importance of a healthy diet, the level of health of the people can be raised and chronic diseases prevented.

Intake of the six food groups among citizens aged 19 to 64

Excessive

48% **Grains & starchy vegetables**
Intake in excess of 3 bowls
Over 50% have an excessive intake.

54% **Beans, fish, eggs, and meat**
Intake in excess of six servings
Over 50% have an excessive intake.

40% **Fat & oil**
Intake in excess of 5 teaspoons
Close to 40% have an excessive intake.

Insufficient

88% **Fruits**
Intake of less than one serving
Close to 90% have an insufficient intake.

85% **Vegetables**
Intake of less than three servings
Close to 90% have an insufficient intake.

99.4% **Dairy products**
Intake of less than 1.5 cups
Over 99% have an insufficient intake.

91% **Nuts & seeds**
Intake of less than one serving
Over 90% have an insufficient intake.

1. Source: Nutrition and Health Survey in Taiwan for 2014-2017
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 15.0% and 14.5% in 2020, respectively. Male adults had a daily salt intake of less than 9.2g, and female adults had an intake of less than 7.3g.

Policy Implementation and Results

1. Formulating public health policies

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

(2) HPA actively promotes the enactment of the Nutrition and Healthy Diet Promotion Act and has submitted a draft to the Executive Yuan.

(3) 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 1st, 2018.

(4) The Nutritious Eating for the Elderly Health Education Manual and recipe teaching film were developed. The aim is that through food selection, cutting and cooking techniques and appropriate tools, food that is of suitable softness for elderly people can be prepared. In 2020, we held diet quality training courses for nutritionists, restaurant staff, and college teachers and students, and established training courses (including manuals, course briefings, and films) and result evaluation methods. We also worked together with local government to host health educational events, and worked together with nutritionists to demonstrate local seasonal cuisine.

(5) We worked with MOE to revise the "School Lunch Content and Nutritional Standard" and "Kindergarten Food Content, Nutritional Standard, and Recipe Samples." On December 28th, 2020, we requested all levels of schools to cooperate.

(6) In order to upgrade the related knowledge of diet nutrition for people in Taiwan, HPA worked with Taiwan Agricultural Research Institute, Council of Agriculture, Executive Yuan. We focused on the nutrients that the citizens might lack the knowledge of or are important for health promotion. We used seasonal local ingredients to develop diverse recipes, and came up with "Food Calendar" manuals. In addition, we also showed easy to follow demonstration films. The hope is that people can easily implement in daily lives, in order to reach the goals of improving diet nutrition intakes for all citizens.

On December 28th, 2020, we worked with Taiwan Agriculture Agricultural Research Institute, Council of Agriculture, Executive Yuan to host the "2021 Healthy Fortune, Food Calendar Tells You All" press conference.

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 5th time in December 2017.

2018

Submitted to the Executive Yuan for the 6th time in April 2018.

Review by the Executive Yuan in July 2018.

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

Adjustment of text style in accordance with the recommendations of the Legal Affairs Committee of the Executive Yuan on September 4th, 2018.

(Executive Yuan discussions are currently being scheduled, and the effort to win the support of legislators continues.)

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. The HPA, therefore, actively promotes salt iodine labeling and policies governing increase of maximum iodine concentrations in salt.

Words like "Iodine is a required nutrient" must be clearly indicated on all packaging for Table salt.

Education of the public on the importance of iodine (implemented since July 1st, 2017)

+

Increase of iodine concentrations in Table salt to 20- 33ppm

Simultaneous promotion of salt reduction and iodine fortification (implemented since July 1st, 2017)

=

Improvement of the iodine intake of citizens

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

2. Constructing a health supporting environment

(1) Food calorie and nutrition labelling has been promoted, healthy procurement principles set, and the public and private sectors encouraged to buy "healthy" food.

(2) In 2020, with the elderly as the target group, the establishment of Community Nutrition Promotion Centers by local government continued to be promoted. Centers were set up in remote areas to increase overall community nutrition care service capability.

Up to December 31st, 2020, more than 65,000 people have been served and almost 1,100 community eateries, elderly bases and organizations have given guidance in providing healthy food suitable for the elderly.

3. Revising various nutrition standards

In 2018, the Daily Diet Guide, Citizens' Dietary Indicators and other new-version nutrition criteria were issued. In 2019, the communication and promotion meeting for revision of calcium, iodine, vitamin D and carbohydrate intakes in the 8th version of Dietary Reference Intakes was held and addition of protein and fat sections completed. In 2020, the Calcium, Iodine, Vitamin D, and Carbohydrate chapters were announced, and we continued to add the chapters for Sodium, Potassium, Iron, and Magnesium.

4. Advocating nutrition knowledge

In coordination with current events and festivals, press releases, press conferences and advocacy cards, many methods are used to spread the importance of a healthy diet. In 2020, the My Plate balanced diet was actively promoted. We produced easy guide, charts, columns, my plate setup and demonstration and recipes as new media broadcast materials, hosted diverse online activities, and cooperated with KOL opinion leaders. Physical adventure events, seed nutritionist training workshops and lectures were also held. Advocacy was enhanced through media adverts, city/county health bureaus and community nutrition promotion centers.

Diverse channels for advocating a balanced diet

- We worked with the Department of Animal Industry to host "World Milk Day" press conference to promote excellent quality of agricultural and dairy products in Taiwan.

- Physical stall setup events were organized.

- We produced diverse materials, and hosted online activities

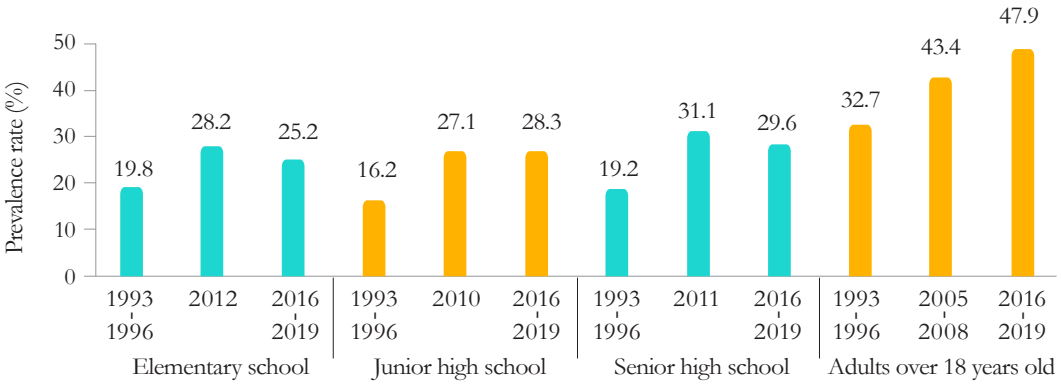
Obesity Prevention

Status Quo

The HPA's "Nutrition and Health Survey 2016-2019" 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 3-9). The main cause of obesity is calorie intake exceeding calorie expenditure, and other causes are unhealthy diets, lack of physical activity, and environmental factors.

- Westernized diet habits, food refining, and the intake of too many calories
- Watching TV, surfing the Internet, other static sedentary lifestyles, and insufficient amount of physical activity
- Sugary drinks, high calorie unhealthy foods, and many other foods without calorie nutrition labeling and identification
- Insufficient mass transit system and sports and leisure facilities
- Less access to health education messages, limited financial capacity, and easy access to low nutrition, high calorie foods among vulnerable groups
- Unhealthy food advertising gifts with a lot of calories, fat and sugar

Figure 3-8 Main reasons for the increase in the prevalence of overweight and obesity in Taiwan



1. Source: 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 ≥24 kg/m² is overweight or obese.

Figure 3-9 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

- Building healthy cities, with health promoting hospitals, workplaces, schools and communities
- Implementing breastfeeding regulations in public places to enhance breastfeeding rates and reduce childhood obesity
- Conducting the "Nutrition and Health Survey in Taiwan" to monitor bodyweight trend
- Referring to WHO's "Ending Childhood Obesity," and establishing children and adolescent obesity prevention framework in Taiwan.

2. Providing comprehensive information and systems to improve the obesity-causing environment

HPA further strives to establish healthy diet supply systems. The Administration offers guidance to businesses in the development of healthy box meals, and menus with clearly labeled calorie amounts, and implements healthy procurement and school nutrition standards.

3. Reorienting health services

The incorporation of obesity prevention empirical guidelines into healthy hospital accreditation standards is being 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 referrals and adequate treatment of obesity cases.

4. Strengthening community action

HPA integrates inter-agency resources, builds heathy body environments to drive a social atmosphere conducive to healthy bodyweight 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

The main causes of accidental death in Taiwan in the last 10 years have been transportation accidents, falling, poisoning through exposure to and contact with a toxic substance, accidental drowning, and exposure to smoke, fire and flame, and so (Figure 3-10). In 2020, accidents were the second major cause among death of children and adolescents under age 18 (Table 3-2). In the past three years, transportation accidents (including motor vehicle accidents) have been the main cause of accidental death among children and adolescents (Table 3-3).

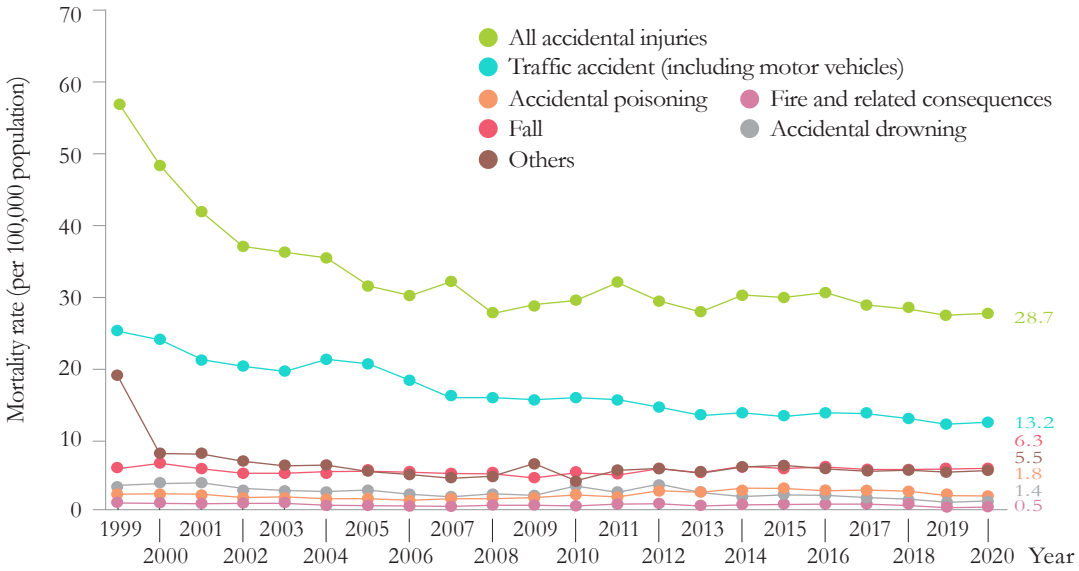


Figure 3-10 Main causes of acdiental mortality rate in Taiwan from 1999-2020

Table 3-2 Main causes of death among children and adolescents in 2020

Cause of Death	Children under 12 years old	Adolescents 12-17 years old	Children and adolescents under 18 years old
No.1	Certain conditions originating in the perinatal period	Accidental injury	Certain conditions originating in the perinatal period
No.2	Congenital malformation and chromosomal abnormality	Deliberate self-harm (suicide)	Accidental injury
No.3	Accidental injury	Cancer	Congenital malformation and chromosomal abnormality

Source: 2020 Causes of Death Statistics, MOHW

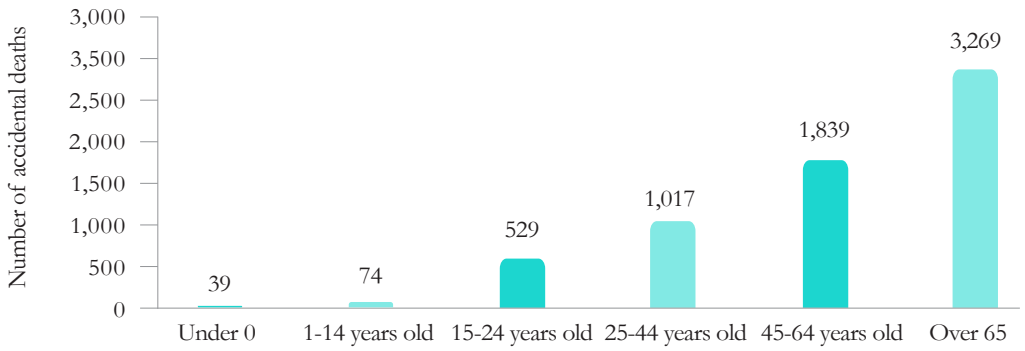
Table 3-3 2009-2020 Distribution of accidental deaths among children and adolescents (0-17 years old)

(per 100,000 population)

Year	Traffic accidents	Motor vehicle accident	Accidental poisoning	Accidental falls	Caused by fire and flame	Other accidental threats to breathing	Exposure to natural forces	Others
2009	179	166	6	12	16	35	112	20
2010	179	172	11	15	11	34	-	10
2011	158	148	6	27	7	33	1	14
2012	146	139	1	17	13	44	-	10
2013	145	139	4	15	12	39	-	13
2014	136	123	6	14	13	52	-	18
2015	94	83	6	14	11	42	1	15
2016	115	109	4	8	9	39	35	9
2017	132	120	3	23	9	43	3	8
2018	123	109	3	11	10	41	-	12
2019	97	90	3	8	5	38	-	16
2020	96	80	5	9	10	37	-	9

Source: 2020 Children and Adolescents Accidental Death Statistics, Social and Family Affairs Administration, Ministry of Health and Welfare.

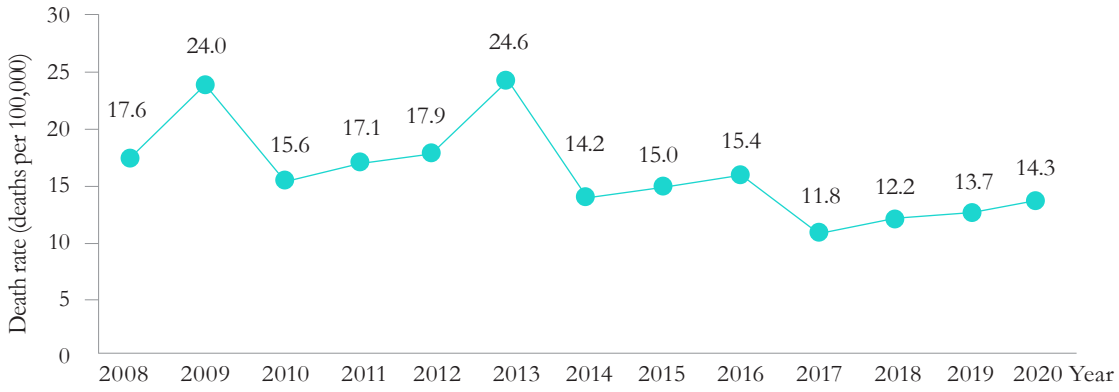
Also, the standardized death rate from falls of the elderly aged over 65 years old has gradually increased year on year. In 2020, a total of 3,269 elderly people died in accidents, with a death rate for people over 65 years old of 88.4 (every 100,000 people). This figure is clearly higher than that of other age groups.



Source: 2020 Causes of Death Statistics, MOHW

Figure 3-11 2020 Number of accidental deaths by age

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 4th to 7th leading cause of death among infants every year.



Source: 2019 Causes of Death Statistics, MOHW

Figure 3-12 SIDS Death rate in Taiwan 2008-2019

Policy Implementation and Results

1. Gradual decrease of accident injury mortality rates

In 2020 National Healthy People white paper, injury prevention and safety promotion issues were included, with the aim of gradually reducing accidental injury and death. Accident-related data banks were used to carry out statistical analysis to understand the current situation and long-term trends for accidental injury for use as reference in formulating prevention strategy and intervention effective assessment.

2. Prevention of sudden infant death syndrome

Through the MOHW's causes of death statistical material, we continue to monitor the sudden infant death syndrome death rate and number of deaths. Referring to the evidence-based suggestions of the American Academy of Pediatrics, improvement measures for "Avoiding sudden infant death syndrome" have been included in the Children Health Handbook and are listed under children health education service items provided by doctors.

Infant and young children accidental injury prevention strategy promotion by HPA

Preventing sudden infant death syndrome

Maternal health booklet

The new editions of the Maternal Health Manual and Children Health Education Handbook include a section on "Shaken Baby Syndrome." This informs caretakers about the risks of shaking a baby and to avoid vigorous shaking or rocking to stop baby from crying.

Children health education handbook

We include "Newborn Care Tips-a safe sleeping environment" and "Sudden Infant Death Preventive Measures" into the children health handbook, and these have become the children health educational service items providing by physicians .

Creating of a safe home environment for young children

Children health education handbook

We includes "Often seen traps for infants and children at home," providing caregivers with a guide to paying attention to and improving the home safety environment. A Accidental Injury Assessment Table is also provided along with things to know about "Emergency handling of burns and gas accident injury" and "Dealing with emergency situations."

3. Establishment of a safe home environment for young children

In line with the policies and bills of various agencies, maintenance of child safety and home safety and other aspects of safety are cooperatively promoted to raise the quality level of child education and care to promote their safety and health.

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

In combination with healthy city, healthy community building and community care bases, community elder health promotion is carried out in accordance with the characteristics and needs of old people in the community. Through varied channels, elder fall prevention health education is promoted to increase people's fall prevention literacy, advocating the elders do anti-fall exercises to enhance muscle strength, walking and balance. Through health bureaus and doctors, assessment of frailty is carried out and follow-up intervention service provided to high-risk groups to reduce falls and risk of fall injury.

4 Healthy Environment

Friendly and livabile environment

more than 90%

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

4,033 schools

By the end of 2020, a total of 3,881 schools under the level of high school/vocational high school were fully initiating the health promoting school program. A further 152 colleges and universities also opted to join the ranks of health promoting schools.

2,181 workplaces

In 2020, there were 2,181 certified healthy workplaces.

137 health care organizations

In 2020, Taiwan had 137 health care organizations that were successfully certified and entitled to join the International HPH Network.

4

In 1986, WHO introduced 5 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 and communities, health promotion schools, healthy workplaces, and health promotion hospitals.

Healthy cities and communities

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 hospitals

Health promoting hospitals are medical or heath service organizations aiming to"improve the health benefits for patients, employees and community through the development of structures, cultures, decision-making and procedures." This is organizational change as a strategy to improve health from the medical processes.

Healthy Cities

Status Quo

In 1986, a total of 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

A total of 12 cities and counties and 13 regions received guidance in the promotion of healthy cities. As 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.

1986
21 European cities met in Lisbon.

1995
Taiwan introduced the Healthy City concept for the first time.

1997
WHO proposed 20 steps for the development of Healthy Cities.

2002
Taipei City declared this year as the"First Year of the Healthy City."

2003
Healthy City Program promoted by Tainan City.

2007
Establishment of the Alliance for Healthy Cities.

2019-2020
In 2019, 12 cities/counties and 13 areas in Taiwan joined the Alliance for Healthy Cities (AFHC).

Figure 4-1 Development of healthy cities

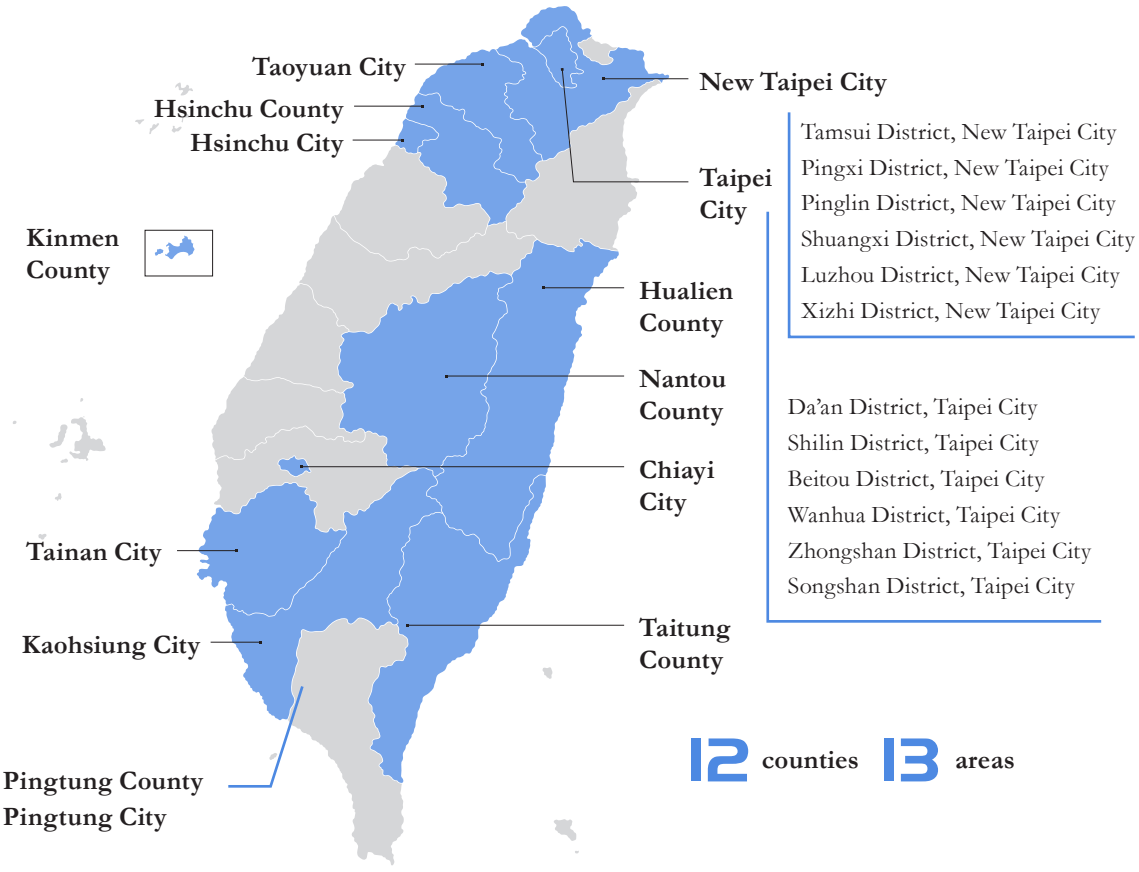


Figure 4-2 Cities, counties, and areas permitted to join the AFHC, actively supported by the WHO WPRO as a non-governmental organization

Table 4-1 List of AFHC awards won by Taiwan in 2018

Award	Recipient
Healthy city creative development award First category: achieve SDGs through healthy city plan	Tainan Healthy City Association
Healthy city creative development award First category: achieve SDGs through healthy city plan realize SDGs	Kaohsiung Healthy Harbor City Association
Healthy city creative development award First category: achieve SDGs through healthy city plan	Taoyuan Health Promotion Association
Healthy city creative development award Third category: Good health system covering national health	Shilin Health Committee

Source: https://www.alliance-healthycities.com/htmls/awards/index_awards.html (AFHC official website)

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

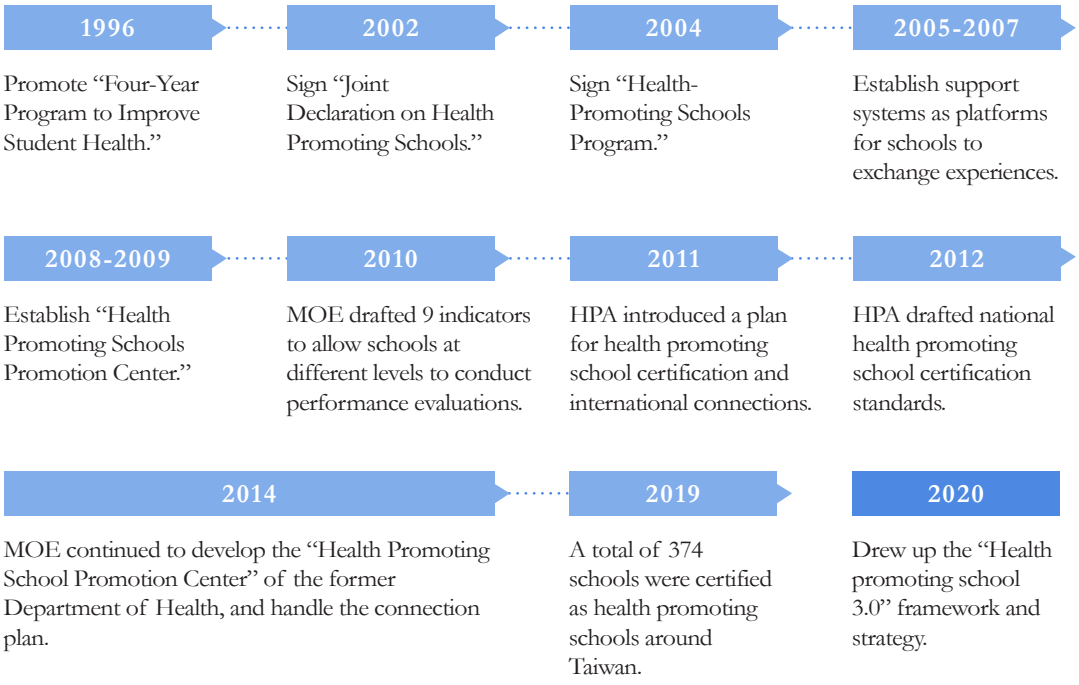


Figure 4-3 Development of Health Promoting Schools

and students, promote community participation, and provide health services that ultimately create a school environment which nurtures a healthy 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."

Policy Implementation and Results

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

By the end of 2020, a total of 3,881 schools under the level of high school/vocational high school were fully initiating the health promoting school program. A further 152 colleges and universities also opted to join the ranks of health promoting schools.

2. Six issues promoted by health promoting schools

According to the 6 scopes of health promoting schools of WHO, we promote healthy body weight, oral healthcare, visual healthcare, tobacco and betel-quid prevention and control, healthcare for people (including drug use safety) and sex education (including AIDS prevention).

3. The 4th Health Promoting Schools International Certification Golden Quality Award Unveiling Ceremony in 2019

The unveiling ceremony was held for five Gold Award winning schools in the 4th Health Promoting Schools International Certification: Lianshin Elementary School International Certification in Yunlin County, Beipu Elementary School in Hsinchu County, Puzih Junior High School in Chiayi County, Jingpu Elementary School in Chiayi County and Xinjia Elementary School in Tainan City. The successful health promoting model of each school was used to raise the profile of international certification commendation.

4. Development to the initial framework for Health Promoting Schools 3.0

The initial framework for Health Promoting Schools 3.0 was developed in accordance with the WHO and UNESCO's joint 2018 Global Standards for Health Promoting Schools, the UN SDGs and evidence-based results of Health Promoting Schools. In September 2020, we announced the Global Standards and Indicators for Health Promoting Schools and their Implementation Guidance. We worked with the Ministry of Education to develop health promoting school standards with UN SDGs and local characteristics. We also drew up the framework and strategy of "Health Promoting School 3.0."

Healthy Workplaces

Status Quo

In the 4th International Conference on Health Promotion in 1997, WHO 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.

- **2003** The "Workplace Tobacco Hazards Prevention and Control Guidance Program" was implemented to provide indepth workplace counselling.
- **2006** A "Healthy Workplace Promotion Center" was established in 3 regions to provide on-site consultation about healthy workplace environments.
- **2007** Healthy workplace accreditations were initiated.
- **2012** The number of healthy workplaces receiving accreditation was incorporated as an evaluation indicator of the "Work Program for Subsidized Local Promotion of Healthcare." The goal is to encourage public health bureaus and centers to work with workplaces to implement employee health promotion and create friendly and healthy work environments.
- **2015** The "Tobacco Hazards Prevention Badge" was no longer issued in the context of healthy workplace accreditation, but the "Health Initiation Badge and Mental Promotion Badge" was still awarded.
- **2017** The Healthy Workplace Creativity Golden Pin Award competition was held for the first time.
- **2020** A total of 2,181 units were certified as healthy workplaces.

Target Indicators

In 2020, there were 2,181 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 and control 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) Onsite guidance was provided to 187 workplaces in 2020 and nine healthy guidance workshops were held.

(2) HPA actively promotes Healthy Workplace Certification, including the Health Initiation Badge and Health Promotion Badge. In 2020, a total of 2,181 workplaces passed the certification. The certification content is as follows:

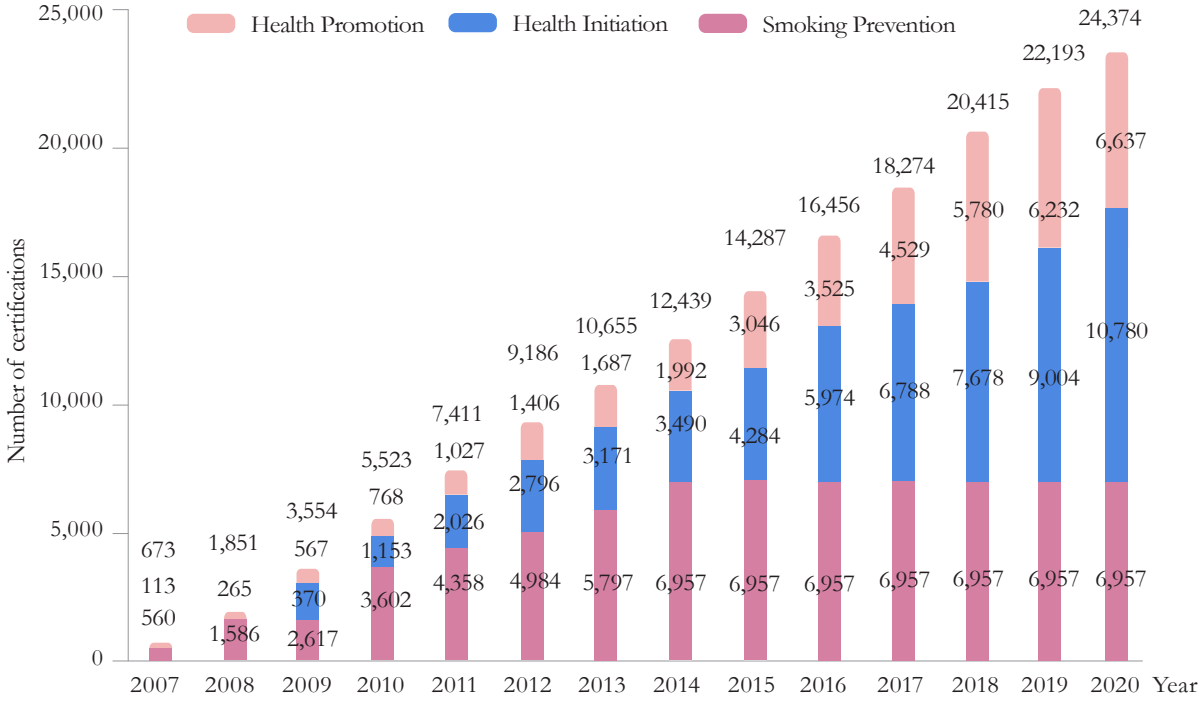


Figure 4-4 Cumulative number of certified healthy workplaces from 2007 to 2020

A. Health Initiation Badge: A workplace that has achieved results in smoking prevention better than those required in the Tobacco Hazards Prevention Act, and a workplace has already begun activities related to health promotion.

B. Health Promotion Label: A workplace that has used the WHO 2010 Workplace Comprehensive Health Promotion Model to assess and delineate workplace employee health problems, formulate an annual plan and take concrete action.

(3) In 2020, we commended 30 workplaces as outstanding in this regard and 4 staff as Excellent Healthy Workplace Promoters.

2. Conducting surveys of the health promotion and smoking status of the working population every two years and tracking the effectiveness of healthy workplace promotion continuously

Health Promoting Institutions

Status Quo

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.

Over 597 hospitals representing 20 national or regional networks from countries across Europe, America, Asia, Africa, and Oceania have joined the International Network of Health Promoting Hospitals and Health Services (HPH).

Target Indicators

A total of 137 hospitals became members of the International HPH Network by the end of 2020.

Policy Implementation and Results

1. Health promoting hospital and international cooperation

(1) Training and growth of health promoting hospitals

A. In 2020, Taiwan had 137 health care organizations that were successfully certified and entitled to join the International HPH Network, including 136 hospitals, 1 long-term care institution, and 2 public health centers (Figure 4-5, 4-6). The Taiwan HPH Network has remained the largest network within the international network since 2012.

B. Since 2012, HPA sponsors the Program for the Promotion of Participation by Healthcare Organizations in Health Promotion for health bureaus in cities and counties, cooperating with healthcare organizations within their jurisdiction, in order

- **2002** Taipei City took the lead in setting healthy hospital evaluation standards.
- **2005** Taipei Municipal Wanfang Hospital became the first hospital in Asia to gain membership in the International HPH Network.
- **2006** HPA applied to the WHO International HPH Network to establish a "Taiwan Health Promoting Hospital Network" and become an official member of the network, as well as the first online member in Asia.
- **2007** HPA established the Taiwan Society of Health Promoting Hospitals
- **2008** HPH grown to 6 networks (including US, Australia. Japan, South Korea, Hong Kong and Taiwan), with 239 member hospitals in 8 countries.
- **2016** As an "observer," Taiwan network joined the Governance Board and was responsible for promoting in the Asia-Pacific region and conducting conference.
- **2019** HPA and HPH Clinical Health Promotion Journal (CHP) jointly published a special issue on Taiwan: "Health Promoting Hospitals and Health Services Development and Achievements in Taiwan." For the first time, 15 papers were published in a special issue at an international conference, sharing Taiwan's diverse achievements in health promotion and medicine .
- **2020** Taiwan has 137 healthcare institutes that are certified with international health promotion hospital memberships.

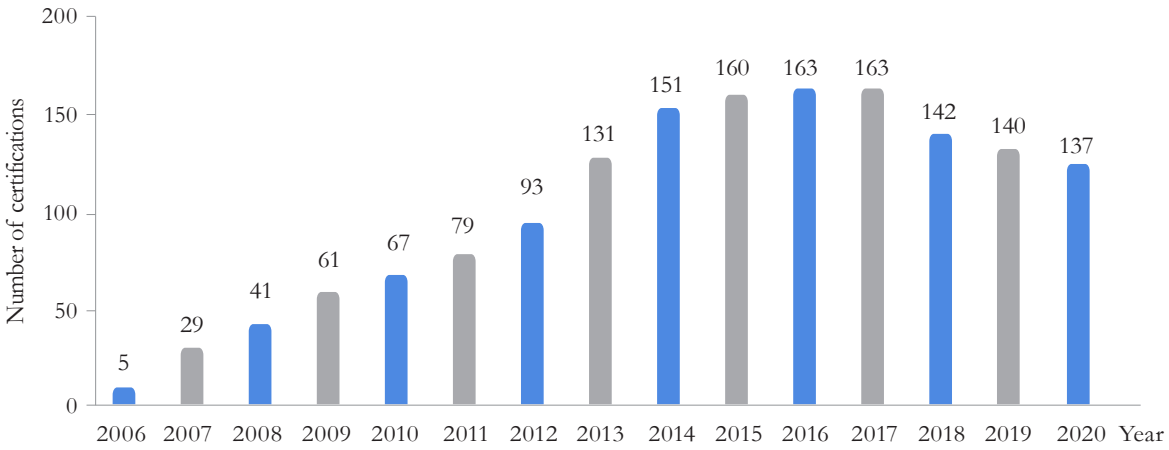


Figure 4-5 Taiwanese members of HPH Network 2006-2020

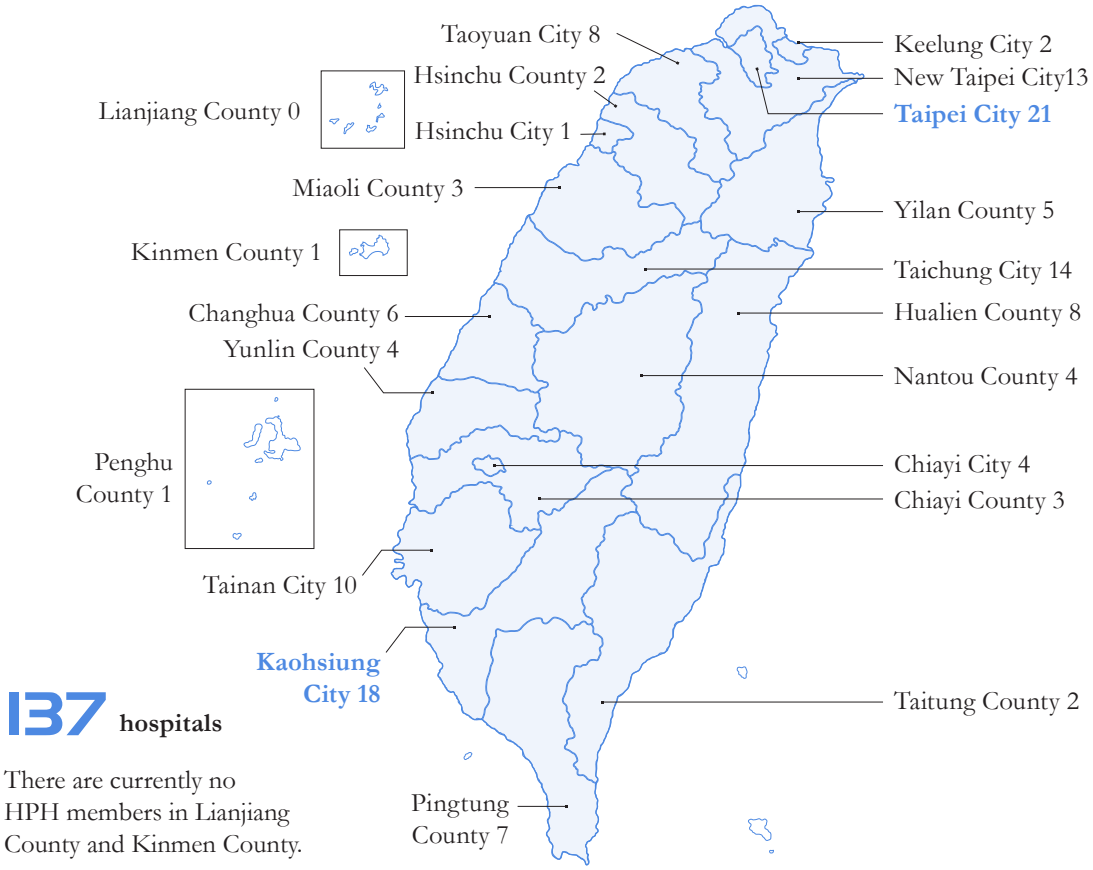


Figure 4-6 2020 HPH Network membership by city and county

to strengthen partnerships between health bureaus and healthcare organizations and integrate preventive healthcare service resources. In 2020, HPA subsidized 38 health bureaus/health service centers, and 91 healthcare organizations to participate in health promotion issues such as age-friendly healthcare, health literacy, and environment-friendly hospital, etc.

(2) Promotion of "Health hospital 2.0 certification" leading to international development

In 2020, we further developed the "Healthy Hospital Certification 2.0," which was an upgrade of version 1.0. The chapters on "Climate Actions," "Age-friendly Integrated Healthcare Concepts," and "People-oriented Healthcare" stand-alone chapters, in order to show their importance. The "International Network of Health Promoting Hospital and Health Services" even referred to this method, which led to the subsequent development of the 2020 Standards for Health Promoting Hospitals and Health Services. In 2020, we completed the pilot testing of the new standards. In addition, we encouraged all levels of hospitals to join as Healthy Hospitals and improve the quality of service. Other than providing guidance, we also simplified the required documents and certification standards. In addition to "Passing certification," we also added the "Golden quality seal," "Silver quality seal," and "Pass seal."

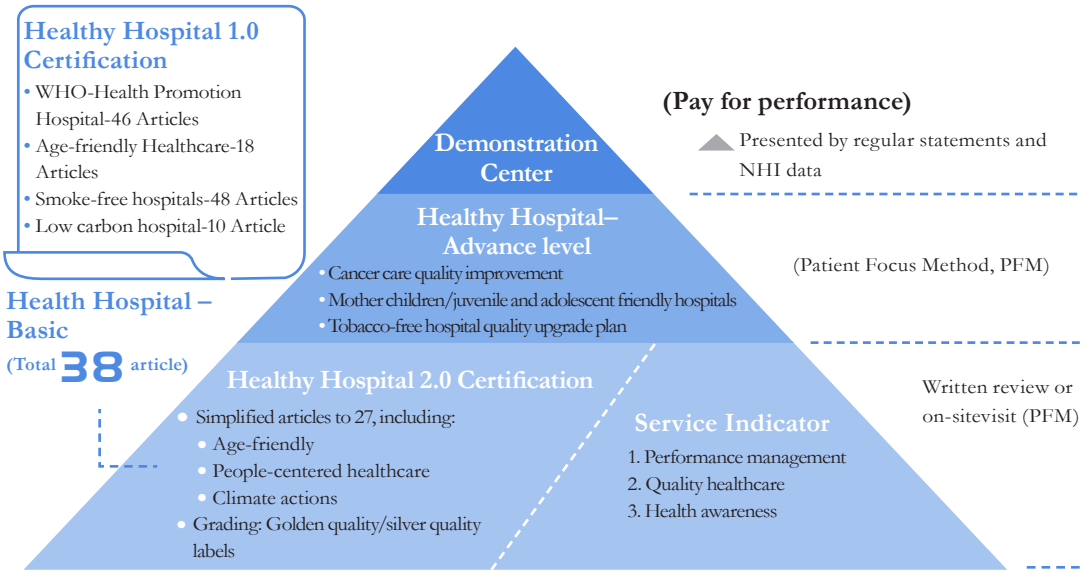


Figure 4-7 Healthy hospital certification concept

- **2009** The International HPH Secretariat adopted a resolution to commission Taiwan to direct the promotion of climate and environmental issues emphasized by WHO.
- **2010** A task force on HPH and Environment was established.
- **2014** The four-year stage mission of the international committee ended and its role was taken over by a civic group.
- **2019** The Sustainable Health Hospital Blueprint and Advanced Indicators and Guide were formulated to help hospitals move towards the objective of sustainable health.
- **2020** Indicator/guide of environmentally friendly hospital lifernсy materials were revised and produced.

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

(1) We guided hospitals to pay attention to energy conservation and carbon reduction while promoting health

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. The declared goal was to have 181 domestic hospitals functioning as low carbon hospitals (Figure 4-8). 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_2 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 bed, an annual carbon reduction of 2.055 metric tons per bed are required to achieve the aforementioned goal. By 2017, the carbon emissions had been reduced by around 2.052 metric tons per bed. We have reached the declared goal which represents an achievement rate of 100.1%.

Figure 4-8 2020 Domestic low-carbon hospitals by city and county

In 2018, we continued to encourage energy conservation and carbon reduction in hospitals, and the total reduction by 2020 amounted to about 117,000 metric tons.

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

In 2012, in accordance with the Global Green and Healthy Hospital Agenda published by Health Care Without Harm (HCWH), we formulated the Hospital Environmentally Friendly Action Self-Assessment Form, with eight dimeusions and 84 action items developed in accordance with Taiwan's requirements. In 2020, the self assessment was completed by 101 low carbon hospitals. Results showed that the intervals of proportion of hospital implementation with regard to all dimeusions was 72-94%, as seen in Figure 4-9.

Eight Focal Points

	Organization	Chemical reduction	Waste reduction	Energy efficiency	Water saving measures	Green transportation	Low carbon diet	Green buildings
Execution proportion	89%	89%	94%	87%	90%	72%	78%	90%

Figure 4-9 2020 Results of self-assessment of environmentally-friendly hospital initative

5 Healthy Aging

New stage of happy aging

Below 10%

In 2020, the smoking rate of individuals aged over 65 fell below 10%.

22 cities

All 22 cities and counties in Taiwan promoted age-friendly cities.

100%

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

Basic training was provided for community incapacity prevention and delay personnel. From 2017 to 2019, a total of 4,173 instructors and 857 assistants completed training.

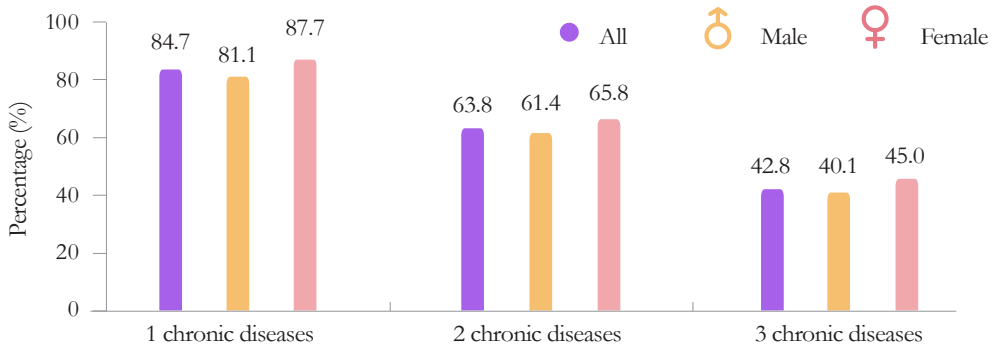
HPA conducted “Healthy city and age-friendly city award” selection, and merged the awards in 2020. In 2020, a total of 323 works were selected, and 41 units were awarded.

5 Active Aging

Status Quo

Average life expectancy in Taiwan was 80.86 years in 2019, with 77.69 years for men and 84.23 years for women. Longer lives present new challenges. As the "2017 National Health Interview Survey" demonstrated, with more than 80% (84.7%) of seniors had 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.



Source: 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

Figure 5-1 Citizens aged 65 or above who report they have been diagnosed with chronic diseases

Target Indicators

1. In 2020, the smoking rate of individuals aged over 65 fell below 10%.
2. In 2020, approximately 1,000,000 individuals used Adult Preventive Healthcare Services.
3. All 22 cities and counties in Taiwan promoted Age-friendly Cities.
4. In 2020, more than 500 institutions passed the Age-friendly Healthcare Institution Certification.

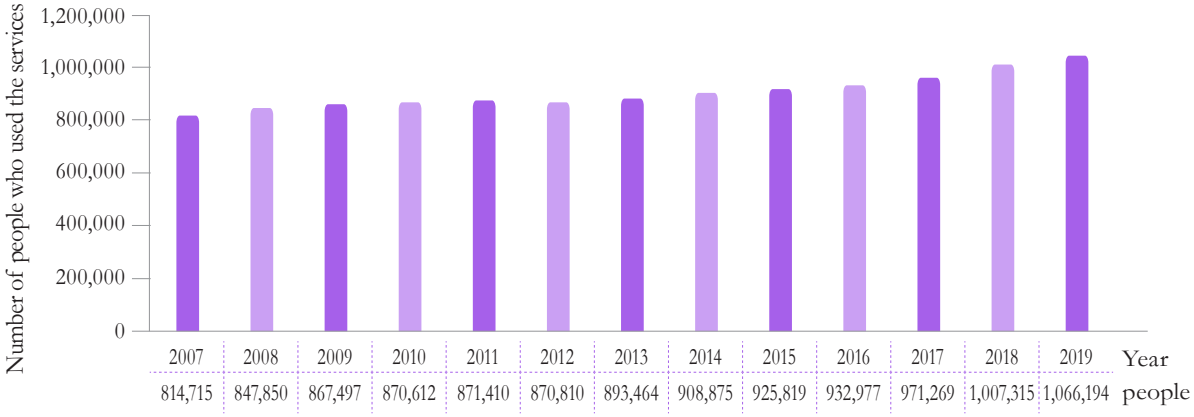
Policy Implementation and Results

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. Increasing trend of elders using preventive health care services

The government offers preventive healthcare services to seniors aged 65 or above once a year. Service contents include physical checkups, blood and urine tests, and health counseling (Figure 5-2). The HPA also encourages local health bureaus to cooperate with primary medical institutions to integrate health care resources to provide community-based integrated screening services to improve service accessibility. A total of 1.066 million seniors received such services in 2019, which represents an increase by 5.9% (1,007,000 individuals) compared to 2018. This led to the detection of 233,000 (22.1%) new cases of hypertension, 105,000 (9.9%) new cases of hyperglycemia, and 261,000 (24.7%) new cases of hyperlipidemia.



Source: National Health insurance payments for preventive healthcare services

Figure 5-2 Utilization of adult preventive healthcare services by seniors aged 65 or above between 2007 and 2019

2. Promoting senior health

(1) Integrating local resources to promote senior health

Through health bureaus and community medical institutes, 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.

(2) Using technology to care for the elderly–home health promotion

The Ministry of Health and Welfare's 2017 Elderly Situation Survey Report showed that the main form of leisure for people aged over 65 is TV watching (80.7%). In order to prevent elderly from reducing social interactions and opportunities for physical exercise, and cater to the leisure habit of elderly of watching TV, the HPA thus established the Elderly Home Technology Interactive Platform, using TV as the medium for caring

for the elderly, providing interactive programs, delivering a variety of health information for the elderly in their homes, and proactively providing community life information. Unaffected by time and space, the elderly can age actively and healthily in an environment in which they can interact with others at any time, avoiding frailty resulting from living alone and depression leading to reduction in activity. This attempt began in 2019 and it is expected to be expanded to 6000 homes in 13 counties and cities by June 2010.

(3) Enhancing preventive healthcare services for the seniors

In 2020, a total of 4,813 seniors aged 65 and older received tobacco cessation counseling hotline service and 57,998 received tobacco cessation services.

Debility Prevention and Dementia-friendly Environment

Status Quo

According to the statistics of Ministry of Interior, the population of people over age 65 in Taiwan, in 2018, exceeded over 14% of the total population. Taiwan has officially become an "aging society." At the end of 2020, with a total of 3.8 million, senior population approximately took up 16% of the total population. In 2017, MOHW's elderly condition survey showed that the debility of people over age 55 (according to SOF evaluation) increases annually by age. In 2017, HPA's health surveys showed that 85% of elderly over age 65 has at least 1 type of chronic disease, and 64% has at least 2 types of chronic disease. Reference shows that multiple chronic diseases will greatly increase the risks of debility and disability. The population structure aging rapidly with chronic diseases can cause disabilities in the elderly's body functions and dementia, which will cause great burden for the long term healthcare system in Taiwan.

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 2020, HPA assesses frailty of seniors aged 65 or above in Taiwan via SOF (Study of Osteoporotic Fractures) and depression and fall prevention questionnaires. A total of 210,995 seniors underwent assessments. A preliminary analysis reveals that 24,589 (11.7%) seniors are in a stage of prefrailty, while 4,555 (2.2%) of the assessed seniors are in a stage of frailty. As many as 8,503 (4%) of the assessed seniors had suffered falls within the past year, while 2,685 (1.3%) suffered from depression.

Target Indicators

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

Policy Implementation and Results

1. Deepening sports health training

A sports intervention model that is evidence-based and can reverse frailty has been developed. With medical and sports professionals as the targets, 16 hours of training courses are provided and a Resources Toolbag made and provided for use in community teaching by instructors who have completed training.

Basic training was provided for community incapacity prevention and delay personnel. From 2017 to 2019, a total of 4,173 instructors and 857 assistants completed training.

In addition, we conducted the "Preventive and Disability Delaying Solution Development Project." Three evidence-based, interventionist, operable, and creative service plans with clearly defined contents, intervention targets, excellent extendability, and high cost-efficiency were developed. From 2019 to 2020, we integrated the three different national community organizations, including environmental protection stations, village cultural health stations, and church systems. We tried to promote a physical activity project and produced educational tools suitable for the organizational cultures. We trained the project instructors in the organizations, and conducted trial promotion at 104 sites.

2. Actively building community-oriented health management

With frail, subhealthy and healthy elderly as the targets of service, a total of 910 sessions of 2020 elderly health promotion courses in 22 cities/counties were subsidized. The contents include intervention model, healthy aging, and cognitive function training, with around 19,000 people served. Results analysis showed that 12-week intervention helped in terms of maintaining social interaction and emotional function and reducing the number of falls.

3. Promoting senior health through competitions

In order to increase the social participation of the elderly, health bureaus and centers combined with community civil groups to encourage the elderly to form teams and take part in competitions to promote their physical activity and social participation. In 2020, competitions were held in northern, central, southern and eastern Taiwan and then a national final was held. In all, a total of 2,700 people took part, and their average age was 66.5 years. In 10 years, a total of more than 545,000 people have taken part.

In 2020, the Community Active Aging Photography Competition and Outstanding Performance of "My Lively Diary" Group Commendation Meeting were held, awarding 9 people with the Community Management Award, Creative Course Award and Sustainable Development Award. A total of 30 people received gold, silver, merit and honorable mention awards in the Community Active Aging Photography Competition. Twelve "Active Aging Award," "Warm Affection Award," and "Best Partnership Award" were given out. The awards commended community units for achieving good results in health promotion.

4. Advocating healthy life in old age

In 2019, the "Life In Movement" and "Movement Expert" booklets continued to be published, through domestic and overseas evidence-based research teaching the elderly and other people how to use everyday exercise in a safe environment to enhance balance,

muscle strength, suppleness and cardiovascular stamina, promoting healthy old age.

In 2020, we conducted the promotional events of "My Home is the fitness center," "The park is my fitness center," and "Every road is my fitness center." In March, we announced the information of "Don't forget exercising during pandemic prevention. We teach you how to use park facilities." In July, "Exercise 15 minutes everyday to live 3 more years, let's exercise healthily" was announced. We also produced a film with the Sports Administration (MOE) titled "My Home is the fitness center (Elderly educational chapter)." We promoted physical health through utilizing surrounding environment in parks, physical health facilities, or simple household tools.

5. Pomoting dementia prevention work

(1) In 2018, the government started promoting a dementia friendly community plan. A total of 4 counties and cities participated. In 2019, nine counties and cities participated. In 2020, a total of 22 local government joined forces. By using cross-department methods, and within townships and cities, we established dementia-friendly communities. Through diverse courses and marketing events, we raise the level of people's correct knowledge and friendliness toward dementia. Up to 2020, a total of 41 dementia friendly communities were established. We conducted courses, and reached out to over 1.317 million people. We recruited 415,177 dementia friendly angels (residents) and 9,329 friendly organizations, connected social resources and supportive networks, and actively cared for and supported people and families with dementia (Figure 5-7).

The four main components of dementia-friendly communities

(2) Establishing the Dementia-friendly Resources Integration Platform, collecting and publicizing the rich dementia and dementia-friendly community health education materials developed by the HPA, including various manuals, easy guides, videos, leaflets and presentations. These are available for viewing and download by the public and frontline colleagues nationwide. In 2020, the online course series includes "Dementia isn't scary, what's scary is that you don't know it", "Preventing and delaying dementia starts from here (1)&(2)" and "A Dementia-friendly Day" four lessons to raise the level of dementia literacy nationally.

6. Connecting incapacity prevention and delay resources, Hub Plan

The Incapacity Prevention and delay seevice network in Hub Plan was implemented in 2019 to establish an integration model for elderly health care. The resources integration hub is formed by 22 local governments and 123 health centers in 2020. According to actual conditions by area, we categorized nine resources of "exercise, household safety and fall prevention, elderly nutrition, dementia and aging friendliness, chronic disease management, medical healthcare, transportation, community participation, and welfare

subsidy." Resources are keyed into the HPA system for users to read (Figure5-3).We also formed cross-unit (area) partnerships with community medical care groups, hospitals, village chiefs and community care sports, providing resources and services for people in need through resources connection and referrals to respond to the problems caused by aging such as nutrition, insufficient exercise, chronic disease, declining bodily function and dementia.

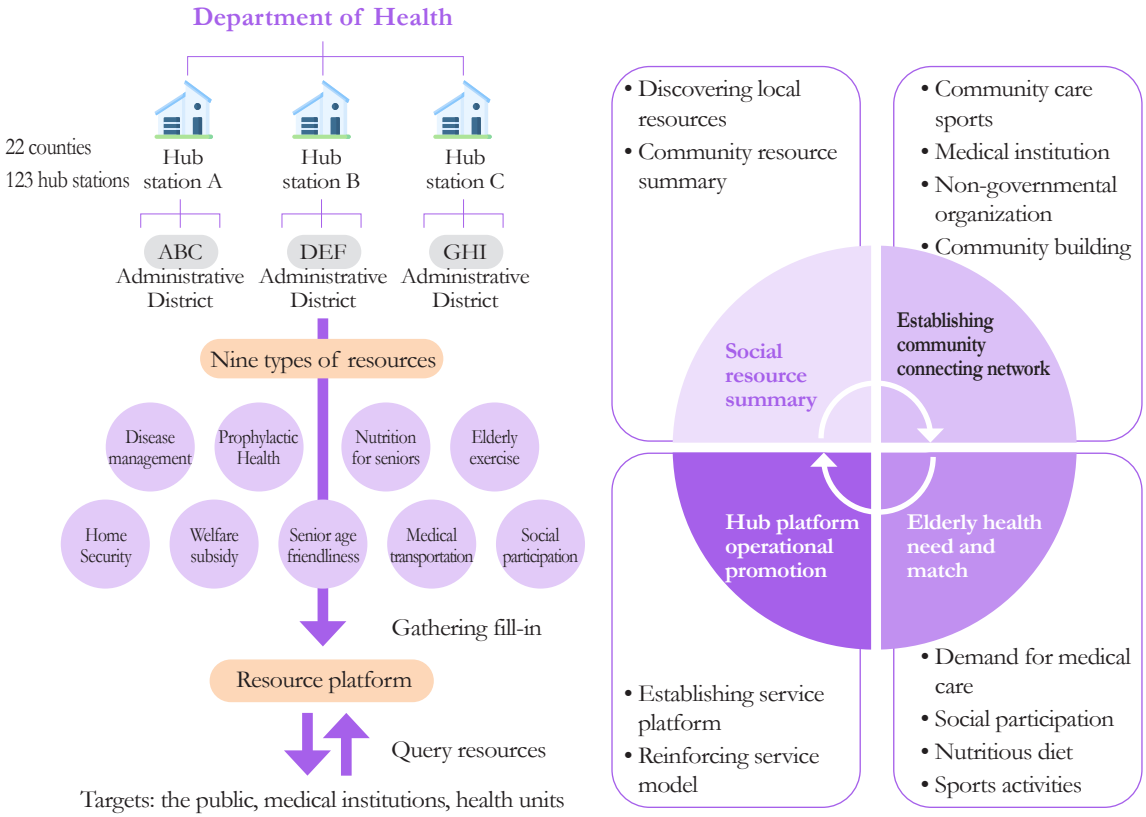


Figure 5-3 Community resources inventory framework

7. Promoting silver hair fitness club subsidy plan

In order to delay elderly debility and dementia, we came up with the "Forward-looking Infrastructure Development Program–urban and rural project 2.0 Public Service Point Maintenance–Silver Hair Fitness Club Subsidy Plan." On September 17th 2020, Executive Yuan approved the plan. This plan is scheduled from 2021 to 2025, with a total of 288 service points and total budget of NT$ 288 million.

8. Hospitals promoting debility prevention healthcare plan for elderly

In response to the potential impact of population aging to society, healthcare, and families, from October 2019 to December 2020, HPA subsidized 36 hospitals in emergency, impatient, and outpatient to develop screening and preventive strategies for delaying disability and elderly debility, and established models to help the elderly to maintain their own abilities while receiving emergency medical procedures to reduce onset of disability. We also created a connecting network with community resources. By doing so, the elderly can continue to receive continuous integrated evaluation and healthcare services from medical to the community.

9. Promoting elderly health integrated evaluation for early discovery of functional problems

In 2020, we introduced the Integrated Care for Older People (ICOPE) and provided integrated evaluations for community elders who are over 65 years of age, covering cognitive functions, mobile abilities, nutrition, hearing abilities, vision, and depression status, for early discovery of functional deterioration and early utilization and intervention of related resources, in order to achieve the goals of prevention and delaying on set of disability. In 2020, approximately 38,000 people utilized the service.

Age-friendly Environment and Compassionate Cities

Status Quo

The HPA has promoted age-friendly cities since 2010. In 2019, it made age-friendliness 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 policies. We need to improve facilities and processes/services 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 such as being volunteers, sharing their experience and knowledge, or assisting homecare. The ability to continue to make a contribution achieves the dream blueprint of "less illness, slower aging and living well," enhancing quality of life well into old age.

WHO Global Age-friendly Cities: A Guide

- Civic participation and employment
- Housing
- Community support and health services
- Communication and information
- Social participation
- Transportation
- Respect and social inclusion
- Outdoor spaces and buildings

Figure 5-4 **Eight domains of focus in the WHO's "Global Age-friendly Cities: A Guide"**

Policy Implementation and Results

1. Promoting age-friendly cities from public policies to county and city environment

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 5-4). In 2010, the HPA chose Chiayi City as its pilot age-friendly city. By 2013, the HPA had already promoted age-friendliness in 22 cities and counties in Taiwan, making it the first country in the world in which all cities and counties have vowed to promote age-friendly cities. In 2020, a total of 22 counties and cities were subsidized. With the participation of 121 health offices and 18 communities, a total of 137 age-friendly communities were benefitted.

(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

We spread the influence of friendly actions, nurture community health promotional workers to focus on the needs of the elderly, utilize community resources and increase partnership relationships. We also reinforce health promotional work abilities, lead the promotional plan of 22 counties and cities, and connect a local health service network for the elderly.

(4) Conducting age-friendly cities selection events

In order to support and encourage local government to work across different bureaus and departments, HPA conducted "Healthy city and age-friendly city award" selection, and merged the awards in 2020. In 2020, a total of 323 works were selected, and 41 units were awarded (Figure 5-5).

Items	Award categories	Statistics of submissions	Award nominees
Outstanding awards	County and city division	0	0
	Township, city, and district division	3	1
Healthy city award	City partnership award	38	5
	Resilience and innovation award	42	5
	Health equality award	46	5
	Green city award	40	5
Age-friendly city award	Accessibility award	49	5
	Longevity award	48	5
	Innovation award	19	5
	Active award	38	5
Total		323	41

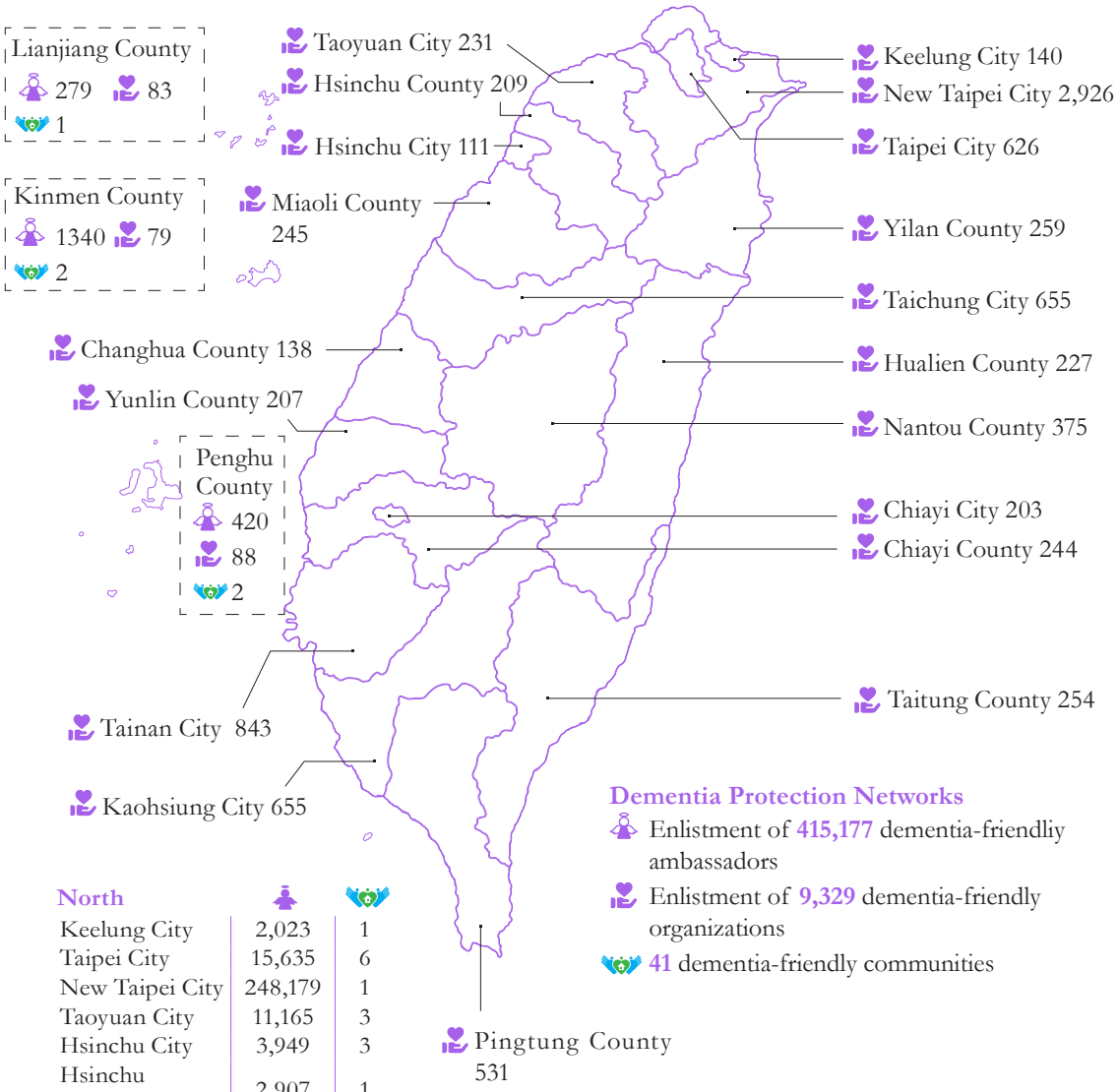
Figure 5-5 **2020 Healthy city and age-friendly city award selection status**

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

(1) The promotion of "Certification 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 health care 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. The core values of this framework are "health," "humanity," and "human rights," and the vision is to promote health, dignity and participation

for persons of older ages. The framework was launched in 2010. In 2017, due to the simplification of the assessment policy, HPA consolidated the recognition of age-friendly hospitals and health services into Healthy Hospital Certification. For the service patterns of different health care institutions, we developed "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 (in long-term care service institutions, for employee and resident health promotion) and community services and referrals (Figure 5-6).



North		
Keelung City	2,023	1
Taipei City	15,635	6
New Taipei City	248,179	1
Taoyuan City	11,165	3
Hsinchu City	3,949	3
Hsinchu County	2,907	1
Yilan County	3,033	2

Central		
Miaoli County	3,267	1
Taichung City	41,318	5
Changhua County	6,273	1
Nantou County	6,068	1
Yunlin County	3,433	1

South		
Chiayi City	5,301	2
Chiayi County	2,425	1
Tainan City	29,528	2
Kaohsiung City	19,287	1
Pingtung County	4,376	1

East		
Hualien County	3,457	2
Taitung County	1,514	1

Figure 5-7
Achievements in the promotion of dementia protection networks in 2020

WHO	3 Principles of age-friendly care	5 Standards for health promoting hospitals
Age-friendly Healthcare Framework	Core values: Health, humanity, human rights	Mission statement: Enhance the health, respect and participation of seniors
Age-friendly Hospitals and Health Services Version 1.0	11 Sub-standards	60 Items
Age-friendly Hospitals and Health Services Version 2.0 Local Health Centers Version and Long-term Care Institutions Version	5 Standards	Public health centers: 20 items Long-term care service Institutions: 21 items
Healthy Hospital Certification	7 Standards	38 Items

Figure 5-6 **"Age-friendly Hospitals and Healthcare Certification" in Taiwan**

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

Promotion of the guidance and development began in 2011 with hospitals, and was extended to health centers and long-term care institutions in 2012, including professional training courses. The Age-friendly Health Care Institution Achievement Presentation is held annually to commend units with excellent performance and drive the trend for age-friendly healthcare.

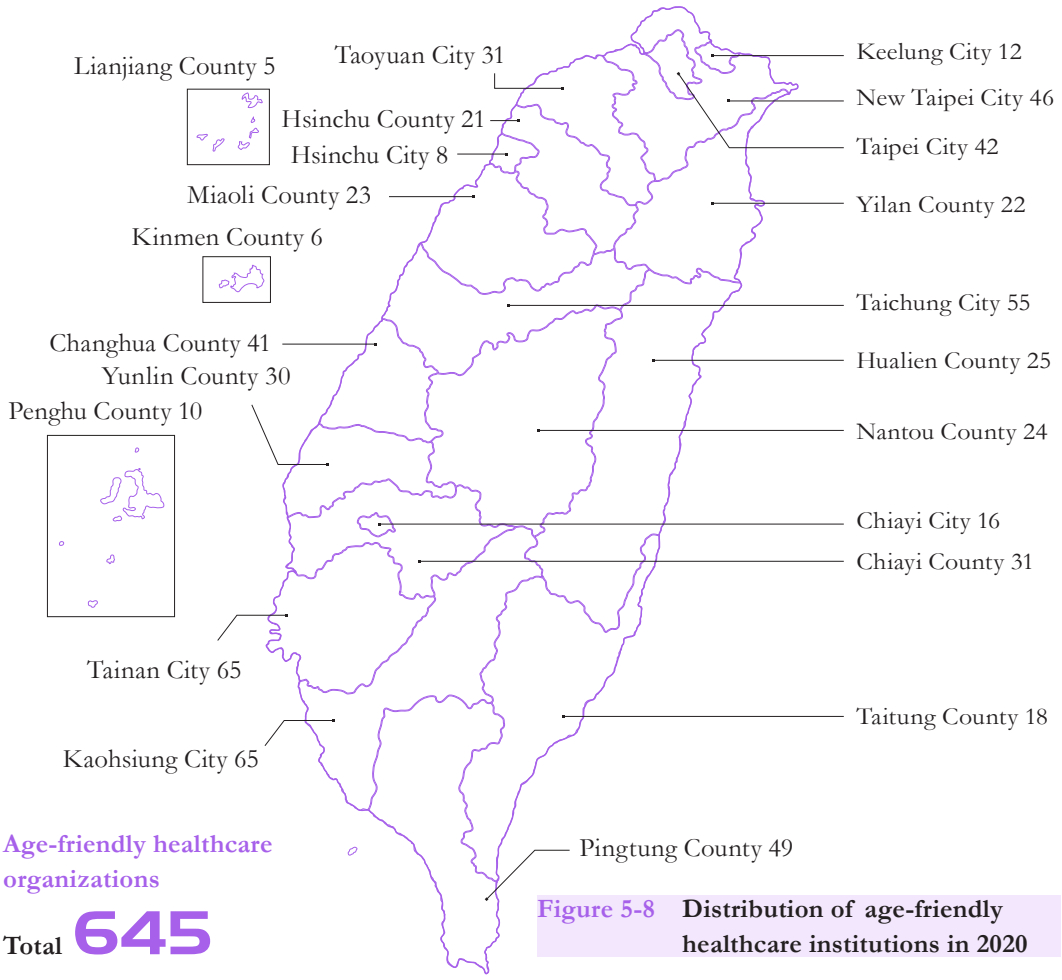


Figure 5-8 **Distribution of age-friendly healthcare institutions in 2020**

6 Non-communicable Disease Prevention

Inquiry of chronic disease prevention

In 2020, there were

286 diabetic health promotion centers and **196** kidney disease preventative health promotion centers

577 diabetes support groups

In 2020, HPA pushed for the establishment of 577 diabetes support groups, and achieved 98.1% coverage within the counties, towns, cities and regions of Taiwan.

53.2%

HPA achieved a cervical cancer screening rate of 53.2% among women aged 30-69 over the past three years.

38%

We achieved a breast cancer screening rate of 38% among women aged 45-69 over the past two years.

37.7%

We achieved a colorectal cancer screening rate of 37.7% among people aged 50-69 over the past two years.

6

In 2020, chronic diseases was the leading cause of death (Table 6-1) in Taiwan. These diseases, which are a commonl 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.

Table 6-1 **10 Leading Cause of Death in Tawan 2020**

	Cause of Death	Hypertensive disease	Crude death rate (Remark 1)	Standardized Death Rate (Remark 2)
1	Malignant neoplasms	50,161	212.7	117.3
2	Heart disease (other than hypertensive disease)	20,457	86.7	43.8
3	Pneumonia	13,736	58.2	26.4
4	Cerebrovascular disease	11,821	50.1	25.2
5	Diabetes mellitus	10,311	43.7	22.0
6	Accidental injury	6,767	28.7	20.3
7	Hypertensive diseases	6,706	28.4	13.4
8	Chronic lower respiratory tract diseases	5,657	24.0	11.0
9	Nephritis, kidney diseases, and kidney pathology	5,096	21.6	10.5
10	Chronic liver disease and cirrhosis	3,964	16.8	10.3

Source: Cause of Death Statistics, MOHW

1. Death rate calculated per 100,000 people
2. 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 Nutrition and Health Survey in Taiwan (NAHSIT) conducted between 2017 and 2020, about 5.23 million people suffer from hypertension, 5 million suffer from hyperlipidemia, and an estimated 2.16 million people over the age of 20 suffer from diabetes (Figure 6-2, Figure 6-3, Figure 6-4). Among the top ten causes of death in Taiwan, diseases related to hypertension, hyperglycemia and hyperlipidemia include heart disease (ranked 2nd), cerebrovascular disease (ranked 4th), diabetes (ranked 5th), hypertensive disease (ranked 7th) and kidney disease (ranked 9th).

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 diseases, and chronic kidney diseases (CKD) have been listed as major targets of prevention.

We worked with local government and NGOs to deeply reach into the community and held health education and promotion for hyperglycemia, hyperlipidemia, hypertension, and metabolic syndrome. On the important days of the world (such as hypertension day, heart day, diabetes day and stroke day), we cooperated with international events to reinforce health communication. In response to the care needs of chronic disease and comorbidity, in 2020 we promoted the "Chronic Disease Cross Domain Integrated Healthcare Training Plan (2020 to 2021). We worked together with the main chronic disease expert associations, developed integrated chronic disease healthcare training methods, reinforced the core abilities of multiple chronic disease healthcare and management for clinical personnel, and strengthened the health management of basic medicine and local health authorities' for important chronic disease patients, reducing possibilities of early deaths.

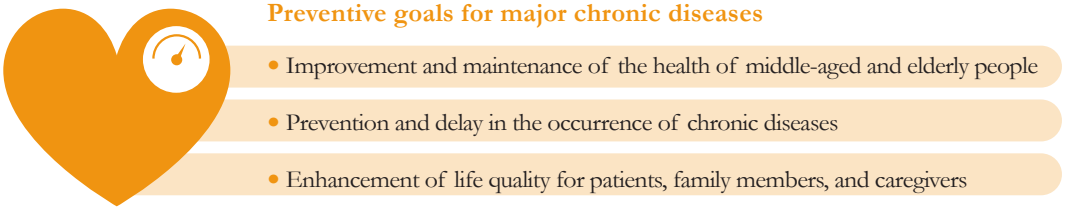
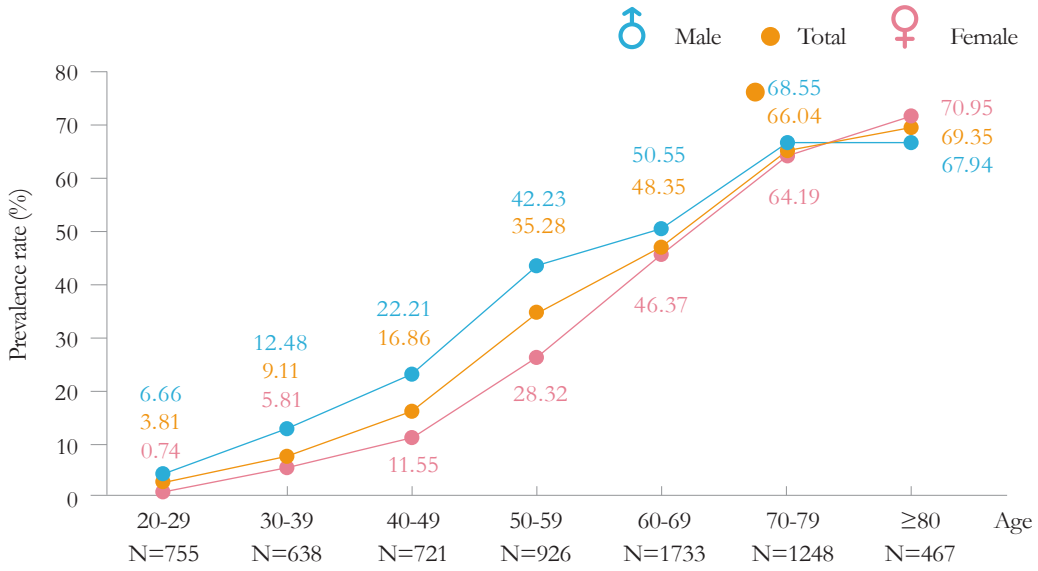


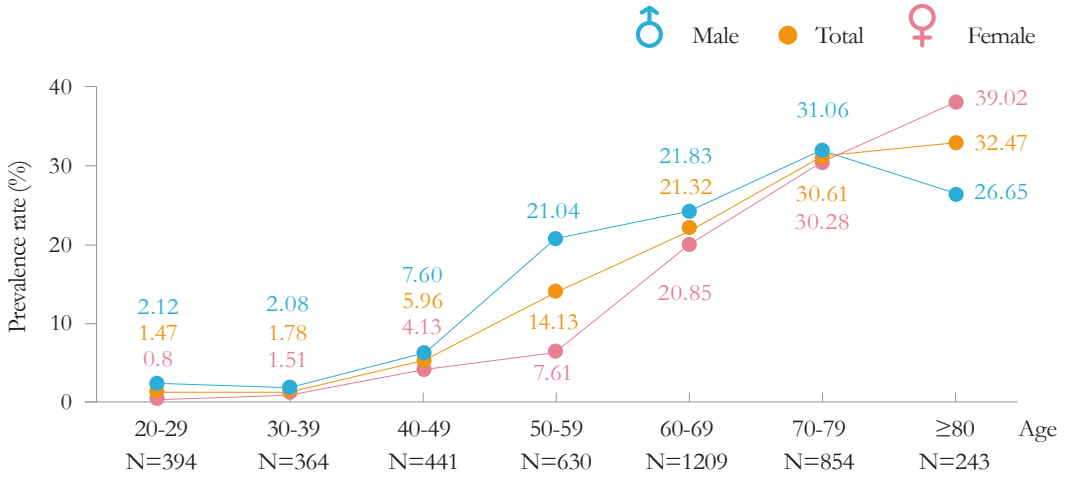
Figure 6-1 Preventive goals for main chronic diseases



Source: Nutrition and Health Survey in Taiwan (NAHSIT), 2017-2020

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≧140mmHg, diastolic pressure≧90mmHg, or answer yes on anti-hypertensive medications
3. The results were weighted.

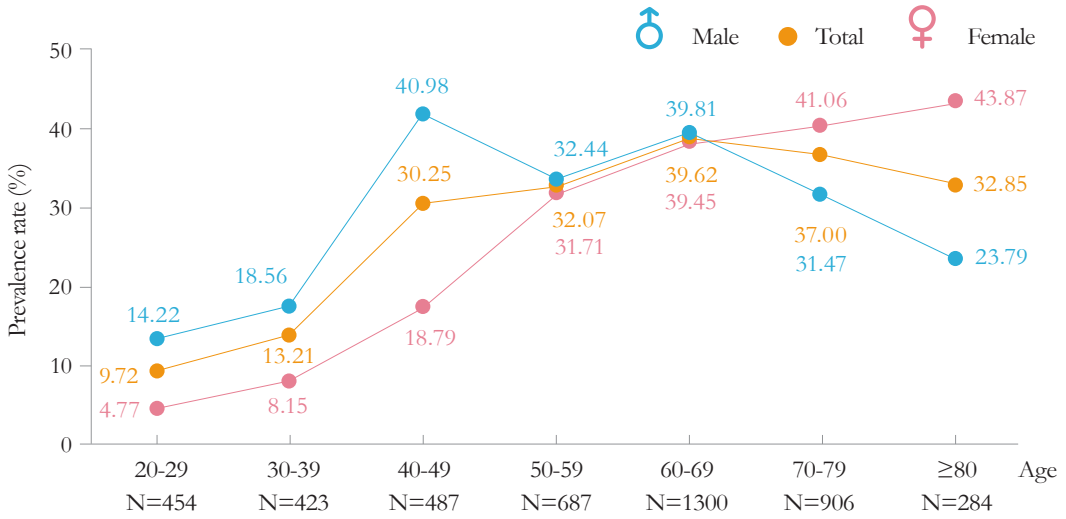
Figure 6-2 Prevalence of hypertension by gender and age, 2017-2020



Source: Nutrition and Health Survey in Taiwan (NAHSIT), 2017-2020

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

Figure 6-3 Prevalence of hyperglycemia by gender and age, 2017-2020



Source: Nutrition and Health Survey in Taiwan (NAHSIT), 2017-2020

1. Denominator: Sample of inspected results with excessive cholesterol or triglycerides
2. Numerator: Definition of hyperlipidemia: Total cholesterol≧240mg/dL, or triglycerides≧200mg/dL, or patients on anti-hyperlipidemic medications (including self-proclaimed use of anti-hyperlipidemic medications or use of medications with anti-hyperlipidemic effects without self-proclaimed use)
3. The results were weighted.

Figure 6-4 Prevalence of hyperlipidemia by gender and age, 2017-2020

Target Indicators

1. In 2020, there were 286 diabetic health promotion centers and 196 kidney disease preventative health promotion centers.
2. In 2020, HPA pushed for the establishment of 577 diabetes support groups, and achieved 98.1% 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.

A. In 2020, HPA spread awareness of topics such as prevention of metabolic syndrome, chronic kidney disease, diabetes and cardiovascular diseases through various channels including television, radio, magazines, Internet, and in-person activities, reading 63 millions people. 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, and destrilated to medical institutes for health education and advocacy.

B. Public concern and awareness on diabetes prevention was aroused through synchronized promotion of "The Family and Diabetes," the theme of the 2020 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. Health Bureau of Taichung City Government and worldwide nations simultaneously advocated Diabetes and Nurse to raise people's attention and awareness for diabetes prevention.

C. In line with the theme "Know Your Numbers" for World Hypertension Day 2020, we issued a press release to remind the people: Grasp the easy steps of 3C, remember to regularly check blood pressure, change healthy lifestyles, and control medication on regular basis, in order to conduct self-management on the 3C of blood pressure.

D. On the occasion of Father's Day in 2020, we organized the "2020 Metabolic Syndrome Health Check and Advocacy" event featuring the theme of "Measure Your Health," encouraging the public to pay attention to the size of their own waist as well as that of those around them. In the month of the event, a total of 17 convenience stores and pharmacy chains provided measuring tape. They also ran campaigns online and on social media, attracting 19.75 million visitors. In addition, we also attracted 3.99 million visitors on the posts of MOHW on Facebook and Line.

E. On the occasion of World Kidney Day 2020, we partnered with the Taiwan Society of Nephrology to host 5 chronic disease healthcare network seminars. A total of 774 people participated, in order to provide the newest kidney disease prevention of expertise and knowledge for medical staff.

F. In response to World Stroke Day, we worked with civic groups, to organize running and educational fairs. We reminded people to pay attention to the stroke risk factors and acute symptoms. We also held press conferences to remind the people to follow

the stroke prevention "333" principles and advocated FAST stroke phrase "Facial, arm, speech, and time," in order to grasp the golden opportunity for treatment. In addition, we executed "Stroke health awareness promotion plan," and designed "stroke health awareness table-top games" and "staff dressing in stroke experience clothing," in order to raise awareness in high-risk workplaces.

G. In 2020, we partnered with Taiwan Women's Link to host the "Go Red for Women: Cardiac Health for Breast Cancer Patients" press conference and Facebook events featuring celebrities. We distributed health education brochures physically and online to promote awareness of cardio vascular health for women.

H. In response to the World Heart Day, we worked together with Taiwan Heart Foundation, held press conferences, and advocated cardiovascular diseases and prevention awareness. We also held the "Health action to protect the heartbeat" fair event. Through this event, we reinforced people's awareness for cardiovascular diseases. We also broadcasted vedio on "Prevention of cardiovascular disease–symptoms and medical care"; through internet celebrity nutritionists and health magazines, we raised people's awareness for cardiovascular diseases.

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

(1) Providing convenient and intensive blood pressure measurement services

We have set up a large number of locations to provide convenient and accessible blood pressure measurement services, including administrative service units, community care locations, activity centers, pharmacies, hypermarkets and workplaces. Community pharmacists are also available for assisting people with blood pressure management. In 2020, there were about 3,000 blood pressure measuring points nationwide.

(2) Deepening the campus awareness for chronic disease prevention

In 2020, a total of 18 different types of 97 primary and secondary schools across the country (with a total of 2,487 cases) adopted the "Major Chronic Disease Prevention and Case Management Handbook" on campus published by the HPA while following the corresponding management model, aiming at empowering schoolchildren to improve their health knowledge including general healthy, health behavior, self-efficacy and healthcare. This improved the quality of chronic disease prevention and case-by-case management on campus, as well as ensuring the health and safety of schoolchildren.

(3) Promoting the operations of diabetic support groups

In order to enhance access to care 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.

(4) Upgrading human resources and 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 11 such events were organized in 2020.

Figure 6-5 **Increase the accessibility of health promotion for high-risk diabetics**

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 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 2020, a total of 13,663 people were accredited as clinical care-givers.

(2) Attaching importance to preventive management

In 2020, there were 286 diabetic health promotion centers, providing internship opportunities for 1,369 diabetes health education personnel, with a total of 604,949 cases participating in the National Health Insurance diabetes medical benefit improvement program. The goals include strengthening preventive healthcare through the community medical network, targeting chronic disease management such as early diabetes and early chronic kidney disease, formulating a chronic disease assessment and care procedure in the community medical network of primary clinics, as well as improving the management quality and capacity of chronic disease prevention and treatment services in primary hospitals.

(3) Dence of mind healthcare certification badge

In 2020, we held award ceremony for outstanding diabetes health promotion institutions. Innovative features and samples to 3 institutions, special awards to 6 institutions overall implementation results to 6 institutions, and special awards to 15 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 2020, a total of 196 of these institutions with 291,461 follow-up outpatient patients and accepted 63,155 new patients. Also, 45.4% of all dialysis patients have undergone placement of a vascular access for dialysis treatment, while 30.6% of all patients receive dialysis treatment for the first time in an outpatient environment not requiring hospitalization or emergency care.

(5) Implementing care-by-case management

In 2005, the "Chronic Kidney Disease Case Management Joint Care Information System" was established and integrated with other chronic kidney disease databases. In 2020, a total of 189 hospitals adopted the system with a total number of 259,869 patients in their care.

(6) Comprehensively advocating of COPD

Through TV and Internet advocacy channel, we raised the people's awareness of tobacco cessation, second-hand smoking, and COPD symptoms. We conducted COPD medical healthcare quality analysis research and tried our best for patients to receive high quality healthcare.

(7) Patient-centered management for multiple chronic diseases

In 2020, integrated care screening and withdrawal mechanism for we established 5 chronic diseases (chronic kidney disease, diabetes, ischemic stroke, chronic obstructive pulmonary disease, and heart failure). We also set up, information system and necessary referral data, and training contents for medical staff before they join integrated healthcare. We included collection of risk factors as healthcare evaluations and intervention items. We hope to provide management of multiple chronic diseases that is patient-centered.

Cancer Prevention and Control

Based on the Cancer Control Act implemented in 2003, the HPA regularly convenes the central cancer control meeting and cancer prevention policy advisory committee to coordinate and communicate among government departments. The "National 5-year Cancer Prevention Program" ran from 2005 to 2009, with the second phase of cancer screening program following suit from 2010 to 2013, targeting the expansion of cancer screening services as the main strategy. The third phase of the national cancer prevention program focuses on preventing cancer at its source (2014-2018). The fourth phase of the national cancer prevention program (2019-2023) has formulated 6 strategies to address the trend of austerity measures in international health expenditures and emphasize what data analysis and evidence can do for cancer prevention, including:

- Establishing a sustainable cancer prevention and control system,
- Enhancing the health literacy of the people and cancer prevention personnel,
- Strengthening health awareness of the public and cancer prevention personnel,
- Continuing to promote cancer screening and developing personalized and precise cancer prevention health services,
- Reducing inequality in all areas of cancer prevention and treatment, and
- Applying data and evidence to improve the effectiveness of cancer prevention and treatment.

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 regis-tration 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 Cancers

Data shows that 116,131 people were newly diagnosed with cancer in 2018 (61,779 men and 54,352 women), with the standardized incidence ratio of 309.8 per 100,000 population (341.3 men and 284.7 women). From the male-to-female incidence rate ratio (IRR) of cancer, men were 1.2 times more at risk than women. Due to the use of tobacco and betel quids, the incidence rates of esophageal cancer and oral cavity in men are respectively 14.8 and 10.8 times higher than that of women (Figure 6-6).

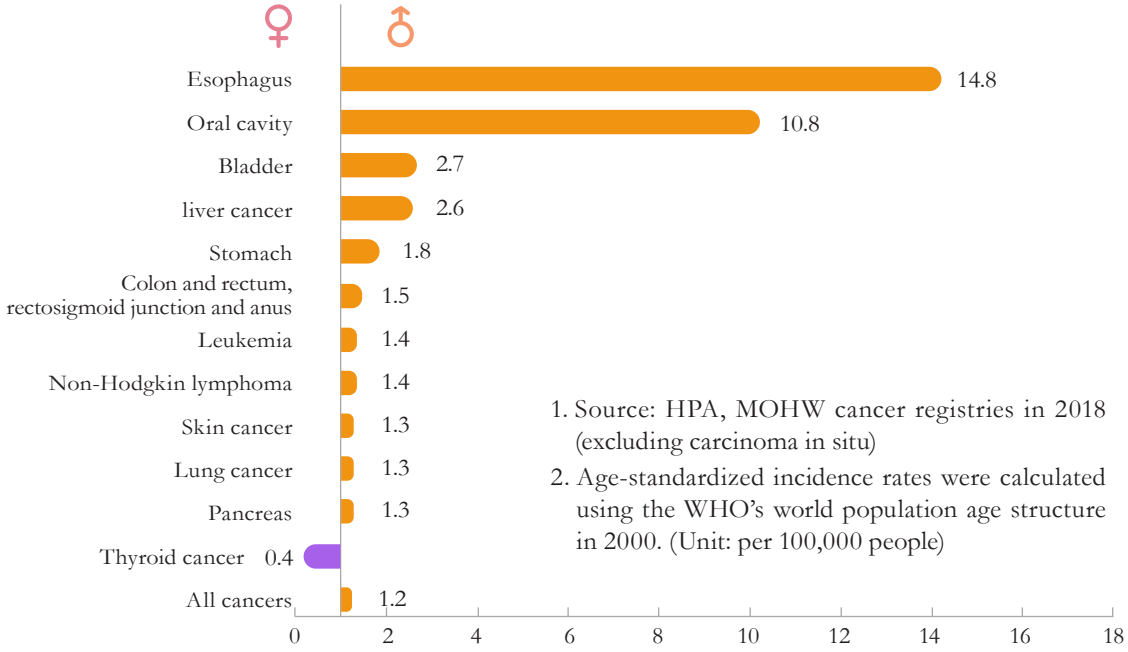
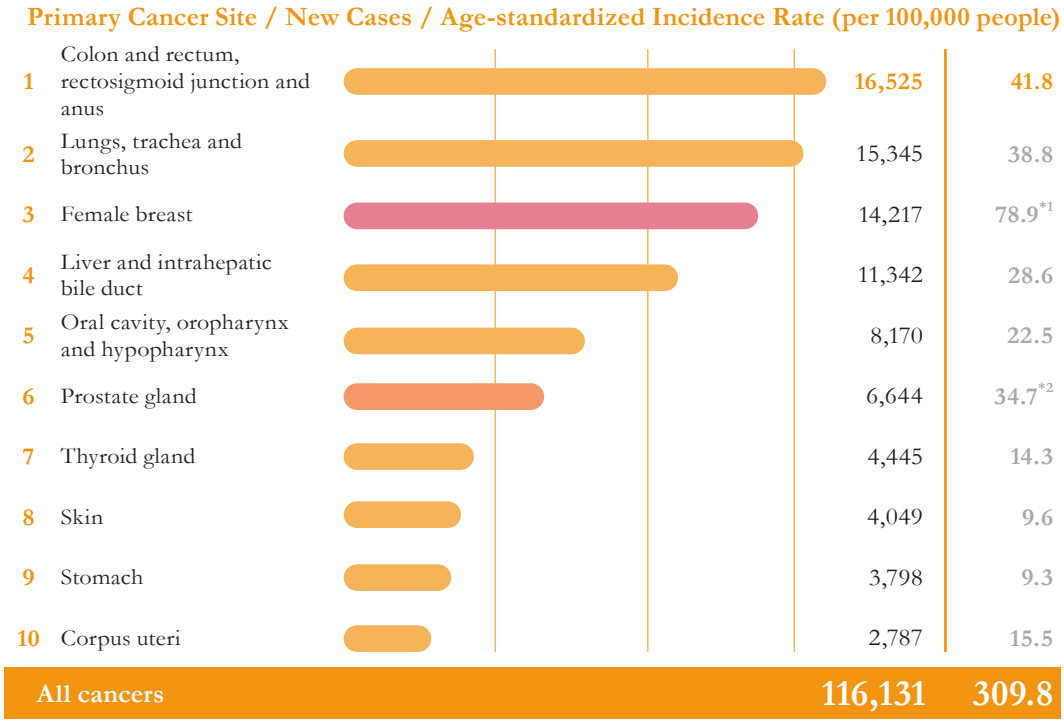


Figure 6-6 Male-to-female incidence rate ratio (IRR) of major cancers, 2018

As for the new cases of cancer, the top 10 leading cancers are as follows: 1) Colorectal cancer, 2) Lung cancer, 3) Female breast cancer, 4) Liver cancer, 5) Oral cavity, 6) Prostate, 7) Thyroid cancer, 8) Skin cancer, 9) Stomach, and 10) Corpus uteri cancer (incidence rate for cancers of people in Taiwan are in Figures 6-7, 6-8, and 6-9).

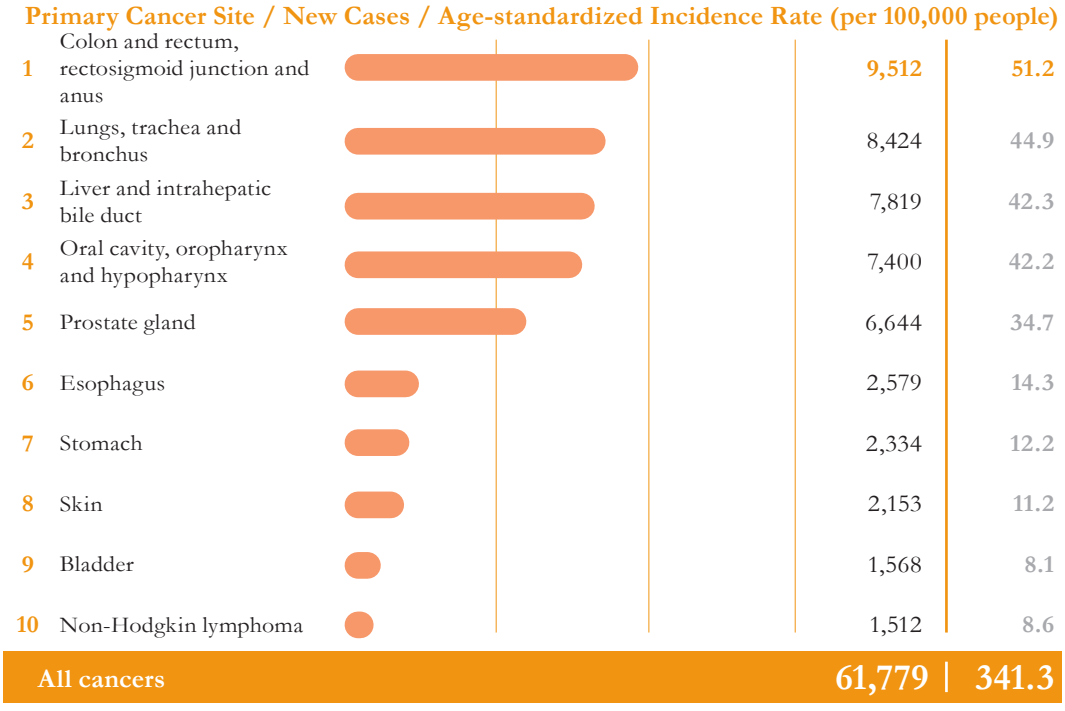
2. Statuses of cancer deaths

The number of cancer death showed that: In 2020, a total of 50,161 people died of cancer (30,250 were male, 19,911 were female). This was 29% of all the death cases. The standardized cancer death rate was 117.3 per every 100,000 people (152.6 men, 86.7 women). The order of death rate for people in 2020 is: 1) Lung cancer, 2) Liver cancer, 3) Colorectal cancer, 4) Female breast cancer, 5) Prostate, 6) Oral cavity , 7) Pancreas cancer, 8) Stomach, 9) Esophageal cancer, 10) Ovary (cancer death information for people in Taiwan are seen in Figures 6-10, 6-11, 6-12).



1. Source: HPA, MOHW cancer registries in 2018
2. Ranking is based on new cases.
3. Age-standardized incidence rates were calculated using the WHO's world population age structure in 2000.
4. *1Per 100,000 female population; *2 Per 100,000 male population

Figure 6-7 New cases of 10 leading cancers in 2018



1. Source: HPA, MOHW cancer registries in 2018
2. Ranking is based on new cases.
3. Age-standardized incidence rates were calculated using the WHO's world population age structure in 2000.

Figure 6-8 New cases of 10 leading cancers among men in 2018

	Primary Cancer Site	New Cases	Age-standardized Incidence Rate (per 100,000 people)
1	Female breast	14,217	78.9
2	Colon and rectum, rectosigmoid junction and anus	7,013	33.6
3	Lungs, trachea and bronchus	6,921	33.7
4	Liver and intrahepatic bile duct	3,523	16.0
5	Thyroid gland	3,302	21.0
6	Corpus uteri	2,787	15.5
7	Skin	1,896	8.3
8	Ovary, oviduct, and broad ligament	1,557	9.3
9	Stomach	1,464	6.8
10	Cervix	1,433	7.9
	All cancers	54,352	284.7

1. Sources: HPA, MOHW cancer registries in 2018
2. Ranking is based on new cases.
3. Age-standardized incidence rates were calculated using the WHO's world population age structure in 2000.

Figure 6-9 New cases of 10 leading cancers among women in 2018

	Primary Cancer Site	New Cases	Age-standardized Mortality Rate (per 100,000 people)
1	Trachea, bronchia and lung	9,629	21.8
2	Liver and intrahepatic bile duct	7,773	18.0
3	Colon, rectum and anus	6,489	14.6
4	Female breast	2,655	12.8
5	Prostate	1,730	7.8
6	Oral cavity	3,380	8.6
7	Pancreas	2,450	5.7
8	Stomach	2,339	5.2
9	Esophagus	1,954	4.9
10	Ovary	724	3.6
	All cancers	50,161	117.3

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

Figure 6-10 Mortality rate of 10 leading cancers in 2020

Primary Cancer Site	New Cases	Age-standardized Mortality Rate (per 100,000 people)
1 Trachea, bronchia and lung	6,037	29.7
2 Liver and intrahepatic bile duct	5,296	26.8
3 Colon, rectum and anus	3,636	17.9
4 Oral cavity	3,137	16.8
5 Esophagus	1,801	9.5
6 Prostate	1,730	7.8
7 Stomach	1,433	6.9
8 Pancreas	1,349	6.8
9 Non-Hodgkin lymphoma	748	3.8
10 Bladder	717	3.9
All cancers	30,250	152.6

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

Figure 6-11 Mortality rate of 10 leading cancers among men in 2020

Primary Cancer Site	New Cases	Age-standardized Mortality Rate (per 100,000 people)
1 Trachea, bronchia and lung	3,592	15.1
2 Colon, rectum and anus	2,853	11.8
3 Female breast	2,655	12.8
4 Liver and intrahepatic bile duct	2,477	10.0
5 Pancreas	1,101	4.7
6 Stomach	906	3.8
7 Ovary	724	3.6
8 Cervix uteri and uterus, part unspecified	668	3.1
9 Non-Hodgkin lymphoma	546	2.3
10 Leukemia	459	2.2
All cancers	19,911	86.7

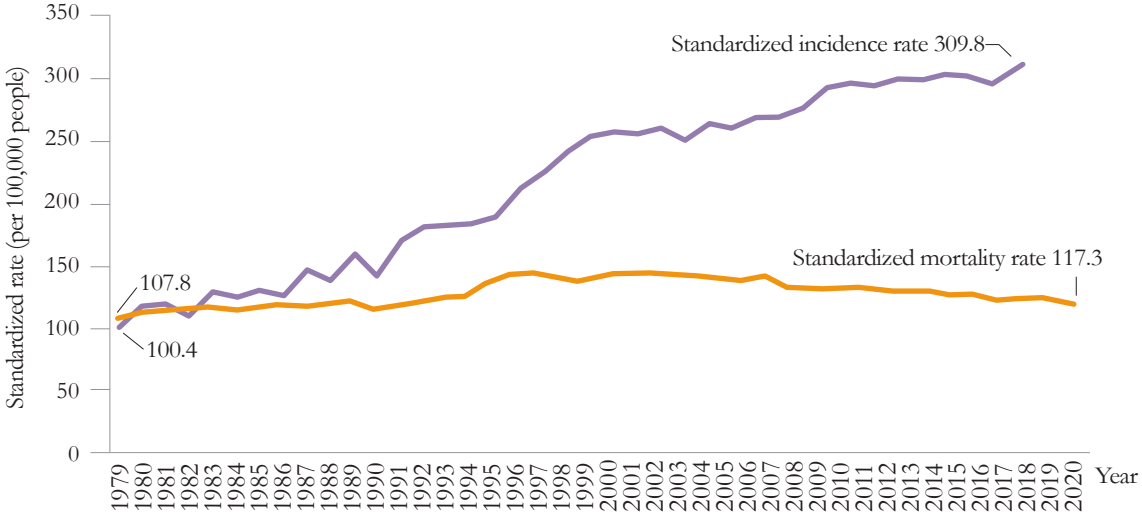
1. Source: Causes of Death Statistics, MOHW.
2. Ranking is based on order of crude death rate.
3. Age-standardized mortality rates were calculated using the WHO's world population age structure in 2000.

Figure 6-12 Mortality rate of 10 leading cancers among women in 2020

3. Trends in 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. The number dropped to 117.3 deaths by 2020. The standardized incidence rate of cancer has also increased year by year from 110.9 per 100,000 population in 1982 to 309.8 in 2018 (Figure 6-14), with a slight decrease in recent years.

According to the analysis of the standardized incidence rates of cancer from 2009 to 2018 (10-year change), all cancers in men increased by 1.5%, of which prostate cancer had the largest increase (29.0%) and stomach cancer had the largest decrease (23.3%). All cancers in women increased by 12.3%, of which thyroid cancer had the most rapid increase (59.1%) and cervical cancer had the most rapid decrease (33.6%) (Figure 6-14, Figure 6-15).



1. Sources: HPA 2018 registered cancer data and 2020 Cause of Death Statistics, MOHW.
2. Age-standardized rate: Based on the WHO's standard world population age structure in 2000

Figure 6-13 Trends in cancer incidence (1979-2018) and mortality (1979-2020)

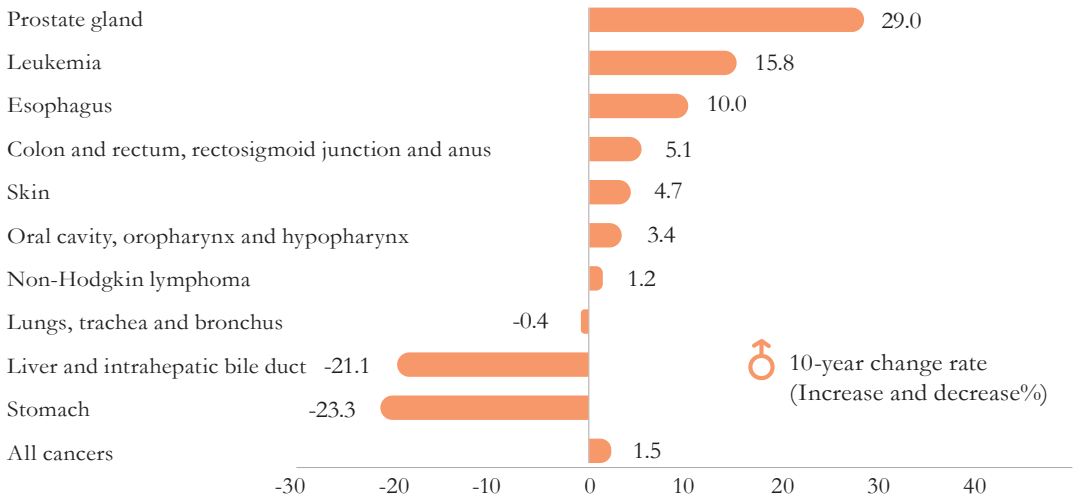


Figure 6-14 Annual percentage change in incidence rates (APCR) of the 10 leading cancers among men, 2009 and 2018

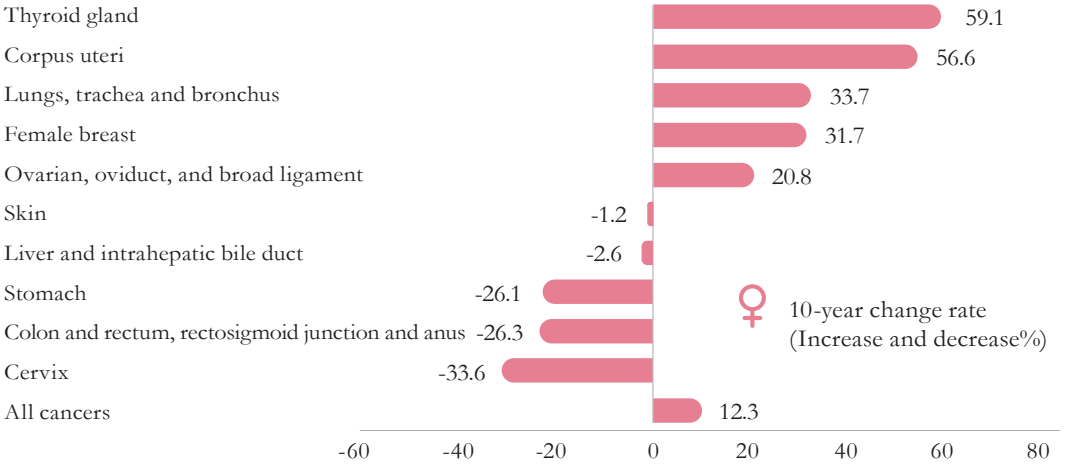


Figure 6-15 **Annual percentage change in incidence rates of the 10 leading cancers among women, 2009 and 2018**

Target Indicators

Upgrading the cancer screening rate:

1. Achieved a cervical cancer screening rate of 53.2% among women aged 30-69 over the past three years.
2. Achieved a breast cancer mammogram screening rate of 38% among women aged 45-69 over the past two years.
3. Achieved a colorectal cancer screening rate of 37.7% among people aged 50-69 over the past two years.

Policy Implementation and Results

1. HPV Vaccination

Studies have confirmed that the occurrence of cervical cancer is mainly caused by a persistent infection of human papilloma virus (HPV). Current HPV vaccines on the market have all been certified by the World Health Organization as safe and effective, capable of preventing at least 70% of cervical cancers caused by HPV infection (Figure 6-16). At present, 110 countries around the world offer routine HPV vaccination. The HPA has gradually introduced the vaccine in accordance with the recommendations of the World Health Organization, giving priority to girls with an economic disadvantage or residing on offshore islands and in mountainous aboriginal areas. And HPA has started universal junior high schools' girls HPV vaccination from December 25th, 2018.

HPV vaccine position paper

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

Figure 6-16
Human papillomavirus vaccines: WHO position paper, May 2017

As of the end of 2020, about154,000 people have completed the first dose of HPV vaccination. In 2019, the vaccination rate for 7th grade girls was approximately 87%.

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 41%; fecal occult blood tests can reduce colorectal cancer mortality rates by 35%; 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 6-17).

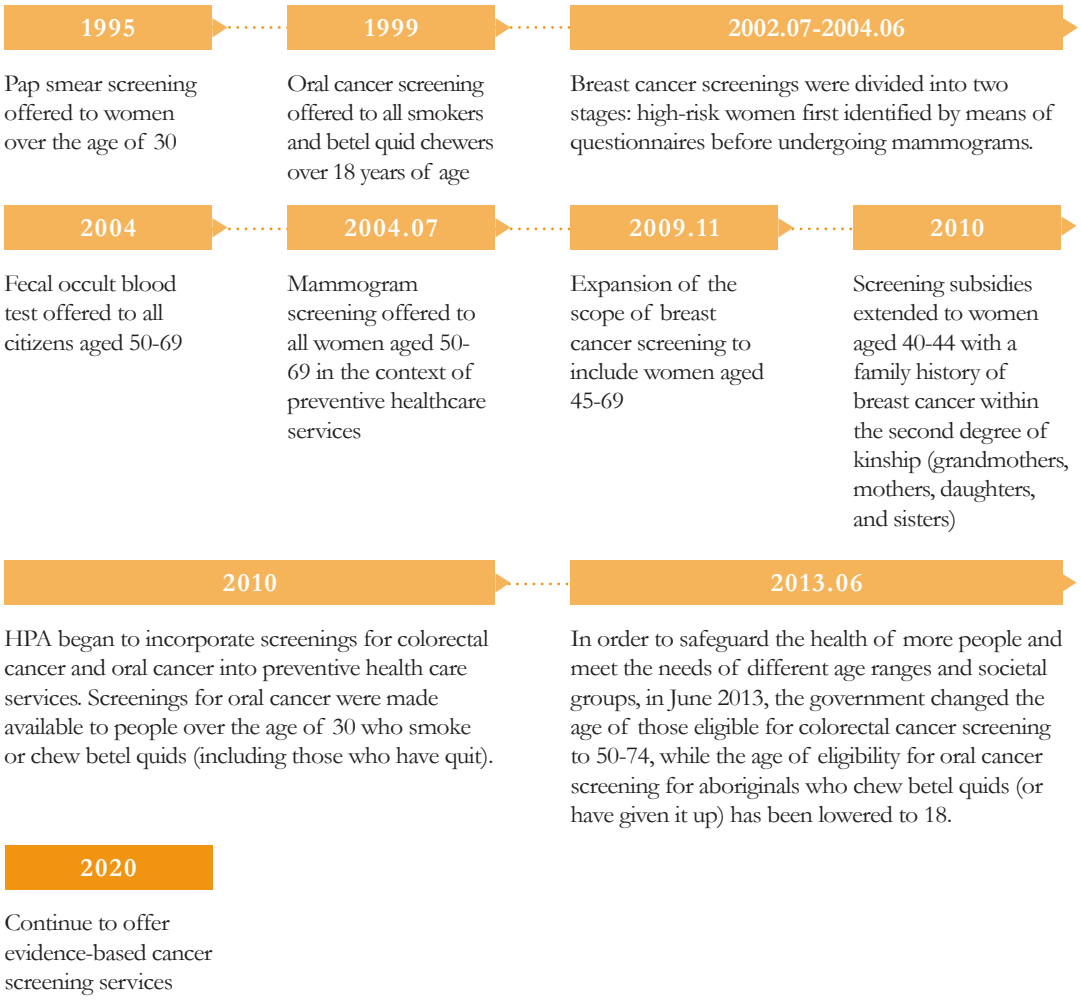


Figure 6-17 Cancer screening promotional schedule

3. Continued promotion of 4 cancer screening

(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. A total of 3 recorded broadcasts of 30 seconds were produced in Mandarin, Taiwanese and Hakka to remind people of the importance of receiving regular screenings for 4 major cancers through dialogue between friends.

Furthermore, a phone survey showed that 70% of the respondents said they knew which types of cancer screening were subsidized by the government to be free of charge, and 84.7% of the respondents expressed satisfaction with the cancer screening services. In the "2020 Ministry of Welfare Policy Implementation Satisfaction Rate Report," the satisfaction rate was 94.3% for the 4 major cancers (cervical cancer, breast cancer, colorectal cancer, and oral cancer).

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

In 2020, HPA commissioned 225 medical institutes to conduct "Cancer quality improvement planning and comprehensive cancer prevention promoting plan." 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 by WHO that have tended to prioritize treatment over prevention. This revolutionized the medical culture and operational approach of hospitals.

(3) Main outcomes of cancer screening

In 2020, a total of 4.54 million screenings were carried out for cervical cancer, breast cancer, colorectal cancer, and oral cancer. A total of 9,076 cases of cancer and 53,000 cases of pre-cancer were detected, and 62,000 lives saved. Details are listed below.

A. Cervical cancer

In 2020, a total of 2.06 million Pap smears were provided for women over 30 years old, discovering about 15,000 cervical precancerous lesions (including carcinoma in situ) and 1,251 cases of cervical cancer. The rate of women between the age of 30 and 69 receiving cervical cancer screening over the past three years reached 53.2% (cervical cancer screening database).

B. Breast cancer

In 2020, mammogram screenings were performed for 799,000 women aged 45-69, resulting in a screening rate of 38.0%. This led to the detection of 4,340 cases of breast cancer.

C. Colorectal cancer

In 2020, fecal occult blood test was performed for 1.228 million citizens aged 50-74, resulting in the detection of 35,345 cases of precancerous lesions and 2,381 cases of colorectal cancer. The FIT screening rate reached 37.7% for citizens aged 50-69.

D. Oral cavity

In 2020, a total of 454,000 citizens underwent oral cancer screenings, which led to the detection of 3,243 cases of precancerous lesions and 1,104 cases of oral cancer.

Table 6-2 Cancer prevention and control items and achievements

Item	Subject	Screening policy
 Cervical cancer	Women over age 30	Pap smear test once a year. (Recommended at least once every 3 years)
 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 have been diagnosed with breast cancer	One mammogram checkup every 2 years
 Oral cavity	1. Those aged 30 or above who chew betel quids (or have given up) or smoke 2. Aboriginal people aged 18-29 who chew betel quids (or have given up)	One oral mucus checkup every 2 years
 Colorectal cancer	People aged 50-74	One fecal occult blood test every two years

Table 6-3 2011-2020 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	2019	2020
Cervical cancer screening	215	215	215	218	218	217	214	217	218	219	206
Breast cancer screening	53	56	67	70	73	77	79	85	86	88	79.9
Oral cavity screening	80	87	98	98	101	94	93	78	74	60	45.4
Colorectal cancer screening	102	79	112	103	124	118	126	128	131	134	122.8
Total	450	437	492	489	524	506	512	508	508	501	454.1

*Screening rate of the 4 major cancers reduced due to Covid-19.

Table 6-4 2011-2020 screening rates for 3 major cancers

Cancer Screening Type	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cervical cancer screening	72%	-	77%	76%	73.5%	74.5%	72.1%	72.5%	70%	54.8%	53.2%
Breast cancer screening	21.7%	29.5%	32.8%	36%	36.7%	39.5%	38.0%	39.7%	39.9%	40.0%	38.0%
Colorectal cancer screening	23.4%	33.5%	34.2%	38.2%	40.5%	42.0%	40.7%	41.0%	40.8%	40.9%	37.7%

*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.

*The cervical cancer screening rate data from 2011 to 2018 comes from telephone surveys. The 2019 data comes from the screening database afterward (excluding screening at one's own expense).

Table 6-5 2010-2020 number of people with precancerous lesions for 3 major cancers

Cancer Screening Type	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cervical cancer screening	11,985	10,369	9,637	9,996	10,756	10,474	10,071	9,655	10,072	12,903	14,886
Oral cavity	2,081	3,845	3,445	3,703	4,370	4,095	3,572	3,435	3,654	3,518	3,243
Colorectal cancer	21,102	17,479	23,775	26,207	36,112	33,529	34,725	35,090	34,052	35,462	35,345
Total	35,168	31,693	36,857	39,906	51,355	48,098	48,368	48,165	47,778	51,883	53,474

*The number of cervical precancerous lesions from 2011 to 2018 does not include carcinoma in situ; the number of carcinomas in situ is included after 2019.

Table 6-6 2011-2020 number of people with precancerous lesions for 4 major cancers

Cancer Screening Type	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cervical cancer screening	5,656	4,797	4,045	4,191	4,186	4,014	3,833	3,951	3,992	1,108	1,251
Breast cancer screening	2,550	2,820	3,166	3,307	3,459	3,701	4,047	4,530	4,380	4,458	4,340
Oral cavity	1,659	1,428	1,232	1,274	1,395	1,361	1,322	1,231	1,312	1,098	1,104
Colorectal cancer	2,101	1,800	2,001	2,030	2,476	2,352	2,349	2,583	2,463	2,600	2,381
Total	11,966	10,845	10,444	10,802	11,751	11,428	13,091	11,859	12,147	9,264	9,076

*The data in Figures 6-3 to 6-6 includes carcinoma in situ (the number of cervical carcinomas in situ has been included in the number of precancerous lesions after 2019).

(4) Quality improvement of cancer screening services

A. The Taiwan Society of Pathology was commissioned to carry out the qualification review and quality improvement of cancer pathology for suppliers in charge of cervical cell pathological diagnosis. In 2020, a total of 120 suppliers passed the review and 40 follow-up reviews were completed.

B. 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 2020, a total of 216 medical care institutions had passed such reviews.

C. For institutions conducting fecal occult blood test, the HPA commissioned the Corporation Aggregate Taiwan Society of Laboratory Medicine to conduct qualification checks and ensure service improvement work. A total of 157 institutions conducting fecal occult blood tests had been checked by the end of 2020. The group also completed 2 external quality control tests and extended onsite assistance to institutions that failed to meet standards.

D. In 2018, counties and cities were authorized to conduct oral mucosal examination training, with a total of 323 physicians from other departments trained for oral cancer screening services. Over the years, more than 7,000 people have been trained, offering people better access to oral cancer screening services.

E. In 2019, HPA also provided active on-site guidance for hospitals and clinics (12 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 2020, a total of 94 hospitals were entrusted to implement the "Cancer Care Advanced programs." HPA also makes constant efforts in the field of cancer care quality certifications (see Figure 6-18 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 2020, a total of 61 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.

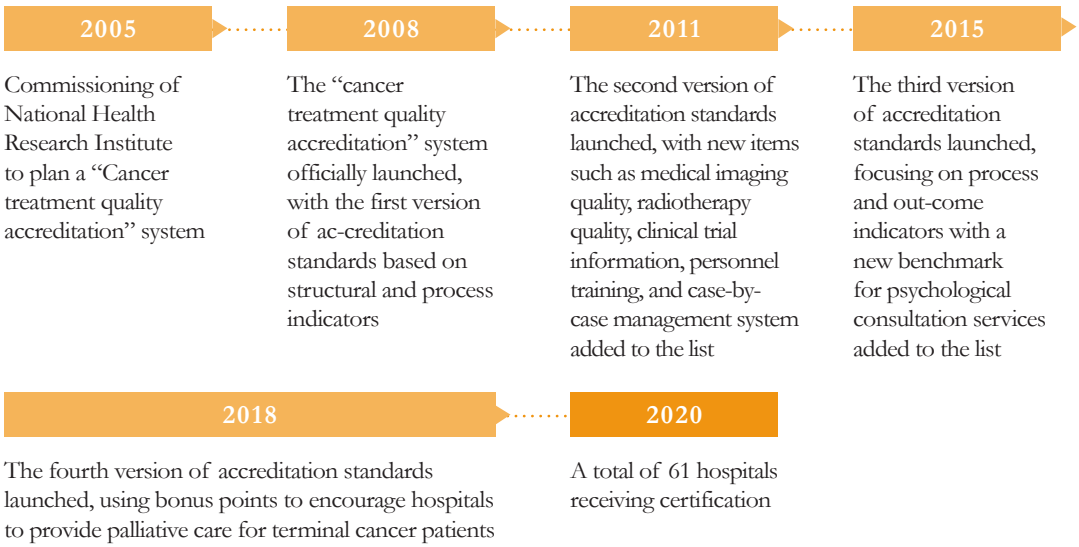


Figure 6-18 Brief history of cancer treatment quality accreditation

(2) Significant enhancement of the quality of cancer care

In addition, 11 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

In 2020, a total of 80 hospitals set up "Cancer Resource Centers" to integrate internal and external resources, allowing dedicated registered nurses, social workers and psychologists to provide high-quality integrated cancer resource services that meet needs through institutionalized service processes in a timely manner, assisting patients in communicating with different teams at the hospital in order to help them as well as their family to reintegrate into the community after treatment. Approximately 120,000 people received the services in 2020. In addition, the Hope Foundation for Cancer Care has been entrusted to train dedicated personnel for cancer resource centers, improve service capabilities for cancer patients, and assist in resource integration so that resources can be effectively linked and used.

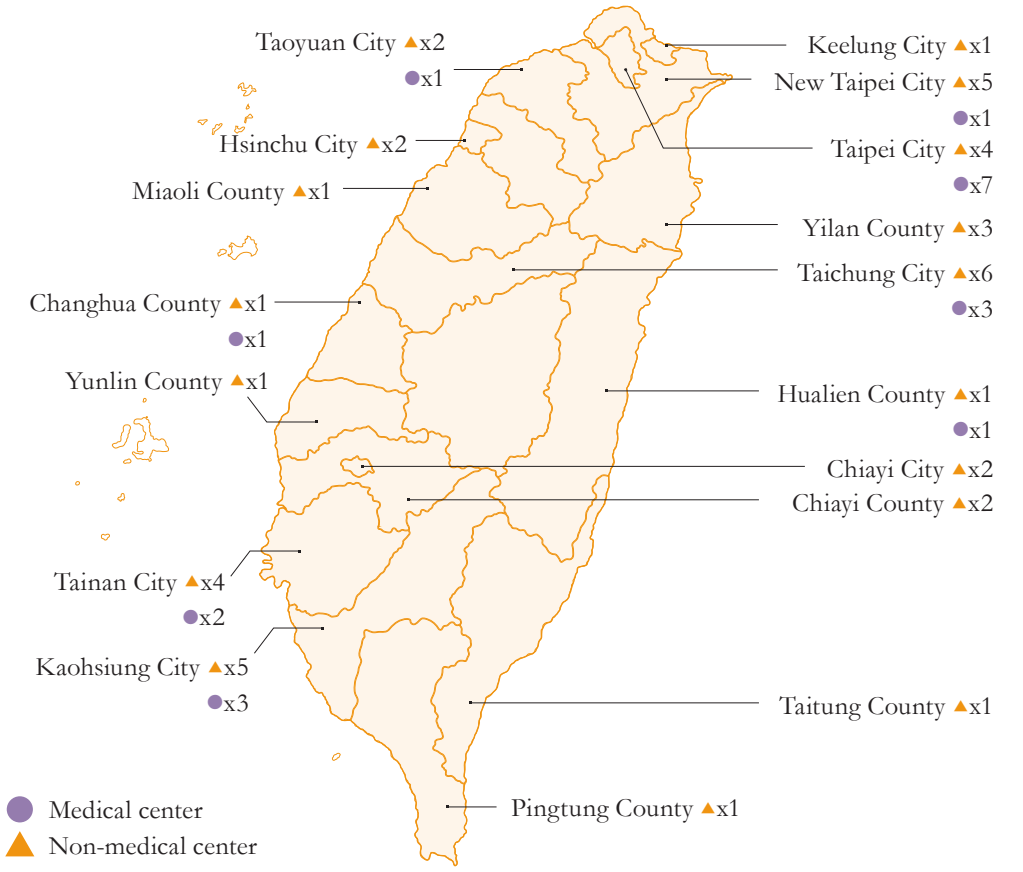


Figure 6-19 **Distribution map of hospitals that passed cancer care quality certification in 2019**

(2) The importance of hospice and palliative care

Since 1996, the Ministry of Health and Welfare has been 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 2020, the number of hospitals providing hospice and palliative care services had increased to 81, including 81 hospitals providing inpatient hospice care, 159 hospitals providing hospice shared-care services and 125 hospitals providing home-based hospice care (Type A) (Figure 6-20). The utilization rate of hospice and palliative care of cancer patients increased significantly. In 2019, 62.8% of all cancer patients received such services in the year prior to death.

(3) Fully upgrade hospice and palliative healthcare quality

In 2020, we promoted "Cancer Psycho-Oncology Healthcare Training Program," "Taiwan Cancer and Non-cancer Palliative Care Outcome Collaboration Program," "Building Hospice and Palliative Care Resources Center Program," "Compassionate Community Program for Terminal Cancer Patients." We developed guidelines, health educational manuals, integrated hospice and palliative care resources, and promoted local hospice and palliative monitoring index. In 2020, we held 95 promotional events, which had 3,223 people participated, and 13 medical personnel training activities with 375 participants involved. In addition, we held "2020 Palliative Care Outcome Collaboration Workshop for Taiwan." We invited PCOC teams from Australia to have a 2-day workshop in Taiwan. A total of 13 medical centers, 4 regional hospitals and 97 people were participated in this workshop. After the workshop, we compiled the information and initiated Taiwan PCOC Program with 5 medical centers, including Hualien Tzu Chi Hospital, National Cheng Kung University College of Medical Hospital, Taipei Veteran General Hospital, Taipei City Hospital, Changhua Christian Hospital.

Figure 6-20 **Hospitals providing palliative services in Taiwan at the end of 2020**

7

Peculiar Groups

Trajectory of warm caring

3,639 calls

Set up the toll-free menopause consultation hotline "0800-00-5107" to provide individual health consultation service. In 2020, counseling services were provided to more than 3,639 individuals.

The Review Committee for Rare Diseases and Orphan Drugs was established. The Committee had reviewed, certified and declared 226 rare diseases. They had also listed 115 orphan drugs and 103 nutritional supplements, determined their indications, and reviewed applications for treatment subsidies.

99.79%

The completion rate of having reproductive health guidance and consultations reached 99.79% or more for new immigrant spouses in 2019.

HPA established a healthcare system for Yu Cheng patients and continued to provide these services in order to safeguard their right to healthcare.

24.68%

Preventive healthcare services, adult preventive healthcare services were accessed by 164,651 physically and mentally disabled people in 2019, with the overall utilization rate of 24.68%.

By the end of 2020, there were 3,879 contracted medical institutes that provide to-bacco cessation services with partially-covered medicine fee. It covers 99.4% of townships, cities, and districts in Taiwan. Mobile health care can reach 100%.

7

WHO published the "Life in the 21st 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 has already become an aging society. In 2019, the average life expectancy for women reached 84.2 years in Taiwan, with middle-aged and elderly women over the age of 50 accounting for 39.25% of the total female population. The average age for menopause is around 50 years old, indicating that women still have a long-life journey after menopause. According to the Nutrition and Health Survey in Taiwan (NAHSIT) conducted on 1,676 people over the age of 50 from 2016 to 2019, 8.6% have been diagnosed with osteoporosis in at least one part of the AP spine and dual femul. Among them, 6.0% are men and 11.1% are women. Not only do more women suffer from osteoporosis, the condition worsens with age. According to the results of the 2017 National Health Interview Survey (NHIS), the percentage of people reporting osteoporosis diagnosed by a physician increases with age, with a significant increase for post-menopausal women. About 1 in 5 women over the age of 50 suffers from osteoporosis (20.4%), with the rate reaching as high as 30.2% for those over 65. The survey also points out that 40.2% of women aged between 45 and 49 as well as over 88.1% of women aged between 50 and 54 have irregular menstrual period or menopause.

Policy Implementation and Results

1. Menopause consultation hotline

HPA set up the tool-free Menopause Consultation Hotline "0800-00-5107" to provide individual health consultation service. In 2020, counseling services were provided to more than 3,639 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 2020, a total of 82 counselors were trained and menopause health care activities were conducted. The activities covered knowledge on menopause health care and self-health management.

In 2020, we conducted national medical staff menopause educational training. The content covers the strategies of menopause related symptoms, health information, self-healthcare, and management.

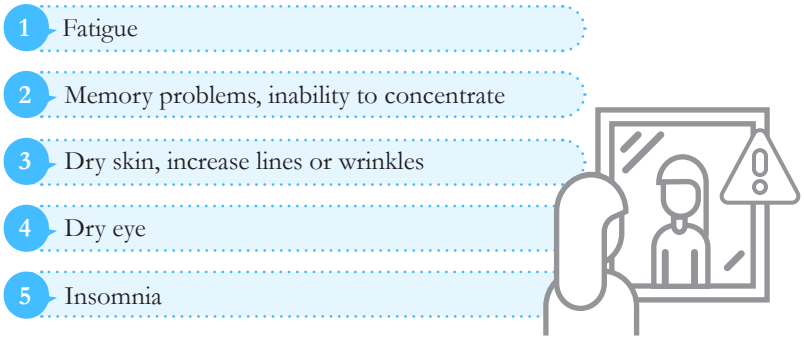


Figure 7-1 Top five common menopause symptoms in 2020

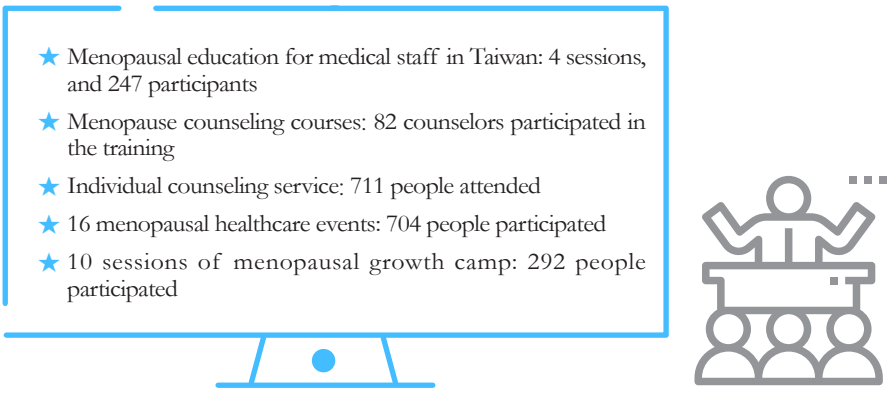


Figure 7-2 2020 Menopausal education, training and related event achievements

Rare Disease 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 2020, a total of 18,308 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	European Union	Taiwan
Year of Legislation	1983	1993	1998	2000	2000
Name of Act	US Orphan Drug Act modified the Federal Food, Drug and Cosmetic Act	Partial Amendments Law amended two previous Laws	Additions made to the Regulations to the Therapeutic Goods Act 1989	Regulation (EC) No. 141/ 2000	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 budges to subsidize the diagnosis and treatment of rare diseases along with orphant 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 2020, the Committee had reviewed, certified and declared 226 rare diseases. They had also listed 115 orphan drugs and 103 nutritional supplements, determined their indications, and reviewed applications for treatment subsidies.

2. Solid Structure of Medical Network

The Special Nutrient Food and Emergency Orphant Drug Logistics Center was set up to supply 45 special nutrient food and 11 emergency drugs. Moreover, med-ical subsidies are provided for rare diseases not covered by the National Health In-surance. The Rare

Disease Prevention Scheme is subsidized in line with the Regulations for Incentive Subsidies for Rare Disease Prevention and treatment. Genetics counseling centers of 14 medical centers that passed the review providing medical services for genetic and rare diseases. In addition, care assistance is provided in accordance with the Regulations for He Services for Rare Disease and Rare Genetic Defect with 14 undertaking units offering services such as psychological support, reproductive care, and care consultation for patients and their families.

Implementation results for the rare Disease medical network in 2020

Over NT$80 million

HPA subsidized the Special Nutrient Food and Emergency Orphan Drug Logistics Center to stock up and supply 45 special nutrient food and 11 emergency drugs with a budget approximately NT$80 million.

Over NT$68 million

HPA provided medical subsidies for rare diseases not covered by the National Health Insurance.

HPA subsidized 10 rare disease prevention schemes.

The genetics counseling centers of 14 medical centers passed the review to provide medical services for genetic and rare diseases.

Fourteen undertaking units were contracted to offer services such as psychological support, reproductive care, and care consultation for patients and their families, with over 6,839 people served in 2020.

2020 Subsidies for rare diseases not covered by National Health Insurance

Total subsidies for **2,970** individuals

- Household medical care equipment needed to sustain life: **959** people
- Special nutrient food and emergency medicine: **1,221** people
- Low-protein white rice and noodles: **40** people
- Domestic and Foreign Diagnostic fees: **96** people
- Nutrition consultation fees for rare metabolic disorders: **653** people

3. Active advocacy through various media

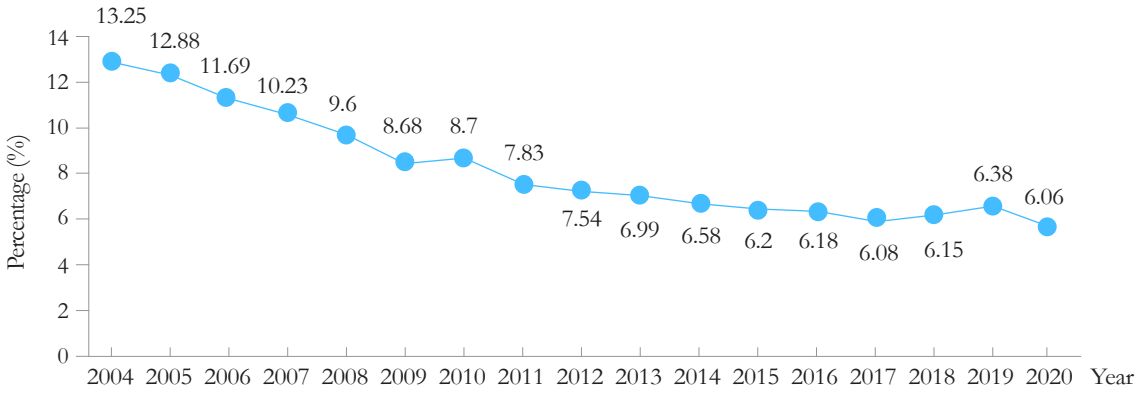
Research, education and advocacy for rare disease prevention and treatment is an on-going project. In 2020, a total of 6 briefings were organized for patients, suppliers and medical institutions. Advocacy events hosted by patient groups were equally subsidized. Inspirational videos of 3 to 5 minutes about rare diseases were created and shared on platforms such as the Internet and Facebook. Exhibitions for the popular science and life education of rare diseases were jointly organized with the Taiwan Foundation for Rare Disorders.

Disadvantaged Groups Health Promotion

New Immigrant Reproductive Health

Status Quo

In 2020, the number of foreign and Chinese spouses reached 10,581, with spouses from foreign countries and China/Hong Kong/Macao accounting for 3.03% and 1.32%, respectively. The newborns whose mothers are not ROC citizens accounted for 6.06% of all births in 2020 (Figure 7-3).



Source: Department of Statistics, Ministry of the Interior

Figure 7-3 Percentage of births with a foreign parent, 2004-2020

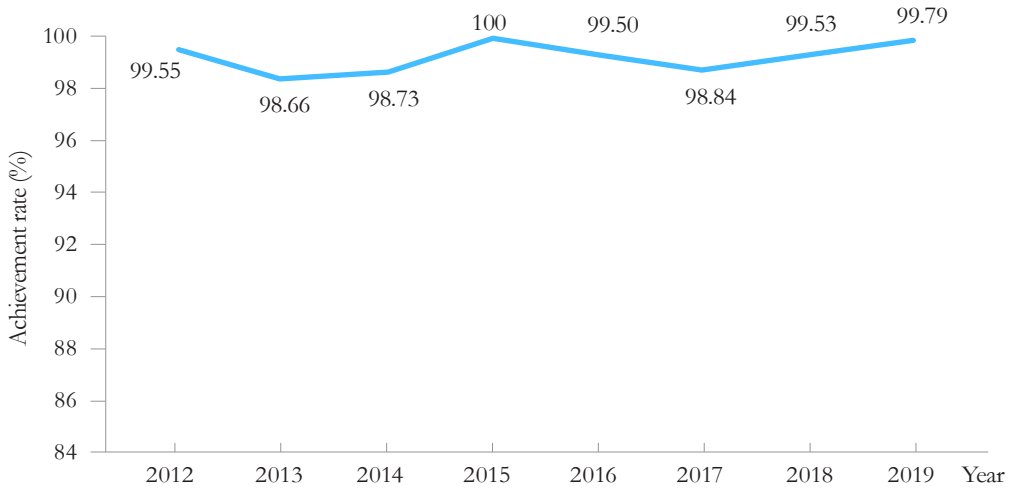
Target Indicators

The completion rate of having reproductive health guidance and consultations reached 99.79% or more for new immigrant spouses in 2019.

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 2019, cards were issued to 6,677 individuals, representing a card issue rate of 99.79%.



Source: HPA Maternal and Child Health Management System

Figure 7-4 2012-2019 New immigrant reproductive health card issue rate

2. Interpreter training to reinforce communication

To minimize language barriers for new residents in need of medical care, local health bureaus are encouraged to apply for the "Project for Interpreter Training for New Residents" from the "New Immigrant Development Fund" of the Ministry of the Interior to assist staff of health bureaus/centers with interpreting for reproductive health guidance.

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 National Health Insurance. In 2020, total subsidies of NT$ 2,695,625 were provided in around 5,353 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 by products through splits in pipes led to over 2,000 residents suffering from PCB poisoning (Yu Cheng Patients).

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

1979

The government is actively committed to the provision of various healthcare services including health insurance coverage for copayment for outpatient and emergency treatment and free annual health checkups. First-generation Yu Cheng patients are partially covered for hospitalization expenses. Special outpatient services for Yu Cheng patients, visits to show concern, and health education are provided.

1997.03

The government provides partial subsidies for outpatient and emergency treatment in NHI contracted hospitals and clinics for Yu Cheng patients.

2011

The government formulated "Implementation Guidelines for Healthcare Services for PCB Poisoning Patients" and provides various healthcare services for Yu Cheng patients.

2015.02.04

The Yu Cheng Patients Health Care Services Act was promulgated. In addition to the continued provision of original services, the prescribed birth year limit of first-generation Yu Cheng patients was raised from 1979 to 1980. When Yu Cheng patients who are listed as service recipients die before this Act takes effect, surviving spouses and linear descendants can apply for a one-time solatium of NT$ 200,000. In addition, a Yu Cheng Patient Healthcare Promotion Committee was established.

2016.11.16

We amended Article 4 and 12 of the Yu Cheng Patients Health Care Services Act to relax the criteria for recognition as a Yu Cheng patient with poison exposure certificates as the main review requirements. Eligibility for annuity is extended to include parents if no spouse or linear descendant exists. The application deadline was extended to August 9th, 2020.

2020

In 2019, we continue to provide healthcare services, protect patients' rights to medical care and provide legal assistance in accordance with the Yu Cheng Patients Health Care Services Act.

Figure 7-5 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 2020, a total of 1,912 cases were registered by the HPA, including 1,260 first generation of Yu Cheng patients and 652 second generation of Yu Cheng patients.

2. Protection of rights and interests

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

3. Healthcare

We conduct health bureau/center educational training all over the nation. The staff of local health bureau/center conducts home visits to encourage and assist Yu Cheng patients in accessing free health checks at the hospital. In 2020, a total of 584 Yu Cheng patients received the service (with a 30.5% participation rate).

4. Medical subsidies

By the end of 2020, HPA subsidized outpatient copayments for 18,971 Yu Cheng patients, and inpatient copayments for 100 patients.

5. Solatium for blood relatives

Regarding payment for blood relatives of Yu Cheng patients, the acceptance dates for applications runs from August 10th, 2015 to August 9th 2020. As of the end of 2019, a total of 272 Yu Cheng patients' solatium had been paid by the government.

6. Collective promotion

In 2020, the Ministry of Health and Welfare continued to organize the Council of Healthcare for Yu Cheng Patients. We invited representatives from the Health Promotion Administration, the Ministry of Labor, the Ministry of Education, as well as Yu Cheng patients, experts and scholars, and representatives from the Taiwan Yu Cheng Victims' Support Association to promote healthcare for these patients.

Promoting Healthcare for the Physically and Mentally Disabled

Status Quo

As of 2020, according to the monthly social welfare statistics of MOHW, a total of 1,197,939 people were regarded as physically and/or mentally disabled. The majority of sufferers are male (55.58%). With regards to age, 44.43% of sufferers are over 65 years of age, and 16.86% are between 50 and 59 years of age. According to the recorded disability classifications, 29.82% suffer from physical disabilities, and 13.20% of them have 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.

Hospitals certified as health-promoting hospitals as well as age-friendly hospitals take the initiative to provide holistic healthcare and resources for health education, building a friendly environment that will help improve the right to health of the physically and mentally disabled.

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 2020, a total of 645 healthcare institutions (207 hospitals, 358 public health centers, 79 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

Preventive healthcare services are provided to facilitate the most appropriate preventive measures, early detection and intervention for each life stage of the physically and mentally disabled, including reproductive healthcare, preventive healthcare for children and adults, cancer screening, etc. Among them, adult preventive healthcare services were accessed by 164,651 physically and mentally disabled people in 2019, with the overall utilization rate of 24.68%.

Health Promotion for Indigenous

Status Quo

Statistics released by the Council of Indigenous Peoples reveal that Taiwan has around 570,000 indigenous citizens, accounting for 2% of the total population. In order to care for indigenous people, HPA provides preventive healthcare cycles covering all stages and areas of the human lifecycle. Through the integration of local resources in the communities, we promote community participation and understanding, local health needs, and collectively solve community health issues.

Target Indicators

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. Smoking cessation services

As of the end of 2020, there were 3,879 contracted medical institutions to provide cessation service without copayment for indigenous people, thus covering 99.4% of townships and cities nationwide. Through mobile medicine program, the coverage can reach 100%.

2. Oral cancer screening services

In the counties and cities of a high rate of betel-quid chewing by indigenous people, we provide tobacco and betel-quid health risk prevention promotion services.

In 2020, a total of 11,000 indigenous people over age 18 received oral mucus checkups. Among them, 63 people were found to have premalignancy, and 16 people with cancer.

3. Betel-quid-free supportive environment

In 2019, we provided approximately 49,000 indigenous people over the age of 40 with adult preventive healthcare services. We discovered that indigenous people have higher precedences of hyperglycemia, hyperlipidemia, and hypertension. In 2020, we subsidized Haiduan Township, Yanping Township of Taitung County, Wanrong County, Zhuoxi

Township of Hualien County, Mudan Township, Majia Township of Pingtung County. We built local healthcare network to reinforce the Chronic Care Model for indigenous people. We used the Chronic Care Model to conduct prevention and management for hyperglycemia, hyperlipidemia, and hypertension, and established local healthcare networks. The promotional model is seen in Figure 7-6.

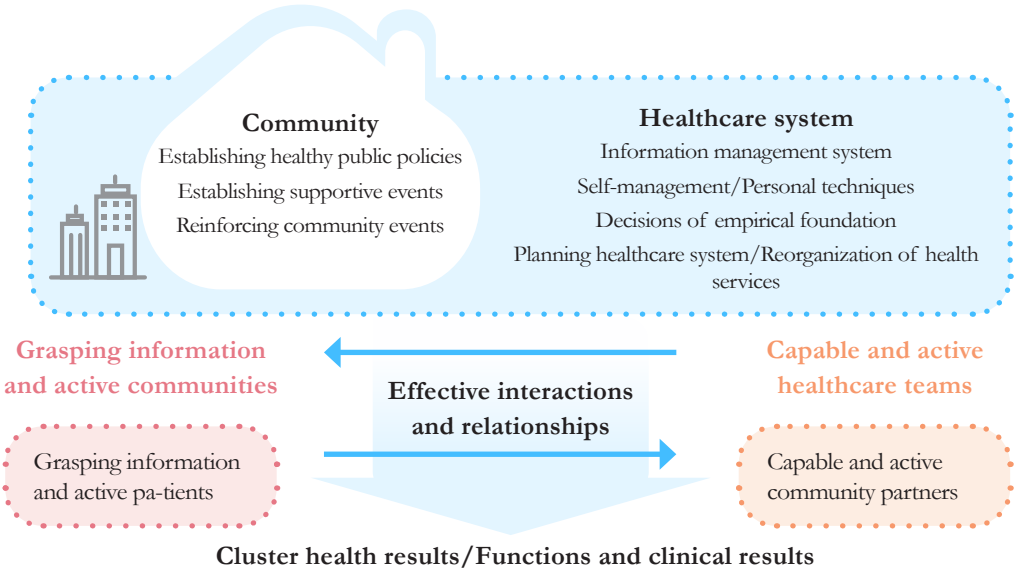


Figure 7-6 Implementation model for chronic disease management programs

Table 7-1 Enhancing preventive healthcare service contents for indigenous people

Time	Important services
2010	Since July 1st, 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	We printed 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.
	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 7th grade girls had been introduced by the end of 2018.
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) and provide comprehensive guidance on maternal care of the pregnant and puerperal periods, baby care, etc., as well as counseling and referral services.
2013	On March 1st, for indigenous people who receive tobacco cessation services in mountainous regions and outlying islands, their medicine fee is partially covered.
	On June 1st, indigenous people who chew betel quids (including those who have quitted) can receive one oral mucus checkup every two years from as early as 18 years of age.
2015	On November 1st, for indigenous people who receive tobacco cessation services not in mountainous regions or outlying islands, their copayment medical fee is partially covered.
2019	On June 1st, the regulations have been relaxed so that indigenous people between the age of 40 and 60 are entitled to one Hepatitis B and C screening in conjunction with adult preventive healthcare services.
2020	On September 28th, the regulations have been relaxed for people from age 45-79 people (indigenous people 40 to 79). They are entitled to one Hepatitis B and C screening in conjunction with adult preventive healthcare services.

8 Health Promotion Infrastructure

Communication, promotion, exchanges, and collaboration

HPA developed "Health Literacy Toolkits." These include verbal communication pack, communication with older patients pack, navigation pack, health data pack, ask questions pack, and audio visual teaching aids pack, in order to upgrade the health literacy of the public.

72.8%

HPA worked with National Health Research Institutes to conduct the 2017 National Health Interview Survey (NHIS). The number of interviewees reached 21,111, representing a response rate of 72.8%.

HPA provided the public with convenient, all-in-one, smart, and comprehensive health management tools. This APP helps to increase the usage population and improve national health knowledge and skills.

27 hospitals

In 2012, Taiwan started recommending tobacco-free hospitals to participate in the accreditation. Up to 2020, a total of 27 hospitals have received International Golden Award, which is number one in the world.

8

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. 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.

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

Health Literacy

Status Quo

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

1. Upgrading the accessibility of health information
2. Developing health evaluation tools and adopting focused communication tactics
3. Expanding the accessibility of preventative healthcare services and treatment services, in order to raise the level of individual health knowledge and decision-making

Figure 8-1 Empowerment strategies

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 based on research, assessments, testing, revisions, and monitoring.

(2) Coordinating with important festivals to deepen local advocacy

Information is provided in line with the holidays and important issues of the day to promote non-communicable disease prevention through working with schools communities and convenience stores, via Internet, magazines, radio stations, TV, and vehicle advertisement.

(3) Establishing and developing smart technology and communicating health literacy

Social media platforms such as Facebook and Line are leveraged to target young people to increase health literacy and promote HPA information, clear up misinformation and share accurate knowledge, with the online digital learning platform providing continuing education for health professionals.

(4) Developing suitable and diverse regional communication methods for all communities

Due to discrepancies in consumption of digital media brought about by urbanization, HPA worked with regional broadcast radio stations, cable television system owners, community groups and television voicemail or text message providers to establish systems to provide people with important health information.

(5) Promoting health communication and upgrading the quality of teaching materials

A. The teaching materials are upgraded and verified by experts using the assessment tools for health education materials, with health literacy indicators set up as the basis for future material development.

B. Developed "Health Literacy Toolkits." These include verbal communication pack, communication with older patients pack, navigation pack, health data pack, ask questions pack, and audio visual teaching aids pack, in order to upgrade the health literacy of people.

(6) Non-communicable diseases prevention and shared decision making

HPA has developed the tools with shared decision making and question prompt list for people to enrich health literacy, promote attending health decisions, and raise the healthcare quality.

2. Differentiated health literacy evaluation

(1) Simplified information, in-depth explanation

The institution's health education information has been simplified to facilitate understanding for end users.

(2) Evaluation and adjustment with local touch

The National Health Literacy Action Plan has been developed to formulate strategies based on 7 major aspects, including health information quality, digital technology, life space, medical fields, professional manpower, focus groups and health issues, as well as research and development.

(3) Differentiated strategies for upgrading literacy

According to the results of evaluation surveys with different regional and group characteristics, we have adopted different promotional strategies. We work within relevant fields and targeted groups to create media advocacy for topics such as healthy diet, regular exercise, healthy weight, and tobacco hazards prevention.

3. Expanded the accessibility of prevention healthcare for better decision-making

(1) Adult prevention healthcare services: We encourage early detection and early treatment, provide health consultations and improve awareness for self-care and health literacy.

(2) Provision of toll-free phone counseling services to the public through professional recommendations.

Cloud-based Health Promotion Information

Status Quo

With the widespread availability of information and communication technologies, Wi-Fi, and mobile devices have 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

In the context of the Taiwan Health Cloud Program of the Ministry of Health and Welfare, the HPA has adopted the "Wellness Cloud for health promotion" Sub-Plan (schedule shown in Figure 8-2) to effectively incorporate health management with mobile services by leveraging outstanding local cloud technologies. 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.

Achievements of this project

1. The expansion and maintenance of the Wellness Cloud for health promotion Platform and Mobile APP

We provided the public with a convenient, all-in-one, smart, and comprehensive health management tools (Figure 8-3). This APP helps to increase the usage population and improve national health knowledge and skills. The platform helps individuals cultivate healthy new lives in order to implement the objective of holistic and national health.

2. 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 on the platform.

2014	Exectuted the "Wellness Cloud for health promotion platform" plan
2015	Continued to provide intensified services and expand its functionalities
2017	In addition to the continuity of sustainable operations without interruption, functions had been added in cooperation with promotion and marketing activities. Promoted the "Open Data" added-value APP, and provide an innovative added-value service.
2018	Expanded third-party login and customer service chatbot functions to promote platform usage
2019	The existing system had uninterrupted operations in 2019. We engaged in cross-domain co-creation of the key features, services and system specifications required by the new version of the website and app in the future, as well as seeking innovative service solutions for sustainable operations.
2020	Added a real-name verified function on the website, introduced the APP into the Campus for walking activity pilot and also provide various personal health management tools and security health information.

Figure 8-2 Promotion schedule of "Wellness Cloud" sub-plan

- Personalized interactive health education information
- Personalized health records and self-management tips (such as exercises and diets)
- Personalized physiological measurement data and management (such as height, weight, blood pressure, body temperature, etc.)
- Health check-up records for health management
- Social network and preventive healthcare screening reminders and services

APP

Figure 8-3 Multi-functional health management tool platform

Health Communication and Nudge

Status Quo

Multiple channels are used to communicate health information. The HPA sets up an official website with 11 health-themed subsites and releases an E-newsletter on health promotion-related topics. In addition, the Administration also uses social media such as Facebook Fan-page, Line@, and YouTube channels to disseminate health information. Citizens may acquire information of health promotion services anytime and anywhere through the far-reaching and borderless Internet.

Policy Implementation and Results

1. The application of multiple channels

In 2020, the HPA revised the original "Health 99 Education Resource Website". The new version called "Health 99+ Education Resource Website" was featured with a newly designed homepage. We added popular educational materials, categories of the materials, different sets of question prompt list and portals of health-themed subsites to the homepage. We continued to provide online services and resources, including short forms of health scale, self-assessment tools, and other digital or physical resources, to help people easily maintain personal health and health of their family members. By the end of 2020, 3,287 materials were on the website, with 927 newly added, and more than 4.77 million views.

The HPA issued 768 posts on Facebook Fan-page. There were 254,801 fans (with a net increase of 24,150 fans compared to the previous year), reached more than 19 million people and over 470,000 interactions.

The official Line@ of the HPA announced 366 posts. The number of friends reached 31,037 friends (with a net increase of 8,347 people than the previous year).

2. Increasing the diversity of the materials

To encourage people from all walks of life and various sectors to develop quality health promotion-related materials, the HPA organized an event to call for entries of health communication materials. More than 600 works were submitted. A total of 266 works conformed to the "Health Literacy and Friendly Material Review Index." These materials were made available to the public on the HPA website and the Health 99+ Education Resource Website. An award ceremony and press conference titled "2020 Coming up with Health Creativity" was held to showcase award-winning works of this year's event.

3. Nudge is very important

Nudge theory was proposed by 2017 Nobel Economics Prize winner, University of Chicago Business School Professor, Richard Thaler. All over the world, the theory was applied in many public policy areas. Design Thinking is a solution theory that is people-oriented. Through the need of people, we find the innovative solutions for all the topics, and create more possibilities.

The HPA has incorporated the nudge strategy and design thinking in various policies since 2017. For example, through insights into the diet of college students and people from different workplaces, the four stages of the Double Diamond Design Process (discovery, define, development and deliver) were adopted since 2019 to develop the strategy of balanced nutrition, as the reference for promoting balanced nutrition on campus and in the workplace in the future. In addition, we guided and assisted 22 local government health bureaus to use design thinking methods and procedures. We focus on different goals and groups, develop the intervention strategies of upgrading physical activities and nutrition, and conduct "Post pandemic era of health service innovation design themes seminar" and relative workshops. Moreover, 7 local health bureaus were coached to develop specialized smoking cessation programs targeting different groups by leveraging the same method and process to improve program effectiveness.

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, make data available for statistical analysis, to strengthen innovation in the fields of technologies and methods applied and keep in line with the global 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 specifically (Figure 8-4) to collect unobtainable information from existing registration or reporting system to provide objective evidence for policy formulation and effectiveness assessment (Figure 8-5).

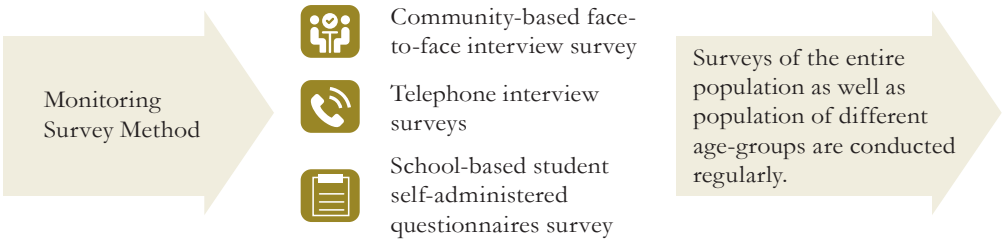


Figure 8-4 National health and surveillance system for non-communicable diseases

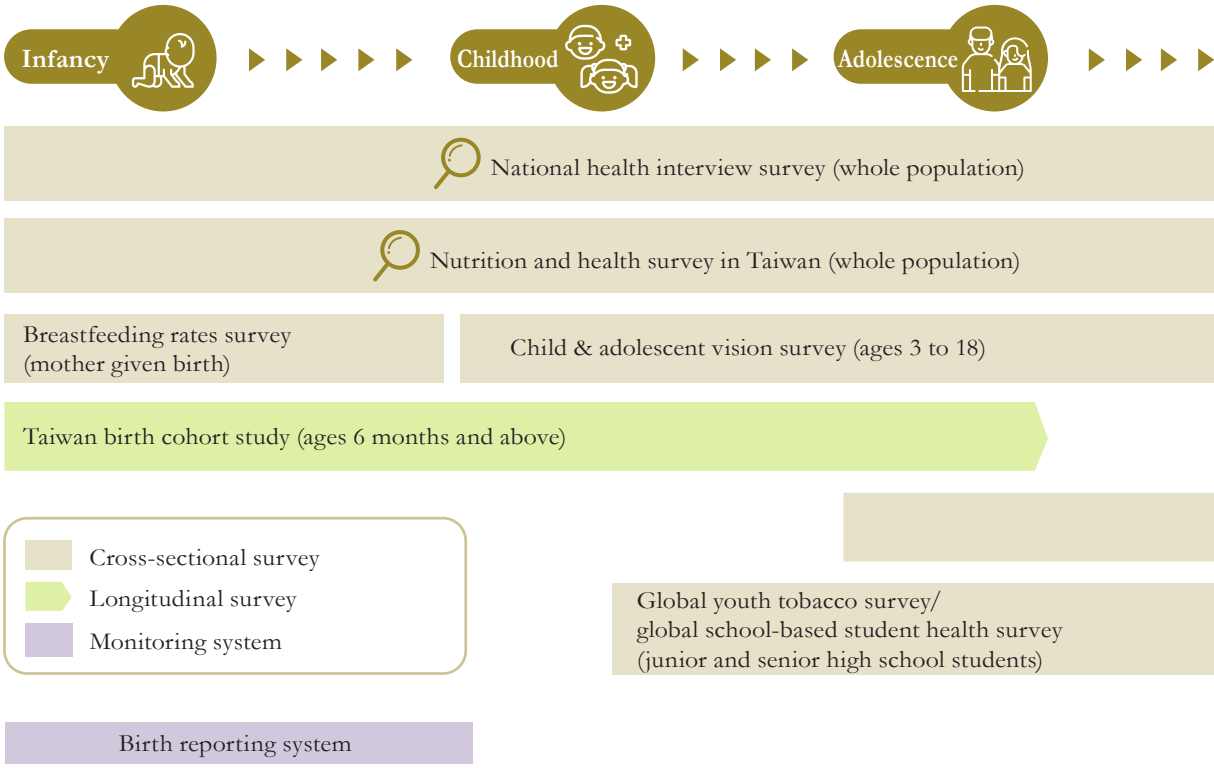


Figure 8-5 Important monitoring surveys over the years

1. National Health Interview Survey

To monitor the changing trends in citizens' health, service needs and to investigate the associated factors, the HPA conducts the National Health Interview Survey (NHIS) in cooperation with the National Health Research Institutes. This series of survey was initiated in 2001, then conducted in a four-year interval. This cross-sectional health interview survey is currently the largest scale health 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%. Statistical analysis of the survey data was performed in 2018 for administration reference. With the analytical results completed, a survey report has been compiled and published. Building on the foundation of past work, the planning of 2021 survey, including questionnaire design, sampling design, pretest and drafting of the implementation plan (Figure 8-6) was done in 2020.

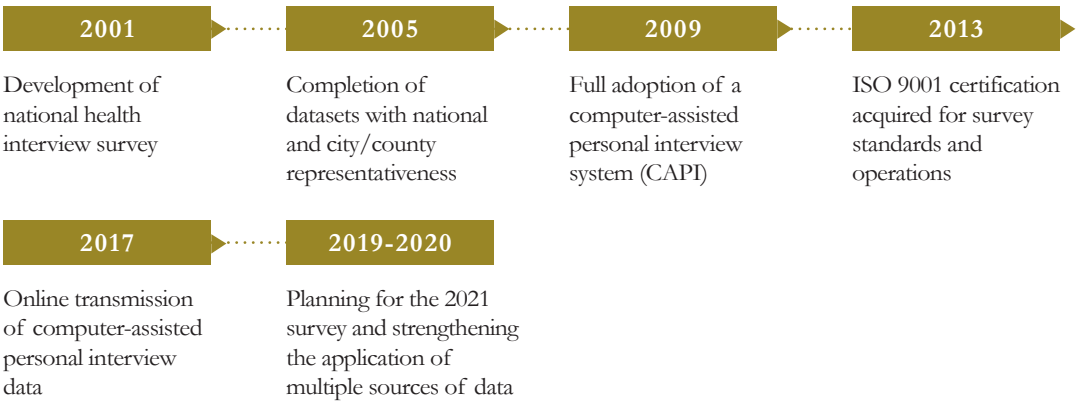
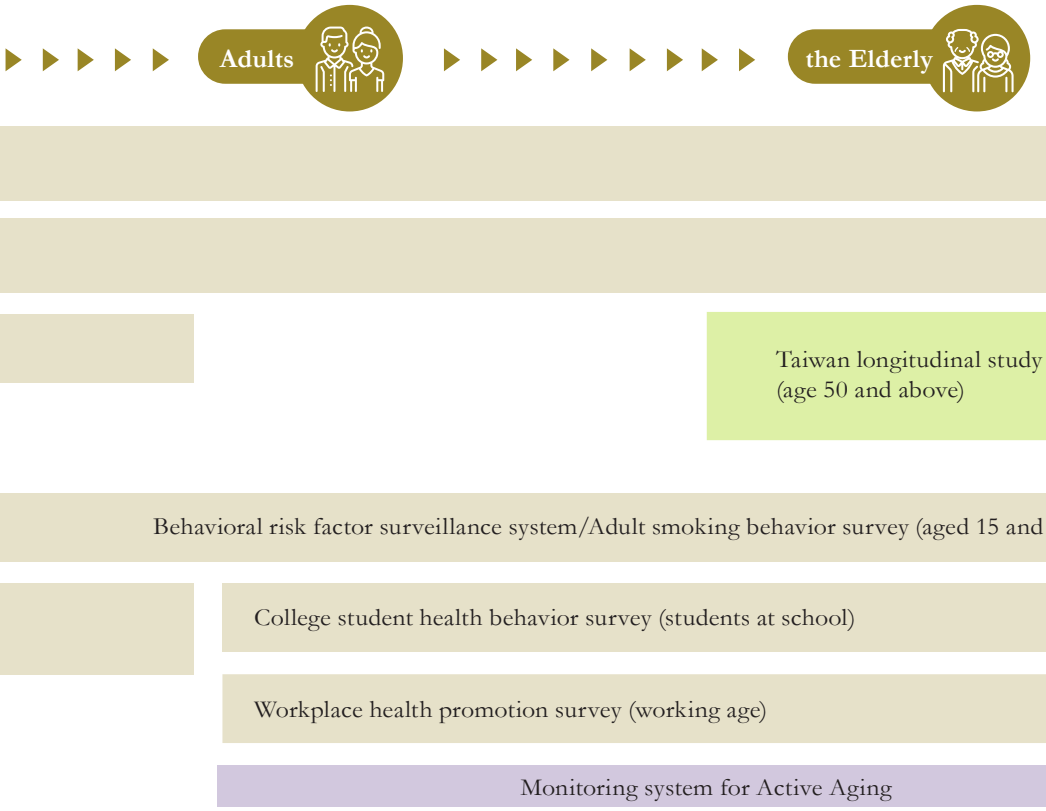


Figure 8-6 Milestones of national health interview surveys in Taiwan

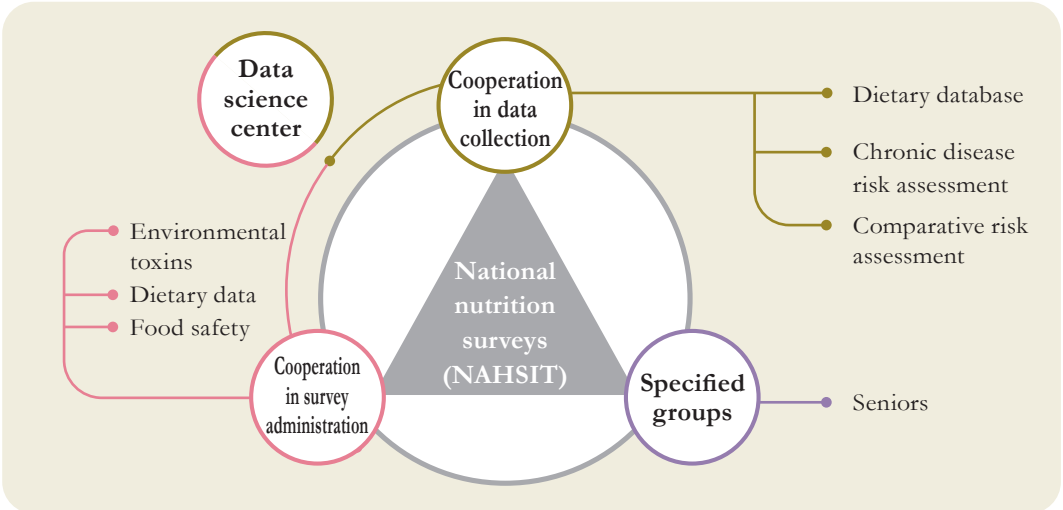


In response to the aging population, sufficient sample size for aging-related researches are required; thus we oversampled people over age 65, and broadened the coverage of the survey by including Kinmen County and Lianjiang County to the survey regions.

2. Nutrition and Health Survey in Taiwan

Since 1980s, Taiwan continues to conduct the Nutrition and Health Survey to provide reference for nutrition and non-communicable diseases policy making. Since 2013, the HPA started being in charge of the survey and aimed to establish a stable, long-term and timely national surveillance system in every four-year cycle, so that national representative

Cooperation framework for nutrition and health surveys in Taiwan



data can be obtained and updated regularly. The survey uses questionnaire interview, physical examinations and biochemical tests to collect data. For better understanding of the elder's nutritional status, the contents of the questionnaire were expanded and the sample size of the elderly were increased in 2018 to 2019 to improve representativeness for sub-population of different background characteristics. The survey data were analyzed in 2020.

3. Taiwan Birth Cohort Study

The HPA commissioned the "Taiwan Birth Cohort Study" in 2003 to understand growth, development, and health conditions of children born in Taiwan, and to investigate the influence of the social environments on child health and development. The research participants are a probability sample of infants born in 2005. A baseline survey was conducted at age 6 months of the participants, and with follow-up surveys at age 18 months, 3 years, 5.5 years, 8 years, 12 years, and 15 years. A follow-up telephone survey at the time point of 15-year-old was conducted in 2020. In addition, we used the data of the longitudinal study and organized a special session on the topic of "Taiwan Caesarean Section and Infant health–Status quo, problems and countermeasures" on the annual conference of Taiwan public health associations. The key findings of researches using data collected from age 7 to 12 of the birth cohort were summarized for the preparation of the forthcoming monograph that focuses on health profiles of school-age children in Taiwan.

4. Taiwan Longitudinal Study on Aging

In response to the potential impacts of the aging population on the economy, medical care, family and society, the HPA selected random samples of middle-aged and elderly people over 60 years old from all non-aboriginal townships in Taiwan and completed baseline survey of the sample in 1989, with follow-up surveys every 3 to 4 years afterwards. In 1996 and 2003, the age group was lowered to 50 years old. The 8th wave of survey was completed in 2015. To make up for the missing parts resulted from the exclusion of aboriginal townships in the original sampling design, as well as the limits of insufficient sample size caused by losing contact and death over the long period of follow-up, a new cohort comprising of nationally representative samples of population aged 50 years and above was recruited in 2015. The most recent survey was completed in 2019. In 2020, we continued on data processing and analysis to accomplish the purpose of the survey.

5. Adolescent Smoking and Health Behavior Survey

The development of Adolescent Smoking and Health Behavior Survey is shown in Figure 8-7. Initially, surveys were administered for junior high school and senior/vocational high school (including junior college year 1 to 3) students on a rotational basis. Anonymous self-administered questionnaires were filled simultaneously by students in the 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 every city and county in the respective year. In consideration of the adequate time interval to see the changes in prevalence rates of the health behaviors, the annual survey was changed

to be biennial survey since 2019, so the survey results can be better used to reflect in adolescent health promotion. Through the two surveys, we may understand the current status and the changing trends of adolescent smoking and health behaviors, and provide related sectors with reference for policies of youth tobacco control, tobacco hazards prevention on campus, and planning of health promotion services.

In 2020, data collected from the adolescent smoking behavior survey conducted in the spring semester of 2019 were processed, analyzed and provided reference for policy making. The HPA has continued to plan for the 2021 survey.

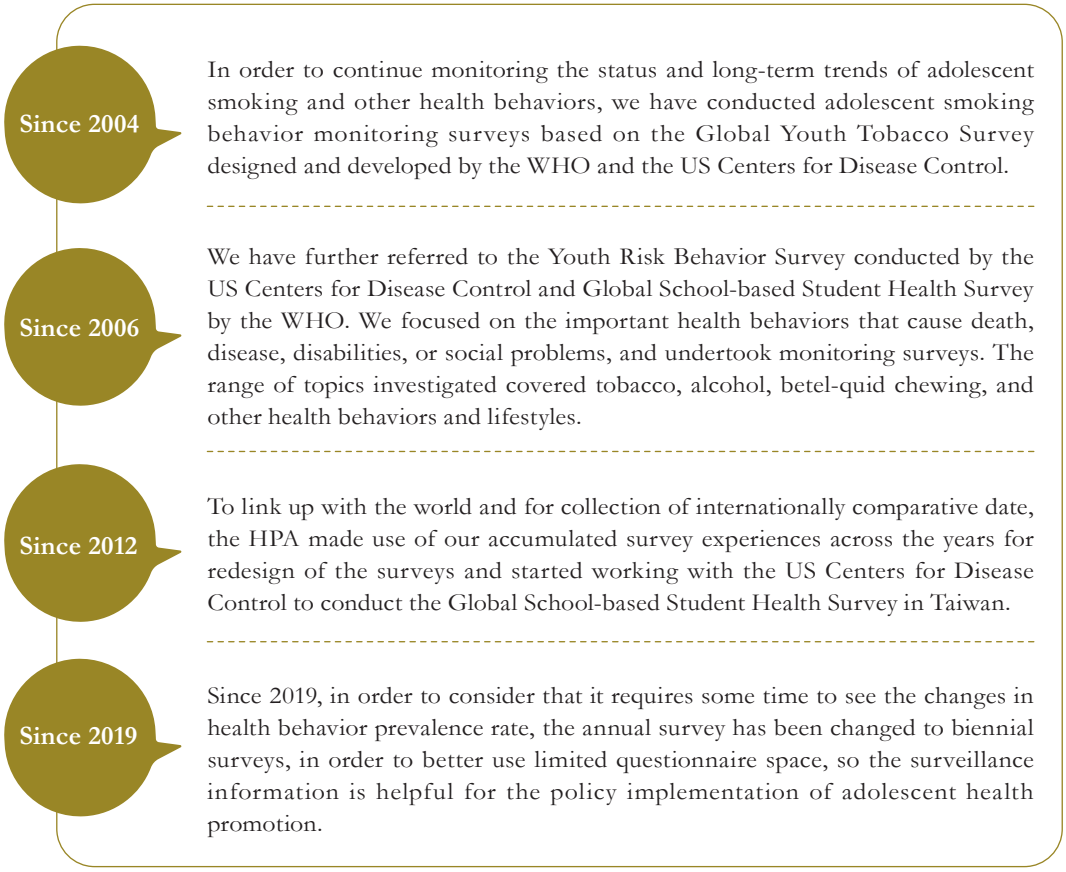


Figure 8-7 Development course of adolescent smoking and health behavior surveys

6. College Student Health Behavior Survey

This survey was conducted to understand college students' health behaviors, including lifestyles, substance use (such as tobacco, alcohol, betel nuts), as well as their physical activities, diet habits, and sex-related attitudes and behaviors. The survey results can be used for the references in health promotion of college students, policy planning and programs evaluation. In 2020, 80 colleges were randomly selected. Web-based self-administered questionnaires were filled anonymously. A total of 12,246 students completed the survey questionnaire.

7. Adult Smoking Behavior Survey

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. In 2018, the survey frequency was modified to every other year. Due to the increase of mobile phone users in the population, we adapted using dual-frame survey that combined landline and mobile phones in 2020. The survey was conducted from July to October in the year. The sample size requirement was 25,932 for the landline survey, with a total of 26,065 actually completed, including 307 respondents in Lianjiang County. For the mobile phones survey, the sample size requirement was 4,250. The number of actually completed was 4,299, including 41 respondents in Kinmen and Lianjiang counties.

Chronicles for smoking behavior surveys of citizens

- **2004** The HPA launched Adult Smoking Behavior Survey to understand the current conditions and trends of adult smoking behavior, second-hand smoke exposure, and relevant factors with reference to the design and contents of US Behavioral Risk Factor Surveillance System, National Health Interview Survey, and Global Adult Tobacco Surveys.
- **2018** The survey frequency was modified to every other year.
- **2020** Combined the surveys using landline telephone (Including fixed line) and mobile, constricted high coverage rate and monitoring statistics that are representative of smoking among citizens.

8. Breastfeeding rate survey

In order to monitor breastfeeding rates, understand the factors that affect breastfeeding and the use of friendly environment and resources for the mothers, the HPA conducted telephone surveys every year since 2008. The interval of the survey was changed in 2016. Currently, the survey was conducted biennially. In 2020, a total of 12,149 mothers were interviewed to collect policy relevant information. The survey results were applied to examine the achievements of breastfeeding in Taiwan and compared with the global goal, to understand the policy performance of the nation and the cities and counties in promoting breastfeeding and mother-infant-friendly environment, and for the review of the initiatives and strategies of infant feeding.

9. Application of surveillance survey data

HPA publishes reports of surveillance and survey results. In addition to participation in related symposia and publication of journal articles, research projects are carried out in accordance with 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.

"Health Indicator 123 – Interactive Online Inquiry System for Health Indicators" open for inquiries on the website

- National Health Interview Surveys
- Taiwan Youth Health Survey (Junior High School)
- Taiwan Youth Health Survey (Senior High School)
- Global Youth Tobacco Survey (Junior High School)
- Global Youth Tobacco Survey (Senior High School)
- Adult Smoking Behavior Surveys
- The Behavioral Risk Factor Surveillance System
- Taiwan Longitudinal Study on Aging
- Taiwan Fertility and Family Surveys
- Birth Reporting Database

In order to effectively reach the goals of "protecting personal health privacy, promoting health information sharing, and reducing overlapping resources", Ministry of Health and Welfare established the Health and Welfare Data Science Center in 2011 (originally called the Collaborative Center of Health Information Application). From 2012, the HPA has continually provided the raw data of a series of health surveys to the center for use. Currently, we have transferred 7 reporting databases and 10 surveys. The project to set up three thematic databases was also commissioned. The contents are seen in Figure 8-8. According to the data classification principles of the Ministry of Health and Welfare for personal data protection, we also expand the pool of resources and increase the overall utilization of the databases in order to enhance the overall value of resources input to monitoring and surveillance.

7 Reporting Database

Cancer registration databases, cancer screening databases, birth reporting databases, reported rare disease databases, artificial reproduction databases, national genetic diagnosis system databases, and adult preventive health service databases.

10 Items of Survey Database

Fertility and Family survey; Taiwan Birth Cohort Study; Global Youth Tobacco Survey; Global School-based Student Health Survey; Adult Smoking Behavior Survey; Taiwan Longitudinal Study on Aging; Taiwan Survey on Hypertension, Hyperglycemia, and Hyperlipidemia, National Health Interview Survey, and Behavior Risk Factor Surveillance System.

3 Thematic Databases

Accident thematic database, middle-age and elderly health and disability thematic database

Figure 8-8 Data imported to Health and Welfare Data Science Center by HPA

International Cooperation

Status Quo

As well as attending the APEC and WHO and other technological conferences, the HPA has also actively pursued a greater degree of exchange, cooperation, and experience sharing between its various projects and the WHO Center for International Cooperation, international academic institutions and foreign governments. The HPA 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 addition, we hosted 12 international meetings in Taiwan. There were 5 sessions of important international or online international meetings, international forums, workshops, and seminars. In addition, a total of 65 guests from 18 nations visited HPA.

Policy Implementation and Results

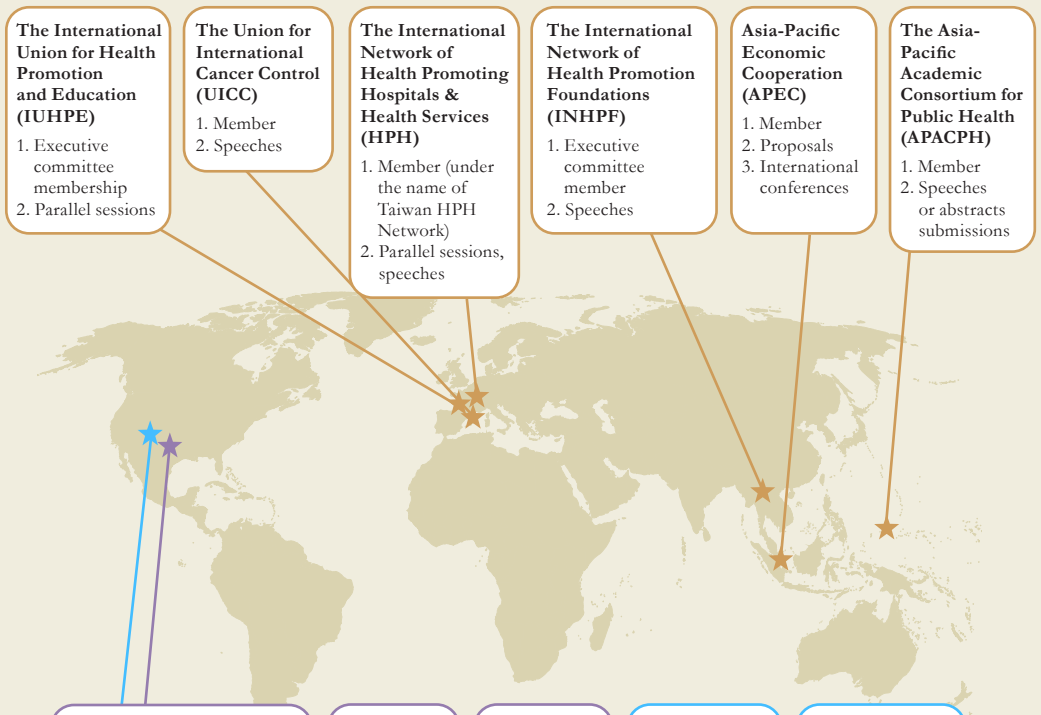
1. Participating in large-scale international conferences to become global focal point

(1) 2020 Global Health Forum in Taiwan

From October 23rd to 24th, we held the 2020 Global Health Forum in Taiwan at Howard Civil Service International House. The theme was "Achieving SDGs In the Post-COVID-19 Era: Innovation, Inclusion and Partnership." We examined how under the continuous global pandemic, we can maintain and ensure the achievement of sustainable development. We pondered on how in the post-pandemic era, can we respond to the current and emergent threats, that are impacting global health well-being, with resilience and humanity (for example, non-communicable diseases, environmental problems, health equality, and medical healthcare services). This forum was the first physical and virtual hybrid meeting. We discussed how to use emerging technology, tolerance, and partnership with the public and private sectors to maintain and adjust to the provision of healthcare services. There were a total of 8 parallel forum sessions, bilateral meetings, and a session with U.S. Environmental Protection Agency. In addition, approximately 600 domestic experts participated in the actual meetings. Approximately 400 people came from 60 nations worldwide (including 24 experts) participated in the meeting online and watched live streaming of the forum. Nearly one thousand people participated in the forum.

HPA and EPA and U.S.A. Environmental Agency. On October 24th, we held the "Children's Environmental Health" seminar. Minister of MOHW Chen Shih-chung, EPA Deputy Minister Tsai Hong-de, the chief deputy assistant of U.S.A. EPA Jane Nishida gave speeches. We focused on pediatricians' discussions on the potential health and environmental threats of children. Speakers include Morehouse Medical Institute Associate Professor, Dr. Leslie Rubin, U.S.A. EPA Children Health Protection Office Chief, Jeanne Briskin, Batelle Memorial Academic Society Researcher, Tanya Maslak, Linkou Chang Gung Memorial Hospital Chief, Yeh Kuo-wei. Representatives from Indonesia, Malaysia, Laos, and Afghanistan joined the discussions via webcams.

International Cooperation



HPA also participates in Asia-Pacific Hospice Conferences, International Diabetes Federation (IDF) Congress, International Association of Gerontology and Geriatrics Congress, and European Public Health Conferences.

Membership in international alliances

Cooperation partners

Participation in major international conferences

(2) Participation in the 16th World Congress on Public Health

We participated in the 16th World Congress on Public Health hosted by the World Federation of Public Health Associations. The findings of the HPA's technical researches and outcomes of programs implemented were displayed and presented on electronic posters or via oral presentations. To upgrade the visibility of Taiwan's public health achievement to the global society, we set up online virtual exhibition to showcase the HPA's work on health promotion and for display of the health education materials developed.

President Tsai gave a speech at the opening ceremony of the 2020 Taiwan Global Health Forum

Group photo from the 2020 Global Health Forum in Taiwan

2. Participation on the global stage: participation in international webinars or forums

(1) Asia-Pacific Academic Consortium for Public Health online (APACPH) Educational Webinar

In August 2017, Taiwan and APACPH actively worked together to establish Collaborating Centers for Health Promotion (CCHP).In September 2020, we held the APACPH educational webinar on the topic "After COVID-19: Paradigm shift in public health education." HPA participated in the session "How to enhance health promotion core competencies to cope with COVID-19" and shared NCD prevention and policies during COVID-19 pandemic in Taiwan. A total of 365 people from 15 nations participated in the webinar.

(2) 2020 Asia-Pacific Health Promotion Capacity Building Workshop

In October2020, Asia-Pacific Health Promotion Capacity Building Workshop. To enhance the capacity building of health promotion competencies, the workshop invited 4 scholars from Indonesia, Singapore, Japan and Malaysia to conduct online lectures and group discussions for public health officials and international students in Taiwan.

(3) 2020 The 7th AHLA International Health Literacy Conference

In 2020, due to the effect of Covid-19 pandemic, the "public participation in the COVID-19 one year on" online meeting was held instead. Speakers from 10 nations focused on the topic of "public participation," and shared past, current, and future dilemmas and challenges. HPA shared "Hacking the COVID-19 pandemic: Building public trust in Taiwan."

3. Sharing International Experience, and promoting International Cooperation Plan

(1) In order to deepen HPA participation in the Asia-pacific Economic Cooperation (APEC), and reinforced the cooperation with the New Southbound Policy countries, we have joined 3 sub-working group under Health Working Groups (HWG). From 2018 to 2020, we successfully gained APEC funds for the projects as follow: 2018 "APEC Conference on Smart Healthcare for Non-communicable Diseases (NCDs) and Its Risk Factors Prevention and Control", 2019 "APEC Conference on Urbanization, Population Aging and Technology Innovation", and 2020 "Achieve One Planet from 4E: Eat, Exercise, Ecology, Economics".

(2) 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.

(3) In order to promote tobacco free hospitals, we joined the Global Network for Tobacco-free Healthcare Services (GNTH), and transformed network certificate standards into evaluation indices and key points for the service qualities of tobacco-free hospitals in Taiwan.

Since 2009, the Tobacco Free International Golden Award Healthcare Service Network has promoted international golden award accreditation. In 2012, Taiwan started recommending tobacco-free hospitals started to apply for the certification. Up to 2020, a total of 27 hospitals have received International Golden Award, which is number one in the world. In 2020, a total of 5 hospitals in Taiwan (Kaohsiung Municipal Siaogang Hospital, En Chu Kong Hospital, Dalin Tzu Chi Hospital Buddhist Tzu Chi Medical Foundation, National Cheng Kung College of Medicine, Mackay Memorial Hospital) received International Golden Award for worldwide tobacco-free hospitals (a total of 10 hospitals awarded).

- **1999** Global Network for Tobacco Free Healthcare Services
- **2011** Taiwan joined the Network in 2011, and became the first network in the Asia Pacific region
- **2020**
  - A total of 213 hospitals joined
  - 66 hospitals received the International Golden Award, and 27 are in Taiwan, which is number one in the world

9 Appendix

2020 HPA Chronological Highlights

Time	Highlights
1	
1/8	HPA announced the amended regulations for the implementation of smoking cessation education. They were implemented in January 2020.
1/14-15	In order to learn from the Hospice and Palliative Care Outcomes Collaboration promoted by Australia government, HPA hosted the "2020 Palliative Care Outcomes Collaboration Workshop for Taiwan." We invited PCOC team from Australia to have 2-day workshop in Taiwan. We also engaged in practical experience exchanges. A total of 13 medical centers, 4 regional hospitals, and 97 people from MOHW Department of Medical Affairs, National Health Insurance Administration and related scholar associations participated in this workshop.
2	
2/11	HPA revised the 4 article content of the "Determination and operational guidelines for public places applying for approval not to set up breastfeeding rooms." They were renamed, and became effective on February 11th 2020.
2/14	HPA announced the amendment of Continuous Education for Artificial Reproduction Institute Staff. It became effective on February 14th, 2020.
2/17	MOHW notified local government that electronic cigarettes and similar products are harmful to the bodies and health of consumers on February 17th, 2020. From now on, when all the municipal county and city government finds out that if anyone uses the design, production, processing, entry, sales, and provision of the products, offenders will be penalized according to the regulations of the Consumer Protection Act.
2/19	HPA announced the "Standards for temporary breastfeeding equipment and facility for large-scale outdoor activities".
5	
5/14	HPA held the "3 Ways of Dementia Protection, Friendly Environment for You and Me" press conference. We invited managers and security staff of stores to share experience of using "Active care," "Help selecting," and "Pacify emotion." We collectively created a dementia protection network, and call on all circles to create a dementia friendly environment together.
5/28	Press conference for World No Tobacco Day. We announced the 2019 Global Youth Tobacco Server results, including the smoking rate and electronic cigarette use of junior high school students and senior and vocational high school students.
5/29	HPA announced the amendment draft of Tobacco Hazards Prevention Act. The main content includes strengthening the control of emergent tobacco products, expanding the area of graphic health warning to 85%, prohibiting flavored cigarettes, raising the legal age for buying cigarettes to age 20, and expanding prohibition of smoking in indoor public areas.

6

6/1	Due to the insufficient ingestion of dairy products and calcium, HPA worked together with Council of Agriculture, Executive Yuan to host "World Milk Day" dairy product promotional press conference. We invited CPBL player Lin Chih-sheng to advocate the advantages of dairy consumption, demonstrated using dairy products in cooking, and integrate with follow-up online events to reinforce broadcast benefits.
6/2	HPA announced 2017 cancer incident information. In 2017, there were 111,684 new cancer patients. Out of 100,000 people, 305.4 people got cancer. From the long-term trend, the overall cancer standardized incidence has been up and down in recent years. The death rate clearly showed a steady decrease. We encourage citizens to live a new cancer prevention life. From prevention and screening, we promote five principles of healthy life: "Quit cigarettes and alcohol lessaction," "balance diet," "regular exercise," "weight control," and "regular screening." Everyone should treat cancer prevention as a part of life.
6/11	HPA held the "Active Life Go! My home is also a fitness center!" press conference. Deputy Minister Jia Shu-li rhythmic gymnast Song Yu-han and basketball player Lin Zheng, shared and showed 5 steps of household exercise (including pushing the ball, reverse jump, deep squat, imitate treadmill, and sit-up cycling exercises). People can use the many opportunities in life to exercise and keep fit.
6/15	2020 was the 25th anniversary of children health handbook in Taiwan. HPA held the "Children Health Handbook New Transformation" press conference. We announced the three highlight points of the handbook: In children development screening items, we added new warning for early detection by parents and doctors, visual checkup for children aged 3-4, and Snellen Chart for children to distinguish easily, with enlarge fonts and new graphic designs.
6/22	In order for HPA to care for the nutrition of seniors, we developed "Dietary Texture and Nutrition in the Elderly." Through "food selection," "cutting and cooking techniques," "simple monitoring methods," seniors and caregivers can prepare suitable and easy-to-chew food according to different situations.
6/30	2020 was the 25th anniversary of pregnant women health handbook in Taiwan. HPA held the "New version pregnant women handbook–Mothers can relax" press conference. We announced the 4 highlights of the handbook: Convenience upgrade, smooth reading, cycle record, and convenient interactive connection.

8

8/21	HPA announced the amendment of "Points for Attention for Medical Service Institutes Conducting Preventive Healthcare Services." It became effective on January 1st 2021.
8/27, 28	HPA and Kaohsiung City Government Health Bureau held the "2020 National Healthcare Meeting in Kaohsiung City. We focused on the theme of "Development community as fundamental public health services." We invited the health bureaus of all the counties and cities and departments of MOHW to participate. Deputy Minister Shueh Rui-yuan gave a speech. Approximately 278 people participated. Other than awarding outstanding health bureaus and offices, in response to the activation of all kinds of services at the end of the year, including integrated functional evaluations for seniors, expanded screenings for Hepatitis B and C, and transformation of health office service functions and methods, we invited experts and implementors to conduct special topic speeches and arrange workshops for discussions and sharing.

9

9/15	In order to promote health for preschool children, HPA held the "Embracing healthy start, health promoting kindergarten" activation ceremony in the main hall of MOHW. HPA worked with the Ministry of Education and 100 kindergartens to implement a kindergarten health promotion pilot prograrn. We intervene on the topics of visual healthcare, diet nutrition, healthy fitness, and accidental injury prevention.
9/20	HPA collaborating with Central Weather Bureau and Academia Sinica, has established a countrywide early warning digital platform to help Taiwanese adapt to the health impact of climate change, and formed the "Weather & Health for All" team that won Top 5 Outstanding Team Honor Award in the 2020 Presidential Hackathon. Minister of MOHW, Shih-Chung Chen, led the members in HPA to receive the prize in the award ceremony of Presidential Hackathon.
9/28	In response to the policy of eliminating Hepatitis C in 2025, since September 28th, 2020, we relaxed the age limit for those who are 45 to 79 years. old to receive one Hepatitis B and C screening services, in order for early detection and appropriate treatment.

10

10/12-18	HPA participated in the 16th World Congress on Public Health held by the World Federation of Public Health Associations. We presented the findings of technological researches and outcomes of programs implemented, set up online virtual exhibition to showcase the HPA's work on health promotion and for display of the health education materials developed to upgrade the visibility of Taiwan's public health achievement to the global society. In addition, we took part in the 2020 Annual Conference of Taiwan Public Health Associations, hosted special sessions on topics of "Health service innovative design in the post pandemic era", "National nutrition and health surveys", "Health literacy", and "Caesarean Section: current situation, problems, and countermeasures", and set up an booth for display of outcomes of integrated elderly care.
10/18	In 2020, the HPA held the Health Competency Special Topic Forum at the Public Health Joint Annual Meeting. Director Wang Yin Wei of HPA, Director Chang Wu-sho, Professor Shi, Yao-tang of AHLA, Chief Lin Ji-wei of Eda Hospital, Professor Wei Mi-sho and Associate Chang Wei-juen have participated. They conducted discussions on global health literacy action, Taiwan health literacy action, Taiwan's experience of health literacy institute promotion, and resources integration of health literacy. A total of 83 people participated.
10/19	HPA and Legislative Yuan Social Welfare and Environmental Hygiene Committee went to TACT express cargo zone and Ministry of Finance Customs Administration Keelung Customs for inspection. The contents included the reconnaissance of emerging tobacco products, Chinese medicine, and random inspection of face masks from China.
10/20	The Tobacco Hazards Prevention Act draft amendment was sent to the Executive Yuan.
10/23-24	HPA, MOHW Office of International Cooperation and Ministry of Foreign Affairs jointly organized the "2020 Global Health Forum in Taiwan." The theme was "Achieving SDGs in the Post-COVID19 Era: Innovation, Inclusion and Partnership" The forum was ahybrid of physical and virutual. President Tsai Ing-wen and Minister of MOHW Chen Shih-chung attended and gave speeches. Approximately 600 people participated in the physical meeting. A total of 400 people from 60 nations participated through online.
10/24	At the 2020 Global Health Forum in Taiwan, HPA held a Taiwan-U.S Bilateral Talks about lung cancer prevention and control. We invited Rober A.Smith, the Vice President of American Cancer Society, also the founding member of the National Lung Cancer Roundtable and the Principle Investigator, and domestic lung cancer experts participated in the talks.

10/24	HPA held the "Children Environmental Health" Seminar in the "2020 Global Health Forum in Taiwan. Minister of MOHW Shih-Chung Chen, Deputy Minister Hung-The Tsai of Environmental Protection Administration, and Principal Deputy Assistant Administrator Jane Nishida of USA Environmental Protection Agency gave opening remarks. This seminar aimed to guide Taiwan's pediatricians to beware of potential air pollution threats to children health. The speakers included Dr. Leslie Rubin of Morehouse School of Medicine, Director Jeanne Briskin of Children's Health Protection Office, Principals Research Scientist Tanya Maslak of Battelle Memorial Institute, and Dr. Kuo-Wei Yeh of Chang-Gung Medical Foundation. In addition, the participants from Indonesia, Malaysia, Laos, and Afghanistan engaged in online discussions.

11

11/12	HPA held virtual forum on Innovation of the "National Cancer Registry." We invited more than 100 health officials and experts from the USA, Japan, Canada, United Kingdom, and the Netherlands. Speakers from Taiwan, UK, USA, and the Netherlands shared innovation methods for cancer registry.
11/16	In order to enhance the healthcare services for premature babies, HPA issued the "Premature infant diary" for parents with premature babies. They can be used for premature babies from birth to adjusted age (current date minus due date) under 2 years of age. Parents can record the birth status of babies, medical course and growth milestones, and they can be used as important references by medical staff, enhancing communication between physicians and patients, and are an important record for families with premature babies.
11/20	HPA and Ministry Sports Administration (MOE) worked together to hold the "2020 the Post-pandemic Era: Sport for all and Health Policy" conference. "Researcher James F. Sallis of the USA, Professor Yin Leng Theng and Professor Kawanishi Nasashi conducted online speeches and discussions. We worked together with other departments and NGOs to promote exercise, conserve energy and reduce carbon emission, economy, and entertainment." We reinforced the promotional power of exercise and health in Taiwan. Approximately 200 people participated.
11/27	HPA held the "2020 Healthy City and Age-Friendly City Award" ceremony. A total of 323 works were selected. After 3 rounds of evaluation, a total of 41 units were awarded in Chang Rong-fa Foundation International Convention Center. Former Vice President, Chen Chien-ren and Deputy Minister of MOTC Qi Wen-zhong gave out the awards. In 2020, the theme was "resilient innovation and sustainable development." Facing the impact of the pandemic, we use innovative technology to reach the goal of sustainable development and active aging.

12

12/11	HPA hosted the "2020 Grandpas and Grandmas Come Together" National Final. Over 2,700 people participated. The average age was 67 years, with 148 seniors of age 85 and over. We also cooperated with county and city health and social administrative units, and selected 400 long term healthcare sites, health stations, and community development associations. Together they enjoyed watching live games, and participated in voting. Over 22,000 people were present.
12/11	UDN conducted the "Taiwan Lung Cancer Think Tank Summit and Breathing in A New Era" The Global head of Health Policy, The Economist Intelligence Unit, David Humphreys explained the comparative analysis of lung cancer policies across the Asia-Pacific region. Taiwan ranked Number 1 in "Lung cancer is a strategic priority" and "Lung cancer is a focus for research." "Lung cancer is a race against time" and "Lung cancer is at a crossroads" was Number 3.

12/22	We held the "Senior Health Promotion Station Outstanding Group and Photography Competition–My Lively Diary." A total of 46 community units and 202 photography works participated. Nine community units and 42 works received awards, which exhibited the spirit and motivation of active aging in communities. A total of 122 people participated.
12/28	HPA worked with Taiwan Agricultural Research Institute, Council of Agriculture, Executive Yuan. We focused on the nutritional elements that the citizens may lack or are important to health promotion. We use seasonal and local ingredients to come up with diverse recipes, producing "food calendar" manuals and cuisine videos. We also held the "2021 Health Fortune, Food Calendar Tells you All" press conference.

HPA Websites

Website of HPA, MOHW

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

Maternal Care and Counseling Website

A cloud-based maternal and infant healthcare platform enabling 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

Health 99+ Education Resource Website

Provision of various health education materials created by the Ministry of Health and Welfare and its affiliated agencies and nongovernmental healthcare organizations, including the latest health-related news, columns, rumor refutation, popular educational materials, question prompt list and portals of health-themed subsites, to help people pay more attention on personal health and health of their family member.

Website of Smokers' Helpline

Provision of smoking cessation helpline information, professional mental counseling for smokers, service descriptions, the latest findings, Q&A, and event information

Website of Information of Healthy Workplace

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

Website of Smoking Cessation Management

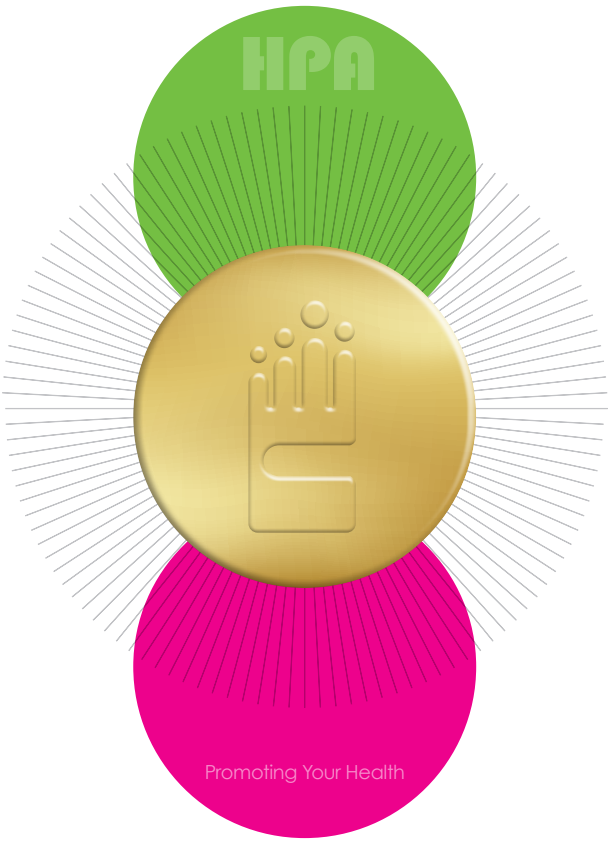
Provision of smoking cessation service information including application for smoking cessation services, smoking cessation information, and lists of healthcare institutions contracted for smoking cessation services

Cancer Registry Interactive Query System

Providing 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 hospitals

Information Website for Tobacco Product Ingredients

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



HPA provides toll-free service helplines

Maternal and infant health care helpline: 0800-870-870

Tobacco hazards complaints hotline: 0800-531-531

Menopause consultation hotline: 0800-00-5107

Smoking cessation helpline: 0800-63-63-63

Questionnaire feedback

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